

**COMMENTS ON
COLORADO NATURAL RESOURCE TRUSTEES' PRE-ASSESSMENT
SCREEN DETERMINATION/PRELIMINARY INJURY
ASSESSMENT
Lowry Landfill Superfund Site
Denver, Colorado
May 14, 2010**

A. INTRODUCTION

This document provides comments from Waste Management of Colorado, Inc. (WMC), Chemical Waste Management, Inc. (CWM), and the City and County of Denver (Denver) on Colorado Natural Resource Trustees' Pre-Assessment Screen Determination/Preliminary Injury Assessment (PAS) for the Lowry Landfill Superfund Site (Site or Landfill). WMC, CWM, and Denver (collectively, Performing Parties) have been performing remediation at the Site pursuant to the 1994 Record of Decision, as amended, and Consent Decree entered into with the United States Environmental Protection Agency ("EPA") in 2005. The remedy utilizes containment, collection, treatment, and monitoring to address the contamination at the Site.¹ EPA has twice performed a Five-Year Review of the remedy, and has concluded that the remedy is protective of human health and the environment and functioning as intended.²

The Performing Parties disagree with certain factual assertions contained in the PAS. The comments below generally address those assertions. However, in the interest of streamlining this document and in lieu of providing a response to every disputed fact, the Performing Parties incorporate by reference the Administrative Record, which provides comprehensive analysis and supporting data regarding the nature and extent of ground water contamination and scope of remediation at the Site.

As set forth below, the PAS does not provide a balanced analysis of the availability of use of natural resources, and improperly fails to acknowledge the benefit of the historical and ongoing remedial and restoration activities of the Performing Parties. The Trustees' claim is overbroad as seeking entitlement to damages for natural resources that have not been injured within the definition of DOI regulations³ or pursuant to any other authority, and are therefore not recoverable as set forth in the PAS.

¹ Five-Year Review Report – Second Review for Lowry Landfill Superfund Site, prepared by U.S. Environmental Protection Agency, Region 8, February 2007. (Second Review)

² Second Review, p. vii.

³ 43 C.F.R. Part 11.

B. THE INJURIES ASSERTED BY THE TRUSTEES ARE NOT CONSISTENT WITH DOI REGULATIONS

The PAS asserts that contamination and loss of service of ground water under and surrounding the Site have resulted in an injury to ground water. DOI regulations do not support this conclusion. "Injury" is defined in the PAS as "a measurable adverse change, either long-or short-term, in the chemical or physical quality or the viability of a natural resource, resulting either directly or indirectly from exposure to a release of a hazardous substance." DOI regulations provide that "injury" encompasses the phrase "loss".⁴ "Loss" means a measurable adverse reduction of a chemical or physical quality or viability of a natural resource.⁵ "Services" means the physical and biological functions performed by the resource including the human uses of those functions.⁶ Application of the DOI regulations to the PAS does not support the claimed injuries, as there has been no loss of service as defined therein.

1. Ground Water in Shallow Aquifers Below the Site

The PAS states that the ground water below the Landfill is known to contain hazardous substances exceeding ground water standards, and cannot be used in any way that could cause exposure. Insofar as the Trustees contend that deep ground water is contaminated or has otherwise been adversely impacted, such contention is erroneous, is unsupported by any data, and is not reflected in the Administrative Record. Further, this assertion fails to acknowledge that the shallow ground water is being remediated and depletions are replaced by augmentation. The remedial action at the Site includes containment, extraction, and treatment of contaminated ground water, which is ultimately discharged into the South Platte River and thus available for use. Additionally, pursuant to an augmentation plan memorialized in a December 2004 Decree of the Water Court and as subsequently modified or revised (Augmentation Plan), the Lowry Trust purchases potable water that is injected into the aquifers on-site, at volumes that exceed the volume of ground water that is extracted for treatment. These volumes are replaced in a timely manner pending restoration. Consequently, neither the stream nor any water user is deprived of any water. Thus, there is no loss of use of services.⁷

Further, the not non-tributary ground water underlying the Site has not been subjected to loss of use. No claims have been made by any water rights holders or potential appropriators, and Denver holds the adjudicated exclusive right to withdraw and use ground water in all non-tributary and not non-tributary aquifers underlying the Site.

2. Institutional Controls

The PAS asserts loss of use of services resulting from institutional controls on and surrounding the Site. However, it fails to identify any instances of any person or entity claiming

⁴ 43 C.F.R. § 11.14(v)

⁵ 43 C.F.R. 11.14(x)

⁶ 43 C.F.R. § 11.14(nn)

⁷ See State of New Mexico v. General Electric Co., 467 F.3d 1223 (10th Cir. 2006).

inability to access ground water. Pursuant to various Decrees of the Water Court, Denver, WMC and the Lowry Trust⁸ collectively have the sole and exclusive right to withdraw and use ground water in all of the aquifers subject to on-site and off-site institutional controls. The mere existence of institutional controls does not translate to loss of use, and in fact the ground water subject to those institutional controls can be accessed and is put to use, which use includes remedial purposes.

On-Site Institutional Controls

The deep aquifers under the Site are not contaminated and can be put to direct use or stored for subsequent use, or can be used for exchange, augmentation or replacement purposes on or off the Site. Additionally, storage of ground water is a beneficial use of that resource as it increases off-site groundwater yields. Further, the ground water beneath the Landfill flows off-site and can thus be accessed elsewhere.

Off-Site Institutional Controls

The Performing Parties voluntarily imposed use restriction upon the off-site water rights that they own, which can be withdrawn or modified without agency involvement or approval. The PAS characterizes these as institutional controls, which is among the legal conclusions drawn by the Trustees to which the Performing Parties object.

The remedy is not based upon implementation of off-site use restrictions, even if they are denominated institutional controls. EPA did not rely upon those restrictions to determine the effectiveness of the remedy.⁹ The aquifers underlying the areas subject to institutional controls can be, and in certain instances are, accessed for ground water use.

3. 1,4-Dioxane Plume Off-Site

The Trustees acknowledge that the 1,4- dioxane found off-site has not affected any drinking water source and has not reached any deep ground water aquifer. As an initial matter, this plume is treated and depletions are replaced under the Augmentation Plan. The ground water is replaced in a timely manner pending restoration. Further, because the plume has affected only the over-appropriated tributary water which would be unavailable for use for the reasons discussed in paragraph 1, above, no injury has been caused.

The PAS also fails to acknowledge further mitigation resulting from additional extraction wells designed to prevent migration and reduce levels of 1,4-dioxane in the tributary ground water.

⁸ Lowry Environmental Protection/Cleanup Trust Fund, established for remediation of the Site.

⁹ Record of Decision, Section 14.1

C. THE PAS FAILS TO ACCOUNT FOR MITIGATION

The Trustees seek damages to restore injured natural resources to baseline conditions, compensation for interim losses, and any damages that remain after any response action. "Restoration" is defined as actions undertaken to return an injured resource to its baseline condition, when such actions are in addition to response actions completed or anticipated, and when such actions exceed the level of response actions determined appropriate to the site.¹⁰ Determination of damages should take into account mitigation of injuries by or effects of response actions taken or anticipated.¹¹

The PAS fails to take into account 1) the benefits of remedial action and 2) the actions taken by the Performing Parties at and in proximity to the Site that are voluntary, not required components of the remedy, and that have mitigated injuries. The mitigating factors that have not been taken into account include the following:

- i) Performing Parties' construction of replacement wetlands in excess of that required by the remedy;
- ii) Increase in off-site ground water yields, thereby extending well life resulting from long-term storage of ground water, which also provides available water for times of scarcity;
- iii) Historic and ongoing injection of potable water into the aquifers and discharge of treated water into the surface waters of the South Platte River basin at volumes in excess of the volume of impacted ground water extracted for treatment;
- iv) Construction of extraction wells designed to prevent migration and reduce levels of 1,4-dioxane in the tributary ground water; and
- v) Use of on-site and off-site ground water for industrial use (e.g. construction water for liner construction).

D. RESTORATION PROJECT

The injuries stated in the PAS are not consistent with the DOI regulations for the reasons set forth above. However, in an effort to avoid lengthy and costly litigation and without making any admission, this document is being submitted contemporaneously with a Complaint and Notice of Lodging of Proposed Performing Parties Consent Decree being filed by the Trustees in the United States District Court for the District of Colorado. The Proposed Consent Decree provides, among other things, that the Performing Parties pay to the State the sum of \$500,000, to be used only to establish or supplement an existing revolving loan fund or funds that will provide no- or low-interest loans to households with a demonstrated financial need for the repair of private residential sanitary sewer failures. The purpose of this restoration project is to improve water quality in the South Platte River watershed.

¹⁰ 43 C.F.R. § 11.13(ll)

¹¹ 43 C.F.R. § 11.15(a)(1) and § 11.84(c)(2)

E. CONCLUSION

There is no reasonable probability that the Trustees can succeed on all of their claims for natural resource damages. For the reasons stated above, no basis exists to support the assertion that 151,935 acre feet of ground water have been injured to justify damages in the range of \$2,418,000 to \$3,470,000. Recognizing that the Trustees cannot successfully make a claim for all of the injuries claimed, the restoration project set forth in the proposed Performing Parties Consent Decree is more than equitable and fair as a resolution to the Trustees' claims. Although basis exists to challenge these claims, the provisions of the Performing Parties Consent Decree obviates the need for costly litigation, promotes judicial economy, and ultimately furthers the Trustees' goal of protecting the natural resources of the citizens of Colorado.