

# New Jersey Zinc/Mobil Chemical Natural Resource Damage Assessment Plan



## Responses to public comments

November 2019



In June 19, 2019, the Illinois Natural Resource Trustees published an Assessment Plan (AP) for quantifying natural resource injuries and damages resulting from hazardous substance releases from the New Jersey Zinc/Mobil Chemical National Priorities List (NPL) Site in DePue, Illinois. The Trustees received two sets of comments on the AP, one from attorney Nancy Loeb of Northwestern University, who is Director of the Environmental Advocacy Clinic and counsel for the Village of DePue; and one from the potentially responsible parties (PRPs) known as the DePue Group.

Trustees' responses to comments are as follows:

### **Comments from Nancy Loeb on Behalf of the Village of DePue**

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***1. The AP fails adequately to address the physical effects that accumulated contaminated sediments in Lake DePue (OU5) have had on natural habitat losses and on human beneficial uses. The AP focuses on the chemical effects on current ecological communities but largely ignores the fact that historic ecological habitats have been severely altered, if not totally destroyed.***

***Trustees' Response:*** The AP provides methods for addressing natural resource injuries and service losses. In the assessment phase, the Trustees will assess the extent to which releases of hazardous substances have impacted natural resources, including sediments, in Lake DePue, and how those impacts have affected the associated services that Lake DePue provides.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the U.S. Department of the Interior (DOI) regulations pursuant to CERCLA (43 CFR Part 11) allow Trustees to claim for natural resource damages resulting from hazardous substance releases [43 CFR § 11.15(a)(1)]. The AP focuses on the chemical effects of hazardous substances because the regulations do not include provisions allowing Trustees to recover damages solely because of physical habitat destruction. However, the Trustees will assess whether habitat and human use loss from sedimentation has occurred as a result of hazardous substance releases. The evaluation of habitat service loss that may occur because hazardous substances in Lake DePue sediments may prevent dredging has been added to the AP in Section 5.3.5 (Indirect Injuries).

***2. The AP does not adequately address the relationship between the extensive contamination in Lake DePue and the loss of water depth in the Lake. While the depth issues are not caused solely by the contamination of the lake (which is extensive throughout the lake and clearly a very significant contributor), to date the contamination has precluded restoration of Lake DePue to depths that meet both ecological and human needs.***

***From a purely ecological perspective, the shallow depths have eliminated habitat for native species that require deeper water and also cause other continuing water quality problems (e.g. high water temperatures, low dissolved oxygen levels, etc.)***

***In terms of ecological services and effects on human uses, the AP provides little detail on how it is going to assess damages for the losses to human uses of Lake DePue caused by the physical accumulation of contaminated sediments. Little mention is made of the high concentrations of contaminated sediments that occur throughout significant depths (10 or more feet) and in all areas of the Lake. Potential remedial actions to limit direct exposure of human and***

*ecological receptors to the shallow contaminants will not restore basic beneficial uses (e.g. fishing, swimming, boating etc.) nor will it address other historic uses such as commercial fishing and boating (i.e. steam-boats/tour boats).*

*In making these comments, we stress that the Village remains dependent on Lake DePue for its continued survival. That survival is threatened by failure of the AP to fully account for the interrelationships between the contamination and the depth of the lake. If left behind, the contamination will make it impossible for the Village to maintain the lake at a healthful depth going forward.*

**Trustees' Response:** The AP provides methods for addressing natural resource injuries and service losses. In the assessment phase, the Trustees will assess to what extent releases of hazardous substances have impacted Lake DePue natural resources and associated services, including human uses.

As noted previously, Trustees may only make natural resource damage claims for physical destruction of habitat if that habitat destruction is a consequence of hazardous substance releases or responses to those releases. The Trustees intend to evaluate the relationship between hazardous substance releases, sedimentation, habitat loss, and lost services.

Finally, the Trustees note that the Feasibility Study (FS) for the lake (OU5) is not yet complete. If the selected remedial actions do not return the resources to baseline conditions, the Trustees will be entitled to additional restoration under CERCLA.

**3. Section 6.4.1 of the AP provides a brief outline of the restoration planning process and mentions that restoration alternatives can include onsite or offsite actions. (AP at 56) Although offsite actions are many times the only feasible options available at NPL sites, that is not the case at DePue and the AP should specify a strong preference for onsite restoration. Unlike many NPL sites, the natural resources at DePue, (i.e., the lake and surrounding lowlands and woods) are largely intact, and have been little affected by any other development except for the contamination left by the Responsible Parties. Complete restoration of Lake DePue is possible, and is necessary to compensate the community for past losses and to restore an otherwise irreplaceable natural resource of the State of Illinois.**

**Trustees' Response:** The AP provides the methods that the Trustees will use to evaluate restoration projects. It does not include *a priori* decisions about preferred restoration alternatives. As explained in the AP, the Trustees will first quantify natural resource injuries and service losses during the assessment phase. Next, the Trustees will evaluate the costs and benefits of numerous restoration projects, following evaluation factors presented in Table 6.1 of the AP. Projects that are technically feasible and restore habitats similar to what was injured in the same watershed are preferable.

**4. Section 5.5.1 of the AP (Estimation of Recovery) estimates the recovery of the DePue site will "likely require many decades." (AP at p. 55) This very broad statement requires further explanation. In particular, the AP should clarify that while activities to restore the DePue site will take place in the nearer term, full recovery following restoration may take much longer.**

**Trustees' Response:** The RI process is ongoing and the final remedies for the Site have not been determined. However, complete recovery to baseline conditions (i.e., conditions that would be present absent the release of hazardous substances) may take decades. The complete recovery of ecosystem services after site remediation and habitat restoration often requires many years of flora and fauna growth. Also, the selected remedy for some injured habitats could be monitored natural attenuation. If so, complete recovery of those habitats to baseline conditions may also require many decades. Section 5.5.1 of the AP has been updated to include this information.

**5. Section 6.4 of the AP (Damage Determination) states that DNR will solicit ideas for potential projects from the Responsible Parties (as well as the Village and others). (AP at 61.) In this respect, we note an inherent conflict of interest between the State and Village on one hand, and the Responsible Parties on the other; cost is likely to be the**

***driving consideration for the Responsible Parties, full restoration is the primary consideration for the Village, and should be for the State as well.***

***Trustees' Response:*** The Trustees may evaluate restoration project proposals from any stakeholders. This inclusive approach will streamline the decision-making process and lead to a more timely selection of restoration projects. Each project will be evaluated against the broad criteria in the DOI regulations [43 CFR § 11.82], and the criteria presented in Table 6.1 of the AP.

One of many considerations that the Trustees will evaluate is cost-effectiveness. Cost-effective projects are projects with greater ratios of benefits to costs. The least expensive projects are rarely the preferred alternatives because they typically provide few benefits.

Public acceptance is also an evaluation criterion. The Trustees will publish their preferred restoration alternatives for public review and comment [43 CFR § 11.81 (d)(2)]. Members of the public will have the opportunity to tell the Trustees if they believe the proposed restoration projects are unacceptable.

## **Comments from the DePue Group**

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***1. There is no recognition in the AP that most of the properties in and surrounding the site are private and, therefore, there are limitations on what natural resources are held in public trust by the Trustees, and the service losses the Trustees can claim in the name of public trust.*** CERCLA, by definition, does not include private property in its definition of “natural resources.” 42 U.S.C. § 9601(16) (“[N]atural resources means . . . resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States . . . any State or local government, any foreign government, any Indian tribe, or, if such resources are subject to a trust restriction on alienation, any member of an Indian tribe.”). On this basis, courts have determined that CERCLA does not permit trustees to recover for damages to private property absent government involvement, management, or control in the private property that brings the natural resources within the statutory authorization. See *Satsky v. Paramount Communications*, 7 F.3d 1464, 1469 (10th Cir. 1993) (remanding for a determination); *Ohio v. U.S. Dep’t of the Interior*, 880 F.2d 432, 460 (D.C. Cir. 1989) (remanding for DOI input). In response to the Ohio mandate, the DOI in fact responded that the Assessment process is intended in part to impose checks and balances on trustees’ assertions relating to private property: “The [Notice of Intent to Perform an Assessment and Assessment Plan are] opportunities for early input from PRPs and the public [that] would provide both a check on trustees’ discretion and a means of resolving disputes over the scope of trusteeship prior to litigation. See also *Coeur D’Alene Tribe v. Asarco Inc.*, 280 F. Supp. 2d 1094, 1115 (D. Idaho 2003) (CERCLA does not “allow public trustees to recover for damages to private property or other ‘purely private’ interests.”). Other provisions of the rule, such as the requirement that only committed public uses of the resource be included in compensable value, provide additional protection against improper assertions of authority over private property.” *Natural Resource Damage Assessments*, 58 FR 39328-01, at 39336 (July 22, 1993). We are not aware of any basis on which the Trustees can demonstrate there is any government involvement, management, or control in the private property that would suggest evaluation of private properties for NRD is appropriate.

***Trustees' Response:*** The New Jersey Zinc/Mobil Chemical Site is on the NPL, with active regulatory oversight. Clearly, there is government involvement and management at this Site.

Some of the cases that the DePue Group cites confirm that Trustees may claim for injuries to natural resources on private lands. For example, in *Satsky v. Paramount Communications*, the Tenth Circuit agreed with Paramount’s argument that property owners were trying to claim for injuries to natural resources on their private property, when those resources were in fact public resources under State of Colorado trusteeship. In *State of Ohio v. U.S. Dept. of the Interior*, the D.C. Circuit confirmed that the government has standing to make claims for natural resource damages on private property: “[i]f the words ‘managed by, held in trust by, appertaining to, or otherwise controlled by’ mean anything at all, they must refer to certain types of governmental (federal, state or local) interests in privately-owned property.” The State has trusteeship over natural resources on private property and has been actively involved in management and oversight of these

resources. Therefore, the Trustees are entitled to claim for natural resource injuries and service losses on these private properties.

**2. The Assessment Plan should be clear that damages will only be assessed for service losses occurring after 1980.**

Trustees cannot recover for NRD under CERCLA “where such damages and the release of a hazardous substance from which such damages resulted have occurred wholly before the enactment of this Act [enacted Dec. 11, 1980].” 42 U.S.C. § 9607(f)(1).

**Trustees’ Response:** At this Site, the damages resulting from hazardous substance releases prior to CERCLA enactment have been accruing in many cases unabated since the time of the release. Natural resources continue to be exposed to and injured by those releases. Thus, the damages from these releases did not occur wholly before the enactment of CERCLA.

Nevertheless, the State Trustees do not intend to accrue damages for interim losses prior to the enactment of CERCLA, as clearly stated in Section 6 of the AP: “Compensable values of the injuries to natural resources and services lost to the public accrue from the time of discharge or release (or the enactment of CERCLA in December 1980, whichever is later) until the attainment of the restoration, replacement, and/or acquisition of the equivalent of the resources and their services to baseline conditions.” Section 6 of the AP reiterates several times that damages began accruing in 1981.

**3. The Site has been fully defined during the RI/FS process and there is no reason to go beyond the established boundaries.**

**Trustees’ Response:** The Remedial Investigation/Feasibility Study (RI/FS) Operable Units (OUs) are areas where concentrations of hazardous substances may be present in sufficient quantities that remedial actions are required to protect human health and the environment. This is not the same as the area where hazardous substances have come to be located and natural resources are potentially injured.

To ensure that the assessment covers the spatial and temporal extent of all potential injuries and service losses to all natural resources held in trust for the public, the assessment area includes all locations where New Jersey Zinc/Mobil Chemical NPL Site hazardous substances have come to be located, and where exposure and injury to natural resources may occur. Over the course of the assessment, the Trustees may conclude that the data do not support an injury claim for certain areas or certain resources, but in an AP, the Trustees need not make *a priori* determinations of the spatial extent of potential injuries or service losses.

**4. The AP does not adequately address baseline in a specific and useful manner for the site. We believe baseline to be a very important issue for OU5 and deserves specific discussion in terms of known baseline impairments that will be evaluated in the assessment process. DePue Lake, in particular, is ecologically impaired from a number of factors are unrelated to the historic operations of the facilities associated with the New Jersey Zinc/Mobil Chemical NPL Site. The “but for” conditions in the Assessment Area for the NRDA need to clearly account for these impairments, yet the AP does not provide any detail regarding how the baseline evaluation will be conducted.**

**Trustees’ Response:** The Trustees agree that baseline conditions deserve specific discussion in this assessment, which will occur during the assessment phase. An AP generally does not list all known stressors affecting baseline conditions, just as it does not list all known releases that may have caused injuries.

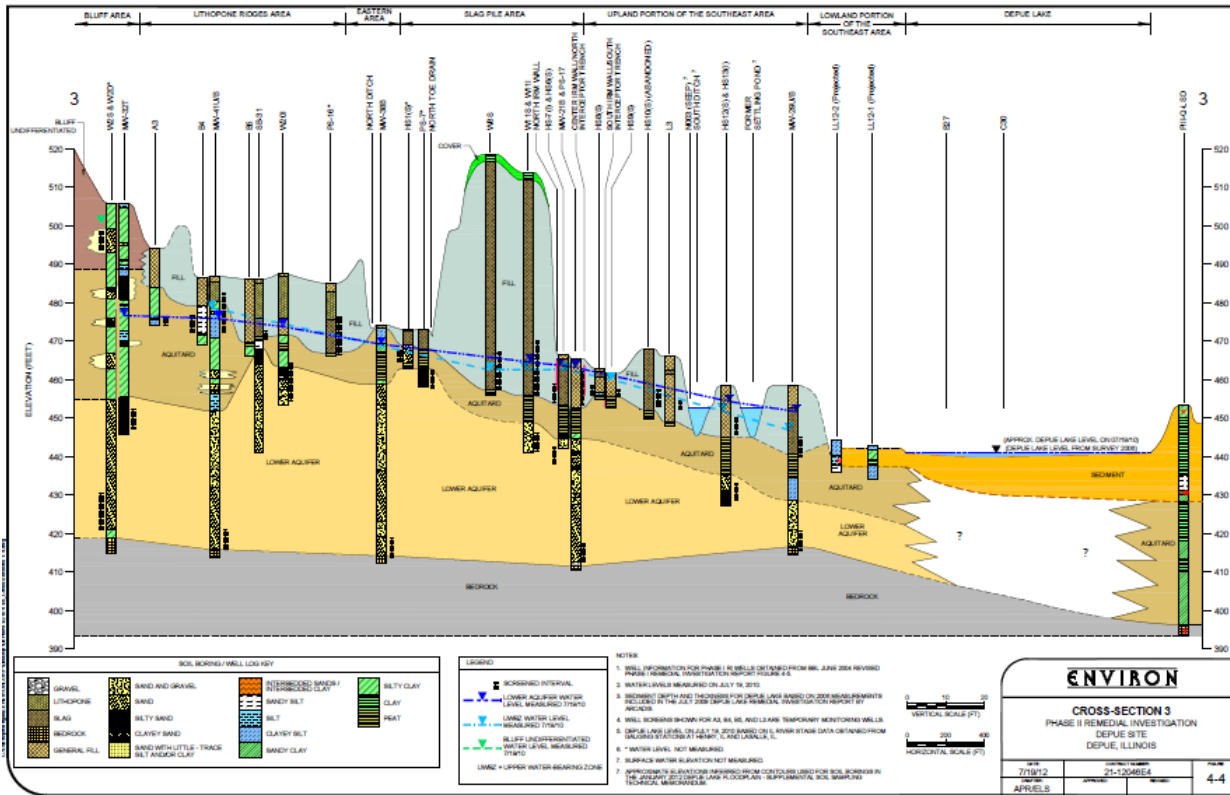
During the assessment, the Trustees will review available data and attempt to distinguish the adverse effects of hazardous substances and adverse effects of other stressors that would be present absent the releases from the New Jersey Zinc/Mobil Chemical NPL Site. As noted in the AP, additional research may be necessary to make this distinction.

**5. The upper water bearing zone (UWBZ) is not a natural feature in geologic material. It should not be considered a groundwater resource and is not appropriate to compare data from the UWBZ to Class I criteria.**

**A. The UWBZ is not a natural feature in geologic material.**

The UWBZ is not a natural feature in geologic material. The UWBZ is composed of non-natural and non-native fill material and created through the placement of waste material on the pre-existing ground surface.

Figure 4-4 below (Phase II RI Report [Environ, 2014]) shows the fill unit (light blue unit), located above the aquitard unit. The UWBZ is located within the fill unit, perched on the aquitard.



**Trustees’ Response:** The Environ (2014) Phase II RI report that has the figure above describes the UWBZ as “permeable saturated zones within the surficial alluvial soils and fill materials...” (Environ, 2014, p. 12). Downgradient wells in the UWBZ are completed in “native sands, silts, and clays” (Environ, 2014, p. 73). The DOI regulations include alluvial soils within the definition of geologic resources [43 CFR § 11.14(s)]. Thus, the UWBZ consists of both fill and natural geologic resources.

**B. The UWBZ contains underground water, but the underground water does not fit the definition of a groundwater resource.**

The water in the UWBZ represents a relatively thin layer of underground water perched in the fill material on the aquitard.

The Illinois Groundwater Protection Act defines groundwater to be a subset of underground water. Groundwater is a more restricted term that "means underground water which occurs within the saturated zone and geologic materials where the fluid pressure in the pore space is equal to or greater than atmospheric pressure" (415 ILCS 55/3(g)).

The UWBZ water does not fit the Illinois Groundwater Protection Act definition of groundwater because it does not occur in geologic materials.

**Trustees’ Response:** As described in the AP, the DOI regulations define groundwater as “water in a saturated zone or stratum beneath the surface of land or water” [11 CFR § 11.14(t)]. The water in the UWBZ meets this definition of groundwater resources.

**C. It is not appropriate to compare data from the UWBZ to Class I criteria.**

The water within the UWBZ does not fit the definition of Class I groundwater (Potable Resource Groundwater) as defined by Chapter 35 of the Illinois Administrative Code Part 620.

Class I groundwater must be located 10 feet or more below the land surface. Based on the thickness of the fill material, most of the UWBZ water is located within 10 feet of ground surface.

Class I groundwater in unconsolidated sand, gravel or sand and gravel must contain 12 percent or less of fines. The UWBZ is composed of various grain sizes of fill material and does not consistently contain 12 percent or less of fines. Based on information presented in Table 4-2 of the Phase II Report, the average percent fines of the fill material is approximately 35%.

**Trustees' Response:** As described in the AP, groundwater contamination data can be compared to State or Federal groundwater criteria. Although some areas of the UWBZ are more than 10 feet below ground surface (Environ, 2014), the Trustees acknowledge that some areas of the UWBZ are shallower and/or contain a higher percentage of fines than Class I groundwater. In these cases, the Trustees may compare hazardous substance concentrations to 35 IAC 620 Class II criteria or Federal Safe Drinking Water Act criteria. The determination of groundwater injury in all affected aquifers, including the selection of appropriate criteria for injury evaluation, will occur during the assessment phase.

**6. The use and classification of groundwater and surface water as a drinking water supply should be considered during the assessment process to ensure a valid and reliable estimate of the damages, if there are any.**

**Trustees' Response:** As summarized in the AP, the DOI regulations (43 CFR Part 11) include multiple definitions of injury for groundwater and surface water resources. Surface water and groundwater resources can be injured, and Trustees are entitled to damages for those injuries, regardless of whether those resources are used as drinking water supplies.

The Trustees intend to consider all natural resource services that groundwater and surface water provide. If the Trustees find that hazardous substance releases from the Site have impacted drinking water services of either surface water or groundwater, they will describe the baseline conditions and the evidence of lost use that guides that conclusion.

**7. The list of chemicals should be limited to the hazardous substances of concern identified in the various remedial investigation and risk assessment reports prepared for the site.**

**Trustees' Response:** As stated on p. 22 of the AP, "The assessment will focus on the primary hazardous substances as described [in RI documents] but will also consider other hazardous substance releases. In addition, the injury assessment will consider constituents that may not be listed as hazardous substances under CERCLA [40 CFR § 302.4] but are a product of reactions resulting from the release of hazardous substances at the Site."

In other words, the hazardous substances that have been the focus of the RIs will also be the focus of the damage assessment, as these are most likely to be causing natural resource injuries. However, as part of the assessment, the Trustees will evaluate all releases from the New Jersey Zinc/Mobil Chemical NPL Site that may be causing injuries, regardless of whether the hazardous substances are the primary contaminants of concern in the RIs or risk assessments.

**8. There is no mention of other potential PRPs in the document.** For example, the State performed dredging of the lake in the 1980 and created the DSDA (Dredge Spoils Disposal Area). Thus, the state arranged for and disposed of dredge spoils that may have resulted in NRD issues. Similarly, the Village may have used slag as fill on public properties such as the lake side park, and other private property owners including the railroad may have used slag as fill on their properties.

**Trustees' Response:** The DOI regulations at 43 CFR 11 require identification and determination of PRPs prior to developing the AP [43 CFR § 11.32(a)]. The regulations further state that if the lead agency under the National Contingency Plan (NCP) has identified PRPs, the Trustees are not required to make further inquiry [43 CFR § 11.32(a)(2)(i)]. The Trustees are proceeding “against most known potentially responsible parties or at least against all those potentially responsible parties responsible for significant portions of the potential injury” [43 CFR § 11.32(a)(2)(ii)]; The PRPs previously identified under the NCP.

**9. The AP includes the collection of unnecessary additional data for the NRDA.** While we recognize that this stipulation will always be included in the process, we do not believe that additional data, beyond those studies presently being finalized (i.e., fingernail clam study in OU5 and the OU3 ecological risk assessment) are necessary or appropriate to reach a settlement in this matter.

**Trustees' Response:** As Comment 9 notes, Trustees have the option to collect additional data as part of the assessment process. The Trustees recognize that the data collected under the RI process are extensive and may be sufficient for this injury assessment. During the assessment phase, the Trustees will evaluate data gaps and, only if necessary, propose additional data collection that the Trustees believe is required to adequately address identified data gaps.

**10. Non-use values should only be considered for unique and widely recognized natural resources that have been irreversibly impacted. The reliability of this valuation approach is highly questionable and should not be considered at this site.** The DOI regulations define “nonuse value” as “the economic value the public derives from natural resources that is independent of any direct use of the services provided.” 43 C.F.R. 11.83(c)(ii). Examples of nonuse values are “existence and bequest values.” 43 C.F.R. 11.83(c)(1). Commentators have observed that nonuse values should be “limited to resources for which no practical substitute exists.” Dale B. Thompson, *Valuing the Environment: The Court's Struggle With Natural Resource Damages*, 32 *Env'tl. L.* 57 at 88 (2002) (discussing related valuation challenges). DOI recognized in promulgating amendments to 43 C.F.R. 11.83 that “[n]onuse values, unlike use values, are not linked to behavior and, thus, are more difficult to validate externally than use values.” *Natural Resource Damage Assessments*, 59 FR 14262-01, at 14265 (March 25, 1994). In 2008, DOI moreover recognized that changes to the section 11.83 would reduce the need to resort to non-use values: “[O]ur revision's focus on compensating for public losses pending restoration with restoration actions rather than monetary damages for the economic value of the losses will provide options for comparing functional losses from resource injuries to functional gains expected from restoration actions, which will reduce the need for trustees to seek to recover the monetary value of passive economic losses such as option and existence value.” *Natural Resource Damages for Hazardous Substances*, 73 FR 57259-01, at 57261 (Oct. 2, 2008). The rulemaking history evidences DOI's intent to promote reliability and reduce the need to invoke non-use or passive economic losses in response to court decisions that illustrate some of the corollary valuation challenges, such as *State of Ohio v. U.S. Dep't of the Interior*, 88- F.2d 432 (D.C. Cir. 1989).

**Trustees' Response:** The arguments presented above are primarily arguments against contingent valuation as a method of calculating nonuse values. The Trustees agree that stated choice surveys designed exclusively to determine the public's willingness-to-pay for nonuse natural resource services are not common. However, stated choice surveys designed to capture all of the values that respondents place on natural resources, including nonuse values, are specifically identified and endorsed in the DOI regulations [43 CFR § 11.83(c)]. The Trustees may consider this approach if they believe that other methods are not capturing the full extent of the damages.

As noted in the AP, the Trustees have identified multiple methods that may be used to quantify damages during the assessment phase; however, the Trustees are unlikely to use all of the methods included in the AP. The Trustees have the option to use methods outlined in the AP, but the final selected methodology will depend on the nature of the injuries and service losses identified during the assessment phase.

## Reference

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Environ. 2014. Phase II Remedial Investigation Report: OU-3: On-Site Soils and Groundwater, DePue Site, DePue, Illinois. Submitted to Illinois Environmental Protection Agency on behalf of the DePue Group by Environ International Corporation, Chicago, IL. February 14.