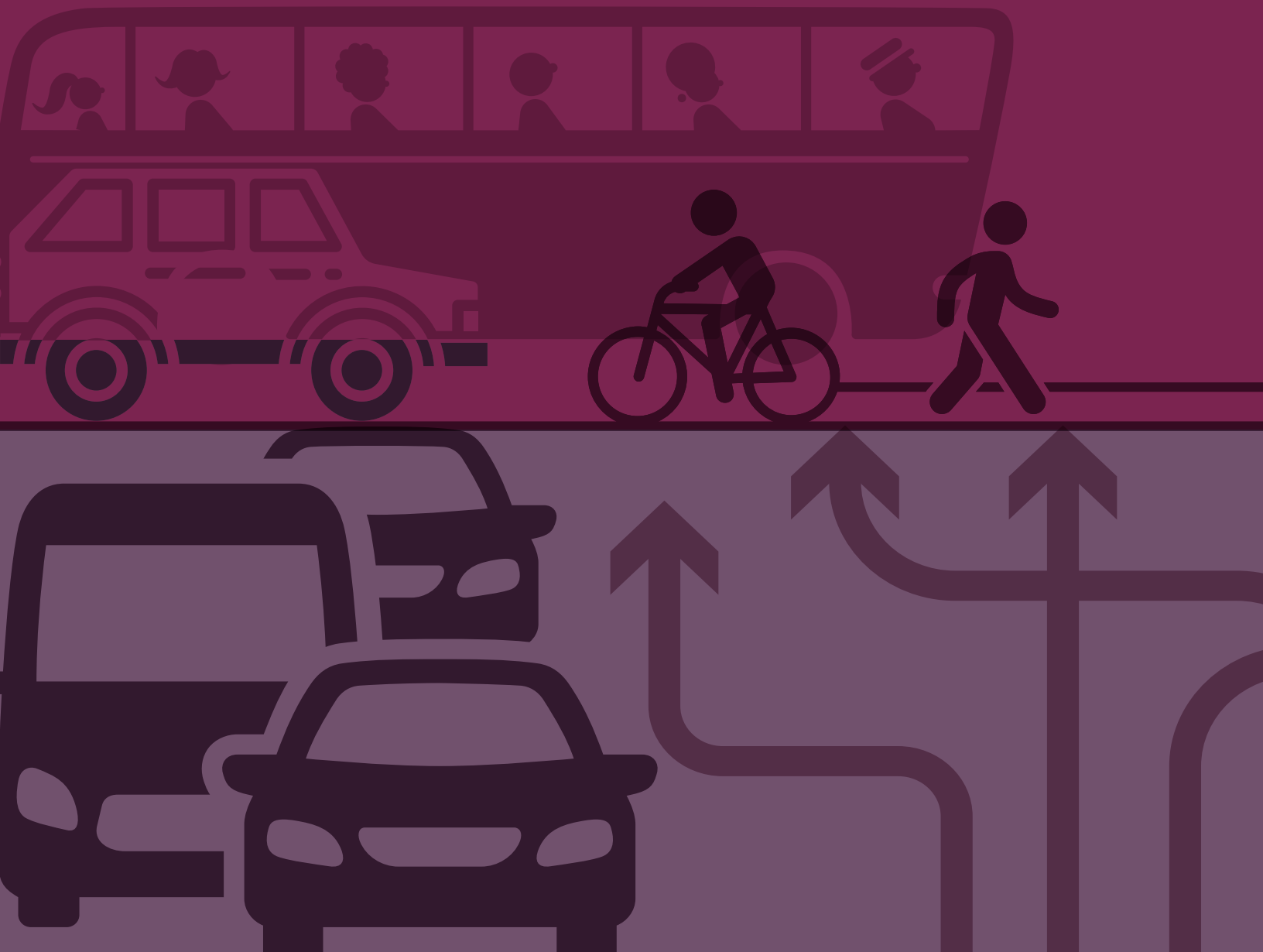


# Appendix H: Environmental Mitigation



## APPENDIX H - ENVIRONMENTAL MITIGATION

This report provides information about the ways transportation planning minimizes or mitigates impacts on environmental and community resources. Federal planning requirements identified in 23 CFR Part 450 Subpart C direct MPOs to include a discussion of potential environmental mitigation activities in the regional transportation plan. This is a discussion of programs and strategies, rather than project-level actions. These programs build on the continuing consultation that RTC facilities with state, local, and federal agencies. Appendix H measures are in addition to the analysis of greenhouse gas emissions, climate resilience, and mitigation to address the needs of extreme heat that are provided in Chapter 4 of the RTP and Appendix E.

### Transportation in the Community- Natural and Cultural Resources

Within private lands in Southern Nevada, the natural environmental impacts of development are mitigated according to the Clark County Multiple Species Habitat Conservation Plan. Mitigation strategies for other impacts are incorporated into the project planning process as part of National Environmental Policy Act (NEPA) compliance for federally funded projects. The purpose of this discussion is to direct project proponents to sources of information about environmental conditions that could impact their project, accepted mitigation strategies, and relevant sections of the Let's Go 2050 Plan.

A key element of mitigation is the ongoing consultation and cooperation among agencies with land management and environmental responsibilities in Clark County.

## Coordination with Jurisdictional and Regional Land Use Planning

RTC coordinates with local agencies to support the seamless integration of transportation and land use. Each jurisdiction administers its own development review processes. Upon request, the RTC provides local jurisdictions with comments on applications for major developments. Such applications include Projects of Regional Significance and mixed-use development projects. This procedure allows the RTC to encourage the inclusion of appropriate transit and non-motorized facilities in major and mixed-use projects.

### Historic Resources

Historic sites and buildings are identified by local governments, the State Office of Historic Preservation, and organizations involved in historic preservation. Federal rules establish the criteria for eligibility for the National Register of Historic Places (Title 36, Chapter 1, Part 60, Section 60.4). The City of Las Vegas Historic Designation Overlay District ordinance establishes criteria for local historic designations. A district, site, building, structure, or object may be designated on the City of Las Vegas Historic Property Register if it meets the National Register of Historic Places criteria or is determined to be of exceptional local significance and expresses a distinctive character because:

- ▶ A significant portion is at least 40 years old;
- ▶ It is reflective of the City's cultural, social, political, or economic past; and
- ▶ It is either associated with a historically significant person or event, or it represents an established and familiar visual feature because of its location or singular physical appearance.

Consideration of historic resources should be integrated into early phases of project planning. Clark County Assessor data may be used to identify the age of buildings/structures throughout the County. While Assessor data is useful in initial project studies, it is not a substitute for the historic

and archaeological surveys that must be part of any NEPA or Section 106 of the National Historic Preservation Act compliance process.

## Coordination with Federal Land Use Planning

Federal agencies manage about 90% of land in Clark County. Some of these areas may present significant challenges for project implementation and represent a “fatal flaw” if included in roadway right-of-way alternatives. To protect species within these areas, it may be appropriate to include wildlife crossings in project design. Such crossings consist of signs warning motorists of roadway crossing points, small tunnels under the roadway, and exclusive use bridges over the roadway. Public lands are shown in Figure H-2.

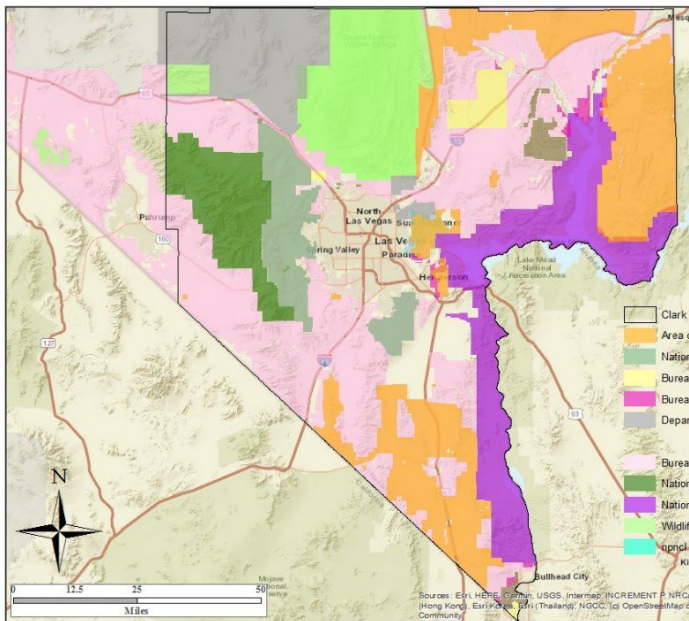


Figure 2: Land Ownership and Designation

The FHWA Central Federal Lands Highway Division conducted a transportation study for public lands in Nevada, which is described in Chapter 4 of the Let’s Go 2050 Plan. RTC will continue to collaborate with FHWA, NDOT, and other regional partners to further advance concepts for improved transportation networks on public lands as this plan is finalized.

Local government agencies may acquire federal land at no cost for public purposes such as schools and police stations through a Recreation and Public Purpose (R&PP) Lease. Lands needed for utility facilities other than water and for transportation purposes are acquired at minimal cost through right-of-way easements. Lands needed for water facilities and flood control are acquired at no cost through easements.

## Flood Management

Flood events generate a risk to people in Southern Nevada as well as property and transportation infrastructure. RTC partners with the Regional Flood Control District to address flood mitigation measures that could impact transportation projects and other regional needs.

Water flows from the mountains to the Las Vegas Wash, which flows into Lake Mead. The Las Vegas Wash is the only perennial wash in the Las Vegas Valley. Wastewater treatment facilities provide a constant flow of treated wastewater.

The service roads abutting these facilities provide alternative mode corridors. It may reasonably be assumed that these corridors in their natural state are likely to retain paleontological and archeological resources in addition to the plants and animals, because all would tend to cluster in areas where water was and may still be available in this desert environment.

## Utility Coordination

RTC and the local jurisdictions regularly work with utility providers to coordinate construction of improvements and minimize disruption to the travelling public. RTC also partners with state and federal agencies work together on the designation of corridors for the preferred location of future oil, gas, and hydrogen pipelines and electricity transmission and distribution facilities, and to incorporate the designated corridors into the relevant agency land use and resource management plans.

## Mining

Mining claims are present in Clark County. The 1872 Mining Law provides anyone with a right to “prospect for, mine, and remove” valuable subsurface minerals. Mining rights may take precedence over uses on the surface, so that any transportation improvement built over a mining claim could be removed during exploration.

Figure 5 displays such claims as of October 2020; as reported by the Nevada Division of Minerals. Prior to conveyance of a right-of-way, a transportation project proponent would complete a mineralization study and, if the land is non-mineralized, the BLM can withdraw it from future mineral exploration, thereby protecting the project from new claims. Any existing claims would still be valid.

## Mitigation Strategies

This section describes mitigation strategies to address sensitive habitat areas, wildlife crossings, and dust during construction activities, and naturally occurring asbestos.

Among the most relevant mitigation strategies to new roadway development and roadway expansion are the requirements for tortoise fencing and training of field staff in the handling of this and other sensitive species. The Desert Tortoise (*Gopherus agassizii*), a listed threatened species by the US Fish and Wildlife Service under the Endangered Species Act, will tunnel under conventional fencing, so the fencing must be buried and the mesh must be small enough to prevent entry. Staff must be trained to protect the species at construction sites.

The sensitive Las Vegas and Merriam’s bear poppies and Las Vegas buckwheat may also be found in the Valley. The Las Vegas bear poppy cannot be raised from seed. These plants bloom in the spring, so biological surveys must be conducted at that time.

Air quality, particularly dust, is a problem for construction projects in the Valley. Watering during construction and dust palliatives should

be used in areas not otherwise stabilized after construction.

## Wildlife Crossings

Human, economic, and wildlife costs caused by vehicle-animal collisions have led scientists and engineers to develop tools to reduce these deadly crashes. One of those tools, wildlife crossings (a type of safety crossing), has been successful at reducing both vehicle-animal collisions and wildlife impacts caused by roads. These types of crossings are designed to provide semi-natural corridors on which animals can safely cross roads or highways without endangering motorists or themselves. Crossing treatments may range from signs warning motorists of roadway crossing points, to small tunnels under the roadway, to exclusive use bridges over the roadway. The I-11 corridor has 11 overcrossings and undercrossings.



Figure 6: Example Wildlife Overcrossing on I-11

## Naturally-Occurring Asbestos (NOA)

NOA occurs in rocks and soil as a result of natural geological processes. Natural weathering and human activities may disturb NOA-bearing rock or soil and release mineral fibers into the air, which pose a greater potential for human exposure by inhalation. Exposure to asbestos fibers can cause diseases, including scarring of the lungs or cancer, as reported by the [Centers for Disease Control](https://www.cdc.gov/diseasecontrol/).

NOA does not refer to commercially processed, asbestos-containing material, such as insulation and fire protection in buildings or automobile brakes.

NOA is known to occur in Southern Nevada, and at least 35 states have reported its presence. The U.S. Geological Survey has an ongoing project to map NOA locations.

Within the federal government, only the Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) have guidance or regulations that specifically pertain to asbestos. There are currently no statutes or regulations addressing NOA in the State of Nevada. Clark County does not have specific regulations for NOA, but the Clark County Department of Air Quality has several regulatory requirements for construction-related dust control. Because these regulations are written to limit fugitive dust emissions, following their requirements will consequently minimize exposure to NOA emissions.

For transportation projects taking place in areas known or suspected to contain NOA, mitigation measures can be developed to minimize potential exposures to workers and the general public during construction. Depending on the situation, a combination of engineering controls, work practices, and institutional controls may be appropriate to implement an approach and reduce potential exposures to NOA. Example mitigation measures may include:

- Reduce worker exposure
  - Provide asbestos awareness training, including the use of personal protective equipment (PPE)
  - Limit personnel and vehicle access to the work area
  - Identify NOA-containing areas with signs
  - Utilize particulate air filtration systems (HEPA) in construction vehicles
- Reduce offsite migration
  - Wet road surfaces with water
  - Wet the project area, including piles of excavated material, and cover with tarps
  - Utilize dust suppressants and blasting mats if applicable
  - Stabilize areas of disturbed soil
  - Clean construction equipment and vehicles to ensure no soil is tracked out of work area
  - When transporting NOA-containing materials, avoid overloading trucks; keep the material below the top of each truck and cover material with a tarp
  - Reduce driving speed
  - Reduce drilling or excavating speeds
  - Excavate during periods of calm or low winds
  - Implement a Perimeter Air Monitoring Program and develop thresholds to suspend work
- Restrict material usage
  - Utility trenches should be backfilled with clean soil so future repair work will not need excavation into potential NOA-containing materials
  - Embankment fill material that contains NOA should be capped
  - Rock cuts should be thoroughly washed after excavation and scalin