

**STATEMENT OF WORK**  
**Restoration of Natural Resource Damages**

Restoration of Natural Resource Damages (NRD) at the 68th Street Landfill Site (Site) shall be implemented in accordance with the terms and conditions of this Consent Decree (CD) for the Site and shall be integrated into the design, construction, operation, and monitoring requirements of the remedy as specified by the Record-of-Decision (ROD) for the Site. Conflicts identified between the goals, objectives and specified requirements of the remedy and the NRD restoration projects, if any, shall be resolved between the U.S. Environmental Protection Agency (USEPA) and the Trustees, with such resolution satisfying the requirements of the Record-of-Decision while also meeting the intent of this Statement of Work (SOW) to the extent practicable. Determinations of specific design details, approaches, materials of construction, means and methods, and locations shall be the responsibility of the Responsible Parties during the Remedial Design, with the subsequent approval of the USEPA and the Trustees.

All interim and final reviews and approvals for the NRD requirements will be conducted in accordance with the requirements for the remedy as presented in the CD. For project components subject to Trustees review and acceptance under this SOW, the USEPA will request concurrent reviews consistent with the timeline and requirements in the CD for the remainder of the remedy. The Trustees will thereby be afforded the opportunity to engage in the review and approval activities and the Responsible Parties shall be obligated to respond to the Trustees' comments through the CD process.

Two classes of restoration projects shall be implemented to fully address the loss of baseline conditions and interim losses at the Site:

1. **Primary Restoration Projects** designed to restore injured resources and services to their baseline condition; and,
2. **Compensatory Restoration Projects** designed to offset interim losses of natural resources and services pending recovery.

**Primary Restoration Projects** to be incorporated by the Responsible Parties shall include the following:

Upland Habitat

- Sixty-nine (69) acres of newly-covered area of the remediated Site shall be planted with native warm season grasses and forbs, either as stand-alone vegetation or as understory in areas of reforestation with trees, as required by the ROD and ARARs. The designated 69 acres coincides with re-vegetating the 2-foot thick soil cover to be placed over MA-B (43 acres),

MA-D (23 acres), and localized areas within MA-E (3 acres), as required in the ROD. Grasses and forbs native to the State of Maryland (as determined for the Maryland Coastal Plain by the U.S. Fish and Wildlife Service [USFWS] and presented in Table 1, attached below) shall be used (e.g., species may include Little Bluestem (*Schizachyrium scoparium*), Indiangrass (*Sorghastrum nutans*), and Switchgrass (*Panicum virgatum*), as determined during the Remedial Design). The area may optionally be planted with an interim nurse crop (e.g., rye) to establish soil protection until the permanent native grasses and forbs are well established.

- Any use of MA-A as a borrow area shall comply with the USEPA's November 3, 2015 memorandum entitled "Insignificant Change to the Selected Remedy for the 68th Street Dump Superfund Site". A minimum 100-foot Buffer Area from the Herring Run Mean High Water Mark, as delineated in February 2016 and depicted in the attached figure, shall be maintained. There shall be no disturbance within this Buffer Area.
  - No separate permits shall be required; for the purposes of this paragraph, the term "permit" has the same meaning as it does under 121(e)(1) of CERCLA. Remedial Design plans submitted pursuant to the Consent Decree shall provide for management and restoration of disturbed areas in accordance with the applicable standards and specifications for erosion and sediment control (COMAR 26.17.01.11) and the additional substantive requirements, listed below, derived in part from the requirements for surface mining and reclamation (COMAR 26.21.01.10-.20) of the State of Maryland, and for replanting with warm season grasses and forbs in accordance with the above restoration requirements.
  - The additional substantive requirements for excavation of materials from Management Area A for use as cover material at other portions of the Site are:
    - (1) Segregation and reuse of usable topsoil in reclaiming the excavated area or other portions of the Site (MA-A);
    - (2) Stabilization of storage piles to prevent erosion;
    - (3) Completion of final slopes to gradients which are stable for the kind of material involved, as shown by appropriate engineering analysis;
    - (4) Completion of reclamation grading within six months of completion of excavations;

- (5) Upon completion of reclamation grading, and in accord with appropriate planting seasons, prompt initiation of re-vegetation work, and diligent completion;
  - (6) Setback from the property line with the railroad of at least 25 feet, or such greater distance as shown by engineering analysis to be required for safety;
  - (7) Minimization of erosion from any haul road to or from any crossing to Management Area B; and
  - (8) Removal of equipment and any temporary structures from Management Area A upon completion of reclamation work.
- The upland native grasses and forbs shall be maintained and replanted as necessary through the establishment period identified in the ROD, or beyond that period until well-established as defined in the Remedial Design and thereafter for a minimum period of one (1) year.

#### Stream Enhancement and Floodplain Reconnection

- Enhancement of the streambed of the on-Site portion of Redhouse Run (i.e., extending from the CSX rail lines on the north to the confluence with Herring Run on the south) shall include installation of four (4) permanent in-stream grade/flow control structures for improving habitat and bank protection using a combination of rock and/or wood [e.g., vane, deflector, boulder placement, check dam, weir, root wads, riffles, or other similar control], as determined during the Remedial Design, along the stream segment adjacent to the Redhouse Run Landfill. These structures shall be similar to those presented in *Maryland's Guidelines to Waterway Construction* issued by the Maryland Department of the Environment (MDE), and dated November 2000, or a mutually-agreeable update.
- The in-stream flow control structures shall be functionally maintained after installation for the period required by the ROD.

**Compensatory Restoration Projects** to be incorporated by the Responsible Parties shall include the following:

#### Upland Areas

- On-site reforestation requirements necessitated by the remedy implementation shall be integrated with the components of the remedy

specified in the ROD, and shall be implemented by the Responsible Parties. Off-site reforestation for purposes of NRD Compensatory Restoration shall be conducted by the Trustees in accordance with the CD, and shall include all planning, permitting, engineering, construction, operation and maintenance, and monitoring requirements for all aspects of the off-site NRD mitigation.

### Management Area F

- Enhanced Wetlands
  - Enhanced wetlands located in the existing 7 acres of lowland areas within or bounding Management Area B represent Primary Restoration in concert with the remedy requirements, and shall initially be designed to address the collection and treatment of leachate/shallow groundwater releases from MA-B as the principal design goal. Techniques related to the remedy shall be employed to control the vertical and horizontal flow of collected water to achieve the desired residence time for effective treatment, in accordance with the ROD requirements. The total footprint area required for the treatment-based wetlands shall be determined during the Remedial Design. Supplemental enhancements for NRD Compensatory Restoration purposes on up to a maximum of 6 acres shall be incorporated to the extent technically feasible and consistent with the ROD within the available 7-acre lowland area, either inside or outside of the treatment-based wetland area, provided they do not interfere with the performance of the remedy components. In instances of direct conflict between the remedy and restoration goals, such as maintaining tidal flows into the wetlands versus retention for treatment purposes, or where submerged marsh conditions are not favorable for effective treatment, a modified or lesser area for supplemental enhancements shall be employed, as approved by the USEPA. Supplemental enhancements that may potentially be accommodated in a portion of the available wetlands area include:
    - Channel morphology that is designed with a depth/width ratio to maximize diurnal exchange of tidal flows, and sufficient depth to maintain flow to allow ingress and egress of fauna at mean lower low tidal conditions.
    - Wetland channel opening protection that is designed to maintain the configuration and to ensure that flow into or out of the wetland channel is maintained.

- At least 50 percent of the available tidal marsh available shall be designed to be low marsh or submerged, with the balance high marsh. If employed, riparian, high and low marsh slopes shall transition progressively and the base wetland elevations shall be designed so that the vegetation distribution is supported by diurnal flows.
- Enhanced wetlands for NRD Compensatory Restoration purposes shall incorporate plants native to the Maryland Coastal Plain, as determined by the USFWS and presented in Table 1, attached below. The vegetation shall be planted on 12-inch centers to achieve 80 percent aerial coverage in three (3) growing seasons; aerial coverage shall be considered separate from any designed open-water areas such as ponds or channels within the system. After the first growing season non-surviving plant material shall be replaced.
- **Trash Management Program**

A surface-water trash management program shall be instituted that includes the construction of collection bins or racks at the Herring Run, Moores Run and Redhouse Run upstream intercepts with the Site boundaries and two unnamed outfalls discharging into the tributary at MA-B (grid T26/T27) and into Herring Run (grid V3), at locations to be precisely determined during the Remedial Design. The trash collection bins or racks shall be permanent installations and designed to reflect the specific type, size, configuration and location of the stream flow at each location. Clearing and off-site disposal of collected trash shall be conducted for a period of 20 years, including trash removal monthly and after significant precipitation events for off-site recycling/disposal to the extent determined necessary by monthly facility inspections. The final disposition of the trash removed shall be determined by the Responsible Parties.

At the completion of the 20-year implementation period, the operation and maintenance obligations for the trash rack structures shall be transferred to a responsible third-party entity for continued operation or removed from the site.

#### Vernal Pools

- In MA-A, the surficial 12 inches of sediment in the Tire Pond (grid location Q37) shall be removed, the excavated area backfilled and re-graded to its existing elevation, and vegetation re-established to create a 0.05-acre vernal pool at the same location. If the Responsible Parties elect

to utilize all or a portion of MA-A as a soil borrow source, the Tire Pond may be eliminated from MA-A. In this case, an equivalent-size (0.05 acres) vernal pool will be established in an alternative location at the Site determined by the Responsible Parties but subject to the approval of the Trustees.

- In MA-E, the surficial 12 inches of sediment in the existing pond (grid location T10) shall be removed, the excavated area backfilled and re-graded to its existing elevation while achieving a minimum soil thickness over any waste present beneath of two (2) feet, and vegetation re-established to create a 0.15-acre vernal pool.
- A total of 0.3 additional acres of vernal pool(s) shall be created at various locations at the site appropriate to their long-term performance. Each vernal pool shall be designed to achieve the following:
  - Incorporate vegetation as determined appropriate during the Remedial Design;
  - Provide breeding and post-breeding habitat for amphibian and herpetile as determined in the Remedial Design;
  - Provide 90 consecutive days of water over the Winter and Spring seasons; and,
  - Maintain target depths in the vernal pool(s) as indicated below, with additional depth incorporated to provide freeboard:
    - at least 20 inches for sunlit areas; and,
    - 15 inches for shaded areas.
- All vernal pools shall be monitored for 5 years following construction, to include quarterly measurement of water depth and annual (Spring) monitoring of biodiversity (flora and fauna).

#### *Phragmites spp.* Control

- A total of 12 acres of *Phragmites spp.* shall be designated by mutual agreement of the Trustees and the Responsible Parties for control at the Site beyond that otherwise addressed in the remedy. Specific requirements for this control shall include:
  - Concurrent with the remediation and restoration of the Horseshoe Pond, an additional 1.6 contiguous acres of *Phragmites spp.* shall be

removed beyond that identified as required under the remedy. The location and configuration of the additional acreage for control shall be determined by the Responsible Parties and approved by the USEPA with the input of the Trustees.

- In addition to Horseshoe Pond, 10.4 acres of *Phragmites spp.* shall be controlled through a combination of spraying with herbicide (for example, glyphosate + imazapyr), removal, and/or hydraulic control to target achieving greater than an 80 percent eradication efficiency in aerial coverage over the treated areas. Hydraulic control shall be undertaken at a minimum of 30 percent of the total 12 acres of additional *Phragmites spp.* control area to permit that portion of the wetland area to remain inundated with approximately one (1) foot of standing water in channels during "normal" or non- drought conditions. The areas determined by the Responsible Parties and approved by the USEPA with the input of the Trustees for the control of *Phragmites spp.* shall include:
  - 1.7 acres north of MA-A along Herring Run;
  - 6.7 acres east of MA-E between Moores Run and Herring Run; and,
  - 2.0 acres on the southeastern side of the Island Landfill.
- Alternative treatment technologies beyond those specified herein may be employed by mutual agreement of the Responsible Parties and the USEPA, with the input of the Trustees, and as presented in the Remedial Design.
- The additional 12 acres of *Phragmites spp.* that is controlled shall be monitored annually for 15 years and re-sprayed with herbicide, as necessary, following any initial treatment to reduce the return coverage to less than 20 percent, or 2.4 acres in total.
- The requirements for *Phragmites spp.* control shall be similarly applicable to invasive vegetation management within the vernal pools, enhanced wetlands and uplands areas for their respective maintenance periods, and as specified in the Remedial Design.



**Table 1. Coastal Plain Sample Lists: Plants for Wet Sites, Wetlands, Ponds, and Wet Edges with Partial to Full Sun**

**Ferns:**

*Osmunda cinnamomea* - cinnamon fern

*Osmunda regalis* - royal fern

*Thelypteris palustris* - marsh fern

**Grasses and Grass-like Plants:**

*Carex stricta* - tussock sedge

*Festuca rubra* - red fescue (turf)

*Panicum virgatum* - Virginia switchgrass

*Tripsacum dactyloides* - gama grass

**Herbaceous Plants:**

*Caltha palustris* - marsh marigold

*Eupatorium dubium* - Joe-Pye weed

*Eupatorium perfoliatum* - common boneset

*Helianthus angustifolius* - swamp sunflower

*Liatris spicata* - blazingstar

*Lilium canadense* - Canada lily

*Lilium superbum* - Turk's cap lily

*Lobelia cardinalis* - cardinal flower

*Lobelia siphilitica* - great blue lobelia

*Oenothera fruticosa* - sundrops

*Senecio aureus* - golden ragwort

*Sisyrinchium atlanticum* - coastal blue-eyed grass

*Solidago rugosa* - wrinkle leaf goldenrod

*Verbena hastata* - blue vervain

**Herbaceous Emergents (growing up out of water):**

*Acorus calamus* - sweet flag

*Hibiscus moscheutos* - rose mallow

*Iris versicolor* - blue flag iris

*Juncus canadensis* - Canada rush

*Juncus effusus* - soft rush

*Kosteletskya virginica* - seashore mallow

*Nuphar luteum (advena)* - yellow water lily

*Nymphaea odorata* - fragrant water lily

*Osmunda regalis* - royal fern

*Peltandra virginica* - arrow arum

*Pontederia cordata* - pickerelweed

*Sagittaria latifolia* - duck potato

*Saururus cernuus* - lizard's tail

*Scirpus cyperinus* - woolgrass



*Scirpus pungens* - three-square  
*Spartina alterniflora* - salt marsh cordgrass  
*Spartina patens* - salt meadow hay  
*Typha angustifolia* - narrow-leaved cattail  
*Typha latifolia* - broad-leaved cattail  
*Zizania aquatica* - wild rice

**Shrubs (low):**

*Aronia melanocarpa* - black chokeberry  
*Gaylussacia frondosa* - dangleberry  
*Hypericum densiflorum* - dense St. John's wort  
*Kalmia angustifolia* - sheep laurel (evgr)  
*Rubus allegheniensis* - Allegheny blackberry

**Shrubs (medium):**

*Aronia arbutifolia* - red chokeberry  
*Baccharis halimifolia* - high-tide bush  
*Cephalanthus occidentalis* - buttonbush  
*Ilex verticillata* - winterberry holly  
*Itea virginica* - Virginia sweetspire  
*Rhododendron viscosum* - swamp azalea  
*Rosa palustris* - swamp rose  
*Sambucus canadensis* - common elderberry

**Shrubs (tall):**

*Alnus serrulata* - smooth alder  
*Magnolia virginiana* - sweetbay (see Trees)  
*Viburnum prunifolium* - black haw viburnum

**Trees (tall):**

*Acer negundo* - box elder  
*Acer rubrum* - red maple  
*Acer saccharinum* - silver maple  
*Betula nigra* - river birch  
*Carya cordiformis* - bitternut hickory  
*Carya glabra* - pignut hickory  
*Celtis occidentalis* - hackberry  
*Fraxinus pennsylvanica* - green ash  
*Liquidambar styraciflua* - sweet gum  
*Nyssa sylvatica* - black gum, sourgum  
*Pinus taeda* - loblolly pine  
*Platanus occidentalis* - American sycamore  
*Populus deltoides* - eastern cottonwood  
*Quercus bicolor* - swamp white oak  
*Quercus michauxii* - swamp chestnut oak  
*Quercus phellos* - willow oak

*Salix nigra* - black willow

*Salix sericea* - silky willow

*Taxodium distichum* - bald cypress

**Vine:**

*Parthenocissus quinquefolia* - Virginia creeper

Reference: USFWS BayScapes Conservation Landscaping Program; Native Plants for Wildlife Habitat and Conservation Landscaping in Maryland; September 4, 2001.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029**

**November 3, 2015**

**SUBJECT:** Insignificant Change to the Selected Remedy for the  
68<sup>th</sup> Street Dump Superfund Site

**FROM:** Chris Corbett  
Senior Remedial Project Manager (3HS20)

**TO:** 68<sup>th</sup> Street Dump Site File

The 68<sup>th</sup> Street Dump Superfund Site (Site) is located in Baltimore County, Maryland. The Site Record of Decision (ROD) was signed on September 30, 2013, and it requires, among other things, the construction of a two-foot soil cover over all of the landfills which comprise the Site unless adequate, sufficient cover is already in place. In the ROD, the potential use of Management Area A (MA-A) as a soil borrow area was briefly discussed.

In the ROD discussion of current and potential future land uses, it was noted that MA-A was found to be a candidate for active re-use in conjunction with MA-B as flex office/warehouse space or solar energy re-use or that it could serve as a borrow source for soil or in another support role such as wetland mitigation.

The purpose of this Memorandum is to clarify that, if MA-A is used as a borrow area to support the remedial action the area will be regraded to promote appropriate drainage and will be revegetated with suitable native species following the removal of soil. The specific details of these activities will be developed during the remedial design and will be in accordance with the Applicable or Relevant and Appropriate Requirements identified in the ROD, including, but not limited to, the Maryland Erosion and Sediment Control Regulations (COMAR 26.17.01.05) (Md. Code Ann., Env't § 4-103 - 106) and Maryland Forest Conservation Act (COMAR 08.19.04.01 - .10).

This Memorandum documents EPA's conclusion that the clarification to the 2013 ROD described above will not have a significant impact on the scope, performance, or cost of the remedy.



Herring Run Mean High Water Mark  
(As referred to on Page 2 of NRD Statement of Work, Primary Restoration Projects, Upland Habitat)