

# **Soils Management Plan**

Former Flintkote Plant Site  
City of Lockport, Niagara County  
Project No. B00161

## **1. Overview and objectives**

The site is a 4.95 acre, vacant industrial property currently owned by Niagara County. The location of the property is shown on Figure 1-1. The site has been characterized during several previous investigations. The user should refer to the previous investigation reports for more detail, as needed.

The objective of this Soils Management Plan (SMP) is to set guidelines for management of soil material during any future activities which would breach the cover system at the site. This SMP addresses environmental concerns related to soil management and has been reviewed and approved by the New York State Department of Environmental Conservation (NYSDEC) as shown in Exhibit 1-1.

## **2. Nature and extent of contamination**

Based on data obtained from previous investigations at the site, a report entitled "Site Investigation Report-Former Flintkote Plant Site, dated September 2000, was developed by TVGA Consultants.

The constituents of potential concern (COPCs) for soil consist primarily of metals, PCBs and PAHs. Results of ground water sampling indicate that constituents in the soil/fill material have impacted ground water quality slightly with metals and to a lesser extent PCBs and PAHs, requiring treatment prior to use.

As described in the SI report, soil, fill, groundwater, surface water and sediment samples were collected to characterize the nature and extent of contamination. As summarized in Table 1 of the Record of Decision, the main categories of contaminants that exceed their SCGs are semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs) and inorganics (metals).

The primary SVOC contaminants of concern include dibenzo(a,h)anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and chrysene. These contaminants belong to a class of SVOCs known as polycyclic aromatic hydrocarbons (PAHs). PAHs are a group of over 100 different chemicals that are common in the environment. Sources of PAHs include incomplete combustion of coal, oil, gasoline, garbage and wood from stoves, automobiles and incinerators.

PCBs were also detected in soils and fill throughout the site at low concentrations (less than 10 ppm). The primary inorganic contaminants of concern include antimony, arsenic, barium, chromium, copper, lead, mercury, nickel, silver and zinc.

### **3. Contemplated use**

As part of the redevelopment project, the property has been identified for Commercial uses. Specific uses for this zoning category are as follow:

Research offices and laboratories  
Offices  
Manufacturing  
Passive Recreational

The zoning specifically prohibits residential uses.

Record of Decision (ROD) was issued on March 31, 2006 for this site. The ROD provides the recommended remedial actions that would allow this property to be used in the future for the purpose it was intended for as shown above. Any future clean up activities at the site shall conform to the requirements of the ROD. The site shall remain undeveloped until the requirements of the ROD are implemented to the Department's satisfaction.

### **4. Purpose and description of surface cover system**

The purpose of the surface cover system is to eliminate the potential for human contact with fill material and eliminate the potential for contaminated runoff from the property. Until remediation is complete, a vegetated cover shall be maintained in place at the property to the greatest extent possible.

### **5. Management of soils/fill and long term maintenance of cover system**

The purpose of this section is to provide environmental guidelines for management of subsurface soils/fill and the long-term maintenance of the cover system during any future intrusive work which breaches the cover system.

The SMP includes the following conditions:

- All excavation into site soils must be reseeded or covered with impervious product such as concrete or asphalt, as described in Section 4, to prevent erosion in the future.
- Control of surface erosion and run-off of the entire property at all times, including during construction activities. This includes proper maintenance of the vegetative cover established on the property.
- Site soil that is excavated and is intended to be removed from the property must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives.

- Soil excavated at the site may be reused as backfill material on-site provided it contains no visual or olfactory evidence of contamination, and it is placed beneath a cover system component as described in Section 4.
- Any off-site fill material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination.
- Prior to any construction activities, workers are to be notified of the site conditions with clear instructions regarding how the work is to proceed. Invasive work performed at the property will be performed in accordance with all applicable local, state, and federal regulations to protect worker health and safety.
- The Owner shall complete and submit to the Department an annual report by January 15<sup>th</sup> of each year. Such annual report shall contain certification that the institutional controls put in place, pursuant to *name of legal document*, are still in place, have not been altered and are still effective; that the remedy and protective cover have been maintained; and that the conditions at the site are fully protective of public health and the environment.

If the cover system has been breached during the year covered by that Annual Report, the owner of the property shall include the following in that annual report:

A certification that all work was performed in conformance with this SMP.

In addition, an Environmental Easement has been implemented in accordance with the requirements of the New York State Brownfield program, limiting the future use of the property to commercial development.

### **5.1. Excavated and stockpiled soil/fill disposal**

Soil/fill that is excavated as part of development which can not be used as fill below the cover system will be further characterized prior to transportation off-site for disposal at a permitted facility. For excavated soil/fill with visual evidence of contamination (i.e., staining or elevated PID measurements), one composite sample and a duplicate sample will be collected for each 100 cubic yards of stockpiled soil/fill. For excavated soil/fill that does not exhibit visual evidence of contamination but must be sent for off-site disposal, one composite sample and a duplicate sample will be collected for 2000 cubic yards of stockpiled soil, and a minimum of 1 sample will be collected for volumes less than 2000 cubic yards.

The composite sample will be collected from five locations within each stockpile. A duplicate composite sample will also be collected. PID measurements will be recorded for each of the five individual locations. One grab sample will be collected from the individual location with the highest PID measurement. If none of the five individual sample locations exhibit PID readings, one location will be selected at random. The composite sample will be analyzed by a NYSDOH ELAP-certified

laboratory for pH (EPA Method 9045C), Target Compound List (TCL) SVOCs, pesticides, and PCBs, and TAL metals, and cyanide. The grab sample will be analyzed for TCL VOCs.

Soil samples will be composited by placing equal portions of fill/soil from each of the five composite sample locations into a pre-cleaned, stainless steel (or Pyrex glass) mixing bowl. The soil/fill will be thoroughly homogenized using a stainless steel scope or trowel and transferred to pre-cleaned jars provided by the laboratory. Sample jars will then be labeled and a chain-of-custody form will be prepared.

Additional characterization sampling for off-site disposal may be required by the disposal facility. To potentially reduce off-site disposal requirements/costs, the owner or site developer may also choose to characterize each stockpile individually. If the analytical results indicate that concentrations exceed the standards for RCRA characteristics, the material will be considered a hazardous waste and must be properly disposed off-site at a permitted disposal facility within 90 days of excavation. If the analytical results indicate that the soil is not a hazardous waste, the material will be properly disposed off-site at a non-hazardous waste facility. Stockpiled soil cannot be transported on or off-site until the analytical results are received.

## **5.2. Subgrade material**

Subgrade material used to backfill excavations or placed to increase site grades or elevation shall meet the following criteria.

Excavated on-site soil/fill which appears to be visually impacted shall be sampled and analyzed. If analytical results indicate that the contaminants, if any, are present at concentrations below the Site Specific Action Levels (SSALs) shown in Table 1 of the Record of Decision, the soil/fill can be used as backfill on-site.

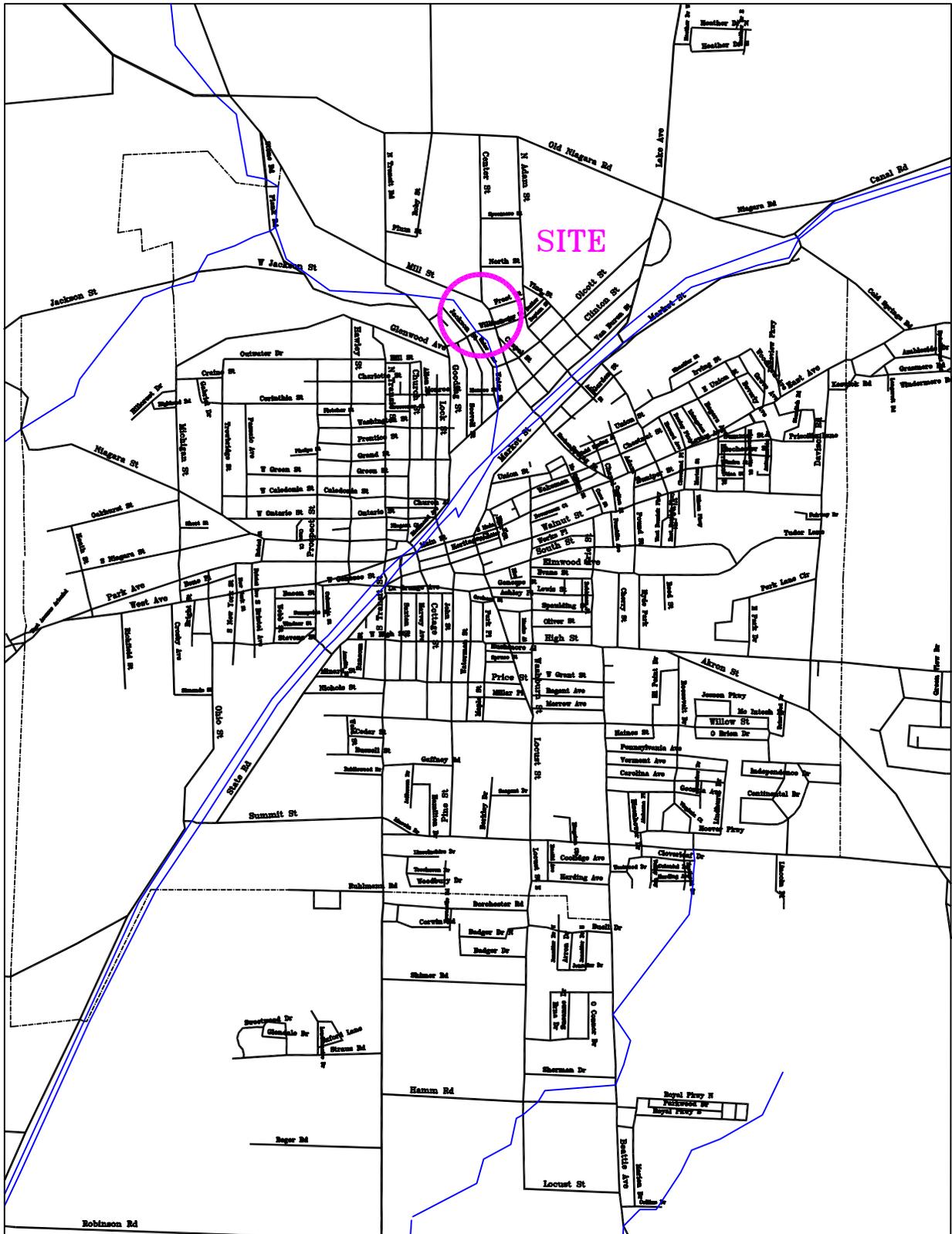
Any off-site fill material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination.

Off-site soils intended for use as site backfill cannot otherwise be defined as a solid waste in accordance with 6 NYCRR Part 360-1.2(a).

If the contractor designates a source as "virgin" soil, it shall be further documented in writing to be native soil material from areas not having supported any known prior industrial or commercial development or agricultural use.

Virgin soils should be subject to collection of one representative composite sample per source. The sample should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, and cyanide. The soil will be acceptable for use as backfill provided that all parameters meet the SSALs.

Non-virgin soils will be tested via collection of one composite sample per 500 cubic yards of material from each source area. If more than 1,000 cubic yards of soil are borrowed from a given off-site non-virgin soil source area and both samples of the first 1,000 cubic yards meet SSALs, the sample collection frequency will be reduced to one composite for every 2,500 cubic yards of additional soils from the same source, up to 5,000 cubic yards. For borrow sources greater than 5,000 cubic yards, sampling frequency may be reduced to one sample per 5,000 cubic yards, provided all earlier samples met the SSALs.



Lockport Quadrangle  
 Scale Depends on Final Plotted Size

**SITE LOCATION MAP**

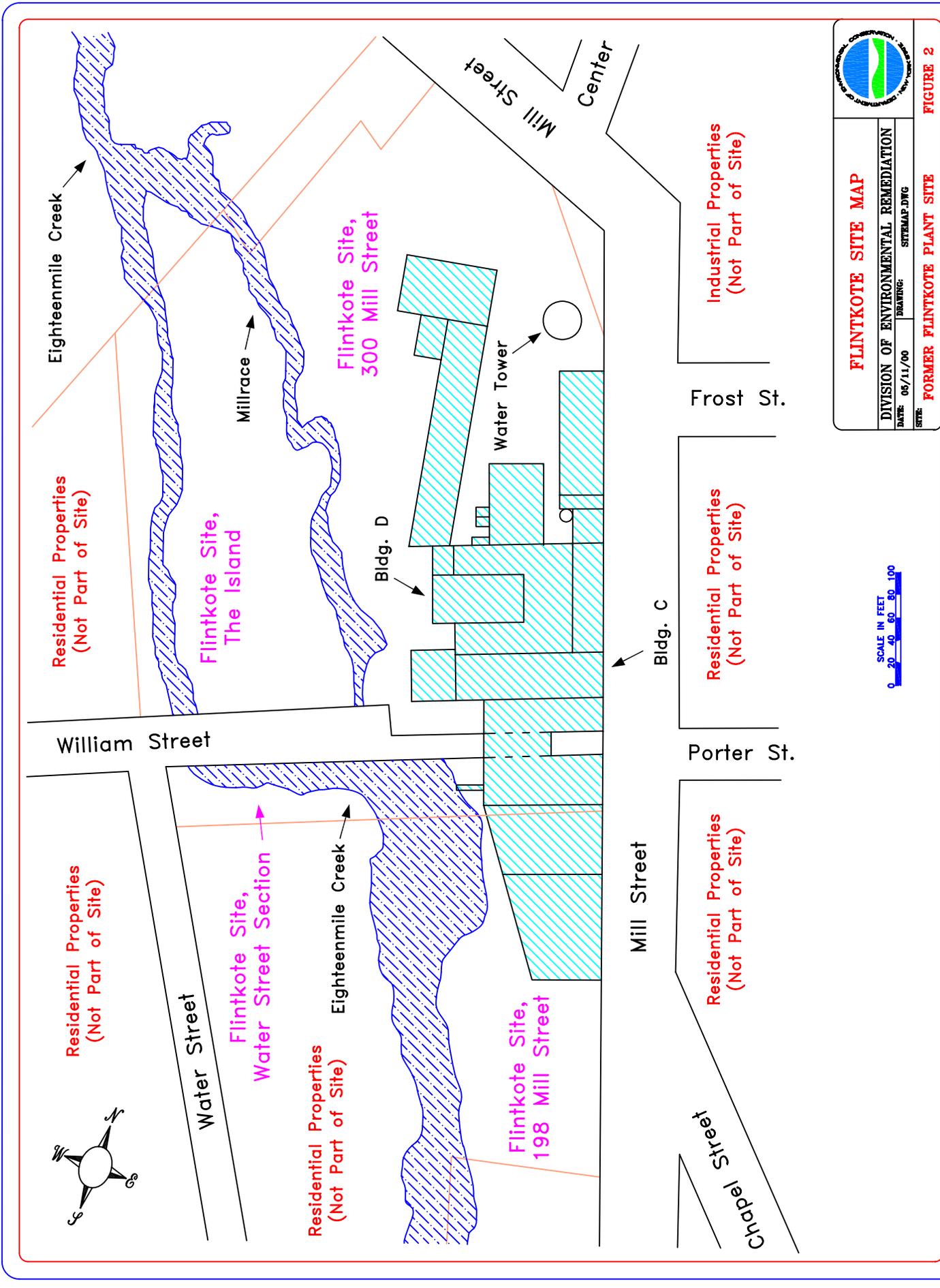
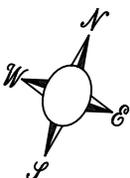
DIVISION OF ENVIRONMENTAL REMEDIATION

DATE: 08/29/00      DRAWING: LOCATION2.DWG

SITE: **FORMER FLINTKOTE PLANT SITE**



**FIGURE 1**



**FLINTKOTE SITE MAP**

DIVISION OF ENVIRONMENTAL REMEDIATION

DATE: 05/11/00 DRAWING: SITEMAP.DWG

SITE: FORMER FLINTKOTE PLANT SITE

FIGURE 2

