APPENDIX H

ENVIRONMENTAL MITIGATION

access 2050

Enhancing Mobility for Southern Nevada Residents

Transportation in the Community – Natural and Cultural Resources

Federal Surface Transportation Legislation (currently MAP-21 and The FAST Act) requires an explicit approach to environmental mitigation in transportation planning. Within private lands in the Las Vegas Valley, 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 NEPA compliance. The purpose of this discussion is to direct project proponents to readily available sources of information about environmental conditions that could impact their project, standard mitigation strategies, and to other sections of this RTP that will strengthen project purpose and need.

A key element of mitigation is the ongoing consultation and cooperation among agencies with land management and environmental responsibilities in Clark County. The vision of the RTP provides information about transportation project priorities that are essential to development of project purpose and need.

Coordination with Jurisdictional and Regional Land Use Planning

While one function of the roadway, bicycle, and transit networks is to provide independent means for people to journey throughout Southern Nevada, mixtures of modes are becoming increasingly popular and maximize the efficiency of the entire system. Upon request, RTC provides local jurisdictions with comments on application for major developments. Such applications include Projects of Regional Significance and mixed-use development projects. While the legal definitions of major projects vary by community, projects of Regional Significance were defined by the Southern Nevada Regional Planning Coalition Southern Nevada Regional Policy Plan. This procedure allows the RTC to participate in ensuring that appropriate transit facilities and pedestrian and non-motorized vehicular circulation facilities are included in major and mixed use projects.

Meanwhile, Historic sites and buildings are being identified by local governments, the State Office of Historic Preservation, and organizations involved in historic preservation. A minimum qualification for designation is that the site, building or neighborhood be over 50 years old. The City of Las Vegas has actively pursued designation of buildings and neighborhoods which are displayed in the inset along with buildings over 50 years old throughout the Valley in Figure H-1. Similarly, Clark County Assessor data may be used to identify buildings/structures over 50 years old throughout the County. While these buildings may not be found to be eligible for the National or State Register, consideration that such buildings and their neighborhoods may qualify must be given early in project planning. These resources are useful in initial project studies, they are not a substitute for the historic and an

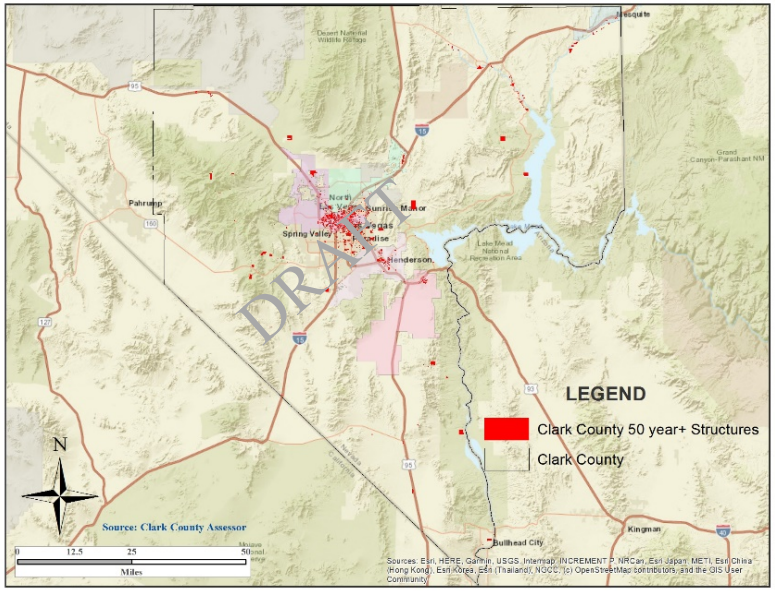

Figure H-1: Historic Sites/Structures/Buildings

archaeological survey that must be part of any NEPA compliance process for project implementation.

Coordination with Federal Land Use Planning

Figure H-2 displays land ownership, federal land management, and environmentally sensitive areas in Clark County. Some of these areas may present significant challenges for project implementation and represent a "fatal flaw" if included in roadway rights-of-way alternatives. To protect species within these areas, it may be appropriate to include so-called "critter crossings" in project design. Such crossings range from signs warning motorists of roadway crossing points, through small tunnels under the roadway to

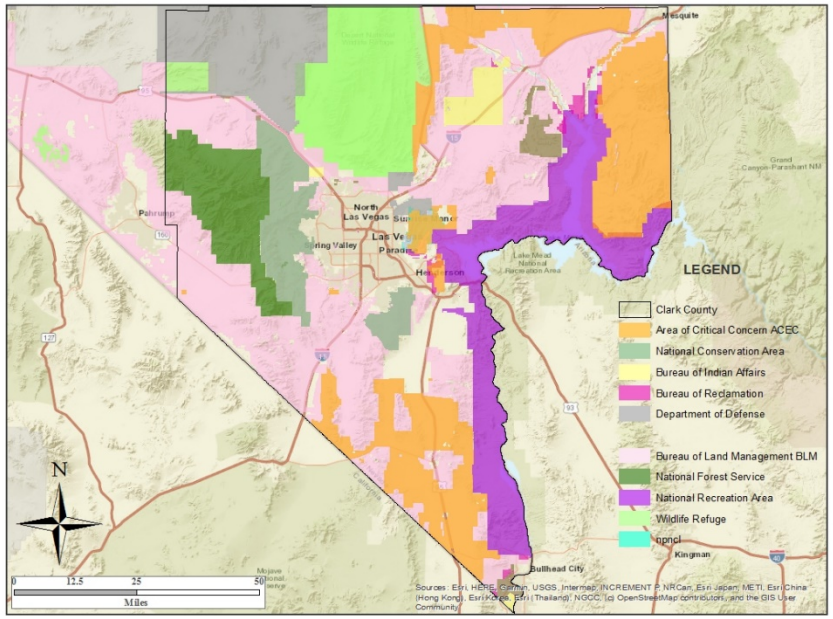

Figure H-2: Land Ownership and Designation

exclusive use bridges over the roadway.

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. All lands set aside for such purposes.

Figure H-3 displays flooding patterns in the Las Vegas Valley. The Valley carries water from the mountains to the Las Vegas Wash which flows into Lake Mead. The Las Vegas Wash east of the

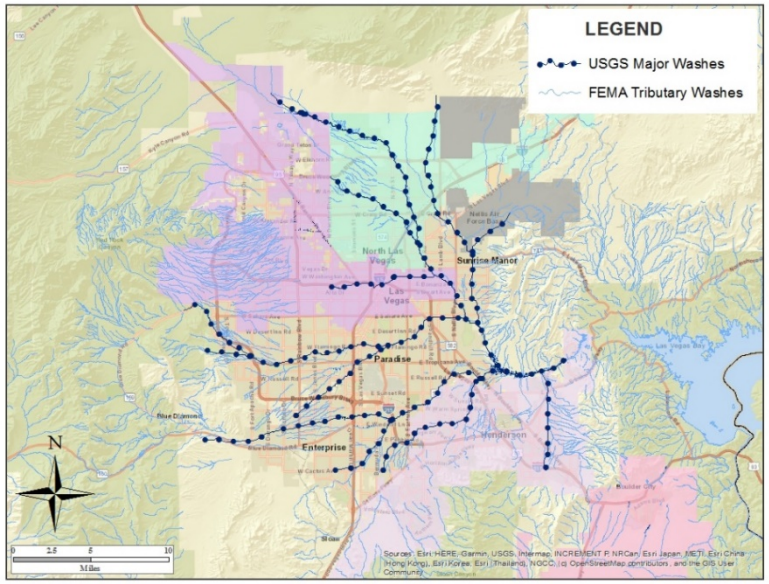

Figure H-3: Flood Washes

disposal boundary is the only perennial wash in the Valley and is so only because the Valley's wastewater treatment facilities provide a constant flow of treated wastewater.

The heavy blue lines in Figure H-3 display the Valley's major washes which, with the exception of the Las Vegas Wash at its northern reaches, are channelized or planned for channelization within the disposal boundary as needed to protect adjacent -

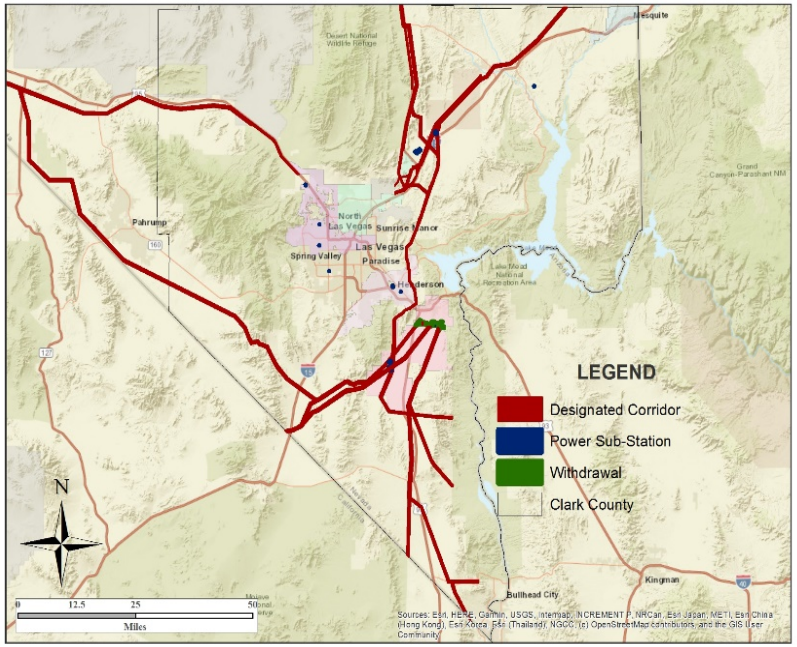

Figure H-4: Utility Corridors

development. The service roads abutting these facilities are providing 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.

Federal law requires that federal agencies work together to designate 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. Figure H-4 displays these utility corridors within Clark County.

One issue that is, perhaps, unique to the west is that of mining claims. Much of the land in the west is conveyed as a surface right separate from the subsurface right. The 1872 Mining Law provides

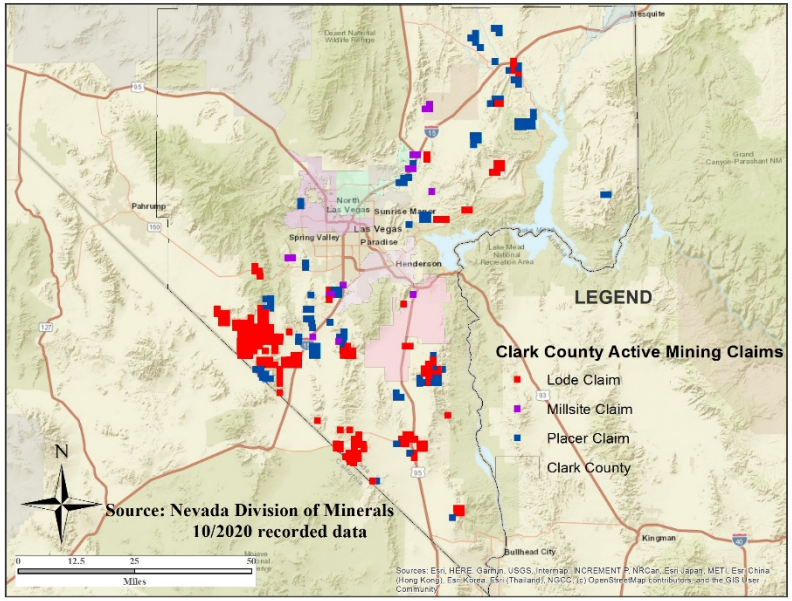

Figure H-5: Mining Claims

anyone with a right to "prospect for, mine, and remove" valuable subsurface minerals. This right takes precedence over the surface right, so that any transportation improvement built over a mining claim could be removed during exploration or if the claimant proves that "a prudent man" would develop the underlying minerals.

Figure H-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.

Standard Mitigation Strategies

Among the most relevant mitigation strategies to new roadway development and roadway expansion is the requirement 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 is buried and the mesh is 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 in areas not otherwise stabilized after construction.

There is an increasing body of evidence that children living or going to school within 500 feet of a freeway are more likely to have problems with their lungs. Taking these distances into account and moving either the roadway or the school building(s) may be considered.

Wildlife Overcrossings

Human, economic and wildlife costs caused by vehicle-animal collisions have led scientists and engineers to develop tools to reduce the deadly crashes. One of those tools, wildlife crossings (a

Figure H-6: Example Wildlife Overcrossing on I-11

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 through which animals can safely cross roads or highways without endangering motorists and themselves. Such crossings range from signs warning motorists of roadway crossing points, through small tunnels under the roadway to exclusive use bridges over the roadway. The I-11 corridor has 11 overcrossings and undercrossings along the .

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. 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 EPA and OSHA have guidance or regulations that specifically pertain to asbestos. There are currently no statues or regulations specifically 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 durst 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 PPE
    - Limit personnel and vehicle access to the work area
    - Identify NOA-containing areas with signs
    - Utilize particulate air filtrations 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 scaling