

**Brownfields Assessment  
Advisory Committee**

Richard Berry, Chair  
*City of Keene*

Rodney Bartlett, Vice Chair  
*Town of Peterborough*

Sara Carbonneau  
*Town of Swanzey*

Jack Dugan  
*Monadnock Economic  
Development Corporation*

Sandra Gillis  
*Town of Richmond*

Robert Harcke  
*Hinsdale Commercial &  
Industrial Development  
Corporation*

John Gomarlo  
*Town of Winchester*

Al Merrifield  
*Town of Sullivan*

Larry Robinson  
*Town of Marlborough*

*with*

Chris Lombard  
*U.S. EPA New England*

Mike McCluskey  
*NH Department of Environmental  
Services*

Jennifer Marts  
*NH Department of Environmental  
Services*

**Southwest Region Brownfields Assessment Program**

**Advisory Committee Agenda**

**March 16, 2016**

**11:45 a.m.**

**Conference Room, SWRPC Offices  
37 Ashuelot Street, Keene**

- I. Welcome and Introductions**
- II. Minutes of November 5, 2015 Meeting**
- III. Nomination of Vice Chair**
- IV. Program Updates**
- V. Proposed Scopes of Work**
  - a. Supplemental Phase II Investigation and Analyses of Brownfields Clean-up Alternatives/Remedial Action Plan, Former Central Plating, Walpole**
  - b. Phase I ESA, Former Central Plating, Walpole**
- VI. Other Matters**
- VII. Adjourn**

# **SOUTHWEST REGION PLANNING COMMISSION**

## **BROWNFIELDS ADVISORY COMMITTEE**

### **MINUTES**

**November 5, 2015**

**Present:** Dick Berry, Chairman, *City of Keene*; Sara Carbonneau, *Town of Swanze*; Jack Dugan, *Monadnock Economic Development Corporation*; Sandra Gillis, *Town of Richmond*; John Gomarlo, *Town of Winchester*; Larry Robinson, *Town of Marlborough*; Mike McCluskey, Jennifer Marts, and Leann Atwell, *NH Department of Environmental Services*.

**Staff:** Tim Murphy, *Executive Director*; J.B. Mack, *Principal Planner*; Becky Baldwin, *Office Manager*; Rebeckah Bullock, *Community Development Specialist*.

**Guests:** Steve Rickerich, *Ransom Consulting Inc.*; Robert Kimball, *Bellow Town, LLC*.

#### **I. Welcome & Introductions**

Chairman Berry called the meeting to order at 12:05 p.m. and introductions were made.

#### **II. Minutes of August 25, 2015 Meeting**

The minutes of August 25, 2015 were approved as submitted by unanimous vote.

#### **III. Program Updates**

J.B. Mack provided a status report on the following items:

##### **Program Fund Balances:**

J.B. Mack reported on the remaining funds in the current Brownfields grant noting that there is approximately \$90,000 available for mixed hazards and \$134,000 available for petroleum.

##### **Four Corners Store, Richmond:**

J.B. Mack shared photographs of demolition activities that took place at the former Four Corners Store site in Richmond. He noted that contaminated soil is being removed from the site utilizing funding from the NH Department of Environmental Service's MtBE Bureau.

##### **42-46 Grove Street, Peterborough:**

J.B. Mack reported that Vice-Chairman Rodney Bartlett has informed him that the Town of Peterborough is moving forward with this project.

### Park Theatre, Jaffrey:

J.B. Mack announced that the fund raising efforts for the Park Theatre site in Jaffrey have been successful and the required match for the project has been met.

#### **IV. Phase II ESA at Former Central Plating, Walpole**

Steve Rickerich of Ransom Consulting Inc. provided a presentation on the findings and recommendations of a Phase II Environmental Site Assessment (ESA) that was conducted at the former Central Plating site in Walpole. He noted that the report has been filed with the NH Department of Environmental Services (DES) for their review. He explained the activities that took place when Central Plating occupied the property and noted that a Phase I ESA had previously been conducted on the site by another firm. In addition to installing five monitoring wells on the property, Ransom Consulting Inc. also sampled four wells that had been installed during the prior Phase I work. Results showed a concentration of chromium that exceeds state standards as well as high levels of nickel, lead, and arsenic in the former sump area. MtBE was also identified in many locations on the property. Steve Rickerich noted that the excess materials in the sump area will need to be treated as hazardous waste. Jennifer Martz noted that a DES project manager will be taking a closer look at the property and its connection to the adjacent gas station. Chairman Berry asked if any clean-up activities would be conducted at the nearby gasoline station. Steve Rickerich explained that some work has been done on that property but testing showed it fairly clean. Ransom Consulting Inc. is recommending that a Phase I ESA be conducted at the site to identify any contaminants that might not have been found in the prior Phase I and to help facilitate all appropriate inquiries and projections on behalf of the buyer. They also suggest applying to participate in the NH Brownfields Covenant Program, conducting further investigation as to the amount of contaminated soil that would be classified as hazardous waste, and preparing a Remedial Action Plan for the site.

#### **V. Proposed Scopes of Work**

##### **a. Remedial Action Plan, Former Central Plating, Walpole**

Steve Rickerich of Ransom Consulting Inc. reviewed their proposed scope of work to develop a Remedial Action Plan for the former Central Plating property in Walpole. He explained that the State will want to see the volume of groundwater that has been impacted by the contamination. The proposal recommends installing two monitoring wells to delineate ground water impacts. He noted they further suggest taking 5-6 borings to determine how much of the chromium on the site is considered as hazardous material and how much nickel is on the property. He added that clean-up will be required due to the concentration of contamination that presents a health hazard. J.B. Mack noted that he invited Robert Kimball of Bellow Town, LLC, a respective purchaser of the property, to attend today's meeting to inform BrAC of his intentions regarding the property since clean-up will likely be needed. Robert Kimball explained that in order to evaluate his continued interest in the property he would need to know the extent of any clean-up costs. He noted that if he were to discontinue possible purchase of the property there might be a non-profit organization that would be interested. Concern was expressed that there might be problems with abutting landowners if they are unable to sell their properties due to contamination. Steve Rickerich pointed out that abutting landowners were aware of the plating facility operations when they purchased their property. Robert Kimball noted that he will have to meet with his attorneys to determine if he is still interested in purchasing the site. J.B. Mack suggested placing this subject on hold until Mr. Kimball has a chance to meet with his attorneys and offered to be available to speak with them if it would be helpful. Mike McCluskey asked if the BrAC would consider working with a non-profit foundation if they were interested in the property and J.B. Mack responded that they would need to come in and speak with the Committee. Tim Murphy asked if there is still an interest in redeveloping the property and Robert Kimball noted that there is still a need for additional parking in the town. Sara Carbonneau asked if the Town of Walpole could apply for assistance through our Brownfields program and J.B. Mack explained that in order to do that the Town would need to make plans to deed the property because cleanup will

need to take place. Sara Carbonneau asked if the current property owner was up to date on their property taxes and was told they are. It was unanimously agreed to table any further action on this property at the current time. Robert Kimball asked if he decides to proceed with the purchase of the property should he come back to the BrAC at that time. J.B. Mack noted that he should and if he decides not to purchase the property, we would appreciate him providing BrAC with the name of the nonprofit that has shown interest in the property.

**b. Phase I ESA, Former Four Corners Store, Richmond**

Steve Rickerich of Ransom Consulting Inc. reported that the building has been demolished and the hazardous materials have been removed from the former Four Corners Store property in Richmond. He noted that the Town of Richmond is interested in having a Phase I ESA conducted on the property to aid in attracting a potential developer for the site. J.B. Mack noted that we have already conducted the Phase II ESA on this property. Mike McCluskey agreed that a Phase I ESA would be a good marketing tool for the town and Tim Murphy pointed out that our Brownfields petroleum grant could be used for this purpose. Steve Rickerich noted that a Phase I ESA could be conducted on the property for \$3,800.

**Motion: To conduct a Phase I ESA in the amount of \$4,400 on the former Four Corners Store property in Richmond.**

Motion by Jack Dugan, seconded by Larry Robinson.

J.B. Mack noted that unless BrAC wanted one a presentation on the Phase I ESA for the property might not be necessary and would save some of the cost. Larry Robinson agreed noting that we have already received a presentation on this property when the Phase II ESA was conducted. Tim Murphy suggested making the presentation conditional on an if needed basis.

Jack Dugan agreed to amend his motion as follows:

**Motion: To conduct a Phase I ESA on the former Four Corners Store property in Richmond for the sum of \$4,400 that will be reduced by the amount of a presentation (\$600) to BrAC should they deem one as being unnecessary.**

Amended motion by Jack Dugan, seconded by Larry Robinson. Approved by unanimous vote with Sandra Gillis abstaining.

**c. Reuse Planning, Former Four Corners Store, Richmond**

J.B. Mack explained that staff has been working with Ransom Consulting Inc. to assist the Town of Richmond in getting the former Four Corners Store property back on the real estate market. Staff member Rebeckah Bullock explained that following a meeting with the Town in August, an application was filed with the NH Community Development Finance Authority (CDFA) to receive Community Development Block Grant (CDBG) funding to prepare a redevelopment packet for the property. In December CDFa awarded a \$10,000 CDBG to the Town of Richmond for this purpose. The Town has expressed concern that the CDBG award will not provide sufficient funding to prepare the redevelopment packet and have inquired if Brownfields funds might be available to assist them. J.B. Mack noted that staff contacted EPA with the request and Chris Lombard has confirmed that re-use planning is an allowable expenditure for our Brownfields grant funds. We were also informed that the EPA Targeted Assistance Brownfields Program (TAB) may be an additional source of funding for the project. J.B. Mack explained that he would contact the TAB on behalf of the Town of Richmond regarding the possibility of available funding and noted that they had previously assisted with conducting a preliminary market analysis on the property. He asked if TAB funds were not available would the BrAC be willing to use up to \$10,000 from our petroleum funds to assist the Town. Sara Carbonneau asked if the project will

be advertised and selected through a request for quotes process and was told that it would be. Tim Murphy explained that the scope of work has already been defined and must conform to the CDBG award.

**Motion: To authorize staff to proceed with procuring funding from the EPA Targeted Assistance Brownfields Program to assist the Town of Richmond in preparing a redevelopment packet for the former Four Corners Store property and to expend up to \$10,000 in Brownfields petroleum funds if necessary.**

Motion by Larry Robinson, seconded by Sara Carbonneau. Approved by unanimous vote with Sandra Gillis abstaining.

## **VI. Other Matters**

No other matters were brought before the Committee at this time.

## **VII. Adjourn**

The meeting was adjourned at 1:35 p.m.

Respectfully Submitted,

Rebecca I. Baldwin  
Office Manager

**Date: March 16, 2015**  
**To: Brownfields Advisory Committee**  
**From: Staff**

**RE: Nomination of Vice Chair**

**Background**

At its February 2016 meeting, the SWRPC Board of Directors confirmed Richard Berry as the Chair of the Brownfields Advisory Committee and Rodney Bartlett as the Vice Chair. Due to Mr. Bartlett's recent promotion and expanded responsibilities as Town Administrator for the Town of Peterborough, he has informed SWRPC that he would like to continue to serve on the BrAC, but may not be able to attend all meetings. Mr. Bartlett has volunteered to make his Vice Chair seat available for an alternate BrAC member.

SWRPC will be seeking nominations for a new Vice Chair to replace Mr. Bartlett.

**Recommendation**

For your information.

**Date: March 16, 2015**

**To: Brownfields Advisory Committee**

**From: Staff**

**RE: Supplemental Phase II Investigation and Analyses of Brownfields Clean-up Alternatives/  
Remedial Action Plan, Former Central Plating, Walpole**

### **Background**

Bellow Town LLC, which received assistance from SWRPC to conduct a Phase II ESA at the former Central Plating site in Walpole, has informed SWRPC staff that it intends to move forward with the purchase of property located at 12 Westminster Street. The company's request for brownfield assessment assistance was strongly supported by the Town of Walpole Board of Selectmen. The company's original intent was to develop an office building on the site, has since decided to develop either a playground or a parking lot for public use in Walpole Village. Both uses have been expressed as needs by the Town of Walpole according to Bellow Town LLC. The Phase II ESA performed by Ransom Consulting, Inc. demonstrated that clean-up will be required at the site regardless of the land use. Therefore, Bellow Town LLC's plan is to apply for a clean-up grant from the U.S. Environmental Protection Agency. In order to apply for a grant, Bellow Town LLC has applied for non-profit status, which is a requirement for Clean-up grant eligibility. Bellow Town LLC has spoken with the Town of Walpole about incorporating the Town as a partner in the clean-up grant application.

In order for Bellow Town LLC to move forward with the clean-up grant application, it will have to perform some additional assessment activities and then develop an Analysis of Brownfields Clean-up Alternatives, also known as a Remedial Action Plan. The purpose of conducting additional Phase II ESA activities and a Remedial Action Plan would be to provide a better estimate of the clean-up required at the site and fulfill the NH Department of Environmental Services (DES) request to delineate the extent of groundwater impacts from the site. Ransom Consulting Inc. has submitted a scope of work for these activities, which is attached to this memo. DES may request some modifications to the attached scope. If that is the case, staff will update the BrAC on the suggested changes during the March 16<sup>th</sup> meeting. If approved by BrAC, Bellow Town LLC's request for assistance would result in disbursing funds from SWRPC's Brownfield Program Mixed Hazardous Substances Fund.

### **Recommendation**

Approve Ransom Consulting Inc.'s scope of work pending any work scope modification requests from DES, proof of Bellow Town LLC's non-profit status, and a letter from the Town of Walpole confirming support and involvement in Bellow Town LLC's efforts for site clean-up and redevelopment activities.

112 Corporate Drive, Portsmouth, New Hampshire 03801, Tel 603.436.1490, Fax 603.436.6037

Byfield, Massachusetts  Portland, Maine  Hamilton, New Jersey  Providence, Rhode Island

www.ransomenv.com

---

Date: March 10, 2016  
To: J.B. Mack, Southwest Region Planning Commission  
From: Stephen Dyer, P.E. Ransom Consulting, Inc.  
Steven Rickerich, P.G. Ransom Consulting, Inc.  
Subject: Scope of Work for Supplemental Phase II Investigation and Analyses of Brownfields  
Clean-up Alternatives / Remedial Action Plan (Rev. 2)  
**Former Central Plating, Inc. Site**  
12 Westminster Street, Walpole, NH  
Project No: 141.05051

---

Pursuant to your request, Ransom Consulting, Inc. (Ransom) has prepared the following PROPERTY SPECIFIC SCOPE OF SERVICES for the former Central Plating, Inc. (Central Plating) property as an addendum to the Southwest Region Brownfields Assessment Program AGREEMENT FOR CONSULTANT/ENGINEER SERVICES, fully executed on March 26, 2015, for the completion of a Supplemental Phase II Environmental Site Assessment (Supplemental Phase II ESA) and Analyses of Brownfields Clean-up Alternatives (ABCA) / Remedial Action Plan (RAP) at the Central Plating Site, located at 12 Westminster Street in the Town of Walpole, New Hampshire (the "Site").

A Phase I Environmental Site Assessment (ESA) was conducted by Sanborn, Head and Associates, Inc. (SHA) to evaluate the Site for evidence of recognized environmental conditions (RECs) using the procedures set forth in the requirements of ASTM International Standard Practice E 1527-05. Based on the findings of the Phase I ESA, SHA completed a Phase II ESA at the Site to investigate the previously identified RECs. The Phase I and Phase II ESAs were conducted in the summer and fall of 2013. SHA was contracted for this work by a prospective buyer who was considering the Site for redevelopment, primarily for commercial use. At the time of SHA's ESA work, the Site was owned by Nils A. M. Westberg of Walpole, New Hampshire and Fort Lauderdale, Florida. Mr. Westberg has since passed away and property ownership has transferred to his spouse and heir, Marianne Westberg. Upon completion of the SHA ESA work, the New Hampshire Department of Environmental Services (NH DES) reviewed SHA's work products and requested additional investigations. The Southwest Region Planning Commission (SWRPC) contracted Ransom to conduct a Phase II ESA to investigate RECs and areas of concern (AOC) in response to the NH DES comments, as well as the previous work.

The following Background section provides a summary of some of the key findings presented in the Phase II ESA published on January 19, 2016.

## BACKGROUND

The Central Plating Site consists of two land-locked adjoining parcels within the center of Walpole village. The parcels are designated as Lots 65 and 66 on the Town of Walpole Tax Map 20, and are approximately 0.089 and 0.190 acres, respectively. Access to the site is obtained via a right-of-way from Westminster Street. Lot 65 is improved with a 1,008 square foot garage-style, single-story building herein identified as the Wastewater Pre-Treatment Building. A single-story, slab-on-grade, masonry light industrial building, herein identified as the Former Industrial Building, was located on Lot 66 prior to demolition in 2012. Land use in the vicinity of the Site is primarily commercial and residential. Current or past land uses of potential environmental concern have been identified in locations that have the potential to impact the property including the Former Tole's Sunoco. The Former Tole's Sunoco is a listed NH DES Leaking Underground Storage Tank (LUST) Site and gasoline service station.

Municipal water service is available to the Site and to the neighborhood. Ransom's review of NH DES OneStop Web Geographic Information System records and our inquiry with the Town of Walpole Assessor's Office identified no public or private potable water supply wells within 1,000 feet of the Site. Site topography is relatively flat, regional topography slopes down to the west towards the Connecticut River 1,750 feet away, and there is a northwest-draining tributary 500 feet north of the Site.

According to previous environmental due diligence reports prepared by Stantec (in 2006) and SHA (in 2013) Central Plating conducted electroplating of metal parts at the site from 1963 until circa 2006. Central Plating's metal finishing processes included: anodizing of aluminum parts (using nitric and sulfuric acids); chrome electroplating (generally of stainless steel parts); nickel electroplating; chromate electropolishing; black oxide finishing; passivation (using nitrate with dichromate); and a lacquer dip tank used to coat racks used in nickel plating. The process areas and layout were presented on a 1990 process schematic and included plating lines and a floor drain located in the south end of the Former Industrial Building, a spray paint area near the center of the building, and anodizing lines and a floor drain near the northeast portion of the building. Wastewater from the operations of Central Plating was directed to the municipal sewer system since the start of operations circa 1963. Sumps to receive wastewater from the Former Industrial Building are located in the north end of the Wastewater Pre-Treatment Building, and storage areas and other process areas are shown for both buildings.

Notable findings in a 2013 Phase II ESA conducted by SHA included chromium in soil at a concentration of 2,400 milligrams per kilogram (mg/kg), above the 1,000 mg/kg NH DES Env-Or 600 Soil Remediation Standard (SRS), for a sample collected over a depth interval of 5.9 to 10 feet below grade near the chromium plating line area of the Former Industrial Building. The report also documented Ambient Groundwater Quality Standards (AGQSs) exceedances for the petroleum constituents benzene, naphthalene, 1,2,4-trimethylbenzene, methyl-t-butyl ether (MTBE), and tertiary butyl alcohol (TBA); the solvent 1,2-dichloroethane (1,2-DCA); and dissolved arsenic. Groundwater was inferred to flow to the west. The Former Tole's Sunoco was inferred as the offsite source for the petroleum constituents; the arsenic was believed to be associated with the mobilization of naturally occurring arsenic through petroleum plume geochemistry; and the 1,2-DCA was thought to be related to on-site solvent use.

The NH DES was notified of the SHA findings and required additional characterization to delineate the chromium distribution in Site soils and develop a remedial approach and to delineate the extent of groundwater impacts for Site dissolved contaminants. The NH DES also requested a water use assessment to confirm the absence of active residential water supply wells in the neighborhood.

To further evaluate the environmental conditions at the site, eight AOCs were investigated through Ransom's Phase II ESA:

*AOC 1— Chromium Impacted Soil (above SRS);*

*AOC 2— Former Industrial Building, Floor Drains;*

*AOC 3— Stained Soils, Off Northern End of Former Industrial Building;*

*AOCs 4— Former Industrial Building, Spray Paint Area;*

*AOC 5— Former Heating Oil Underground Storage Tank;*

*AOC 6— Downgradient of Former Industrial Building and Wastewater Pre-Treatment Building;*

*AOC 7— Upgradient Portion of Site (downgradient of neighboring LUST property); and*

*AOC 8— Hazardous Building Materials.*

Ransom's Phase II ESA included the advancement of soils borings, the collection and analyses of soil samples for field screening for the presence of metals using a x-ray fluorescence (XRF) analyzer and photoionizable compounds (PICs) using a photoionization detector (PID), the selection and laboratory analyses of soil samples for the presence of selected metals, polynuclear aromatic hydrocarbons (PAHs), total cyanide, volatile organic compounds (VOCs) and/or total petroleum hydrocarbons (TPH)-diesel range organics (DRO), the installation of five additional monitoring wells and the collection and laboratory analyses of groundwater samples from the new and existing wells for the presence of dissolved metals, total cyanide, and VOCs according to United States Environmental Protection Agency (U.S. EPA) methods.

As documented in Ransom's Phase II ESA, depth to groundwater ranged from 13.07 to 22.56 feet below grade, which probably reflects a seasonally lower water table. The depth to groundwater is deepest along the western edge of the property and shallowest along the eastern slope of the property. Based on the measured depth to groundwater across the Site, groundwater was inferred to flow to the west, towards the Connecticut River. The hydraulic gradient for the September 1, 2015 monitoring date was a steep 0.28 feet/foot. The relatively steep downward gradient from east to west appears to correlate fairly well with the depth of clays and silts which likely act as an aquitard to groundwater. Groundwater elevation data for the nearby and upgradient LUST site suggest there is a more northerly component to groundwater flow in the area which is consistent with local surface water drainage towards Mad Brook to the north. However, as noted above, for Site groundwater the westerly flow direction is supported by subsurface groundwater elevations and the apparent dip to the west of the underlying silt and clay layer. Bedrock was not encountered to a depth of 30 feet below grade (depth of the deepest site boring) and has not been determined as part of this assessment.

The following results were found through the Ransom Phase II ESA completed at the site:

*AOC 1— Chromium Impacted Soil (above SRS)*

Both trivalent and hexavalent chromium contaminated soils were documented in the area of the Former Industrial Building chromium plating line at concentrations exceeding SRSSs. Contaminant concentrations of chromium were generally highest near the ground surface and are a human exposure risk through direct contact, including dust inhalation (if disturbed), dermal contact and ingestion. The soil contamination in excess of SRSSs was observed to extend to 13 feet below grade, slightly penetrating into a clay and silt unit and into the groundwater table. The chromium release in this area has impacted the groundwater

quality based on elevated concentrations of dissolved chromium detected in groundwater samples collected from about 30 feet west (down gradient with respect to groundwater flow) of the inferred release area. The volume of impacted soils above SRSs is estimated at 250 tons although additional sampling locations would be necessary to confirm this.

#### *AOC 2— Former Industrial Building, Floor Drains*

Other than arsenic which slightly exceeded its SRS, no other metals were detected at concentrations above the SRS, and no total cyanide or VOCs were detected for soil samples from borings advanced near the floor drains in the former plating area and the former anodizing area of the Former Industrial Building.

Analyses of groundwater samples collected from monitoring well MW102 located downgradient of the former plating line area documented dissolved chromium and nickel at concentrations exceeding their AGQSs by a factor of 57 and 11, respectively, cadmium exceeding its AGQS by a factor of 4, and arsenic slightly exceeding its AGQS. The presence of metals in the groundwater downgradient of the plating lines appears to be associated with the documented mass of chromium impacted soils, and a possible inferred mass of nickel impacted soils likely in the area of the former nickel plating line.

The downgradient extent of groundwater with metals impacts exceeding AGQSs has not yet been determined, and may extend off-Site to the west.

#### *AOC 3— Stained Soils, Off Northern End of Former Industrial Building*

Evidence of coal combustion wastes were noted in near-surface soils in shallow borings advanced in this area of dark soils and may account for a portion of the staining observed by SHA in an area off of the northern end of the Former Industrial Building where a stained exhaust vent was noted in previous Phase I ESAs. Contaminants detected in these shallow soils at concentrations above SRS were arsenic and PAHs, both of which are likely associated with the observed coal slag and cinders. In addition, trichloroethene (TCE) was detected, but at a concentration below its SRS.

No AGQS violations for VOCs, total cyanide and dissolved metals were documented in the groundwater sample collected from monitoring well SH-3, located down and slightly cross-gradient of the area of dark soils.

#### *AOCs 4— Former Industrial Building, Spray Paint Area*

Although field screening data for B107 suggested that arsenic and lead might be present at concentrations exceeding SRSs in shallow soils from beneath the former spray paint area, no VOCs, total cyanide or metals were detected above SRSs in the shallow soil sample submitted for laboratory analyses.

In addition, no AGQS violations for VOCs, total cyanide, or metals were documented in the groundwater sample collected from monitoring well MW103, located downgradient of this area.

#### *AOC 5— Former Heating Oil Underground Storage Tank*

No PAHs or TPH-DRO were detected at concentrations exceeding SRS, and no VOCs were detected in the soil sample collected from 10 to 12.5 feet below grade in this area.

In addition, no VOCs were detected in groundwater samples collected from monitoring wells MW102 and SH-2, located down and slightly cross-gradient of this area, that would indicate evidence of a significant release of fuel oil.

#### *AOC 6— Downgradient of Former Industrial Building and Wastewater Pre-Treatment Building*

Other than arsenic detected at a concentration slightly exceeding its SRS in a sample collected from 20 to 22.5 feet below grade, no metals were detected in soil samples collected from borings advanced adjacent to and west (downgradient) of the Wastewater Pre-Treatment Building and the Former Industrial Building. No VOCs and no total cyanide were detected above laboratory detection limits for samples from the three borings.

Dissolved contaminants indicative of releases of metals waste were detected in groundwater downgradient of the Wastewater Pre-Treatment Building and the Former Industrial Building. Nickel and cadmium were detected at concentrations slightly exceeding their respective AGQSs in the vicinity of the sumps and associated wastewater piping for the Wastewater Pre-Treatment Building and suggest a modest ongoing source to groundwater in that area. Higher concentration dissolved contaminants indicative of releases of metals wastes (namely chromium and nickel, and to a lesser extent cadmium and arsenic) were detected in groundwater downgradient of the Former Industrial Building plating lines and appear to be associated with areas of known (chromium) or suspected (nickel) contaminated soils.

MTBE and other gasoline constituents were detected in groundwater samples from multiple locations downgradient of the Site building and former building, including MTBE above its AGQS at one location. The source of these impacts is inferred to be located off-site to the east as noted in AOC 7, below.

No cyanide was detected at concentrations above its AGQS for groundwater samples collected to address AOC 6.

#### *AOC 7— Upgradient Portion of Site (downgradient of neighboring LUST property)*

Elevated field readings for PICs (up to 1,610 parts per million by volume) were measured for soil samples collected from depths within the upper portion of the seasonal groundwater table for borings advanced on the eastern and southern (upgradient) portions of the property (borings B101 and B111). Naphthalene was detected at a concentration above its SRS in a soil sample from boring B101 collected from the depth interval with the highest concentration field screening readings, and at lesser concentrations (below SRS) for the soil sample from B111. The suite of petroleum-related contaminants were similar for each of the two soil samples that were analyzed, which likely indicates the same source.

Benzene, MTBE, naphthalene, and 1,2,4-trimethylbenzene were detected in groundwater samples collected from upgradient monitoring wells MW101 and SH-1 and indicate an upgradient gasoline source for these contaminants. The MTBE plume may extend beyond the Site to the west in a down hydraulic gradient direction.

#### *AOC 8— Hazardous Building Materials*

Hazardous building materials were identified in the Hazardous Material Inventory (HMI) report and include small quantities of asbestos-containing glazing or presumed asbestos containing materials, presumed polychlorinated biphenyls (PCB)-containing fluorescent light ballasts, mercury containing light bulbs, one thermostat switch that may contain mercury, and wastes associated with wastewater pre-treatment sumps.

High concentrations of metals and cyanide were detected in the wastewater pre-treatment sumps; these wastes are likely hazardous wastes and the sumps will need to be properly decommissioned and their wastes properly disposed of.

The status of RECs identified above are listed below, based on the findings for the noted AOCs:

1. Reported and documented releases of wastes associated with the former plating facility operations from the Former Industrial Building to Site soils and possibly to Site groundwater. This REC was confirmed and partially quantified for releases of chromium, nickel and other metals near the plating lines areas located in the Former Industrial Building. However, this REC can be generally discounted for the spray paint area, the anodizing line area, and former storage areas of the Former Industrial Building and for the area of reportedly stained soils off the north end of that building.
2. Reported and documented releases of wastes from the vicinity of the Wastewater Pre-Treatment Building to Site groundwater. This REC was confirmed for the sumps and/or wastewater lines proximal to the northwest corner of the Wastewater Pre-Treatment Building, albeit at concentrations that were slightly exceeding AGQs. Because these AGQs violations have lingered since termination of operations in 2006, it is possible that a modest source to groundwater is present in Site soils in that area.
3. Possible releases of petroleum to Site groundwater from a possible former onsite source (No. 2 fuel oil UST). This REC can be discounted as no impacts approaching regulatory standards for contaminants associated with fuel oil were documented in soils or groundwater.
4. Documented releases of petroleum possibly from an upgradient source. This REC was confirmed based on the observed range, nature, and spatial distribution of dissolved contaminants.

Based on the data collected during this investigation, additional investigation and remedial planning and actions are warranted. Ransom recommends the following:

1. The prospective purchaser should complete a Phase I ESA to update site history, assess for known as well as possible additional RECs, and to meet the "all-appropriate inquiries standard" adopted by the U.S. EPA and as detailed in ASTM E1527-13. If this Phase I ESA identifies additional RECs, a Supplemental Phase II ESA may also be warranted.
2. The prospective purchaser should consider applying for eligibility for participation in the New Hampshire Brownfields Covenant Program (Program). From a practical and eligibility perspective, this Phase II ESA report should meet the Program requirements for a Site Investigation.
3. A proposal should be prepared for remedial investigations and NH DES-approved investigations should be implemented. Using that additional information, an ABCA / RAP should be prepared.

The additional remedial investigations would include an assessment of the chromium impacted soils area to determine the approximate volume of impacted soils that (1) could exceed allowable upper concentration limits (for example, for hexavalent chromium), (2) is likely to require disposal as a hazardous waste if excavated, and/or (3) is likely to act as

an ongoing source to groundwater impacts; as well as the approximate volume of soils that could require disposal as a non-hazardous waste, or perhaps be allowed to be left in place under an Activity and Use Restriction (AUR) if approved by the NH DES. The investigation would include delineation of the inferred nickel-impacted soils in the former nickel plating area as warranted by the presence of elevated concentrations of nickel in groundwater downgradient of this area, as well as the collection of nickel-impacted soils to screen for parameters that could support a nickel stabilization approach to remediation. Additionally, because the integrity of the waste water piping between the Former Industrial Building and the Wastewater Pre-Treatment Building is unknown the investigation should include the advancement of a boring and the installation of a monitoring well midway between the two building footprints and just downgradient of the subsurface piping to assess for impacts from potential waste water piping leaks. Finally, the additional investigation would include the installation of off-site wells to determine the limits of the Groundwater Management Zone (GMZ).

The ABCA/RAP will include an evaluation of remedial alternatives including the following possible strategies, or an assemblage of strategies, that meet projected land use and NH DES regulatory clean-up requirements:

- a. Evaluation of the efficacy of a “monitoring only” approach;
  - b. Removal and disposal of all soils with regulated contaminants exceeding SRS;
  - c. Removal and off-site disposal of high-concentration (i.e., exceeding upper concentration limits (UCLs), having demonstrated leaching potential, or likely hazardous waste) chromium impacted soils, and management of selected impacted soils (i.e. with concentrations exceeding SRS but shown to have limited leaching potential through synthetic precipitation leaching procedure analyses) in place beneath an appropriate cap and under an AUR which could ultimately allow the Site to achieve regulatory closure, perhaps at a reduced cost; and
  - d. Stabilization of moderate to low-impacted (i.e., exceeding SRS but below UCLs, with limited leaching potential based on Synthetic Precipitate Leaching Procedure (SPLP) analyses or with concentrations less than leaching based RCMP standards) nickel and cadmium impacted soils as an alternative to soils removal for the Wastewater Pre-Treatment Building sump area, likely using apatite (or similar) slurry injected to stabilize metals in place and thereby mitigate future groundwater impacts for the purposes of comparing remediation costs as part of an integrated remedial approach for multiple source areas, if shown to be technically feasible.
4. Once a RAP has been approved by the NH DES, file an application for a Groundwater Management Permit (GMP) in accordance with New Hampshire Code of Administrative Rules Chapter Env-Or 607.01 to establish a GMZ, manage the use of contaminated groundwater, and monitor remedial progress.
  5. Complete design documents for RAP implementation, submit the documents for NH DES review and approval, solicit bids for RAP implementation, and implement the RAP.

6. Monitor Site and, if warranted, adjoining property groundwater quality in compliance with the GMP.

## **PURPOSE**

The intent of the work proposed below is to conduct a remedial investigation and use the information gathered to date to prepare an ABCA/RAP (Recommendation 3, above).

In a separate work Scope Memo, Ransom will provide a scope of work to conduct the Phase I ESA (Recommendation 1, above).

These work products are intended to develop a remedial strategy that will position the property for acquisition, remediation, and redevelopment and to provide environmental due diligence per the All-Appropriate Inquiry rule in support of the Bona Fide Prospective Purchaser Defense under the Comprehensive Environmental Response, Compensation & Liability Act (CERCLA).

It is Ransom's understanding that a development plan for the parcels will likely include: (1) acquisition of the property by a non-profit entity formed to promote beneficial use of public spaces; (2) application by that entity for U.S. EPA Brownfields Clean-up Grant Funds; and (3) Site remediation and re-use of the property as a playground and/or for public parking in support of a larger and contiguous redevelopment project in Walpole Village.

## **SCOPE OF WORK**

To accomplish the remedial planning objectives (per Recommendation 3) described above, Ransom has developed the following scope of work.

### Task 1 – Pre-ABCA Services

#### *Site-Specific QAPP; HASP; and Dig Safe*

Ransom will complete a Site-Specific Quality Assurance Project Plan (SSQAPP) Addendum/sampling plan in coordination with the Generic QAPP for submittal and approval by the NH DES, U.S. EPA, and SWRPC for the field tasks proposed below. As part of the SSQAPP and in connection with the ABCA/RAP Ransom will research and propose organic, inorganic and/or physical property analytical requirements that will assist in screening the viability of certain in situ treatment technologies to be considered under one of the remedial alternatives to be evaluated.

Ransom will update the site-specific health and safety plan in accordance with Occupational Safety and Health Administration (OSHA) CFR 1910.120, pre-mark planned locations of test borings and monitoring wells, and obtain a Dig Safe permit for utility clearance.

#### *Off-Site Access*

Ransom will solicit formal authorization to install off-site monitoring wells in locations to be approved by the NH DES. Installation and sampling of the off-site monitoring wells will be contingent upon receipt of off-site owner access authorization.

## Task 2 – Subsurface Investigations -Additional Characterization of Source Areas; On- and Off-Site Monitoring Well Installations

### *Selected Source Areas Characterization*

Ransom will oversee the advancement of test borings (up to six borings advanced up to 13 feet below grade are assumed) within AOC 1, the area of chromium-impacted soils to define the mass of waste that could be considered “hazardous” based on the Toxicity Characteristic of the waste, and that will require removal. The intent will be to determine the total chromium concentration that is likely to fail the Toxicity Characteristic Leaching Procedure (TCLP) test for chromium and use detailed XRF screening results to map a volume of soils that are likely to be removed, segregated, and disposed of as hazardous and a volume of soils that are likely to be removed, segregated and disposed of as non-hazardous. In addition, samples will be selected for SPLP analyses to allow for consideration of appropriate Site-specific soil clean-up standards for trivalent chromium; i.e. the concentrations at which the COC in soils will not adversely affect groundwater quality through leaching and mobilization.

Ransom will oversee the advancement of test borings (up to four borings advanced to 17 feet below grade are assumed) within the area of the former nickel plating line between inferred to have been located between Ransom borings B109, B102, and SHA boring GP-2. The intent will be to evaluate if a residual nickel source is present in Site soils in that area as has been inferred based on moderate-level dissolved nickel concentrations immediately downgradient of that area as documented in the groundwater sample from MW102. In addition, samples will be selected for SPLP analyses to allow for consideration of appropriate Site-specific leaching-based soils clean-up goals.

Ransom will oversee the advancement of one test boring and, contingent upon soil field screening results, install one water table monitoring well adjacent to and downgradient of the waste water piping that leads from the Former Industrial Building to the Wastewater Pre-Treatment Building. Field screening data from boring B102 supported that elevated metals concentration were detected in soils at the water table and appear to correlate with elevated metals in groundwater. Therefore, field screening appears to be an appropriate tool for determining whether well installation may be warranted. The purpose of the boring and possible well will be to assess soils and groundwater for evidence of potential releases of waste liquids from facility wastewater piping.

Ransom will oversee a subcontractor to advance Geoprobe-type test borings to evaluate soils conditions in areas of known or suspected metals contamination. A total of up to 11 test borings are planned, with anticipated depths ranging up to 13 to 17 feet below grade. Ransom has assumed one field day for two field staff and a part of a second field day for one staff person will be required to complete the source areas characterization program.

During the advancement of the soil borings, Ransom will classify the soil types observed and field screen the samples for the presence of metals using an XRF analyzer. Based on the field screening results, visual observations, and/or area of concern, Ransom anticipates submitting one soil sample from each test boring for laboratory analysis for the presence of the specific contaminants of concern for each area, as identified below:

1. For AOC 1 (Chromium Impacted Area): total chromium, hexavalent chromium (six samples); and SPLP (three samples) and TCLP (three samples) chromium by appropriate U.S. EPA methods. Six soil samples are assumed for three or more of the specified analyses.

2. For Nickel Plating Line Area: Resource Conservation and Recovery Act (RCRA) Metals plus nickel and SPLP nickel and cadmium by appropriate U.S. EPA methods. Three soil samples are assumed for analyses.
3. For the Wastewater Piping Area: RCRA Metals plus nickel. One soil sample for RCRA Metals plus nickel by U.S. EPA methods is assumed for analyses.
4. In addition, based on a preliminary assessment of remedial alternatives (under Task 4), assessment for organic and inorganic parameters in soils and/or soil physical properties (i.e., those parameters/properties that have the potential to inhibit the effectiveness of the specific chemical fixation process or in situ approach) may be necessary to screen the viability of certain possible remedial technologies to be considered; therefore, an allowance (\$500) has been carried for these analyses.

One duplicate sample for each analysis will be collected for quality assurance purposes.

Ransom will survey each boring, and the well location and top of casing elevation to a common datum.

#### *Off-Site Downgradient Monitoring Well Installation*

Ransom will oversee the advancement of one test boring in a location approved by the NH DES and authorized by the owner of Lot 63 to evaluate groundwater quality downgradient (west) of the Site with the intent to document the downgradient extent of groundwater impacts in excess of AGQSs for contaminants of concern. Ransom has assumed that this well can be installed during the second planned field day.

Ransom will oversee a subcontractor to advance a hollow-stem auger-type test boring to classify soils and install the downgradient monitoring well. One test boring is planned, with an anticipated depth of up to 40 feet below grade; the boring will be completed as a groundwater monitoring well. The location of the installed monitoring well will be surveyed to a common datum; the survey will include the elevation of the top of casing on the monitoring well, for the purpose of documenting an inferred groundwater flow direction across the Site.

During the advancement of the soil boring, Ransom will classify the soil types observed and field screen the samples for the presence of PICs using a PID. Ransom *does not* anticipate submitting soil samples for laboratory analysis.

#### Task 3 – Groundwater Sampling and Analyses

Ransom will measure static groundwater elevations at the Site monitoring wells and the new off-site monitoring well to the nearest 0.01-foot below ground surface. Groundwater elevations will be used to calculate groundwater flow direction and gradient at the time of groundwater sample collection.

Groundwater samples will be collected the new monitoring well(s) and selected existing Site monitoring wells (SH-1, SH-2, MW102 and MW104), and submitted for laboratory analysis for the presence of VOCs by U.S. EPA Method 8260 (SH-1, MW104, 1 or 2 new wells) and dissolved RCRA 8 Metals plus nickel (SH2, MW104, MW102, 1 or 2 new wells). One duplicate sample for each analysis will be collected for quality assurance purposes and one trip blank sample for VOCs analyses is assumed.

In addition, based on a preliminary assessment of remedial alternatives (under Task 4) assessment for organic and inorganic parameters in groundwater may be necessary to screen the viability of certain

possible remedial technologies to be considered; therefore, an allowance (\$500) has been carried for analyses to be specified, if needed for this purpose.

#### Task 4 – Reporting and ABCA/RAP Preparation

Ransom will prepare a Supplemental Phase II ESA report documenting the methodologies and results of the work outlined above. The report will include results summary tables and an updated site plan showing sampling locations and soil and groundwater contaminant distribution.

An ABCA/RAP will be a central component of the above report and address the adverse environmental conditions identified at the Site. The ABCA and RAP report will provide an analysis and evaluation of various remediation options to mitigate exposure risk associated with soil contamination present at the Site. Ransom will consider in situ treatment technologies for mitigating metals impacts to groundwater and as part of the preliminary remedial alternatives selection process Ransom will research and propose organic, inorganic or physical property analytical requirements that will assist in initial vetting of viable in situ treatment technologies to be considered. These analyses will be incorporated into Tasks 1, 2, and 3 as described above. At a minimum the ABCA/RAP will:

1. Evaluate the efficacy of a “monitoring only” approach;
2. Removal and disposal of soils with regulated contaminants exceeding SRSs;
3. Removal and off-site disposal of high-concentration (i.e., exceeding UCLs, having demonstrated leaching potential, or likely hazardous waste) chromium impacted soils, and management of selected impacted soils (i.e. with concentrations exceeding SRS but shown to have limited leaching potential through SPLP procedure analyses) in place beneath an appropriate cap and under an Activity and Use Restriction which could ultimately allow the Site to achieve regulatory closure, perhaps at a reduced cost; and
4. Stabilization of moderate to low-impacted (i.e., exceeding SRS but below UCLs, with limited leaching potential based on SPLP analyses or with concentrations less than leaching based RCMP standards) nickel and cadmium impacted soils as an alternative to soils removal for the Wastewater Pre-Treatment Building sump area or upper water table (“smear zone”), likely using apatite (or similar) slurry injected to stabilize metals in place and thereby mitigate future groundwater impacts for the purposes of comparing remediation costs as part of an integrated remedial approach for multiple source areas, if shown to be technically feasible.

After factoring-in anticipated Site land use, the ABCA/RAP could conclude that an integrated approach where the overall remedial strategy could include removal, stabilization, and capping as well as institutional controls may be most cost-effective to mitigate the RECs for this Site. The RAP will comply with the specific requirements of Env-Or 606.10 Remedial Action Plan, and the report will meet the requirements of Env-Or 606.12 Remedial Action Plan Report.

#### Task 5 – Results Presentation

Ransom will present the findings of the Supplemental Phase II ESA/ABCA/RAP to the SWRPC Brownfields Advisory Committee during one meeting in Keene, New Hampshire.

## BUDGET

The proposed costs for the above-referenced Billing Group and Tasks are tabulated, below.

<b>Task</b>	<b>Description</b>	<b>Ransom Fees</b>	<b>Subcontractor Fees</b>
1	Pre-ABCA Services	\$3,900	----
2	Subsurface Investigations	\$6,600	\$6,800
3	Groundwater Sampling and Analyses	\$2,800	\$1,700
4	Report (LSI)	\$3,900	----
	Report (ABCA/RAP)	\$6,000	
5	Results Presentation	\$800	----
	<i>Subtotals</i>	<i>\$24,000</i>	<i>\$8,500</i>
<b>TOTAL ESTIMATED COST</b>		<b>\$32,500</b>	

Our estimated cost is based on our review of existing site information. Modifications to this scope may be made upon NH DES and U.S. EPA review of this Scope of Work or the SSQAPP. If additional tasks are required beyond this scope, a cost modification addendum will be provided to SWRPC.

No investigative-derived waste analyses or disposal cost has been included in this budget. No wastes requiring disposal are anticipated.

## REPORTING

Ransom will provide weekly status reports, as appropriate, by telephone or email.

Ransom will prepare the draft report in PDF format to submit electronically to the SWRPC, NH DES, and U.S. EPA for review and comment. Upon completion of review and comment, and with SWRPC approval of the draft report, Ransom will submit four final report copies to SWRPC, Bellow Fall LLC, Town of Walpole, U.S. EPA (electronic only), and the NH DES (electronic only), and a digital copy of the report will be provided on compact disc (at the time it is finalized) to the SWRPC.

## SCHEDULE

Ransom anticipates that the draft report can be completed and submitted to the SWRPC within 15 weeks of Ransom receiving written authorization from the SWRPC to proceed, and/or receipt of formal Site access authorization from the Site owner, whichever is later (this assumes a 30-day review period for the SSQAPP and a 14-day standard turn-around time for analytical data).

We thank you for the opportunity to provide this Scope of Work and Proposed Budget for environmental services. Please call us if you have any questions.

Sincerely,

RANSOM CONSULTING, INC.



Stephen J. Dyer, P.E.  
Senior Project Manager

Steven F. Rickerich, P.G.  
Vice President

SJD/SFR:jar

**APPROVED AND ACCEPTED BY SWRPC:**

Signature: \_\_\_\_\_

Name (print or type): \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

**Date: March 16, 2015**

**To: Brownfields Advisory Committee**

**From: Staff**

**RE: Phase I Environmental Site Assessment (ESA), Former Central Plating, Walpole**

### **Background**

For context regarding Bellow Town LLC's plans for clean-up and redevelopment of the former Central Plating site, please review the memo for agenda item V(a) of this meeting agenda packet. In order for the site to be eligible for clean-up status, Bellow Fall LLC, once it receives its non-profit status, will be seeking federal protections for purchasing the site as a bona-fide prospective purchaser.

In order to obtain this protection, Bellow Town LLC has requested assistance from the SWRPC Brownfields Assessment Program to fund a Phase I ESA, which will provide environmental due diligence by meeting the federal All Appropriate Inquiry rule for brownfields. Ransom Consulting, Inc. has submitted a scope of work for this activity which is attached to this memo. If approved by BrAC, the scope of work would result in the SWRPC Brownfields Assessment Program disbursing funds from the Mixed Hazardous Substances Fund.

### **Recommendation**

Approve Ransom Consulting Inc.'s scope of work pending proof of Bellow Town LLC's non-profit status and a letter from the Town of Walpole confirming support and involvement in Bellow Town LLC's efforts for site clean-up and redevelopment activities. Staff does not feel that Ransom Consulting Inc.'s proposal to provide a presentation on the Phase I ESA to the BrAC is necessary.



# Memo

112 Corporate Drive, Portsmouth, New Hampshire 03801, Tel 603.436.1490, Fax 603.436.6037  
Byfield, Massachusetts □ Portland, Maine □ Hamilton, New Jersey □ Providence, Rhode Island  
www.ransomenv.com

---

Date: March 10, 2016  
To: J.B. Mack, Southwest Region Planning Commission  
From: Stephen Dyer, P.E. Ransom Consulting, Inc.  
Steven Rickerich, P.G. Ransom Consulting, Inc.  
Subject: Phase I Environmental Site Assessment (Rev. 1)  
**Former Central Plating, Inc. Site**  
12 Westminster Street, Walpole, NH  
Project No: 141.05051

---

Pursuant to your request, Ransom has prepared the following PROPERTY SPECIFIC SCOPE OF SERVICES as an addendum to the Southwest Region Brownfields Assessment Program AGREEMENT FOR CONSULTANT/ENGINEER SERVICES, fully executed on March 26, 2015, for the completion of a Phase I Environmental Site Assessment (ESA) at the **Former Central Plating, Inc. Site**, located at 12 Westminster Street in the Town of Walpole, New Hampshire (the "Site").

## BACKGROUND

A Phase I Environmental Site Assessment (ESA) was conducted by Sanborn, Head and Associates, Inc. (SHA) to evaluate the Site for evidence of recognized environmental conditions (RECs) using the procedures set forth in the requirements of ASTM International Standard Practice E 1527-05. Based on the findings of the Phase I ESA, SHA completed a Phase II ESA at the Site to investigate the previously identified RECs. The Phase I and Phase II ESAs were conducted in the summer and fall of 2013. SHA was contracted for this work by a prospective buyer who was considering the Site for redevelopment, primarily for commercial use. At the time of SHA's ESA work, the Site was owned by Nils A. M. Westberg of Walpole, New Hampshire and Fort Lauderdale, Florida. Mr. Westberg has since passed away and property ownership has transferred to his spouse and heir, Marianne Westberg. Upon completion of the SHA ESA work, the New Hampshire Department of Environmental Services (NH DES) reviewed SHA's work products and requested additional investigations. The Southwest Region Planning Commission (SWRPC) contracted Ransom to conduct a Phase II ESA to investigate RECs and areas of concern (AOC) in response to the NH DES comments, as well as the previous work.

The following provides a summary of some of the key findings presented in the Phase II ESA published on January 19, 2016.

The Central Plating Site consists of two land-locked adjoining parcels within the center of Walpole village. The parcels are designated as Lots 65 and 66 on the Town of Walpole Tax Map 20, and are approximately 0.089 and 0.190 acres, respectively. Access to the site is obtained via a right-of-way from Westminster Street. Lot 65 is improved with a 1,008 square foot

garage-style, single-story building herein identified as the Wastewater Pre-Treatment Building. A single-story, slab-on-grade, masonry light industrial building, herein identified as the Former Industrial Building, was located on Lot 66 prior to demolition in 2012. Land use in the vicinity of the Site is primarily commercial and residential. Current or past land uses of potential environmental concern have been identified in locations that have the potential to impact the property including the Former Tole's Sunoco. The Former Tole's Sunoco is a listed NH DES Leaking Underground Storage Tank (LUST) Site and gasoline service station.

Municipal water service is available to the Site and to the neighborhood. Ransom's review of NH DES OneStop Web Geographic Information System records and our inquiry with the Town of Walpole Assessor's Office identified no public or private potable water supply wells within 1,000 feet of the Site. Site topography is relatively flat, regional topography slopes down to the west towards the Connecticut River 1,750 feet away, and there is a northwest-draining tributary 500 feet north of the Site.

According to previous environmental due diligence reports prepared by Stantec (in 2006) and SHA (in 2013) Central Plating conducted electroplating of metal parts at the site from 1963 until circa 2006. Central Plating's metal finishing processes included: anodizing of aluminum parts (using nitric and sulfuric acids); chrome electroplating (generally of stainless steel parts); nickel electroplating; chromate electropolishing; black oxide finishing; passivation (using nitrate with dichromate); and a lacquer dip tank used to coat racks used in nickel plating. The process areas and layout were presented on a 1990 process schematic and included plating lines and a floor drain located in the south end of the Former Industrial Building, a spray paint area near the center of the building, and anodizing lines and a floor drain near the northeast portion of the building. Wastewater from the operations of Central Plating was directed to the municipal sewer system since the start of operations circa 1963. Sumps to receive wastewater from the Former Industrial Building are located in the north end of the Wastewater Pre-Treatment Building, and storage areas and other process areas are shown for both buildings.

Notable findings in a 2013 Phase II ESA conducted by SHA included chromium in soil at a concentration of 2,400 milligrams per kilogram (mg/kg), above the 1,000 mg/kg NH DES Env-Or 600 Soil Remediation Standard (SRS), for a sample collected over a depth interval of 5.9 to 10 feet below grade near the chromium plating line area of the Former Industrial Building. The report also documented Ambient Groundwater Quality Standards (AGQSs) exceedances for the petroleum constituents benzene, naphthalene, 1,2,4-trimethylbenzene, methyl-t-butyl ether (MTBE), and tertiary butyl alcohol (TBA); the solvent 1,2-dichloroethane (1,2-DCA); and dissolved arsenic. Groundwater was inferred to flow to the west. The Former Tole's Sunoco was inferred as the offsite source for the petroleum constituents; the arsenic was believed to be associated with the mobilization of naturally occurring arsenic through petroleum plume geochemistry; and the 1,2-DCA was thought to be related to on-site solvent use.

The NH DES was notified of the SHA findings and required additional characterization to delineate the chromium distribution in Site soils and develop a remedial approach and to delineate the extent of groundwater impacts for Site dissolved contaminants. The NH DES also requested a water use assessment to confirm the absence of active residential water supply wells in the neighborhood.

In response to the NH DES requirements and through the SWRPC Brownfields Assessment Program, Ransom conducted a Phase II ESA to evaluate identified AOCs.

Ransom's Phase II ESA included the advancement of soils borings, the collection and analyses of soil samples for field screening for the presence of metals using a x-ray fluorescence (XRF) analyzer and

photoionizable compounds (PICs) using a photoionization detector (PID), the selection and laboratory analyses of soil samples for the presence of selected metals, polynuclear aromatic hydrocarbons (PAHs), total cyanide, volatile organic compounds (VOCs) and/or total petroleum hydrocarbons (TPH)-diesel range organics (DRO), the installation of five additional monitoring wells and the collection and laboratory analyses of groundwater samples from the new and existing wells for the presence of dissolved metals, total cyanide, and VOCs according to United States Environmental Protection Agency (U.S. EPA) methods.

The following results were indicated for each AOC:

*AOC 1— Chromium Impacted Soil (above SRS)*

Both trivalent and hexavalent chromium contaminated soils were documented in the area of the Former Industrial Building chromium plating line at concentrations exceeding SRSs. Contaminant concentrations of chromium were generally highest near the ground surface and are a human exposure risk through direct contact, including dust inhalation (if disturbed), dermal contact and ingestion. The soil contamination in excess of SRSs was observed to extend to 13 feet below grade, slightly penetrating into a clay and silt unit and into the groundwater table. The chromium release in this area has impacted the groundwater quality based on elevated concentrations of dissolved chromium detected in groundwater samples collected from about 30 feet west (down gradient with respect to groundwater flow) of the inferred release area. The volume of impacted soils above SRSs is estimated at 250 tons although additional sampling locations would be necessary to confirm this.

*AOC 2— Former Industrial Building, Floor Drains*

Other than arsenic which slightly exceeded its SRS, no other metals were detected at concentrations above the SRS, and no total cyanide or VOCs were detected for soil samples from borings advanced near the floor drains in the former plating area and the former anodizing area of the Former Industrial Building.

Analyses of groundwater samples collected from monitoring well MW102 located downgradient of the former plating line area documented dissolved chromium and nickel at concentrations exceeding their AGQSs by a factor of 57 and 11, respectively, cadmium exceeding its AGQS by a factor of 4, and arsenic slightly exceeding its AGQS. The presence of metals in the groundwater downgradient of the plating lines appears to be associated with the documented mass of chromium impacted soils, and a possible inferred mass of nickel impacted soils likely in the area of the former nickel plating line.

The downgradient extent of groundwater with metals impacts exceeding AGQSs has not yet been determined, and may extend off-Site to the west.

*AOC 3— Stained Soils, Off Northern End of Former Industrial Building*

Evidence of coal combustion wastes were noted in near-surface soils in shallow borings advanced in this area of dark soils and may account for a portion of the staining observed by SHA in an area off of the northern end of the Former Industrial Building where a stained exhaust vent was noted in previous Phase I ESAs. Contaminants detected in these shallow soils at concentrations above SRS were arsenic and PAHs, both of which are likely associated with the observed coal slag and cinders. In addition, trichloroethene (TCE) was detected, but at a concentration below its SRS.

No AGQS violations for VOCs, total cyanide and dissolved metals were documented in the groundwater sample collected from monitoring well SH-3, located down and slightly cross-gradient of the area of dark soils.

*AOCs 4— Former Industrial Building, Spray Paint Area*

Although field screening data for B107 suggested that arsenic and lead might be present at concentrations exceeding SRSs in shallow soils from beneath the former spray paint area, no VOCs, total cyanide or metals were detected above SRSs in the shallow soil sample submitted for laboratory analyses.

In addition, no AGQS violations for VOCs, total cyanide, or metals were documented in the groundwater sample collected from monitoring well MW103, located downgradient of this area.

*AOC 5— Former Heating Oil Underground Storage Tank*

No PAHs or TPH-DRO were detected at concentrations exceeding SRS, and no VOCs were detected in the soil sample collected from 10 to 12.5 feet below grade in this area.

In addition, no VOCs were detected in groundwater samples collected from monitoring wells MW102 and SH-2, located down and slightly cross-gradient of this area, that would indicate evidence of a significant release of fuel oil.

*AOC 6— Downgradient of Former Industrial Building and Wastewater Pre-Treatment Building*

Other than arsenic detected at a concentration slightly exceeding its SRS in a sample collected from 20 to 22.5 feet below grade, no metals were detected in soil samples collected from borings advanced adjacent to and west (downgradient) of the Wastewater Pre-Treatment Building and the Former Industrial Building. No VOCs and no total cyanide were detected above laboratory detection limits for samples from the three borings.

Dissolved contaminants indicative of releases of metals waste were detected in groundwater downgradient of the Wastewater Pre-Treatment Building and the Former Industrial Building. Nickel and cadmium were detected at concentrations slightly exceeding their respective AGQSs in the vicinity of the sumps and associated wastewater piping for the Wastewater Pre-Treatment Building and suggest a modest ongoing source to groundwater in that area. Higher concentration dissolved contaminants indicative of releases of metals wastes (namely chromium and nickel, and to a lesser extent cadmium and arsenic) were detected in groundwater downgradient of the Former Industrial Building plating lines and appear to be associated with areas of known (chromium) or suspected (nickel) contaminated soils.

MTBE and other gasoline constituents were detected in groundwater samples from multiple locations downgradient of the Site building and former building, including MTBE above its AGQS at one location. The source of these impacts is inferred to be located off-site to the east as noted in AOC 7, below.

No cyanide was detected at concentrations above its AGQS for groundwater samples collected to address AOC 6.

*AOC 7— Upgradient Portion of Site (downgradient of neighboring LUST property)*

Elevated field readings for PICs (up to 1,610 parts per million by volume) were measured for soil samples collected from depths within the upper portion of the seasonal groundwater table for borings advanced on the eastern and southern (upgradient) portions of the property (borings B101 and B111). Naphthalene

---

was detected at a concentration above its SRS in a soil sample from boring B101 collected from the depth interval with the highest concentration field screening readings, and at lesser concentrations (below SRS) for the soil sample from B111. The suite of petroleum-related contaminants were similar for each of the two soil samples that were analyzed, which likely indicates the same source.

Benzene, MTBE, naphthalene, and 1,2,4-trimethylbenzene were detected in groundwater samples collected from upgradient monitoring wells MW101 and SH-1 and indicate an upgradient gasoline source for these contaminants. The MTBE plume may extend beyond the Site to the west in a down hydraulic gradient direction.

#### *AOC 8— Hazardous Building Materials*

Hazardous building materials were identified in the HMI report and include small quantities of asbestos-containing glazing or presumed asbestos containing materials, presumed polychlorinated biphenyls (PCB)-containing fluorescent light ballasts, mercury containing light bulbs, one thermostat switch that may contain mercury, and wastes associated with wastewater pre-treatment sumps.

High concentrations of metals and cyanide were detected in the wastewater pre-treatment sumps; these wastes are likely hazardous wastes and the sumps will need to be properly decommissioned and their wastes properly disposed of.

The status of RECs identified above are listed below, based on the findings for the noted AOCs:

1. Reported and documented releases of wastes associated with the former plating facility operations from the Former Industrial Building to Site soils and possibly to Site groundwater. This REC was confirmed and partially quantified for releases of chromium, nickel and other metals near the plating lines areas located in the Former Industrial Building. However, this REC can be generally discounted for the spray paint area, the anodizing line area, and former storage areas of the Former Industrial Building and for the area of reportedly stained soils off the north end of that building.
2. Reported and documented releases of wastes from the vicinity of the Wastewater Pre-Treatment Building to Site groundwater. This REC was confirmed for the sumps and/or wastewater lines proximal to the northwest corner of the Wastewater Pre-Treatment Building, albeit at concentrations that were slightly exceeding AGQs. Because these AGQs violations have lingered since termination of operations in 2006, it is possible that a modest source to groundwater is present in Site soils in that area.
3. Possible releases of petroleum to Site groundwater from a possible former onsite source (No. 2 fuel oil UST). This REC can be discounted as no impacts approaching regulatory standards for contaminants associated with fuel oil were documented in soils or groundwater.
4. Documented releases of petroleum possibly from an upgradient source. This REC was confirmed based on the observed range, nature, and spatial distribution of dissolved contaminants.

Ransom recommended that the prospective purchaser:

1. Complete a Phase I ESA to meet the “all-appropriate inquiries standard” adopted by the U.S. EPA and as detailed in ASTM E1527-13.

2. Consider applying for eligibility for participation in the New Hampshire Brownfields Covenant Program (Program).
3. Conduct remedial investigations necessary to support remediation planning,
4. Prepare an Analyses of Brownfields Clean-up Alternatives (ABCA) / Remedial Action Plan (RAP).

This proposal addresses item 1, above; as separate proposal prepared by Ransom addresses items 3 and 4.

In addition to these investigation and planning tasks, Ransom recommended that the purchaser/owner:

1. File an application for a Groundwater Management Permit (GMP) in accordance with New Hampshire Code of Administrative Rules Chapter Env-Or 607.01 to establish a groundwater management zone (GMZ), manage the use of contaminated groundwater, and monitor remedial progress (once the NH DES approves the RAP).
2. Complete design documents for RAP implementation, submit the documents for NH DES review and approval, solicit bids for RAP implementation, and implement the RAP.
3. Monitor Site and, if warranted, adjoining property groundwater quality in compliance with the GMP.

## **PURPOSE**

It is Ransom's understanding that a development plan for the parcels will likely include: (1) acquisition of the property by a non-profit entity formed to promote beneficial use of public spaces; (2) application by that entity for U.S. EPA Brownfields Clean-up Grant Funds; and (3) Site remediation and re-use of the property as a playground and/or for public parking in support of a larger and contiguous redevelopment project in Walpole Village. The intent of the work proposed below is to provide environmental due diligence per the All-Appropriate Inquiry rule on behalf of the bona fide prospective purchaser.

The Phase I ESA will be performed in general accordance with the requirements of ASTM International Designation E 1527-13 and the U.S. EPA All Appropriate Inquiry (AAI) standard. As quoted from the ASTM standard, the practice of conducting environmental due diligence in "conformance with the noted requirements and standards is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on Comprehensive Environmental Response, Compensation & Liability Act (CERCLA) liability (hereinafter, the "landowner liability protections," or "LLPs"): that is, the practice that constitutes all appropriate inquiries into the previous ownership and uses of the property consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35)(B)."

Congress directed the U.S. EPA to establish by regulation, standards and practices for conducting all appropriate inquiry. Criteria cited in the Brownfields Law and highlights of the AAI standard include the following:

1. The results of an inquiry by an environmental professional;

2. Interviews with past and present owners, operators, and occupants of the property for the purpose of gathering information regarding the potential for contamination at the property;
3. Reviews of historical sources, such as chain-of-title documents, aerial photographs, building department records, and land-use records, to determine previous uses and occupancies of the property since the property was first developed;
4. Searches for recorded environmental cleanup liens against the property that are filed under federal, state, or local law;
5. Reviews of federal, state, and local government records, waste disposal records, underground storage tank records, and hazardous waste handling, generation, treatment, disposal, and spill records concerning contamination at or near the property;
6. Visual inspections of the property and adjoining properties;
7. Specialized knowledge or experience on the part of the property owner;
8. The relationship of the purchase price to the value of the property if the property was not contaminated;
9. Commonly known or reasonably ascertainable information about the property; and
10. The degree of obviousness of the presence or likely presence of contamination at the property and the ability to detect the contamination by appropriate investigation.

## **OBJECTIVES**

In preparing this scope of work, Ransom has considered the need for this project to meet the following objectives:

1. To document the history of the Property through review of available records and interviews;
2. To evaluate the likelihood that other releases of oil and/or hazardous material (OHM) have occurred or have the potential to occur at the Property;
3. To provide our opinion regarding the environmental condition of the Property, and the need, if any, for additional investigation; and
4. To provide an up-to-date assessment of the property for a prospective purchaser.

## **SCOPE OF WORK**

To accomplish the objectives described above, Ransom has developed the following scope of work.

## Task 01 – Phase I Environmental Site Assessment

### Site History Development

Ransom will review available local, state and federal records in accordance with ASTM E 1527-13 in an effort to develop the history of the Property. This will include the past use and handling of OHM. Local files to be reviewed will include those readily available at the local tax assessor's office, clerk's office, building department, zoning department, and fire department. We will review readily available Town Directories and Sanborn Fire Insurance Maps for the Properties and surrounding area and, if available, aerial photographs will also be consulted.

If possible, Ransom will also interview individuals familiar with the history and past use of the Property. Ransom will make a good-faith effort to request information from the property owners.

### Regulatory Records Review

We will use Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut, to conduct a search of state and federal databases to identify sites of potential environmental concern in the vicinity of the Property or at the Property itself.

Ransom will review files available via the OneStop database as well as at the publicly available archives of the NH DES for the Property and/or abutting properties.

### Site Visit

Ransom will visit the Property to further assess current site conditions. During the site visit, we will document our observations including the presence of OHM storage areas (e.g., drums, aboveground storage tanks), stained soils, stressed vegetation, or any other evidence of a release or potential release of OHM. Ransom will collect photographic documentation of key findings and observations during our site visit.

### Report Preparation

Ransom will prepare a summary report documenting the environmental assessment conducted at the Property. Specifically, the report will include the following, as appropriate:

1. A summary of the information gathered during the Phase I ESA, including site history, regulatory review, and observations made during the site visit;
1. A detailed site plan and a general location map for the Property;
2. Ransom's opinion regarding the regulatory status of the Property; and
3. Recommendations for additional response actions, if necessary.

## Task 02 – Results Presentation

If requested, Ransom will present the findings of the Phase I ESA to the SWRPC Brownfields Advisory Committee during one meeting in Keene, New Hampshire.

## USER PROVIDED INFORMATION

In order to receive liability protection through the AAI process, the Users (person on whose behalf the Phase I ESA is conducted), have an obligation to complete interviews with the report preparer, complete a

Ransom-provided User Questionnaire, and provide copies of the following documents, if available (including but not limited to):

1. Environmental site assessment reports;
2. Environmental compliance audit reports;
3. Environmental permits (for example, solid waste disposal permits, hazardous waste disposal permits, wastewater permits, etc.);
4. Registrations for underground and aboveground storage tanks;
5. Material safety data sheets;
6. Community right-to-know plan;
7. Safety plans; preparedness and prevention plans, spill prevention, countermeasure and control plans, facility response plans, etc.;
8. Reports regarding hydrogeological conditions at the Property or surrounding area;
9. Notices of 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;
10. Hazardous waste generator notices or reports;
11. Geotechnical studies;
12. Risk assessments; and/or
13. Recorded Activity and Use Limitations.

## BUDGET

The proposed costs for the above-referenced Billing Group and Tasks are tabulated, below.

<b>Task</b>	<b>Description</b>	<b>Ransom Fees</b>
1	Phase I ESA	\$3,800
2	Phase I Presentation, if requested	\$600
<b>TOTAL ESTIMATED COST</b>		<b>\$4,400</b>

If additional tasks are required beyond this scope, a separate scope of work will be provided to SWRPC.

**REPORTING**

Ransom will provide weekly status reports by telephone or email.

Ransom will prepare the draft Phase I ESA report in PDF format to submit electronically to the SWRPC, NH DES, and U.S. EPA for review and comment. Upon completion of review and comment, and with SWRPC approval of the draft report, Ransom will submit three final report copies (to SWRPC, Bellow Fall LLC, Town of Walpole) and a digital copy of the Phase I ESA report on compact disc to the SWRPC, and digital copies to the U.S. EPA and the NH DES.

**SCHEDULE**

Ransom anticipates that the draft Phase I ESA report can be completed and submitted to the SWRPC within 4 weeks of Ransom receiving written authorization from the SWRPC to proceed, and/or receipt of formal Site access authorization from the Site owner, whichever is latest contingent upon execution of a mutually agreeable SWRPC/RANSOM AGREEMENT FOR CONSULTANT/ ENGINEER SERVICES.

For timing purposes the implementation of the records review for the Phase I ESA should be initiated no sooner than 6 months prior to the planned purchase of the property, or an update of that record review process should be completed with that noted time constraint.

We thank you for the opportunity to provide this Scope of Work and Proposed Budget for environmental services. Please call us if you have any questions.

Sincerely,

RANSOM CONSULTING, INC.



Stephen J. Dyer, P.E  
Senior Project Manager

Steven F. Rickerich, P.G.  
Vice President

SFR/SJD:jar

**APPROVED AND ACCEPTED BY SWRPC:**

Signature: \_\_\_\_\_

Name (print or type): \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_