

A half-day field trip will take participants to the Las Vegas Wash area near Henderson where two RCRA facilities with extensive perchlorate plumes have begun corrective actions. The perchlorate contamination from this area has impacted the Colorado River downstream of Lake Mead and is now present in low levels throughout the Southwest where river water has been exported from the basin for water supply.

There are two RCRA facilities—Tronox and AMPAC—in the Henderson area. The Tronox facility is still active and will not be visited. The Nevada Division of Environmental Protection staff will provide an overview of the Tronox corrective action, a ground-water pump and treat system with three extraction wellfields and five fluidized bed reactors for perchlorate treatment with discharge of treated water to the Wash. The AMPAC facility is no longer active and is open land. The approximately 3-mile-long perchlorate plume is addressed through an in-situ bioremediation system. An extraction wellfield is located at the 2-mile plume transect. The extracted ground water is run through a pretreatment/filtration process and perchlorate levels are assessed. The pretreated ground water is then piped to an injection wellfield at the 3-mile plume transect and an electron donor is run in a separate line meeting the pretreated water at an in-line mixing vault; the mixture is then injected into the aquifer for in-situ treatment. The concept is to produce a bioremediation zone around the injection wells to reduce perchlorate levels to the State water-quality standard of 18 ppb. After an overview of the site conceptual model is given by the Nevada Division of Environmental Protection staff, a briefing on the corrective action and O&M of the system will be provided by facility representatives at the laboratory facility and operations control center.

After departing AMPAC, an overview of the plumes will be provided as we travel down Las Vegas Wash. At the point where the plumes discharge to the Wash, a briefing will be provided by Southern Nevada Water Development Authority (SNWDA) staff on the monitoring conducted to project the ongoing impacts to the Colorado River. The hydrogeology of this area is very complex and SNWDA are building erosion control structures as an aspect of controlling discharge of perchlorate-contaminated ground water. Discussions will focus on ground-water/surface-water interactions in this area of the wash.