

# AEG Southern Nevada Chapter Annual Field Trip: “Hoover Dam Landfill”

## And RSVP Information

**June 3, 2023, 8:00 AM**

Led By: Ben Moan, P.E., Supervisor, Nevada Division of Environmental Protection (NDEP), Bureau of Corrective Actions (BCA) and Jeffery Smith, E.P., Regional Hazmat/Integrated Pest Management Coordinator, Bureau of Reclamation (BOR), Lower Colorado Basin Region 8

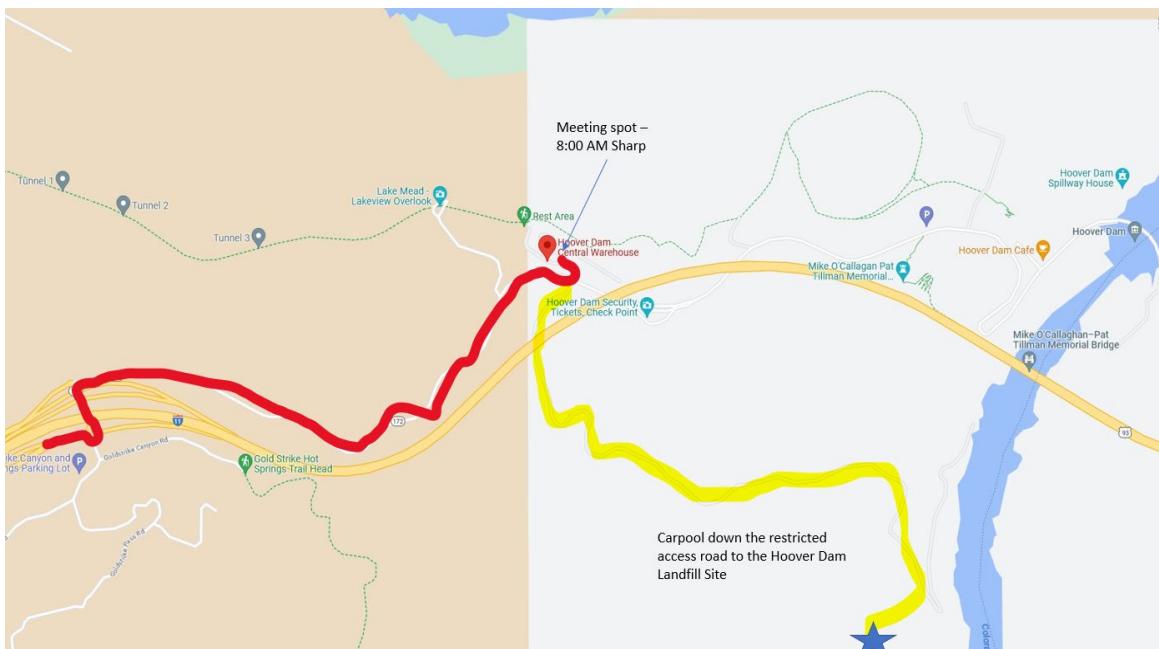
### Abstract:

The “Hoover Dam Landfill” site is located on the Nevada side of the Colorado River, approximately 1 mile downstream from Hoover Dam. During dam construction between 1931 and 1935, native rock excavated from river water diversion tunnels, along with rock and muck from the river bottom at the dam site, was terraced in a side canyon of Black Canyon. From approximately the 1930s through the 1980s, solid waste, primarily consisting of construction debris, was deposited at the site, which was not a regulated or lined landfill.

In 2018, the United States Bureau of Reclamation (BOR) collected surface soil samples from multiple locations at the site, and reported exceedances of soil reportable concentrations for arsenic, manganese, lead, chromium, and cadmium. NDEP opened a corrective actions case based on the discovery report. Site characterization and mitigation is ongoing, and impacted by several challenges:

- There is no evidence to date that the solid waste was disposal of hazardous material. The elevated soil metals concentrations appear to be related to debris and waste that contains metals.
- Some of the waste is partially buried or could be considered historic.
- The site slopes are steep, and in some areas represent the angle of repose of the muck rock.
- Site access is limited by an 11' × 11' tunnel, precluding the use of large excavation equipment or drill rigs.
- Arsenic and manganese are likely to naturally occur at elevated concentrations, given the volcanic rock and soil site at the Site.

**Meeting Location:** “Hoover Dam Central Warehouse” should show up in Google Maps or similar navigation app. The warehouse does not have a standard street address. Please see the map below:



Take Interstate 11 exit 2 for NV-172, Hoover Dam. Proceed east on 172 toward the dam for about 1.5 miles. The warehouse is on the left side, just before NV-172 crosses underneath I-11 and reaches the dam security checkpoint. We'll wait a few minutes for anyone who is running late, but once we carpool from the warehouse down to the site, access will be closed to anyone who has not arrived by then. There are no restrooms at the site.

We'll combine into as few cars as possible and carpool to the landfill. BOR personnel will grant us access to a paved road leading to the bottom of the dam. The landfill site is accessed by a side dirt road, which passes through a rock tunnel and winds back up the slope to a law enforcement shooting range. Along the way we'll stop for pictures of Hoover Dam from below, an intermittent natural steam vent, and several locations where site assessment, waste removal, slope stabilization, and soil excavation are occurring or planned. 4WD is not necessary, but medium to high clearance and good tire traction are helpful.

It will likely be hot, hence the early start time. The field trip should take 2-3 hours and will involve some walking around, but no serious hiking. Please bring: WATER, hat/sunscreen, snacks, and sturdy shoes or hiking boots with good soles, due to the nature of waste and debris at the site.

**The field trips and geology hikes are free to AEG members, including student members, \$20 to non-members, and \$10 to non-member students. Please bring cash, which will be collected in the field. Space is limited, but *members are guaranteed a place on the trip*. This is a good time to support your profession by joining our AEG chapter. Here is the link to our chapter website for you to join AEG: <https://www.aegsnv.org/join-aeg>**

**Please register by emailing Glenn Hale at Best in the West Safety ([kb7reo@yahoo.com](mailto:kb7reo@yahoo.com)) no later than May 31, 2023, so that a final list of attendees can be provided to the U. S. Bureau of Reclamation. And indicate whether you are a member, student member, non-member, or student non-member.**

#### **Bios:**

**Ben Moan** is a supervisor in the Nevada Division of Environmental Protection (NDEP) Bureau of Corrective Actions (BCA) Las Vegas office. BCA oversees remediation of hazardous materials and petroleum hydrocarbons released to soil and groundwater. Most of the releases occur from leaking underground storage tanks (USTs), dry cleaning operations, and vehicle accidents. Ben earned a BS in Geology (2003) and an ME in Environmental Engineering (2014) from Northern Arizona University. Ben worked for 10 years in an environmental analytical chemistry lab before moving to Las Vegas in 2015. He worked at TIMET in Henderson as a process engineer and environmental compliance engineer for two-and-a-half years prior to joining NDEP in 2017. At NDEP, Ben worked as a case officer overseeing approximately 40 remediation cases before becoming a supervisor in December of 2019. Ben is licensed as a Professional Engineer in Nevada.

**Jeffery Smith:** Bio to come.