

Nevada Environmental Response Trust Site

Annual 2023 Update

Fact Sheet #13

HENDERSON, NEVADA

Updated January 2024

① Una versión en español de este documento también está disponible en el sitio web www.NERT-Trust.com o al contactar a James Dotchin (JD) por teléfono (702-668-3914) o por correo electrónico (jdotchin@ndep.nv.gov).

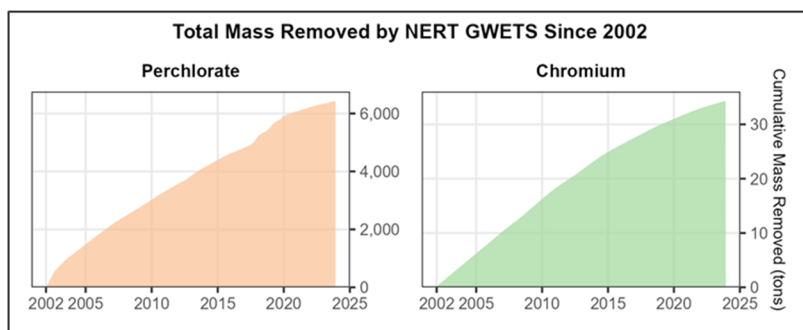
Overview — The Nevada Division of Environmental Protection (NDEP) and the United States Environmental Protection Agency (USEPA) oversee cleanup activities at the Nevada Environmental Response Trust (NERT) Site, a part of the Black Mountain Industrial (BMI) Complex in Henderson, Nevada. When the Tronox, Inc. bankruptcy was approved by the court in 2011, the former Tronox property, now called the NERT Site, was transferred to NERT, also known as the Trust. The Trust does not conduct any business at the NERT Site. Its primary purpose is to implement environmental cleanup activities to address contamination from operations occurring at the NERT Site before the Trust's formation.

Key Facts:

- Since 2007, NDEP has been informing the community on the cleanup progress, and this fact sheet provides an update on activities performed in 2023.
- The cleanup of groundwater contaminated by former operations at the NERT Site began in 1987 and continues today. Since treatment began, the total amount of perchlorate removed is approximately 12.9 million pounds, with about 215,000 pounds removed in 2023.
- **Groundwater is not a source of drinking water in the City of Henderson.**
- The groundwater extraction and treatment system (GWETS) has reduced the amount of perchlorate contamination from the NERT Site entering the Las Vegas Wash, which flows into Lake Mead, by more than 90% relative to 2000 levels, increasing the overall water quality of Lake Mead and the downstream Colorado River.
- Planned investigations regarding the nature and extent of contamination are complete.
- Seven key documents assessing area investigations and future cleanup evaluations were submitted by NERT over the past 12 months, representing over 9,000 pages of material.
- Various groundwater treatment options are currently being tested to determine the best long-term solutions.

Cleanup at the NERT Site — Historical operations at the NERT Site, used for various industrial operations since 1942, contaminated the soil and underlying groundwater with four primary chemicals. The most widespread of the four, perchlorate and chlorate, were manufactured at the NERT Site and were often used to produce rocket fuel, missiles, fireworks, flares, and explosives. While not manufactured at the NERT Site, two additional chemicals, hexavalent chromium and chloroform, have been detected in lesser quantities at the NERT Site.

Some of this contamination moved off-site via groundwater as far north as the Las Vegas Wash. Process wastewater from historical operations also moved northeast of the NERT Site through unlined ditches into unlined ponds. After 1976, unlined ditches stopped being used for process wastewater, and the unlined off-site ponds closed. The Trust continues to operate a groundwater extraction and treatment system (GWETS), reducing Las Vegas Wash contamination from the NERT Site by more than 90% relative to 2000 levels.



NDEP established the NERT Remedial Investigation Study Area (Study Area) to evaluate the contamination. This Study Area includes the NERT Site and areas to the north, east, and northeast of the NERT Site. It is divided into three sub-areas termed operable units (OUs), shown in the figure included in the mailer. Each of the three OUs has its own set of cleanup goals, to mitigate or minimize the movement of contaminated groundwater from the Study Area to the Las Vegas Wash to be protective of Lake Mead and the Colorado River.

Progress Towards Meeting Cleanup Goals — NERT Site cleanup follows the USEPA and the State of Nevada environmental rules. Using the Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as CERCLA or Superfund, NERT is progressing in the cleanup. This process helps identify, investigate, and cleanup sites to protect the public and the environment. Contamination in all three of NERT’s OUs has been defined through investigations. The next step in the process is an engineering evaluation of cleanup options called a Feasibility Study. NDEP will propose a final remedy once the Feasibility Study is complete. Currently, solicitation for public comment on the proposed plan for at least two of NERT’s three OUs is slated for 2026.

Important tasks achieved by NERT in 2023 included:

- 1 NDEP approved four of the seven key documents submitted in 2023:
 - a The human health risk assessment performed for soil gas and groundwater in OU-1.
 - b The human health risk assessment performed for soil gas and groundwater in OU-2, including an indoor air evaluation in the Pittman neighborhood.
 - c The work plan for the Feasibility Study for OU-1 and OU-2.
 - d The pilot study report evaluating the effectiveness of treating contaminated groundwater with a hydrogen-based gas-permeable membrane.

The Trust is revising one document to address NDEP comments. Two additional documents related to different aspects of the investigation and evaluation of risk are under review by NDEP.

- 2 A second treatment system called the Treatment System Extension (TSE), was brought online in June 2023 to treat perchlorate-impacted groundwater extracted on an adjacent site.

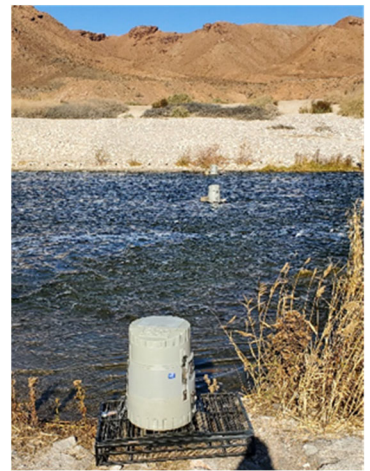
Risk Assessment Findings — NERT’s risk assessment reports for OU-1 and OU-2 concluded that risks due to exposure to NERT contaminants are within the acceptable range established by NDEP and USEPA for the Site for all receptors (e.g., residents, workers, birds, mammals, or plants). In addition, the 2022 NDEP-directed indoor air investigation for chloroform in the Pittman Neighborhood confirmed the modeling results presented within the reports. NERT continued conducting risk assessments in OU-3 in 2023 and anticipates submitting these risk assessment reports to NDEP in 2024.



Additional information — Additional information about the NERT Site, local drinking water, and other investigations within the Black Mountain Industrial (BMI) Complex is accessible by scanning the QR code with your smart phone’s camera or the following link: <https://bit.ly/33HzDcZ>



Investigation Findings — NERT completed its planned investigations of OU-1, OU-2, and OU-3, focusing on contaminated groundwater that has moved from the NERT Site toward and into the Las Vegas Wash. More than 64,000 analyses were performed on approximately 11,500 samples over nine years. The analyses produced over 480,000 analytical results, ensuring NERT has a comprehensive understanding of the environmental conditions within



High Frequency Surface Water Sampling at the Las Vegas

the Study Area. The investigations evaluated potential contamination in soil, soil gas, groundwater, surface water, sediment, and possible exposure to key contaminants to ecological receptors (e.g., plants and animals) in the Las Vegas Wash.

The revised Remedial Investigation Report for OU-1 and OU-2 was submitted by NERT in August 2023. NERT received a comment from NDEP in December 2023 and an additional comment in January 2024. A revised report will be submitted by February 29, 2024. This report summarizes the results of the investigations and details the nature (i.e., what chemicals) and extent (i.e., where they are) of the contamination from the NERT Site within the boundaries of OU-1 and OU-2.

NERT expects to submit a second remedial investigation report containing the findings of the investigations within the boundaries of OU-3 in 2024.

Treatability and Pilot Study Results — NERT is field testing several potential technologies to reduce contamination in soil and groundwater. To date, ten studies have either been completed or are in progress. Preliminary results have shown certain remedial technologies dramatically lower contaminant concentrations and prevent further migration of contaminants. The studies are expected to be completed in 2024.

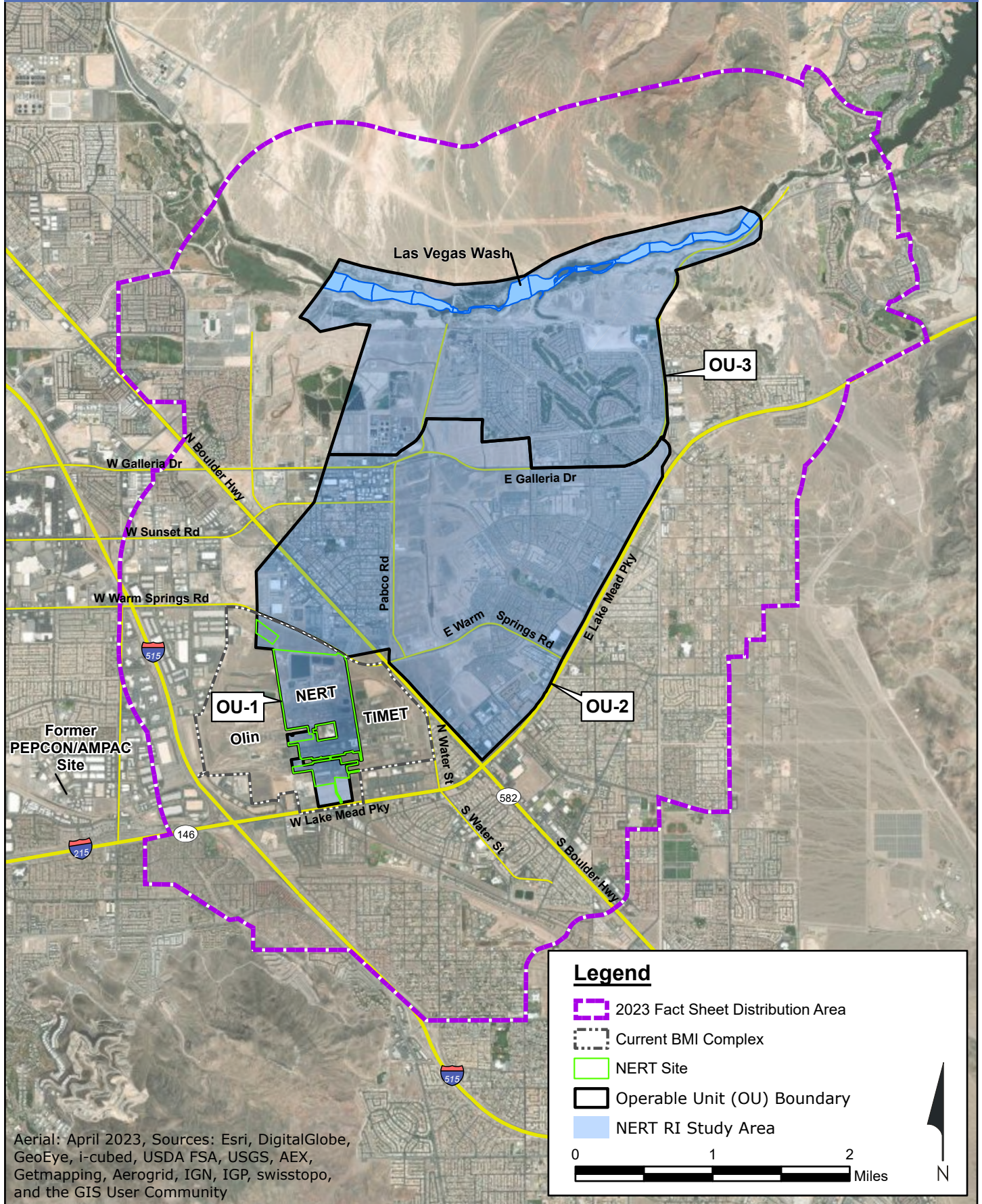


Zero Valent Iron Installation for a NERT Treatability Study

If you have any questions, please contact the Community Involvement Coordinator at NDEP:

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Nevada Environmental Response Trust (NERT) Remedial Investigation (RI) Study Area 2023 Fact Sheet Distribution Area



Aerial: April 2023, Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community