

Mr. Steve Clough
Remediation Director
Nevada Environmental Response Trust
510 4th Street
Henderson, Nevada 89015

**JULY 15, 2015 MEETING SUMMARY AND BHRA PATH FORWARD
NEVADA ENVIRONMENTAL RESPONSE TRUST SITE
HENDERSON, NEVADA**

Dear Mr. Clough,

On behalf of the Nevada Environmental Response Trust (the Trust), Ramboll Environ has prepared this letter to summarize salient points from the July 15, 2015 meeting with the Nevada Division of Environmental Protection (NDEP) and to identify a path forward for the health risk assessment tasks for the Facility Area at the Nevada Environmental Response Trust Site (the Site). The purpose of the meeting was to discuss the *Interim Report, Preliminary Selection of Facility Area COPCs* (interim COPC report)¹. The meeting was attended by representatives of NDEP, NDEP consultants, the Trust, and Ramboll Environ.

The May 2015 interim COPC report included a preliminary identification of chemicals of potential concern (COPCs) for the Facility Area. Recognizing that COPC selection is the first step in the risk assessment process, the Trust was seeking early input from NDEP on the overall selection approach before continuing with the subsequent steps of the risk assessment, all of which depend on the identified COPCs. A second objective of the report was to provide the project team with a preliminary list of soil COPCs. The Data Usability Evaluation (DUE), which is typically conducted before COPC selection, was not included in the report, but was identified for inclusion in the baseline health risk assessment (BHRA) report. The list of COPCs identified is considered subject to change, recognizing that the DUE has not been completed and that additional soil samples were being collected at the time the interim COPC report was prepared.

The following summarizes the outcome of meeting discussion items relevant to the scope of the Facility Area BHRA and identifies agreed-upon modifications to the methodology presented in the NDEP-approved

Date August 19, 2015

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¹ Ramboll Environ. 2015. *Interim Report, Preliminary Selection of Facility Area COPCs*. Nevada Environmental Response Trust Site, Henderson, Nevada, May.

*Baseline Health Risk Assessment Work Plan (BHRA Work Plan)*². Associated risk assessment deliverables are also identified.

Baseline Health Risk Assessment: Revised Scope and Points of Clarification

- ***Revised Scope***

Background: For risk assessment purposes, the interim COPC report divided the Facility Area into two distinct areas, outside Excavation Control Area (ECA) soils and inside ECA soils. Outside ECA soils were addressed as part of the 2010-2011 interim soil removal action. Also as part of this interim removal action, ECAs were identified that included areas deemed inaccessible for removal due to physical constraints (e.g., presence of existing structures or utility lines). All ECAs are subject to the *Site Management Plan (SMP)*³, which describes established measures to mitigate risks to human health and the environment related to exposure to any residual COPCs during periods of typical operations. All current and future site occupants are required to adhere to the procedures described in the SMP.

Path forward: Considering the risk mitigation measures in place for ECAs, it was agreed that a BHRA would not be required for ECAs. Separately, the Trust will conduct an evaluation of existing ECAs and determine an appropriate path forward regarding its plans for future land use. All parties agreed that this would be acceptable.

- ***Data Usability Evaluation***

The DUE was not included in the interim COPC report, as we anticipated that the DUE would have little to no impact on the COPC selection step, which was the primary focus of the report. Further, NDEP had previously suggested that the DUE be conducted separately for each of the exposure units (EUs) and these have not yet been defined. Finally, at the time the interim COPC report was being prepared, fieldwork was ongoing such that the soil data set was incomplete. It was clarified that the DUE will be included in the next interim risk assessment deliverable submitted to NDEP. All parties agreed that this would be acceptable.

- ***Background Evaluation***

The background analysis presented in the COPC interim report for outside ECA areas will be included in the next interim deliverable. Specifically, for all metals and radionuclides, the evaluation will include: (1) summary statistics and results of the Shapiro-Wilk test; (2) box-and-whisker plots; and (3) Q-Q plots. For radionuclides, tests of secular equilibrium will also be included. All parties agreed that this approach would be acceptable.

- ***COPC Selection Methodology***

The COPC selection process will be revised as discussed during the meeting. Specifically, the order of the 3-step selection process will be as follows:

1. Concentration/toxicity screen;
2. Background evaluation; and
3. Chemical-specific considerations.

² ENVIRON International Corporation (ENVIRON). 2014. *Baseline Health Risk Assessment Work Plan*, Revision 0, Nevada Environmental Response Trust Site, Henderson, Nevada. February 28. NDEP approved May 20, 2014.

³ Ramboll Environ. 2015. *Site Management Plan, Revision 2*. Nevada Environmental Response Trust Site, Henderson, Nevada. July 17. Under NDEP review.

In addition, it was agreed that the screening criterion used for the concentration/toxicity screen would be 0.1 x BCL (the Basic Comparison Level) for all analytes.

It is noted that the final list of COPCs is independent of the order in which the selection process is performed. However, it is anticipated that conducting the concentration/toxicity screen before the background evaluation will streamline the COPC selection process. Background evaluations that include review or analysis beyond the steps identified under Background Evaluation above will be conducted only for those metals and radionuclides that are not eliminated as a COPC based on the concentration/toxicity screen and for which additional evaluation is warranted.

- **Dioxins/Furans**

The value of 2,700 parts per trillion (ppt) will continue to be used as a “bright line” for screening dioxin toxicity equivalents (dioxin TEQs) for COPC selection. As described in the NDEP-approved 2014 BHRA Work Plan⁴, risks associated with exposures to dioxin TEQs will be quantified only if residual TEQ concentrations exceed 2,700 ppt. The BHRA report will include supporting information for the use of this value, noting that it is a site-specific value derived based on the results of a bioaccessibility study⁵.

- **Asbestos**

Although asbestos was identified as a preliminary COPC in the COPC interim report, the report did not include a table summarizing the asbestos results. It was clarified that a summary table will be included in next interim risk assessment deliverable.

Baseline Health Risk Assessment Deliverables

The following identifies submitted deliverables and those currently in preparation to support the risk assessment task for the Facility Area.

1. *Baseline Risk Assessment Work Plan, Revision 0* (dated February 28, 2014).⁶ The NDEP-approved work plan presents the risk assessment methodology for the Facility Area. Based on discussions at the July 15, 2015 meeting, this letter clarifies specific elements of the risk assessment approach and identifies agreed-upon revisions to the methodology presented in the work plan.
2. *Interim Report, Preliminary Selection of Facility Area COPCs* (dated May 2015).⁷ This interim report was submitted to NDEP for comment on the COPC selection approach. NDEP provided draft comments and as noted previously, NDEP’s comments were discussed at the July 15, 2015 meeting in Las Vegas. This letter summarizes the decisions reached during the meeting and outlines the proposed path forward. No additional revisions to this interim report are planned, as the revisions agreed to during the meeting, and presented in this letter, will be incorporated into the second interim risk assessment deliverable, described below.

⁴ ENVIRON 2014, *op. cit.*

⁵ Northgate Environmental Management, Inc. 2010. *Results of Bioaccessibility Study for Dioxins/Furans in Soil*, Tronox LLC, Henderson, Nevada. May 24. NDEP approved May 25, 2010.

⁶ ENVIRON 2014, *op. cit.*

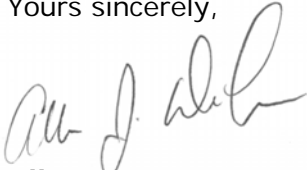
⁷ Ramboll Environ 2015, *op. cit.*

3. *Interim Report: COPC Selection and Identification of Exposure Units for Outside ECA Soils.* This second BHRA interim report will incorporate the revisions identified above, replace the *Preliminary Selection of Facility Area COPCs* submittal (dated May 2015), and present a "final" list of COPCs, recognizing that further revisions to the COPC list could be made if field work is still ongoing at the time the deliverable is submitted. The report will include the historical data presented in the interim COPC report and incorporate all validated analytical results from soil samples collected since 2011. It is anticipated that this second interim report will be submitted in the winter of 2016.
4. *Baseline Human Health Risk Assessment for Outside ECA Soils.* The BHRA report will present all steps of the risk assessment, to include the sections submitted as interim reports and the remaining steps and conclusions of the risk assessment for outside ECA soils.
5. *Soils Risk Assessment Data Set.* Ramboll Environ will provide NDEP with a copy of the soils data set used to develop the preliminary list of COPCs for the outside ECA soils, as presented in the interim COPC report. This transmittal will include soil samples collected through 2011, and will provide sample locations, sample IDs, and sample depths. The data set will be provided in EQUIS format by August 31, 2015.

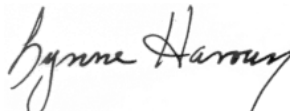
The review and categorization of ECAs and risk assessments for individual ECAs, if any, will be conducted on a separate track from that of the risk assessment tasks being completed for the outside ECA soils.

Please contact Lynne Haroun at (510) 420-2560 or Allan DeLorme at (510) 420-2565 if you have any comments or questions concerning this report.

Yours sincerely,



Allan J. DeLorme, PE
Principal



Lynne Haroun, MPH
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