

# Westboro Rail Yard Brownfield in Lebanon, New Hampshire

## Remediation and Redevelopment Funding Options

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## **EXECUTIVE SUMMARY**

The City of Lebanon (the City) is considering the immediate purchase of a one-acre portion of the 19.1 acre Westboro rail yard from the New Hampshire Department of Transportation (NHDOT). The City is additionally entertaining the possibility of purchasing the southern portion of the site if appropriate cleanup and assessment funds can be acquired. The intention of this report is to summarize the current condition of the Westboro yard, investigate funding opportunities for further assessment, cleanup, and subsequent redevelopment, and address issues of liability the City might encounter with the purchase of the site.

The state has contracted GZA GeoEnvironmental Inc. to conduct an environmental assessment of the one-acre portion of the site. Both Phase I and Phase II Environmental Site Assessments (ESAs) have been completed and the company is currently wrapping up supplementary testing with the goal of completing the assessment in July 2009.

Cleanup procedures will be determined from the Assessments' recommendations and will include further excavation and disposal of stockpiles of waste from a 2007 excavation. If the City purchases the two-acre portion of the site from NHDOT, the cost of this cleanup is expected to be covered by a \$200,000 grant the state has already assured the City will receive. If the City were to purchase the additional acreage, funding for cleanup can potentially come from either state or federal grants and loans designated specifically for brownfields cleanup.

Plans for redevelopment of the site are not yet finalized as the City has not arrived at a consensus concerning the amount of land to purchase and the most efficient use of the land. Potential funding opportunities for redevelopment include both federal and state programs with not all options being limited to brownfield sites.

## **1. SITE DESCRIPTION**

The Tidewater Oil site in question is the northernmost one-acre portion of the 19.1-acre Westboro Rail Yard in Lebanon, New Hampshire. It is bordered to the north by Bridge Street, to the west by the Connecticut River, and to the east by Commercial Drive. The ground has a steep downward slope from Bridge Street and opens to a fairly level grassy area, which slopes steeply again down to the Connecticut River. This area by the river is heavily wooded.<sup>1</sup>

#### 1.1 History of the Site

The site served as a rail yard from 1847 until the 1970s. It was then vacant until the state of New Hampshire purchased the 19.1-acre property from Boston and Maine Railroad Company and "restored rail service in 2000 under an operating agreement with Claremont Concord Rail Company."<sup>2</sup> The northern acre, the parcel being considered for cleanup and revitalization, was first developed during the mid 1930s and early 1940s to be used as a bulk oil storage facility for Tidewater Oil Company, who leased the land



from Boston and Maine Railroad Company. Concrete above ground storage tanks (ASTs), which were removed from the site in the 1970s, contained an unknown amount of an unknown oil type. Tidewater Oil Company shut down in the 1960s. Over the next 25 years, the New Hampshire Department of Transportation (NHDOT) removed all remaining concrete ASTs and off-site buildings before using it as a temporary roadwork equipment storage area.

#### 2. SITE ASSESSMENT

#### 2.1 Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) includes several standard procedures to evaluate the site and any present damage, as well as steps to establish a knowledge base about all past and present conditions and uses of the site. This process is considered the first step in environmental due diligence. Traditional tasks include an on-site visit, reviewing historic aerial photographs of the area, evaluating neighboring properties, analyzing USGS geologic, topographic, and hydrologic information, and researching land use data over time.<sup>3</sup>

The NHDES hired contractor GZA GeoEnvironmental, Inc. (GZA) to conduct the Phase I and Phase II ESAs for the Lebanon parcel. In 2008, this included "a site reconnaissance, a review of Site history, a review of selected local, State and federal regulatory records, a review of information provided by the Site Owner, and interviews with persons and agencies familiar with environmental conditions at the Site."<sup>4</sup> Over the course of the investigation, GZA determined the site is contaminated beyond the scope of previous remediation projects.

#### 2.2 Phase II Environmental Site Assessment

If an inspected site is determined to be contaminated, a Phase II ESA is done to further evaluate the type and extent of the damage. This stage involves collecting soil, groundwater, or other material samples to analyze for contaminants. The goal of this stage is to derive specific information about site contamination that can determine the type of cleanup required. During the Phase II ESA for the Lebanon parcel, GZA analyzed the soil impacted by leaks in the ASTs and groundwater from the site to determine the extent of the petroleum damage that occurred while the area was owned and occupied by the Tidewater Oil Company. The dimensions of the excavation site are estimated at 60 feet long by 80 feet wide by 15 feet deep. It is located approximately one hundred feet away from the river and does not include any wetlands.

#### 2.3 Supplementary Assessment

If data gaps exist between the findings from the Phase I ESA and Phase II ESA, a supplementary assessment can be done to attempt to fill them. The state is now conducting this supplementary assessment work, which will result in "a report and cleanup plans" from their contractor, GZA.<sup>5</sup> Before any cleanup can begin, GZA must

finish its full assessment of the site. In their latest report, GZA sets the timetable for completion for July of 2009.<sup>6</sup> Before this time, they intend to locate the clay storm water sewer pipes buried underground at the site using ground penetrating radar, to bore into the soil of the areas TP-5 and TP-9 to evaluate the extent of the petroleum exceedances to the Soil Remediation Standards (SRS), and to sample the surface waters of the Connecticut River for petroleum sheens and overall water quality.<sup>7</sup> Once these tasks are carried out, cleanup can progress as recommended by GZA in their final remediation report.

## **3. SITE CLEANUP**

#### 3.1 Assessment Findings and Recommended Remediation Plan

GZA's assessment began in 2005 and has since pinpointed several environmental threats that must be cleaned-up before redevelopment can take place. In 2005 GZA identified approximately 5,000 tons of petroleum contaminated soil exceeding SRS above the groundwater table in the area where seven aboveground storage tanks were once located.<sup>8</sup> Of the 5,000 tons, NHDOT excavated approximately 2,400 tons in 2007.<sup>9</sup> Approximately 720 tons were disposed of immediately off site, leaving the remaining 1,680 tons to be stored onsite on two large concrete slabs.<sup>10</sup> This means that the incomplete excavation in 2007 left 2,600 tons in the contaminated area waiting to be excavated and disposed of. The completion of this excavation is one of the actions required to restore the site for redevelopment.

The storage of the remaining 1,680 tons of contaminated soil from 2007 must be a top priority in cleanup as the poly-cover closure GZA deems to be in fair to poor condition.<sup>11</sup> Their condition poses a risk as storm water can leak through the poly-cover and come into contact with the stockpiled soil.<sup>12</sup> If this occurs, the storm water would then become contaminated, possibly spreading contamination to soil and groundwater.<sup>13</sup> Therefore, immediate removal of the stockpiled soil is needed to prevent continued contamination upon cleanup.

Further findings from GZA's Phase II Environmental Site Assessment Report released February 2, 2009, identify an additional area of petroleum-impacted surface soil near area TP-5 (See **Figure 1**) in which levels of benzene, toluene, xylene, 1,2,4-trimethylbenzene, and naphthalene resulting from petroleum contamination that exceeded SRS.<sup>14</sup> However, contamination appears to be limited to shallow soil, facilitating easy cleanup.

Finally, GZA's data suggest that materials left on site in the area of TP-9 (See **Figure 1**) may be continuing to contaminate groundwater. While groundwater is not among the current concerns of GZA due to the Groundwater Management Permit held by NHDOT for management of contaminated groundwater at the site, removal of the source of contamination is highly recommended to avoid future cleanup costs.<sup>15</sup>



In conclusion, no cleanup can be started until GZA completes its assessment of the site and publishes its final recommendations. However, based upon the current state of the assessment, a cleanup plan will likely include removal and disposal of the 1,680 tons of stockpiled soil from the 2007 excavation, a completion of the excavation begun in 2007 so that all 5,000 tons of identified petroleum-impacted soil are removed, further excavation of the shallow soils of TP-5 found to be contaminated, and removal of the materials that are likely sources of groundwater contamination on TP-9.

## 3.2 Possible Funding Sources for Site Cleanup

## 3.2.1 State Funding Options

At the state level, New Hampshire's potential funding options include the Brownfield Revolving Loan Fund and Petroleum Reimbursement Fund. The Brownfield Revolving Loan Fund offers low-interest loans for the cleanup of public and private sites.<sup>16</sup> Loans may be for varying amounts with no maximum and may be paid back over a negotiable timetable. Sites must be deemed a threat to public health and contain substances other than petroleum.<sup>17</sup> The Petroleum Reimbursement Fund consists of four separate resources with a concentration in the prevention of petroleum contamination and petroleum cleanup. Of the four funds, the Oil Discharge and Disposal Fund Cleanup Fund (ODD) is the most applicable program as it focuses upon the assessment and cleanup of oil spills.<sup>18</sup> A continuing relationship with this fund may be most viable in seeking cleanup finding as the ODD currently funds the assessment of the site.

#### 3.2.2 Federal Funding Options

Federal options for funding cleanup lie primarily with the Environmental Protection Agency (EPA). These include the Brownfield Cleanup Revolving Loan Fund (BCRLF) Grant and the Brownfield Cleanup Grant. The EPA administers BCRLF Grants yearly to states and local governments who are selected competitively. Factors the EPA takes into account upon allocation of these grants are fair distribution in terms of urban to rural and among EPA regions, the type of development to take place, and the need of the community.<sup>19</sup> At least 60 percent of the funds from a BCBRLF must be used to create a revolving loan fund that provides "no-to-low-interest loans" to be used for brownfield cleanup, and a 20 percent cost share is also required.<sup>20</sup> Up to \$1,000,000 may be requested over a five-year period.<sup>21</sup>

Funding made available as part of the American Recovery and Reinvestment Act (ARRA) to supplement the BCRLF Grant awarded to New Hampshire's DES allowed for an elevated number of sites to secure funding in 2009.<sup>22</sup> However, the deadline to submit a request for the supplemental funding passed on April 24, 2009.<sup>23</sup>

A Brownfield Cleanup Grant may allot up to \$200,000 to a site for cleanup of "petroleum, hazardous substances, pollutants, or other contaminants."<sup>24</sup> As with BCRLF Grants, Brownfield Cleanup Grants require a 20 percent cost share, but in cases of



extreme hardship this fee can be waived.<sup>25</sup> Furthermore, applicants for the grant must have ownership of the site and limit applications to less than five sites.<sup>26</sup> The Grant sets a timetable for cleanup at two years.<sup>27</sup>

Additional options not available through the EPA include the Economic Development Administration's Economic Adjustment Assistance Program which can be tailored to focus on brownfield redevelopment in states and localities that suffer from economic deterioration.<sup>28</sup> The program is designed to be flexible and uniquely address each community's challenges to economic growth.<sup>29</sup> The Program offers both Implementation Grants and Revolving Loan Fund Grants similar to the EPA's system of lending.<sup>30</sup>

## 4. SITE REDEVELOPMENT

#### 4.1 Lebanon's Plans

As the property of the New Hampshire Department of Transportation, the site's value is primarily derived from its potential use as a high-speed railway and site of a temporary bridge. If and when the site is transferred to the City, Lebanon will be able to develop the area as it sees fit after completing appropriate cleanup. According to Lebanon's City Planner, Kenneth Niemczyk, proposed ideas include using the bunkhouse area as either a teen or senior citizen recreation spot and remodeling the roundhouse. The most immediate plan, though, is "to construct a parking lot and informational kiosk along with possible hiking trails in the vicinity of the soil excavation area."<sup>31</sup> Using this space as a parking area and as a source of information for visitors will help accommodate the future commercial growth of the downtown area. With the arrival of revitalization projects currently underway across the river in White River Junction, planning for an increase in commercial activity is critical to the success of downtown West Lebanon. Russ Tibo from the Applied Economic Research Company is currently executing an economic feasibility study for the City on the best development options for the rail yard and Main Street.

#### 4.2 Redevelopment as an Economic Initiative

Redevelopment of the West Lebanon Rail Yard can complement the construction of the new Kilton Public Library and Bridge Street bridge to enhance commercial activity in the district during this period of economic hardship. Federal funding often targets projects that aim to stimulate an area's economy by creating job opportunities and stimulating community development, giving projects such as the redevelopment of the Tidewater Oil Company and larger Westboro Rail Yard site an increased likelihood of success. With this in mind, the City should consider the option of presenting the redevelopment plans in an economic light more than one that is purely environmental, as this could create further funding possibilities. One example of how this strategy can open doors to new funding is the EPA's Brownfields Job Training Grants, which award up to \$200,000 over two years for programs run by non-profits or municipalities to train local residents for employment in environmental and remediation fields.<sup>32</sup>



## 4.3 Possible Sources of Funding

Before the West Lebanon Rail Yard can be considered for federal and state brownfield funding, the City must obtain ownership of the property in a timely manner. The Phase I and II ESAs currently underway are funded by the ODD, which does not fund cleanup or development efforts. The NHDES cannot give sub-grants or technical assistance grants to other state agencies, thereby limiting cleanup and redevelopment options while the site is owned by the NHDOT, but could likely provide the grant for cleanup to the City within a four to six month time frame. Once this transfer is done, however, there are several federal and state funding possibilities to consider.

#### 4.3.1 Federal Funding

There are many Federal funding sources for brownfield redevelopment. The most popular and dominant federal funding sources are under the Environmental Protection Agency. EPA's Brownfields Program, initiated in 1995, has been committed to Brownfield redevelopment of over 450,000 sites across the county through grant funding, loan opportunities and other resources.<sup>33</sup> Two EPA funding sources that can be used for the West Lebanon are the Brownfields Job Training grant and the State and Tribal Response program. By bringing together local residents with local companies and organizations, the Brownfields Job Training grant (up to \$200,000 for a period of two years) provides environmental employment and training for communities in the vicinity of Brownfield areas.<sup>34</sup> The funds can be used for program costs, recruitment, development and necessities and both Government entities and non-profit organizations can apply for this grant. Made for state and tribal authorities, the State and Tribal Response program was initiated to "establish or enhance" current Brownfield programs, this grant (maximum of \$50 million) can be issued for cleanup, purchase and other necessities.<sup>35</sup> Other federal funding sources are found within various financial-related government departments at the national level. One brownfields redevelopment funding source is The U.S. Department of Commerce Economic Development Administration, which operates a Public Works and Economic Development Facilities Program focused on the redevelopment and construction in brownfields. In addition, this department aims to aid communities that are economically affected by brownfield sites with the Economic Adjustment Assistance Program.<sup>36</sup>

A second source is the U.S. Small Business Administration, which allows small businesses to take out loans of approximately \$300,000 through the Section 504 Certified Development Company Program. These loans can help a small business to establish their business on a cleaned up brownfield.<sup>37</sup>

Finally, a third option is the U.S. Department of Housing and Urban Development (HUD) which runs the Brownfield's Economic Development Initiative.<sup>38</sup> Created for low-income communities affected by brownfields, this \$10 million grant is given annually for loan collateral, land write-downs and other business necessities.

## 4.3.2 State Funding

In comparison to Vermont, which has over 1,465 Brownfield sites, New Hampshire only has 116. Funding within New Hampshire for redeveloping brownfields may therefore be more readily available than in Vermont, particularly for federal pass-through grants administered by the state.

An important state funding option that can be used for the Westboro Rail yard is the Brownfield Revolving Loan Fund. The Brownfield Revolving Loan fund provides between \$50,000 and \$200,000 in a low-interest, limited term loan to cleanup brownfields. "Eligible sites must be in accordance with DES and have an actual or strong threat of release of a hazardous substance other than petroleum that provides threat to public health."<sup>39</sup>

## **5. LIABILITY**

## 5.1 Covenant Not to Sue

DES and Lebanon previously agreed that the City would apply for a covenant not to sue, which according to New Hampshire law, is "a document issued by the Department of Justice pursuant to RSA 147-F:6 that restricts the state's right to sue eligible persons for contamination addressed by an approved remedial action plan."<sup>40</sup> In order to qualify for this limited liability, the individual or municipality must follow the guidelines for participation in the Brownfields Covenant Program, which includes having no connection to the original contamination. Additionally, a series of steps must be taken prior to cleanup and the granting of the covenant.

#### 5.1 Steps to Ensure Limited Liability

First, the site must be subdivided to separate the cleanup site from the rest of the rail yard. According to Keith DuBois of the Brownfields Program at DES, Lebanon "submitted an application that was incomplete because it applied to the entire rail yard and not just the Tidewater Oil part." <sup>41</sup> Once the site is subdivided and the assessment process is complete, the City is eligible to purchase the parcel and apply for the covenant. This can occur in either order, as the City can apply after acquiring the site as an owner, or prior to purchase as a prospective buyer, but the City's acquisition of the property will mark the beginning of the cleanup process.

Next, the New Hampshire Department of Justice and the Governor and Executive Council must approve a cooperative agreement once the City acquires the property, which will allow DES to provide cleanup funding to the City.<sup>42</sup> In order to satisfy both New Hampshire and Environmental Protection Agency protocol, the municipality must "publish a notice of the proposed remedial action(s) in at least one daily or weekly



newspaper serving the municipality in which the site is located."<sup>43</sup> This notice must include a description of the site and the remediation plans, location and date of a public information meeting, contact information for those involved in remediation, and the closing date for public comments, which must be no less than 30 days from the notice's publication.<sup>44</sup>

## CONCLUSIONS

The Phase I, Phase II, and supplemental assessments of the Tidewater Oil Company portion of the Westboro Rail Yard are scheduled to finish by July of 2009. The most effective way to hasten the cleanup and redevelopment process, while limiting liability, is to transfer the property from the NHDOT to the City of Lebanon. Mr. Dubois stated that "Lebanon will not purchase the property until this due diligence work is finished," and the City's purchase of the parcel will mark the beginning of the cleanup process.<sup>45</sup> Once the City owns the property, the NHDES can either provide a sub-grant of \$200.000 to assist with the cleanup or provide a technical grant, "in which [it] would award the work to one of [its] consultants and cleanup contractors." <sup>46</sup> However, the property transfer must occur within a timely manner or the City risks losing the sub-grant. If Lebanon purchases the property soon, the process of applying for a covenant not to sue, obtaining a Cooperative Agreement from the NHDOJ, and getting approval of the cleanup plans from the EPA is estimated to take four to six months. According to this timeframe, excavation of contaminated soils at the site could begin as early as September, which would allow for the use of the NHDES sub-grant and permit redevelopment in the near future.



## **TABLES AND FIGURES**



*Figure 1: GZA's Site Plan.* This figure identifies areas of contamination. Particular reference is made to sites TP-5 and TP-9 where further excavation must take place to remove contamination.

Source: GZA GeoEnvironmental, Inc. (April 2009). Quality Assurance Project Plan Addendum (RFA08266) Former Tidewater Oil Site (West Lebanon Yard Facility). p30. Retrieved from: http://www2.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4175425



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<sup>2</sup> Ibid.

<sup>3</sup> Phase I (ESA) Environmental Site Assessment - Phase 1 Environmental Site Assessments." Environmental Site Assessments- PM Environmental- Full Services Consulting Firm. 31 May 2009 <http://www.pmenv.com/phase-i-1-environmental-site-assessments.html>; Phase One Environmental Site Assessment Requirements." North Carolina Clean Water Management Trust Fund. 31 May 2009 <http://www.cwmtf.net/phaseone.htm>.

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<sup>5</sup> West Lebanon (Westboro) Rail Yard." Proc. of Natural Resource Agency Coordination meeting, John O. Morton Building, Concord, NH.

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<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> GZA GeoEnvironmental, Inc. (April 2009). Quality Assurance Project Plan Addendum (RFA08266) Former Tidewater Oil Site (West Lebanon Yard Facility). p9. Retrieved from: http://www2.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4175425

<sup>16</sup> Char, C.J., Ricci, K. & Sugarman, A. (2006). Funding Brownfield Development: Interpreting and Making Sense and Multi-Level State Funding. PRS Policy Brief 0506-08. p15.

<sup>17</sup> Ibid.

<sup>18</sup> Char, C.J., Ricci, K. & Sugarman, A. (2006). Funding Brownfield Development: Interpreting and Making Sense and Multi-Level State Funding. PRS Policy Brief 0506-08. p16.

<sup>19</sup> Char, C.J., Ricci, K. & Sugarman, A. (2006). Funding Brownfield Development: Interpreting and Making Sense and Multi-Level State Funding. PRS Policy Brief 0506-08. p5.

<sup>21</sup> Ibid.

<sup>22</sup> Dubois, H.K. (2009, April 20). New Hampshire Brownfields Program Accepting Nominations for Projects to be Funded Through the American Recovery and Reinvestment Act. DES Media Center. Retrieved from: http://des.nh.gov/media/pr/2009/090420arra.htm

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<sup>24</sup> Char, C.J., Ricci, K. & Sugarman, A. (2006). Funding Brownfield Development: Interpreting and Making Sense and Multi-Level State Funding. PRS Policy Brief 0506-08. p6.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid.

<sup>27</sup> Ibid.

<sup>&</sup>lt;sup>20</sup> Ibid.



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<sup>32</sup> EPA. "Brownfields Job Training Pilots/Grants." http://www.epa.gov/swerosps/bf/cleanup\_grants.htm

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<sup>37</sup> Char, Chongwon J., Kristin Ricci, and Amie Sugarman. <u>Funding Brownfield Redevelopment;</u> <u>Interpreting and Making Sense of multi-level state funding</u>. Page 10. Hanover: Rockefeller Center, 2006.

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<sup>46</sup> Ibid.