

# EXPLANATION OF SIGNIFICANT DIFFERENCES

## BUFFALO OUTER HARBOR SITE



Buffalo / Erie County / Site No. B-00149-9 / May 2004

Prepared by the New York State Department of Environmental Conservation  
Division of Environmental Remediation

### 1.0 INTRODUCTION

The purpose of this notice is to describe the progress of the cleanup at the Buffalo Outer Harbor Site, located off of Fuhrmann Boulevard in the City of Buffalo, and to inform you about a change in the Site remedy. On March 26, 2002 the New York State Department of Environmental Conservation signed a Record of Decision (ROD) under the Environmental Restoration Program which selected a remedy to cleanup the Site. The ROD actually outlined a matrix of remedies for three land use options. For residential, recreational and commercial/industrial site redevelopment, the remedies selected all require a cover of clean soil, varying from 1 to 2 feet thick.

On October 28, 2003, the Niagara Frontier Transportation Authority (NFTA) requested an amendment to its previously accepted Environmental Restoration Program (ERP) application for remediation of the site shoreline. The original application was for the stabilization of the shoreline, including the so-called Bell Slip and the shore north of the Bell Slip, and the development of a shoreline park or "greenbelt". The NFTA's requested amendment was to extend this "greenbelt" to the remainder of the shoreline, south of the Bell Slip.

The ROD addressed only the Bell Slip and areas north of the Bell Slip. However, the entire NFTA-owned property was examined during the site Remedial Investigation (RI) and remedial alternatives, similar to those selected in the ROD, were recommended in a Feasibility Study (FS) for the area south of the Bell Slip as well. The ROD is being modified to incorporate the greenbelt south of the Bell Slip, employing the same soil cover remedy.

This Explanation of Significant Differences (ESD) will become part of the Administrative Record for this Site. The information here is a summary of what can be found in greater detail in documents that have been placed in the repository located at the NYSDEC's Region 9 office, 270 Michigan Avenue, Buffalo, NY 14203-2999. The Department's Project Manager for this site is Mr. David Locey (Tel: 716-851-7220).

Although this is not a request for comments, interested persons are invited to contact the Department's Project Manager to obtain more information or have questions answered.

### 2.0 SITE DESCRIPTION AND ORIGINAL REMEDY

The Outer Harbor property totals approximately 110 acres and was acquired by the NFTA in the 1950s. The property is located about 1 mile south of downtown Buffalo, and is adjacent to an embayment of Lake Erie known as the Buffalo Outer Harbor (Figures 1 and 2). The property is currently vacant except for a boat yard which operates on the so called Bell Slip near the center of the property. The ERP brownfield site consists of the 60 acre-portion of property located north of the Bell Slip.

The area south of the Bell Slip contains the listed Class 2 inactive hazardous waste disposal site known as the Radio Tower Area (Site #915026). Investigation revealed that waste products containing nitrobenzene from a Buffalo area dye manufacturer were disposed here. A separate ROD for the Radio Tower Area was issued in 1999 and cleanup of this 4-acre site is nearing completion. Because the hazardous waste site was initially seen as an obstacle to redevelopment for the property immediately adjacent to it, the March 2002 ERP Record of Decision focused only on the property north of the Bell Slip.

The majority of the Outer Harbor property is land created or reclaimed from the Buffalo Outer Harbor by filling activities which occurred over a period of nearly 100 years. Land filling began in 1874 with construction of a sand catch built south of the present day Bell Slip. The northeastern portion of the property was once a municipal dump which received ashes, noncombustible rubbish and other residue from one of the City of Buffalo's waste incinerators. Over 2 million cubic yards of sediments, dredged from local slips, canals and the Buffalo Outer Harbor shipping channels, went into the property. Areas south of the Bell Slip, including the Radio Tower Area, were also filled with approximately 930,000 cubic yards of construction and demolition debris from various local projects in the 1950s and 60s, completing the site land filling activities. From approximately 1969 to 1998 the site was also used as a storage and distribution point for dry bulk materials including rock salt, zircon and sand, foundry sand, iron ore pellets, ball and china clay, gypsum rock, potash and scrap metal.

Land reclamation and filling activities at the site have resulted in the disposal of a number of hazardous substances in the site soil/fill, primarily polycyclic aromatic hydrocarbons (PAHs) and metals. Low levels of polychlorinated biphenyls (PCBs) were also found in the surface soils near a gravel parking area located in the northeast corner of the NFTA property. Groundwater exhibited low to moderate levels of metals but given the low permeability of the soil/fill and limited migration potential, chemical loading to the harbor was estimated to be minimal. The remedies selected in the ERP ROD were designed to address the potential threat to human health associated with the direct contact or ingestion of contaminated surface soils under future land use scenarios and to mitigate the impacts of erosion of the contaminated soils to Lake Erie.

Phase 1 of the brownfield site redevelopment, would include the construction of a 75 to 100-foot wide greenbelt along the western edge of the site. The ERP ROD required:

- placement of a minimum one foot thick soil cover on top of a geotextile fabric over the entire area of the waterfront greenbelt;
- stabilization of the shoreline including bulkhead renovation to prevent erosion of fill material and protection of the soil cover;
- institutional controls to insure the integrity of the remedy and restrict inappropriate future site use.

### **3.0 CURRENT STATUS**

No viable Potentially Responsible Parties (PRPs) have been identified for the brownfield site and there are no ongoing enforcement actions. However, legal action may be initiated at a future date by the State to recover State response costs should PRPs be identified. The NFTA will assist the State in its efforts by providing all information which identifies PRPs. The NFTA will also not enter into any agreement regarding response costs without the approval of the NYSDEC.



## **4.0 DESCRIPTION OF SIGNIFICANT DIFFERENCES**

### **4.1 New Information**

While the ERP ROD addressed only those parts of the property north of the Bell Slip, remedial alternatives were analyzed during the RI/FS for the area south of the Bell Slip, outside of the Radio Tower Area site, in what was called the "Remaining Area".

The types of soil contaminants found in the "Remaining Area" were generally the same as those found north of the Bell Slip and west of the asphalt road (Figure 2). The frequency of detection and average concentrations of surface soil contaminants were only slightly higher in the "Remaining Area" than in the area west of the asphalt road (Table 1) where the greenbelt will be located. Elevated levels of carcinogenic PAHs (cPAHs) and metals, including arsenic, lead and zinc, were detected in about half of the surface and subsurface soil samples tested in the "Remaining Area". West of the asphalt road, only a few surface soil samples (4 out of 34) and shallow subsurface soil samples (6 out of 19) contained cPAHs, lead and zinc at concentrations exceeding screening levels. Half of the deeper subsurface soil samples west of the asphalt road exhibited elevated levels of cPAHs, lead and zinc.

For the proposed recreational site use, the RI report recommended a 2-foot soil cover or excavation of the top 2 feet of contaminated soil for the area west of the asphalt road and the "Remaining Area". The remedial alternatives outlined in the FS were somewhat different: a 1-foot cover was recommended for the area west of the asphalt road and a 3-foot cover was suggested for the "Remaining Area" (Table 2).

### **4.2 Comparison of Changes with Original Remedy**

In addition to the 1-foot soil cover and geotextile demarcation layer, the original remedy called for the development of a soil excavation and management plan. In the event that future development or excavation occurs within the covered greenbelt site, the plan shall specify procedures for sampling, staging, regrading and covering or disposing of the excavated soils. NFTA shall also provide an annual certification to the NYSDEC that the cover has been properly maintained and the conditions of the site remain fully protective of public health and the environment in accordance with the ERP ROD.

Given the similar types and concentrations of soil contaminants found, the ERP ROD remedy would also be appropriate for the greenbelt south of the Bell Slip in the "Remaining Area". While the FS recommended a thicker soil cover for this area, a 1-foot soil cover with demarcation layer and soil excavation and management plan would afford essentially the same level of protection. Modifying the ERP ROD to include the greenbelt south of the Bell Slip in the "Remaining Area" would improve the performance of the overall remedy in that the remaining section of shoreline south of the Bell Slip would be re-engineered and stabilized to withstand the wave erosion from the Outer Harbor.

## **5.0 SCHEDULE AND MORE INFORMATION**

An Engineering Design Scope of Work for the original greenbelt proposal had been submitted by NFTA and approved by NYSDEC. NFTA has initially estimated that extending the greenbelt to the remainder of the shoreline south of the Bell Slip would add another \$1.1 million to the original greenbelt project costs bringing the total project costs to \$3.5 million. The Design Scope of Work will be modified and a more accurate estimate of project costs determined. A State Assistance Contract will be executed in the spring 2004 allowing NFTA to proceed with the design work. Construction of the greenbelt is expected to begin in 2005.

If you have questions or need additional information you may contact any of the following:

Mr. David P. Locey  
Project Manager  
NYSDEC  
270 Michigan Avenue  
Buffalo, New York 14203-2999  
(716-851-7220)

For site related health questions, please contact the following New York State Department of Health representative:

Mr. Cameron O'Connor  
Public Health Specialist  
NYSDOH  
584 Delaware Avenue  
Buffalo, New York 14202  
(716-847-4385)

5/20/04

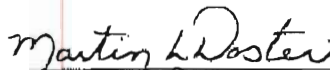
Date



David Locey, Project Manager  
Division of Environmental Remediation, Region 9

5/21/04

Date



Martin Foster, RHWRE  
Division of Environmental Remediation, Region 9

5/24/04

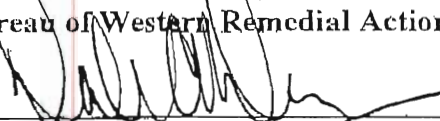
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Edward Belmore, Director  
Bureau of Western Remedial Action

MAY 26 2004

Date



Dale A. Desnoyers, Director  
Division of Environmental Remediation

PHASE I/PHASE II REMEDIAL INVESTIGATION REPORT (DECEMBER 1995)

(1) Removal includes replacement with clean soil  
(2) Does not include exceedances of iron, manganese, magnesium or sodium  
(3) Highest level encountered during the Phase I and II Remedial Investigation  
(4) Does not include 1301 mg/kg (detected in only one sample) in average. Average with 1301 mg/kg is 38 mg/kg

| TABLE 2  |                               |  |   |  |  |
|--|-------------------------------|--|---|--|--|
| RECOMMENDED REMEDIAL PLAN  |                               |  |   |  |  |
| LAND USE AND REMEDIAL PLAN MATRIX  |                               |  |   |  |  |
| BUFFALO OUTER HARBOR   |                               |  |   |  |  |
| FEASIBILITY STUDY (JULY 1998)  |                               |  |   |  |  |
| SITE AREAS   |                               | LAND USE AND PREFERRED REMEDIAL ALTERNATIVES |   |  |  |
|  |                               | CURRENT USE                                  | RESIDENTIAL   | RECREATIONAL   | COMMERCIAL/INDUSTRIAL  |
| SOUTH OF BELL SLIP   |                               |  |   |  |  |
|  | EXCLUSIVE OF RADIO TOWER AREA | Deed Restriction (restricted to current use) | Soil Removal and Replacement (0-8')                                       | Pavement/Building Cover (or 3 ft Soil Cover or 3 ft Soil Excavation and Replacement) and Deed Restriction (activity and use limitations) | Pavement/Building Cover (or 3 ft Soil Cover or 3 ft Soil Excavation and Replacement) and Deed Restriction (activity and use limitations) |
| NORTH OF BELL SLIP   |                               |  |   |  |  |
|  | WEST OF ASPHALT ROAD          | Deed Restriction (restricted to current use) | Limited Soil Cover (1') as part of site development and deed notification | Limited Soil Cover (1ft) as part of site development and deed notification   | Limited Soil Cover (1ft) as part of site development and deed notification   |
|  | EAST OF ASPHALT ROAD          | Deed Restriction (restricted to current use) | Soil Removal and Replacement (0-15')*                                     | Pavement/Building Cover (or 3 ft Soil Cover or 3 ft Soil Excavation and Replacement) and Deed Restriction (activity and use limitations) | Pavement/Building Cover (or 3 ft Soil Cover or 3 ft Soil Excavation and Replacement) and Deed Restriction (activity and use limitations) |
| * Complete removal of soil in this area is recommended due to the presence of the former Fuhrmann Boulevard Landfill |                               |  |   |  |  |



