



U.S. Department of the Interior
Bureau of Land Management

Nevada Multi-District Off-Highway Vehicle Special Recreation Permit

Programmatic Environmental Assessment

October 2023



Mission statement

The Bureau of Land Management sustains the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

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For More Information

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Acronyms and Abbreviations

Term	Definition
ACEC	Area of Critical Environmental Concern
ATV	all-terrain vehicle
BGEPA	Bald and Golden Eagle Protection Act
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
DPS	Distinct Population Segment
EA	Environmental Assessment
EPA	U.S. Environmental Protection Agency
ERMA	Extensive Recreation Management Area
ESA	Endangered Species Act
GHG	greenhouse gas
GPS	global positioning system
GRSG ARMPA	Nevada and Northeastern California Greater Sage-Grouse Approved Resource Management Plan Amendment
HMA	herd management area
IDT	Interdisciplinary Team
IIT	Initial Inquiry Team
IPaC	Information for Planning and Consultation
LWC	lands with wilderness characteristics
MBTA	Migratory Bird Treaty Act
MOU	Memorandum of Understanding
NAAQS	National Ambient Air Quality Standards
NAC	Nevada Administrative Code
NEPA	National Environmental Policy Act
NO _x	nitrogen oxides
OHV	off-highway vehicle
PM ₁₀	particulate matter 10 micrometers or smaller in diameter
PM _{2.5}	particulate matter 2.5 micrometers or smaller in diameter
RMA	Recreation Management Area
RMP	Resource Management Plan
ROD	Record of Decision
SO _x	sulfur oxides
SRMA	Special Recreation Management Area
SRP	Special Recreation Permit
U.S.C.	U.S. Code
USFWS	U.S. Fish and Wildlife Service

Term	Definition
UTV	utility terrain vehicle
VOC	volatile organic compound
WMA	Wildlife Management Area
WSA	Wilderness Study Area

1.0 Purpose and Need for the Proposed Action

1.1 Background

The U.S. Department of the Interior, Bureau of Land Management (BLM) Ely, Southern Nevada, Battle Mountain, and Carson City District Offices regularly receive applications for Special Recreation Permits (SRPs) on BLM-administered public land related to off-highway vehicle (OHV) events and commercial/organized group operations. These SRPs consist of both high-speed events (referred to as “races”), low-speed non-competitive orienteering or touring (referred to as “low-speed non-competitive SRPs”), and motorcycle-only uses (which can be either races or low-speed non-competitive SRPs). These BLM District Offices often receive SRP applications for OHV activities that occur annually or periodically and use the same or similar routes. The BLM also receives new event applications that use part or all of the routes used by other previous OHV SRPs. All these OHV SRPs occur on existing routes that are open to OHV use, and they are in areas that allow the issuance of OHV SRPs and public access by OHV. The issuance of SRPs is a discretionary action. For each SRP application, the BLM is obligated to consider the applicant’s proposal and complete an appropriate National Environmental Policy Act (NEPA) analysis (typically an Environmental Assessment [EA] or Categorical Exclusion) to assess effects on the environment. While the BLM maintains lists of stipulations that can be added to OHV SRPs to reduce environmental effects and preserve human health and safety, additional event-specific stipulations are often required. Staff workload or competing office priorities at the time of application receipt often make it difficult for the BLM to review the SRP application, identify appropriate stipulations, and complete each case-by-case NEPA analysis in a timely manner.

To ensure adequate consideration of environmental effects and to improve timeliness of agency response to SRP applications, the BLM Nevada State Office has identified the need to complete a programmatic EA for issuance of OHV SRPs on BLM-administered public lands in the Ely, Southern Nevada, Battle Mountain, and Carson City District Offices, and specifically in the Caliente, Tonopah, Pahrump, Stillwater, and Sierra Front Field Offices. The area across which the BLM is considering issuing OHV SRPs consists of 26,712,350 acres of BLM-administered public land and around 8,879 miles of existing routes that are currently open for OHV use, herein referred to as the “project area.” The BLM is not considering changes to route designations in this analysis. This programmatic EA is intended to analyze a wide range of typical OHV SRP types within the project area. This process is also intended to develop a more consistent and comprehensive list of SRP stipulations that authorized officers in each District Office may apply to SRPs. This programmatic EA is intended to create analysis, decisions, and standard stipulations to which BLM offices reviewing future SRP applications can tier or incorporate by reference to streamline the SRP process for both permittees and staff, as well as to reduce impacts on the human environment.

1.2 Purpose

The Federal Land Policy and Management Act of 1976 mandates multiple use of public lands, including recreation use. One type of valid recreation use is responsible motorized use. The BLM SRP regulations at 43 Code of Federal Regulations (CFR) 2930 provide for SRPs to be issued on public lands. The purpose of the Proposed Action is to programmatically consider authorizing the

use of existing public routes for OHV SRP and to set appropriate terms and stipulations for future SRPs.

1.3 Need

The BLM needs to respond to permit requests from permittees to provide motorized SRPs on routes designated in the Ely, Southern Nevada, Battle Mountain, and Carson City District Offices. A programmatic approach is needed to provide analysis to streamline the SRP response process and ensure timely decisions on permit issuance, as well as provide a clear, standardized list of stipulations that aim to minimize the effect of OHV SRPs on public lands. The BLM must consider permittees' requests consistent with BLM OHV regulations at 43 CFR 2930 and with the desire to minimize impacts on natural and cultural resources. Additionally, there is a need to comply with the Federal Land Policy and Management Act of 1976, 43 U.S. Code (U.S.C.) 1701 et seq., which establishes outdoor recreation as one of the principal uses of public lands and directs the Secretary of the Interior to regulate, through permits or other instruments, the use of public lands (43 CFR 2931.3).

1.4 Land Use Plan Conformance

Resource management planning regulations mandate that all actions approved or authorized by the BLM be reviewed for conformance with existing land use plans (43 CFR 1610.5-3) (516 Departmental Manual 11.5 [BLM 2009]). A proposed action and alternatives must be consistent with applicable land use plans and in agreement with the terms, conditions, and decisions of the approved plan, or a plan amendment must be completed for the proposal to be approved per the NEPA Handbook (BLM 2008a).

The Proposed Action and alternatives conform to, and are subject to, the following: Shoshone-Eureka Resource Management Plan (RMP) (1986), Tonopah RMP (1997), Las Vegas RMP (1998), Carson City Consolidated RMP (2001), Ely Resource Management Plan (2008), Nevada and Northeastern California Greater Sage-Grouse Approved RMP Amendment and Record of Decision (ROD) (2015/2021), Nevada and California Greater Sage-Grouse Bi-State Distinct Population Segment in the Carson City District and Tonopah Field Office (2016), and the Southern Washoe County Urban Interface Plan Amendment (2001). The Proposed Action is in conformance with the Goals, Objectives, and Management Actions of the RMPs listed above.

1.4.1 Shoshone-Eureka RMP (1986)

The Proposed Action and alternatives are in conformance with the Shoshone-Eureka RMP. The issuance of SRPs falls under the RMP section titled *Management Actions Not Expressly Addressed by the Resource Management Plan*. In addition, the Proposed Action and alternatives are consistent with the following goals of the RMP:

- “Develop the recreational potential of the public lands to a level sufficient to meet the growing demands of recreationalists using the public lands” (page 30).
- “Encourage recreation use on public lands” (page 30).

- “[E]nsure protection of the environment and aesthetic qualities within the resource area” (page 30).

1.4.2 Tonopah RMP and Record of Decision, October 1997

The Proposed Action and alternatives are in conformance with the Tonopah RMP, specifically, the following Decisions, Objectives, and associated RMP Determinations:

“To encourage safe, public access and recreational use of public lands while ensuring protection of important resource values” (page 20).

- The Proposed Action and alternatives would not intersect areas identified as closed to OHV SRP.

“To provide dispersed recreation opportunities on all lands which are not designated as Special Recreation Management Areas [SRMAs]” (page 21).

“To provide a full range of recreational settings, from rural to wilderness, for the pursuit of a wide variety of recreational opportunities” (page 21).

“All BLM lands not limited in the RMP are open to all individual, commercial, and competitive outdoor recreation uses” (page 34).

- The Proposed Action and alternatives are in conformance with Lands and Rights-of-Way Objective, page 18, “To make lands available for community expansion and private economic development and to increase the potential for economic diversity.”

“The following areas will be closed to competitive recreational events to protect sensitive resource values such as threatened and endangered species and cultural resources: Specie Spring (160 acres); Mud Spring (160 acres); Moores Station Petroglyphs (40 acres); Mountain View Arrastra (40 acres) Lunar rater (39,680 acres); Amargosa-Oasis (490 acres); Cane Man Hill (680 acres); Lone Mountain (14,400 acres); Railroad Valley Area (14,720 acres); Rhyolite (425 acres); Tybo-McIntyre (80 acres); The Sump (1,600 acres); Clayton Valley Sand Dunes (2,500 acres); Crescent Sand Dunes (3,000 acres); and primitive, semiprimitive nonmotorized, and semiprimitive motorized areas until released by Congress from further wilderness consideration (see Wilderness Determinations) (page 20).

- The Proposed Action and alternatives would either not intersect the areas closed to competitive recreational events or, in cases where routes do intersect, the routes would be limited to low-speed OHV SRP use to protect the sensitive resource values.

1.4.3 Las Vegas RMP, October 1998

The Proposed Action and alternatives are in conformance with the Las Vegas RMP (BLM 1998), in the following sections:

Recreation Management Objective: RC-1. “Ensure a wide range of recreation opportunities are available for recreation users in concert with protecting the natural resources on public lands that attract users.”

Off-Highway / Road Vehicle Designations Management Direction RC-11-e. Management of Speed-Based Recreation Events. “Other Areas: Permit events on a case-by-case basis. No seasonal

restrictions. No new courses in critical desert tortoise habitat. No new off-road vehicle events in crucial bighorn sheep habitat.”

1.4.4 Carson City Field Office Consolidated Resource Management Plan, May 2001

The Proposed Action and alternatives are in conformance with the Carson City Field Office Consolidated RMP (BLM 2001), in the following sections:

Section 8 – REC-2: Desired Outcomes, 1: “Provide a wide variety of recreation opportunities on public land under the administration of the Carson City Field Office.”

Section 8 – REC-2: Land Use Allocations, 1: “All public lands under [Carson City Field Office] jurisdiction are designated open to Off-Highway Vehicle (OHV) use unless they are specifically restricted or closed.”

- The Proposed Action and alternatives would not intersect lands that are restricted or closed to OHV use.

Section 8 – REC-6: Administrative Actions, 4: “On public land designated open for off highway vehicles, there will generally be no restrictions on use. Organized competitive OHV events have been allowed in Mason Valley, Wilson Canyon, Hungry Valley OHV Area, Moon Rocks, Lemmon Valley MX Area, Dead Camel Mountains, Salt Wells Area, Wassuk Range and in the Frontier 500 and CarsonRally OHV corridors. Organized events will be handled on a case-by-case basis through the Special Recreation Permit review and Environmental review process. Organized activity is generally restricted to existing roads and trails.”

- The Proposed Action and alternatives would be restricted to existing roads and trails.

1.4.5 Ely Record of Decision and Approved RMP, August 2008

The Proposed Action and alternatives are in conformance with the Ely ROD and RMP, including the following goals and objectives:

- “Provide quality settings for developed and undeveloped recreation experiences and opportunities while protecting resources.”
- “Conduct an assessment of current and future OHV demand, and plan for and balance the demand for this use with other multiple uses/users.”
- “Develop sustainable off-highway vehicle use areas to meet current and future demands, especially for urban interface areas.”
- “To provide a wide variety of recreation opportunities to satisfy a growing demand by a public seeking the open, undeveloped spaces that is characteristic of the planning area.”

The Proposed Action and alternatives are also specifically provided for in Recreation decisions (page 81):

REC-12: Manage competitive motorcycle events on designated routes within special recreation permits areas.

REC-14: Manage for a maximum of two competitive truck events each calendar year.

The Proposed Action and alternatives are also in conformance with Ely District management decisions for other potentially affected resources.

1.4.6 Nevada and Northeastern California Greater Sage-Grouse Approved RMP Amendment and ROD, September 2015/2021

The Proposed Action and alternatives are in conformance with the BLM’s Nevada and Northeastern California Greater Sage-Grouse Approved RMP Amendment (GRSG ARMPA), including the following Key Management Reponses:

“[Priority Habitat Management Areas] and [Important Habitat Management Areas]—Do not construct new recreation facilities unless required for health and safety purposes or if the construction will result in a net conservation gain to the species.”

- The Proposed Action and alternatives do not propose any new recreation facilities within the Greater Sage-Grouse population segment or associated habitats.

“Allow special recreation permits only if their effects on [Greater Sage-Grouse] and its habitat are neutral or result in a net conservation gain.”

- The Proposed Action and alternatives would be subject to this limitation and would not allow SRP issuance for activities that affect adversely Greater Sage-Grouse and its habitat.

“[Priority Habitat Management Areas] and [General Habitat Management Areas]—Off-highway vehicle (OHV) use limited to existing routes (routes to be designated through future travel management planning)...”

- The Proposed Action and alternatives are limited to previously used and existing routes identified by the BLM and its associated field offices.

1.4.7 Record of Decision and Land Use Plan Amendment for the Nevada and California Greater Sage-Grouse Bi-State Distinct Population Segment in the Carson City District and Tonopah Field Office, May 2016

The Proposed Action and alternatives would be in conformance with the *Land Use Plan Amendment for the Nevada and California Greater Sage-Grouse Bi-State Distinct Population Segment (DPS) in the Carson City District and Tonopah Field Office* (BLM 2016), including the following requirements for recreation:

“Designate [Greater Sage-Grouse Bi-State DPS] habitat as an OHV Limited Area; prohibiting any new surface disturbance, unless authorized through a separate implementation-level decision. Subsequent implementation decisions will further define the allowable uses within this area, including specific decisions allowing, prohibiting, or restricting OHV use on individual routes.”

- The Proposed Action and alternatives would support the careful consideration and coordination of new surface disturbance related to OHV use.

“Implement time-of-year and time-of-day travel restrictions from March 1 and June 30, for special recreation permits and project-related activities that pass within 4 miles of an active or pending lek. Time of year restrictions and distance may be expanded to include wintering, nesting, or brood-rearing habitat.”

- The Proposed Action and alternatives would be subject to these timing and buffer restrictions to effectively safeguard brood-rearing habitat.

“Special recreation permits will not be authorized within occupied winter [Greater Sage-Grouse Bi-State DPS] habitat between November 1 and March 1.”

- The Proposed Action and alternatives be subject to these timing restrictions to effectively safeguard occupied winter habitat.

“Prohibit new recreation facilities in [Greater Sage-Grouse Bi-State DPS] habitat (e.g., campgrounds, day use areas, scenic pullouts, trailheads, trails, etc.).”

- The Proposed Action and alternatives do not propose any new recreational facilities within the Greater Sage-Grouse Bi-state DPS or associated habitats.

1.4.8 Southern Washoe County Urban Interface Plan Amendment 2001

The Proposed Action and alternatives are in conformance with the Final Southern Washoe County Urban Interface Plan Amendment, including the following Plan Amendment decisions:

“Lands retained in public ownership will be managed to protect open space, visual, recreation, watershed, and wildlife resources. Protection of these resources will be given priority over other land uses.” (page 4).

- The Proposed Action and alternatives would support continued use of public lands for recreation.

“A buffer of one-quarter mile or more, as appropriate, will be maintained between populated areas and BLM permitted recreation events, if it is determined through environmental review that the proposed event may have negative impacts to nearby residents.”

- The Proposed Action and alternatives would not restrict the BLM’s ability to apply appropriate buffers around populated areas.

1.5 Relationships to Statutes, Regulations, Other Plans and Environmental Analysis Documents

The Proposed Action and alternatives are consistent with Federal laws and regulations, plans, programs, and policies of affiliated tribes, other Federal agencies, and state and local governments including, but not limited to, the following:

- Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701–1782, October 21, 1976, as amended 1978, 1984, 1986, 1988, 1990–1992, 1994 and 1996)
- Title 43 of the CFR Subparts 2930 and 8300
- The Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531–1544, December 28, 1973, as amended 1976–1982, 1984, and 1988)
- Migratory Bird Treaty Act (MBTA) – Executive Order 13806
- Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668–668c)
- Native American Graves Protection and Repatriation Act, 1990
- American Indian Religious Freedom Act of 1979
- National Historic Preservation Act (P.L. 89-665; 54 U.S.C. 300101 et seq.)
- Archaeological Resources Protection Act of 1979, as amended (P.L. 96-95; 16 U.S.C. 470aa–mm)
- Consultation and Coordination with Indian Tribal Governments – Executive Order 13175
- Wild Free-Roaming Horse and Burro Act, as amended, of 1971
- Clean Water Act of 1972
- Materials Act of 1947 (July 31, 1947), as amended (30 U.S.C. 601 et seq.)
- The National Environmental Policy Act of 1969
- Federal Noxious Weed Act of 1974 (7 U.S.C. 2801)
- BLM NEPA Handbook (H-1790-1), as updated
- BLM Manual 1737, Riparian – Wetland Area Management
- BLM Manual 7240, Water Quality Manual
- BLM Manual 7250, Water Rights Manual

1.6 Scoping, Public Involvement, and Issues Identification

Scoping: To comply with NEPA, and in accordance with the BLM NEPA Handbook (H-1790-1), the BLM considered specific elements of the human environment to determine what resources are present within the project area that could potentially be issues under the Proposed Action. Scoping is an early and open process to assist the BLM in determining the scope of issues to be analyzed in depth in the EA. Both internal and external scoping is conducted. Internal scoping is conducted within the agency, as well as with cooperating agencies, to identify preliminary and anticipated issues and concerns. External scoping is a public process designed to engage the public in identifying additional issues and concerns. Public scoping provides an opportunity for the BLM to involve the public early in a major Federal action and to identify new, and clarify existing, information and issues for consideration when preparing the EA. Early engagement ensures that substantive issues

identified will be properly studied and evaluated. The goal of scoping is to gather useful information to assist the BLM in refining the Proposed Action and developing, where appropriate, a balanced range of alternatives.

An Interdisciplinary Team (IDT) scoping meeting, consisting of representatives from the BLM, was held initially on February 2, 2023 to review potential issues under the Proposed Action.

The BLM conducted a public scoping process from April 20, 2023, to June 3, 2023. A summary of public scoping comments is available in the project scoping report, which is available for review on the project website at <https://eplanning.blm.gov/eplanning-ui/project/2024119/510>.

Comments received during the scoping process informed the Proposed Action and the issues and concerns analyzed in this programmatic EA.

Public Comment: This programmatic EA will be made public for 30 days to solicit public comments.

Coordination: The BLM coordinated with the U.S. Fish and Wildlife Service (USFWS), the National Park Service, the U.S. Forest Service, Nevada Association of Counties, Lincoln County, Nye County, and Washoe County, as well as local communities during the scoping period to develop this programmatic EA. Refer to Section 5.0 of this Draft EA for additional details on the coordination conducted for the project.

Cooperating Agencies: Invitation letters were sent to possible interested cooperating agencies, including all counties in the project area: Churchill, Douglas, Esmeralda Lander, Lincoln, Lyon, Mineral, Nye, Storey, and Washoe. Those parties that accepted the invitation to be a cooperating agency and completed a Memorandum of Understanding (MOU) are as follows: Nevada Association of Counties, Lincoln County, Nye County, Washoe County, Fallon Paiute-Shoshone Tribe, Humboldt-Toiyabe National Forest, Town of Beatty, Nevada Department of Wildlife, Nevada Department of Conservation and Natural Resources, and USFWS.

The BLM hosted one cooperating agency meeting via Zoom on April 19, 2023. The purpose of this meeting was to review the proposed OHV SRP routes with the cooperating agencies and allow time for discussion of the goals of the programmatic EA, as well as provide opportunity for cooperating agency comments and feedback early in the EA process.

Native American Coordination and Consultation: Notification was sent to tribes by the BLM through initial cooperating agency invitation letters including information about the project and a project map on February 5, 2023. Cooperating agency invitation letters were sent to the following tribes: Yerington Paiute Tribe of the Yerington Colony and Campbell Ranch, Yomba Shoshone Tribe of the Yomba Reservation, Walker River Paiute Tribe of the Walker River Reservation, Washoe Tribe of Nevada & California (Carson Colony, Dresslerville Colony, Woodfords Community, Stewart Community, & Washoe Ranches), Reno-Sparks Indian Colony, Paiute-Shoshone Tribe of the Fallon Reservation and Colony, Pyramid Lake Paiute Tribe of the Pyramid Lake Reservation, Moapa Band of Paiute Indians of the Moapa River Indian Reservation, Las Vegas Tribe of Paiute Indians of the Las Vegas Indian Colony, Duckwater Shoshone Tribe of the Duckwater Reservation, and Ely Shoshone Tribe of Nevada. One tribe, the Fallon Paiute-Shoshone Tribe, accepted the invitation to become a cooperating agency and has a signed MOU in place. The Ely Shoshone Tribe responded that they did not want to be a cooperating agency, but did want to receive updates on the EA and the NEPA process. Official government-to-government tribal consultation letters were also sent to the same list of tribes on May 3, 2023.

All tribes were invited to the cooperating agency meeting on April 19, 2023, via email. No tribes attended the meeting. Coordination and consultation with tribal governments will continue throughout the NEPA process.

1.7 BLM Decision to Be Made

The decision to be made is whether and under what conditions to approve the Proposed Action to programmatically allow OHV SRPs on select routes, pit stops, and staging areas in the project area. The BLM will also decide whether to programmatically adopt a standard set of stipulations for inclusion (where appropriate) on future OHV SRPs in the project area.

1.8 Issues for Analysis

The Council on Environmental Quality regulations at 40 CFR 1500.4(i) direct agencies to use *“the scoping process, not only to identify significant environmental issues deserving of study, but also to deemphasize insignificant issues.”* 40 CFR 1501.9(f)(1) requires the lead Federal agency under NEPA to *“Identify and eliminate from detailed study the issues that are not significant or have been covered by prior environmental review(s), narrowing the discussion of these issues in the statement to a brief presentation of why they will not have a significant effect on the human environment or providing a reference to their coverage elsewhere.”*

Through scoping conducted with the public and the BLM’s IDT, 14 issues were identified for detailed analysis in this programmatic EA:

- **Issue 1:** Air Quality and Greenhouse Gas (GHG) Emissions
 - How would GHG emissions and fugitive dust from OHV SRPs affect air quality in the surrounding area?
- **Issue 2:** Fish and Wildlife, excluding Special Status Species
 - How would OHV SRPs affect direct mortality of fish and wildlife species or direct loss of habitat?
 - How would human presence and OHV use during SRPs affect the potential for displacement of wildlife?
 - How would OHV SRPs and human presence affect indirect or temporary loss of habitat for fish and wildlife species?
- **Issue 3:** Special Status Species
 - How would OHV SRPs affect direct mortality of special status species animal and plant species or direct loss of habitat?
 - How would human presence and OHV use during SRPs affect displacement of special status animal species?
 - How would human presence and OHV use during SRPs affect indirect or temporary loss of habitat for special status animal species?

- How would OHV use during SRPs affect direct mortality or loss of habitat for special status plant species through dust deposition?
- **Issue 4: Migratory Birds**
 - How would human presence and OHV use during SRPs nesting migratory bird success, both in the short term and long term?
 - How would human presence and OHV use during SRPs directly and indirectly affect migratory bird habitat?
- **Issue 5: Noxious Weeds and Invasive/Non-Native Species**
 - How would OHV use and movement of spectators during SRPs affect the establishment or expansion of noxious weeds and invasive/non-native species infestations?
- **Issue 6: Hydrologic Conditions**
 - How would OHV use during SRPs affect sediment transport to surface waters?
- **Issue 7: Soil**
 - How would OHV SRPs affect erosion from existing routes, pit stop locations, and staging areas, in particular for sensitive or highly erodible soils?
- **Issue 8: Wild Horses and Burros**
 - How would OHV SRPs affect distribution of wild horses and burros, including displacement from water, forage, foaling grounds, and other habitat?
- **Issue 9: Social and Economic Conditions and Environmental Justice**
 - How would OHV SRPs positively and negatively affect local economic conditions, including increases in local spending during OHV SRPs and additional costs to local services and infrastructure?
 - How would OHV SRPs disproportionately and adversely affect environmental justice populations within the project area?
- **Issue 10: Geology/Mineral Resources**
 - How would OHV SRPs affect access to existing mineral developments?
- **Issue 11: Livestock Grazing**
 - How would OHV use during race events directly affect livestock through collision?
 - How would OHV SRPs affect access and grazing management for ranchers, including through temporary route closures or damage to range improvements such as cattle guards and fences?
 - How would OHV SRPs affect livestock through proximity to humans and vehicles, but not collisions?
- **Issue 12: Public Health and Safety, Hazardous and Solid Waste**

- How would OHV SRPs affect participant and spectator health and safety, including through vehicle accidents and environmental risks, such as Abandoned Mine Lands or weather?
- How would OHV SRPs affect the release of petroleum products and other wastes into the environment?
- **Issue 13:** Recreation and Visitor Services
 - How would OHV SRPs affect other recreational users of public lands, including through displacement during OHV SRPs and damage to recreational infrastructure, including roads?
 - How would OHV SRPs increase or decrease recreational tourism to Nevada's public lands?
- **Issue 14:** Lands with Wilderness Characteristics
 - How would OHV SRPs affect wilderness characteristics through associated route maintenance?

In addition to above issues identified for analysis in detail to determine the significance of their effects on the human environment, other potential issues were identified and analyzed briefly by the BLM IDT as part of its review of the Proposed Action. For example, the National Park Service expressed the potential for issues associated with OHV SRPs on or adjacent to National Historic Trails. These issues are presented in Appendix H, *Resource Summary Table*.

2.0 Proposed Action and Alternatives

2.1 Alternative A – Proposed Action

2.1.1 Routes, Pit Stops, and Staging Areas

The BLM proposes to allow issuance of OHV SRPs on 8,879 miles of existing routes in the Ely, Southern Nevada, Battle Mountain, and Carson City Districts. For the purposes of this document, the term “route” refers to existing on-the-ground trails and roads that are open to public use because of BLM resource management plan decisions or travel management planning decisions. The Proposed Action would define which type or types of low-speed, non-competitive SRPs and races would be considered on which routes. The Proposed Action also would define which routes would be considered for motorcycle use only. To support OHV SRPs, the BLM proposes to allow pit stops and staging areas along routes in areas of existing disturbance that have been used for these purposes in past OHV SRPs. There is no new surface disturbance included in the Proposed Action because all SRPs would take place on open existing roads and trails and utilize previously used staging areas and pit stops. A summary of OHV SRP types and pit stop/staging areas by Field Office is presented in Table 2-1 below. Figures 2-1 through 2-6 display Proposed Action routes and OHV SRP types by Field Office.

Table 2.1 OHV SRP Type by Field Office

Field Office	Low-Speed Non-competitive SRPs (miles)	Low-Speed Non-competitive SRPs and Motorcycle Use (miles)	Low-Speed Non-competitive SRPs and Race Events (miles)	Low-Speed Non-competitive SRPs, Race Events, and Motorcycle Use (miles)	Race Events and Motorcycle Use (miles)	Motorcycle Use (miles)	Pit Stop/Staging Areas (count)
Caliente Field Office	33.2	109.9	0	2,227.6	0	1,160.3	14
Pahrump Field Office	61.5	0	365.7	231.0	0	32.3	4
Sierra Front Field Office	0	42.6	0	239.2	3.2	128.1	21
Stillwater Field Office	17.8	168.4	31.2	983.0	0.1	98.5	30
Tonopah Field Office	1,231.4	0	40.0	1,565.7	0	108.1	23
Total	1,343.9	320.9	436.8	5,246.6	3.3	1,527.4	92

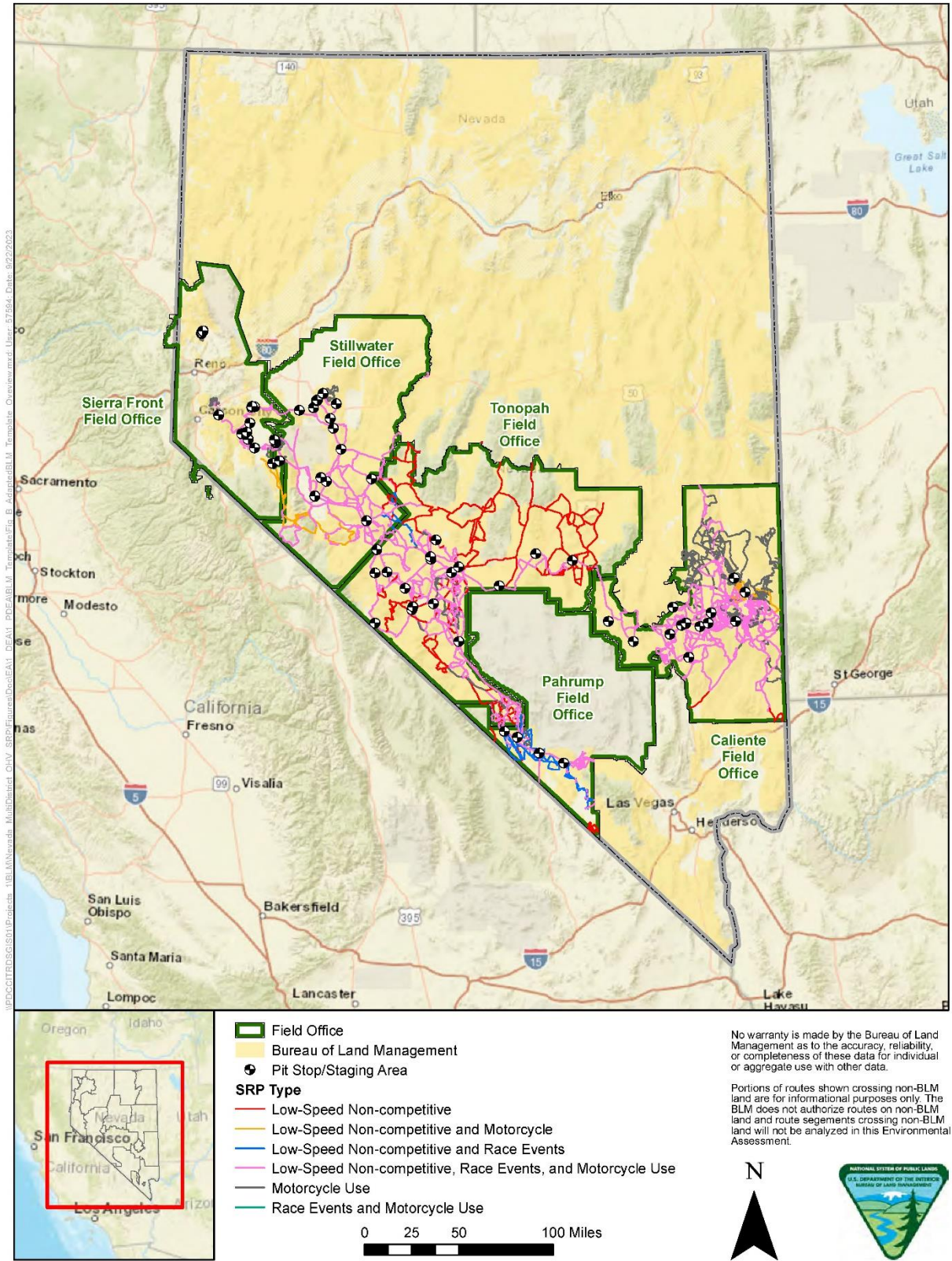


Figure 2.1 OHV SRP Proposed Action Routes in Project Area

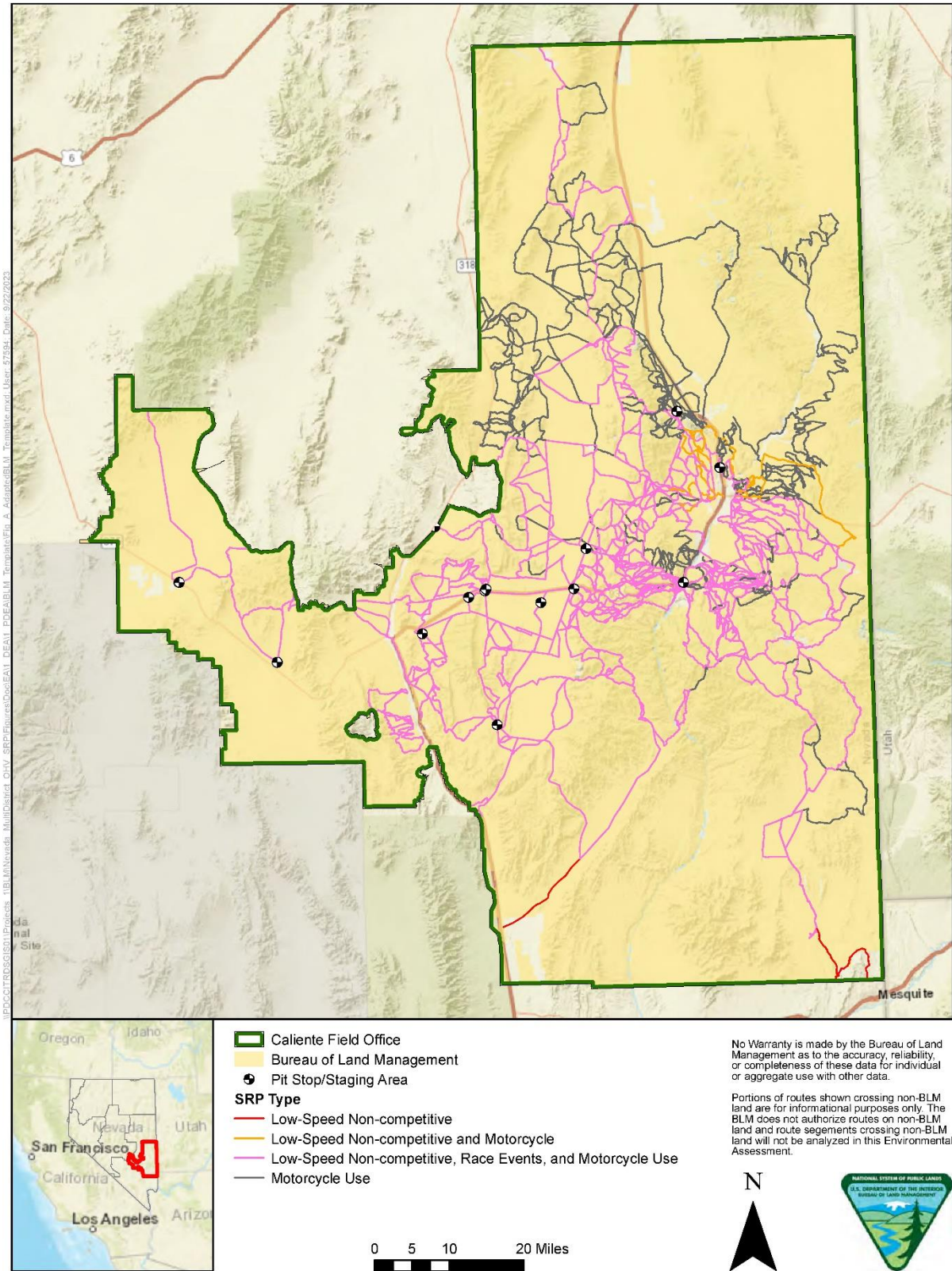


Figure 2.2 OHV SRP Proposed Action Routes in Caliente Field Office

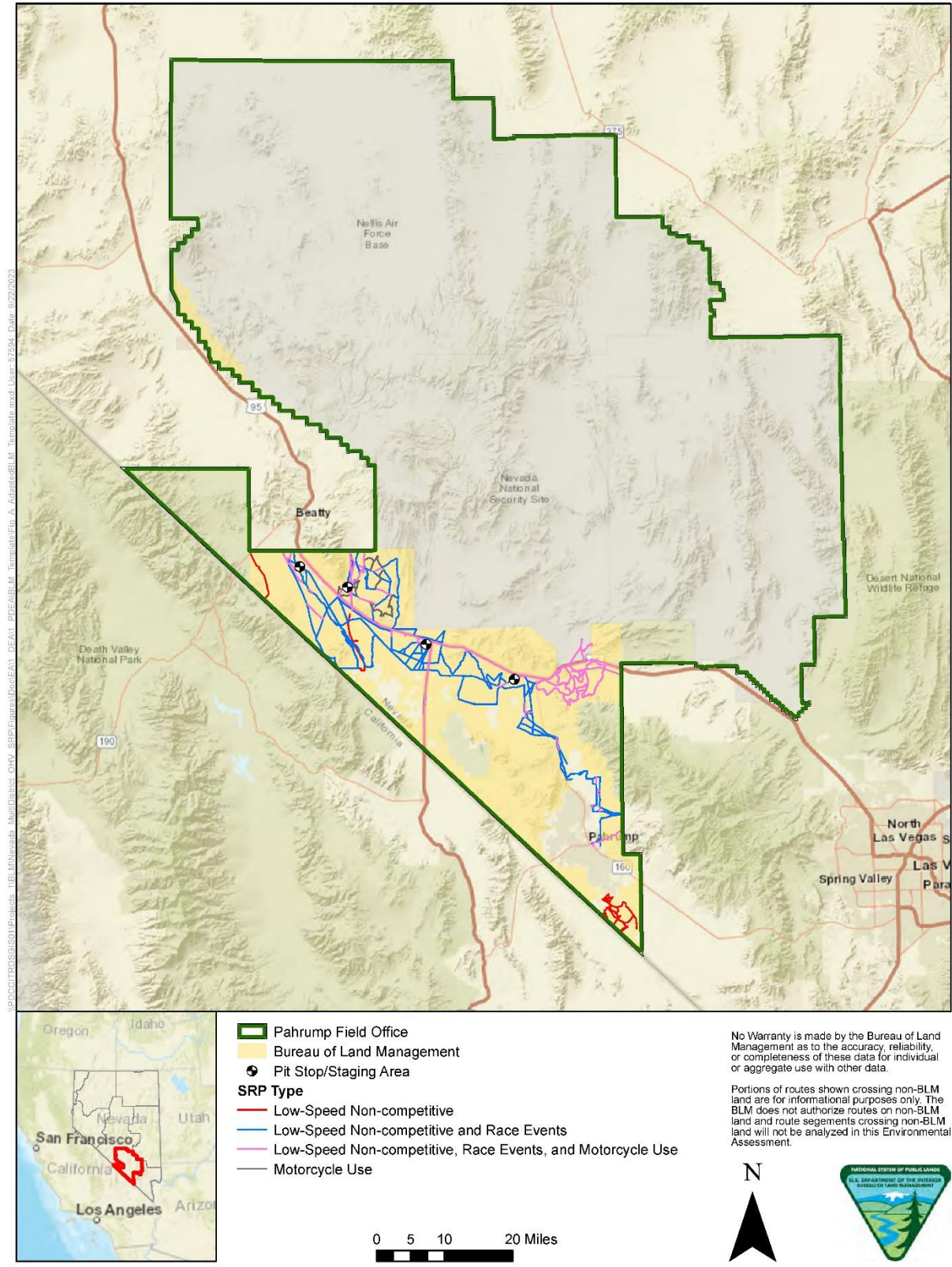


Figure 2.3 OHV SRP Proposed Action Routes in Pahrump Field Office

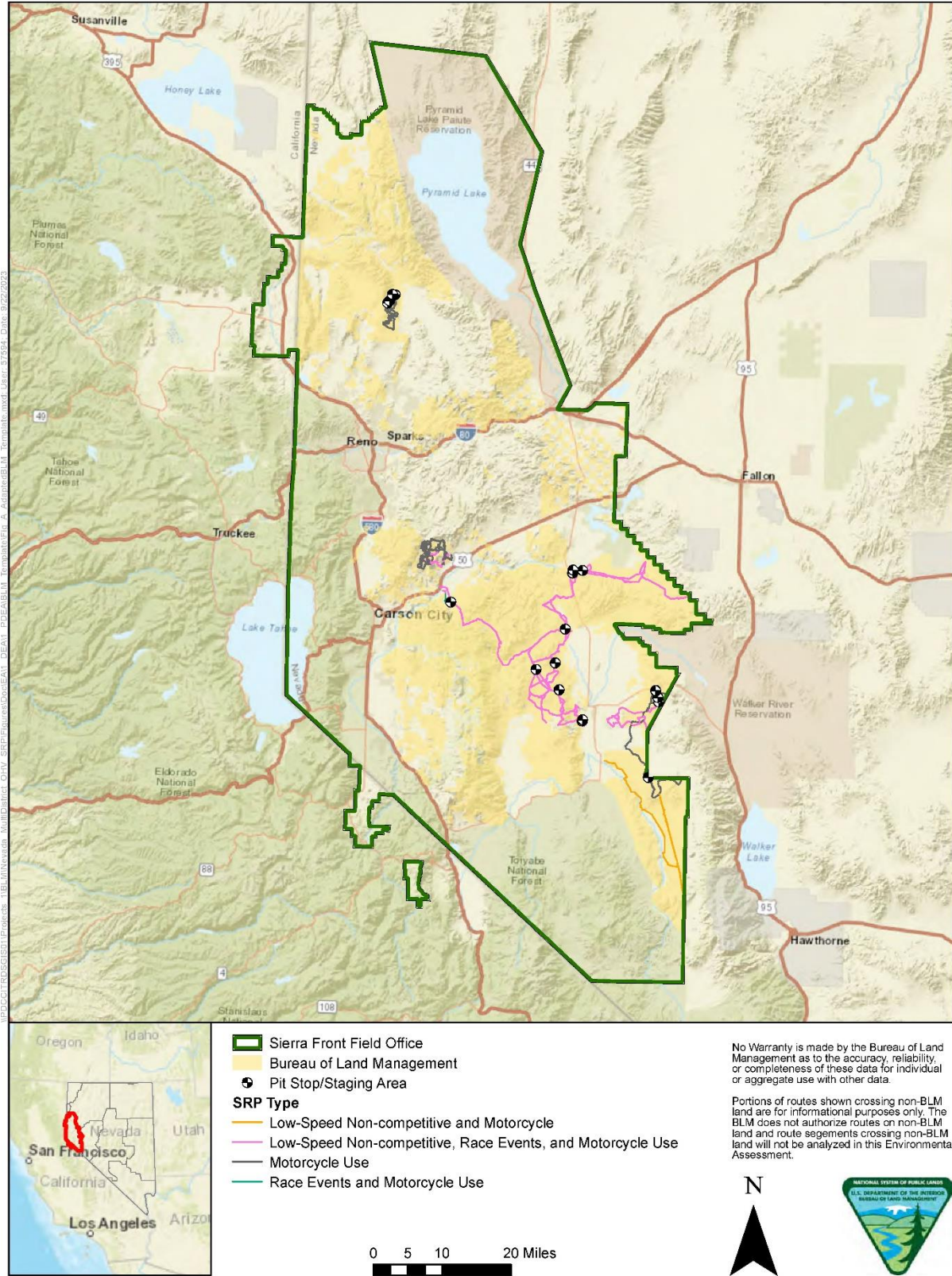


Figure 2.4 OHV SRP Proposed Action Routes in Sierra Front Field Office

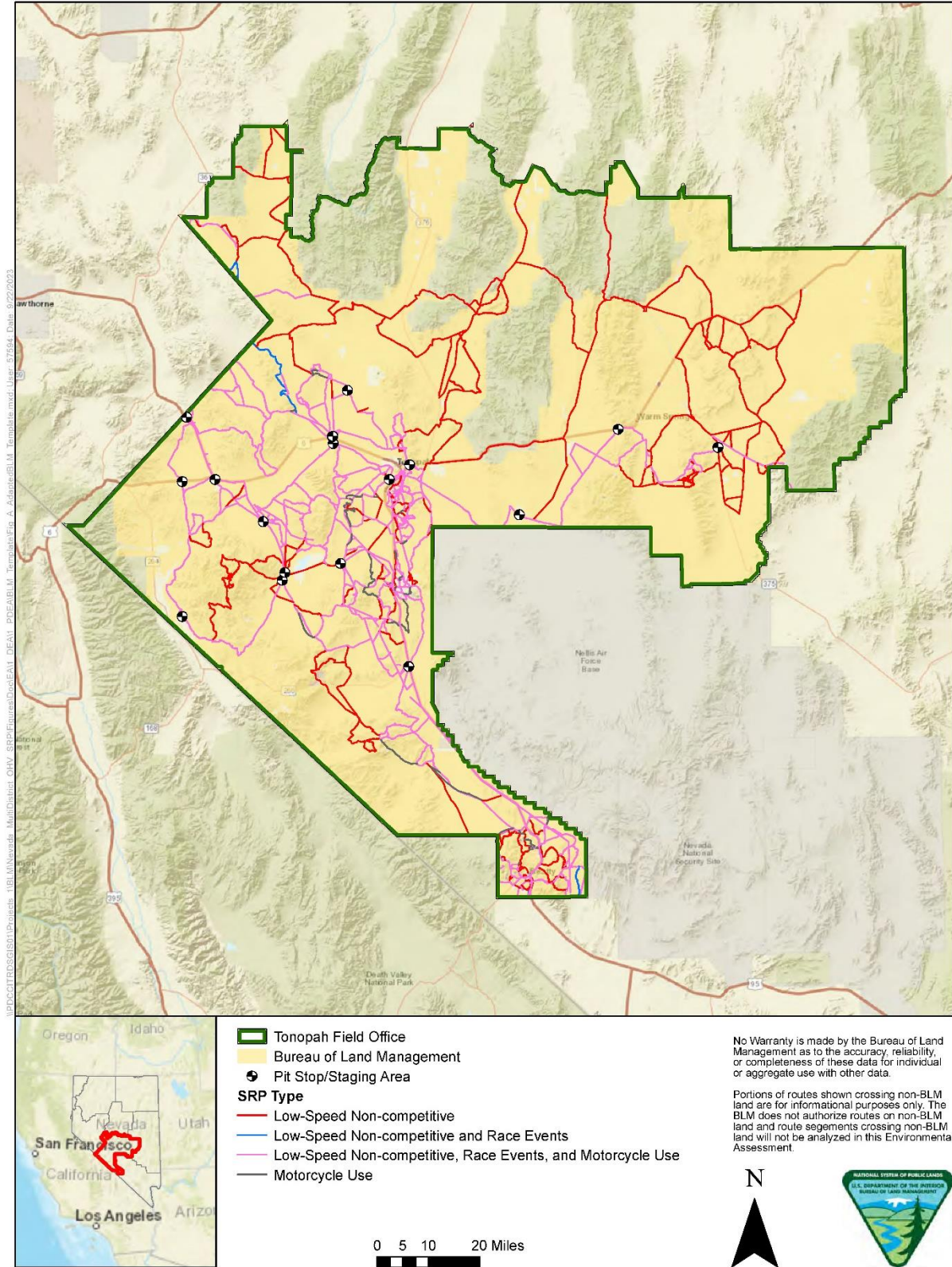


Figure 2.6 OHV SRP Proposed Action Routes in Tonopah Field Office

The width and running-surface material of existing routes considered under the Proposed Action vary across the project area. On average, SRP routes are around 20 feet in width, with a graded dirt or gravel surface. Routes on which races and low-speed, non-competitive SRPs involving four-wheeled vehicles (such as utility terrain vehicles [UTV] and specialized trucks/buggies) would be permitted are typically wider than those on which only motorcycle (two-wheeled vehicles) use would be considered, which average between 6.5 and 8 feet (about 2 meters) in width.

Existing pit stops and staging included in the Proposed Action are at previously disturbed locations, typically along the edges of the route. In all cases, the proposed areas have been used in past SRPs for the same purpose. The size of pit stops and staging areas varies across the project area, but the average area is about 300 feet by 300 feet (or an average of up to 2 acres).

Post-SRP monitoring and post-use reports would be required for all OHV SRPs. For low-speed, non-competitive tours that occur multiple times per year under the management of local tour operators, recurring permit term compliance evaluations would be instituted. The intent of post-SRP activities would be to identify any adverse environmental changes that occurred as a result of the OHV SRP and confirm reclamation or rehabilitation to be completed by the permittee for any off-route travel. Post-activity rehabilitation stipulations and mitigation measures are located in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events* (HIGH-PAR-01 through HIGH-PAR-12, and LOW-PAR-01 through LOW-PAR-12). Off-route travel would not be authorized in permits. If off-route travel occurred, and depending on the size and location of off-route travel, rehabilitation and reclamation would be completed using handtools or motorized equipment. The permittee may be required to grade, drag, disc, or reseed (with native seed mixes) any areas damaged by off-route travel. Reclamation would occur in coordination with the outdoor recreation planner and authorized officer. Locations of rehabilitated areas would typically be georeferenced using global positioning system (GPS) coordinates and these areas would be documented to evaluate the success of reclamation efforts and the need for any additional work. Follow-up monitoring would ensure that reclamation and reseeding efforts are successful in stabilizing any area identified as damaged. Again, while permittees would be required to complete successful reclamation of damage from off-route travel, no SRPs would authorize such travel to occur. Allowing off-route travel is not part of the BLM's Proposed Action. If a permittee does not take action to prevent instances of off-route travel in future SRPs, they would face consequences including not being considered for future OHV SRPs or bonding requirements.

2.1.2 OHV SRP Types and Frequency

Under the Proposed Action, to receive an SRP, permittees are required to submit an application detailing their request routes, timing, the number and type of participants/crew and spectators, the location of any pit stops or staging areas, emergency and sanitation and safety plans, and permittee-committed environmental protection measures and monitoring. The submission of this information is a requirement under BLM Handbook H-2930-1 and is outside the scope of and not subject to change through this NEPA process. The authorized officer responsible for the review of each SRP application would individually review the application, determine the appropriate level of NEPA analysis, and ultimately determine whether to approve each application.

The Proposed Action would allow issuance of OHV SRPs for a variety of races and low-speed, non-competitive commercial and organized group uses. These OHV SRPs range from low-speed orienteering and touring activities using street-legal or unmodified OHVs to high-speed races using

both motorcycles and four-wheeled vehicles, such as UTVs and specialized trucks/buggies. Races, tours, and events may occur during daytime or nighttime hours. A summary of the OHV SRPs initially anticipated under the Proposed Action appears in Table 2-2 below. This summary is based on recently approved SRPs for the five Field Offices in the project area and discussions with Field Office staff on recent SRP applications. To aid the reader, NEPA documents from representative past OHV SRPs are provided for each type below and are incorporated by reference into this EA. While the BLM has provided a list of representative OHV SRP parameters, note that under the Proposed Action there would continue to be no overall participation size or route length threshold limits for SRPs, and there are no threshold size limits established by the BLM on a national basis. Under 43 CFR 2932.11(b), the authorized officer would determine when a permit is required based on planning decisions, resource concerns, potential user conflicts, or public health and safety issues. Even then when SRPs use the same or similar routes, they typically do not overlap temporally (i.e., one SRP ends before another begins). In some instances, low-speed non-competitive tours temporarily overlap.

Table 2.2 OHV SRP Overview by Type

SRP Type	SRP Frequency	Typical Distance and Duration	Typical Participant group ¹ size	Representative OHV SRP	Notes
Poker Runs Small, low-speed, non-competitive	1 to 2 per year, per each Field Office	40–50 miles <1 day	Up to 100 participants	Alt95 OHV Poker Run SRPs (BLM 2021) Mina Poker Run Off-Highway Vehicle Special Recreation Permit (BLM 2022a)	Participants are typically from local communities
Tours Small, low-speed, non-competitive	20 to 25 per year, per each Field Office except Sierra Front Field Office, which has around 730 tours per year ²	50–325 miles 1 day (less typically 2–3 days)	<10 participants (less typically 30–60 participants, and on rare occasions up to 250 participants)	California 4-Wheel Tours Special Recreation Permit (BLM 2023)	Generally made up of participants outside local communities
Small Races Mid-sized, high-speed competitive	1 to 2 per year, per each Field Office	250–350 miles 1–2 days	50–150 participants and crews	2018 “SNORE 250” Off-Highway Vehicle Race (BLM 2018)	Participants and spectators are mainly from local communities, with some participants from across the U.S.

SRP Type	SRP Frequency	Typical Distance and Duration	Typical Participant group ¹ size	Representative OHV SRP	Notes
Large Races Large, high-speed, competitive	4 to 5 per year total for the project area	400–700 miles 2–3 days	500–1,100 participants and crews	Legacy Racing SRP (BLM 2022b)	Participants and spectators are from across the U.S. and from local communities

¹ A group is more than one person participating in a recreation activity or event.

² Routes in the Sierra Front Field Office are used by several tour operators who hold SRPs for low-speed non-competitive tours. Tours operate approximately twice per day and 7 days per week.

Selection of the Proposed Action is not anticipated to meaningfully change the number or type of OHV SRPs from those permitted under current conditions. The BLM therefore assumes the Proposed Action would result in similar types of OHV SRPs, with similar numbers of participants and spectators, as under current conditions. Regardless of the alternative selected, consideration and issuance of OHV SRPs is applicant driven, making it difficult to predict changes. However, the BLM notes that public interest in attending and viewing races and engaging in low-speed non-competitive uses permitted through OHV SRPs has increased over time and anticipates that this will continue. To account for this trend, which is anticipated to occur regardless of the selection of the Proposed Action, the BLM anticipates that both the number of OHV SRPs and the number of participants and spectators will increase by up to 10% over the next 10 years, or an average annual increase in participation of 1% per year. In addition, under the Proposed Action the BLM identified the potential for additional increases in SRP demand for small races because of reductions in permitting times and decreases in cost-recovery expenses paid by the applicants; under the Proposed Action, the BLM anticipates small race SRPs would increase 15% over the next 10 years.

2.1.3 Special Recreation Permit Stipulations

OHV SRP holders under the Proposed Action would be required to fully comply with all stipulations associated with their permit. This includes both the General Terms and Permit Stipulations on the BLM's Special Recreation Permit Form 2930-2 and other stipulations and environmental protection measures required to ensure compliance with the overarching land use plans, resource protection, and the preservation of health and safety. The Proposed Action includes adoption of a list of standard stipulations (Appendix A, *Stipulations and Mitigation Measures*) that may be selected by the authorized officer to meet these goals. Several stipulations are speed-dependent, and OHV SRPs would only be required to follow the speed-dependent stipulations if they fell into the given speed category (i.e., race events would be required to follow high-speed stipulations, but low-speed non-competitive SRPs would not be required to follow high-speed stipulations). Authorized officers would maintain authority to add other stipulations at their discretion to meet new challenges or changing conditions, or to reduce conflict.

2.1.4 Processing Special Recreation Permits

Under the Proposed Action, SRP permittees would be required to complete BLM Form No. 2930-1, Special Recreation Permit Application; pay a required fee; and receive a SRP with appropriate required stipulations attached before an SRP race or low-speed non-competitive activity could occur. The BLM would be required to review the application, perform an appropriate NEPA analysis,

and deny or approve/approve with modifications the permittee's proposal. For approved proposals, the BLM would choose appropriate stipulations from Appendix A, *Stipulations and Mitigation Measures*, but could also elect to apply new or alternative measures to resolve any resource conflicts.

The BLM anticipates that for future SRP applications that propose the use of routes and pit stops/staging areas analyzed under this EA or substantially similar to routes and pit stops/staging areas analyzed here, a reduced level of NEPA analysis may occur. This may include the preparation of fewer EAs and Categorical Exclusions, and increased use of Determinations of NEPA Adequacy that tier to this programmatic EA. The BLM anticipates this may decrease time and cost of permit processing for both the BLM and the SRP permittee. Selection of the Proposed Action would not affect the need to comply with other laws and regulations, including the need to complete any required consultations under the ESA or the National Historic Preservation Act.

2.2 No Action Alternative

Under the No Action Alternative, BLM Field and District Offices would continue to receive and process SRP applications, complete NEPA processes, and assign stipulations on a case-by-case basis. The BLM anticipates the number and type of OHV SRP would generally be the same as under the Proposed Action. The routes and pit stops/staging areas used by OHV SRPs would be similar to those described under the Proposed Action. Consistent with the Proposed Action, under the No Action Alternative, the BLM would apply the General Terms and Permit Stipulations on the BLM's Special Recreation Permit Form 2930-2 as well other stipulations and environmental protection measures required to ensure compliance with the overarching land use plans, resource protection, and the preservation of health and safety. Because of the case-by-case nature of SRP application processing under this alternative, the BLM anticipates less consistency of stipulations and their application compared to the Proposed Action.

In general, the case-by-case nature of OHV SRP applications under the No Action Alternative will require Field and District Office staff to complete more EA and Categorical Exclusion NEPA processes compared to the Proposed Action. This additional administrative burden would not change or alter effects on the human environment compared to the Proposed Action, but could delay permit processing and result in additional time and expense for OHV SRP permittees and the responsible BLM office. As a result, while the BLM anticipates the number of OHV SRPs and the number of participants and spectators will increase by up to 10% over the next 10 years (consistent with the Proposed Action), there would be no additional (added) increase in SRPs beyond that 10% for small races.

2.3 Alternatives Considered but Eliminated from Detailed Analysis

The Proposed Action and No Action Alternative were the only alternatives analyzed in detail in the development of this EA. The BLM did, however, consider other potential alternatives during its NEPA process that were subsequently dismissed from detailed analysis. These alternatives and the rationale for their dismissal appear below.

2.3.1 Do Not Issue OHV SRPs

Under this alternative, the BLM would cease to issue OHV SRPs. This alternative was dismissed from further analysis, as the BLM is unlikely to stop issuing OHV SRPs in southern Nevada. The Federal Land Policy and Management Act of 1976 mandates multiple use of public lands, including recreation use. One type of valid recreation use is responsible motorized use. OHV SRPs are an important economic driver for the region and supply many recreational opportunities for citizens of Nevada and visitors from other states. The BLM SRP regulations at 43 CFR 2930 provide for SRPs to be issued on public lands.

2.3.2 Consider OHV SRP Routes Across Other Ownership Types

Under this alternative, the BLM would consider potential routing for OHV SRPs across other, non-BLM-administered surface ownership types in its NEPA analysis and decision document. This alternative was dismissed from further analysis because it is outside of the BLM's authority to unilaterally consider and approve routes on non-BLM-administered surface. The public scoping process and coordination with cooperating agencies did not result in other adjacent surface management agencies, such the National Park Service and U.S. Forest Service, requesting to join the BLM's NEPA process to consider routes through their surface estate. Future SRP applicants will need to separately coordinate with and receive approval from these agencies if they wish to use routes that include surface administered by other agencies. Similarly, future SRP applicants will need to coordinate the use of routes that cross private surface with the private landowner.

3.0 Affected Environment and Environmental Consequences

This chapter presents the potentially affected existing environment for resources identified by the BLM IDT as present and potentially significantly affected. For present and potentially significantly affected resources, this chapter also analyzes the effects of the Proposed Action and alternatives. The BLM's NEPA Handbook states that issues need to be analyzed in detail if: (1) analysis of the issue is necessary to make a reasoned choice between alternatives; or (2) the issue is significant, or where analysis is necessary to determine the significance of impacts. See Appendix H, *Resource Summary Table*, for a list of all resources considered for analysis in this EA, including an explanation of why certain resources were considered present but not affected by the Proposed Action and alternatives.

3.1 Air Quality and Greenhouse Gas Emissions

Analysis Area:

Areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities (including areas adjacent to where permitted activities and air quality/GHG impacts could occur).

Issues for Analysis:

- How would GHG emissions and fugitive dust from OHV SRPs affect air quality in the surrounding area?

3.1.1 Affected Environment

Under the Federal Clean Air Act, the U.S. Environmental Protection Agency (EPA) is responsible for establishing National Ambient Air Quality Standards (NAAQS) to safeguard human health and safety. According to Section 107 of the Clean Air Act, each state must collaborate with EPA to classify areas as “attainment” or “nonattainment” based on their compliance with the NAAQS for each pollutant. If there is insufficient data to classify an area, it is designated as “unclassifiable” and treated as if it were in attainment for regulatory purposes (EPA 2022). The vast majority of the project area is designated as “Unclassifiable/Attainment” for all pollutants, aside from a small portion of a route in the northwestern portion of the project area, which is a maintenance area¹ for particulate matter 10 micrometers or smaller in diameter (PM₁₀) (EPA 2023). According to Nevada Administrative Code (NAC) 445B.310.1, sources that emit less than 25 tons per year of any regulated pollutant do not require further environmental or air quality evaluation prior to approval. This threshold is typically used for stationary sources where all emissions are released from a single facility. It is therefore a conservative threshold to apply to a Proposed Action of this kind where emission sources are spread over a large area, greatly reducing expected ambient pollutant concentrations. The BLM has applied this threshold as a benchmark in this analysis.

¹ An air quality maintenance area is any area that, due to current air quality or projected growth rate or both, may have the potential for exceeding any ambient air quality standard.

In the project area, the primary air pollutant of concern is airborne dust resulting from soil disturbance, particularly due to vehicle travel on dirt roads and agricultural cultivation (BLM 2016). This airborne dust can have adverse effects on human health, especially when it contains PM₁₀, which can be inhaled into the lungs. It is worth noting that the existing roads and trails on BLM-administered surface in the project area pass through regions with fine soils capable of generating PM₁₀ and smaller particles. Although there are other sources of emissions, such as vehicle engine exhaust and industrial activities, their impacts are relatively minor. It is important to highlight that these emission sources, including roads, cultivated fields, and industrial facilities, are widely dispersed due to the sparse development in the project area. Additionally, occasional wildland fires can contribute to air quality concerns, with the highest fire danger typically occurring during late summer and autumn. The distribution of emissions is influenced by meteorological conditions, whereby strong winds can carry dust into the air, while precipitation helps to settle it. Wind patterns, along with variations in air temperature, also play a role in determining how pollutants disperse away from their sources.

Seven active air quality monitoring stations exist within the project area: four in western-central Nevada near Carson City and three in southern Nevada near Pahrump. Two stations monitor ground-level ozone, two stations monitor particulate matter 2.5 micrometers or smaller in diameter (PM_{2.5}), and the three stations near Pahrump all monitor PM₁₀. At the time of this analysis, all air monitoring stations were classified as “Good” according to the Nevada Division of Environmental Protection’s air quality index except for the one southernmost station in Pahrump, which had an air quality index value of “Moderate” for PM₁₀ (NDEP 2023).

Various roads and highways within and near the project area are regularly utilized by vehicles year-round. For instance, the southern and central portions of the project area are intersected by Veterans Memorial Highway (U.S. Route 95), which also intersects with OHV SRP routes. The daily traffic counts on U.S. Route 95 alone range from 350 vehicles in Lyon County to 3,350 vehicles in Mineral County (NDOT 2022).

3.1.2 Environmental Consequences

Proposed Action

OHV races would lead to an increase in wind erosion from disturbed soils, as explained in Section 3.7, *Soils*. This erosion would predominantly affect air quality in the immediate vicinity of the OHV SRP routes due to the presence of airborne dust. The amount of airborne dust would vary depending on factors such as soil texture, soil moisture, wind speed, and wind direction. The Proposed Action would affect soils that are already subject to regular vehicle traffic. Areas with soft or loose soils would experience higher levels of airborne dust, whereas regions with recent rainfall or water-retaining soils would have lower levels. OHV SRPs on routes with silty or sensitive soils are more likely to create airborne dust (see Section 3.6, *Hydrologic Conditions*). Fugitive dust impacts would be heightened during high-speed races and four-wheeled OHV SRPs due to the increased contact with the soil surface, while low-speed non-competitive SRPs and motorcycle use would have lower adverse impacts. Similarly, large races would have a greater impact on air quality than small races due to the number of vehicles (emissions and fugitive dust) and amount of foot traffic (fugitive dust). Fugitive dust may also be created as a result of post-event restoration and rehabilitation of OHV routes. All fugitive dust may be exacerbated by wind events following OHV SRP events and races and, in some cases, elevated fugitive dust levels may persist in the immediate area until the next rain

event. See Section 2.1.2 for more details on OHV SRP types within the project area and projected increases by OHV SRP type.

The settling or suspension of dust in the air would depend on transport by the wind. Historical data from similar OHV SRPs indicate that significant amounts of airborne dust have impaired air quality and visibility throughout the day in areas traversed by the race (BLM 2016). However, any dust generated during the OHV SRP (or post-SRP during any site-specific reclamation activities) would generally settle by the end of the day. Therefore, the Proposed Action would likely result in a temporary increase of airborne dust along the OHV SRP routes.

The races would lead to an increase in emissions as a result of fuel combustion from the racing participants. These emissions, including carbon dioxide (CO₂), sulfur oxides (SO_x), nitrogen oxides (NO_x), and volatile organic compounds (VOC),² are known to have adverse effects on human health (CDC 2023). The highest exposure to these compounds would occur in pit areas due to the concentration of vehicles, engine idling, and refueling activities. It is not anticipated that the OHV SRP would significantly contribute to ambient levels of vehicle emissions beyond a temporary rise lasting 1 to 2 days (BLM 2016).

OHV SRPs have little potential to contribute to longer-term air quality effects by disrupting soil stability, as disturbance would be almost entirely confined to existing roads and pre-disturbed pit areas. If any areas that may have partially revegetated are disturbed after a period of unuse, additional impacts on soil stability could result; this could contribute slightly to longer-term air quality effects. However, it is assumed for this analysis that the routes are regularly used, and the Proposed Action would not disturb soils that are not already regularly traveled. In summary, short-term effects on air quality along the OHV SRP route would be temporary (1 day) and longer-term effects would be minimal.

Impacts on air quality due to fugitive dust and GHGs are estimated quantitatively by using two real examples: one small low-speed, non-competitive SRP and one large race in the project area, separated by air basin. Emissions factors provided by the BLM for different vehicles used for OHV SRPs was used to calculate emissions estimate for races (California Air Resources Board 2018). Vehicles used within the project area for OHV SRPs include cars/trucks, motorcycles, helicopters, all-terrain vehicles (ATV), and UTVs. Though similar, ATVs are smaller and more comparable to motorcycles in terms of speed and emissions. The estimated emissions for the two OHV SRP examples were escalated by 10% to account for predicted growth over the next 10 years for these SRP types and used to provide a high and low impact estimate for future SRPs.

Vegas to Reno, the large race example, hosted 1,100 participants, including 385 cars/trucks, 440 UTVs, and 275 motorcycles/ATVs. Average racing speed was 65 miles per hour for cars/trucks, 57 miles per hour for UTVs, and 64 miles per hour for motorcycles/ATVs. The races last between 8 and 24 hours. There are also an average of 11 helicopters flying overhead to follow race teams or for media or medical purposes (Owens 2023). Helicopters would emit GHGs, but the largest impact would be from fugitive dust.

Indirect impacts on air quality may be caused by participants, spectators, and staff traveling to get to the OHV SRP route, with an estimated 1,800 vehicles to support race teams and 750 spectators for the largest race. The majority of participants come from Southern California, Nevada, and Arizona, and it is assumed that the average distance of participant travel is less than 50 miles. The emissions

² NO_x and VOCs react in the atmosphere to form ozone.

from estimated travel to arrive to the event is included in the total emissions. As race vehicles (e.g., OHVs) are assumed to be trailered to event sites, only passenger vehicles (e.g., cars/trucks) were used to calculate emissions from travel to the event.

Silver State Poker Run, the small low-speed non-competitive SRP example, hosted 20 participants, including 15 trucks and 5 UTVs. Average racing speed was 35 miles per hour. The OHV SRP lasted 2 hours, and the average distance traveled to get to the OHV SRP was 50 miles.

See Tables 3.1-1 and 3.1-2 for GHG and fugitive dust estimates for large race and small low-speed non-competitive SRP stats for the project area, escalated by 10% to account for projected future growth. See Appendix G, *Air Quality*, for a breakdown of pollutants in large and small races. Note that values lower than 0.005 were rounded to zero.

Table 3.1-1 Large Race Emissions within the Project Area (Tons per Year)

NO _x	CO	VOC	SO _x	PM10	PM2.5	HAPs	CO _{2e}
0.22	8.60	3.03	0.00	108.34	0.00	0.04	260.47

CO_{2e} = carbon dioxide equivalent (the number of metric tons of carbon dioxide emissions with the same global warming potential as 1 metric ton of another GHG); HAP = hazardous air pollutant (air pollutants known to cause cancer and other health impacts by EPA)

Table 3.1-2 Small Low-speed Non-competitive SRP (Tons per Year)

NO _x	CO	VOC	SO _x	PM10	PM2.5	HAPs	CO _{2e}
0.00	0.04	0.00	0.00	0.20	0.00	0.00	4.89

CO_{2e} = carbon dioxide equivalent; HAP = hazardous air pollutant

While the large race total represented in Table 3.1-1 shows PM10 emissions over 25 tons per year, Appendix G shows the breakdown of PM10 emissions for large races in each air basin, which are all under the 25-ton-per-year Nevada Division of Environmental Protection threshold for any pollutant. Therefore, air quality impacts as a result of the Proposed Action would be temporary and minor for large races and negligible for small low-speed non-competitive SRPs.

For context, the carbon dioxide equivalent (CO_{2e}) emissions of the large race are equivalent to 58 gasoline-powered passenger vehicles driven for 1 year or 3.4 tanker trucks worth of gasoline. Conversely, the small race CO_{2e} emissions are equivalent to 1.1 gasoline-powered passenger vehicles driven for 1 year or 0.65 tanker truck worth of gasoline (EPA 2023). Climate change in Nevada is manifesting in increased temperatures, resulting in more frequent and severe heatwaves. Elevated temperatures are also exacerbating drought conditions. Concurrently, wildfires are increasing in number and severity, imposing ramifications on public health, local economies, and the environment. Lastly, the reduction of snowpack and the earlier onset of snowmelt are influencing water availability and affecting winter recreational activities (University of Nevada, Reno 2021). Due to the relatively small amount of GHG emissions, particularly from small events, it can be assumed that the effects from potential OHV SRPs on climate or climate change are expected to be minor. However, the cumulative impact of numerous races can become more notable, especially if these events occur frequently.

Conversely, climate change can affect OHV races due to the increasing risk of extreme heatwaves, droughts, and wildfires. Increased drought and heat will also lead to increased erosion. These changes can affect race conditions, water availability, track stability, and the overall safety of

participants and spectators. Race organizers may need to implement heat safety measures, water conservation strategies, wildfire preparedness plans, and erosion control measures to adapt to these climate-related challenges and ensure the viability of OHV races in the future.

Mitigation Measures

The full text of stipulations and mitigation measures can be found in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*. Air quality impacts as a result of OHV SRPs may be mitigated by the following measures found in Sections A.1 and A.2:

- HIGH-FW-08, HIGH-TE-05, HIGH-NOX-05, HIGH-PHS-07, HIGH-TTM-01, and HIGH-FIRE-02 (A.1) and LOW-FW-07, LOW-TE-07, LOW-NOX-05, LOW-PHS-07, LOW-TTM-01, and LOW-FIRE-03 (A.2) will mitigate air quality impacts by reducing off-road travel and new land disturbance, thereby reducing fugitive dust from uncompacted soils.
- HIGH-WHB-04 (A.1) and LOW-WHB-04 (A.2) will mitigate air quality impacts by reducing dust from low-flying helicopters.
- HIGH-PHS-04 (A.1) and LOW-PHS-05 (A.2) will mitigate air quality impacts by eliminating potential fugitive dust and smoke from fireworks and explosives.
- HIGH-PHS-08 (A.1) will mitigate air quality impacts by reducing unnecessary foot traffic, and thereby fugitive dust, by spectators.
- HIGH-TTM-10 (A.1) and LOW-TTM-11 (A.2) will mitigate air quality impacts by reducing potential airborne particulates from gypsum or flour used for ground marking.

No Action Alternative

The No Action Alternative would have no meaningful additional effects on GHGs and air quality beyond those discussed under the Proposed Action. The smaller potential increase in small races over the next 10 years under the No Action Alternative would slightly reduce potential short-term, temporary emissions and dust from these events compared to the Proposed Action. If the proposed programmatic EA structure is not utilized, case-by-case NEPA procedures for OHV SRPs would be followed. This could include less-consistent use of stipulations and mitigation measures that might reduce emissions and dust from OHV SRPs compared to the Proposed Action.

3.2 Fish and Wildlife

Analysis Area:

Areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities. Including but not limited to existing routes, pit stop locations, staging areas, and intersections. Appropriate per-species analysis areas will be considered (300 feet for burrowing owls and most other species, 600 feet for Greater Sage-Grouse, and 0.5 mile for raptors).

Issues for Analysis:

- How would OHV SRP events affect direct mortality of fish and wildlife species or direct loss of habitat?
- How would human presence and OHV use during SRP events affect the potential for displacement of wildlife?
- How would OHV SRP events and human presence affect indirect or temporary loss of habitat for fish and wildlife species?

3.2.1 Affected Environment

The project area includes the variety of habitats present in southern Nevada. The 2012 Nevada Wildlife Action Plan identified broad categories of vegetation/habitat in the State, including 22 key habitat types for conservation action, 17 of which are present in or adjacent to the project area (NDOW 2012). The project area includes a broad array of fish and wildlife species, including special status species. Species considered special status include BLM Sensitive Species; State-listed endangered, threatened, and protected; and sensitive fish, amphibian, reptiles, birds, and mammals (NAC 503). USFWS-listed and BLM Sensitive species are discussed separately in Section 3.3, *Special Status Species*. A brief description of the main habitat types and key associated species adjacent to the proposed OHV SRP routes is provided below; a full description can be found in the Nevada Wildlife Action Plan (NDOW 2012). The 17 habitats observed in the project area are Intermountain cold desert shrub, Mojave warm desert and mixed desert scrub, sagebrush, lower montane woodlands and chaparral, intermountain rivers and streams, desert playas and ephemeral pools, agricultural lands, aspen woodland, barren landscapes, cliffs and canyons, developed landscapes, grasslands and meadows, intermountain cold desert shrub, lakes and reservoirs, marshes, mesquite bosques and desert washes, sand dunes and badlands, and Sierra coniferous forest and woodlands. Several of the most widespread habitats are described below.

Intermountain cold desert shrub is an extensive habitat throughout Nevada, generally following valley bottoms and associated with poor runoff and high soil salinity. Plant communities are generally characterized by salt-tolerant shrubs in the Goosefoot family (Chenopodiaceae). Vegetation is often dominated by shadscale (*Atriplex confertifolia*) or greasewood (*Sarcobatus vermiculatus*). Soils tend to be loose and form hummocks around large shrubs, allowing for burrowing of mammals and lizards. Representative animals of this habitat include reptiles including long-nosed leopard lizard and great basin collared lizard; raptors such as ferruginous hawk and bald eagle; and passerine birds such as loggerhead shrike, sagebrush sparrow, Brewer's sparrow, and sage thrasher (NDOW 2012).

Mojave warm desert and mixed desert scrub includes the creosote bush community of the alluvial fans, the Joshua tree woodlands, and blackbrush communities typically found between the desert scrub and the woodland zones on mountain ranges in the Mojave Ecoregion. This habitat includes key features such as dwarf shrubs, rocky canyons, washes and sandy soils, plus blackbrush and yucca, which serve as nesting structure and protection from predators. Representative animals of this habitat include reptiles such as desert tortoise, sidewinder, desert iguana, desert horned lizard, and desert night lizard; birds such as black-chinned sparrow, burrowing owl, LeConte's thrasher, and loggerhead shrike; and small mammals such as desert kangaroo rats and the desert pocket mouse. Bighorn sheep inhabit rocky slopes within this habitat (NDOW 2012).

Sagebrush communities are found at elevations of 4,500 to 10,000 feet, from valley floors to mountainsides, and are generally intermixed with other habitats. These communities are dominated by sagebrush including basin big sagebrush, mountain big sagebrush, Wyoming big sagebrush, low sagebrush, and black sagebrush. In Nevada, eight species are predominantly dependent on sagebrush habitat for most of their life history needs: pygmy rabbit, great basin pocket mouse, sagebrush vole, sagebrush lizard, Greater Sage-Grouse, sage thrasher, brewer's sparrow, and sagebrush sparrow (NDOW 2012). Other species associated with this habitat include reptiles such as short-horned lizard and small mammals such as kangaroo mouse and Wyoming ground squirrel. This habitat also supports the foraging of raptor species, which nest in adjacent habitats, including bald eagle, prairie falcon, and ferruginous hawk (NDOW 2012).

Lower montane woodlands and chaparral are found at elevations of 5,000 to 8,000 feet and are characterized by pinyon pine and juniper species mixed with shrub species such as mountain mahogany, sagebrush, black sagebrush, and bitterbrush. These junipers and pinyon pine provide a variety of shelter functions for wildlife. Representative animals of this habitat include reptiles such as short-horned lizard and western red-tailed skink; birds such as pinyon jay, Cassin's finch, mountain quail, and dusky and sooty grouse; and mammals such as chipmunk species, mule deer, and Inyo and Merriam's shrew. Bat species that utilize the mature tree snags and cavities in this habitat include long-eared myotis, Allen's big-eared bat, western small-footed myotis, fringed myotis, and little brown bat (NDOW 2012).

Intermountain rivers and streams include riparian areas, floodplains, and wetlands adjacent to streams and rivers. Dominant tree and shrub species in higher-altitude streams may include cottonwood, aspen, alder, birch, willow, wild rose, and red-osier dogwood. Lowland riparian habitats are dominated by Fremont cottonwood with several willow species in the floodplains, dominated by Fremont cottonwood. Many of the areas have been heavily invaded by salt cedar and Russian olive. These riparian habitats are critical areas of diversity passing through other habitat types, and a vast majority of Nevada's wildlife species utilize these habitats at some time of the year. Because of the relative scarcity of aquatic systems in Nevada and the naturally disconnected and fragmented nature of these systems in an arid climate, individual systems are critically important for aquatic species. Reptiles and amphibians highly associated with this habitat include pond turtle, northern leopard frog, and Columbia spotted frog. This habitat is also home to numerous trout, dace, and chub species.

Distribution of Nevada Wildlife Action Plan key habitat types in the Caliente, Pahrump, Sierra Front, Stillwater, and Tonopah Field Offices are presented in Appendix B, Figures 3.2-1 through 3.2-5.

3.2.2 Environmental Consequences

Proposed Action

Effects on special status fish and wildlife species are described in Section 3.3, *Special Status Species*. Effects on migratory bird species are described in Section 3.4, *Migratory Birds*.

Injury or mortality of large mammal species could occur through collision on roads, with a higher potential when events are run at dusk or in the night, and higher potential for race events versus low-speed non-competitive SRPs. Mortality of large mammals is unlikely based on experience from previous races. Large animals could be temporarily displaced from habitat by activities, which is particularly important if the large mammals are displaced from water resources. Displaced wildlife

would be expected to return following the OHV SRP or the end of any post-SRP reclamation. Displacement could be particularly significant if it displaces large mammals from crucial winter food sources or displaces during spring birthing periods. The Proposed Action includes stipulations that would prevent activities in crucial winter habitat (HIGH-FW-10 and LOW-FW-09) and in spring within known kidding, fawning, lambing, and calving range (HIGH-FW-11 and LOW-FW-10).

The Proposed Action could result in increased noise disturbance to roosting bats, particularly in higher-elevation forested areas, relative to times when races are not being run, but a nominal increase relative to the No Action Alternative of individual approval of SRPs. The Proposed Action would remain on existing roads and would not physically affect hibernacula or roost locations that could be present near the routes. Direct mortality through collision is possible, though unlikely, during early morning or evening hours. Direct or indirect mortality events would likely be limited to individuals (if any) and bats would resume normal activity following the noise disturbance.

The Proposed Action could result in increased noise disturbance to birds nesting near roads, relative to times when races are not being run, but a nominal increase relative to the No Action Alternative of individual approval of SRPs. Noise from OHVs has potential to displace adults that are tending nests, which can negatively affect the vigor of eggs, nestlings, or fledglings. However, several stipulations aim to minimize impacts on nesting migratory birds. Races would not be allowed during the migratory bird nesting season, March 1 through August 31 (HIGH-MB-01). For races proposed from January 1 to February 29, pre-race raptor and eagle nesting surveys would be required, and nest buffers or route closures would be implemented if active nests are identified near the route (HIGH-MB-02). Poker runs and similar type events proposed from January 1 through August 31 would be subject to pre-event migratory bird or raptor and eagle nesting surveys, and nest buffers or route closures would be implemented if active nests are identified near the route (LOW-MB-01).

Direct mortality of reptiles, small mammals, and birds could occur through collision or crushing on roads, at pit stops, at gathering points, and during any post-SRP reclamation. Habitat for these species (e.g., burrows, rock crevices) could also be crushed or removed along the edge of roads, at pit stops, and at gathering points. Direct mortality of birds could also affect the fitness of eggs, nestlings, or fledglings, if the killed bird was tending the nest.

The presence of roadkill could increase presence of predators, such as eagles, coyotes, and ravens, which could affect smaller prey species. The Proposed Action includes stipulations to remove large roadkill (HIGH-FW-09; LOW-FW-08) and control trash to avoid attracting predators (HIGH-HAZ-01; HIGH-HAZ-06; LOW-HAZ-01; LOW-HAZ-06).

All routes are open for public use, so the described effects already occur. SRP stipulations would reduce the potential for biological impacts (see Sections A.1 and A.2 in Appendix A).

Mitigation Measures

The full text of stipulations and mitigation measures can be found in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*. Impacts on fish and wildlife species as a result of events may be mitigated by the following measures found in Sections A.1 and A.2:

- HIGH-FW-01 (A.1) and LOW-FW-01 (A.2) will prohibit event participants from harassing or chasing wildlife.

- HIGH-FW-02 (A.1) and LOW-FW-02 (A.2) will prohibit hunting, shooting, and collecting wildlife and plants while conducting activities associated with the permitted use.
- HIGH-FW-03 (A.1) and LOW-FW-03 (A.2) will require inspecting equipment or supplies prior to moving to reduce potential for injury to wildlife.
- HIGH-FW-05 (A.2) will require that the permittee clear the course before each run to ensure that no wildlife species have wandered onto the racecourse.
- HIGH-FW-06 (A.1) and LOW-FW-05 (A.2) will require that event participants would be informed of areas where big game may be encountered along the event route and that they yield to wildlife.
- HIGH-FW-07 (A.1) and LOW-FW-06 (A.2) will establish a 1-mile avoidance buffer around active raptor nests for helicopters and drones.
- HIGH-FW-08 (A.1) and LOW-FW-07 (A.2) will require that the permittee comply with any written instructions and maps.
- HIGH-FW-09 (A.1) and LOW-FW-08 (A.2) will require the removal of any large animal roadkill along race route.
- HIGH-FW-10 and HIGH-FW-11 (A.1) and LOW-FW-09 and LOW-FW-10 (A.2) will prohibit activities that may disturb and displace large game in crucial winter range during designated wintering periods and in known kidding, fawning, lambing, and calving range during designated spring periods.

No Action Alternative

The No Action Alternative would have no meaningfully different effects on direct mortality for fish and wildlife, direct loss of habitat, or effects on wildlife or habitat due to displacement beyond those discussed under the Proposed Action. The smaller potential increase in small races over the next 10 years under the No Action Alternative would slightly reduce potential short-term, temporary displacement effects and direct mortality from these events compared to the Proposed Action. If the proposed programmatic EA structure is not utilized, case-by-case NEPA procedures for OHV SRPs would be followed. This could include less-consistent use of stipulations and mitigation measures that might reduce effects from OHV SRPs compared to the Proposed Action.

3.3 Special Status Species

Analysis Area:

Areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities. Including but not limited to existing routes, pit stop locations, staging areas, and intersections.

Issues for Analysis:

- How would OHV SRPs affect direct mortality of special status species animal and plant species or direct loss of habitat?

- How would human presence and OHV use during SRPs affect displacement of special status animal species?
- How would human presence and OHV use during SRPs affect indirect or temporary loss of habitat for special status animal species?
- How would OHV use during SRPs affect direct mortality or loss of habitat for special status plant species through dust deposition?

3.3.1 Affected Environment

The ESA was enacted in 1973 to provide protection to threatened and endangered species and their associated ecosystems. “Take” of a listed species is prohibited except when authorization has been granted through a permit under Section 4(d), 7, or 10(a) of the act. *Take* is defined as to harass, harm, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of these activities without a permit. Federal agencies are required to ensure their actions do not jeopardize or adversely modify critical habitat (as defined in the ESA) of any federally listed species.

The project area provides habitat for threatened, endangered, and candidate species. USFWS’s Information for Planning and Consultation (IPaC) tool reported 29 threatened, endangered, and candidate species that have potential to occur in the vicinity of the project area (Table 3.3-1) (USFWS 2023). In addition, IPaC reported final critical habitat has been designated for four species near the project area: desert tortoise, Railroad Valley springfish, White River springfish, and Tiehm’s buckwheat (Appendix B, *Maps and Figures*, Figures 3.3-1 and 3.3-2).

Table 3.3-1 Threatened, Endangered, Proposed, and Candidate Species with the Potential to Occur within the Analysis Area

Species	Status ¹	Project Determined to Have No Effect
Birds		
California condor (<i>Gymnogyps californianus</i>)	E, EXPN	
Greater Sage-Grouse (<i>Centrocercus urophasianus</i>) “Bi-state” Distinct Population Segment	PT	
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	E	
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	T	
Yuma Ridgway’s rail (<i>Rallus obsoletus yumanensis</i>)	E	X
Herpetofauna		
Desert tortoise (<i>Gopherus agassizii</i>)	T	
Dixie Valley toad (<i>Anaxyrus williamsi</i>)	E	X
Fishes		
Big spring spinedace (<i>Lepidomeda mollispinis pratensis</i>)	T	X
Cui-ui (<i>Chasmistes cujus</i>)	E	X
Devils hole pupfish (<i>Cyprinodon diabolis</i>)	E	X
Hiko White River springfish (<i>Crenichthys baileyi grandis</i>)	E	X
Lahontan cutthroat trout (<i>Oncorhynchus clarkii henshawi</i>)	T	X
Moapa dace (<i>Moapa coriacea</i>)	E	X
Pahranagat roundtail chub (<i>Gila robusta jordani</i>)	E	X

Species	Status ¹	Project Determined to Have No Effect
Pahrump poolfish (<i>Empetrichthys latos</i>)	E	X
Railroad Valley springfish (<i>Crenichthys nevadae</i>)	T	X
White River spinedace (<i>Lepidomeda albivallis</i>)	E	X
White River springfish (<i>Crenichthys baileyi baileyi</i>)	E	X
Insects		
Carson wandering skipper (<i>Pseudocopaedodes eunusobscurus</i>)	E	X
Monarch butterfly (<i>Danaus plexippus</i>)	C	
Plants		
Amargosa niterwort (<i>Nitrophila mohavensis</i>)	E	X
Ash Meadows blazingstar (<i>Mentzelia leucophylla</i>)	T	X
Ash Meadows gumplant (<i>Grindelia fraxinipratensis</i>)	T	X
Ash Meadows ivesia (<i>Ivesia kingii var. eremica</i>)	T	X
Ash Meadows milk-vetch (<i>Astragalus phoenix</i>)	T	X
Ash Meadows sunray (<i>Enceliopsis nudicaulis var. corrugata</i>)	T	X
Spring-loving centaury (<i>Centaureum namophilum</i>)	T	
Tiehm's buckwheat (<i>Eriogonum tiehmii</i>)	E	X
Ute ladies'-tresses (<i>Spiranthes diluvialis</i>)	T	
Whitebark pine (<i>Pinus albicaulis</i>)	T	

¹ Designations

E: Species listed as endangered by USFWS

T: Species listed as threatened by USFWS

C: Species formally a candidate for listing by USFWS

PT: Species is proposed threatened by USFWS

EXP: Population within the analysis area is deemed experimental, non-essential under ESA Section 10j

Appendix D-2 provides a list of special status wildlife species (not including federally listed species or distinct population segments) that are known or have the potential to occur in the vicinity of the project area. This includes 7 species of amphibians, 16 reptiles, 17 fishes, 27 species of birds, and 35 mammals. Appendix D-3 provides a list of special status plants, including 145 plants that occur within the limits of the four BLM Districts.

3.3.2 Environmental Consequences

Proposed Action

For OHV SRP events on existing roads and trails, the most likely sources for impacts on threatened, endangered, and candidate species would be noise disturbances and nuisance dust, as well as incidental take from vehicle strikes on animals crossing routes. The Proposed Action is restricted to existing roads, staging areas, and any areas that may require post-SRP reclamation, and would therefore not result in direct loss of habitat. Noise disturbances and the increased presence of humans can displace animals from any preferred habitat that is near OHV SRP routes. The BLM will be initiating Section 7 consultation with USFWS through preparation of a Biological Assessment to analyze effects of the Proposed Action on threatened, endangered, proposed, and candidate species and critical habitats.

Birds

Effects on non-listed special status bird species presented in Appendix D are generally the same as those effects described in Section 3.4, *Migratory Birds*. Special status bird species with potential for unique effects are described below. Yuma clapper rail occurs within Nevada but would not be affected by the Proposed Action (Appendix D-1).

The California condor is a large, wide-ranging scavenger bird. Populations within northwest Nevada and within specific portions of Nevada, Arizona, and Utah are considered experimental (non-essential) populations and do not have the same take prohibitions as other populations. The most northwestern route could overlap with the potential range of the northwest experimental population. The routes are otherwise outside of the current known range of this species, but this bird is capable of long-distance flight and could move into the routes. Condors outside of these areas are considered endangered and protected under the ESA. Condors could be drawn to roads by the presence of roadkill animals or from gut piles, from hunting not associated with the Proposed Action, left near routes. If a condor is feeding on roadside carcasses during OHV SRPs, there is potential for vehicle strikes on condors. The Proposed Action includes mitigation measures to reduce potential for roadkill or carcasses near the proposed routes and disposing of any large roadkill along the routes (HIGH-FW-09; LOW-FW-08); stipulations include prevent hunting during events (HIGH-FW-02; LOW-FW-02) and clearing the routes prior to race events to reduce potential for roadkill (HIGH-FW-05).

Greater Sage-Grouse is the largest North American grouse species and widespread across the western United States. This species breeds in leks in open sagebrush habitat and nests in areas of dense sagebrush. The “bi-state” DPS is restricted to northern Pine Nuts in Nevada through the southern extent of Pine Nuts and continues across Bodie Hills to the White Mountains and California (USFWS 2020a) and was proposed for listing as threatened on April 27, 2023. The bi-state DPS does not intersect with any of the Greater Sage-Grouse management areas, as the latter exist in east central Nevada. A detailed description of the species and bi-state DPS can be found in the *Species Report* (USFWS 2020a). The route would pass through “Suitable Potentially Occupied” habitat for the bi-state DPS within the Pine Mountain Population Management Unit and White Mountains Population Management Unit (USFWS 2020a). The bi-state DPS could be directly affected by excessive noise (decibel levels/noise durations well above those of typical background noise) and increased human presence associated with OHV activities (Ouren et al. 2007), particularly if those effects occurred during the breeding season and near leks or other breeding grounds. However, the *Record of Decision and Land Use Plan Amendment for the Nevada and California Greater Sage-Grouse Bi-State Distinct Population Segment in the Carson City District and Tonopah Field Office* (BLM 2016) includes management actions that would protect the bi-state DPS. The Land Use Plan Amendment requires time-of-year and time-of-day travel restrictions from March 1 to June 30 for SRPs that pass within 4 miles of an active or pending lek, and that SRPs will not be authorized within occupied winter bi-state DPS habitat between November 1 and March. Conformance with this amendment would prevent potential for noise or activity to affect breeding or wintering bi-state DPS. The routes occur on existing roads and dry washes that are not associated with brood-rearing habitat. Conformance with this amendment is stipulated in HIGH-TE-07 and LOW-TE-09.

Greater Sage-Grouse from the remainder of the State is listed as BLM sensitive and is managed through the *Record of Decision and Approved Resource Management Plan Amendments for the Great Basin Region* (BLM 2015). The route would pass through Greater Sage-Grouse Management Areas including Priority Habitat, General Habitat, and Other Habitat (BLM 2015) (Appendix B, Figures 3.2-

6 through 3.2-9). Greater Sage-Grouse could be directly affected by excessive noise (decibel levels/noise durations well above those of typical background noise) and increased human presence associated with OHV activities (Ouren et al. 2007), particularly if those effects occurred during the breeding season and near leks or other breeding grounds. Greater Sage-Grouse are particularly sensitive to human presence and OHV use and will avoid areas being actively used. The event routes occur on existing roads and dry washes that are not associated with brood-rearing habitat, although grouse could cross roads. While grouse tend to avoid human activity, OHVs associated with race events could surprise grouse and result in collision. The Proposed Action includes stipulations that prohibit races during migratory bird nesting season, March 1 to August 31 (HIGH-MB-01). Permittees would also be required to follow all stipulations, survey requirements, buffers, and other measures as outlined in the *Nevada and Northeastern California Greater Sage-Grouse Approved RMP Amendment and ROD, September 2015/2021*, and the *Record of Decision and Land Use Plan Amendment for the Nevada and California Greater Sage-Grouse Bi-State Distinct Population Segment in the Carson City District and Tonopah Field Office, May 2016* (HIGH-TE-07, LOW-TE-09).

Burrowing owl often walk on the ground or fly at low elevations, particularly at dusk or during the night, and can utilize habitat adjacent to OHV SRP routes. Burrowing owl presence adjacent to routes puts them at risk for injury or mortality through collision on roads. Additionally, if burrowing owl are nesting near utilized OHV SRP routes, vehicular noise could cause displacement, which could result in decreased vigor for young. The Proposed Action includes stipulations to establish 300-foot burrow avoidance buffers if active burrowing owl burrows are observed near poker run and similar type event routes (LOW-MB-01), as well as a prohibition of high-speed races during migratory bird nesting season, March 1 to August 31 (HIGH-MB-01).

Two federally listed, riparian-associated migrant songbirds have potential to occur along the routes. Southwestern willow flycatcher is a neotropical migrant songbird. In Nevada, it is restricted to willow or tamarisk habitats in saturated soils in southern Nevada on tributaries to the Colorado River (NDOW 2012). Yellow-billed cuckoo requires dense cottonwood-willow riparian forest tracts and is only known from a few localities in Nevada (NDOW 2012). Activities during the summer breeding season could result in noise effects on these riparian nesting species when routes traverse warm riparian areas within the Pahrump, Caliente, and Tonopah Field Office boundaries. Yellow-billed cuckoo could also utilize habitat along the Carson River in the Sierra Front Field Office. Noise could result in birds abandoning the nests but could also result in less obvious impacts including loss of fitness from stress responses. These species avoid open areas and roads and are unlikely to encounter vehicle strikes. The Proposed Action includes stipulations to avoid routes near riparian areas to the extent practicable (see Section 3.6, *Hydrologic Conditions*). The Proposed Action includes measures that require pre-event migratory bird nesting surveys, establish avoidance buffers around any known nests during the breeding season for low-speed, non-competitive events (LOW MB-01), and prohibit high-speed races during migratory bird nesting season, March 1 to August 31 (HIGH-MB-01).

Reptiles and Amphibians

The Proposed Action includes OHV SRP routes within desert tortoise critical habitat (59 *Federal Register* 5820–5866) within the southernmost extent of the jurisdiction of the Caliente Field Office (Appendix B, Figure 3.3-1), as well as potential habitat within Tonopah Field Office. Potential desert tortoise habitat in the project area includes Mojave warm desert and mixed scrub, barren landscapes, and sand dunes and badlands. The Proposed Action could result in tortoises being struck or crushed on routes or in staging areas. Tortoises are often drawn to shelter in the shade of

parked vehicles and therefore risk being crushed when vehicles are moved. Tortoises, particularly younger individuals, risk being harassed or injured by any dogs brought in by recreational users (USFWS 2022). OHV SRPs authorized by the Proposed Action, including both races and low-speed non-competitive SRPs, have potential to result in trash and food waste that can attract species that predate desert tortoise (particularly small juvenile tortoises) including ravens and coyotes (USFWS 2022). Proposed Action stipulations HIGH-TE-01 through HIGH-TE-06 and LOW-TE-01 through LOW-TE-08 include measures to avoid harassment or harm of desert tortoise.

The Proposed Action would have no effect on Dixie Valley toad (Appendix D-1).

Fish

As described in Section 3.6.2, the Proposed Action would result in vehicular passage through surface waters, which could affect water quality through the redeposition of sediments. These activities have the potential to affect riverine fishes. To mitigate potential impacts on waterbodies in concentrated use areas, appropriate techniques tailored to local site conditions must be employed. Impacts would be heightened in race events, while low-speed non-competitive SRPs/or motorcycle use would have less negative impacts on hydrology.

It was determined that the following fish species are not present in or near the route and would not be affected by the Proposed Action: cui-ui, Devil's hole pupfish, Hiko White River springfish, Lahontan cutthroat trout, Moapa dace, Pahranaagat roundtail chub, Pahrump poolfish, Railroad Valley springfish, White River spinedace, and White River springfish (Table 3.3-1). The project would have no impact on Railroad Valley springfish critical habitat or White River springfish critical habitat. Descriptions of the determinations are present in Appendix D-1.

Insects

Carson wandering skipper would not be affected by the Proposed Action and is described in Appendix D-1.

Monarch butterfly may migrate through the project area, utilize milkweeds for summer larval breeding habitat, and utilize wildflowers for summer nectaring habitat. Monarchs do not overwinter in the project area. Monarch lay eggs only on milkweed species, and the larvae acquire their characteristic toxicity while feeding on milkweed (USFWS 2020b). While milkweed species (*Asclepias* spp.) are often more concentrated in mesic areas or riparian floodplains (USFWS 2020b), various milkweeds can be found throughout the deserts and sagebrush within the project area, including desert milkweed (*A. erosa*), showy milkweed (*A. speciosa*), and narrowleaf milkweed (*A. fascicularis*). Adult monarchs have a negligible potential for direct strike with vehicles because of the relative infrequency of both monarchs and vehicles within the landscape and the tendency of monarchs to migrate well above ground level. Fugitive dust generated by vehicular traffic or post-SRP reclamation can settle on plants, including milkweed and nectar resources, and reduce the viability of those plants. This potential is larger for larger events and races. The small buffer area that would be affected by travel routes is small compared to the large amount of suitable habitat for milkweed in southern Nevada.

Plants

Spring-loving centaury, Ute ladies'-tresses, and whitebark pine, as well as other special status plant species (listed in Appendix D), may be present in the vicinity of the Proposed Action. No new surface

disturbance is proposed under the Proposed Action; therefore, no crushing, soil compaction, erosion, habitat fragmentation, or other direct impacts on these plant species or their habitat are expected to occur. Implementation of the Proposed Action would give the BLM the ability to penalize races that violate prohibitions against new surface disturbances.

Fugitive dust raised by OHV traffic or post-SRP reclamation can deposit on plants and disrupt photosynthetic processes, thereby suppressing plant growth and vigor, especially along event routes (Ouren et al. 2007), if these special status plants are present in the vicinity of the Proposed Action. These indirect effects would not be expected to be meaningfully different from those of the No Action Alternative, as the routes are open to the public and SRPs are approved without the programmatic approach.

The introduction and spread of noxious weeds and invasive plant species can negatively affect special status plant species. Noxious weeds are discussed in Section 3.5.

The Proposed Action would avoid Tiehm's buckwheat critical habitat and would therefore have no direct effect on Tiehm's buckwheat or Tiehm's buckwheat critical habitat. The routes are situated far enough from Tiehm's buckwheat critical habitat to not contribute to existing nuisance dust deposition on Tiehm's buckwheat critical habitat.

Mitigation Measures

The full text of stipulations and mitigation measures can be found in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*. Impacts on threatened, endangered, and candidate species as a result of events may be mitigated by the following measures found in Appendix A:

- HIGH-TE-01 (A.1) and LOW-TE-01 (A.2) will require notification of the BLM if any tortoise is injured or killed, or if a dead or injured tortoise is found.
- LOW-TE-02 (A.2) will prohibit dogs from being allowed on tours.
- HIGH-TE-02 (A.1) and LOW-TE-03 (A.2) will require a field contact representative, who will be responsible for overseeing compliance with protective stipulations for the desert tortoise.
- HIGH-TE-03 and HIGH-TE-04 (A.1), and LOW-TE-04 and LOW-TE-05 (A.2) will prohibit the handling and require the avoidance of desert tortoise.
- LOW-TE-06 (A.2) will require inspection under vehicles for desert tortoise.
- HIGH-FW-04 (A.1) and LOW-FW-04 (A.2) will require reporting any observations of Gila monster to the Nevada Division of Wildlife.
- HIGH-TE-05 (A.1) and LOW-TE-07 (A.2) will require remuneration fees for any new land disturbance.
- HIGH-TE-06 (A.1) and LOW-TE-08 (A.2) will require that all activity cease if a desert tortoise enters an area of activity.
- HIGH-TE-07 (A.1) and LOW-TE-09 (A.2) will require permittees to follow all stipulations, survey requirements, buffers, and other measures for the protection of the Greater Sage-Grouse as outlined in existing plans.

No Action Alternative

The No Action Alternative would have no meaningful different effects on direct mortality for special status species, direct loss of habitat, or effects due to displacement beyond those discussed under the Proposed Action. The smaller potential increase in small races over the next 10 years under the No Action Alternative would slightly reduce potential short-term, temporary displacement effects and direct mortality from these events compared to the Proposed Action. If the proposed programmatic EA structure is not utilized, case-by-case NEPA procedures for OHV SRPs would be followed. This could include less-consistent use of stipulations and mitigation measures that might reduce effects from OHV SRPs compared to the Proposed Action.

3.4 Migratory Birds

The project area includes habitat that migratory birds may utilize year-round or during migration periods. For OHV SRPs on existing roads and trails, migratory birds would most likely be affected by noise disturbances and dust, as well as potential incidental take from bird-vehicle collisions.

Analysis Area:

Areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities. Including but not limited to existing routes, pit stop locations, staging areas, and intersections.

Issues for Analysis:

- How would human presence and OHV use during SRPs affect nesting migratory bird success, both in the short term and long term?
- How would human presence and OHV use during SRPs directly and indirectly affect migratory bird habitat?

3.4.1 Affected Environment

Refer to Section 3.2.1 for a general description of habitat for wildlife, including migratory birds, within the project area.

The MBTA (16 U.S.C. 703 et seq.) was enacted in 1918. Its purpose is to prohibit the killing or transport of covered native migratory birds—or any part, nest, or egg of any such bird—unless allowed by another regulation adopted in accordance with the MBTA. The MBTA includes a list of protected species, which includes almost all native, non-game bird species. The USFWS IPaC report lists 29 migratory birds that have the potential to occur in the vicinity of the project area (Appendix B, *IPaC Reports by Field Office*).

Executive Order 13186 (66 *Federal Register* 3853, January 17, 2001), titled “Responsibilities of Federal agencies to Protect Migratory Birds,” directs agencies to take certain actions to further implement the migratory bird conventions, the MBTA, the s, and other pertinent statutes. The BLM has signed an MOU with USFWS outlining a collaborative approach to promote the conservation of migratory bird populations (BLM MOU WO-230-2010-04-1; BLM 2010). This MOU includes evaluating the effects of the BLM’s actions on migratory birds during the NEPA process and

identifying where take reasonably attributable to agency actions may have a measurable negative effect on migratory bird populations.

3.4.2 Environmental Consequences

Proposed Action

The Proposed Action is for a programmatic approval of OHV SRPs routes and pitstop/staging area locations, which includes a consistent application of mitigation measures across regions and jurisdictions. The Proposed Action mitigation measures include prohibition of high-speed races during the migratory bird nesting season, defined as March 1 to August 31 (HIGH-MB-01), and requirements for pre-race raptor and eagle nesting surveys and potential 1-mile avoidance buffers or route closures if active nests are identified (HIGH-MB-02). Poker runs and other similar type events proposed from January 1 through August 31 would be subject to pre-event migratory bird or raptor and eagle nesting surveys and possible nest buffers or route closures (LOW-MB-01). No clearing of vegetation is planned or proposed for OHV SRP routes or pit stops/staging areas. Vehicles would remain on existing routes and not result in direct loss of habitat. Direct loss of nesting habitat is not expected. Permitted activities may have several effects on migratory birds; these effects would be similar for SRPs issued programmatic (Proposed Action) or individually (No Action Alternative). However, under the No Action Alternative, high-speed races would not be specifically prohibited during the migratory bird nesting season and standardized survey requirements would not be required, and therefore the Proposed Action could lessen the effects of OHV SRPs on migratory birds. Direct effects on migratory bird species include direct mortality or injury associated with collisions, as well as disturbance from noise and activity along the project area. Direct mortality could occur for ground-nesting species, such as mourning dove, establishing nests on the shoulder of roads and subsequently being crushed. Some fledgling birds are able to walk but not fly when very young (e.g., Gambel's quail, common nighthawk, killdeer) and could be hit while walking on or across roads. Adult walking or low-flying birds could misjudge the speed of approaching vehicles and be hit, resulting in injury or mortality. Mortality of adults who are tending to eggs, nestlings, or fledglings would result in loss of reproductive success and potential death of eggs or young. Prohibition of races during the migratory bird nesting season would reduce the likelihood of bird mortality or injury as a result of vehicle collision (HIGH-MB-01).

The Proposed Action could result in indirect effects on migratory birds through disturbance including noise from vehicular traffic along the route and increased human activities, including during any post-SRP reclamation. If birds are nesting near the routes or near areas where people are congregating, this avoidance behavior could result in adults leaving the nest for extended periods, which can result in death of eggs or increased chance of predation of eggs or young. This can be especially pronounced in areas adjacent to high pedestrian traffic, such as pit stops, as humans on foot tend to cause more pronounced avoidance by birds than when humans are present nearby but restricted to vehicles. As OHV SRPs are short in duration and occur along routes that are already regularly used by OHVs and other public land users, impacts on migratory bird nesting success would most likely be temporary in nature and not affect long-term nesting success. However, nests in proximity to routes with large, extended day races or routes used frequently may experience long-term impacts and nest abandonment. Because the Proposed Action mitigation measures prohibit high-speed races during the migratory bird nesting season, March 1 to August 31 (HIGH-MB-01), there is likely to be a reduced effect on migratory birds from OHV SRPs under the Proposed Action.

Effects on raptors include the temporary loss of foraging habitat, including the loss or displacement of prey sources for raptors, and disturbance of breeding habitat from noise or activity. Increases in noise and human presence during OHV SRPs may cause raptors to avoid the immediate vicinity of the project and leave nests. Some raptor species, and individuals/populations within those species, are more sensitive to disturbance than other birds and will flush from nests with any human presence in the vicinity. HIGH-MB-02 and LOW-MB-01 require pre-race and pre-event raptor and eagle nesting surveys and would implement 1-mile nest buffers if active nests are identified near the routes. HIGH-MB-01 prohibits races during the migratory bird nesting season, March 1 to August 31. These stipulations would reduce negative effects on raptors under the Proposed Action.

In summary, because the routes are open to public usage (typically year-round) and SRPs are approved without programmatic approvals, the effect of the Proposed Action would not be meaningfully different from that of the No Action Alternative and may lessen impacts on migratory birds due to the standardized stipulations that would be implemented under the Proposed Action.

Mitigation Measures

The full text of stipulations and mitigation measures can be found in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*. Impacts on migratory birds as a result of OHV SRPs may be mitigated by the following measures found in Appendix A:

- HIGH-MB-01 (A.1) will prohibit high-speed races during the migratory bird nesting season, March 1 to August 31.
- HIGH-MB-02 (A.1) will require pre-race raptor and eagle nesting surveys for races proposed from January 1 to February 29, and will implement nest buffers or route closures if active nests are identified.
- LOW-MB-01 (A.2) requires pre-event migratory bird or raptor and eagle nesting surveys for poker runs and similar type events proposed from January 1 through July 31, and would require nest buffers or route closures if active nests are identified.

No Action Alternative

The No Action Alternative could have greater effects related to the direct mortality, displacement of migratory birds, and effects on migratory birds nesting than the Proposed Action, as high-speed races would not be specifically (programmatically) prohibited during the migratory bird breeding season under the No Action Alternative. However, the No Action Alternative would have no meaningfully different effects on loss of habitat beyond those discussed under the Proposed Action, because the routes utilized for OHV SRPs would be similar under the two alternatives and the authorized officer could individually apply OHV SRP timing restrictions during sensitive seasons. The smaller potential increase in small races over the next 10 years under the No Action Alternative would have a nominal reduction in potential short-term, temporary displacement effects and direct mortality from these events compared to the Proposed Action. If the proposed programmatic EA structure is not utilized, case-by-case NEPA procedures for OHV SRPs would be followed. This could include less-consistent use of stipulations and mitigation measures that might reduce effects from OHV SRPs compared to the Proposed Action.

3.5 Noxious Weeds and Invasive/Non-Native Species

Analysis Area:

Areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities. Including but not limited to existing routes, pit stop locations, staging areas, and intersections. Areas adjacent to the project area may also be affected by the spread of noxious weeds introduced to the project area by event activities.

Issues for Analysis:

- How would OHV use and movement of spectators during SRPs affect the establishment or expansion of noxious weeds and invasive/non-native species infestations?

3.5.1 Affected Environment

Refer to Section 3.2.1 for a general description of vegetation communities within the project area.

The Federal Noxious Weed Control Act and Executive Order 13112 require consideration if a project could “contribute to the introduction, continued existence, or spread of noxious weeds or nonnative invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species.”

The Nevada Department of Agriculture maintains the Nevada Noxious Weeds List, defining noxious weeds as “any species of plant which is, or is likely to be, detrimental or destructive and difficult to control or eradicate” (Nevada Department of Agriculture 2021). Some invasive weed species, such as cheatgrass (*Bromus tectorum*), are already widespread in the environment and are altering fire behavior, fire return interval, vegetation community succession, and other ecological processes. Other species such as Saharan mustard (*Brassica tournefortii*) have potential to significantly alter ecosystems, but have not been spread to all susceptible habitat and are therefore of particular management concern. Roadsides are particularly susceptible to the spread of invasive weed species because of the altered soil conditions present (e.g., compaction, runoff creating increased hydrology roadside) that favor the establishment of certain non-native species (Ouren et al. 2017).

3.5.2 Environmental Consequences

Proposed Action

Noxious weeds have the potential to be introduced and spread within the OHV SRPs routes by seed-infested mud/dirt being spread by OHVs, spectator vehicles, and foot traffic. These activities can spread the extents of existing noxious weed infestations and can contaminate areas currently free of noxious or invasive weeds. Spread of noxious and invasive weeds from OHV use has the potential to increase management costs of eradicating and managing noxious and invasive weed populations on BLM-administered lands in Nevada. Noxious and invasive weeds can facilitate the spread of wildfire in areas not prone to burning. The presence of noxious and invasive weeds can outcompete and displace native plant species, including special status plant species.

OHV uses associated with SRPs include stipulations and mitigation measures to control the introduction and spread of invasive weed species, such as education and pre- and post-ride vehicle

washing and post-SRP reclamation, and these measures would minimize spread of invasive weed species.

Mitigation Measures

The full text of stipulations and mitigation measures can be found in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*. Impacts from noxious weeds and non-native/invasive species as a result of OHV SRPs may be mitigated by the following measures found in Sections A.1 and A.2:

- HIGH-NOX-01, HIGH-NOX-02 (A.1) and LOW-NOX-01, LOW-NOX-02 (A.2) will mitigate the impacts of noxious weeds and non-native/invasive species by providing information and training to the permittees and all personnel affiliated with the project on noxious weeds and nonnative/invasive species. Detections of noxious weed and non-native/invasive species will be reported to the BLM District Office Weed Management Specialists for best course of treatment.
- HIGH-NOX-03, HIGH-NOX-04, HIGH-NOX-05 (A.1) and LOW-NOX-03, LOW-NOX-04, LOW-NOX-05, LOW-NOX-06, LOW-NOX-07, and LOW-NOX-08 (A.2) will mitigate the impacts of noxious weed and non-native/invasive species by avoiding or minimizing travel through infested areas, parking in areas that are relatively weed-free, and limiting ground disturbance that would create conditions for weed germination.
- HIGH-NOX-06, HIGH-NOX-07, and HIGH-NOX-08 (A.1) and LOW-NOX-06, LOW-NOX-07, and LOW-NOX-08 (A.2) will mitigate the impacts of noxious weeds and non-native/invasive species by requiring washing, removing dirt and mud, and inspecting clothing, shoes, vehicles, trailers, OHVs, and equipment prior to using routes authorized in the permit. This inspection, cleaning, and removal of weed seeds on items is also required upon exiting from BLM-administered lands at the conclusion of the rides. Noxious weed and non-native/invasive seeds from equipment should be bagged and disposed of in dumpsters.

No Action Alternative

The No Action Alternative would have no meaningfully different effects on the establishment or expansion of noxious weeds and invasive/non-native species beyond those discussed under the Proposed Action. The smaller potential increase in small races over the next 10 years under the No Action Alternative would slightly reduce potential OHV SRPs that could create vectors for new infestations compared to the Proposed Action. If the proposed programmatic EA structure is not utilized, case-by-case NEPA procedures for OHV SRPs would be followed. This could include less-consistent use of stipulations and mitigation measures that might reduce noxious weeds and invasive/non-native species spread from OHV SRPs compared to the Proposed Action.

3.6 Hydrologic Conditions

Analysis Area:

Areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities (including but not limited to existing routes, pit stop locations, staging areas, and intersections).

Issues for Analysis:

- How would OHV use during SRPs affect sediment transport to surface waters?

3.6.1 Affected Environment

Lakes, Rivers, and Streams

Waterbodies in the project area are crucial for supporting aquatic life and providing water sources for wildlife, livestock, and wild horses and burros. See Sections 3.2 and 3.8 for more information on wildlife and wild horses and burros in the project area.

The OHV SRP routes within the project area cross known waterbodies mapped on the National Hydrography Dataset (USGS 2023). OHV SRP routes within the project area intersect various waterbodies including lakes, ponds, rivers, and streams. See Table 3.6-1 for the number of crossings by OHV SRP route type and waterbody. See Appendix B, *Maps and Figures*, Figures 3.6-1 through 3.6-5 for mapped waterbody crossings in each Field Office.

Table 3.6-1 Waterbody Crossings by Field Office

Field Office	OHV SRP Route Type	Waterbody	Number of Crossings
Caliente	Low-Speed Non-Competitive SRP and Motorcycle	Ephemeral Stream/River	407
		Intermittent Stream/River	60
		Perennial Stream/River	1
	Low-Speed Non-Competitive SRP	Ephemeral Stream/River	97
		Intermittent Stream/River	5
	Low-Speed Non-Competitive SRP, Race, and Motorcycle	Ephemeral Stream/River	7,436
		Intermittent Stream/River	715
		Perennial Stream/River	47
		Intermittent Lake/Pond	20
		Perennial Lake/Pond	2
	Motorcycle	Ephemeral Stream/River	4,302
		Intermittent Stream/River	519
		Perennial Stream/River	18
		Intermittent Lake/Pond	10
		Perennial Lake/Pond	2
Caliente Route Total			13,641

Field Office	OHV SRP Route Type	Waterbody	Number of Crossings	
Pahrump	Low-Speed Non-Competitive SRP and Race	Ephemeral Stream/River	888	
		Intermittent Stream/River	126	
		Perennial Lake/Pond	2	
	Low-Speed Non-Competitive SRP	Ephemeral Stream/River	129	
		Intermittent Stream/River	1	
	Low-Speed Non-Competitive SRP, Race, and Motorcycle	Ephemeral Stream/River	634	
		Intermittent Stream/River	6	
	Motorcycle	Ephemeral Stream/River	73	
			Pahrump Route Total	1,859
	Sierra Front	Race and Motorcycle	Ephemeral Stream/River	1
Low-Speed Non-Competitive SRP and Motorcycle		Ephemeral Stream/River	85	
Low-Speed Non-Competitive SRP, Race, and Motorcycle		Ephemeral Stream/River	510	
		Intermittent Stream/River	7	
		Perennial Stream/River	2	
		Intermittent Lake/Pond	0	
		Perennial Lake/Pond	0	
Motorcycle Event		Perennial Lake/Pond	0	
		Ephemeral Stream/River	587	
	Intermittent Stream/River	6		
		Sierra Front Route Total	1,112	
Stillwater	Low-Speed Non-Competitive SRP and Race	Ephemeral Stream/River	111	
	Low-Speed Non-Competitive SRP and Motorcycle	Ephemeral Stream/River	434	
		Intermittent Stream/River	30	
	Low-Speed Non-Competitive SRP	Ephemeral Stream/River	35	
		Intermittent Stream/River	28	
	Low-Speed Non-Competitive SRP, Race, and Motorcycle	Ephemeral Stream/River	2,488	
		Intermittent Stream/River	122	
		Perennial Stream/River	16	
		Perennial Lake/Pond	8	
Motorcycle	Ephemeral Stream/River	884		
	Intermittent Stream/River	72		
		Stillwater Route Total	4,228	

Field Office	OHV SRP Route Type	Waterbody	Number of Crossings
Tonopah	Low-Speed Non-Competitive SRP and Race	Ephemeral Stream/River	152
		Intermittent Stream/River	6
	Low-Speed Non-Competitive SRP	Ephemeral Stream/River	2,712
		Intermittent Stream/River	162
		Perennial Stream/River	9
		Intermittent Lake/Pond	4
		Perennial Lake/Pond	2
	Low-Speed Non-Competitive SRP, Race, and Motorcycle	Ephemeral Stream/River	3,760
		Intermittent Stream/River	122
		Perennial Stream/River	2
		Intermittent Lake/Pond	12
		Perennial Lake/Pond	2
	Motorcycle	Ephemeral Stream/River	400
		Intermittent Stream/River	2
		Intermittent Lake/Pond	4
Tonopah Route Total			7,351

Source: USGS 2023

The OHV SRP routes within the project area also cross mapped wetlands based on information from the USFWS National Wetlands Inventory (USFWS 2023). Appendix B, *Maps and Figures*, Figures 3.6-1 through 3.6-5 include mapped wetlands in each Field Office. However, because all OHV SRP routes in the project area follow existing roads and trails and all pit stops/staging areas occur in existing disturbed areas, the BLM does not consider there to be interactions between the Proposed Action and alternatives and these features.

3.6.2 Environmental Consequences

Proposed Action

The use of OHVs during SRP activities and post-SRP reclamation can affect surface waters through sediment transport and potential petroleum or chemical leaks. Because the Proposed Action would take place on existing routes, future impacts on waterbodies outside the OHV SRP and post-SRP reclamation would not occur. However, there is a potential for increased fugitive dust, sedimentation, and chemical transport that could enter surface waters along OHV SRP routes, particularly where routes cross waterbodies.

Sediment, the most significant pollutant generated by motorized equipment use, poses a high risk of entering watercourses, especially at crossings where hydrologic connectivity is prominent. OHV SRP activities would also indirectly lead to construction, reconstruction, and maintenance of watercourse crossings, which may require equipment in and near aquatic habitats, raising the risk of accelerated erosion and sedimentation. Crossings that allow unimpeded water flow, minimize disturbance to the streambed, and preserve surface and shallow groundwater resources can help minimize impacts on water quality.

Waterbody crossings are present in all Field Offices; however, it is worth noting that the Pahrump Field Office contains significantly fewer waterbody crossings than most of the other Field Offices, which suggests a relatively lower potential impact on hydrology and sediment transport if OHV SRPs were to increase within the Pahrump Field Office.

Routes themselves can also contribute to runoff concentration, particularly in unsurfaced and steep-gradient areas. Proper trail maintenance is crucial for minimizing impacts on water quality, as worn-down drainage and erosion-control facilities can increase hydrologic connectivity. Employing proper management practices such as periodic maintenance, clearance of trail obstructions, and avoidance of OHV traffic in sensitive areas can mitigate negative impacts on water quality and sediment transport during OHV SRPs. See Section 3.7 for more information on soil erodibility in the project area.

Furthermore, the presence of pit stops and refuel locations during OHV SRPs introduces the potential risk of petroleum products and chemicals entering waterbodies. Spills, leaks, damaged or overturned vehicles, and improper disposal practices can contaminate surface water and waterbodies. Although soil can absorb and break down small amounts of these substances, the risk of water contamination is particularly high in concentrated-use areas near watercourses and waterbodies. Additionally, high runoff from OHV staging areas can transport sediment, nutrients, and other pollutants to nearby watercourses or surface waters.

To mitigate potential impacts on waterbodies in concentrated use areas, appropriate techniques tailored to local site conditions must be employed. Impacts on hydrology may be heightened in high-speed races, due to increased soil disturbance, while low-speed and motorcycle SRPs and post-SRP reclamation would have fewer negative impacts on hydrology due to less soil surface disturbance.

Mitigation Measures

The full text of stipulations and mitigation measures can be found in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*. Impacts on hydrology as a result of OHV SRPs may be mitigated by the following measures found in Sections A.1 and A.2:

- HIGH-HAZ-01 and HIGH-HAZ-06 (A.1) and LOW-HAZ-01 and LOW-HAZ-06 (A.2) will mitigate hydrology impacts by reducing potential for cans, rubbish, and other trash and waste to enter waterbodies.
- HIGH-HAZ-02 and HIGH-HAZ-03 (A.1) and LOW-HAZ-02 and LOW-HAZ-03 (A.2) will mitigate hydrology impacts by requiring remediation and notification of the authorized officer in the event of spilled of fuels, lubricants, coolants, hydraulic fluids, or other petroleum-based or synthetic organic compounds.
- HIGH-HAZ-04 (A.1) and LOW-HAZ-04 (A.2) will mitigate hydrology impacts by prohibiting draining of sewage fluids and requiring containment, cleaning, and disposal of wastes to prevent potential leakage into waterbodies.
- HIGH-HAZ-05 (A.1) and LOW-HAZ-05 (A.2) will mitigate hydrology impacts by requiring the proper storage of hazardous waste and the use of fuel mats under race vehicles during fueling to prevent potential leakage into waterbodies.

- HIGH-WATER-01, HIGH-WATER-02, HIGH-WATER-03 (A.1) and LOW-WATER-01, LOW-WATER-02, LOW-WATER-03 (A.2) will mitigate hydrology impacts by preventing unnecessary degradation of streambanks and riparian vegetation bordering OHV SRP routes.
- HIGH-WATER-04 (A.1) and LOW-WATER-04 (A.2) will mitigate hydrology impacts by preventing the dispersal of dishwater, bathwater, and soap within 100 feet of waterbodies.
- HIGH-WATER-05 (A.1) and LOW-WATER-05 (A.2) will mitigate hydrology impacts by preventing camping within 300 feet of a water source or altering or disturbing a water source.

No Action Alternative

The No Action Alternative would have no meaningfully different effects on hydrological conditions beyond those discussed under the Proposed Action. The smaller potential increase in small races over the next 10 years under the No Action Alternative would slightly reduce potential short-term effects from these events compared to the Proposed Action. If the proposed programmatic EA structure is not utilized, case-by-case NEPA procedures for OHV SRPs would be followed. This could include less-consistent use of stipulations and mitigation measures that might reduce effects on hydrological conditions from OHV SRPs compared to the Proposed Action.

3.7 Soil

Analysis Area:

Areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities. Including but not limited to existing routes, pit stop locations, staging areas, and intersections.

Issues for Analysis:

- How would OHV SRPs affect erosion from existing routes, pit stop locations, and staging areas, in particular for sensitive or highly erodible soils?

3.7.1 Affected Environment

Close to 1,300 soil units were identified within the project area with varying degrees of erodibility (Tables 3.7-1 and 3.7-2). The erodibility of soils is influenced by several factors, including soil composition, particle size, and ground slope characteristics. Soils most prone to erosion are those containing a higher proportion of medium (silt)-size particles (Huron River Watershed Council n.d.). These soils are more susceptible to being washed away by water due to their finer texture and reduced ability to resist the forces of flowing water. Conversely, clay and sandy soils, characterized by their coarser texture, tend to be less prone to water erosion.

In addition to soil composition, ground slope plays a crucial role in determining erodibility. The combination of slope length, grade, and surface quality, whether rough or smooth, directly affects the potential for erosion. Longer slopes with steeper grades and smoother surfaces pose a greater risk of erosion. These characteristics determine the speed at which water flows across the land. As water flows faster, it gains more erosive power, increasing the likelihood of erosion and sedimentation in the affected areas.

Soils susceptible to erosion properties based on soil types and ground slope characteristics have been identified for the OHV SRP routes in the project area. The soils crossed by OHV SRP routes in the project area are categorized relatively evenly across water erodibility characteristics, while most soils in the project area are classified as low for wind erosion potential. See Tables 3.7-1 and 3.7-2 for a breakdown of wind and water erodibility ratings. Erodibility within the project area is depicted in Appendix B, *Maps and Figures*, Figures 3.7-1 through 3.7-10.

Because OHV SRP routes and pit stops/staging areas in the project area are already existing and used for these purposes, it can be assumed that these areas are already highly compacted.

Table 3.7-1 Soil Erodibility (Water)

Water Erosion Rating	Miles	Percentage of Project Area
Not Rated	413.8	4.7%
Slight Erodibility	2,851.2	32.2%
Moderate Erodibility	3,714.5	41.9%
Severe Erodibility	1,875.8	21.2%

Source: USDA 2023

Table 3.7-2 Soil Erodibility (Wind)

Wind Erosion Rating	Miles	Percentage of Project Area
Not Rated	323.9	3.7%
Low Erodibility	6,148.4	69.4%
Moderate Erodibility	1,232.7	13.9%
Severe Erodibility	1,150.3	13.0%

Source: USDA 2023

3.7.2 Environmental Consequences

Proposed Action

The use of OHVs can have significant impacts on soils, particularly in terms of erodibility. When OHVs traverse an area, the weight of the vehicles and traction of the wheels can lead to soil compaction and erosion, as well as the generation of fugitive dust (see Section 3.1 for discussion on fugitive dust and air quality). In the context of the project area, where OHV use and foot traffic already occur on existing roads and trails, these areas are likely already highly compacted and potentially eroded along certain sections, but OHV use will continue to contribute to these impacts.

Soil compaction occurs when the weight and pressure exerted by OHVs compress the soil particles, reducing pore space and increasing soil density. This compaction diminishes the soil's ability to absorb and retain water, leading to decreased infiltration rates and increased surface runoff. As a result, the risk of water erosion rises significantly (see Section 3.6 for discussion of hydrologic conditions). Furthermore, the repeated passage of OHVs on already compacted soils exacerbates the erosion potential. Compacted soils have reduced porosity and permeability, limiting their ability to absorb water. Consequently, surface runoff increases, carrying away the topsoil and leaving the soil vulnerable to further erosion. The combination of compaction and erosion can lead to the loss of fertile topsoil, decreased water-holding capacity, and reduced nutrient availability, negatively affecting vegetation and overall ecosystem health. Compacted soils also have increased fugitive dust

as the fine soil particles are disturbed by vehicle traffic and become lifted into the air (Le Vern et al. 2020).

Under the Proposed Action, there is a potential for increased erosion and fugitive dust of soils within the OHV SRP routes and areas accessible to the public due to the anticipated increased vehicle and foot traffic and during any post-SRP reclamation. The intensive use of OHVs and the accompanying foot traffic can lead to accelerated erosion processes and increased fugitive dust, further exacerbating the existing impacts. Particular areas of concern in the project area include the low-speed non-competitive SRP, race, and motorcycle use SRP routes in the central portion of the Caliente Field Office (Appendix B, *Maps and Figures*, Figures 3.7-1 and 3.7-2); a small portion of the low-speed non-competitive SRP and race SRP routes in the central portion of the Pahrump Field Office (Appendix B, *Maps and Figures*, Figures 3.7-3 and 3.7-4); low-speed non-competitive SRP, race, and motorcycle use SRP routes in the central and eastern portions of the Sierra Front Field Office (Appendix B, *Maps and Figures*, Figures 3.7-5 and 3.7-6); low-speed non-competitive SRP, race, and motorcycle use SRP routes and low-speed non-competitive SRP and motorcycle use SRP routes in the central and southern portions of the Stillwater Field Office (Appendix B, *Maps and Figures*, Figures 3.7-7 and 3.7-8); and low-speed non-competitive SRP, race, and motorcycle use SRP routes and low-speed non-competitive SRP routes in the central and western portions of the Tonopah Field Office (Appendix B, *Maps and Figures*, Figures 3.7-9 and 3.7-10). See Appendix B, *Maps and Figures*, Figures 3.7-1 through 3.7-10 for a breakdown of wind and water erodibility across the project area.

Compared to low-speed non-competitive SRPs, impacts on soils would be heightened during races due to the increased contact and potential for damage to the soil surface. Soils with higher clay content are two or three times more susceptible to fugitive dust than soils with a higher sand content. Additionally, on compacted soils, vehicle speed is directly correlated to increased dust emissions (Le Vern et al. 2020).

Without proper soil stabilization measures, a destructive cycle of degradation can initiate by extending the impacts to adjacent surfaces. This cycle of degradation starts with the widening of trail surfaces as users avoid areas that have already been degraded. As the trails widen, the exposed soil becomes more susceptible to erosion, especially during rainfall events or high water flow (Forest Service 2002).

To mitigate the impacts of OHV use on soils, erosion, and fugitive dust on the existing trails and adjacent surfaces, implementing best management practices is crucial. Measures such as marking designated OHV trails, implementing erosion-control structures, completing and monitoring post-SRP reclamation, and promoting responsible OHV use can help reduce further soil compaction and erosion.

Because OHV SRP routes and pit stops/staging areas under the Proposed Action are already in use for these purposes and most of the OHV SRP routes occur in low- to moderate-erodibility soils, the impacts from increased OHV SRPs would be minor.

Mitigation Measures

The full text of stipulations and mitigation measures can be found in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*. Impacts on soils as a result of OHV SRPs may be mitigated by the following measures found in Sections A.1 and A.2:

- HIGH-FW-08, HIGH-TE-05, HIGH-NOX-05, HIGH-PHS-07, HIGH-TTM-01, and HIGH-FIRE-02 (A.1) and LOW-FW-07, LOW-TE-07, LOW-NOX-05, LOW-PHS-08, LOW-TTM-01, and LOW-FIRE-03 (A.2) will mitigate soil impacts by reducing off-road travel and new soil disturbance.
- HIGH-WHB-04 (A.1) and LOW-WHB-04 (A.2) will mitigate soil impacts by reducing wind erosion from low-flying helicopters.
- HIGH-PHS-04 (A.1) and LOW-PHS-05 (A.2) will mitigate soil impacts by eliminating potential soil disturbance from explosives.
- HIGH-PHS-08 (A.1) will mitigate soil impacts by reducing unnecessary foot traffic, and thereby erosion and disturbance of soils, by spectators.
- HIGH-WATER-01 and HIGH-WATER-03 (A.1) and LOW-WATER-01 and LOW-WATER-03 (A.2) will mitigate soil impacts by preventing vegetation disturbance, thereby reducing potential for erosion.

No Action Alternative

The No Action Alternative would have no meaningful additional effects on soil compaction and erosion beyond those discussed under the Proposed Action. The smaller potential increase in small races over the next 10 years under the No Action Alternative would slightly reduce potential for additional erosion from these events compared to the Proposed Action. If the proposed programmatic EA structure is not utilized, case-by-case NEPA procedures for OHV SRPs would be followed. This could include less-consistent use of stipulations and mitigation measures that might reduce effects on soils from OHV SRPs compared to the Proposed Action.

3.8 Wild Horses and Burros

Analysis Area:

Areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities. This includes areas adjacent to where permitted activities would occur where noise and human presence could temporarily displace animals.

Issues for Analysis:

- How would OHV SRPs affect distribution of wild horses and burros, including displacement from water, forage, foaling grounds, and other habitat?

3.8.1 Affected Environment

BLM Nevada manages 83 wild horse and burro herd management areas (HMA) on approximately 15.6 million acres. The combined appropriate management level for all HMAs in the state is 12,811 animals (BLM 2022, 2023). OHV SRP routes in the project area pass through approximately 3,534.7 miles of HMAs. The HMAs intersected by the routes make up approximately 6,833.5 acres across 43 HMAs in all Field Offices (Caliente, Pahrump, Sierra Front, Stillwater, and Tonopah). Wild horses and burros are dependent on access to vegetation to forage, access to water sources, and sufficient habitat for foaling grounds for populations to maintain viability.

As mentioned in Section 3.6.1, there are wetlands that also intersect the OHV SRP routes, which, if they contain water, could be highly utilized as forage and gathering areas for wild horses and burros.

3.8.2 Environmental Consequences

Proposed Action

The Proposed Action would minimally affect the distribution of wild horses and burros in the project area because they would be likely to avoid the OHV SRP routes due to vehicle noise, helicopter noise, and the presence of humans, but effects would be temporary and in small areas compared to the general range of wild horses and burros on BLM-administered lands in Nevada. Wild horses and burros would not be restricted from forage or water due to the multiple locations of those resources throughout the HMAs.

Minor, temporary loss of access to forage along the edges of the actively used routes could occur; however, this loss would be negligible compared to the forage available in the grazing allotments. If in the vicinity of the routes, wild horses and burros would be temporarily displaced from that area upon arrival of the first vehicles or during post-SRP reclamation. Wild horses and burros would likely move a reasonable distance from the routes. Upon completion of the race or reclamation, wild horses and burros would return to their normal ranges within the HMAs. Because OHV SRP-related activities are generally short in duration, this displacement would be temporary. The Proposed Action SRP routes are open to OHVs and other public access, and animals would have encountered human use along these routes not associated with SRPs. Foaling season, which typically takes place during March 1 through June 30, could be affected if helicopters are utilized during this time. With implementation of the mitigation measures listed below, helicopters must maintain a height of at least 500 feet above the routes, which could limit potential effects.

Large-scale race events could have more pronounced effects on the distribution and behavior of wild horses and burros. The greater vehicular traffic, helicopter noise, and human presence associated with larger events might lead to more extensive temporary displacements, potentially affecting broader areas within the HMAs. Moreover, the potential for disruption during the foaling season could be more significant with larger events, affecting reproductive activities and population dynamics.

There have been no previous reported collisions between wild horses or burros during previous OHV SRPs. Although a collision between a vehicle and wild horse or burro is possible, with implementation of the mitigation measures listed below, the potential for a collision would be very low.

Mitigation Measures

The full text of stipulations and mitigation measures can be found in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*. Impacts on wild horses and burros as a result of OHV SRPs may be mitigated by the following measures found in Sections A.1 and A.2:

- HIGH-FW-01, HIGH-WHB-01 and HIGH-LG-02 (A.1) and LOW-FW-01, LOW-WHB-01, and LOW-LG-02 (A.2) will mitigate wild horse and burro impacts by prohibiting wild horse disturbance.

- HIGH-WHB-02 (A.1) and LOW-WHB-02 (A.2) will mitigate wild horse and burro impacts by requiring monitoring and notification of any detriment to forage for wild horses.
- HIGH-WHB-03 (A.1) and LOW-WHB-03 (A.2) will mitigate wild horse and burro impacts by providing participants with forewarning to avoid wild horses and burros.
- HIGH-WHB-04 (A.1) and LOW-WHB-04 (A.2) will mitigate wild horse and burro impacts by ensuring helicopters do not disturb wild horses or burros.
- HIGH-LG-04 (A.1) and LOW-LG-04 (A.2) will mitigate wild horse and burro impacts by ensuring gates are left as initially found to prevent disturbance.

No Action Alternative

The No Action Alternative would have no meaningful additional effects on displacement of wild horses and burros beyond those discussed under the Proposed Action. The smaller potential increase in small races over the next 10 years under the No Action Alternative would slightly reduce potential short-term, temporary displacement from these events compared to the Proposed Action. If the proposed programmatic EA structure is not utilized, case-by-case NEPA procedures for OHV SRPs would be followed. This could include less-consistent use of stipulations and mitigation measures that might reduce effects on wild horses and burros from OHV SRPs compared to the Proposed Action.

3.9 Social and Economic Conditions and Environmental Justice

Analysis Area:

The specific areas of analysis are where permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted OHV SRPs. This includes adjacent areas with social and economic connections to these locations where permitted OHV SRPs occur. The 11 Nevada counties containing these areas are Carson City (a county-equivalent independent city) and Churchill, Clark, Douglas, Esmerelda, Lincoln, Lyon, Mineral, Nye, Storey, and Washoe Counties. The study area comprises 107 census block groups selected within these 11 counties on account of their proximity or social or economic connection to where permitted OHV SRPs occur.

Issues for Analysis:

- How would OHV SRPs positively and negatively affect local economic conditions, including increases in local spending during events and additional costs to local services and infrastructure?
- How would OHV SRPs disproportionately and adversely affect environmental justice populations within the project area?

3.9.1 Affected Environment

The socioeconomic study includes data from 11 counties where project area OHV SRP routes either pass through directly or are expected to have a socioeconomic impact due to their proximity. While some routes pass close to Nevada's three metropolitan areas, most routes pass through sparsely populated and rural areas, with some intersecting, or close to, small communities. Tourism, including for OHV and other recreational uses on BLM-administered lands, contributes to many rural economies in the project area.

OHV SRPs differ from typical OHV uses. Typical OHV uses are more exploratory in nature, and often complement other recreational activities, such as camping (Ouren et al. 2007). Typical OHV uses provide economic benefits to local communities by supporting OHV-related commercial activities such as OHV sales, campground fees, food and beverage services, and grocery sales (Ouren et al. 2007). While these are general economic benefits of OHV uses, OHV SRPs may not elicit the same type of direct benefits to local communities.

This programmatic assessment considers all types of OHV SRPs for analysis. SRPs can generally be categorized as races events or low-speed non-competitive SRPs. See Appendix E for descriptions of race events and low-speed non-competitive SRPs.

While routes are dispersed throughout the counties, socioeconomic impacts may not be dispersed and would depend on characteristics of different OHV SRP types. Carson City and Clark County may not have OHV routes considered in this NEPA analysis but would nonetheless experience socioeconomic impacts associated with OHV SRPs on project area routes due to proximity and the presence of a major urban area. Below are the counties considered for analysis and the lengths of SRP routes within the counties.

Table 3.9-1 Miles of OHV SRP Routes by County

County	Low-Speed Non-competitive (miles) ¹	Low-Speed Non-competitive and Motorcycle (miles) ¹	Low-Speed Non-competitive and Race Events (miles) ¹	Low-Speed Non-competitive, Race Events, and Motorcycle Use	Motorcycle Use	Race Events and Motorcycle Use	Total Routes (miles) ¹
Lincoln	33.16	109.87	0	2,242.16	1,160.43		3,545.62
Nye	978.89	0	382.03	857.66	74.26		2,292.84
Esmeralda	313.99	0	23.42	989.06	73.69		1,400.16
Mineral	17.86	168.56	31.40	812.03	28.72		1,058.56
Lyon	0	42.42	0	218.12	40.00	3.16	303.70
Storey	0	0	0	7.31	59.88		67.19
Churchill	0	0	0	111.78	69.75	0.08	181.61
Washoe	0	0	0		28.29		28.29
Douglas	0	0	0	16.76	0		16.76
Carson City	0	0	0	0	0		0
Clark	0.02	0	0	0.13	0		0.14

¹ Route lengths are approximate. As many OHV SRP routes are not limited to a specific type of OHV SRP and accommodate multiple OHV SRP types, disaggregated route lengths by OHV SRP speed and type may not sum to total route length.

Employment

In 2022, there were 1,246,802 jobs in the 11 counties, compared to 1,314,737 statewide. Among all jobs in the 11 counties, 14% (173,661 jobs) were in goods-producing industries. Within the goods-producing industries, construction (102,112 jobs) is the largest employer, representing 8% of total employment. A total of 86% (1,073,142 jobs) of jobs in the 11 counties were in service-providing industries. Within service-providing industries, leisure and hospitality (324,332 jobs) is the largest employer, representing 26% of total employment (BLS 2022).

Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, established a requirement for Federal agencies to consider environmental justice in planning and decision processes to ensure that no person or group bears a disproportionate burden of adverse impacts. Minority (i.e., Hispanic, non-white, or both) and low-income (less than 200% of poverty threshold) populations vary by block group within the study area. County-level 2017–2021 American Community Survey 5-year data come from the BLM’s Socioeconomic Profile Tool. Overall, the percentage of the population in the 11 counties containing the study area that is Hispanic or non-white (53%) and the percentage that is low-income (31%) are similar to those statewide. Within the 11 counties, the environmental justice study area has a lower minority percentage (28%) and higher tribal percentage (5%) but a similar low-income percentage (32%). The BLM identified 85 of the 107 block groups in the study area as environmental justice communities.

Table 3.9-2 Minority and Low-income Populations in Study Area Counties

County	Minority (Hispanic, non-white, or both)	Low Income (<200% of poverty threshold)
Clark	59.4%	32.5%
Lyon	27.2%	27.5%
Mineral	41.3%	45.8%
Esmeralda	31.4%	42.0%
Nye	27.7%	36.9%
Lincoln	15.6%	32.0%
Carson City	35.1%	30.1%
Douglas	21.2%	20.8%
Washoe	38.9%	27.4%
Churchill	28.3%	26.2%
Storey	18.2%	21.6%
Study Area	53.3%	31.3%
State	52.8%	31.2%

The study area has been identified as 107 selected census block groups in 11 counties in Nevada: Carson City (a county-equivalent independent city) and Churchill, Clark, Douglas, Esmeralda, Lincoln, Lyon, Mineral, Nye, Storey, and Washoe Counties (see Table E-2 in Appendix E and Figure 3.9-1 in Appendix B, *Maps and Figures*). This study area was selected to encompass block groups containing OHV SRP routes and surrounding areas OHV SRP participants, visitors, and other public

users may access. The population in the study area totals 142,410. The reference area for low income, minority, and tribal populations is the State of Nevada. OHV SRP routes extend through most of the block groups in the study area (see Appendix E, *Social and Economic Conditions and Environmental Justice*, for additional details on environmental justice).

3.9.2 Environmental Consequences

Proposed Action

The socioeconomic effects of the Proposed Action are anticipated to be positive. Both races and low-speed non-competitive SRPs are expected to economically benefit local communities overall, although the characteristics and concentration of impacts may differ across communities.

Race events bring a high number of visitors to the project area, which would increase spending on accommodation, food, and regular fuel for supporting vehicles. Race events are point-to-point and may span multiple counties and communities. Economic impacts are expected to be concentrated near key race points (start and finish, community crossings, pit stops), as participants and crew have limited time and opportunity during the race to deviate from the route. Consequently, counties with few high-speed routes may still experience high economic impacts in communities near key race points. Communities along the route are expected to see some increases in spending on accommodation, food, and fuel for tourists, support staff, media, and event staff. Specialized fuel for racing vehicles is not expected to be purchased within these communities. Visitors may also participate in non-OHV activities in communities near start and finish areas prior to or after the event.

Potential negative socioeconomic effects of the Proposed Action include stressors on rural community services. While rural communities along the route may not experience the majority of the economic benefit, these communities may have increased law enforcement, emergency services, and sanitation burdens during event periods. Traffic conflicts and environmental nuisances (such as noise and dust) may be borne by communities along the route.

The BLM expects the Proposed Action would result in the number of small race SRPs increasing by 50% more than the increase expected under the No Action Alternative. Consequently, the BLM expects the Proposed Action would result in proportionally more positive and negative socioeconomic effects associated with small race SRPs.

Low-speed non-competitive SRPs bring a small number of visitors to the project area and increase spending on accommodation, food, and fuel in the immediate area. These SRPs are exploratory and non-linear, and geographically limited to the immediate community or communities the route passes through. Economic impacts are expected to be dispersed along the OHV SRP route, with higher concentration at the start point. Low-speed non-competitive SRPs provide participants with the opportunity to visit and spend time in nearby communities during the activity. Communities near the route can expect an increase in spending on accommodation, food, and fuel during the SRP period. Counties with many low-speed routes may experience higher economic impacts from Low-speed non-competitive SRPs. Visitors may also participate in non-OHV activities in these communities prior to or after the OHV SRP.

Potential negative socioeconomic effects of the Proposed Action include stressors on rural community services. Communities may have increased law enforcement, emergency services, and

sanitation burdens during the OHV SRP. Traffic conflicts and environmental nuisances (such as noise and dust) may be borne by communities along the route.

For all SRPs, there may be disproportionate impacts on environmental justice communities along the route. Disproportionate impacts may include impacts on air quality, livestock grazing, and public health and safety, if the impact is persistent or if mitigation of impacts is untimely. Air quality impacts are expected to be minimal for low-speed, non-competitive SRPs, with non-persistent effects such as fugitive dust from soil disturbance. While high-speed, competitive SRPs may result in higher fugitive dust, impacts would be limited in duration and the dust would typically settle within a day (see Section 3.1, *Air Quality and Greenhouse Gas Emissions*). Livestock grazing may be minimally affected due to SRP route closures or access limitations, as access loss would be minor compared to the forage of grazing allotments. Potential collisions between participants and livestock may result in serious injury or death of participants or livestock. While high-speed SRPs have a higher risk of collision due to event size and speed limits, there have been no documented collisions (see Section 3.11, *Livestock Grazing*). Public health and safety may be affected by accidents, discharges of hazardous materials, and fires along SRP routes. All SRPs must be reviewed by BLM Law Enforcement and must have plans for emergency service needs, including recovery and rescue. While the transport and storage of hazardous materials such as fuels, oils, battery fluids, portable toilets, and trash are regulated by the Federal and State departments of transportation, incidents on site could occur due to accidents and spills. All SRP permittees are required to have plans for waste management and to follow public health and safety measures (see Section 3.12, *Public Health and Safety, Hazardous and Solid Waste*). For detailed mitigation measures related to these potential disproportionate effects, please refer to the respective issue sections.

The direct impacts of any one SRP would be short term, given its limited duration. Long-term cumulative impacts of special events would boost local and rural economies in the future. Positive experiences amplified by social media and word of mouth would encourage future OHV uses in the area and strengthen overall tourism spending. Long-term cumulative impacts of special events may also strain local government infrastructure, services, and finances in rural communities and positively or negatively affect the health of local residents.

Mitigation Measures

The full text of stipulations and mitigation measures can be found in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*. Social and economic impacts, including impacts on environmental justice communities, as a result of OHV SRPs may be mitigated by the following measures found in Sections A.1 and A.2:

- HIGH-PHS-05 (A.1) and LOW-PHS-06 (A.2) will ensure adequate notification to affected communities and the public of OHV SRPs and allow affected communities and the public to prepare for potential impacts.
- HIGH-PHS-06 (A.1) and LOW-PHS-07 (A.2) and HIGH-TTM-13 (A.1) will ensure safe management of affected roads or otherwise warn the public with signage to prevent unauthorized vehicles from entering the active racecourse at certain locations involving BLM roads or road junctions to mitigate potential traffic and public safety burdens.
- HIGH-PHS-09 (A.1) and LOW-PHS-09 (A.2) will mitigate potential stress and burdens on emergency services in affected communities.

- HIGH-PHS-11 (A.1) and LOW-PHS-11 (A.2) will mitigate potential stress and burdens on public safety services in affected communities.

No Action Alternative

Under the No Action Alternative, changes would be similar to those under the Proposed Action, and therefore there would be similar positive and negative social and economic changes. However, positive and negative social and economic effects may be somewhat less consistent from one OHV SRP to another than under the Proposed Action. Additionally, the BLM expects the increase in the number of small race SRPs under the No Action Alternative would be about 67% of what it would be under the Proposed Action. Therefore, the positive and negative social and economic changes associated with small race SRPs would be slightly reduced.

3.10 Mineral Resources

Analysis Area:

Areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities. Including but not limited to existing routes, pit stop locations, staging areas, and intersections, as well as adjacent areas that may be affected by loss of access.

Issues for Analysis:

- How would OHV SRPs affect access to existing mineral developments?

3.10.1 Affected Environment

There are numerous active mining claims, exploration plans, mining notices, mineral deposits, and active mineral survey areas that intersect or are close to approved OHV SRP routes (Appendix B, *Maps and Figures*; Figures F-1 through F-5 in Appendix F, *Minerals*). Mineral extraction activities utilize service roads that currently overlap or intersect with routes used by OHV SRPs. Given that OHV SRP activities are surface based and do not cause subterranean disturbance, they are unlikely to directly damage mineral resources. However, OHV SRPs can temporarily limit access to roads used by those holding valid existing mineral rights.

Mining operations are generally open daily, with mine personnel working 47–48 hours per week through multiple shifts, 7 days a week. Operations typically consist of at least three shifts per day (Friedman et al. 2019). Individuals involved in mineral claims also use local roads to access mining sites and any nearby infrastructure. In addition, mining claimants may use local roads and developed service roads to conduct any maintenance or non-disruptive mineral activities.

The public is also permitted “to conduct recreational mineral activities” on many BLM-administered public lands as long as they are not within the boundaries of active mining operations or claims, or on land covered by a special designation that excludes recreational mineral activities. Recreational mineral activities are prohibited in Wilderness areas, Wilderness Study Areas (WSAs), Areas of Critical Environmental Concern (ACECs) (i.e., Stewart Valley ACEC, Red Rock Canyon and Sloan Canyon National Conservation Areas), historic and prehistoric sites and districts, and National Natural Landmarks (BLM 2016). Limitations specific to public, recreational mineral activities on

Nevada BLM-administered land include restriction of activities that disturb protected plants and disrupt collection of campfire wood in designated areas. However, recreational mineral panning that does not involve mechanical equipment is permitted in Wilderness and WSAs if it does not create surface disturbance or otherwise harm the environment (BLM 2016).

3.10.2 Environmental Consequences

Proposed Action

The use of existing roads and trails as OHV SRP routes under the Proposed Action may affect the road access to existing mining operations and mineral claims. Mining operations may be affected by traffic to and from OHV SRPs, as well as by the actual OHV use during the permitted activity. Larger, high-speed races would likely create more of an impact on mining operations than low-speed non-competitive events as a result of the quantity of vehicles and spectators involved in the events. There is potential for negative impacts on mining personnel, mining operations, emergency services, and other interested parties involved in mineral activities. If scheduled OHV SRPs have day-long or multi-day formats, active mines may lose access to common service roads or local roads used for direct mine access. In addition, local emergency services commonly utilized in a mine's health and safety plan could be stretched when race events are taking place should accidents or other safety issues occur (see Section 3.12 for discussion on public health and safety). However, significant harm is unlikely and appropriate emergency services would be notified prior to an event, as stipulated.

Access for the general public for recreational mineral activities may be affected by the mechanisms discussed above. Roads and trails may be temporarily closed for OHV SRPs, but these closures would be unlikely to significantly affect the public's ability to conduct recreational mineral activities and any impacts would be short term in nature. Traffic increases on roads from travel to and from OHV events would be marginal for the individual public lands user and are not expected to negatively affect recreational mineral experiences.

Stipulations and mitigation measures are designed to avoid potential conflicts between OHV SRP permittees and mining operations as well as minimize disruptions to mineral operations. Coordination between OHV SRP permittees and mining operations in proximity to the OHV SRP route will be required.

Mitigation Measures

The full text of stipulations and mitigation measures can be found in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*. Mineral and mining resource impacts as a result of OHV SRPs may be mitigated by the following measures found in Sections A.1 and A.2:

- HIGH-LU-02 (A.1) and LOW-LU-02 (A.2) will give mining operations a 30-day advance notice of any SRPs in the area.
- HIGH-LU-03 (A.1) and LOW-LU-03 (A.2) will require reporting of unmarked abandoned mine operations to the BLM or Nevada Department of Mine Safety at: 1-800-541-MINE.
- HIGH-PHS-03 (A.1) and LOW-PHS-04 (A.2) will require permittees to ensure that all persons operating under the authorization are made aware of the physical safety hazards associated

with abandoned mine openings and the potential for encountering abandoned mines within the permitted area.

- HIGH-PHS-12 (A.1) will require signing of any open mine shafts or hazards within 100 feet of racecourses, pit areas, or checkpoints.
- HIGH-PHS-12 (A.1) and LOW-PHS-12 (A.2) will require verbal notification of hazards to all participants.

No Action Alternative

The No Action Alternative would have no meaningful additional effects on access for mineral exploration or development beyond those discussed under the Proposed Action. The smaller potential increase in small races over the next 10 years under the No Action Alternative would slightly reduce potential short-term, temporary effects on access from these events compared to the Proposed Action. If the proposed programmatic EA structure is not utilized, case-by-case NEPA procedures for OHV SRPs would be followed. This could include less-consistent use of stipulations and mitigation measures that might reduce access-related conflicts with OHV SRP holders compared to the Proposed Action.

3.11 Livestock Grazing

Analysis Area:

Areas in which permitted OHV SRP activities would be conducted that overlap existing grazing permits and livestock grazing management infrastructure and range improvements.

Issues for Analysis:

- How would OHV use during race events directly affect livestock through collision?
- How would OHV SRPs affect access and grazing management for ranchers, including through temporary route closures or damage to range improvements such as cattle guards and fences?
- How would OHV SRPs affect livestock through proximity to humans and vehicles, but not collisions?

3.11.1 Affected Environment

Grazing allotments are located throughout all of the Field Offices (Caliente, Pahrump, Sierra Front, Stillwater, and Tonopah) as shown in Appendix B, *Maps and Figures*, Figures 3.11-1 through 3.11-5 (BLM 2022). Grazing allotments are utilized for cattle, sheep, horses, and goats. The Pahrump Field Office has very minimal grazing allotments (Appendix B, *Maps and Figures*, Figure 3.11-2).

The OHV SRP routes pass through approximately 7,790.1 miles of grazing allotments. The grazing allotments intersected by the routes make up approximately 15,057.0 acres across 164 grazing allotments across all Field Offices.

Various range improvement projects in these allotments may include fences, cattle guards, troughs, wells, pipelines, seedings, and vegetation manipulation projects.

3.11.2 Environmental Consequences

Proposed Action

Under the Proposed Action there would be a potential for livestock to be temporarily displaced and denied access to water and vegetation sources near the OHV SRP route. Grazing permittees/lessees may also turn off water sources to prevent cattle from using them, and alternate sources could be used during the OHV SRP. Potential collisions between grazing animals and OHV SRP participants are also a possibility, which could result in injury or death of animals or participants. Collisions would be more likely to happen during race events and would be unlikely to happen during low-speed non-competitive SRPs and motorcycle use. There are no known cases of participant/cattle collisions during OHV SRPs in the project area. The SRP permittee and the BLM would be responsible for coordinating with livestock permittees/lessees prior to the OHV SRP to mitigate any potential livestock death or damage; if death or damage occurs, the OHV SRP permittee would be required to compensate the rancher for any death or damage.

Large OHV SRPs with a higher number of vehicles would pose a greater risk of impact on livestock grazing due to increased vehicle traffic. These OHV SRPs could potentially lead to more disruptions, collisions, and damage to range improvement features and livestock infrastructure.

Minor, temporary, loss of access to forage along the edges of the OHV SRP route, including from post-SRP reclamation, could occur; however, this loss would be minor compared to the forage available in the grazing allotments.

The Proposed Action would result in temporary disruption to grazing management. Roads could be temporarily impeded pending post-ride maintenance, possibly affecting ease of travel on the allotments until roads are sufficiently rehabilitated. Damage to cattle guards, fences, and other livestock management infrastructure may occur, especially during high-speed races. There is a possibility that an OHV SRP participant could lose control of their vehicle and damage or destroy a range improvement. However, the OHV SRP permittees would be required to implement mitigation measures and stipulations, which include coordination with affected livestock permittees/lessees; monitoring of race participants to stay on the route, minimizing effects on vegetation with no loss of available forage; and post-event evaluation and rehabilitation of roads and grazing management infrastructure after the OHV SRP. Due to these measures and to the short duration of the OHV SRPs, impacts on livestock grazing management are expected to be minor.

Mitigation Measures

The full text of stipulations and mitigation measures can be found in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*. Impacts on livestock grazing as a result of OHV SRPs may be mitigated by the following measures found in Sections A.1 and A.2:

- HIGH-FW-01 and HIGH-LG-02 (A.1) and LOW-FW-01 and LOW-LG-02 (A.2) will mitigate livestock grazing impacts by prohibiting livestock disturbance.
- HIGH-LG-01 and HIGH-LG-05 (A.1) and LOW-LG-01 and LOW-LG-05 (A.2) will mitigate livestock grazing impacts by imposing fees for collisions with livestock and providing participants with forewarning to avoid cattle.

- HIGH-LG-03 (A.1) and LOW-LG-03 (A.2) will mitigate livestock grazing impacts by requiring the BLM to notify potentially affected livestock permittees prior to an event, providing an opportunity for relocation.
- HIGH-LG-04 (A.1) and LOW-LG-04 (A.2) will mitigate livestock grazing impacts by ensuring gates are left as initially found to prevent disturbance.

No Action Alternative

The No Action Alternative would have no meaningful additional effects on livestock and livestock grazing management beyond those discussed under the Proposed Action. The smaller potential increase in small races over the next 10 years under the No Action Alternative would slightly reduce potential short-term, temporary effects on livestock from these events compared to the Proposed Action. If the proposed programmatic EA structure is not utilized, case-by-case NEPA procedures for OHV SRPs would be followed. This could include less-consistent use of stipulations and mitigation measures that might reduce livestock management conflicts with OHV SRP holders compared to the Proposed Action.

3.12 Public Health and Safety, Hazardous and Solid Waste

Analysis Area:

The analysis area for public health and safety and hazardous and solid waste includes areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities.

Issues for Analysis:

- How would OHV SRPs affect participant and spectator health and safety, including through vehicle accidents and environmental risks, such as Abandoned Mine Lands or weather?
- How would OHV SRPs affect the release of petroleum products and other wastes into the environment?

3.12.1 Affected Environment

The SRP routes and pit stops/staging areas in the project area are mostly in sparsely populated and rural areas, with some limited areas intersecting small communities. Route locations and major highways and roads are illustrated on Figure 2.1 in Chapter 2. These areas are the locations in which hazardous materials (e.g., fuels) would be used, and in which hazardous and solid wastes (e.g., used oil, scrap tires, domestic waste) would be generated, accumulated, and transported.

Potential safety hazards exist where SRP routes intersect highways, other roads, and communities. These features intersect SRP routes across the project area. Spectators may occasionally attempt to view the race from crossroads. Livestock and wild horses/burros roam rangelands that are not fenced off from the route. Potential safety impacts associated with wild horses and burros and livestock collisions are discussed in Sections 3.8 and 3.11, respectively.

Additionally, potential hazards could exist for people using recreational trails and areas that may be intersected by OHV SRP routes or for rural communities intersected by the OHV SRP routes. These potential impacts are addressed in Section 3.13, *Recreation and Visitor Services*, and Section 3.9, *Social and Economic Conditions, including Environmental Justice*.

OHV fires and pit fires are possible, with fuels and oils in vehicles and stored in pit areas to service the vehicles. Any fuel or oil would present a flammable hazard to spectators and participants. Electric vehicle lithium-ion batteries also present a flammable hazard to spectators and participants.

Common safety hazards that are part of the historic landscape throughout rural Nevada include abandoned mines with vertical shafts and other mine workings, abandoned mill sites, and other unstable structures. Some are fenced or signed but most are accessible by dirt roads, and few are fenced or gated in such a way as to completely prevent public access. In 1999, an 11-year-old girl fell 130 feet into a shaft and perished while her father was working a race pit nearby (Las Vegas Sun 1999). Mines are located throughout the OHV SRP routes as shown in Appendix B, *Maps and Figures*, Figures 3.12-1 through 3.12-5 (EPA 2001).

In general, OHV events can include dangerous sporting activities that come with inherent safety risks. On August 14, 2010, in California, a vehicle accident at a BLM-authorized SRP event in Johnson Valley resulted in eight fatalities and more than a dozen injuries (DOI 2010). This incident was the first in California BLM history that resulted in fatalities and the first incident involving significant safety issues. Within days of the incident, BLM California's Acting State Director formed an Initial Inquiry Team (IIT) to conduct a thorough and transparent review of the BLM's issuance of the permit involved in the Johnson Valley incident. The IIT concluded that the BLM did not follow its own standard procedures for permitting the event. Furthermore, the IIT found adherence to those standard procedures was inconsistent throughout the BLM's California Desert District and not limited to the Johnson Valley incident. These findings indicated that significant changes were needed in how OHV event applications are processed and how OHV events are managed in the California Desert District. These changes responsive to the IIT findings were implemented following the incident (DOI 2010).

3.12.2 Environmental Consequences

Proposed Action

OHV use is inherently dangerous and risks to OHV SRP participants and spectators include collision with vehicles, vehicle accidents, and exposure to inclement weather and other physical hazards such as Abandoned Mine Lands (see Appendix B, *Maps and Figures*, Figures 3.12-1 through 3.12-5 for locations of mine shafts). All OHV SRPs would involve some risk of collisions between participant vehicles and other public land users; however, measures would be taken by the BLM in response to such risks for races and certain low-speed non-competitive SRPs. Full closure orders for races where warranted would be used to minimize risks to the public. While it is impossible to entirely eliminate all risks, adhering to professional standards for vehicle design, maintenance, and proper planning would significantly reduce these risks. It is also important to note that all OHV competitive and commercial SRP holders are required to obtain insurance for their operations.

The magnitude of potential impacts on public health and safety is directly influenced by the scale of OHV SRPs, particularly the number of participating vehicles. Larger races involving a higher volume of vehicles and spectators raise the risk of collisions with both other vehicles and pedestrians,

accidents, and the potential for hazardous material incidents. For example, Vegas to Reno, the largest race that occurs in the project area, had 1,100 participants and 750 spectators. In contrast, the Silver State Poker Run, a typical low-speed non-competitive SRP, had 20 participants and no noted spectators. Larger race events also use more management resources, including waste management and emergency services, to support greater numbers of spectators and participants.

To improve safety and mitigate risks from hazardous materials, all OHV SRPs would include stipulations and mitigation measures as further described below.

OHV SRP Safety Management

All permittees would be required to implement measures for human safety. Among these measures, participants would be required to attend pre-ride meetings. For certain OHV SRPs, vehicles may be tracked by event personnel via GPS units, routes may be marked for hazards, and gas and electrical lines may be avoided or involve limited crossings. All SRP permittees would also be required to assume responsibility for inspecting the routes for hazards and safety. Additionally, for race and certain low-speed non-competitive SRP events, intersections where cross traffic is likely may be required to be monitored during the event. This may include flaggers at highway crossings to stop participants' vehicles and allow traffic to pass. For race and certain low-speed non-competitive SRP events, permittees may be required to fully inspect the route prior to the event beginning and monitor any potential changes in weather patterns.

Spectator Management

For race events, spectators would not be allowed along the entire route but would be confined to pit areas and start/finish areas and other designated spectator areas. All race permittees would be responsible for containing and monitoring pit areas and checkpoints to ensure the safety of spectators and event participants. Racers, pit crews, family members, and spectators at race events and participants and spectators at other types of permitted events would be made aware of the dangers associated with any mine hazards in the event areas.

For all OHV SRPs, participants and spectators would be warned of weather-related dangers but would incur some personal risk from exposure to the elements. Weather conditions during the proposed summer OHV SRPs would include hot, dry daytime conditions with intense sun exposure and the possibility of strong winds, thunderstorms, and sudden weather changes and evening temperature drops.

The full list of stipulations can be found in Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*, in Appendix A.

Route Hazards

Some hazardous features such as mine workings and structures near the OHV SRP routes have been fenced to prevent or reduce human intrusion; however, permittees would be responsible for identifying any hazards near routes and informing participants and spectators. For example, where a race route passes near a potential hazard, the area may be required to be clearly marked with brightly colored banners and painted plates commonly used to advise participants of a hazard on the OHV SRP route. Warning signs may also be posted at all mine shafts and other hazard areas identified within 100 feet of the race route, pit areas, start/finish areas, and other designated

spectator areas. For all OHV SRPs, participants also would be verbally warned of these hazards prior to the start of the ride.

There are no anticipated open hazards expected to be encountered when OHV SRP participants remain on route. With these and other health and safety mitigation measures as outlined in this EA, risks to participants, spectators, and other public land users would be reduced to a low level.

Hazardous Materials Management

Fires could occur due to fuels, oils, battery fluid, and other hazardous materials carried by OHV SRP participants. Additionally, hazards could occur from misuse or mishandling of portable toilets or trash from events. While the transport and storage of hazardous materials are regulated by the Federal and State departments of transportation, incidents on site could occur due to vehicle accidents or spills. However, all OHV SRP permittees would be required to have plans for waste management and would be required to follow public health and safety measures.

Law Enforcement and Life Safety

BLM Law Enforcement would be required to review all OHV SRP applications as part of the initial risk assessment and all OHV SRP permittees would be required to plan for emergency service needs, including recovery and rescue. Race permittees may also be required to submit an Emergency Action Plan prepared by the permittee or a third-party organization, to be reviewed by BLM Law Enforcement. For large race events, this may include a plan for emergency services for the event, which may include helicopters, ambulance, and rescue vehicles staffed by qualified emergency medical services, fire, and rescue personnel, as required to ensure scene safety and provide emergency medical treatment, extrication, and fire suppression. Patients needing or requesting further evaluation or transport to a medical facility would be transferred to the nearest local ambulance service or air ambulance as needed.

Planning and Hazard Communications

Other mitigation measures for hazardous materials that could be applied to all OHV SRPs would help ensure safety. These measures include applying leave-no-trace principles, reviewing safety concerns with clients, using appropriate equipment and gear, handling food and water in compliance with public health code, not allowing the discharge of firearms, and other measures as listed in the mitigation measures section.

Mitigation Measures

The full text of stipulations and mitigation measures can be found in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*. Impacts on public health and waste as a result of OHV SRPs may be mitigated by the following measures found in Sections A.1 and A.2:

- HIGH-PHS-01, HIGH-PHS-02, HIGH-PHS-03, HIGH-PHS-05, HIGH-PHS-11, HIGH-PHS-12 and HIGH-PHS-14 (A.1) and LOW-PHS-01, LOW-PHS-02, LOW-PHS-06, LOW-PHS-11, LOW-PHS-12 and LOW-PHS-13 (A.2) will mitigate public health impacts by informing participants and the public about upcoming events and inherent risks associated with the activity, and maintaining awareness of/flagging hazards that may affect racer or public safety.

- LOW-PHS-03 (A.2) will mitigate public health impacts by requiring proper equipment and gear for participants and vehicles.
- HIGH-PHS-04 (A.1) and LOW-PHS-05 (A.2) will mitigate public health impacts by eliminating potential safety hazards from fireworks and explosives.
- HIGH-PHS-06 and HIGH-PHS-13 (A.1) and LOW-PHS-12 (A.2) will mitigate public health impacts by requiring the presence of qualified event staff and volunteers that ensure safe, managed event vehicle crossings and checkpoints per Nevada Department of Transportation standards.
- HIGH-PHS-07 and HIGH-PHS-08 (A.1) and LOW-PHS-07 (A.2) will mitigate public health impacts by limiting the potential for traffic deviating off of the planned event route, pit areas, start/finish areas, and other designated spectator areas.
- HIGH-PHS-09 (A.1) and LOW-PHS-08 (A.2) will mitigate public health impacts by providing emergency services including recovery and rescue.
- HIGH-PHS-10 (A.1) and LOW-PHS-09 (A.2) will mitigate public health impacts by reducing risk of fire.
- HIGH-HAZ-01 and HIGH-HAZ-06 (A.1) and LOW-HAZ-01 and LOW-HAZ-06 (A.2) will mitigate public health and hazardous and solid wastes impacts by reducing potential for cans, rubbish, and other trash and waste to be dumped in the project area.
- HIGH-HAZ-02 and HIGH-HAZ-03 (A.1) and LOW-HAZ-02 and LOW-HAZ-03 (A.2) will mitigate public health and hazardous and solid wastes impacts by requiring remediation and notification of authorized officer in the event of spilled of fuels, lubricants, coolants, hydraulic fluids, or other petroleum-based or synthetic organic compounds.
- HIGH-HAZ-04 (A.1) and LOW-HAZ-04 (A.2) will mitigate public health and hazardous and solid wastes impacts by prohibiting draining of sewage fluids and requiring containment, cleaning, and disposal of wastes.
- HIGH-HAZ-05 (A.1) and LOW-HAZ-05 (A.2) will mitigate public health and hazardous and solid wastes impacts by requiring the proper storage of hazardous waste and the use of fuel mats under race vehicles during fueling.

No Action Alternative

The No Action Alternative would have no meaningfully different effects on health and safety or the release of hazardous materials beyond those discussed under the Proposed Action. The smaller potential increase in small races over the next 10 years under the No Action Alternative would reduce potential effects from these events compared to the Proposed Action. If the proposed programmatic EA structure is not utilized, case-by-case NEPA procedures for OHV SRPs would be followed. This could include less-consistent use of stipulations and mitigation measures compared to the Proposed Action.

3.13 Recreation and Visitor Services

Analysis Area:

Areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities. Including but not limited to existing routes, pit stop locations, staging areas, and intersections, as well as adjacent areas that may be affected by loss of access.

Issues for Analysis:

- How would OHV SRPs affect other recreational users of public lands, including displacement during OHV SRPs and damage to recreational infrastructure, including roads?
- How would OHV SRPs increase or decrease recreational tourism to Nevada's public lands?

3.13.1 Affected Environment

The roads and trails used by OHV SRPs are frequently used for other recreational activities and permitted events such as guided big game and upland bird hunting, competitive horse endurance rides, and various horseback and wagon events or tours. Some of these events and activities occur under BLM permits and may also require county and other Federal agency approval.

There are many casual, public recreational uses for the project area that do not require permits, including mountain biking, hiking, horseback riding, ATV and OHV riding on existing roads, OHV riding in designated OHV Open Areas, big game and upland bird hunting, four-wheel drive exploration, and touring for historical, geologic, and wildlife exploration.

Some OHV SRP routes in the project area are adjacent to areas specially designated for recreation, including Recreation Management Areas (RMAs), Special Recreation Management Areas (SRMAs), and Extensive Recreation Management Areas (ERMAs).

BLM Designations for Recreation Management Areas

SRMAs are managed for intensive recreation opportunities, including competitive OHV and other recreation events and commercial recreation activities. ERMAs provide a more generalized recreation objective that prioritizes a level of protection and support for recreational uses and habitat protection.

The BLM's Recreation and Visitor Services Planning Decision Guidance describes the recreation management objectives and general allowable uses for SRMAs and ERMAs.

- “An [*sic*] SRMA is an administrative unit where existing or proposed recreation opportunities and Recreation Setting Characteristics (RSC) are recognized for their unique value, importance, and/or distinctiveness, especially as compared to other areas used for recreation. An [*sic*] SRMA is managed to protect and enhance a targeted set of activities, experiences, benefits, and desired RSCs. Within an [*sic*] SRMA, Recreation & Visitor Services management is recognized as the predominant [land use plan] focus, where specific recreation opportunities and RSCs are managed and protected on a long-term basis” (BLM 2014).

- “ERMAs are administrative units that require specific management consideration in order to address recreation use, demand or [recreation and visitor services] program investments. The ERMAs are managed to support and sustain the principal recreation activities and the associated qualities and conditions of the ERMA. Management of ERMAs is commensurate with the management of other resources and resource uses. They consist of general, dispersed recreation over a diverse range of landscapes and vegetation” (BLM 2014).

Recreation Management Areas within the Project Area

Most RMAs and other designated areas across the project boundary do not have specific plans describing their recreation goals and objectives. However, areas lacking individual management plans are designated and described in their associated RMPs.

Prior plans gave specific designations to protected areas and established them as SRMAs or Wildlife Management Areas (WMAs). For areas that were not identified as SRMAs or WMAs, ERMAs were established to give general protection beyond recreation area boundaries. The ERMAs that intersect with the proposed routes include the Southern Nevada ERMA and the Ely ERMA.

The allowable uses, management direction, and recreation setting characteristics for these RMAs vary. The BLM collects and maintains data associated with RMAs, SRMAs, and ERMAs. This includes relevant data that identify these areas and generally define their purpose.

Several significant recreation areas intersect with the proposed routes: two ERMAs, seven SRMAs, one WMA, and one OHV Open Area have been designated with specific recreation setting characteristics or recreation management objectives (Table 3.13-1).

Table 3.13-1 Recreation Management Areas in the Project Area

Recreation Area Title	Recreation Designation	Field Office	Acreage Covered
Ely	ERMA	Caliente	Remaining RMP area (Ely RMP)
Chief Mountain	SRMA	Ely	111,181 acres
Pahranagat	SRMA	Ely	298,500 acres
North Delamar	SRMA	Ely	202,890 acres
Hungry Valley	OHV Designated Open Area	Sierra Front	27,298 acres
Walker Lake	SRMA	Stillwater	30,000 acres
Crescent Sand Dunes	SRMA	Tonopah	3,000 acres
Lunar Crater	SRMA	Tonopah	39,680 acres
Rhyolite Historic Townsite	SRMA	Tonopah	425 acres
Railroad Valley	WMA	Tonopah	14,720 acres
Southern Nevada	ERMA	Pahrump	Remaining RMP Area (Las Vegas RMP)

Ely Routes

There are three SRMAs designated within the Ely ROD and Approved RMP, approved in August 2008. For areas not designated as SRMAs, they are included in the Ely ERMA. This makes a majority of the project area available for dispersed, backcountry, and undeveloped recreational uses.

Sierra Front Routes

The Hungry Valley OHV Designated Open Area (27,298 acres) overlaps with part of the greater North Reno Recreation Area, which comprises 19,050 acres of public lands and is specifically managed for motorized recreation by the BLM Carson District Office.

Stillwater Routes

There is one SRMA designated within the Carson City Consolidated RMP, approved in May 2001. The Walker Lake SRMA (30,000 acres) intersects directly with proposed OHV SRP routes within the jurisdiction of the Stillwater Field Office.

Tonopah Routes

There are three SRMAs and one WSA designated within the Tonopah RMP and ROD, approved in October 1997.

Pahrump Routes

The Southern Nevada ERMA is the central, designated RMA that intersects with routes managed by the Pahrump Field Office. The ERMA is designated within the Las Vegas ROD for the Approved Las Vegas Resource Management Plan and Final Environmental Impact Statement, approved in October 1998.

The stated objective for the ERMA is to “Manage public lands not included within Special Recreation Management Areas as the Southern Nevada ERMA, emphasizing dispersed and diverse recreation opportunities.” The Southern Nevada ERMA implements restrictions on OHV events, high-speed testing, publicity rides, and permitted events capable of affecting desert tortoise habitat.

Economic Impact and Tourism

In general, OHV SRPs can have positive, localized impacts on other recreational activities and regional recreation economies. Without specific mitigations and stipulations, however, they can also negatively affect other recreational uses like non-motorized trail use, wildlife viewing, and other activities affected by elevated noise or activity levels. Some positive impacts include increased participation in other recreational activities, job creation, and increased economic input for local businesses and services. See Section 3.9 for analysis on socioeconomic impacts from the Proposed Action. Some relevant analysis of the economic benefits of OHV SRP issuance includes:

- The 2019 *Economic Impact of Off-Highway Recreation in the State of Arizona* study, developed by Arizona State University, found that the OHV recreation program was managed by the State of Arizona with a total budget of \$5.08 million. Out of this budget, Arizona State Parks received \$3.07 million. These direct operating expenditures generated 93 jobs, approximately \$10 million in output, \$3.8 million in labor income, and \$5.97 million in value added. OHV events also generated \$221 million in local and state taxes (Arizona State University 2019).
- A 2018 report on OHV tourism economic impact in Missouri developed by the Southeast Missouri State University’s Economic and Business Engagement Center, found that:
 - Nearly 40% of Missouri tourists reported visiting natural resource sites.
 - The average OHV rider reportedly spends a minimum of \$100 on a single day trip.

- 3.2 million of the Midwest's 15.4 million residents participated in OHV recreation.
- \$412 billion is contributed to the U. S. economy through the outdoor recreation industry alone (Southeast Missouri State University 2018).

3.13.2 Environmental Consequences

Proposed Action

The OHV SRPs and any post-SRP reclamation under the Proposed Action could result in temporary visual impacts caused by dust clouds generated by vehicles and equipment and other particulates. For race events in particular, these may be visible from long distances and negatively affect recreational users' experience on Nevada's public lands. Previous OHV SRP races have monitored emissions impacts and found that race-produced dust settles relatively quickly and is typically carried a short distance (50–100 feet vertically and 50–300 feet horizontally) and would therefore have only short-term impacts on recreationists (BLM 2022). For race events, mitigation measures such as staggered vehicle starts and speed reduction around road crossings and any residences (BLM 2022) can decrease these effects. For low-speed non-competitive SRPs, lower participant numbers and reduced dust production from reduced speed would naturally limit visual effects. See Section 3.1 for discussion on air quality.

Race events could temporarily affect access, and recreational users may experience diminished access to public lands due to road closures. All OHV SRPs are short term in nature and therefore any road closures would be temporary. Currently, most events have not obtained a Federal Registration Notice that would permit route closures for non-event users; the programmatic EA herein is required to eventually obtain route closures for OHV events. OHV SRP stipulations would require race permittees to return roads to their pre-race or better condition within a reasonable timeline after the event has concluded. Access to the route for race and support vehicles would be via existing roads, primarily state highways and primary local gravel roads. State highways already have a moderate to high level of use, so the addition of race vehicles and support vehicles to road traffic would have a minor impact on recreational users. Existing road networks within the project area also provide numerous alternative routes. No long-term impacts on roads that would be used by recreationists in Nevada are anticipated.

All OHV SRPs could lead to potential safety issues and conflicts with casual recreation users. See Section 3.12 for analysis on public health and safety. Other recreational users who might seek to use areas along the route during the days of a race or low-speed non-competitive SRP could be displaced. Dispersed, casual recreation activities such as mountain biking, horseback riding, and other users could be temporarily displaced. Some hunting activities may be temporarily displaced due to noise, access, and wildlife movement (see Sections 3.2 through 3.4 for discussions on fish and wildlife). Such displacement is expected to have minor effects, as casual recreation use in the project area is typically widely dispersed. The list of stipulations and mitigations that accompanies the Proposed Action would address these concerns and mitigate impacts on OHV participants and other recreational users. For low-speed non-competitive tours, no displacement is anticipated due to the lower speeds and smaller numbers of participants.

Mitigation Measures

The full text of stipulations and mitigation measures can be found in Appendix A, Section A.1, *Stipulations and Mitigation Measures for High-Speed Events*, and Section A.2, *Stipulations and Mitigation Measures for Low-Speed Events*. Recreation and visitor service impacts as a result of OHV SRPs may be mitigated by the following measures found in Sections A.1 and A.2:

- HIGH-REC-01 (A.1) and LOW-REC-01 (A.2) will require permittees to comply with the Leave No Trace Seven Principles.
- HIGH-TTM-05 (A.1) and LOW-TTM-06 (A.2) will require OHV operators to comply with all of the BLM's OHV designations.
- HIGH-TTM-13 (A.1) and LOW-TTM-14 (A.2) will require OHV operators to yield to the right-of-way for all traffic.
- LOW-TTM-03 (A.2) will require tours to yield to the everyday, casual user, as well as other authorized users.

No Action Alternative

The No Action Alternative would have no meaningfully different effects on recreation beyond those discussed under the Proposed Action. The smaller potential increase in small races over the next 10 years under the No Action Alternative would slightly reduce potential short-term, temporary displacement of other recreation users from these events compared to the Proposed Action. If the proposed programmatic EA structure is not utilized, case-by-case NEPA procedures for OHV SRPs would be followed. This could include less-consistent use of stipulations and mitigation measures that might reduce conflicts with other recreational users from OHV SRPs compared to the Proposed Action.

3.14 Lands with Wilderness Characteristics

Analysis Area:

Lands with wilderness characteristics crossed by existing routes, pit stop locations, staging areas.

Issues for Analysis:

- How would OHV SRPs affect maintenance of wilderness characteristics through route maintenance?

3.14.1 Affected Environment

Under Section 201 of the Federal Land Policy and Management Act of 1976, the BLM is required to prepare and maintain inventories of the resources and values of all public lands, giving priority to ACECs (43 U.S.C. 1711). As part of these inventories, the BLM reviews lands subject to designation as "wilderness" and protection under the Wilderness Act of September 3, 1964 (43 U.S.C. 1782). Wilderness under this act is defined as "undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been

affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value” (16 U.S.C. 1131(c)). Inventories for lands with wilderness characteristics (LWCs) are performed by the BLM according to the BLM Manual 6310 (BLM 2021a).

The Wilderness Act prohibits the development of permanent and temporary roads within wilderness, except as necessary to meet minimum health and safety requirements, as well as the use of motor vehicles (16 U.S.C. 1133(c)). Consequently, the BLM designates only two types of transportation routes within and around LWCs: wilderness inventory roads and primitive routes. Routes that have been improved and maintained by mechanical means to ensure relatively regular and continuous use are wilderness inventory roads. Primitive routes are linear transportation features within LWCs that do not meet the wilderness inventory road definition. Wilderness inventory roads and other substantially noticeable human-caused impacts are excluded when delineating LWC unit boundaries (BLM 2021b).

3.14.2 Environmental Consequences

Proposed Action

The OHV SRPs and any post-SRP reclamation under the Proposed Action could result in the conversion of existing primitive routes to wilderness inventory roads, reducing the size of LWC units. As discussed in Section 2.1.1, *Routes, Pit Stops, and Staging Areas*, rehabilitation and reclamation would be completed using handtools or motorized equipment and the permittee may be required to grade, drag, disc, or reseed any areas damaged by off-route travel. The rehabilitation and reclamation activities proposed as part of this action are likely to qualify as route “improvement and maintenance by mechanical means” per BLM Manual 6310 (BLM 2021a). Therefore, if rehabilitation and reclamation activities are performed on an existing primitive route, the route could become a wilderness inventory road by definition.

Rehabilitation and reclamation activities are anticipated to occur on routes where race SRPs or motorcycle-only SRPs could occur. Due to the limited amount of travel and road damage expected to result from low-speed, non-competitive SRPs, no rehabilitation or reclamation is expected for these routes. No pit stops or other event-related locations overlap with existing LWC units.

Based on inventories performed in 2022, 14 LWC units overlap with proposed routes where rehabilitation and reclamation could occur following SRP completion (Table 3.14-1). As seen in Table 3.14-1, LWCs managed by the Caliente Field Office overlap with approximately 74.9 miles of proposed routes potentially needing future rehabilitation and reclamation. These routes equate to approximately 141.6 acres. LWCs managed by the Tonopah Field Office overlap with approximately 15.6 miles of proposed routes potentially needing future rehabilitation and reclamation, equating to approximately 30.7 acres. A maximum of 90.5 miles and 172.3 acres of LWCs may need future rehabilitation and reclamation (Table 3.14-1).

Table 3.14-1 Proposed Action Routes Overlapping Inventoried Lands with Wilderness Characteristics

Field Office	OHV SRP Route Type	Inventory Unit ID	Miles	Acres
Caliente	Low-Speed Non-competitive and Motorcycle	NV-050-182	0.9	1.7
		NV-050-0132	31.8	59.9
		NV-050-0144-2-2012	2.1	4.1
		NV-050-01R-12-7a	4.8	9.3
		NV-050-251-1A	2.6	4.9
		NV-040-197-6	0.9	1.7
		NV-050-0144-2-2012	6.4	12.5
		NV-050-202A-1	10.9	19.6
		NV-050-251-1A	14.4	27.9
		<i>Caliente Field Office Subtotal</i>	<i>74.9</i>	<i>141.6</i>
Tonopah	Low-Speed Non-competitive, Race Events, and Motorcycle Use	NV-050-311I	0.2	0.7
		NV-050-312H	0.1	0.2
		NV-050-323	4.7	9.0
		NV-050-338L	8.0	15.5
		NV-050-338M	2.7	5.3
		<i>Tonopah Field Office Subtotal</i>	<i>15.6</i>	<i>30.7</i>
Project Total			90.5	172.3

Source: BLM 2022

Considering wilderness inventory roads are excluded from LWCs (16 U.S.C. 1133(c)), conversion of primitive routes to wilderness inventory roads could divide LWC units into smaller areas. Under the Wilderness Act's size constraints for wilderness areas, division of these LWC units could potentially preclude them from future wilderness designation (16 U.S.C. 1131(c)(2)). Nonetheless, the route area that could be converted is minimal, with up to 172.3 acres of LWCs potentially needing future rehabilitation and reclamation (Table 3.14-1). Additionally, this is a conservative estimate that assumes that all future routes would receive an SRP and the entirety of these routes would require repair. Therefore, impacts on LWCs resulting from the Proposed Action are anticipated to be minor.

No Action Alternative

The No Action Alternative would have no meaningfully different effects on LWCs beyond those discussed under the Proposed Action. The smaller potential increase in small races over the next 10 years under the No Action Alternative may maintain the current size of LWC units longer than compared to the Proposed Action. However, if the proposed programmatic EA structure is not utilized, case-by-case NEPA procedures for OHV SRPs would be followed. This could include less-consistent use of stipulations and mitigation measures that might reduce conflicts with other recreational users from OHV SRPs compared to the Proposed Action.

3.15 Cumulative Impacts

3.15.1 Reasonably Foreseeable Action Trends

An increase in OHV SRPs and participants is expected in the project area, as discussed Section 2.1.2. This projection is based on various factors such as historical trends, demand, and participation rates. Additionally, the routes under consideration may experience a range of activities beyond OHV SRPs. These activities encompass not only other forms of OHV recreation, like dispersed touring or hunting, but also non-OHV recreation activities such as hiking, mountain biking, and horseback riding. Additionally, other permitted uses like mining traffic, livestock permittee use, and access to transmission and energy facilities should be considered in the cumulative analysis.

The stipulations associated with the OHV SRPs serve as a mechanism to curtail the potential for cumulative effects in conjunction with other foreseeable actions. Other non-recreational permitted uses of the routes have their own stipulations and agreements with the BLM regarding road use and maintenance. These stipulations not only pertain to recreational activities but extend to various land uses, further enhancing the mitigation of cumulative effects between OHV SRPs and other permitted uses.

3.15.2 Effects of Reasonably Foreseeable Action Trends on Resources Potentially Affected by the Proposed Action and Alternatives

Table 3.15-1 Cumulative Effects Discussion by Resources

Study Area	Cumulative Effect Discussion
Air Quality and Greenhouse Gas Emissions	
Air basins through which OHV SRP routes pass	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives would contribute to air emissions as a result of fugitive dust from equipment and events and emissions from vehicles. Depending on the number and size of OHV SRPs, cumulative effects on air quality could vary significantly. As shown in Tables 3.1-1 and 3.1-2, large races have a much greater emissions than small low-speed non-competitive SRPs due to the number of vehicles and foot traffic within the project area. Overall, the OHV SRPs under the alternatives are small in comparison to the larger transportation network in the project area and are temporary in nature, and their incremental contribution to cumulative effects is expected to be minimal.
Fish and Wildlife	
The project area, including routes, pit stops, and other event-related locations, through which OHV SRP routes pass	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives would contribute to potential cumulative impacts on fish and wildlife species through increased dust and noise, increased avoidance of route areas, and potential for direct interactions including injury and mortality. Depending on the number and size of events, cumulative effects on fish and wildlife could vary significantly. As discussed in Section 3.2.2, large events have a greater potential for dust and noise as well as collisions than small events because of the larger amounts of vehicles. Additionally, high speed events have a greater risk of collision than low speed events do. Overall, the incremental contribution of the Proposed Action to cumulative effects is expected to be minimal.

Study Area	Cumulative Effect Discussion
Special Status Species	
The project area, including routes, pit stops, and other event-related locations, through which OHV SRP routes pass	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives would contribute to cumulative effects on some threatened, endangered, and candidate species. However, the BLM notes that most of the threatened, endangered, and candidate species identified in the USFWS IPaC report do not occur near the project action area or would not be affected by activities in the vicinity, so there would be no cumulative increase in effects. The stipulations associated with the OHV SRPs serve as a mechanism to curtail the potential for cumulative effects on threatened, endangered, and candidate species including desert tortoise, Greater Sage-Grouse, California condor, southwestern willow flycatcher, yellow-billed cuckoo, spring-loving centaury, Tiehm's buckwheat, Ute ladies'-tresses, Whitebark pine, and monarch butterfly. The cumulative effects on these species could vary depending on the number and size of OHV SRPs. As discussed in Section 3.3.2, large OHV SRPs have a greater potential for dust and noise as well as collisions than small OHV SRPs because of the larger amounts of vehicles. Additionally, race events have a greater risk of collision than low-speed OHV SRPs do. Overall, the incremental contribution of the Proposed Action to cumulative effects is expected to be minimal.
Migratory Birds	
The project area, including routes, pit stops, and other event-related locations, through which OHV SRP routes pass	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives would contribute to potential cumulative impacts on fish and wildlife species through increased dust and noise, increased avoidance of route areas, and potential for direct interactions including injury and mortality. Depending on the number and size of OHV SRPs, cumulative effects on migratory birds could vary significantly. As discussed in Section 3.4.2, large OHV SRPs have a greater potential for dust and noise as well as collisions than small OHV SRPs because of the larger amounts of vehicles. Additionally, races have a greater risk of collision than low-speed non-competitive SRPs do. However, stipulations such as prohibition of races during migratory bird nesting season and requirements of pre-event nest surveying will reduce the contribution of the Proposed Action to cumulative effects. Overall, the events under the Proposed Action are small in comparison to the larger transportation network in the project area and are temporary in nature. Therefore, the incremental contribution of the Proposed Action to cumulative effects is expected to be minimal.
Noxious Weeds and Invasive/Non-Native Species	
The project area, including routes, pit stops, and other event-related locations, through which OHV SRP routes pass	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives would contribute to potential cumulative impacts on the spread of noxious weeds and non-native/invasive species. The cumulative effect of the Proposed Action would vary depending on the number and sizes of OHV SRPs. Larger events have more potential to spread noxious weeds and non-native/invasive species because of the larger number of participants and vehicles. Overall, the OHV SRPs under the Proposed Action are small in comparison to the larger transportation network in the project area and are temporary in nature. Therefore, the incremental contribution of the Proposed Action to cumulative effects is expected to be minimal.
Hydrologic Conditions	
The project area, including routes, pit stops, and other event-related locations,	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives would contribute to hydrology impacts as a result of erosion, disturbance, and spills/leaks into waterbodies from equipment and events within the project area if mitigation measures are not enforced. Depending on the number and size of OHV SRPs, cumulative effects on hydrology could vary

Study Area	Cumulative Effect Discussion
through which OHV SRP routes pass	significantly. As discussed in Section 3.6.2, large races have a much more significant impact on soils than do small low-speed non-competitive SRPs due to number of vehicles and amount of foot traffic within the project area. Overall, the incremental contribution of the Proposed Action to cumulative effects is expected to be minimal. It is worth noting that the General SRP Application stipulates that the lands must be restored to pre-existing conditions upon departure, which inherently contributes to mitigating cumulative impacts.
Soil	
The project area, including routes, pit stops, and other event-related locations, through which OHV SRP routes pass	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives would contribute to the degradation and erosion of the soil within the project area if mitigation measures are not enforced. Depending on the number and size of OHV SRPs, cumulative effects on soils could vary significantly. As discussed in Section 3.7.2, large race events have a much more significant impact on soils than low-speed non-competitive SRPs do due to the number of vehicles and amount of foot traffic. Overall, the incremental contribution of the Proposed Action to cumulative effects is expected to be minimal. It is worth noting that the General SRP Application stipulates that the lands must be restored to pre-existing conditions upon departure, which inherently contributes to mitigating cumulative impacts.
Wild Horses and Burros	
Routes, pit stops, and other event-related locations that overlap existing wild horse and burro HMAs	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives would contribute to cumulative wild horse and burro impacts as a result of displacement of wild horses, wild horse avoidance of OHV SRP routes, risk of collisions with horses, and loss of forage. Depending on the number and size of OHV SRPs, cumulative effects on wild horses and burros could vary significantly. As discussed in Section 3.8.2, large races incur a more significant risk of impacts on wild horses and burros than small low-speed non-competitive SRPs do due to the number of vehicles and participants. Additionally, high-speed races have a greater risk of collision and forage disturbance than do low-speed non-competitive SRPs. Overall, the incremental contribution of the Proposed Action to cumulative effects is expected to be minimal.
Social and Economic Conditions and Environmental Justice	
The 107 block groups in 11 Nevada counties previously identified in this section, which include block groups through which routes under the Proposed Action pass, and block groups near routes	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives would contribute to cumulative social and economic impacts as a result of increased visitation and spending in the study area. Depending on the number and size of OHV SRPs, cumulative effects on social and economic conditions could vary significantly. Consistent OHV SRP uses may bolster overall OHV uses and related spending in the study area. Overall, the OHV SRPs under the Proposed Action are small in comparison to the larger transportation network in the project area and are temporary in nature. Therefore, the incremental contribution of the Proposed Action to cumulative effects is expected to be minimal.

Study Area	Cumulative Effect Discussion
Mineral Resources	
The project area, including routes, pit stops, and other event-related locations, through which OHV SRP routes pass, including those that overlap with mineral resources access roads	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives would contribute to cumulative mineral resources impacts as a result of route closures, increased traffic on roads and trails as a result of OHV SRPs, and increased utilization of emergency services. Depending on the number and size of OHV SRPs and their locations, cumulative effects on mineral resources could vary significantly. As discussed in Section 3.10.2, large races incur a more significant risk of impacts on mineral resources than do low-speed non-competitive SRPs due to the number of vehicles. Additionally, high-speed events have a greater risk of collision than low-speed events, which may result in the use of emergency services. Overall, the incremental contribution of the Proposed Action to cumulative effects is expected to be minimal.
Livestock Grazing	
Routes, pit stops, and other event-related locations that overlap existing grazing allotments and areas critical for grazing administration	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives would contribute to cumulative livestock grazing impacts as a result of displacement of livestock from water and vegetation sources, possible shut-off of water sources, risk of collisions with grazing animals, and loss of forage. Depending on the number and size of OHV SRPs, cumulative effects on livestock grazing could vary significantly. As discussed in Section 3.11.2, large races incur a more significant risk of impacts on livestock grazing than do low-speed non-competitive SRPs due to the number of vehicles. Additionally, high-speed races have a greater risk of collision than low-speed non-competitive SRPs. Overall, the incremental contribution of the Proposed Action to cumulative effects is expected to be minimal.
Public Health and Safety, Hazardous and Solid Waste	
The project area, including routes, pit stops, and other event-related locations, through which OHV SRP routes pass	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives would contribute to cumulative public health and safety and hazardous and solid waste impacts as a result of collision risks, hazards within the project area (e.g., mine lands), fire risk, debris/waste generation, and potential for hazardous spills. Depending on the number and size of OHV SRPs, cumulative effects on public health and safety and hazardous and solid waste could vary significantly. As discussed in Section 3.12.2, large races incur a more significant risk of impacts on public health and safety and hazardous and solid waste than do low-speed non-competitive SRPs due to the number of vehicles. Additionally, high-speed events have a greater risk of collision than low-speed events. Overall, the incremental contribution of the Proposed Action to cumulative effects is expected to be minimal.
Recreation and Visitor Services	
Routes, pit stops, and other event-related locations that overlap existing recreation management areas and other areas in which other recreation outside of OHV SRPs and non-competitive activities may take place	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives would contribute to cumulative recreation and visitor service impacts as a result of potential displacement of other event types and recreational users via road closures, traffic increases, and perceived safety hazards. Depending on the number and size of OHV SRPs, cumulative effects on recreation could vary significantly. As discussed in Section 3.13.2, large races incur a more significant risk of impacts on recreation and visitor service than do small low-speed non-competitive SRPs due to the number of vehicles. Additionally, high-speed events have a greater risk of collision than low-speed events do. Overall, the incremental contribution of the Proposed Action to cumulative effects is expected to be minimal.

Study Area	Cumulative Effect Discussion
Lands with Wilderness Characteristics	
Routes that overlap lands with wilderness characteristics on which other uses outside of OHV SRPs may take place	Other reasonably foreseeable activities in combination with the Proposed Action and alternatives could contribute to cumulative impacts on route maintenance in inventoried lands with wilderness characteristics. As discussed in Section 3.14.2, OHV SRPs for races and motorcycle events can damage road services in ways that require maintenance, which may over time improve routes to a degree that they are no longer consistent with maintaining the wilderness characteristics of the areas they cross. The need for maintenance would be greater where other uses of these routes similarly damage the route surface and increase the need for future maintenance. Overall, the incremental contribution of the Proposed Action to cumulative effects is expected to be minimal.

4.0 Consultation and Coordination

4.1 Persons, Groups or Agencies Consulted

BLM extended cooperating agency invitations to local organizations, agencies, and interested parties. Table 5-1 lists agencies and groups that accepted the invitation to become cooperating agencies.

Table 5-1 Persons, Groups, or Agencies Consulted

Agency/Group
Fallon Paiute-Shoshone Tribe
Nevada Association of Counties
Lincoln County
Nye County
Washoe County
Humboldt-Toiyabe National Forest
Nevada Department of Conservation and Natural Resources
Town of Beatty
Nevada Department of Wildlife
United States Fish and Wildlife Service

4.2 List of Preparers

The following personnel with the BLM Nevada State Office, Carson City District Office, Ely District Office, Southern Nevada District Office, Battle Mountain District Office, Caliente Field Office, Pahrump Field Office, Sierra Front Field Office, Stillwater Field Office, and Tonopah Field Office participated in preparing this EA.

Table 5-2 List of Preparers

Name	Title	Project Expertise
Tammy Owens	Recreation Lead for SRPs, OHV, Trails, and Travel Management, Nevada State Office	BLM Project Management; Recreation; OHV; Special Recreation Permits; Travel Management
Miles Gurtler	Recreation/NLCS Program Lead, Nevada State Office	BLM Project Management; Recreation; OHV; Visitor Services; National Monuments; National Conservation Areas
Carolyn Sherve	Planning and Environmental Specialist - ePlanning, ACEC, and Visual Resources Lead, acting Planning/NEPA Lead, Nevada State Office	NEPA; ePlanning; Visual Resource Management; ACECs

Name	Title	Project Expertise
Alicia Jensen	Associate State Archaeologist, National Historic Trails Lead, Nevada State Office	Archaeology; Paleontology; Tribal Consultation; National Scenic and Historic Trails; Native American/Tribal Concerns
Jamie Lange	GIS Analyst	GIS
Frank Giles	Air Resource Specialist	Air Quality; GHG Emissions; Climate Change
Quinn Young	State Lead for Wildlife, Fisheries, and Threatened and Endangered/Sensitive Species Programs Contracting Officer Representative (AIM), Nevada State Office	Fish and Wildlife; Threatened and Endangered Species; Vegetation; Migratory Birds
Patti Novak-Echenique	Rangeland Management Specialist	Soils; Vegetation; Livestock Grazing; Farmlands
Ruth Thompson	Wild Horse and Burro State Lead, Nevada State Office	Wild Horses and Burros; Livestock Grazing
Matt Fockler, PhD	Socioeconomic Specialist Great Basin Zone (Nevada, Idaho, Utah)	Socioeconomics; Environmental Justice
Nate Pepe	Geologist, Solid Minerals Team, Nevada State Office	Geology and Mineral Resources
Kurt Miers	Environmental Protection Specialist, Nevada State Office	Public Health and Safety; Hazardous Materials
Kelsey Griffiee	State Fire Mitigation and Education Specialist, Nevada State Office	Fire and Fuels Management
Jamie Fields	Recreation Lead for Wilderness	Lands with Wilderness Characteristics; Wilderness; WSAs; Wild and Scenic Rivers
Katherine Dyer	Rangeland Management Specialist	Livestock Grazing
Nicki Cutler	Hydrologist	Hydrology; Wetlands and Riparian Areas
Kim Allison	Rangeland Management Specialist	Vegetation; Noxious and Invasive Weeds
Madeline Van Der Voort	State Archaeologist and Deputy Preservation Officer, Nevada State Office	Cave and Karst Resources;
Coreen Francis	Lead Forester	Forestry and Woodlands
Heidi Rogers	Forester	Forestry and Woodlands
Matt Simons	Lands and Realty Lead	Land Use
Kira Treich	Lead for Rights-of-Way	Rights-of-Way

AIM = Assessment, Inventory, and Monitoring Strategy; GIS = geographic information system; NLCS = National Landscape Conservation System

Appendix A Stipulations and Mitigation Measures

Appendix A Stipulations and Mitigation Measures

A.1 Special Recreation Permit Stipulations for High-Speed Races

This Special Recreation Permit (SRP) will be in effect from date of issuance through [date] on public lands administered by the Bureau of Land Management (BLM), unless terminated earlier by the Authorized Officer (AO). Conduct of event authorized by this permit signifies knowledge of and constitutes an express and implied agreement by the permittee: [permittee] , including volunteers, employees, contractors, and other representatives to fully comply with permit conditions on the reverse side of Form 2930-2 and all requirements and special stipulations listed below, unless specifically waived by the AO.

Permit Fees

HIGH-PF-01: Payment due to the government shall be in conformance with existing regulations. The SRP minimum annual fee (currently \$130.00) that has been charged in advance will be deducted from the fees due. Cost recovery charges shall be actual costs to the government for processing the permit and monitoring all pre-, actual, and post-permitted activities as reflected by charges, including salaries (direct and indirect costs), vehicle mileage, per diem, and administrative costs, made to a special account established to track event processing costs.

HIGH-PF-02: A Post-Use Report (PUR) shall be submitted to the field office that authorized the permit (within 30 days of the conclusion of the event or agreed-upon schedule).

HIGH-PF-03: The SRP fees will be: \$130 minimum or \$7.00 per participant per day or 3% of total gross receipts (including sales of souvenirs, t-shirts, food, fuel, parts, donations, sponsorships, filming and broadcast rights, and spectator fees), whichever is greater. Fees are updated every 3 years based on the implicit price deflator index. In addition, payment of Cost Recovery (agency expenses to process and administer permit) may be required.

General Terms

HIGH-GT-01: The permittee shall notify the AO of address change immediately.

HIGH-GT-02: Authorized representatives of the Department of the Interior, other Federal, State, and local agencies, and game wardens must always have the right to enter the premises on official business.

HIGH-GT-03: This permit is for the use of public lands for the purposes stated and does not provide for road maintenance, fire protection, sanitation facilities, or any other such service by the BLM. Additional State/local permits may apply. It is the applicant's responsibility to obtain any and all required State/local permits.

HIGH-GT-04: Storage of gear or equipment on BLM lands is prohibited without approval from the AO.

HIGH-GT-05: Bonds may be required at the discretion of the AO.

Cultural Resources

HIGH-CR-01: Any cultural or paleontological resources (historic or prehistoric site or object) discovered by the permittee, or any person working on their behalf on public or Federal lands, shall be immediately reported by the permittee to the AO and Field Office Cultural Resources Staff. The permittee shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the AO. An evaluation of the discovery will be made by the AO to determine appropriate actions to prevent the loss of significant cultural or scientific values. The permittee will be responsible for the cost of evaluation. Any decision regarding suitable mitigation measures will be made by the AO after consulting with the permittee. The permittee shall be responsible for the resultant mitigation costs.

HIGH-CR-02: The permittee shall not make available to the public any information concerning the nature and location of any archaeological resource.

HIGH-CR-03: Pursuant 43 Code of Federal Regulations (CFR) 10.4 (g), the permittee of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, or other objects of cultural patrimony (as defined at 43 CFR 10.2). Furthermore, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO. The BLM must certify receipt of the notification within 3 working days and take immediate steps, if necessary, in order to comply with the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (25 U.S. Code [U.S.C.] 3001 et seq.), to further secure and protect the human remains and other cultural items.

HIGH-CR-04: The permittee shall not commercialize any Native American religious ceremony occurring on public lands. Tours and Guides will not disrupt or infringe upon religious ceremonies taking place on public lands.

HIGH-CR-05: No camping will be allowed in proximity to National Historic Trails except at developed or established campgrounds.

HIGH-CR-06: Permittees shall ensure their clients do not disturb, damage, or remove cultural resources including petroglyphs, pictographs, ruins, prehistoric sites or artifacts. Collection of artifacts, touching or “rubbing” petroglyphs or pictographs, and excavation for hidden cultural resources are specifically prohibited. Pets are not to enter cultural resource sites, as pets can cause irreparable damage through digging or relieving themselves on the site.

HIGH-CR-07: The permittee will be responsible to ensure that historical, archaeological, cultural, paleontological, or ecological values are not damaged, destroyed, or removed by any participants during authorized activities or trips. Natural or undisturbed areas around the cultural sites will not be further trampled.

HIGH-CR-08: Unless specifically authorized, collection of plants, rocks, fossils, shed antlers, animals or parts of animals is prohibited.

Fish and Wildlife

HIGH-FW-01: Permittees shall ensure its clients do not harass or chase wildlife, livestock, wild horses or burros or behave in a manner that is harmful to wildlife, livestock, wild horses or burros.

HIGH-FW-02: Hunting, shooting, and collecting wildlife and plants by employees or clients while engaged in activities associated with the permitted use are prohibited.

HIGH-FW-03: Project supplies or equipment where wildlife could temporarily hide will be inspected prior to moving them to reduce the potential for injury to wildlife. Supplies and equipment that cannot be inspected, or from which wildlife cannot escape or be removed, will be covered or otherwise made secure from wildlife intrusion or entrapment at the end of each workday.

HIGH-FW-04: If any Gila monsters are encountered during an event, they must be reported immediately by the permittee to the Nevada Division of Wildlife at (702) 486-5127.

HIGH-FW-05: The permittee shall clear the course before each run to ensure that no wildlife species have wandered onto the racecourse. If any animals are injured or killed during the race, the BLM will be notified immediately.

HIGH-FW-06: Event participants would be informed of areas where big game may be encountered along the event route. They would be required to yield to any wildlife encountered during the event. During the event, event personnel and BLM staff, including the Outdoor Recreation Planner, Law Enforcement Rangers/Officers, and other resource specialists, would be present at various locations along the event route to monitor race activities and ensure that participants and spectators are not harassing or harming wildlife or driving outside the approved race route or existing roads and trails.

HIGH-FW-07: Helicopters and drones associated with the event must fly at least 1 mile away from any active raptor nests near the race route. The BLM will provide the permittee no-fly zones to pass on to helicopter pilots and drone operators. Note that exact nest locations to be avoided will not be provided.

HIGH-FW-08: The permittee will comply with any written instructions and maps provided by the BLM for the permitted event.

HIGH-FW-09: Any large animals that are roadkill associated with event or along race route post-race monitoring will be properly disposed of by the permittee. Nevada Department of Wildlife (NDOW) will be notified for any large game fatalities along roadways.

HIGH-FW-10: The proposed project falls within crucial winter range for wildlife. Activities that may disturb and displace wildlife will not be authorized during the following time periods.

- Pronghorn antelope (November 15 through April 30)
- Mule deer (November 15 through April 30)
- Bighorn sheep (November 15 through April 30)
- Elk (November 15 through April 30)

HIGH-FW-11: The proposed project falls within known kidding, fawning, lambing and calving range for wildlife. Activities that may disturb and displace wildlife will not be authorized within a quarter mile of the known habitat during the following time periods.

- Pronghorn antelope (April 1 through June 30)

- Mule deer (May 15 through June 15)
- Desert Bighorn sheep (February 1 through April 30)
- California Bighorn sheep (April 1 through June 30)

Threatened, Endangered, and Candidate Species

HIGH-TE-01: If a tortoise is injured or killed during the event, the BLM will be notified immediately. Upon locating a dead or injured tortoise (not caused by project activities) the BLM will be notified within 24 hours. The information included for each tortoise sighting is as follows: (1) The global positioning system (GPS) location and date of observation, (2) if the mortality occurred during project activities or if the mortality was only observed during project activities, (3) photographs of each tortoise mortality.

HIGH-TE-02: Permittees shall designate a field contact representative (FCR) who will be responsible for overseeing compliance with protective stipulations for the desert tortoise and for coordination on compliance with the BLM. The FCR may be an employee of the permitted organization. The FCR shall have the authority to halt all activities that are in violation of the stipulations. The FCR shall ensure that employees have a copy of all stipulations with them when conducting tours.

HIGH-TE-03: Only biologists authorized by the U.S. Fish and Wildlife Service or BLM shall handle desert tortoises. Employees of the permittee are not allowed to handle desert tortoises.

HIGH-TE-04: Desert tortoises, if encountered, shall be approached no closer than 5 yards (15 feet).

HIGH-TE-05: If any new land disturbance occurs that is not on previously established event course, the permittee will be required to pay remuneration fees based on the current year's rate.

HIGH-TE-06: Should a desert tortoise enter the area of activity, all activity shall cease until such time the animal leaves the area of its own accord.

HIGH-TE-07: Permittees are required to follow all stipulations, survey requirements, buffers, and other measures for the protection of the Greater Sage-Grouse, as outlined in the *Nevada and Northeastern California Greater Sage-Grouse Approved RMP Amendment and ROD, September 2015/2021*, and the *Record of Decision and Land Use Plan Amendment for the Nevada and California Greater Sage-Grouse Bi-State Distinct Population Segment in the Carson City District and Tonopah Field Office, May 2016*.

Migratory Birds

HIGH-MB-01: Migratory bird breeding season is defined as March 1 to August 31. To prevent violation and minimize impacts on breeding migratory birds, races will not be allowed during this timeframe.

HIGH-MB-02: For races proposed from January 1 to February 29, routes would be subject to pre-race raptor and eagle nesting surveys following U.S. Fish and Wildlife Service (USFWS) recommendations on nest occupancy determinations. If active nests are identified, those nests would be subject to a 1-mile buffer or route closure through February 29.

Invasive Species and Noxious Weeds

HIGH-NOX-01: Prior to entering public lands, the permittee will provide information and training regarding noxious weed management and identification to all personnel affiliated with the project. The importance of preventing the spread of weeds to un-infested areas and of controlling existing populations of weeds would be explained.

HIGH-NOX-02: The permittee will ensure the implementation of best management practices to minimize the introduction and spread of invasive plants in the area. These practices will include removing dirt, mud, and seeds from shoes, equipment, and vehicles prior to the start of the event and at the end of the event. The permittee will keep their project area free of state-listed noxious weeds for the life of the race. The permittee shall perform monitoring for invasive species/noxious weeds for the duration determined by the AO. Any detections of noxious weeds should be reported to the BLM District Office Weed Management Specialist immediately to determine the best course for treatment.

HIGH-NOX-03: To reduce the accidental spread of noxious weeds, the permittee and any contractors shall avoid or minimize all types of travel through a state listed noxious weed-infested areas that can be carried to the project area.

HIGH-NOX-04: Locate equipment storage, machine and vehicle parking or any other area needed for the temporary placement of people, machinery and supplies in areas that are relatively weed-free.

HIGH-NOX-05: The permittee shall limit the size of any vegetation and ground disturbance to the absolute minimum necessary to perform the activity safely and as designed. The permittee will avoid creating soil conditions that promote weed germination and establishment.

HIGH-NOX-06: Permittees will wash vehicles, trailers, off-highway vehicles (OHV), and other equipment to remove seed and plant parts before using or driving vehicles on routes authorized in the permit. Vehicles with caked-on dirt must be washed before use on routes authorized in the permit. Vehicle undercarriages and wheel wells must be ensured clean. All vehicles will be examined by the permittee and cleaned free of vegetation and soil before traveling to meeting sites or trailheads. Seeds and plant parts will be collected, bagged, and appropriately disposed of in dumpsters destined for a local landfill.

HIGH-NOX-07: A secondary cleaning is required upon exit from BLM lands at the conclusion of the race event to facilitate weed control. Before leaving the site, all race vehicles will be inspected by a qualified professional (with appropriate experience identifying and treating weeds). Permittees have an obligation to report site weed infestations to BLM personnel to aid in protecting the resources.

HIGH-NOX-08: Project workers shall inspect, remove, and dispose of weed seed and plant parts found on their clothing and personal equipment, bag the product, and dispose of it in a dumpster. If you have questions, consult with the BLM District Office noxious weed coordinator.

Hazardous Materials Management

HIGH-HAZ-01: Permittees shall “pack out” and dispose of all refuse resulting from this use. All refuse must be captured and removed from the event area and deposited in an approved treatment

facility or landfill including tires and event related materials (e.g., flagging, signs, lathe). Cans, rubbish, and other trash and waste shall not be discarded, buried, or dumped on public lands or related waters. Wet garbage such as eggshells, orange peels, leftover solid food, bones, melon rinds, etc., must be carried out. Trash cleanup at campsites and day use areas will include all litter or discarded items including small items such as bottle caps, cigarette butts and micro-trash.

HIGH-HAZ-02: The permittee shall be responsible for clean-up and remediation in event of accident or mechanical failure resulting in the spillage of fuels, lubricants, coolants, hydraulic fluids, or other petroleum-based or synthetic organic compounds. Dumping of fuel in pits, outhouses, or on the ground is prohibited. Any spill or release of a reportable quantity of a hazardous substance listed in 40 CFR 302 or of a petroleum product amounting to 25 gallons or 3 cubic yards of contaminated material must be reported to the Nevada Division of Environmental Protection (NDEP) spill hotline at (888) 331-6337, and to the BLM AO. Such spills must be controlled, remediated, and disposed of following all local, State, and Federal regulations.

HIGH-HAZ-03: If hazardous materials/substances are used or present within the authorized area, the permittee shall immediately notify the AO of any release (leaks, spills, etc.) of hazardous substances, toxic substances, or hazardous waste. As required by law, the permittee shall have responsibility for and shall take all action(s) necessary to respond to and fully remediate releases (leaks, spills, etc.) within the authorized area as well as following all regulations related to transportation, use and storage of hazardous materials. A copy of any report required or requested by any Federal, State, or local government agency because of a reportable release or spill of any hazardous substances shall be furnished to the AO concurrent with the filing of the reports to the involved Federal, State, or local government agency.

HIGH-HAZ-04: Restrooms: The permittee shall provide a minimum of one restroom for every 50 people at the start/finish area, every pit/checkpoint location and at known spectator areas on public lands that will be occupied for more than four hours. Restrooms may be provided through rental of units, use of self-contained trailers or motor homes or any other means providing access to the public in start finish and spectator areas and all crews in pit areas. If restrooms other than rental units are used, adequate signage must be provided to make their presence known. All restroom facilities must be removed from area within 24 hours after the event. Draining of (black/gray water) sewage fluids is strictly prohibited on public and private lands. The permittee will be responsible for containment, cleaning, and disposal of wastes in a timely and appropriate manner. Toilet facilities and refuse containment must be provided at any field location accommodating spectators, participants, or support personnel.

HIGH-HAZ-05: Hazardous materials containment: Fuel would be kept in proper containers, and fuel mats would be under all race vehicles during fueling.

HIGH-HAZ-06: All trash and food items shall be promptly contained and stored in closed, raven-proof and other wildlife-proof containers.

Land Use and Rights-of-Way

HIGH-LU-01: Permittees shall conduct prior early coordination and notification with valid existing right holders at least 2 weeks prior to the event. If a speed event affects a right-of-way, or lease holder, they must be notified at least 2 weeks prior to the event.

HIGH-LU-02: Active mining operations in the area of the race will be notified at least 30 days prior to the race date. Notification must be in writing via email or hard-copy letter.

HIGH-LU-03: Discovery of unmarked abandoned mine operations must be reported immediately to BLM or Nevada Department of Mine Safety at: 1-800-541-MINE.

HIGH-LU-04: The permittee shall protect all survey monuments found within the authorization area. Survey monuments include, but are not limited to, General Land Office and BLM Cadastral Survey Corners, reference corners, witness points, U.S. Coast and Geodetic Survey benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. If any of the above are to be disturbed during operations, the permittee shall secure the services of a Professional Land Surveyor or BLM cadastral surveyor to perpetuate the disturbed monuments and references using surveying procedures found in the Manual of Instructions for the Survey of the Public Lands of the United States and Nevada Revised Statutes, Chapter 329, Perpetuation of Corners. The permittee shall record such survey in the appropriate county and send a copy to the AO. If the BLM cadastral surveyors or other Federal surveyors are used to restore the disturbed survey monuments, the permittee shall be responsible for the survey cost.

Livestock Grazing

HIGH-LG-01: If any cows are struck, injured, or killed during the race, the BLM will be notified immediately and the race permittee will be responsible for coordinating compensation with the livestock owner.

HIGH-LG-02: Participants or operators will not intentionally chase or harass livestock, wild horses or wildlife.

HIGH-LG-03: The BLM will notify potentially affected livestock permittees prior to an event.

HIGH-LG-04: All gates will be left open or closed, as initially found.

HIGH-LG-05: The permittee will inform their participants to watch out for cattle, especially calves that may be on the ground early in the spring. If a cow is on the road, participants will either wait for the cow to move or carefully move around the cow. If a dead or injured cow or calf is noted, it will be immediately reported to the BLM by permittees. Hitting and injuring a cow or calf will result in the participant or permittee compensating the livestock owner for their property.

Wild Horses and Burros

HIGH-WHB-01: If wild horses or burros are encountered in or near the authorized area, do not feed, harass, or otherwise interact with the animal. Report sick or injured animals, or inappropriate treatment of animals to the BLM immediately.

HIGH-WHB-02: During the post-sweep monitoring, monitors will note any off-road travel that may have significantly affected forage for livestock, wild horses, and burros and will notify the BLM.

HIGH-WHB-03: Event participants will all be informed prior to the event that they will be riding through active herd management areas that contain both wild horses and burros. The permittee shall inform the participants to yield to any horses or burros on or near the course. The permittee

shall clear the course before each run to ensure that no horses or burros have wandered onto the course. If any animals are injured in the course of the event, the BLM will be notified immediately.

HIGH-WHB-04: Any helicopters, drones, or other aerial technologies used for the Proposed Action will not harass wild horses and burros and maintain 500 feet above the event course.

Public Health and Safety

HIGH-PHS-01: The permittee shall inform clients of the inherent risks involved with the activity.

HIGH-PHS-02: The permittee shall review potential safety concerns, contingency plans and potential consequences with its clients prior to operations.

HIGH-PHS-03: The permittee shall ensure that all persons operating under the authorization are made aware of the physical safety hazards associated with abandoned mine openings and the potential for encountering abandoned mines within the permitted area.

HIGH-PHS-04: Use of explosives and fireworks is prohibited.

HIGH-PHS-05: At least 2 weeks prior, the permittee shall notify the residents of the communities along the event route, including city councils and city police safety officers, of the start and ending of the event. Within 7 days of the start, the permittee shall issue a press release informing the general public about the timing of the event and recommended safety precautions of spectators and other trail users potentially affected by the event.

HIGH-PHS-06: Road crossings: The permittee will acquire paved road crossing permits for both day and night use from the Nevada Department of Transportation (NDOT) or appropriate governing agency and coordinate with County Commissioners and road maintenance crews. Road wardens, with flags, will be stationed at all highway crossings to ensure safe, managed event vehicle crossings per NDOT standards. The permittee will flag, barricade, or otherwise warn the public with signage to prevent unauthorized vehicles from entering the active racecourse at certain locations involving BLM roads or road junctions.

HIGH-PHS-07: For safety, each entrant will be tracked along pits and proposed checkpoints to ensure that no shortcuts are taken over the course of the event. Checkpoints would also serve as information points for passersby and spectators.

HIGH-PHS-08: Spectator areas should be designated and have defined areas on the ground using temporary fencing during events. High speed: If required in operations plans, spectators will be restricted to designated spectator areas identified in the permit. Use of temporary fencing will be required to delineate those areas.

HIGH-PHS-09: Emergency services: The permittee will provide for all emergency services including recovery and rescue. The permittee will provide helicopters, ambulance and rescue vehicles staffed by qualified emergency medical services (EMS), fire and rescue personnel. These will ensure scene safety and provide emergency medical treatment, extrication, and fire suppression. Patients needing or requesting further evaluation or transport to a medical facility would be transferred to the nearest local ambulance service or air ambulance as needed. The Emergency Action Plan may be modified or updated as needed with BLM approval.

HIGH-PHS-10: Fire suppression: At least one 2.5-pound ABC fire extinguisher will be carried by all participants, staff, volunteers, EMS, rescue vehicles and will be required at all pit areas excluding

motorcyclists. Participants would abide by fire restrictions, as they pertain to campfires, in the pit areas. Any fire (contained or uncontained) associated with this event, is the responsibility of the permittee.

HIGH-PHS-11: The permittee will be responsible for public safety in the event area. It is the permittee's responsibility to inspect the area within 100 feet of the route for hazards that may affect racer or public safety prior to final flagging. The permittee is required to post warning signs, caution race in progress signs at all public roads accessible to the event course.

HIGH-PHS-12: Any open mine shafts or hazards within 100 feet of the racecourse, pit areas, or check points, will require signing by the permittee. The permittee will verbally notify participants of hazards at the driver's meetings. Discovery of unmarked abandoned mine operations must be reported immediately to BLM or Nevada Department of Mine Safety at: 1-800-541-MINE.

HIGH-PHS-13: Volunteer Qualifications/Requirements: Personnel assigned to officiate at road crossings, check points, pits, etc. must be adults (age 18 years or older), capable of making reasonable decisions while providing for the safe operation of the event site. Official personnel, which includes volunteers, are considered participants of the event for insurance purposes. They must be identifiable and carry a copy of the BLM Permit and Stipulations. In the driver's meeting the permit and stipulations must be reviewed by all involved with the event, including the event volunteers, to make sure the event follows the stipulation requirements put in place by the BLM. Poor performance by event volunteers will be reflected on the post-event performance report and will be considered when permitting the SRP in the future.

HIGH-PHS-14: Once received from the BLM, permittees should include BLM permit stipulations in participant material either via website or hard copy. Provide all BLM Dispatch Centers within the affected area with copies of Special Recreation Permits of mechanized or motorized events 2 weeks prior to the event. Identify within the permit emergency contact numbers for onsite contacts during the event. GPS coordinates should be included for the location in the event medical or other types of aircraft are needed.

Recreation and Visitor Services

HIGH-REC-01: The permittee will adopt and practice the Leave No Trace Seven Principles, as outlined by the Leave No Trace Center for Outdoor Ethics (LNT.org).

Travel and Transportation Management and Access

HIGH-TTM-01: Only routes specifically approved in the permittee's operating plan may be utilized. Initiation or creation of new trails or cross-country vehicle travel is prohibited. OHV free-play (hill climbs, cross-country riding, etc.) is strictly prohibited. Reclamation or rehabilitation for any off-route travel will be required of the permittee.

HIGH-TTM-02: All OHVs must be registered with their residing State or registered in Nevada as an out of state resident.

HIGH-TTM-03: The BLM will inform or advise the permittee when temporary closures or reroutes will occur or be necessary.

HIGH-TTM-04: If the permittee wishes to sell or otherwise terminate their business and desires that permit privileges be transferred to a new owner, the permittee shall notify the AO in advance, in

writing, and receive advance written approval for the permit transfer. Additionally, the permittee shall advise the AO in advance of any action that would result in a change in ownership or controlling business interest.

HIGH-TTM-05: OHV operators must be familiar with and comply with BLM’s OHV designations whether posted on the ground or not.

HIGH-TTM-06: Permittees shall not perform road maintenance activities. However, if a road becomes impassable or travel becomes dangerous due to naturally occurring events, the permittee may take immediate action to rectify the situation such that four vehicles may safely pass, but shall confine the action to the minimum possible and use only hand tools.

HIGH-TTM-07: Establishment of permanent markers and improvements is prohibited.

HIGH-TTM-08: Use of “Enviro” paint, paintballs, or colorful chalk sprayed, splattered or poured onto rocks, brush or the ground is prohibited.

HIGH-TTM-09: Approved route marking consists of occasional flagging attached to clothes pins, wooden stakes or use of white gypsum or flour for ground marking of arrows on dirt road surfaces.

HIGH-TTM-10: White gypsum or flour used for ground marking should be washed, brushed off, or mixed into the soil at the conclusion of the event.

HIGH-TTM-11: If using flagging, the issuing agency must be advised of the color of the flagging 2 weeks prior to the event.

HIGH-TTM-12: The permittee must remove all route markers within 14 days following the event and contact the issuing agency upon completion.

HIGH-TTM-13: The permittee and OHV operators must yield to the right-of-way for all traffic.

Wildland Fire

HIGH-FIRE-01: A wildland fire should be reported immediately to the nearest emergency dispatch center (911) and the nearest BLM office. The permittee is responsible for informing employees, clients, and participants of the current fire danger and required precautions that may be placed in effect by the BLM or the State of Nevada. The permittee will make accommodations to allow immediate safe entry of firefighting apparatus and personnel.

HIGH-FIRE-02: The permittee and participants will stay on designated event routes over the course of the event.

HIGH-FIRE-03: In the event of a human-caused wildfire, the permittee will be held responsible for all costs of suppression and damaged resources pending a wildfire Origin and Cause Investigation (Title 43 CFR 9212) should the wildfire be determined to be a direct cause by the activities or participants associated with the event. An Origin and Cause Investigation will be carried out on any human caused fire by BLM law enforcement or their designated representative. To minimize disturbance of potential evidence located at the fire scene, the applicant/permittee shall properly handle and preserve evidence in coordination with the BLM. The BLM shall pursue cost recovery for all costs and damages incurred from human-caused fires on BLM lands when the responsible party(s) has been identified and evidence of legal liability or intent exists.

HIGH-FIRE-04: Legal liability includes, but is not limited to, negligence and strict liability (including statutory and contractual liability), products liability, etc. The permittee shall report to the Fire Investigator or BLM Incident Commander and enter into the fire origin area on BLM fires only when given permission to do so. The permittee will cooperate with the BLM in performance of fire investigation to determine wildfire cause.

HIGH-FIRE-05: Emergency personnel and equipment would be allowed access to the course in the event of an emergency, including wildland fire.

HIGH-FIRE-06: The permittee shall, independently and in cooperation with the Government, take all reasonable action to report, prevent, and suppress fires along the event route and event areas.

Emergency Reporting Requirements:

- Call 911 for immediate emergency response.
- The permittee shall report ALL observed wildland fires on or in the vicinity of the event to the nearest Dispatch Center. Information needed when reporting wildland fire includes:
 - Location: Geographical reference; if possible, latitude/longitude coordinates
 - Description: fire size, spread, color of smoke, observations about cause, etc.
 - Your name, call back telephone number, event/project

HIGH-FIRE-07: Smoking is prohibited except in an enclosed vehicle or in a developed campground.

HIGH-FIRE-08: Cigarette butts and ash must be contained at all times, extinguished completely and disposed of in a metal, leather, or water or sand filled receptacle to be disposed of off public land.

HIGH-FIRE-09: This permit does not waive any applicable fire restrictions and orders that may affect the use of camp fires, charcoal or cooking fires.

HIGH-FIRE-10: At sites accessed by the permittee's motor vehicle(s), the permittee must provide its own fuel wood.

HIGH-FIRE-11: At sites accessed by the permittee's motor vehicle(s), the permittee must use a fire pan to contain the fires, ash, and charcoal. Charcoal and ash from the fire pan must be hauled out.

HIGH-FIRE-12: Gathering wood from standing trees, live or dead, is prohibited. The permittee must provide its own fuel wood, use a fire pan to contain fire/ash/charcoal which must be hauled out.

HIGH-FIRE-13: All types of open fires will be built only in areas that are presently free of vegetation.

HIGH-FIRE-14: No new fire rings will be made when existing rings are available in the area.

HIGH-FIRE-15: Shovel and water bucket must be available at each camp for fire control.

HIGH-FIRE-16: One month prior to the event, the permittee shall consult with the appropriate BLM District Office Fire Management Officer to ascertain the expected level of wildfire risk due to ephemeral annual grass. If the Fire Management Officer determines the wildfire risk is high or greater, the permittee will make funds available to the BLM for the purpose of wildfire protection to include but not limited to: wildland fire engines, Type IV Incident Commander, Chief Officer, and Las Vegas Interagency Communication Center (LVICC) dispatch personnel.

Water Resources, Wetlands, & Riparian Zones

HIGH-WATER-01: Vehicles must avoid damage to riparian vegetation and streambanks. No route widening is permitted.

HIGH-WATER-02: When the designated route crosses a stream, vehicles must cross in a narrow single file manner. The single file of vehicles must all cross in the same location to avoid widening the route.

HIGH-WATER-03: On designated routes located within streams and floodplains, vehicles must drive in the center of the stream channel, avoiding bank and vegetation disturbance.

HIGH-WATER-04: Washing or bathing with soap is not permitted in tributary streams, springs or other natural water sources. Dishwater must be strained prior to dispersal (scattering). Dishwater and bathwater may not be dispersed within 100 feet of streams, springs, or other natural water sources.

HIGH-WATER-05: No camping is permitted within 300 feet of a water source, including wet or mesic meadows, springs, intermittent or perennial streams, or wildlife guzzlers, unless prior written permission is received from the authorizing officer. Restricting wildlife access to water sources is strictly prohibited. Alteration or disturbance of water sources is strictly prohibited.

HIGH-WATER-06: Wells shall not be tampered with. Use of wells for drinking water is limited to designated campground sites only.

HIGH-WATER-07: The permittee shall notify the AO of any non-functioning culverts or uncapped wells along designated routes.

Post-Activity Rehabilitation

HIGH-PAR-01: The permittee will be responsible for the prompt repair of any/all event-related damages to utility rights-of-way, right-of-way improvements, and range improvements within 72 hours after the event. If they are not returned to a condition that is satisfactory to the AO, the right-of-way holder, or the range permit holder, the permittee will be assessed a fine to cover the cost of a contractor to complete rehabilitation.

HIGH-PAR-02: Staking, flagging materials, equipment, temporary facilities, litter, and all other event-related materials will be completely removed to an approved landfill by the permittee within 15 days following the event. If BLM post-race field checks reveal event-related materials that have not been removed, the BLM shall notify the permittee and allow an additional 7 days for removal. The permittee shall be required to reimburse the BLM for the costs of subsequent field checks, as monitoring is included in cost-recovery charges. If event materials remain after the field check, the BLM shall effect their removal by both contract or BLM personnel and bill the permittee for any associated costs.

HIGH-PAR-03: The BLM representative will complete a Post-Event Evaluation. Upon inspection, a determination will be made on which portions of the permit area, if any, need additional rehabilitation. The permittee may be required to grade, drag, disc, or seed soil and vegetation areas within the course and pit areas that were changed or affected as a result of the event. All seeding must be done with native seeds. Main access roads used by support or rescue vehicles where road damage occurs must be graded to pre-event status. Site-specific stipulations requiring rehabilitation

of areas must be accomplished within 4 weeks following the event unless a shorter timeframe is required for public safety. The permittee shall be responsible for all costs associated with rehabilitation required.

HIGH-PAR-04: The BLM representative shall inspect the course, pit, and event areas immediately after and within 30 days following the event to evaluate event effects on resources and the permittee's compliance with resource protection and rehabilitation measures. The permittee shall be notified of additional rehabilitation needs.

HIGH-PAR-05: Turns, acceleration, and cross-road ruts and berms must be repaired prior to abandonment. Loose rocks in the common public roadways must be cast aside. Center berms must be eliminated or reduced to accommodate vehicle passage.

HIGH-PAR-06: Main access roads used by support, media, staff, volunteers, spectators, or rescue vehicles during muddy or excessively dry conditions where significant road damage occurs must be graded or stabilized to BLM standards as applicable.

HIGH-PAR-07: Ruts and depressions due to soil loss should be refilled and smoothed to BLM standards as applicable. Use of a road grader is recommended to loosen and spread soils to create a more natural appearance and to maintain route condition for future use.

HIGH-PAR-08: Neutralize single-track ruts, berms, and whoops, specific to motorcycle, all-terrain vehicle (ATV), utility task vehicle (UTV), and event vehicles where soil erosion or channelized water runoff is likely, or where safety for other vehicular traffic could be affected.

HIGH-PAR-09: Repair any damage to fences, posts, gates, or range improvements that occurred as a result of the race/event. Soil ruts that develop at gate locations must be reduced to prevent livestock from getting under the gate/fence. Loose wire must be tightened to prevent livestock entanglement. Leave gates open or closed according to condition found at race time.

HIGH-PAR-10: If mechanized equipment is required to make route repairs, use must be coordinated with the BLM. Extra caution must be taken when making repairs near archaeological sites including, but not limited to, historic ruins, rock walls, tailings piles, and historic debris.

HIGH-PAR-11: All post-event rehabilitation work will be inspected by a BLM representative and must meet the requirements as stated in this document. Furthermore, the post-race inspection report must be approved by the BLM and may be used for future event consideration.

HIGH-PAR-12: Local jurisdictions including city/town representatives, county road department representatives, and State road representatives will be given the opportunity to participate in pre- and post-race inspections to ensure that road rehabilitation is up to their needs.

A.2 Special Recreation Permit Stipulations for Low-Speed Non-Competitive SRPs

This Special Recreation Permit (SRP) will be in effect from date of issuance through __[date]__ on public lands administered by the Bureau of Land Management (BLM), unless terminated earlier by the Authorized Officer (AO). Conduct of event authorized by this permit signifies knowledge of and constitutes an express and implied agreement by the permittee: __[permittee]__, including

volunteers, employees, contractors, and other representatives to fully comply with permit conditions marked on the reverse side of Form 2930-2 and all requirements and special stipulations listed below, unless specifically waived by the AO.

Permit Fees

LOW-PF-01: Payment due to the government shall be in conformance with existing regulations. The SRP minimum annual fee (currently \$130.00) that has been charged in advance will be deducted from the fees due. Cost recovery charges shall be actual costs to the government for processing the permit and monitoring all pre-, actual, and post-permitted activities as reflected by charges, including salaries (direct and indirect costs), vehicle mileage, per diem, and administrative costs, made to a special account established to track event processing costs.

LOW-PF-02: A Post-Use Report (PUR) shall be submitted to the field office that authorized the permit (within 30 days of the conclusion of the event or agreed-upon schedule).

LOW-PF-03: The SRP fees will be: \$130 minimum or \$7.00 per participant per day or 3% of total gross receipts (including sales of souvenirs, t-shirts, food, fuel, parts, donations, sponsorships, filming and broadcast rights, and spectator fees), whichever is greater. Fees are updated every 3 years based on the implicit price deflator index. In addition, payment of Cost Recovery (agency expenses to process and administer permit) may be required.

General Terms

LOW-GT-01: The permittee shall notify the AO of address change immediately.

LOW-GT-02: Authorized representatives of the Department of the Interior, other Federal, State, and local agencies, and game wardens must always have the right to enter the premises on official business.

LOW-GT-03: This permit is for the use of public lands for the purposes stated and does not provide for road maintenance, fire protection, sanitation facilities, or any other such service by the BLM. Additional State/local permits may apply. It is the applicant's responsibility to obtain any and all required State/local permits.

LOW-GT-04: Storage of gear or equipment on BLM lands is prohibited without approval from the AO.

LOW-GT-05: Bonds may be required at the discretion of the AO.

Cultural Resources

LOW-CR-01: Any cultural or paleontological resources (historic or prehistoric site or object) discovered by the permittee, or any person working on their behalf on public or Federal lands shall be immediately reported by the permittee to the AO and Field Office Cultural Resources Staff. The permittee shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the AO. An evaluation of the discovery will be made by the AO to determine appropriate actions to prevent the loss of significant cultural or scientific values. The permittee will be responsible for the cost of evaluation. Any decision regarding suitable mitigation

measures will be made by the AO after consulting with the permittee. The permittee shall be responsible for the resultant mitigation costs.

LOW-CR-02: The permittee shall not make available to the public any information concerning the nature and location of any archaeological resource.

LOW-CR-03: Pursuant 43 Code of Federal Regulations (CFR) 10.4 (g), the permittee of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, or other objects of cultural patrimony (as defined at 43 CFR 10.2). Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO. The BLM must certify receipt of the notification within three working days and take immediate steps, if necessary, in order to comply with the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (25 U.S. Code [U.S.C.] 3001 et seq.), to further secure and protect the human remains and other cultural items.

LOW-CR-04: The permittee shall not commercialize any Native American religious ceremony occurring on public lands. Tours and Guides will not disrupt or infringe upon religious ceremonies taking place on public lands.

LOW-CR-05: No camping will be allowed in proximity to National Historic Trails except at developed or established campgrounds.

LOW-CR-06: Permittees shall ensure their clients do not disturb, damage, or remove cultural resources including petroglyphs, pictographs, ruins, prehistoric sites or artifacts. Collection of artifacts, touching or “rubbing” petroglyphs or pictographs, and excavation for hidden cultural resources are specifically prohibited. Pets are not to enter cultural resource sites, as pets can cause irreparable damage through digging or relieving themselves on the site.

LOW-CR-07: The permittee will be responsible to ensure that historical, archaeological, cultural, paleontological, or ecological values are not damaged, destroyed, or removed by any participants during authorized activities or trips. Natural or undisturbed areas around the cultural sites will not be further trampled.

LOW-CR-09: Unless specifically authorized, collection of plants, rocks, fossils, shed antlers, animals or parts of animals is prohibited.

Fish and Wildlife

LOW-FW-01: Permittees shall ensure its clients do not harass or chase wildlife, livestock, wild horses or burros or behave in a manner that is harmful to wildlife, livestock, wild horses or burros.

LOW-FW-02: Hunting, shooting, and collecting wildlife and plants by employees or clients while engaged in activities associated with the permitted use are prohibited.

LOW-FW-03: Project supplies or equipment where wildlife could temporarily hide will be inspected prior to moving them to reduce the potential for injury to wildlife. Supplies and equipment that cannot be inspected, or from which wildlife cannot escape or be removed, will be covered or otherwise made secure from wildlife intrusion or entrapment at the end of each workday.

LOW-FW-04: If any Gila monsters are encountered during an event, they must be reported immediately by the permittee to the Nevada Division of Wildlife at (702) 486-5127.

LOW-FW-05: Event participants would be informed of areas where big game may be encountered along the event route. They would be required to yield to any wildlife encountered during the event. During the event, event personnel and BLM staff, including the Outdoor Recreation Planner, Law Enforcement Rangers/Officers, and other resource specialists, would be present at various locations along the event route to monitor race activities and ensure that participants and spectators are not harassing or harming wildlife or driving outside the approved race route or existing roads and trails.

LOW-FW-06: Helicopters and drones associated with the event must fly at least 1 mile away from any active raptor nests near the event route. The BLM will provide permittee no-fly zones to pass on to helicopter pilots and drone operators. Note that exact nest locations to be avoided will not be provided.

LOW-FW-07: The permittee will comply with any written instructions and maps provided by the BLM for the permitted event.

LOW-FW-08: Any large animals that are roadkill associated with event or along race route post-race monitoring will be properly disposed of by the permittee. Nevada Department of Wildlife (NDOW) will be notified for any large game fatalities along roadways.

LOW-FW-09: The proposed project falls within crucial winter range for wildlife. Activities that may disturb and displace wildlife will not be authorized during the following time periods.

- Pronghorn antelope (November 15 through April 30)
- Mule deer (November 15 through April 30)
- Bighorn sheep (November 15 through April 30)
- Elk (November 15 through April 30)

LOW-FW-10: The proposed project falls within known kidding, fawning, lambing and calving range for wildlife. Activities that may disturb and displace wildlife will not be authorized within a quarter mile of the known habitat during the following time periods.

- Pronghorn antelope (April 1 through June 30)
- Mule deer (May 15 through June 15)
- Desert Bighorn sheep (February 1 through April 30)
- California Bighorn sheep (April 1 through June 30)

Threatened, Endangered, and Candidate Species

LOW-TE-01: If a tortoise is injured or killed during the event, the BLM will be notified immediately. Upon locating a dead or injured tortoise (not caused by project activities) the BLM will be notified within 24 hours. The information included for each tortoise sighting is as follows: (1) The global positioning system (GPS) location and date of observation, (2) if the mortality occurred during project activities or if the mortality was only observed during project activities, (3) photographs of each tortoise mortality.

LOW-TE-02: No dogs, except for dogs that have been individually trained to do work or perform tasks for an individual with a disability, shall be allowed on tours.

LOW-TE-03: Permittees shall designate a field contact representative (FCR) who will be responsible for overseeing compliance with protective stipulations for the desert tortoise and for coordination on compliance with the BLM. The FCR may be an employee of the permitted organization. The FCR

shall have the authority to halt all activities that are in violation of the stipulations. The FCR shall ensure that employees have a copy of all stipulations with them when conducting tours.

LOW-TE-04: Only biologists authorized by the U.S. Fish and Wildlife Service or BLM shall handle desert tortoises. Employees of the permittee are not allowed to handle desert tortoises.

LOW-TE-05: Desert tortoises, if encountered, shall be approached no closer than 5 yards (15 feet).

LOW-TE-06: Tour guides and participants shall inspect for tortoises under a vehicle prior to moving the vehicle. If a tortoise is present, the guide shall carefully move the vehicle only when necessary and when the tortoise would not be injured by moving the vehicle, or shall wait for the tortoise to move out from under the vehicle.

LOW-TE-07: If any new land disturbance occurs that is not on previously established event course, the permittee will be required to pay remuneration fees based on the current year's rate.

LOW-TE-08: Should a desert tortoise enter the area of activity, all activity shall cease until such time the animal leaves the area of its own accord.

LOW-TE-09: Permittees are required to follow all stipulations, survey requirements, buffers, and other measures for the protection of the Greater Sage-Grouse, as outlined in the *Nevada and Northeastern California Greater Sage-Grouse Approved RMP Amendment and ROD, September 2015/2021*, and the *Record of Decision and Land Use Plan Amendment for the Nevada and California Greater Sage-Grouse Bi-State Distinct Population Segment in the Carson City District and Tonopah Field Office, May 2016*.

Migratory Birds

LOW-MB-01: For poker runs and similar type events proposed from January 1 through August 31, routes would be subject to pre-event migratory bird or raptor and eagle nesting surveys. Migratory bird breeding season is defined as March 1 to August 31; eagles and raptors may breed as early as January 1 through July 31. Surveys will be required around staging areas, stops, and other areas of human concentration. For eagles and raptors, surveys will follow U.S. Fish and Wildlife Service (USFWS) recommendations on nest occupancy determinations. If active migratory breeding bird nests or burrows are found, a 300-foot buffer for burrowing owls and other migratory bird species will be applied. If active eagle or raptor nests are identified, those nests would be subject to a 1-mile buffer or route closure through July 31.

Invasive Species and Noxious Weeds

LOW-NOX-01: Prior to entering public lands, the permittee will provide information and training regarding noxious weed management and identification to all personnel affiliated with the project. The importance of preventing the spread of weeds to un-infested areas and of controlling existing populations of weeds would be explained.

LOW-NOX-02: The permittee will ensure the implementation of best management practices to minimize the introduction and spread of invasive plants in the area. These practices will include removing dirt, mud, and seeds from shoes, equipment, and vehicles prior to the start of a tour and at the end of a tour. The permittee will keep their project area free of state-listed noxious weeds for the life of the event. The permittee shall perform monitoring for invasive species/noxious weeds for the

duration determined by the AO. Any detections of noxious weeds should be reported to the BLM District Office Weed Management Specialist immediately to determine the best course for treatment.

LOW-NOX-03: To reduce the accidental spread of noxious weeds, the permittee and any contractors shall avoid or minimize all types of travel through a state listed noxious weed-infested areas that can be carried to the project area.

LOW-NOX-04: Locate equipment storage, machine and vehicle parking or any other area needed for the temporary placement of people, machinery and supplies in areas that are relatively weed-free.

LOW-NOX-05: The permittee shall limit the size of any vegetation and ground disturbance to the absolute minimum necessary to perform the activity safely and as designed. The permittee will avoid creating soil conditions that promote weed germination and establishment.

LOW-NOX-06: Permittees will wash vehicles, trailers, off-highway vehicles (OHV), and other equipment to remove seed and plant parts before using or driving vehicles on routes authorized in the permit. Vehicles with caked-on dirt must be washed before use on routes authorized in the permit. Vehicle undercarriages and wheel wells must be ensured clean. All vehicles will be examined by the permittee and cleaned free of vegetation and soil before traveling to meeting sites or trailheads. Seeds and plant parts will be collected, bagged, and appropriately disposed of in dumpsters destined for a local landfill.

LOW-NOX-07: A secondary cleaning is required upon exit from BLM lands at the conclusion of the race event to facilitate weed control. Before leaving the site, all race vehicles will be inspected by a qualified professional (with appropriate experience identifying and treating weeds). Permittees have an obligation to report site weed infestations to BLM personnel to aid in protecting the resources.

LOW-NOX-08: Project workers shall inspect, remove, and dispose of weed seed and plant parts found on their clothing and personal equipment, bag the product, and dispose of it in a dumpster. If you have questions, consult with the BLM District Office noxious weed coordinator.

Hazardous Materials Management

LOW-HAZ-01: Permittees shall “pack out” and dispose of all refuse resulting from this use. All refuse must be captured and removed from the event area and deposited in an approved treatment facility or landfill including tires and event related materials (e.g., flagging, signs, lathe). Cans, rubbish, and other trash and waste shall not be discarded, buried, or dumped on public lands or related waters. Wet garbage such as eggshells, orange peels, leftover solid food, bones, melon rinds, etc., must be carried out. Trash cleanup at campsites and day use areas will include all litter or discarded items including small items such as bottle caps, cigarette butts and micro-trash.

LOW-HAZ-02: The permittee shall be responsible for clean-up and remediation in event of accident or mechanical failure resulting in the spillage of fuels, lubricants, coolants, hydraulic fluids, or other petroleum-based or synthetic organic compounds. Dumping of fuel in pits, outhouses, or on the ground is prohibited. Any spill or release of a reportable quantity of a hazardous substance listed in 40 CFR 302 or of a petroleum product amounting to 25 gallons or 3 cubic yards of contaminated material must be reported to the Nevada Division of Environmental Protection (NDEP) spill hotline at (888) 331-6337, and to the BLM AO. Such spills must be controlled, remediated, and disposed of following all local, State, and Federal regulations.

LOW-HAZ-03: If hazardous materials/substances are used or present within the authorized area, the permittee shall immediately notify the AO of any release (leaks, spills, etc.) of hazardous substances, toxic substances, or hazardous waste. As required by law, the permittee shall have responsibility for and shall take all action(s) necessary to respond to and fully remediate releases (leaks, spills, etc.) within the authorized area as well as following all regulations related to transportation, use and storage of hazardous materials. A copy of any report required or requested by any Federal, State, or local government agency because of a reportable release or spill of any hazardous substances shall be furnished to the AO concurrent with the filing of the reports to the involved Federal, State, or local government agency.

LOW-HAZ-04: Restrooms: For all activities and at all base camps with locations served/supported by a motorized vehicle, the permittee must have a toilet system that allows for the proper carry-out and disposal of solid human body waste in a responsible and lawful manner that is adequate for the size of the group and length of the trip. Toilets must be accessible for use by passengers and crew at all sites where a company motorized vehicle is present, except in developed locations where public restrooms are provided. In locations remote from a permittee's vehicle, solid human waste must be cat holed in a sunny location in bare soil or carried out (unless otherwise stipulated). Toilet paper must be carried out and not buried or burned.

LOW-HAZ-05: Hazardous materials containment: Fuel would be kept in proper containers, and fuel mats would be under all race vehicles during fueling.

LOW-HAZ-06: All trash and food items shall be promptly contained and stored in closed, raven-proof and other wildlife-proof containers.

Land Use and Rights-of-Way

LOW-LU-01: Permittees shall conduct prior early coordination and notification with valid existing right holders at least 2 weeks prior to the event. If a speed event affects a right-of-way, or lease holder, they must be notified at least 2 weeks prior to the event.

LOW-LU-02: Active mining operations in the area of the event will be notified at least 30 days prior to the event date. Notification must be in writing via email or hard-copy letter.

LOW-LU-03: Discovery of unmarked abandoned mine operations must be reported immediately to BLM or Nevada Department of Mine Safety at: 1-800-541-MINE.

LOW-LU-04: The permittee shall protect all survey monuments found within the authorization area. Survey monuments include, but are not limited to, General Land Office and BLM Cadastral Survey Corners, reference corners, witness points, U.S. Coast and Geodetic Survey benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. If any of the above are to be disturbed during operations, the permittee shall secure the services of a Professional Land Surveyor or BLM cadastral surveyor to perpetuate the disturbed monuments and references using surveying procedures found in the Manual of Instructions for the Survey of the Public Lands of the United States and Nevada Revised Statutes, Chapter 329, Perpetuation of Corners. The permittee shall record such survey in the appropriate county and send a copy to the AO. If the BLM cadastral surveyors or other Federal surveyors are used to restore the disturbed survey monuments, the permittee shall be responsible for the survey cost.

Livestock Grazing

LOW-LG-01: If any cows are struck, injured, or killed during the race, the BLM will be notified immediately and the race permittee will be responsible for coordinating compensation with the livestock owner.

LOW-LG-02: Participants or operators will not intentionally chase or harass livestock, wild horses or wildlife.

LOW-LG-03: The BLM will notify potentially affected livestock permittees prior to an event.

LOW-LG-04: All gates will be left open or closed, as initially found.

LOW-LG-05: The permittee will inform their participants to watch out for cattle, especially calves that may be on the ground early in the spring. If a cow is on the road, participants will either wait for the cow to move or carefully move around the cow. If a dead or injured cow or calf is noted, it will be immediately reported to the BLM by permittees. Hitting and injuring a cow or calf will result in the participant or permittee compensating the livestock owner for their property.

Wild Horses and Burros

LOW-WHB-01: If wild horses or burros are encountered in or near the authorized area, do not feed, harass, or otherwise interact with the animal. Report sick or injured animals, or inappropriate treatment of animals to the BLM immediately.

LOW-WHB-02: During the post-sweep monitoring, monitors will note any off-road travel that may have significantly affected forage for livestock, wild horses and burros and will notify the BLM.

LOW-WHB-03: Event participants will all be informed prior to the event that they will be riding through active herd management areas that contain both wild horses and burros. The permittee shall inform the participants to yield to any horses or burros on or near the course. The permittee shall clear the course before each run to ensure that no horses or burros have wandered onto the course. If any animals are injured in the course of the event, the BLM will be notified immediately.

LOW-WHB-04: Any helicopters, drones, or other aerial technologies used for the Proposed Action will not harass wild horses and burros and maintain 500 feet above the event course.

Public Health and Safety

LOW-PHS-01: The permittee shall inform clients of the inherent risks involved with the activity.

LOW-PHS-02: The permittee shall review potential safety concerns, contingency plans and potential consequences with its clients prior to operations.

LOW-PHS-03: The permittee shall utilize the appropriate and proper equipment and gear for the activity. All vehicles shall have legal and properly functioning mufflers and spark arresters.

LOW-PHS-04: The permittee shall ensure that all persons operating under the authorization are made aware of the physical safety hazards associated with abandoned mine openings and the potential for encountering abandoned mines within the permitted area.

LOW-PHS-05: Use of explosives and fireworks is prohibited.

LOW-PHS-06: At least 2 weeks prior, the permittee shall notify the residents of the communities along the event route, including city councils and city police safety officers, of the start and ending of the event. Within 7 days of the start, the permittee shall issue a press release informing the general public about the timing of the event and recommended safety precautions of spectators and other trail users potentially affected by the event.

LOW-PHS-07: For safety, each entrant will be tracked along pits and proposed checkpoints to ensure that no shortcuts are taken over the course of the event. Checkpoints would also serve as information points for passersby and spectators.

LOW-PHS-08: Emergency services: The applicant will provide for all emergency services including recovery and rescue.

LOW-PHS-9: Fire suppression: At least one 2.5-pound ABC fire extinguisher will be carried by all participants, staff, volunteers, emergency medical services (EMS), rescue vehicles and will be required at all pit areas excluding motorcyclists. Participants would abide by fire restrictions, as they pertain to campfires, in the pit areas. Any fire (contained or uncontained) associated with this event, is the responsibility of the permittee.

LOW-PHS-10: The permittee will be responsible for public safety in the event area. It is the permittee's responsibility to inspect the area within 100 feet of the route for hazards that may affect racer or public safety prior to final flagging. The permittee is required to post warning signs, caution event in progress signs at all public roads accessible to the event course for poker runs. Posted signs are not required for tours.

LOW-PHS-11: The permittee will verbally notify participants of hazards at the driver's meetings. Discovery of unmarked abandoned mine operations must be reported immediately to BLM or Nevada Department of Mine Safety at: 1-800-541-MINE.

LOW-PHS-12: Volunteer Qualifications/Requirements: Personnel assigned to officiate at road crossings, check points, pits, etc. must be adults (age 18 years or older), capable of making reasonable decisions while providing for the safe operation of the event site. Official personnel, which includes volunteers, are considered participants of the event for insurance purposes. They must be identifiable and carry a copy of the BLM Permit and Stipulations. In the driver's meeting the permit and stipulations must be reviewed by all involved with the event, including the event volunteers, to make sure the event follows the stipulation requirements put in place by the BLM. Poor performance by event volunteers will be reflected on the post-event performance report and will be considered when permitting the SRP in the future.

LOW-PHS-13: Once received from the BLM, permittees should include BLM permit stipulations in participant material either via website or hard copy. Provide all BLM Dispatch Centers within the affected area with copies of Special Recreation Permits of mechanized or motorized events and tours 2 weeks prior to the event. Identify within the permit emergency contact numbers for onsite contacts during the event. GPS coordinates should be included for the location in the event medical or other types of aircraft are needed.

Recreation and Visitor Services

LOW-REC-01: The permittee will adopt and practice the Leave No Trace Seven Principles, as outlined by the Leave No Trace Center for Outdoor Ethics (LNT.org).

Travel and Transportation Management and Access

LOW-TTM-01: Only routes specifically approved in the permittee's operating plan may be utilized. Initiation or creation of new trails or cross-country vehicle travel is prohibited. OHV free-play (hill climbs, cross-country riding, etc.) is strictly prohibited. Reclamation or rehabilitation for any off-route travel will be required of the permittee.

LOW-TTM-02: All OHVs must be registered with their residing State or registered in Nevada as an out of state resident.

LOW-TTM-03: Tours will yield to the everyday, casual user, as well as other authorized users, which may be encountered during operations.

LOW-TTM-04: The BLM will inform or advise the permittee when temporary closures or reroutes will occur or be necessary.

LOW-TTM-05: If the permittee wishes to sell or otherwise terminate their business and desires that permit privileges be transferred to a new owner, the permittee shall notify the AO in advance, in writing, and receive advance written approval for the permit transfer. Additionally, the permittee shall advise the AO in advance of any action that would result in a change in ownership or controlling business interest.

LOW-TTM-06: OHV operators must be familiar with and comply with BLM's OHV designations whether posted on the ground or not.

LOW-TTM-07: Permittees shall not perform road maintenance activities. However, if a road becomes impassable or travel becomes dangerous due to naturally occurring events, the permittee may take immediate action to rectify the situation such that tour vehicles may safely pass, but shall confine the action to the minimum possible and use only hand tools.

LOW-TTM-08: Establishment of permanent markers and improvements is prohibited.

LOW-TTM-09: Use of "Enviro" paint, paintballs, or colorful chalk sprayed, splattered or poured onto rocks, brush or the ground is prohibited.

LOW-TTM-10: Approved route marking consists of occasional flagging attached to clothes pins, wooden stakes or use of white gypsum or flour for ground marking of arrows on dirt road surfaces.

LOW-TTM-11: White gypsum or flour used for ground marking should be washed, brushed off, or mixed into the soil at the conclusion of the event.

LOW-TTM-12: If using flagging, the issuing agency must be advised of the color of the flagging 2 weeks prior to the event.

LOW-TTM-13: The permittee must remove all route within 14 days following the event and contact the issuing agency upon completion.

LOW-TTM-14: The permittee and OHV operators must yield to the right-of-way for all traffic.

Wildland Fire

LOW-FIRE-01: A wildland fire should be reported immediately to the nearest emergency dispatch center (911) and the nearest BLM office. The permittee is responsible for informing employees,

clients, and participants of the current fire danger and required precautions that may be placed in effect by the BLM or the State of Nevada. The permittee will make accommodations to allow immediate safe entry of firefighting apparatus and personnel.

LOW-FIRE-02: All guides or responsible individuals must carry at least one fire extinguisher, one bucket, and one shovel to be used in case of emergency.

LOW-FIRE-03: The permittee and participants will stay on designated event routes over the course of the event.

LOW-FIRE-04: In the event of a human-caused wildfire, the permittee will be held responsible for all costs of suppression and damaged resources pending a wildfire Origin and Cause Investigation (Title 43 CFR 9212) should the wildfire be determined to be a direct cause by the activities or participants associated with the event. An Origin and Cause Investigation will be carried out on any human caused fire by BLM law enforcement or their designated representative. To minimize disturbance of potential evidence located at the fire scene, the applicant/permittee shall properly handle and preserve evidence in coordination with the BLM. The BLM shall pursue cost recovery for all costs and damages incurred from human-caused fires on BLM lands when the responsible party(s) has been identified and evidence of legal liability or intent exists.

LOW-FIRE-05: Legal liability includes, but is not limited to, negligence and strict liability (including statutory and contractual liability), products liability, etc. The permittee shall report to the Fire Investigator or BLM Incident Commander and enter into the fire origin area on BLM fires only when given permission to do so. The permittee will cooperate with the BLM in performance of fire investigation to determine wildfire cause.

LOW-FIRE-06: Emergency personnel and equipment would be allowed access to the course in the event of an emergency, including wildland fire.

LOW-FIRE-07: The permittee shall, independently and in cooperation with the Government, take all reasonable action to report, prevent, and suppress fires along the event route and event areas.

Emergency Reporting Requirements:

- Call 911 for immediate emergency response.
- The permittee shall report ALL observed wildland fires on or in the vicinity of the event to the nearest Dispatch Center. Information needed when reporting wildland fire includes:
 - Location: Geographical reference; if possible, latitude/longitude coordinates
 - Description: fire size, spread, color of smoke, observations about cause, etc.
 - Your name, call back telephone number, event/project

LOW-FIRE-08: The operation of a motor vehicle or combustion engine equipment without a maintained spark arrestor (or a muffler with screen if modified to meet the intent of a spark arrestor) is prohibited (43 CFR 8343.1 (c)).

LOW-FIRE-09: Smoking is prohibited except in an enclosed vehicle or in a developed campground.

LOW-FIRE-10: Cigarette butts and ash must be contained at all times, extinguished completely and disposed of in a metal, leather, or water or sand filled receptacle to be disposed of off public land.

LOW-FIRE-11: This permit does not waive any applicable fire restrictions and orders that may affect the use of camp fires, charcoal or cooking fires.

LOW-FIRE-12: At sites accessed by the permittee's motor vehicle(s), the permittee must provide its own fuel wood.

LOW-FIRE-13: At sites accessed by the permittee's motor vehicle(s), the permittee must use a fire pan to contain the fires, ash, and charcoal. Charcoal and ash from the fire pan must be hauled out.

LOW-FIRE-14: Gathering wood from standing trees, live or dead, is prohibited. The permittee must provide its own fuel wood, use a fire pan to contain fire/ash/charcoal which must be hauled out.

LOW-FIRE-15: All types of open fires will be built only in areas that are presently free of vegetation.

LOW-FIRE-16: No new fire rings will be made when existing rings are available in the area.

LOW-FIRE-17: Shovel and water bucket must be available at each camp for fire control.

LOW-FIRE-18: One month prior to the event, the permittee shall consult with the appropriate BLM District Office Fire Management Officer to ascertain the expected level of wildfire risk due to ephemeral annual grass. If the Fire Management Officer determines the wildfire risk is high or greater, the permittee will make funds available to the BLM for the purpose of wildfire protection to include but not limited to: wildland fire engines, Type IV Incident Commander, Chief Officer, and Las Vegas Interagency Communication Center (LVICC) dispatch personnel.

Water Resources, Wetlands, & Riparian Zones

LOW-WATER-01: Vehicles must avoid damage to riparian vegetation and streambanks. No route widening is permitted.

LOW-WATER-02: When the designated route crosses a stream, vehicles must cross in a narrow single file manner. The single file of vehicles must all cross in the same location to avoid widening the route.

LOW-WATER-03: On designated routes located within streams and floodplains, vehicles must drive in the center of the stream channel, avoiding bank and vegetation disturbance.

LOW-WATER-04: Washing or bathing with soap is not permitted in tributary streams, springs or other natural water sources. Dishwater must be strained prior to dispersal (scattering). Dishwater and bathwater may not be dispersed within 100 feet of streams, springs, or other natural water sources.

LOW-WATER-05: No camping is permitted within 300 feet of a water source, including wet or mesic meadows, springs, intermittent or perennial streams, or wildlife guzzlers, unless prior written permission is received from the authorizing officer. Restricting wildlife access to water sources is strictly prohibited. Alteration or disturbance of water sources is strictly prohibited.

LOW-WATER-06: Wells shall not be tampered with. Use of wells for drinking water is limited to designated campground sites only.

LOW-WATER-07: The permittee shall notify the AO of any non-functioning culverts or uncapped wells along designated routes.

Post-Activity Rehabilitation

LOW-PAR-01: The permittee will be responsible for the prompt repair of any/all event-related damages to utility rights-of-way, right-of-way improvements, and range improvements within 72 hours after the event. If they are not returned to a condition that is satisfactory to the AO the right-of-way holder, or the range permit holder, the permittee will be assessed a fine to cover the cost of a contractor to complete rehabilitation.

LOW-PAR-02: Staking, flagging materials, equipment, temporary facilities, litter, and all other event-related materials will be completely removed to an approved landfill by the permittee within 15 days following the event. If BLM post-race field checks reveal event-related materials that have not been removed, the BLM shall notify the permittee and allow an additional 7 days for removal. The permittee shall be required to reimburse the BLM for the costs of subsequent field checks, as monitoring is included in cost-recovery charges. If event materials remain after the field check, the BLM shall effect their removal by both contract or BLM personnel and bill the permittee for any associated costs.

LOW-PAR-03: The BLM representative will complete a Post-Event Evaluation. Upon inspection, a determination will be made on which portions of the permit area, if any, need additional rehabilitation. The permittee may be required to grade, drag, disc, or seed soil and vegetation areas within the course and pit areas that were changed or affected as a result of the event. All seeding must be done with native seeds. Main access roads used by support or rescue vehicles where significant road damage occurs must be graded to pre-event status. Site-specific stipulations requiring rehabilitation of areas must be accomplished within 4 weeks following the event unless a shorter timeframe is required for public safety. The permittee shall be responsible for all costs associated with rehabilitation required.

LOW-PAR-04: The BLM representative shall inspect the course, pit, and event areas immediately after and within 30 days following the event to evaluate event effects on resources and the permittee's compliance with resource protection and rehabilitation measures. The permittee shall be notified of additional rehabilitation needs.

LOW-PAR-05: Turns, acceleration, and cross-road ruts and berms must be repaired prior to abandonment. Loose rocks in the common public roadways must be cast aside. Center berms must be eliminated or reduced to accommodate vehicle passage.

LOW-PAR-06: Main access roads used by support, media, staff, volunteers, spectators, or rescue vehicles during muddy or excessively dry conditions where significant road damage occurs must be graded or stabilized to BLM standards as applicable.

LOW-PAR-06: Ruts and depressions due to soil loss should be refilled and smoothed to BLM standards as applicable. Use of a road grader is recommended to loosen and spread soils to create a more natural appearance and to maintain route condition for future use.

LOW-PAR-08: Neutralize single-track ruts, berms, and whoops, specific to motorcycle, all-terrain vehicle (ATV), utility task vehicle (UTV), and event vehicles where soil erosion or channelized water runoff is likely, or where safety of other vehicular traffic could be affected.

LOW-PAR-09: Repair any damages to fences, posts, gates, or range improvements that occurred as a result of the race/event. Soil ruts that develop at gate locations must be reduced to prevent livestock

from getting under the gate/fence. Loose wire must be tightened to prevent livestock entanglement. Leave gates open or closed according to condition found at race time.

LOW-PAR-10: If mechanized equipment is required to make route repairs, use must be coordinated with the BLM. Extra caution must be taken when making repairs near archaeological sites including, but not limited to, historic ruins, rock walls, tailings piles, and historic debris.

LOW-PAR-11: All post-event rehabilitation work will be inspected by a BLM representative and must meet the requirements as stated in this document. Furthermore, the post-race inspection report must be approved by the BLM and may be used for future event consideration.

LOW-PAR-12: Local jurisdictions including city/town representatives, county road department representatives, and State road representatives will be given the opportunity to participate in pre- and post-race inspections to ensure that road rehabilitation is up to their needs.

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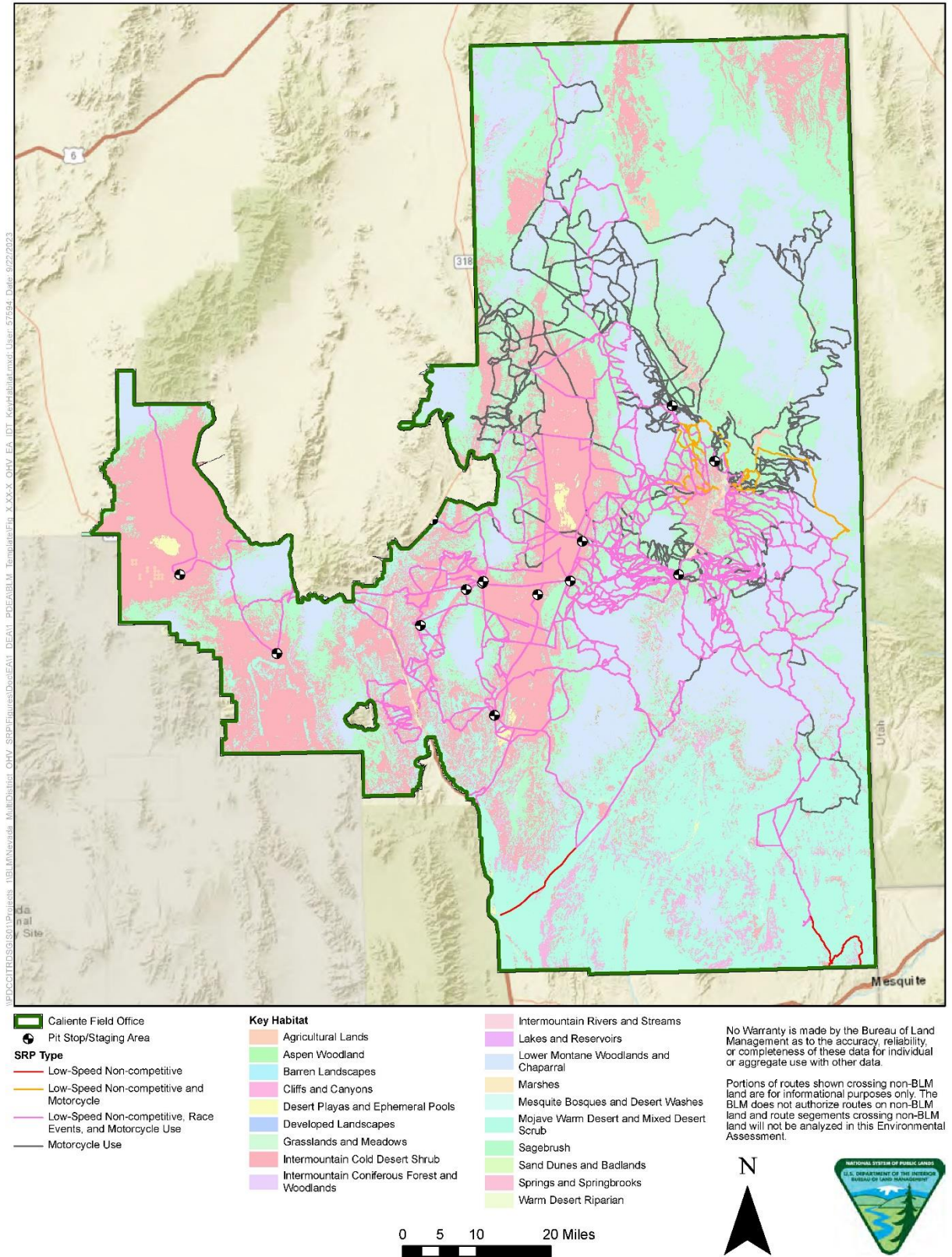


Figure 3.2-1 Key Habitat Caliente Field Office

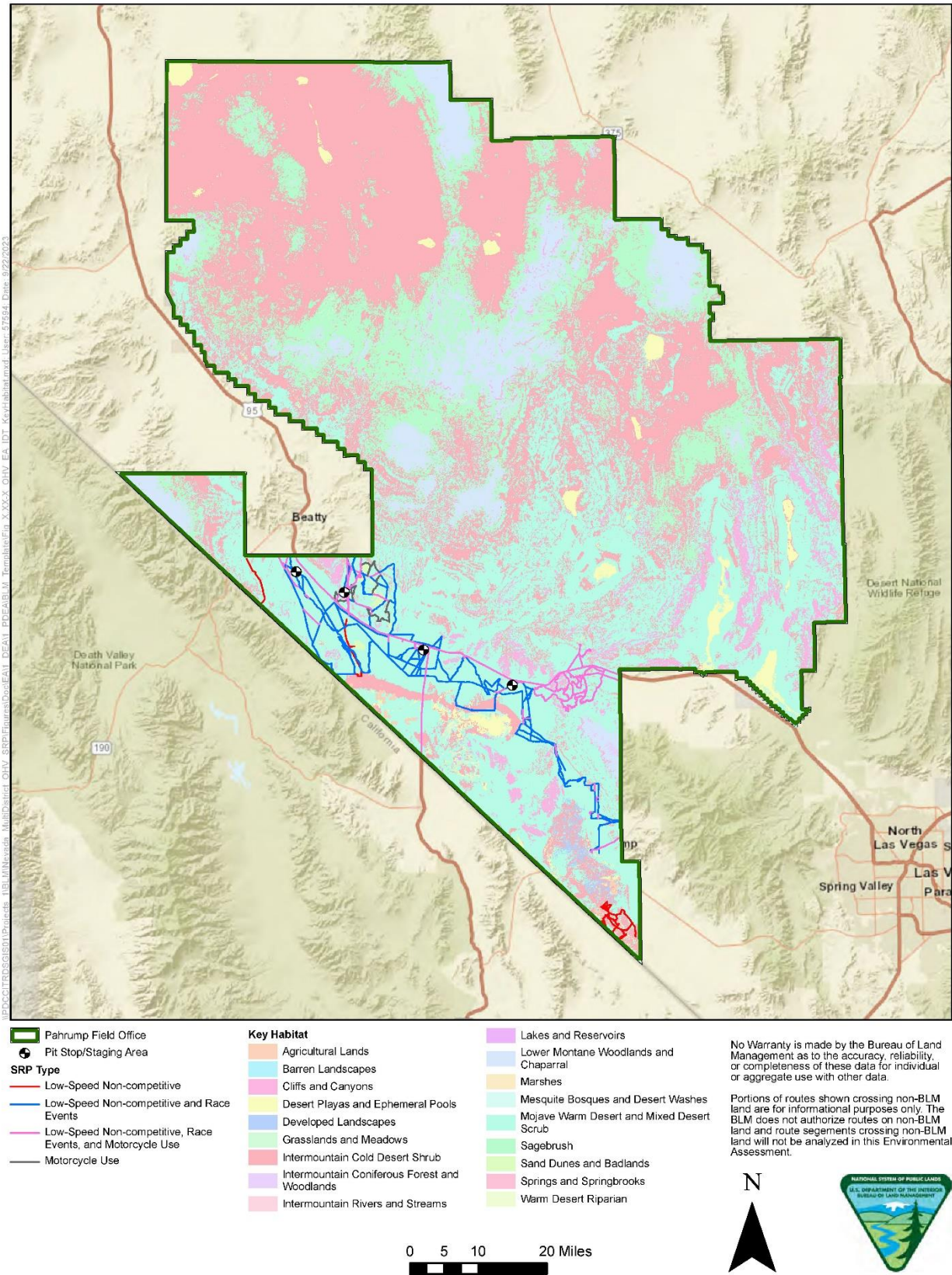


Figure 3.2-2 Key Habitat Pahrump Field Office

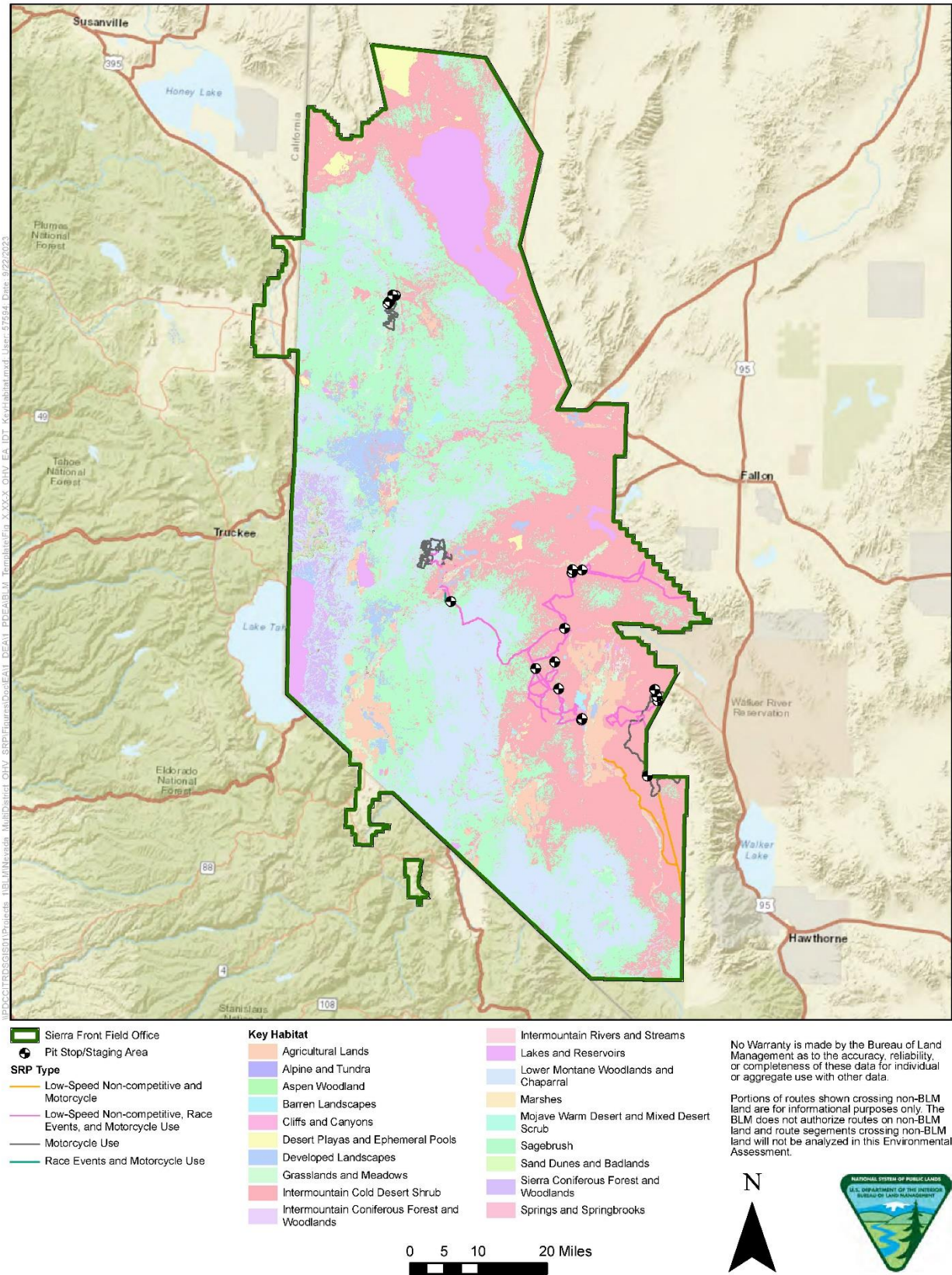


Figure 3.2-3 Key Habitat Sierra Front Field Office

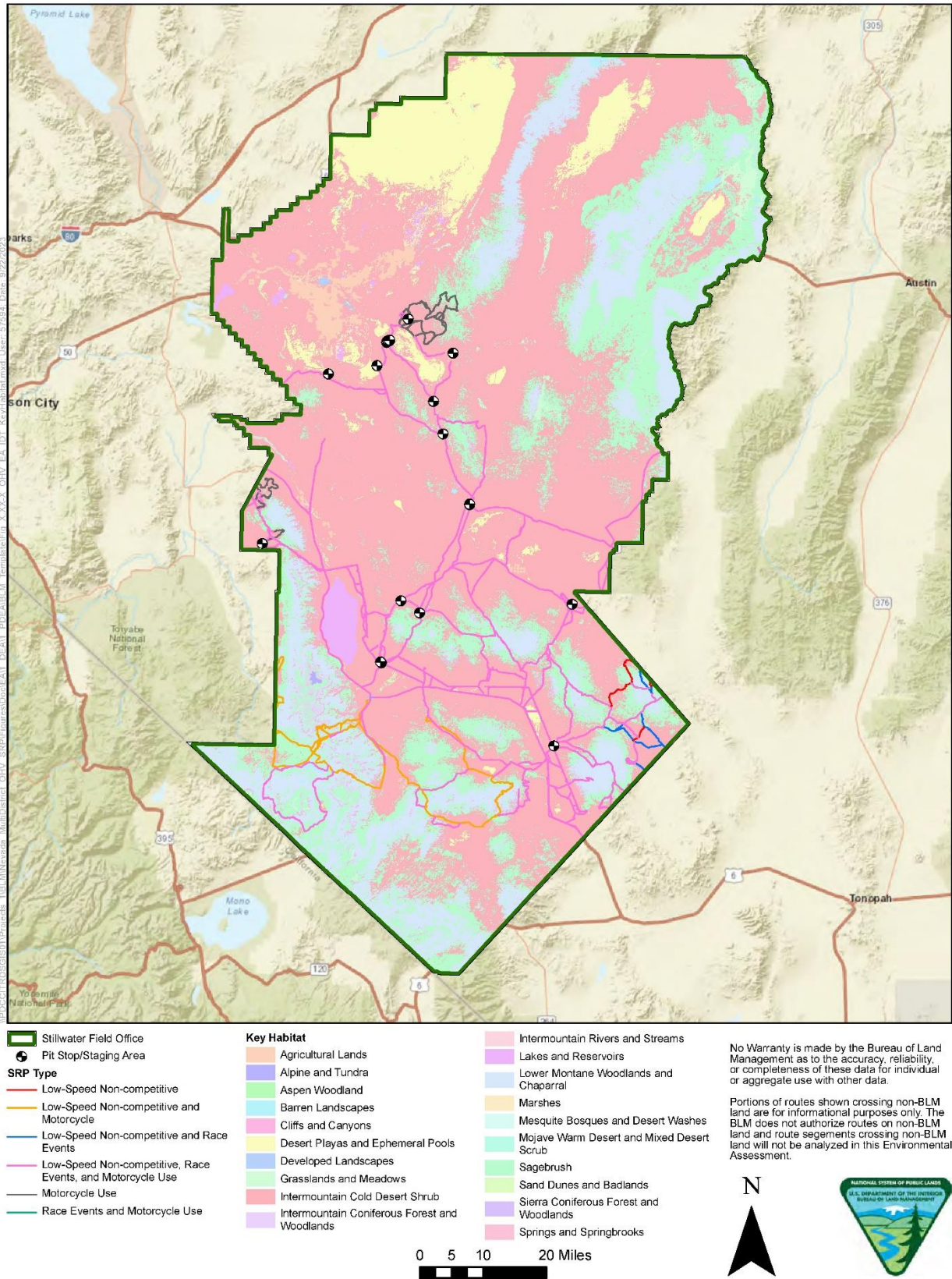


Figure 3.2-4 Key Habitat Stillwater Field Office

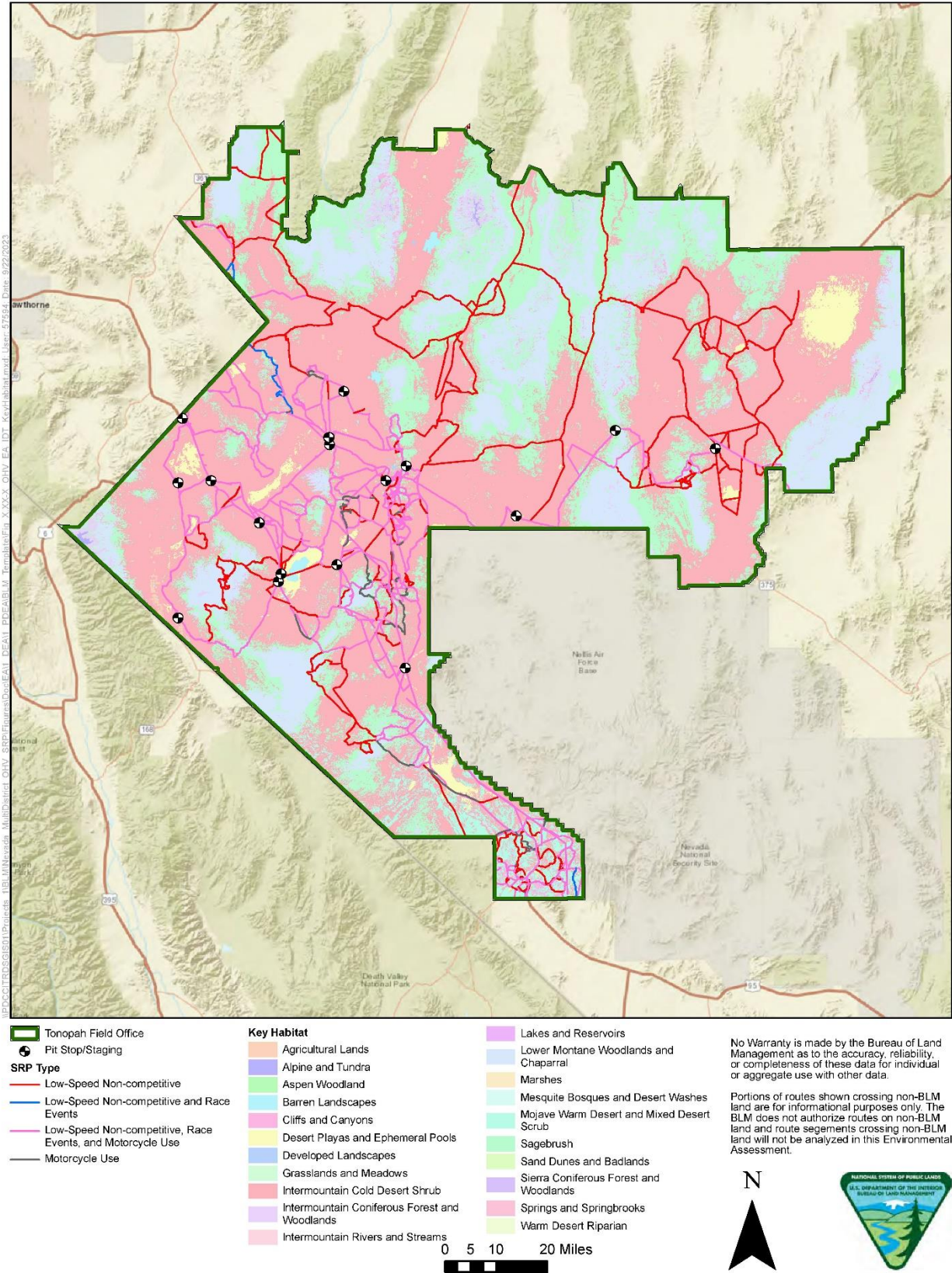


Figure 3.2-5 Key Habitat Tonopah Field Office

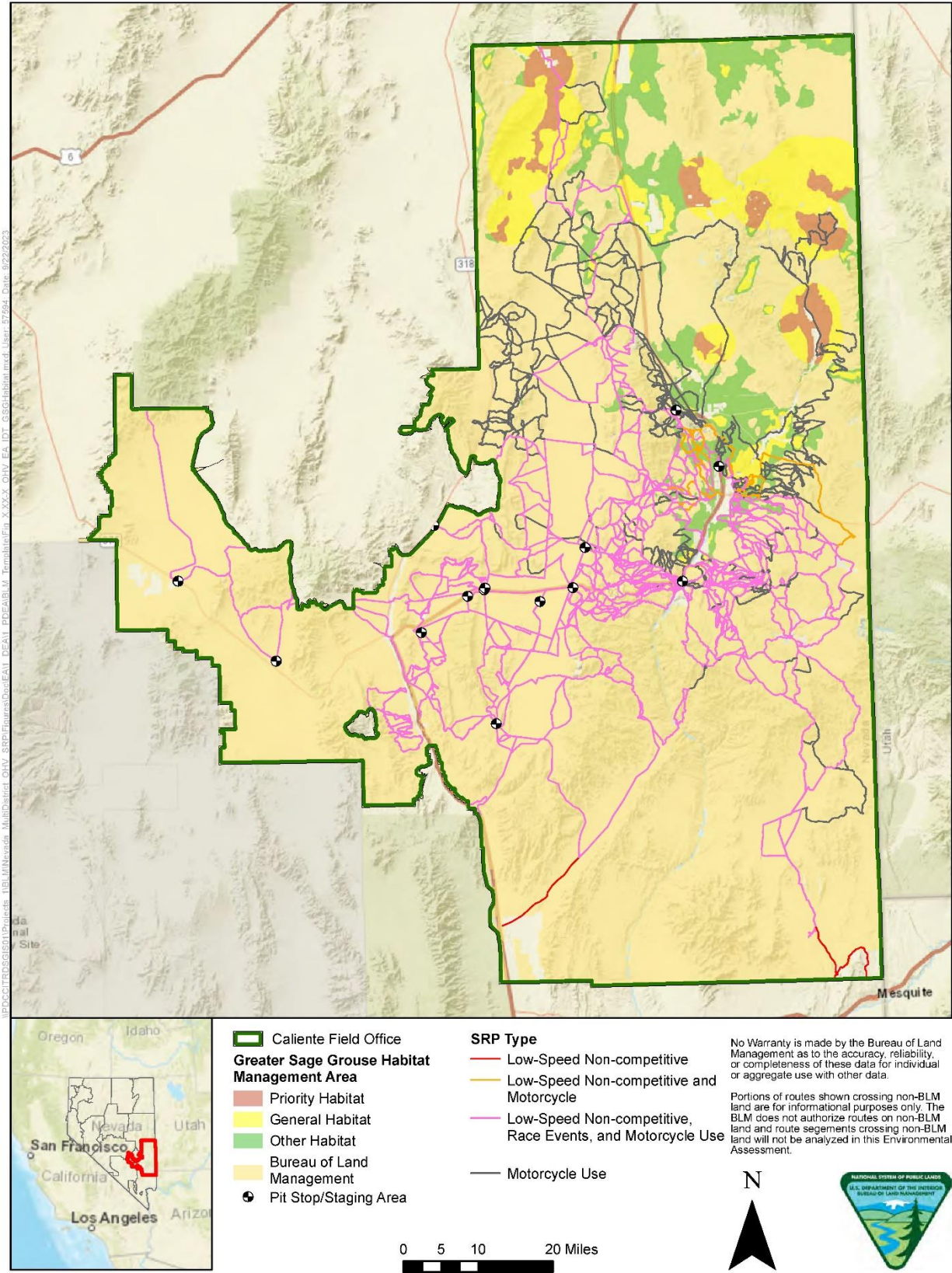


Figure 3.2-6 Greater Sage-Grouse Management Areas Caliente Field Office

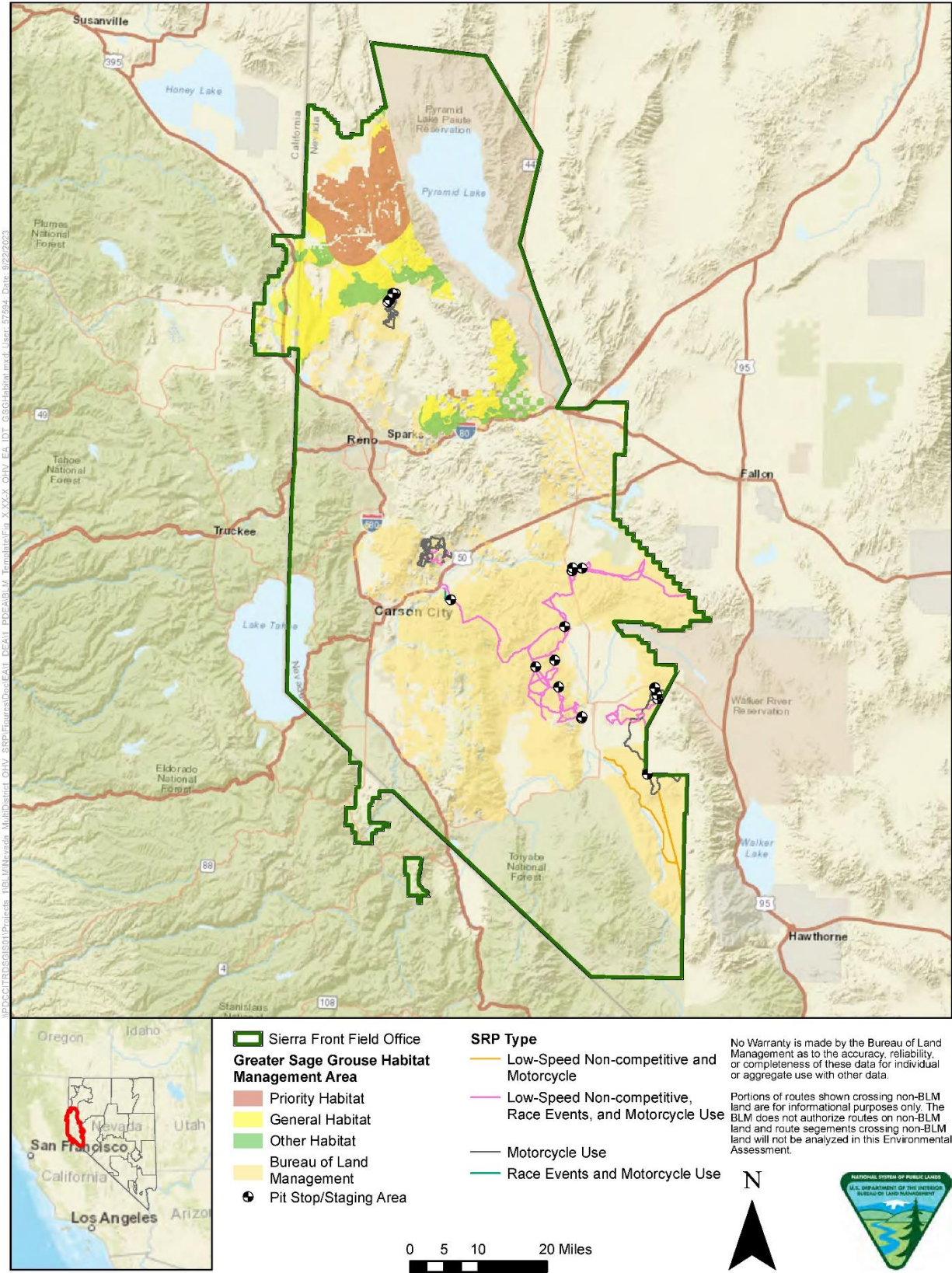


Figure 3.2-7 Greater Sage-Grouse Management Areas Sierra Front Field Office

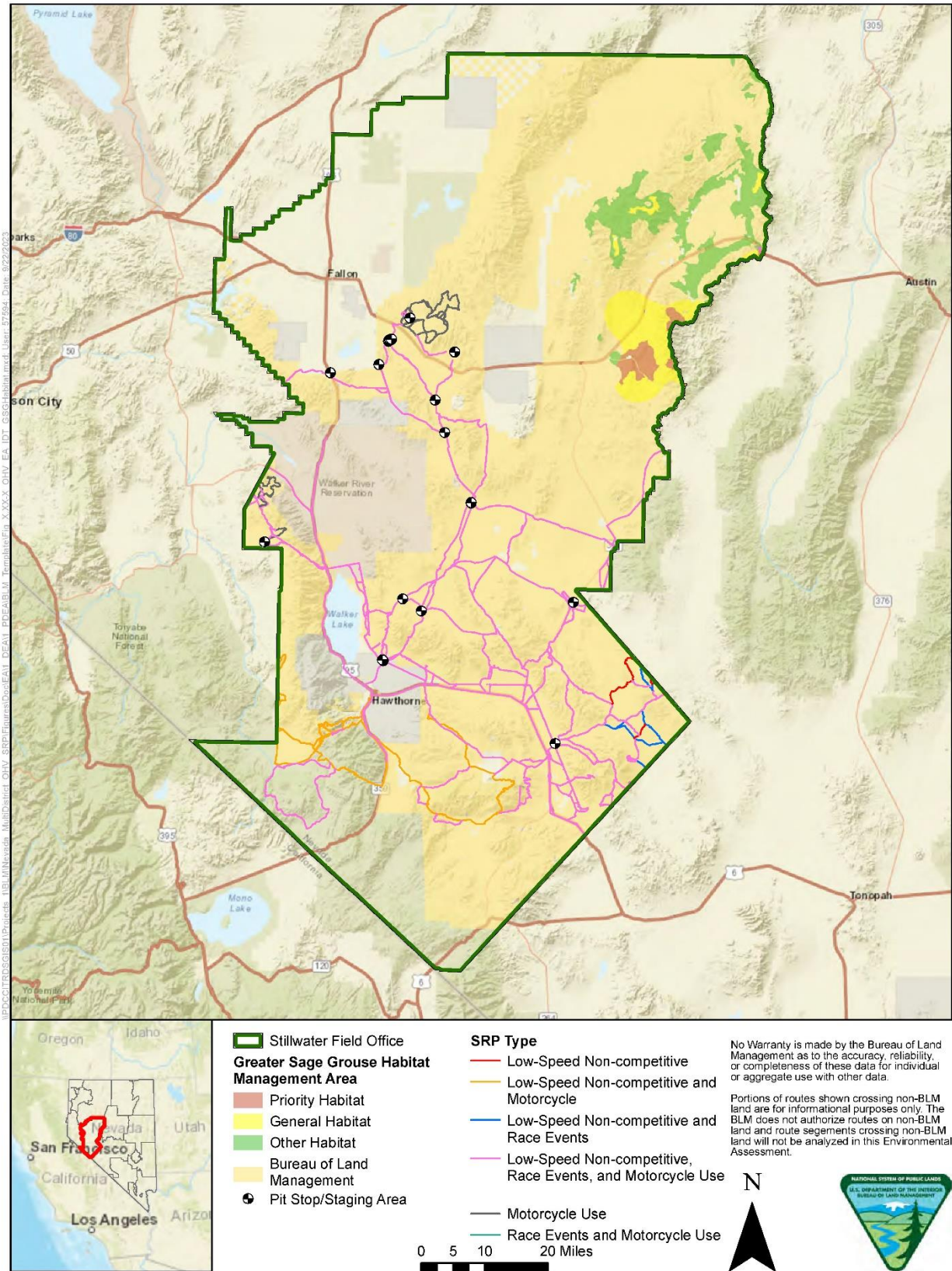


Figure 3.2-8 Greater Sage-Grouse Management Areas Stillwater Field Office

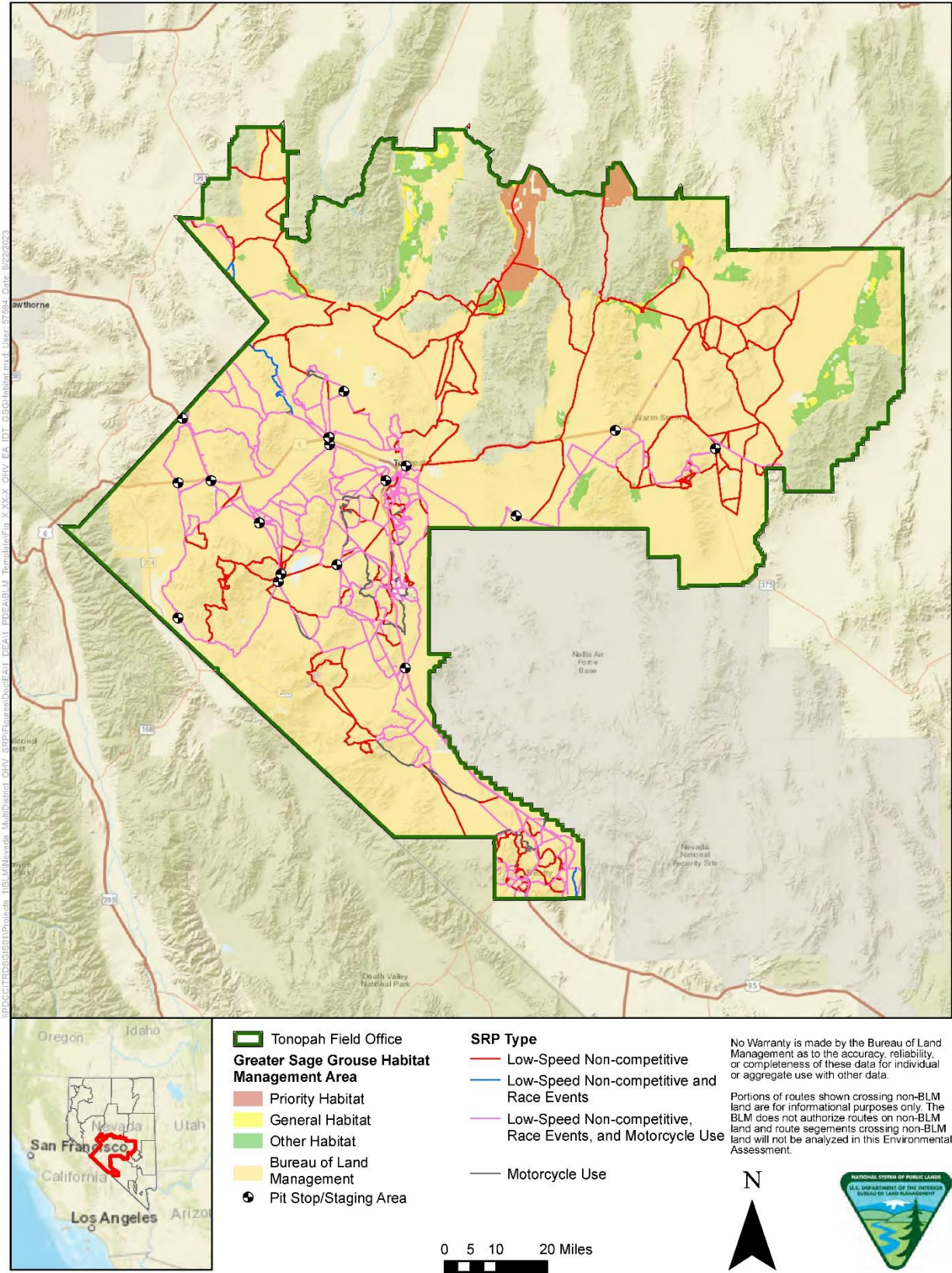


Figure 3.2-9 Greater Sage-Grouse Management Areas Tonopah Field Office

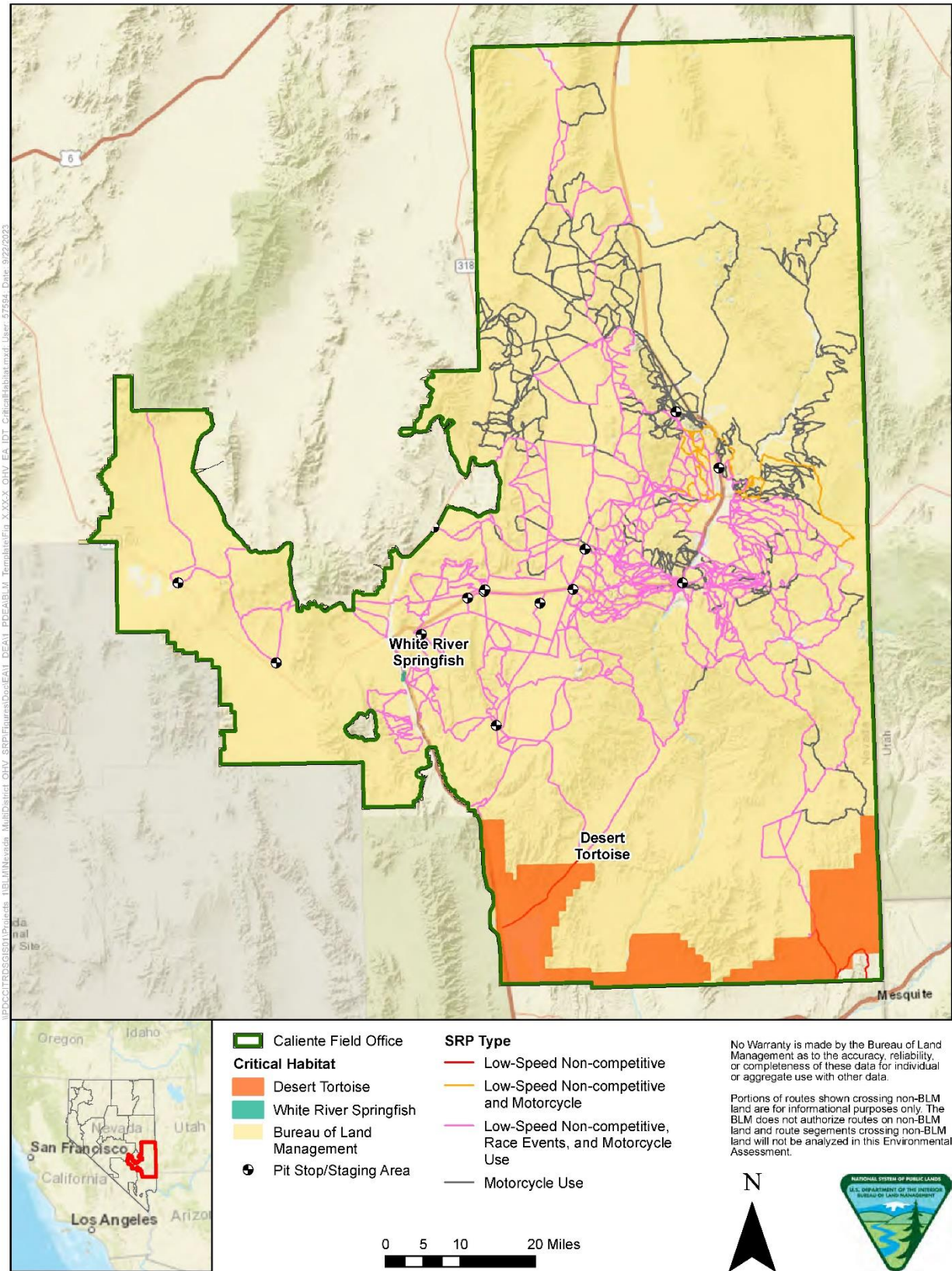


Figure 3.3-1 Critical Habitat within the Caliente Field Office

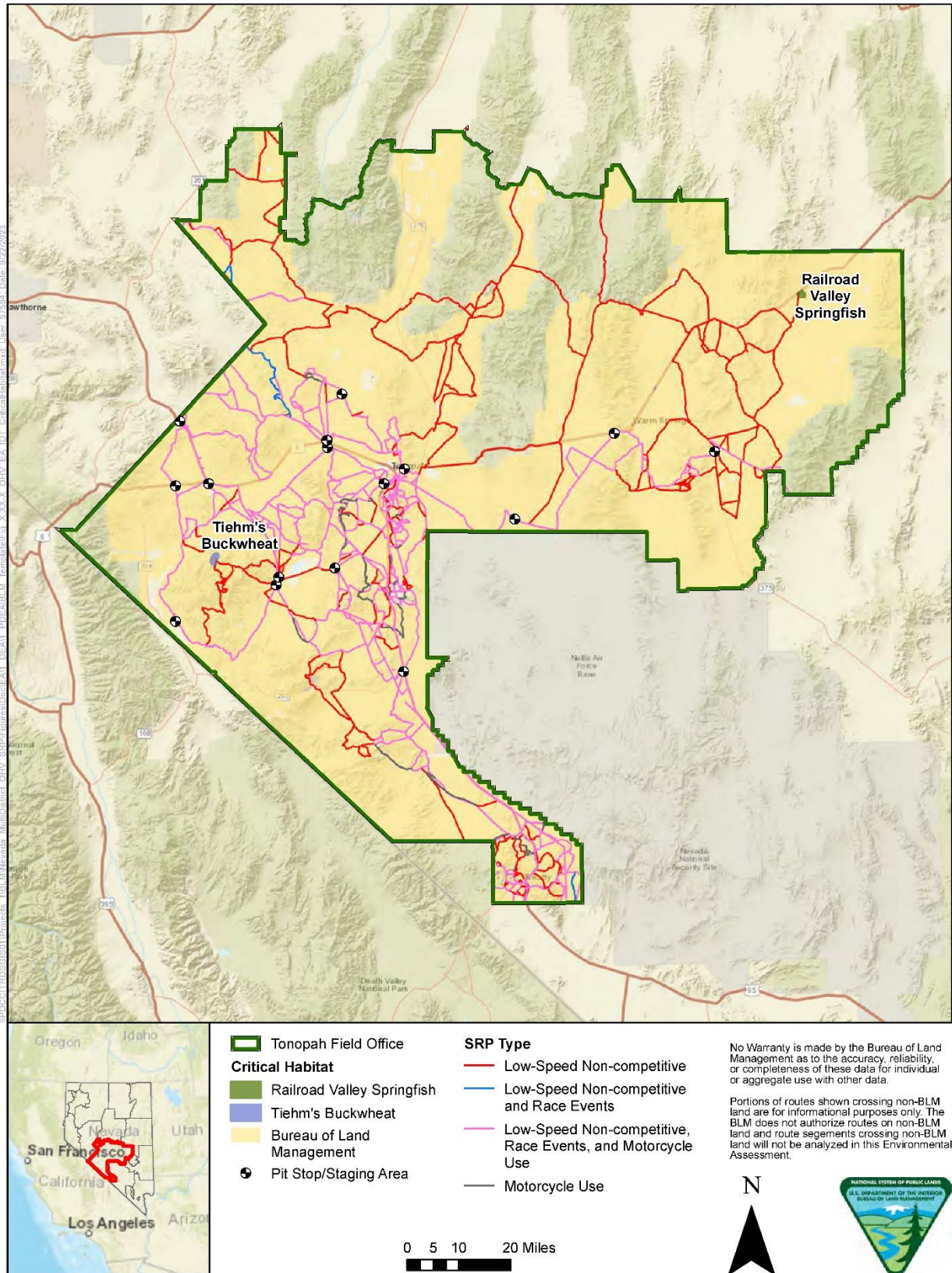


Figure 3.3-2 Critical Habitat within the Tonopah Field Office

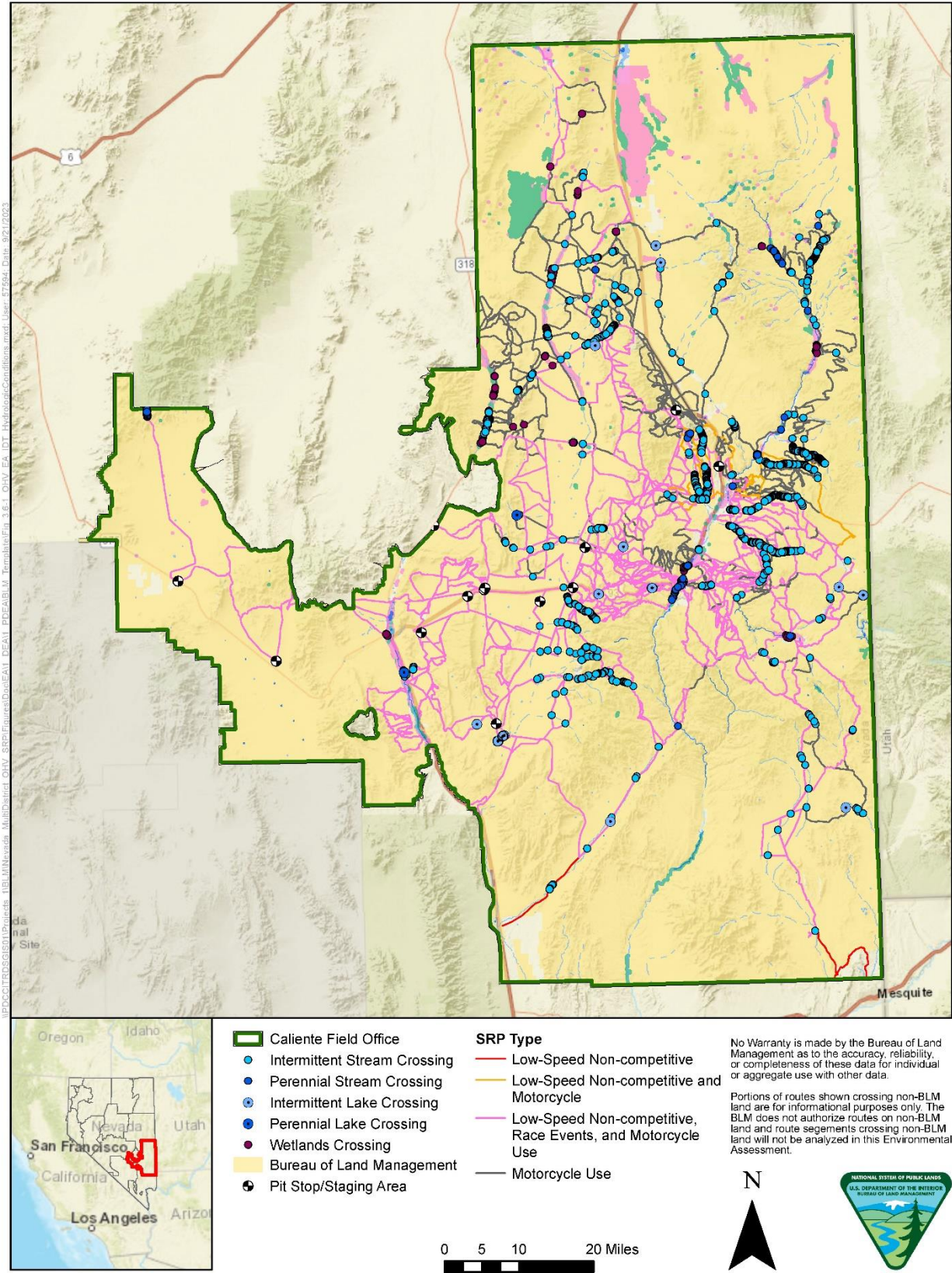


Figure 3.6-1 Caliente Field Office Hydrologic Conditions

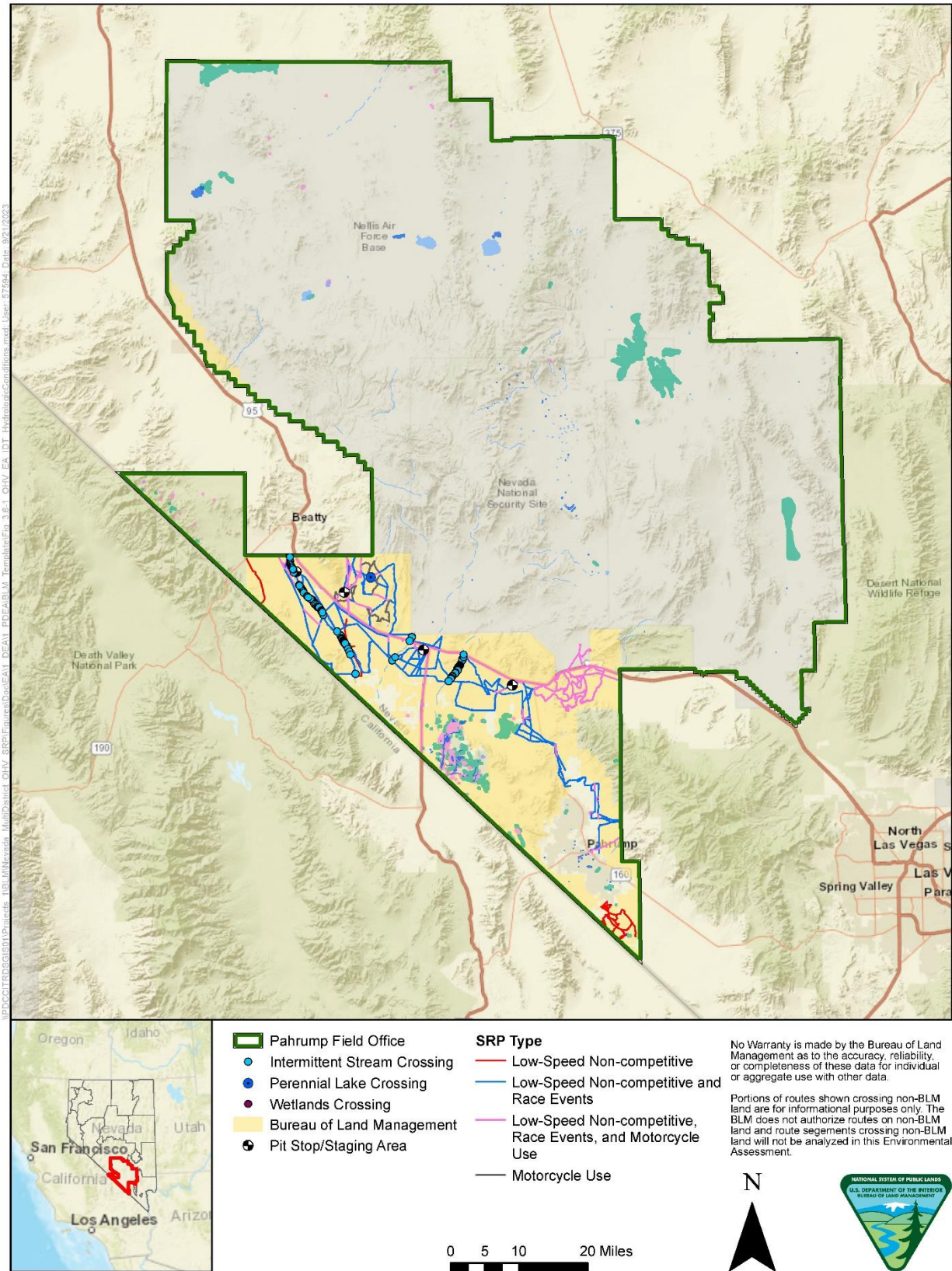


Figure 3.6-2 Pahrump Field Office Hydrologic Conditions

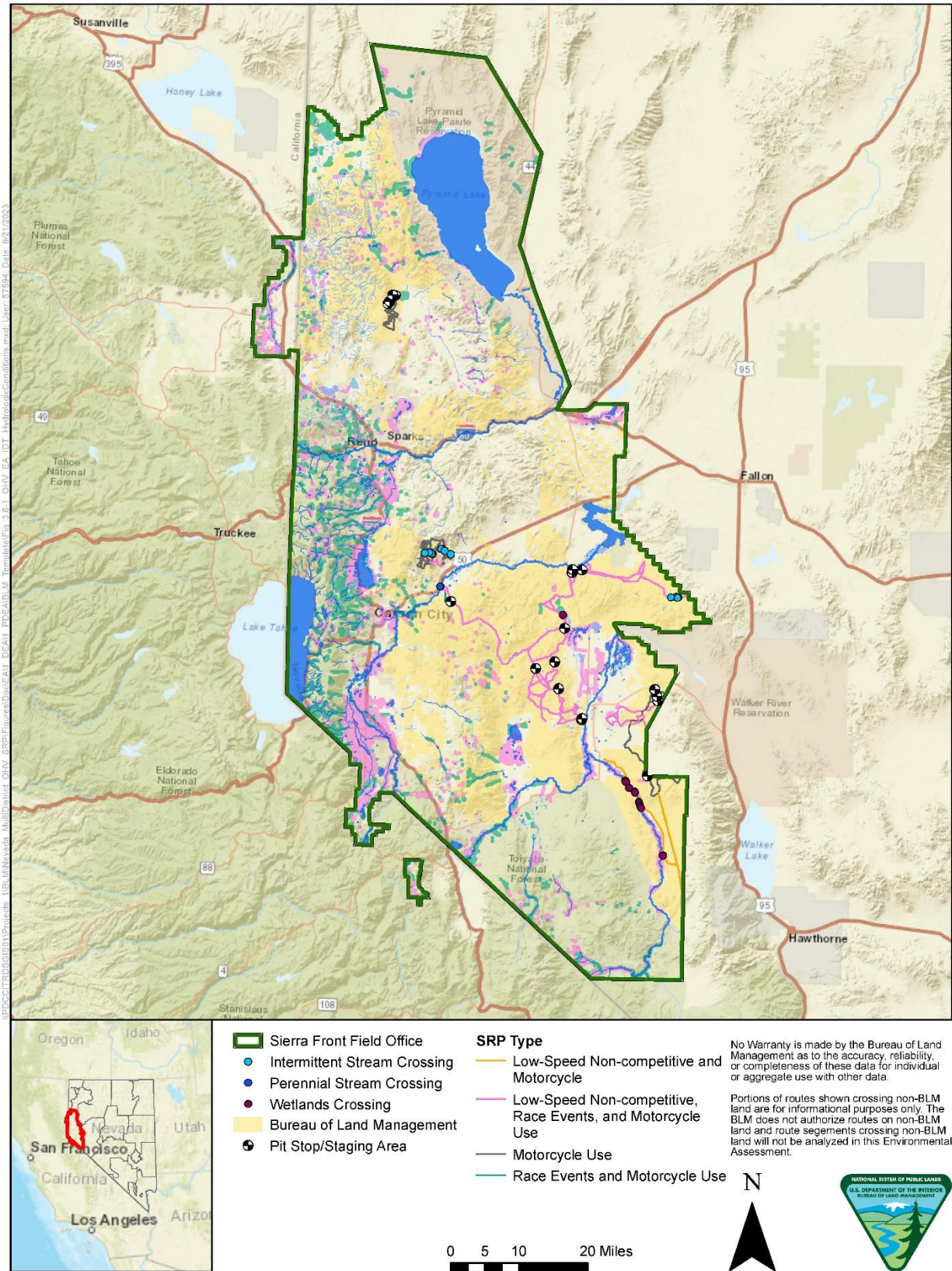


Figure 3.6-3 Sierra Front Field Office Hydrologic Conditions

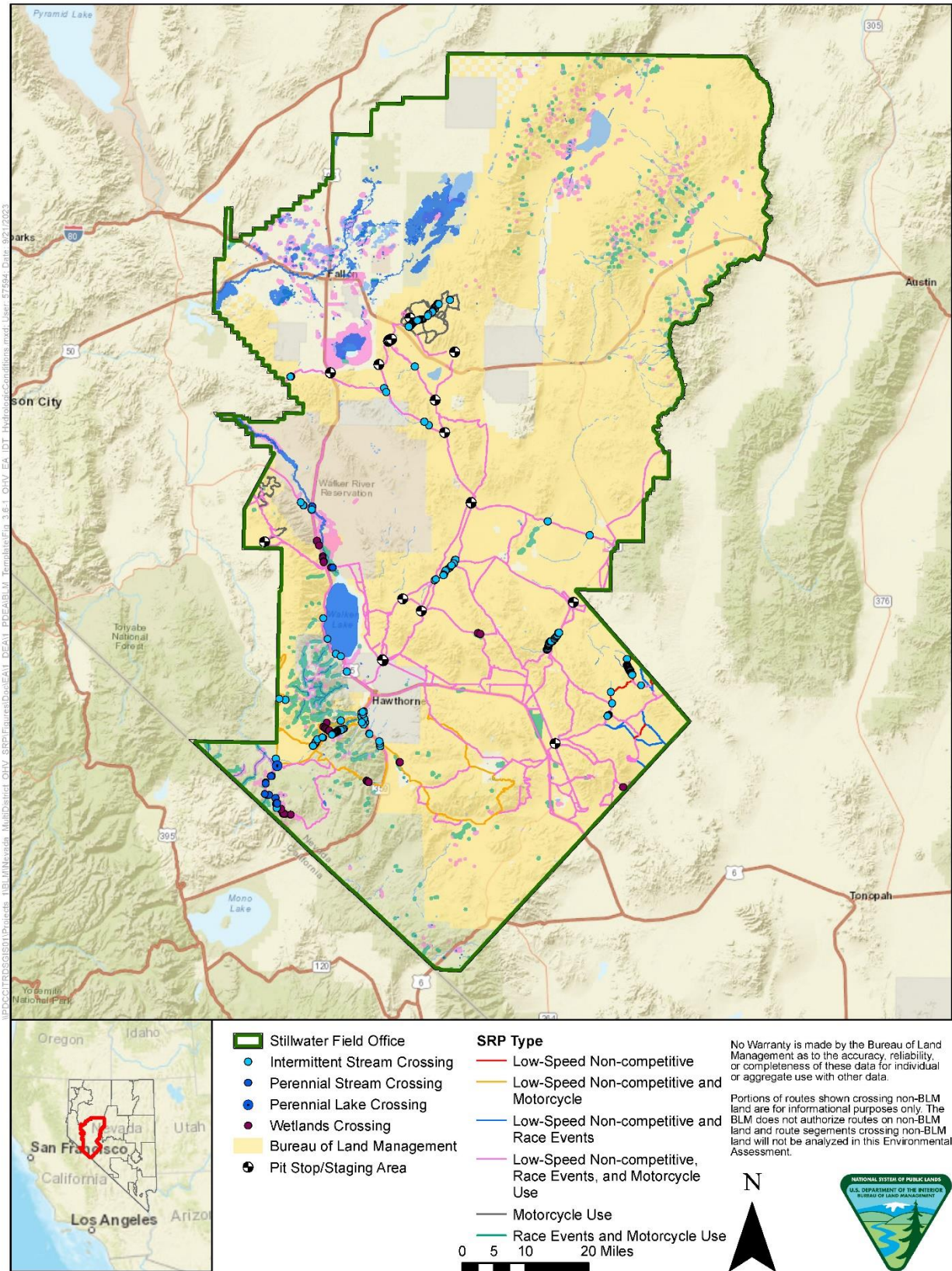


Figure 3.6-4 Stillwater Field Office Hydrologic Conditions

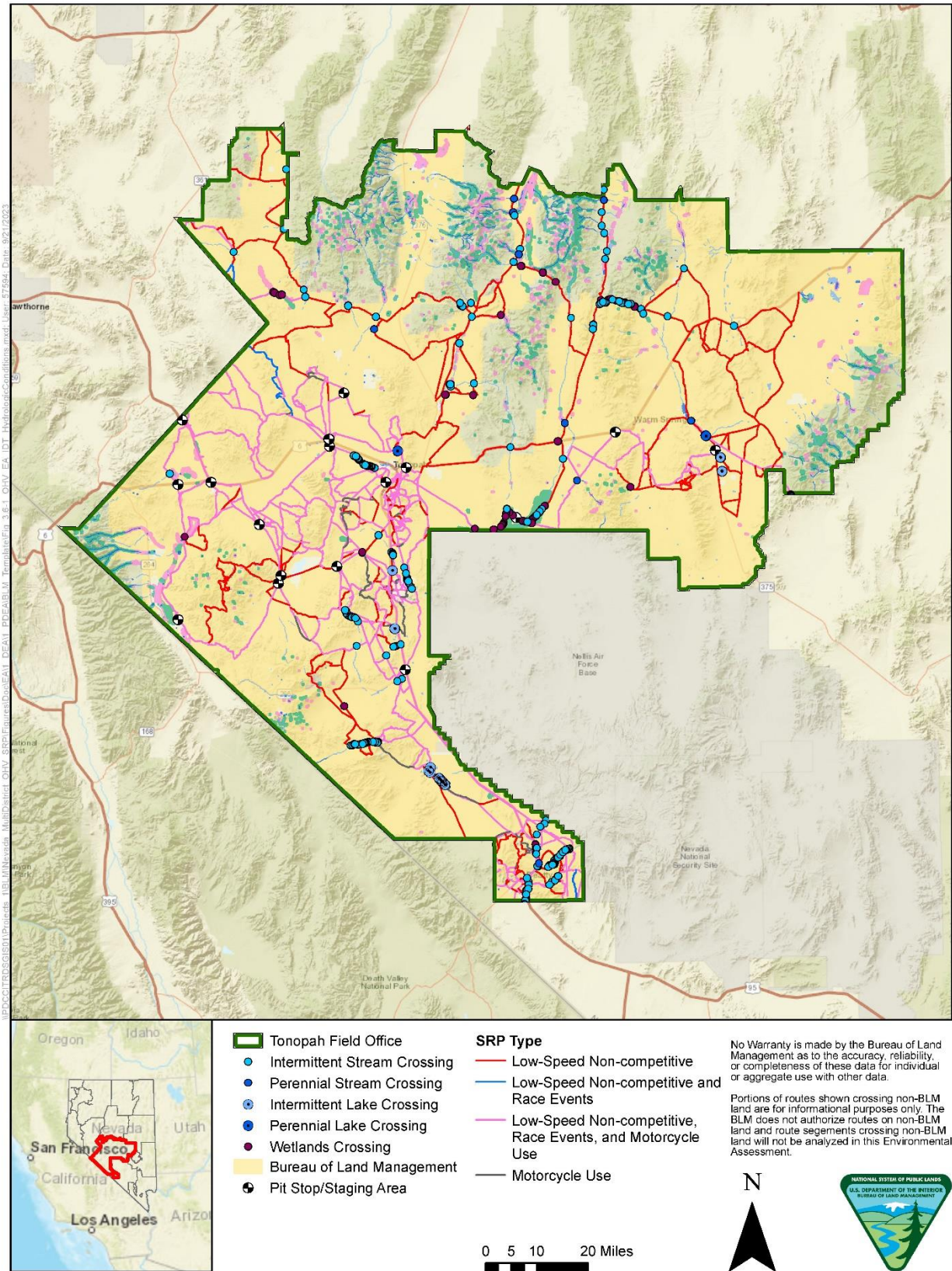


Figure 3.6-5 Tonopah Field Office Hydrologic Conditions

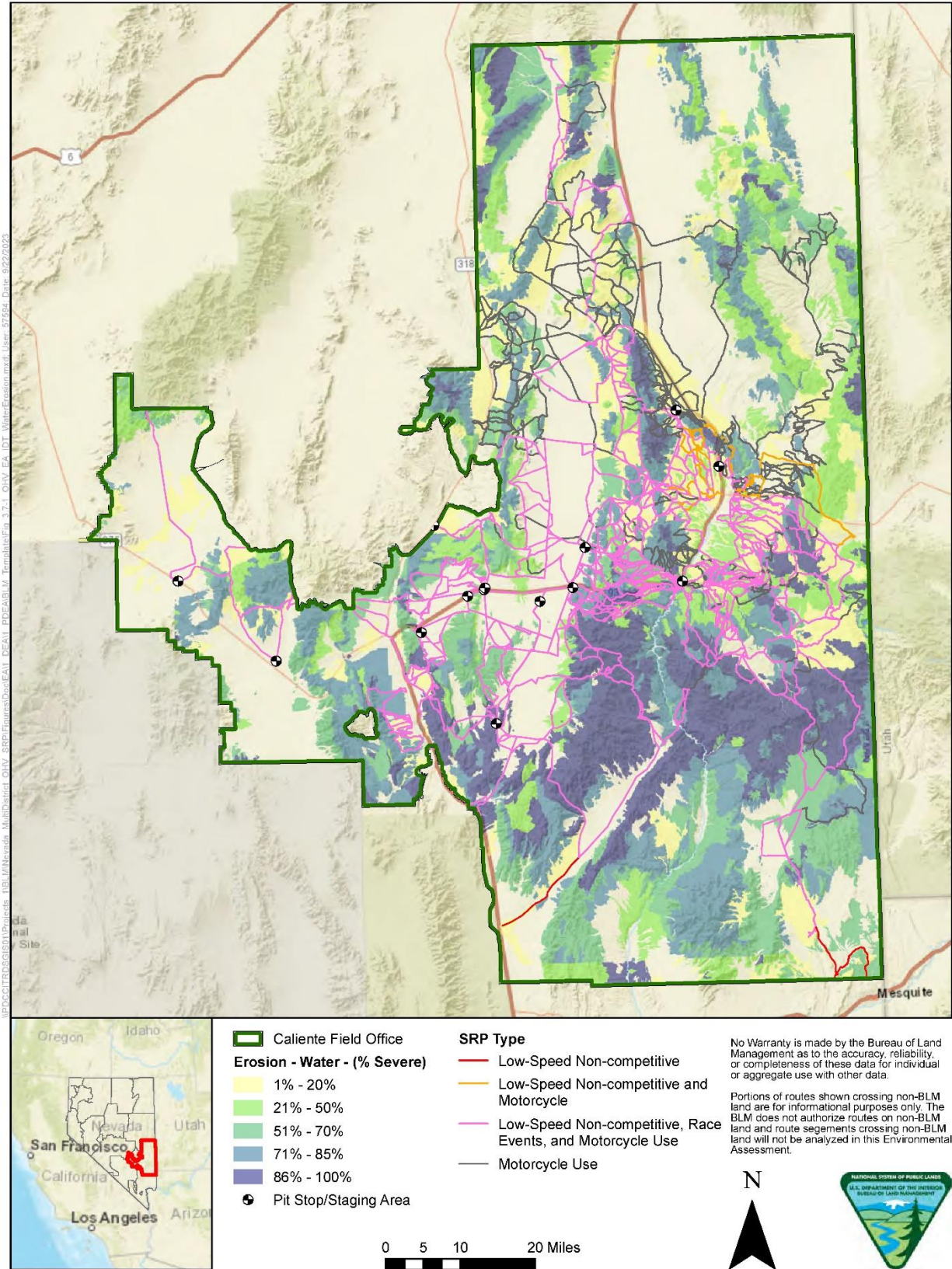


Figure 3.7-1 Caliente Field Office Water Erodibility

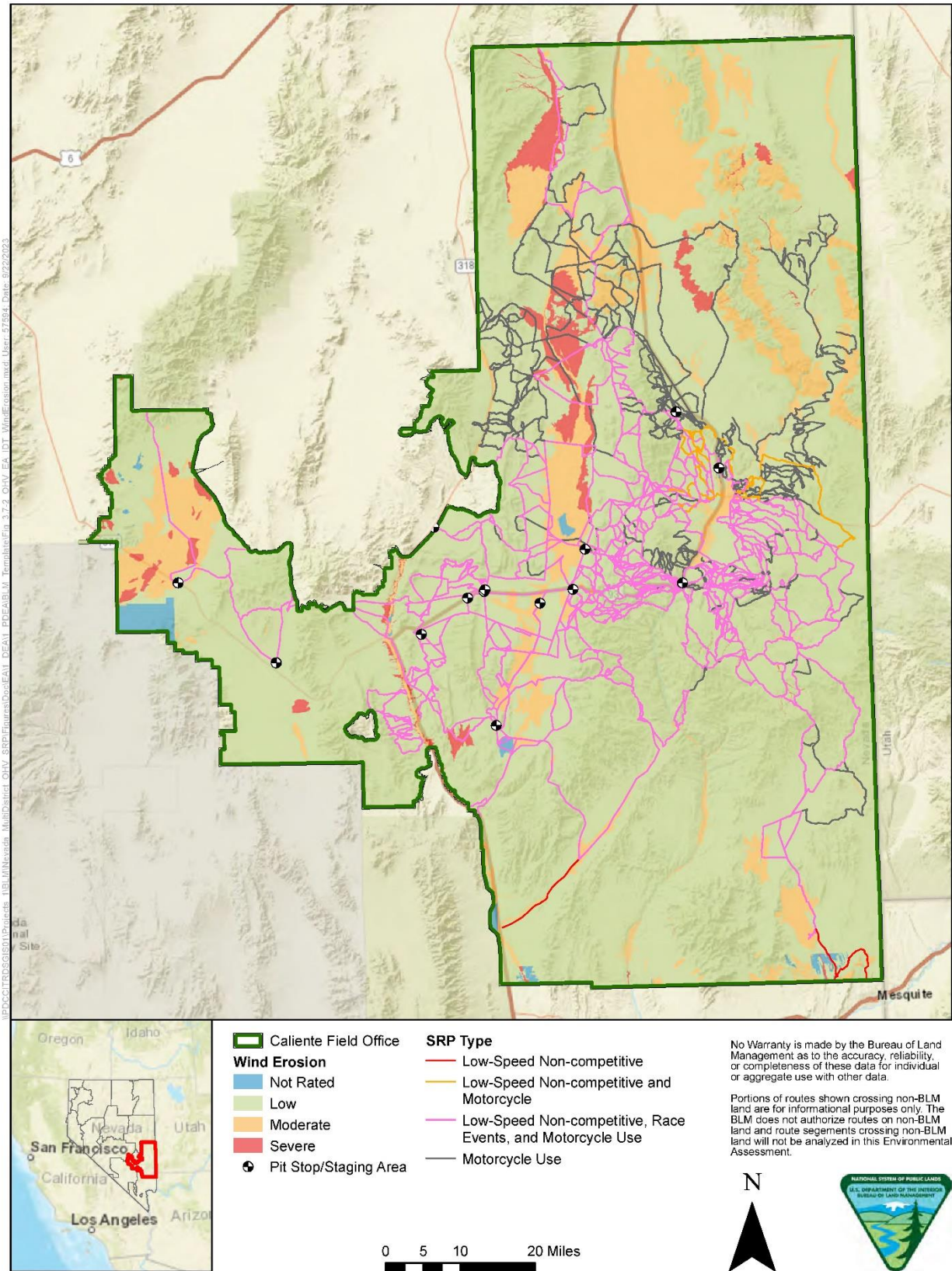


Figure 3.7-2 Caliente Field Office Wind Erodibility

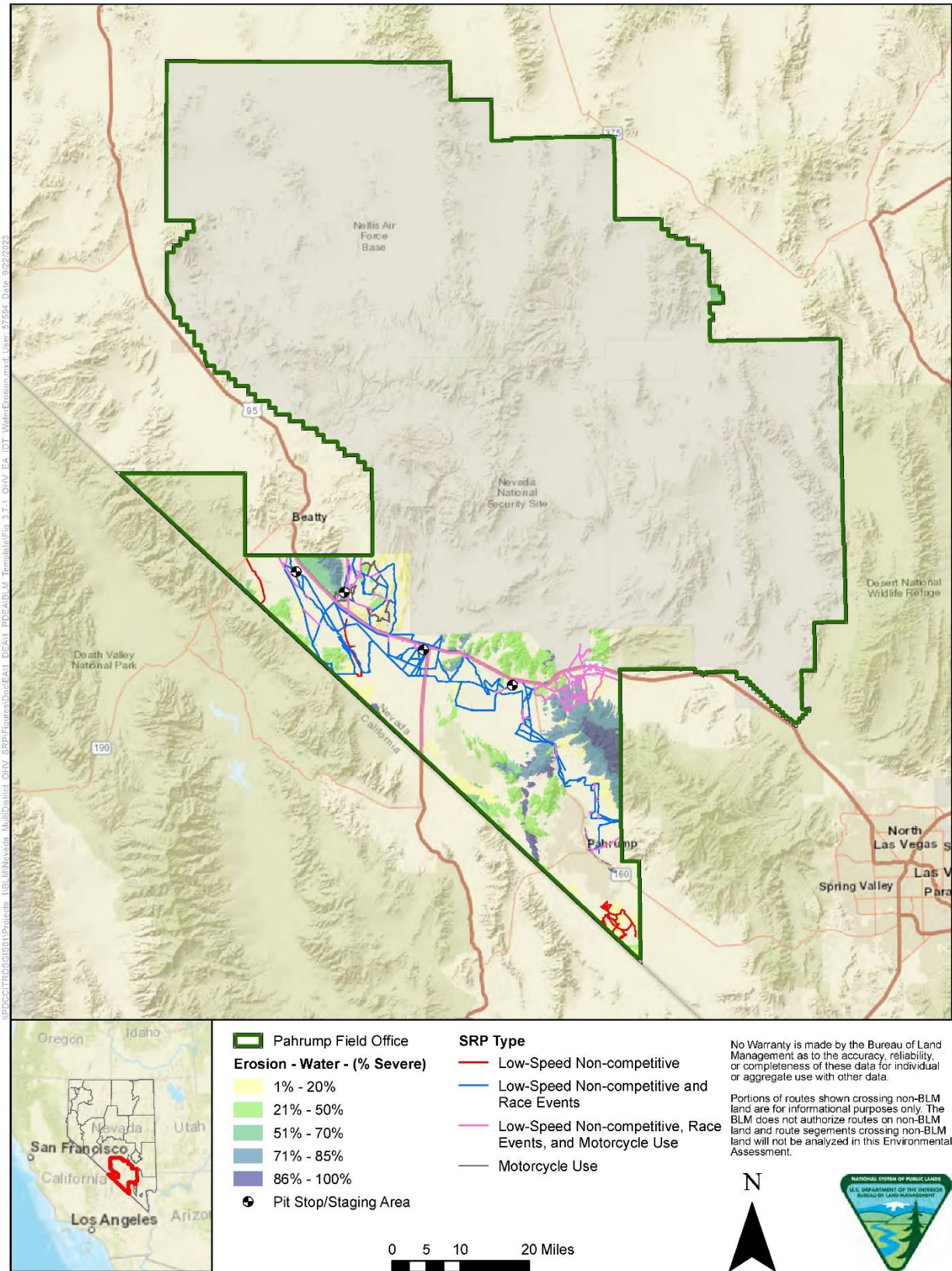


Figure 3.7-3 Pahrump Field Office Water Erodibility

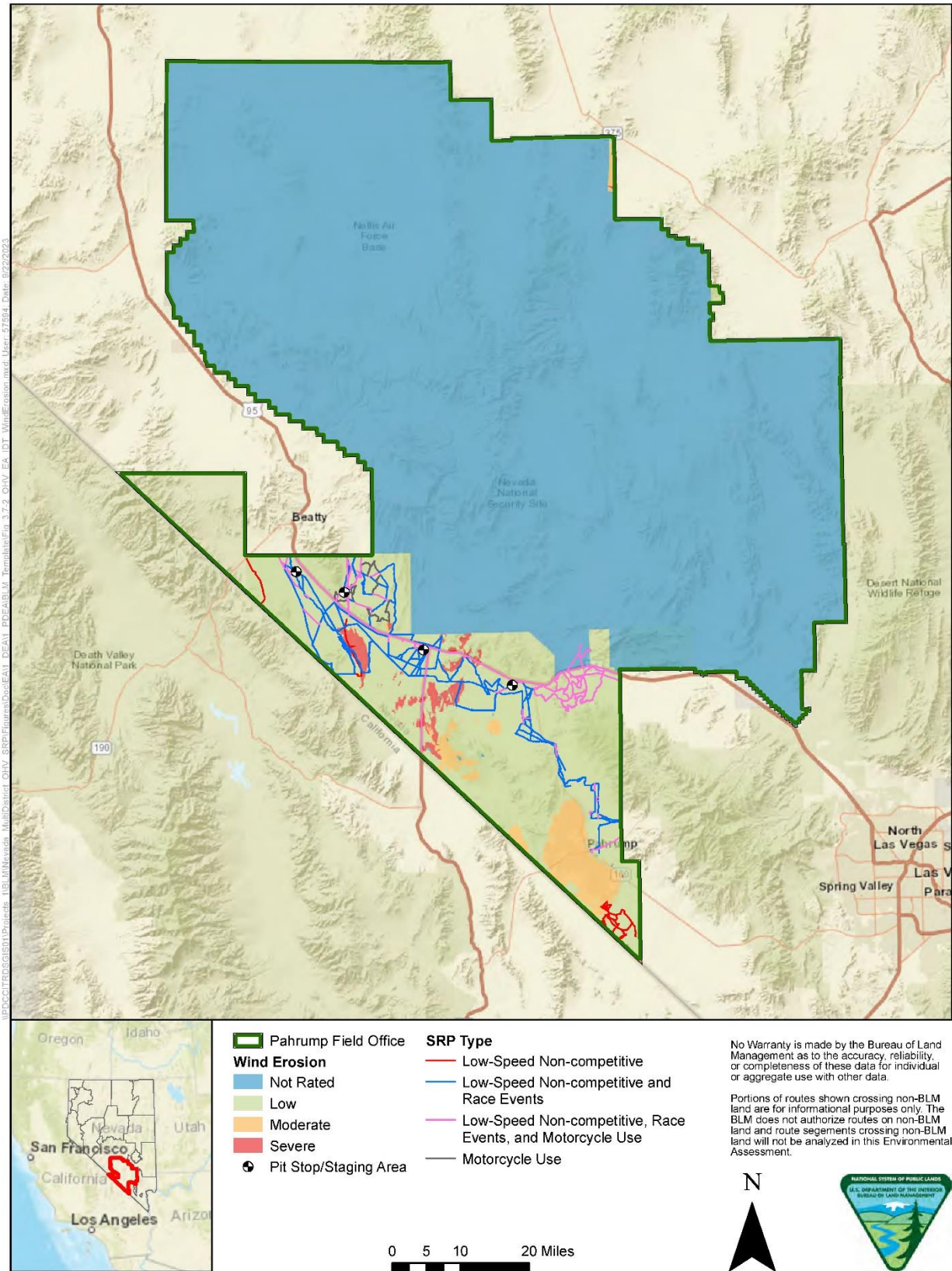


Figure 3.7-4 Pahrump Field Office Wind Erodibility

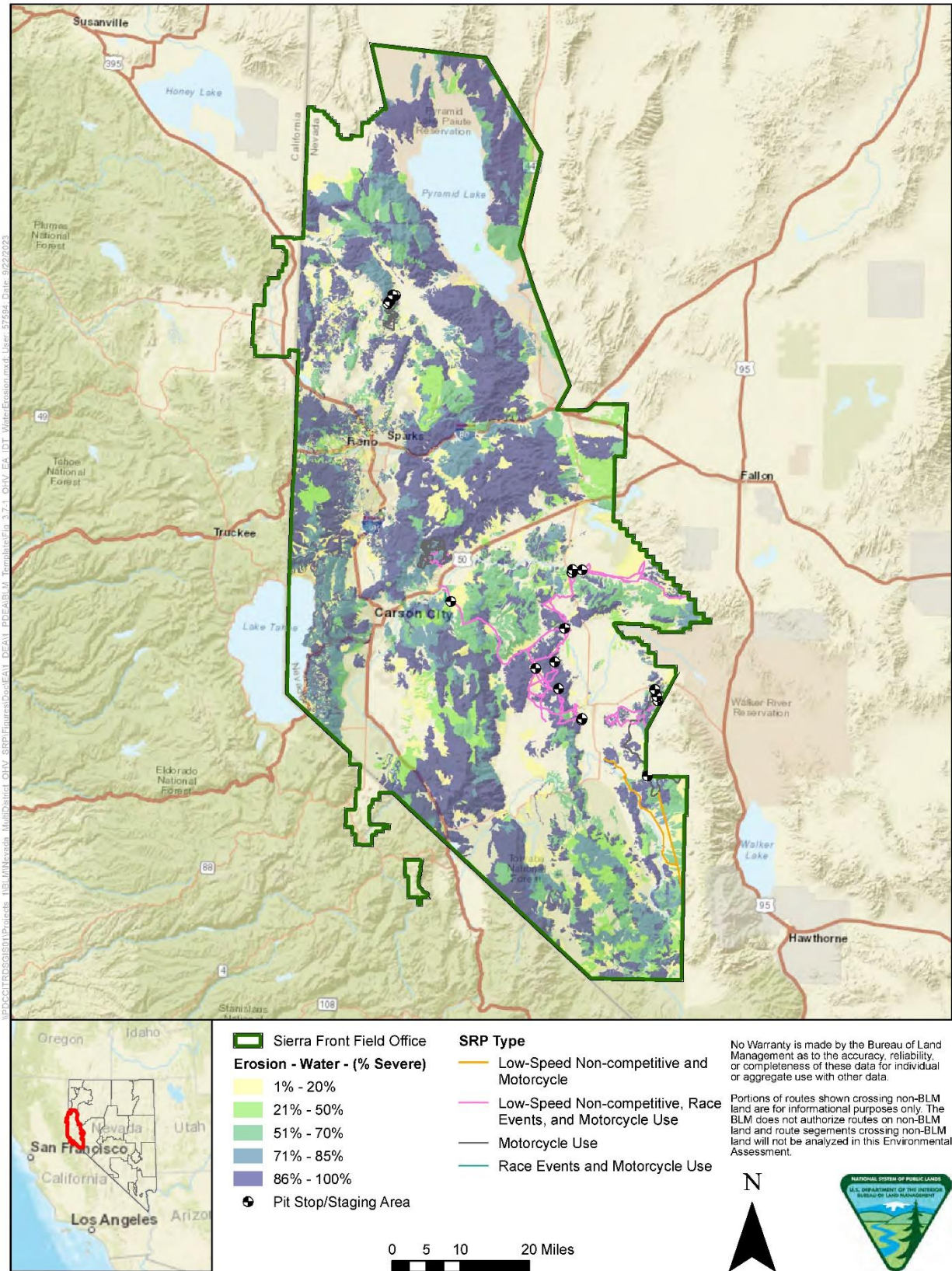


Figure 3.7-5 Sierra Front Field Office Water Erodibility

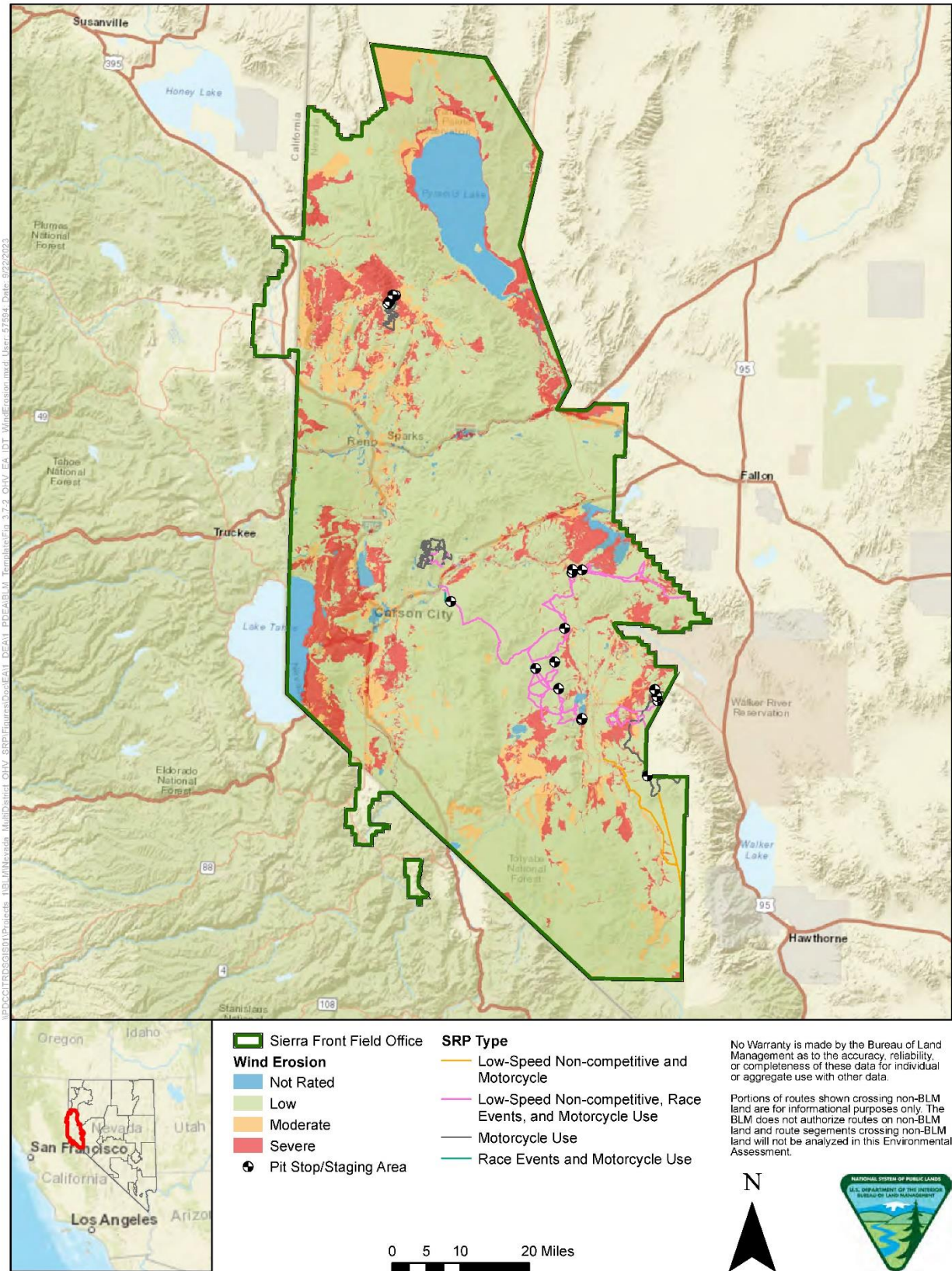


Figure 3.7-6 Sierra Front Field Office Wind Erodibility

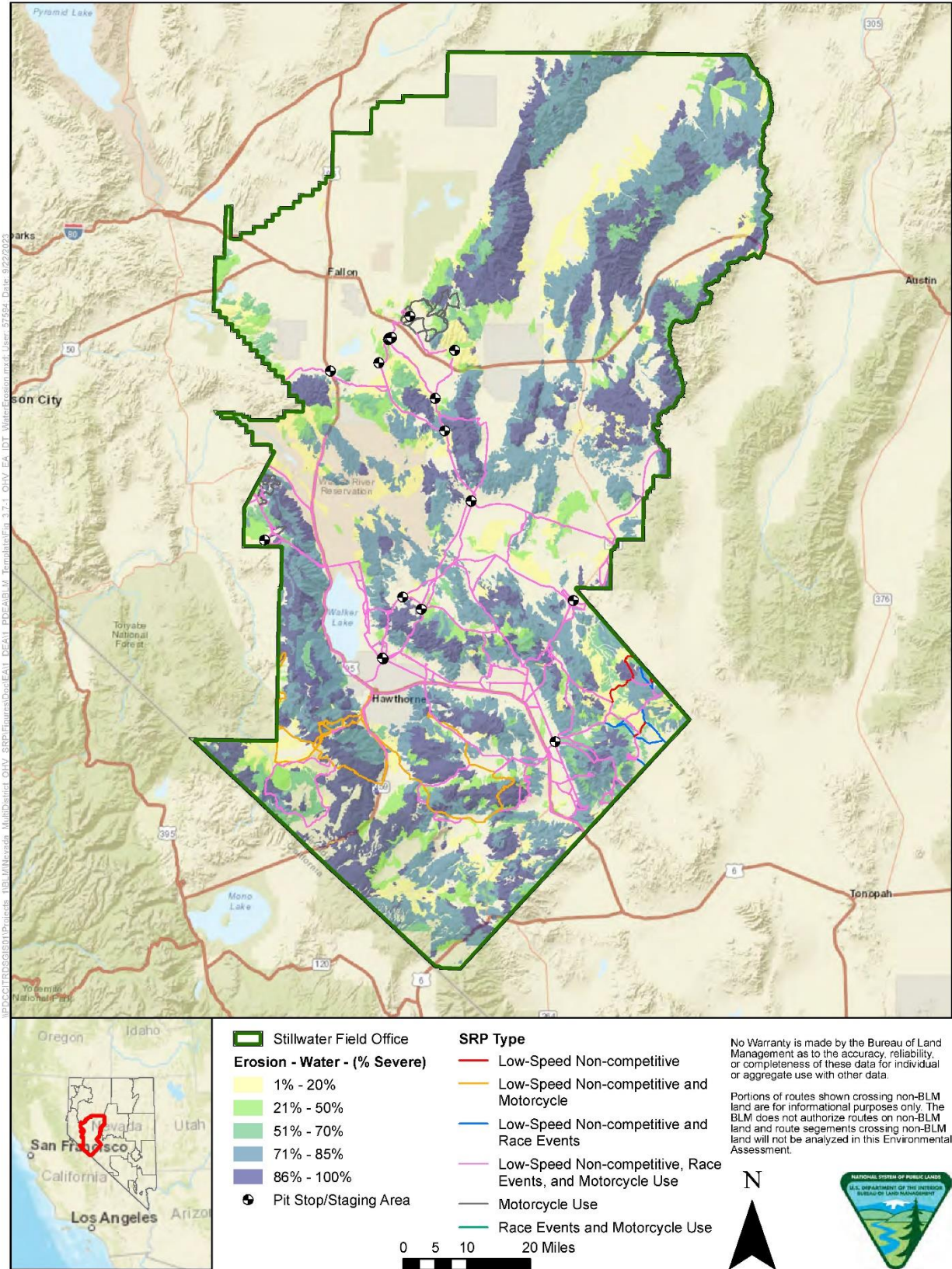


Figure 3.7-7 Stillwater Field Office Water Erodibility

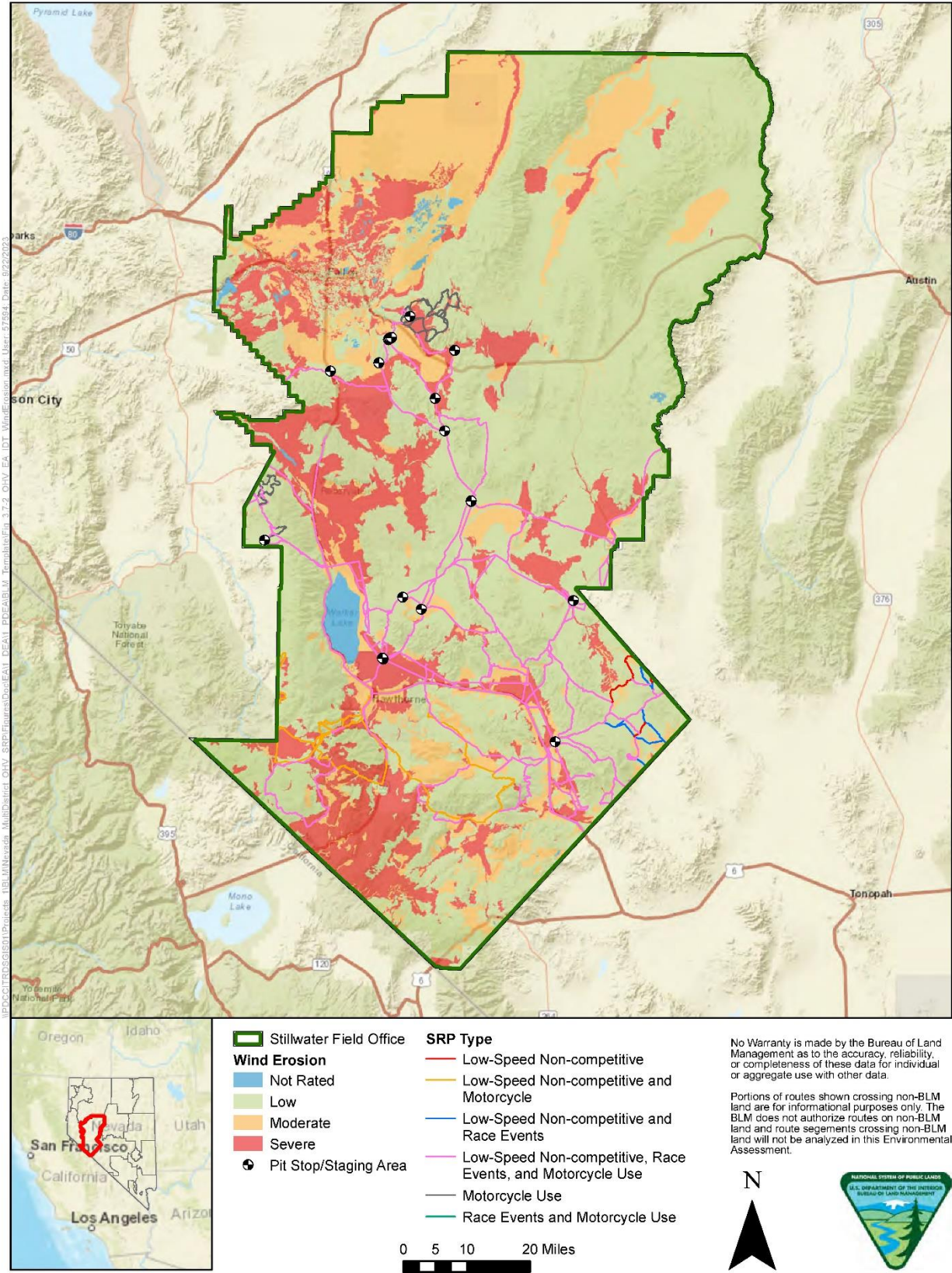


Figure 3.7-8 Stillwater Field Office Wind Erodibility

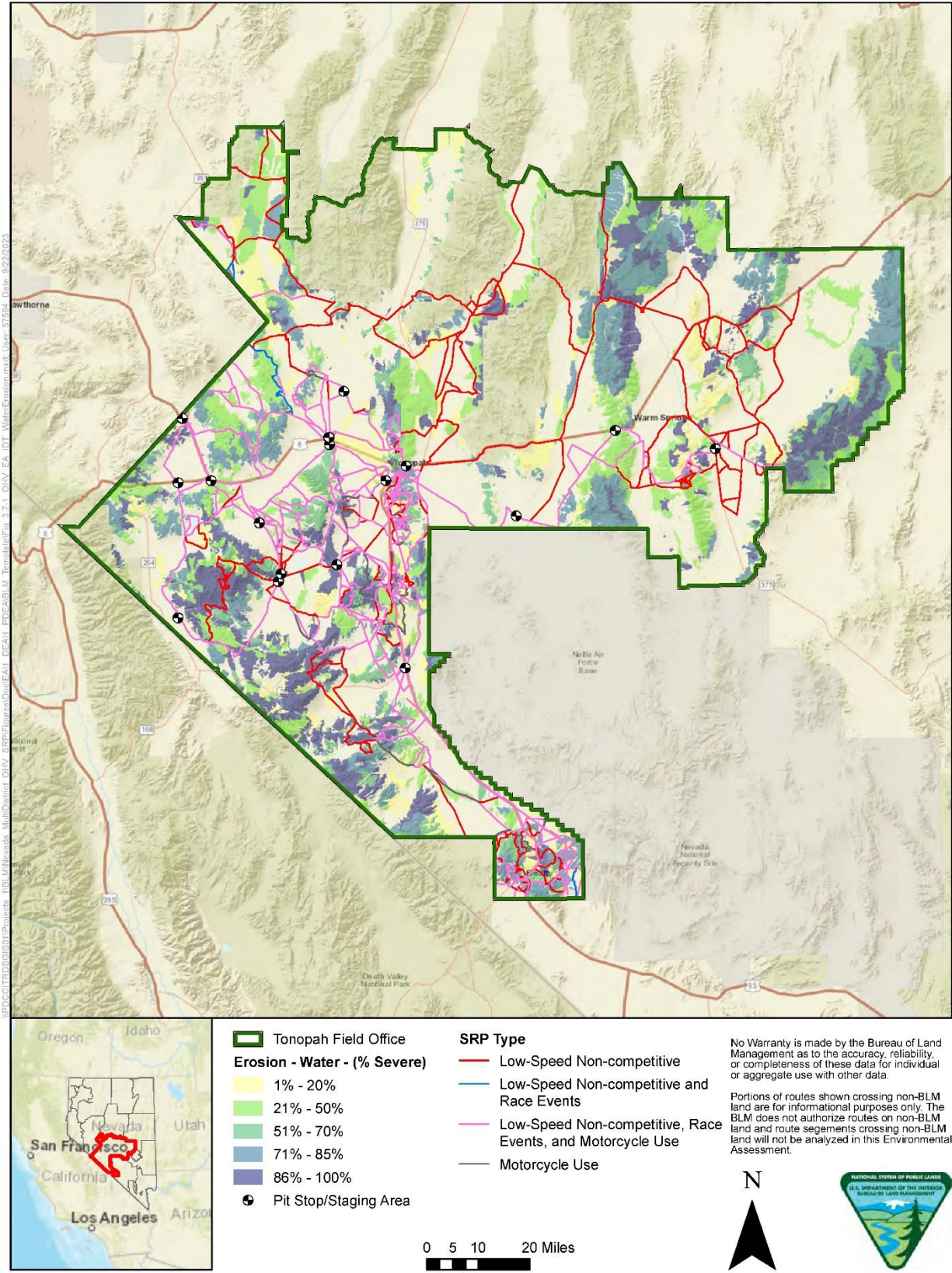


Figure 3.7-9 Tonopah Field Office Water Erodibility

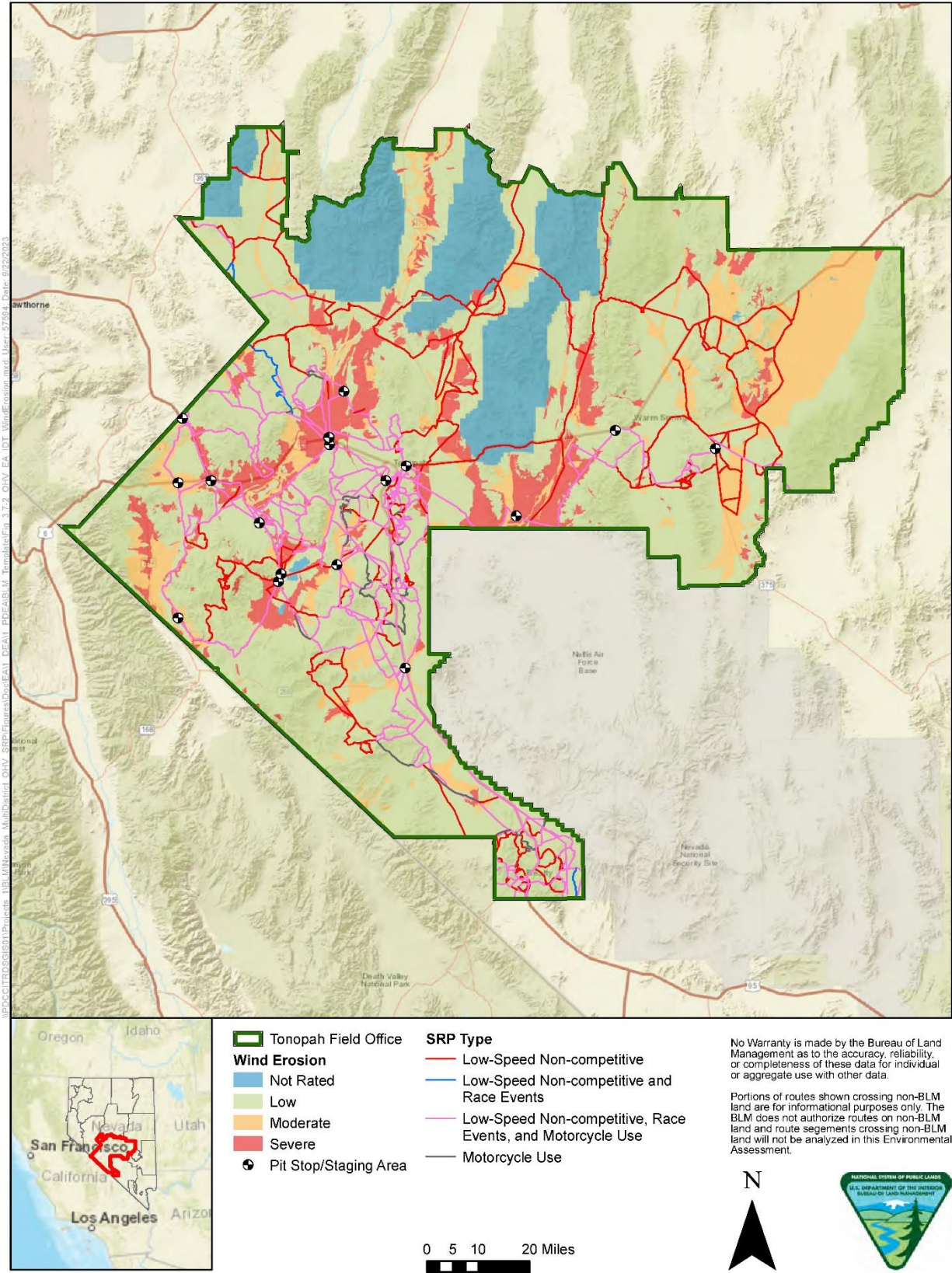


Figure 3.7-10 Tonopah Field Office Wind Erodibility

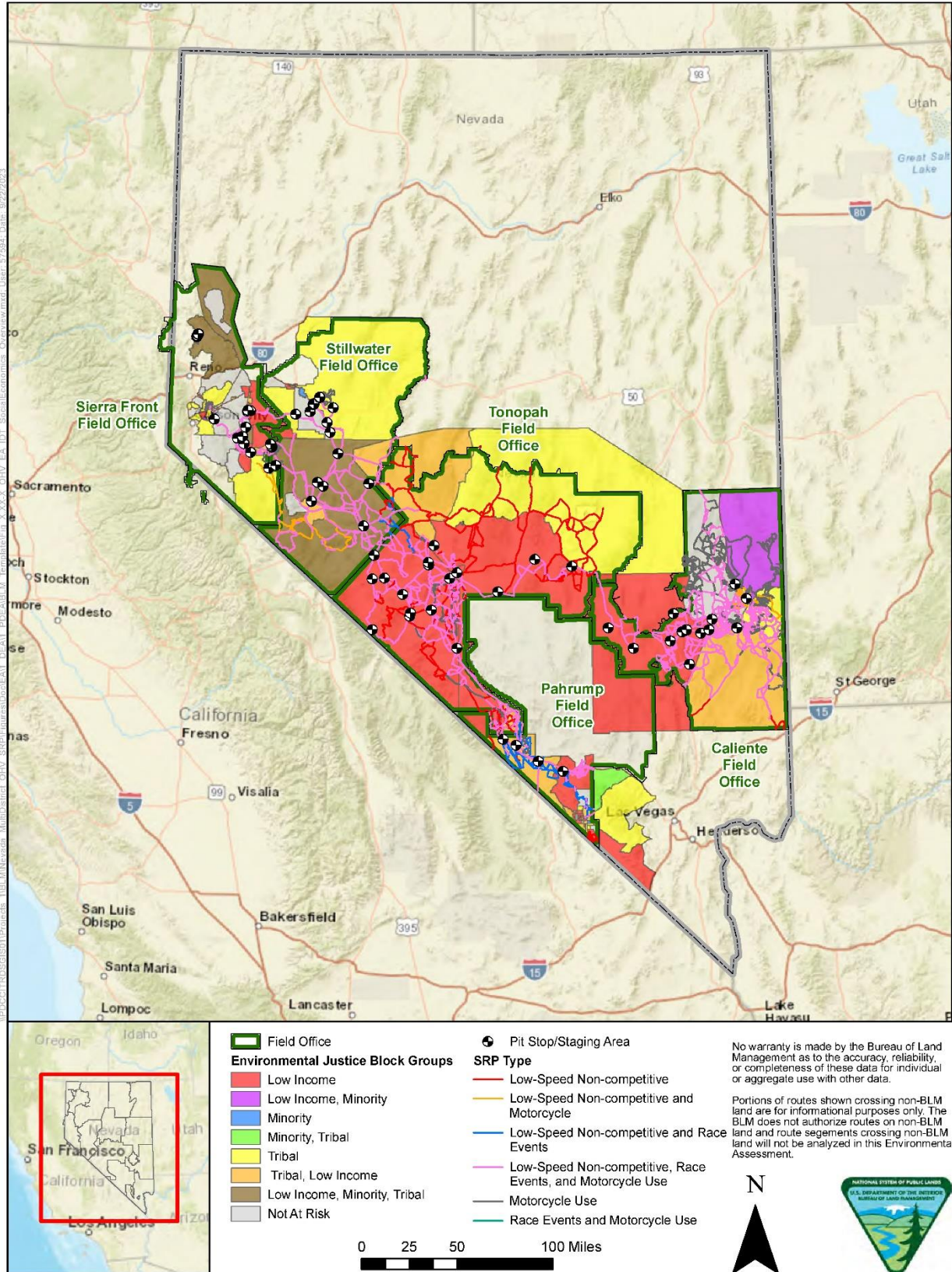


Figure 3.9-1 Environmental Justice Area Block Groups

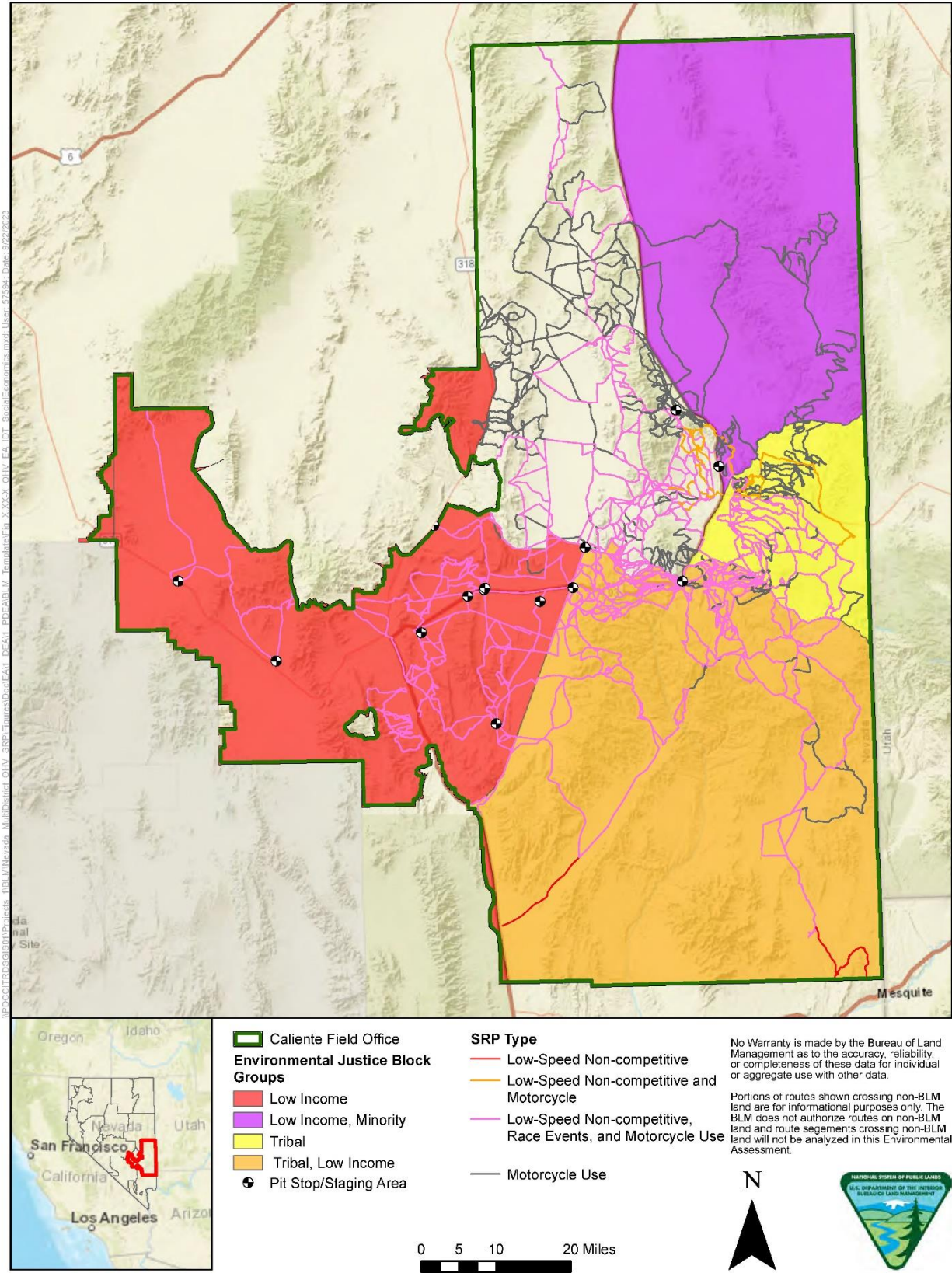


Figure 3.9-2 Environmental Justice Communities: Caliente Field Office

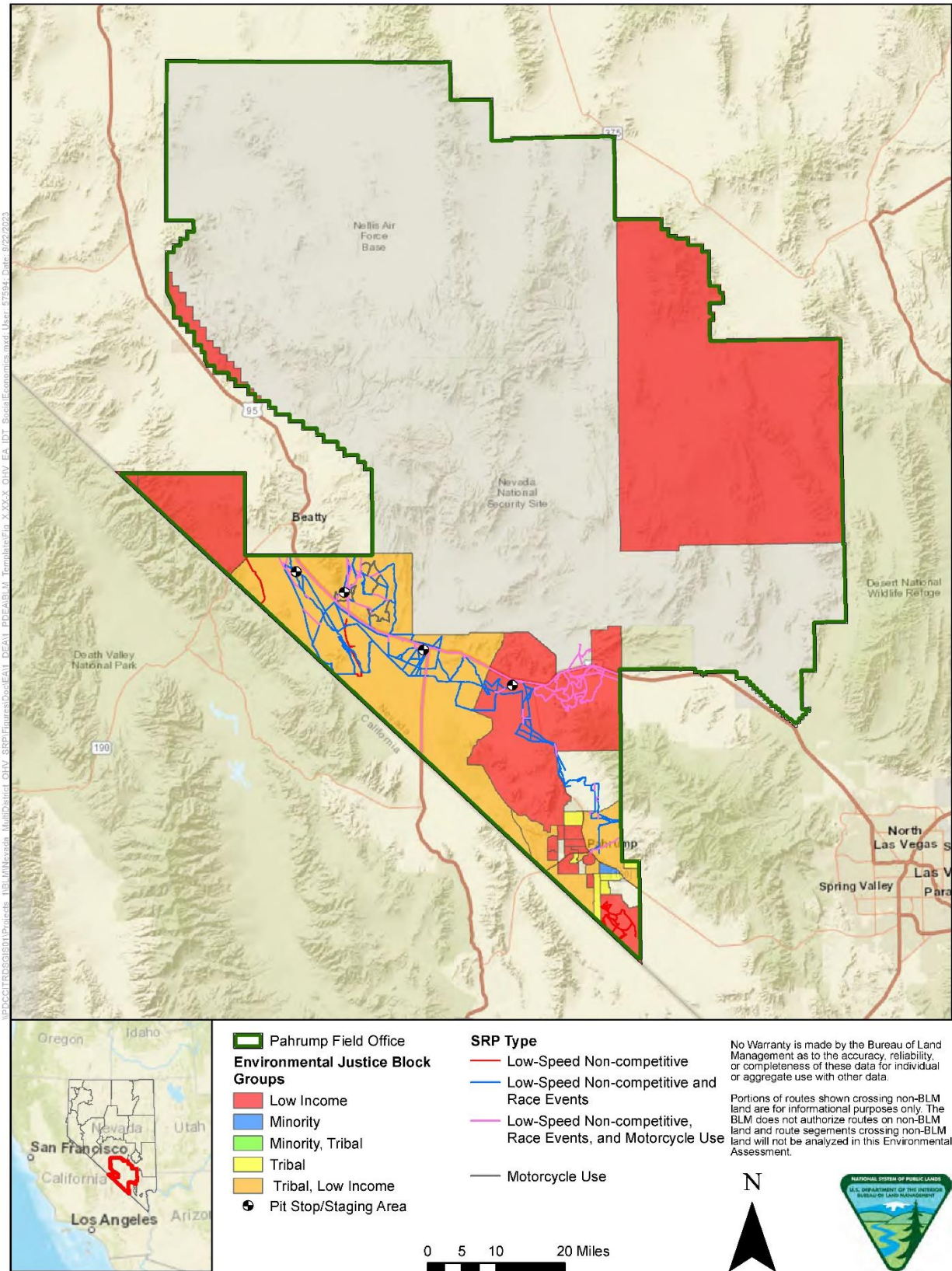


Figure 3.9-3 Environmental Justice Communities: Pahrump Field Office

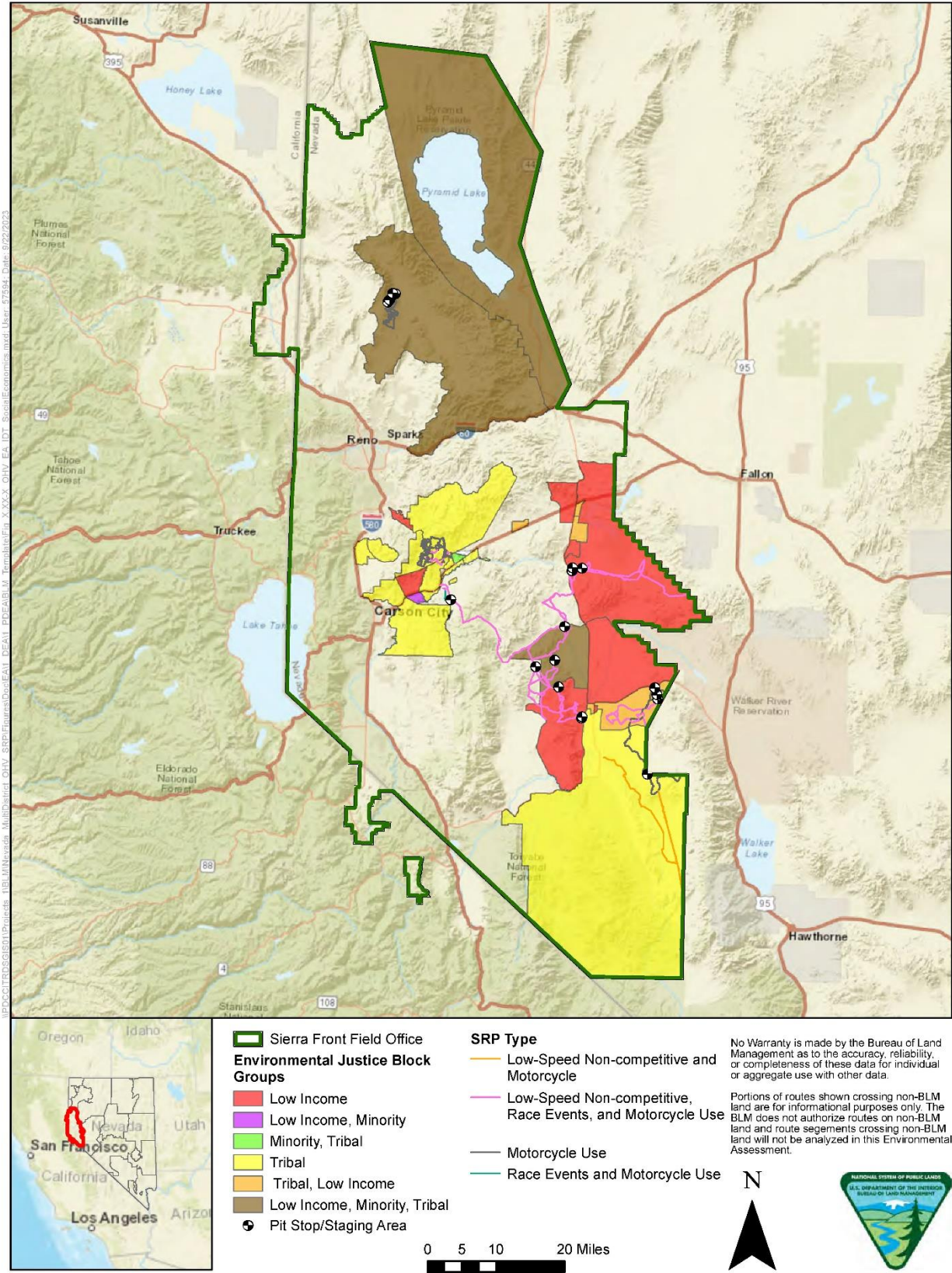


Figure 3.9-4 Environmental Justice Communities: Sierra Front Field Office

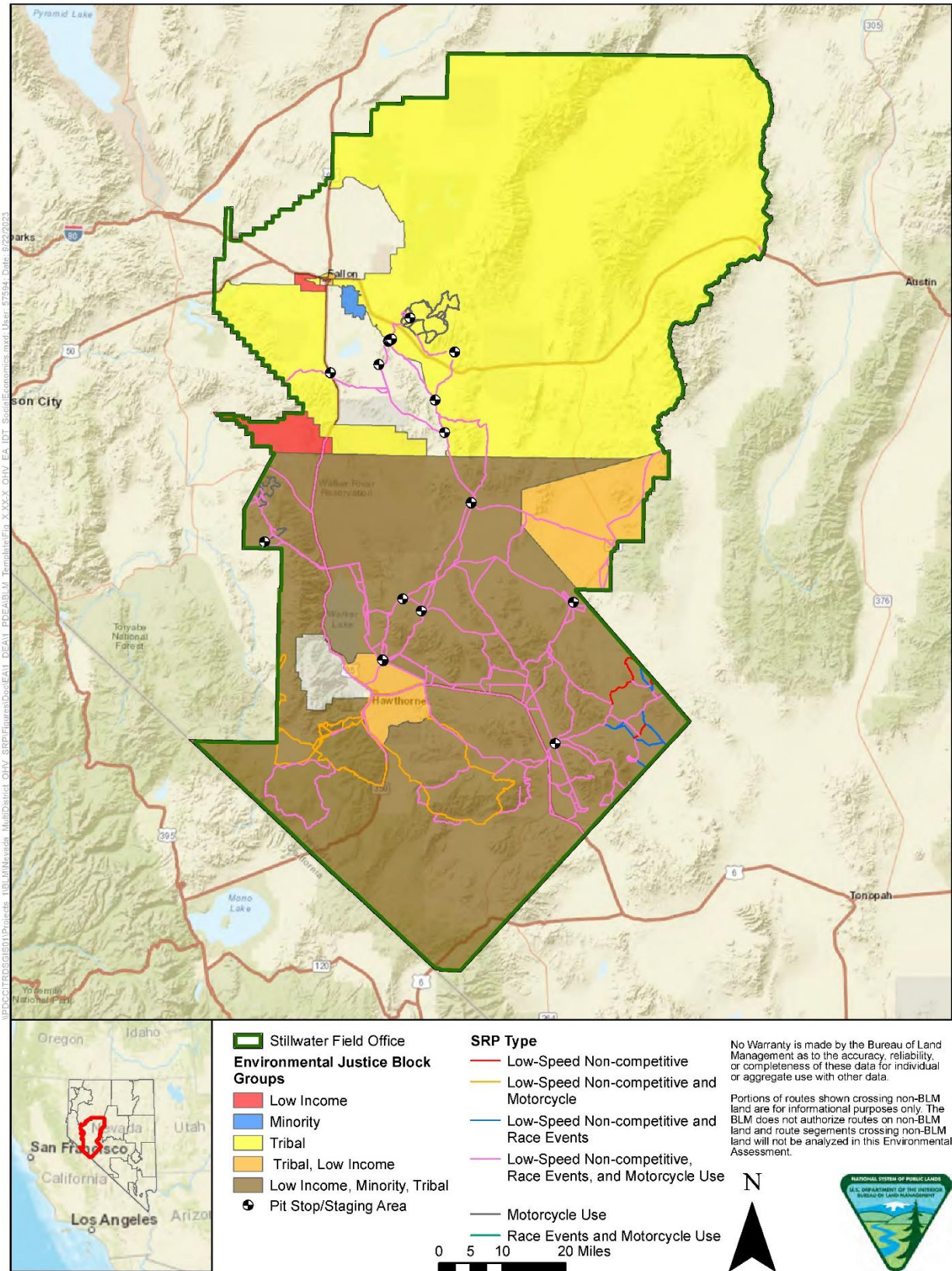


Figure 3.9-5 Environmental Justice Communities: Stillwater Field Office

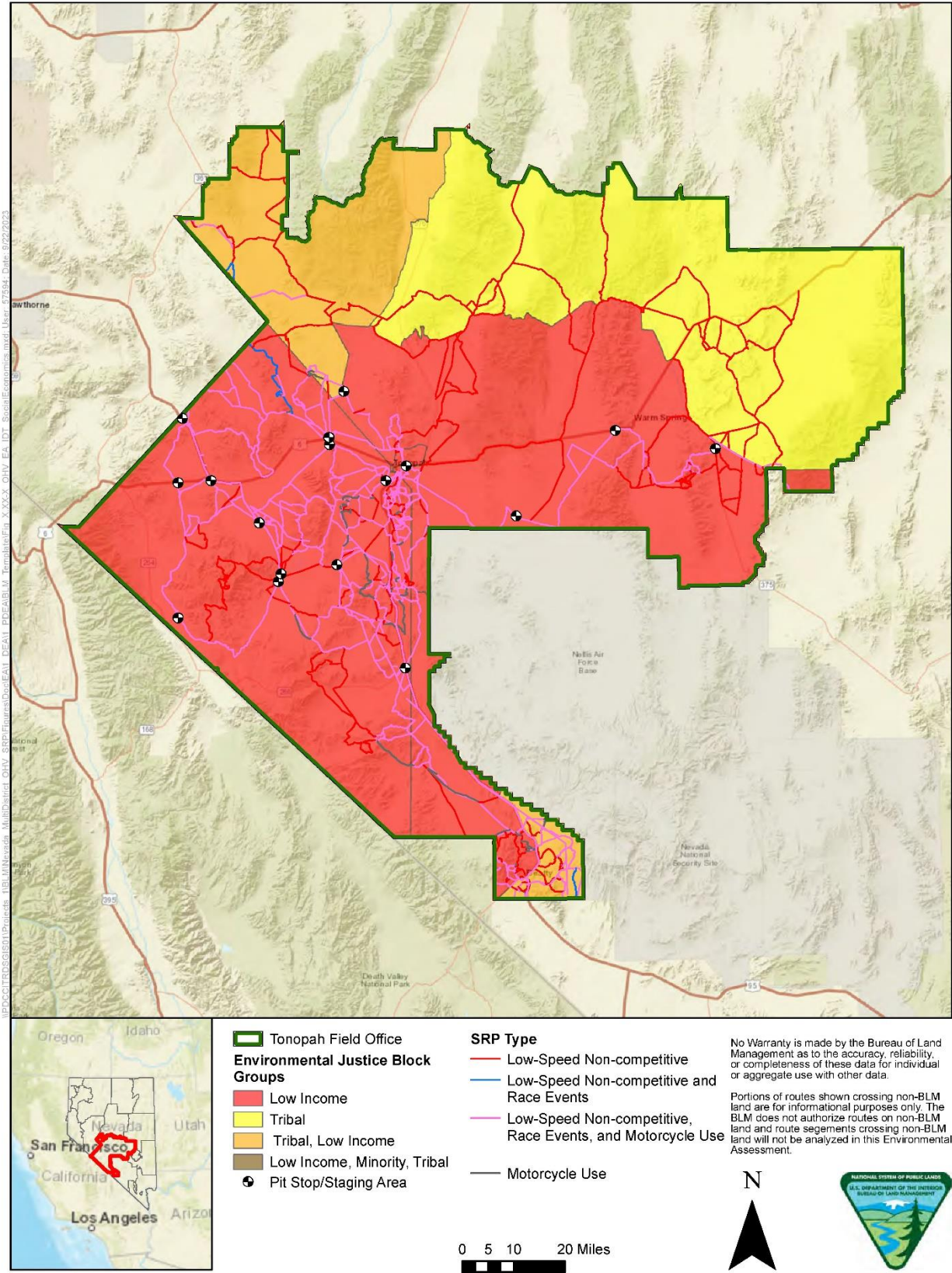


Figure 3.9-6 Environmental Justice Communities: Tonopah Field Office

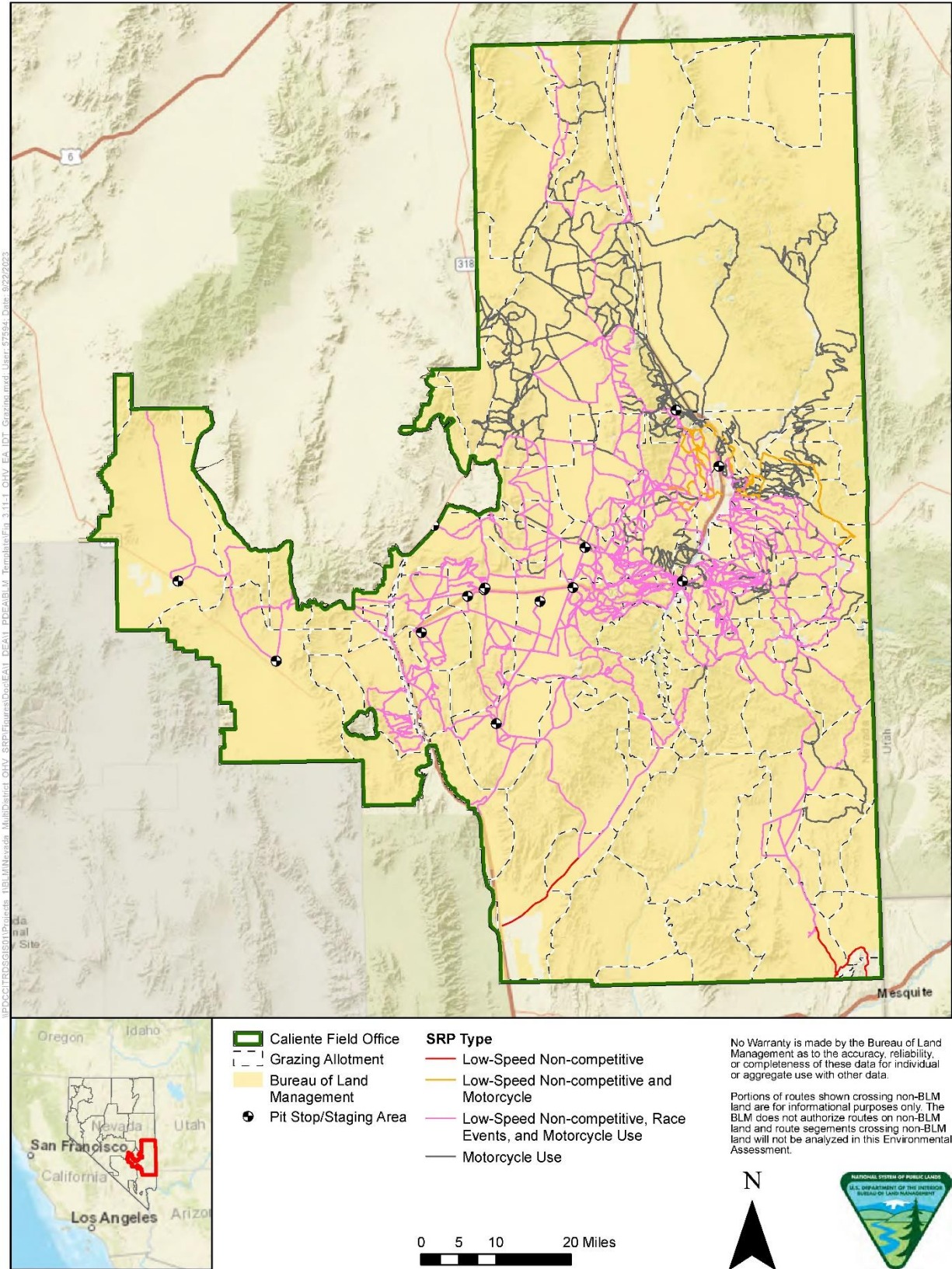


Figure 3.11-1 Caliente Field Office Grazing Allotments

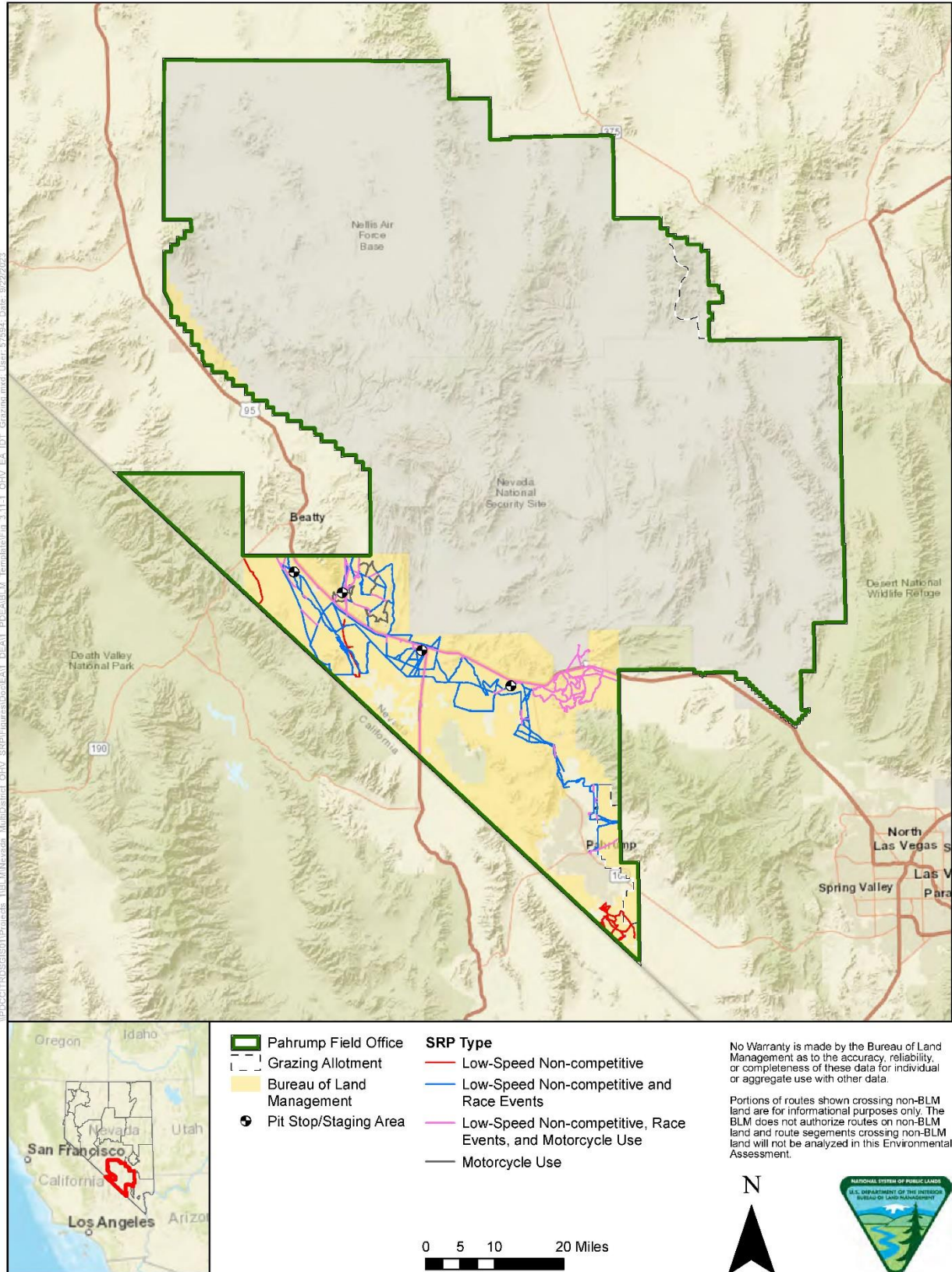


Figure 3.11-2 Pahrump Field Office Grazing Allotments

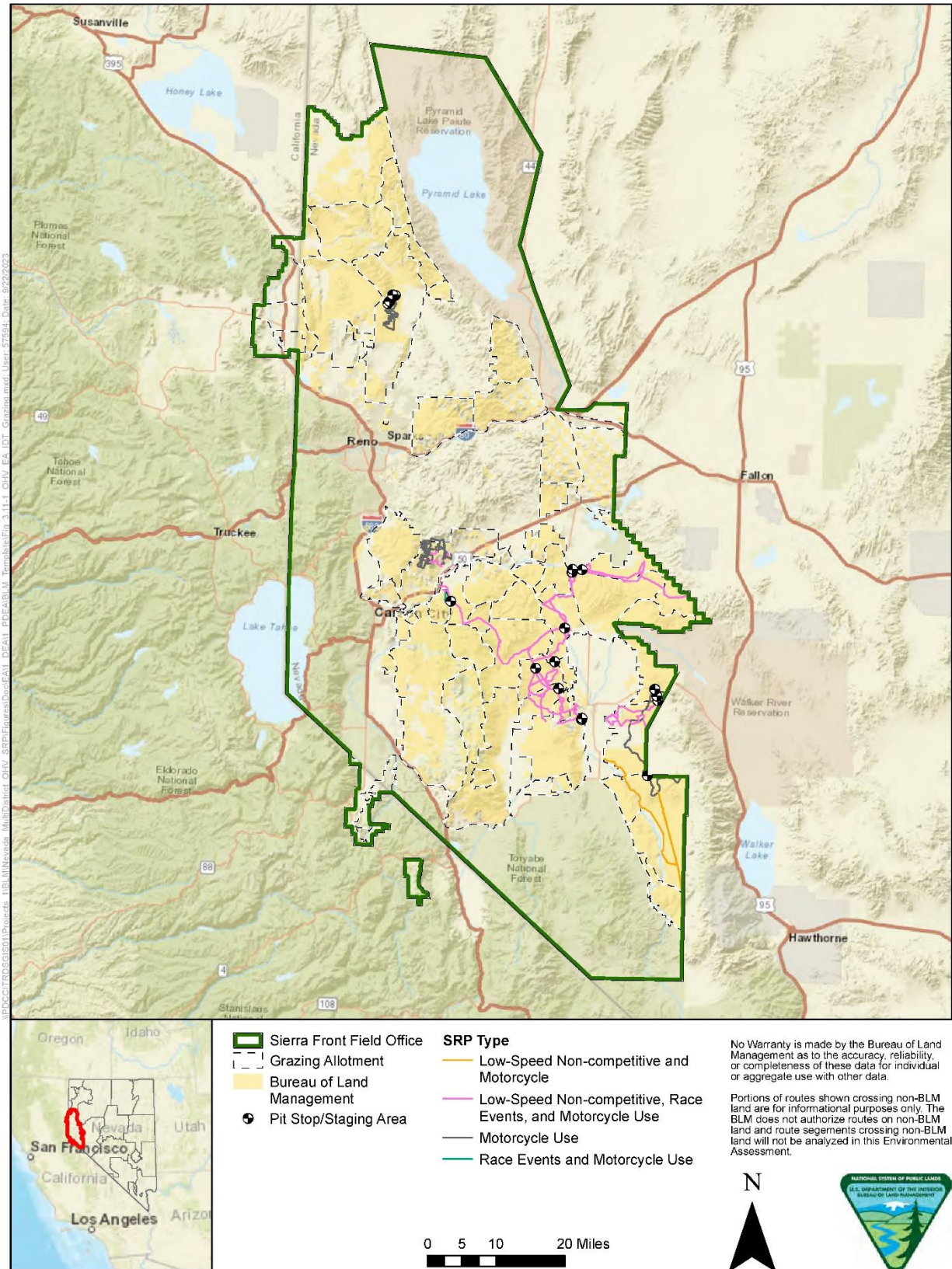


Figure 3.11-3 Sierra Front Field Office Grazing Allotments

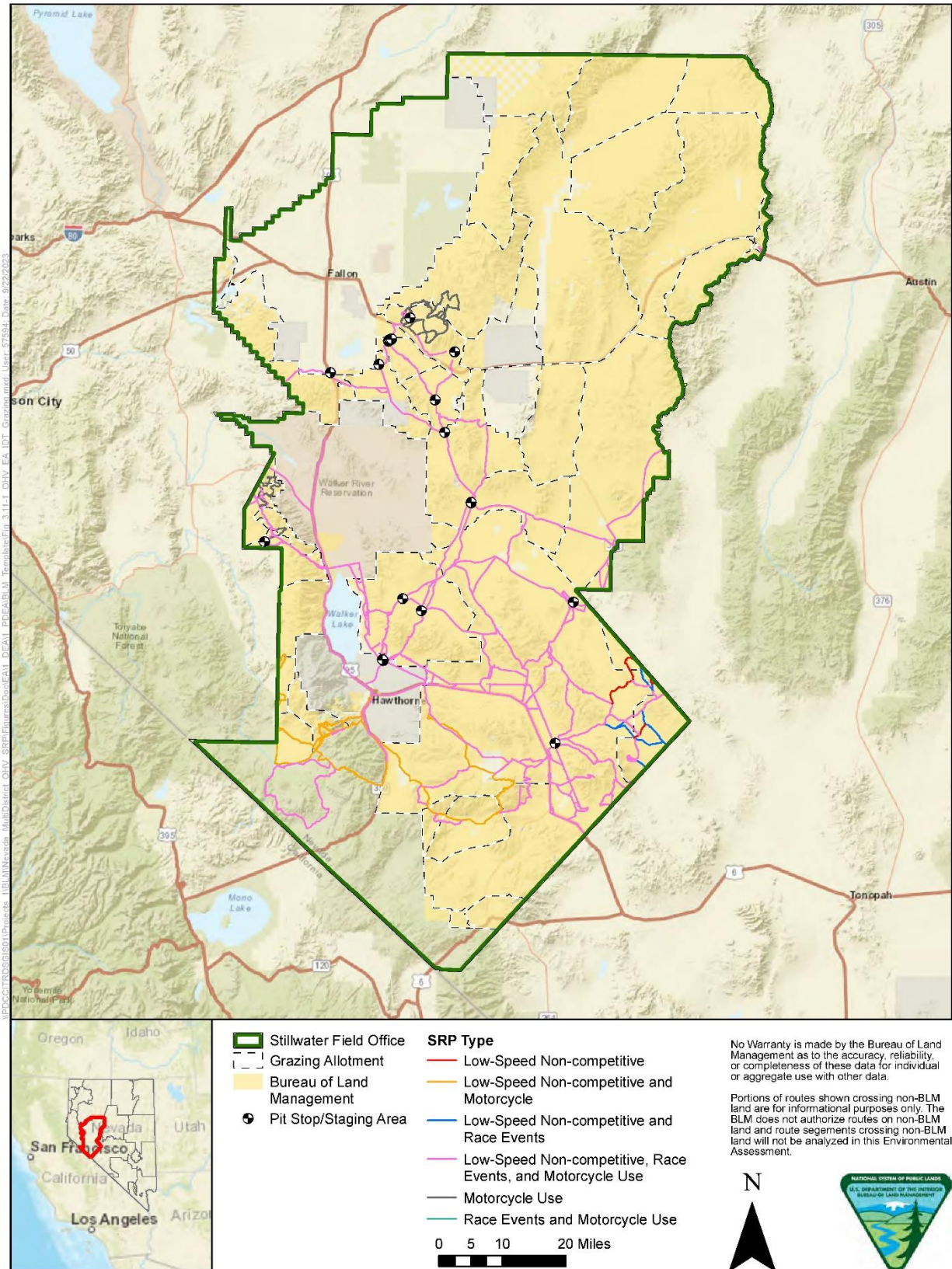


Figure 3.11-4 Stillwater Field Office Grazing Allotments

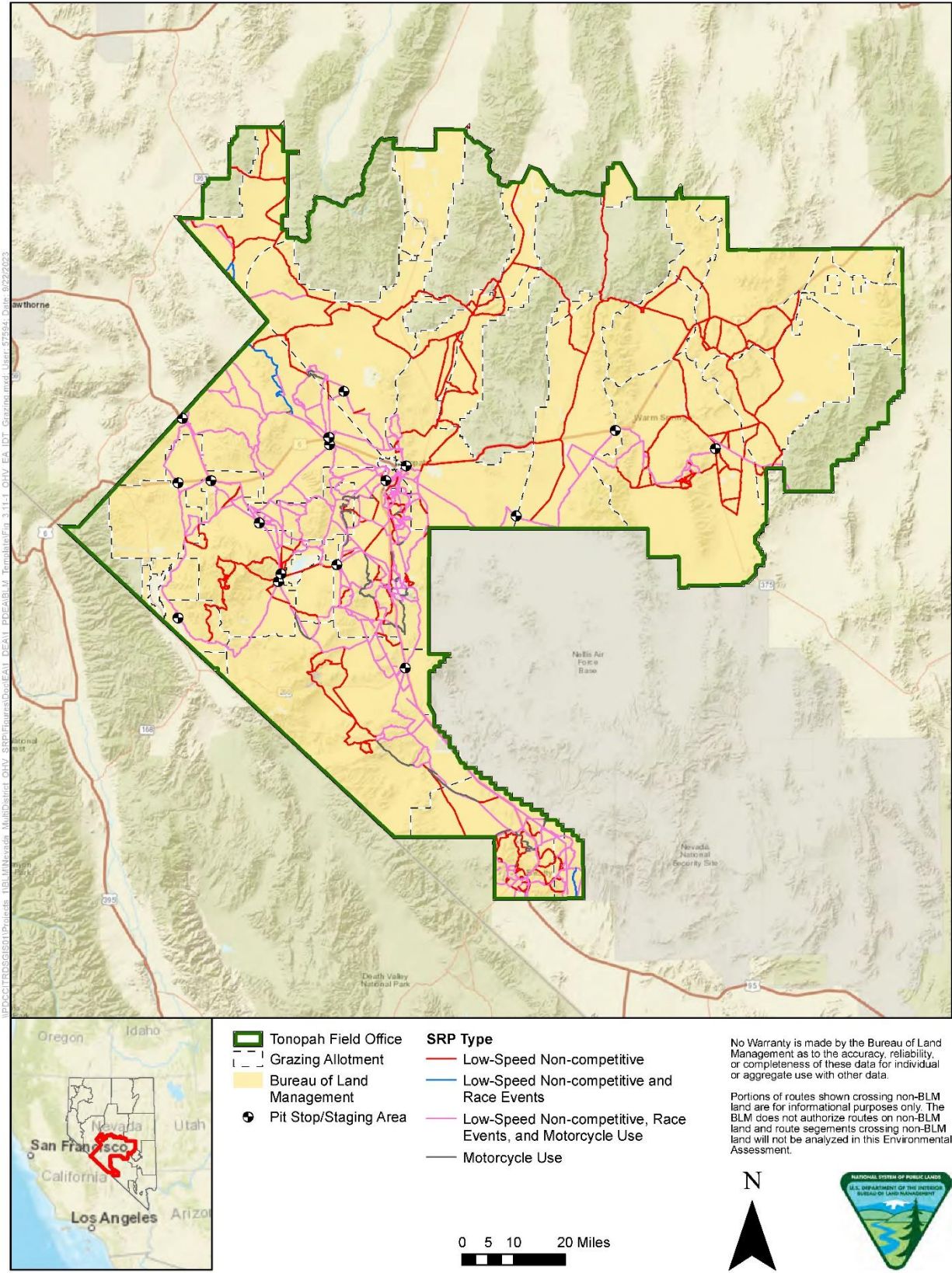


Figure 3.11-5 Tonopah Field Office Grazing Allotments

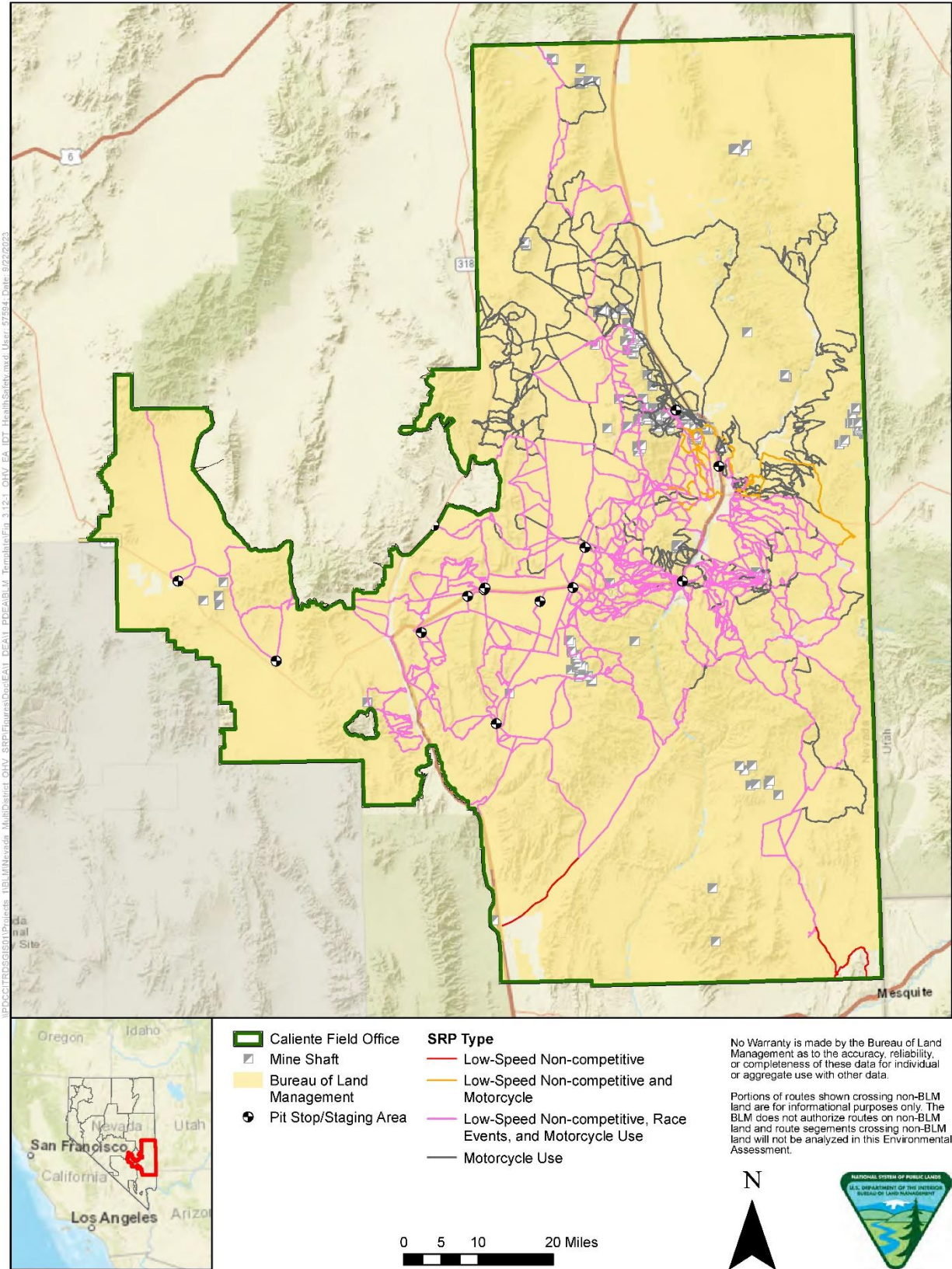


Figure 3.12-1 Caliente Field Office Mine Shafts

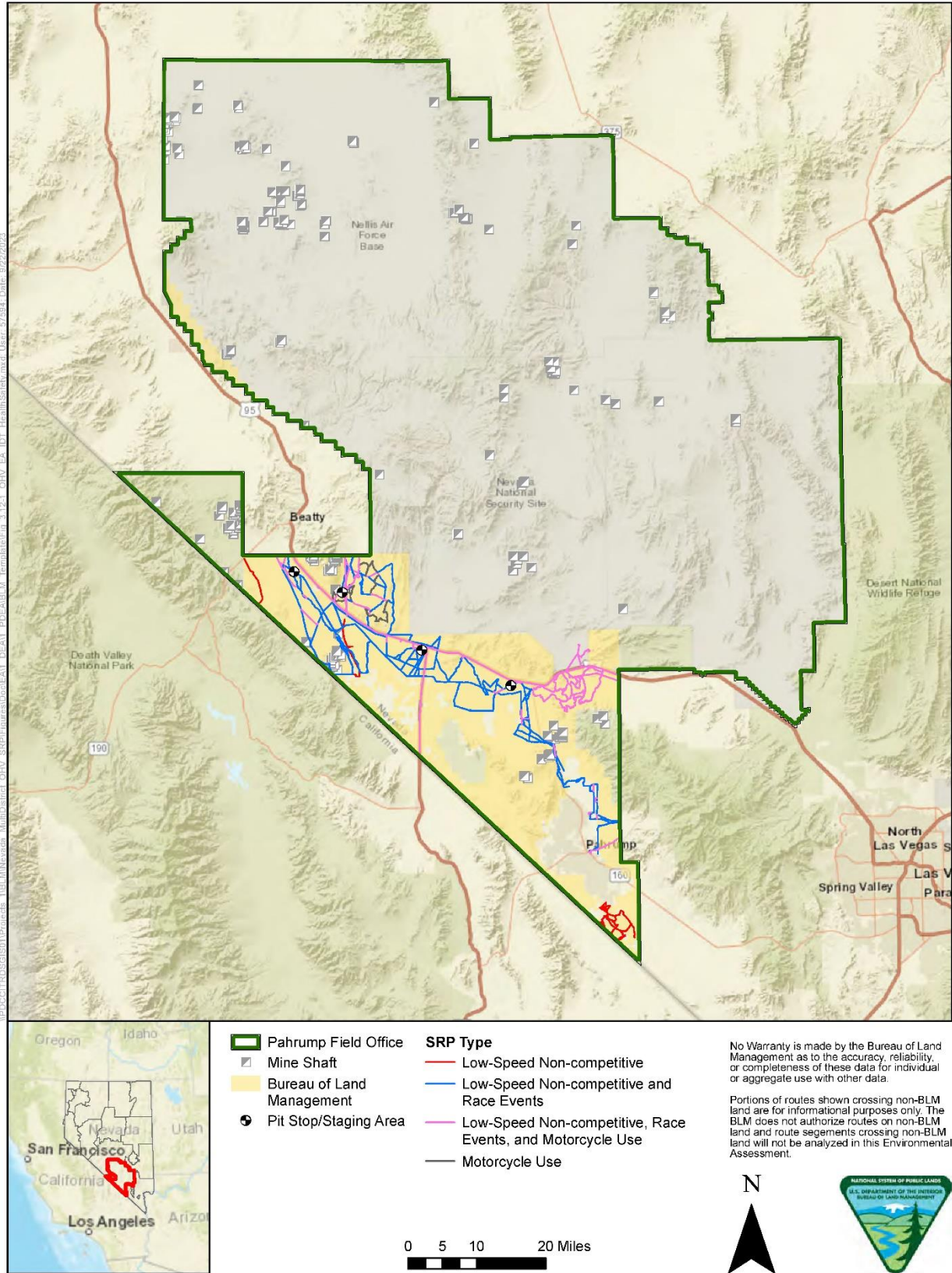


Figure 3.12-2 Pahrump Field Office Mine Shafts

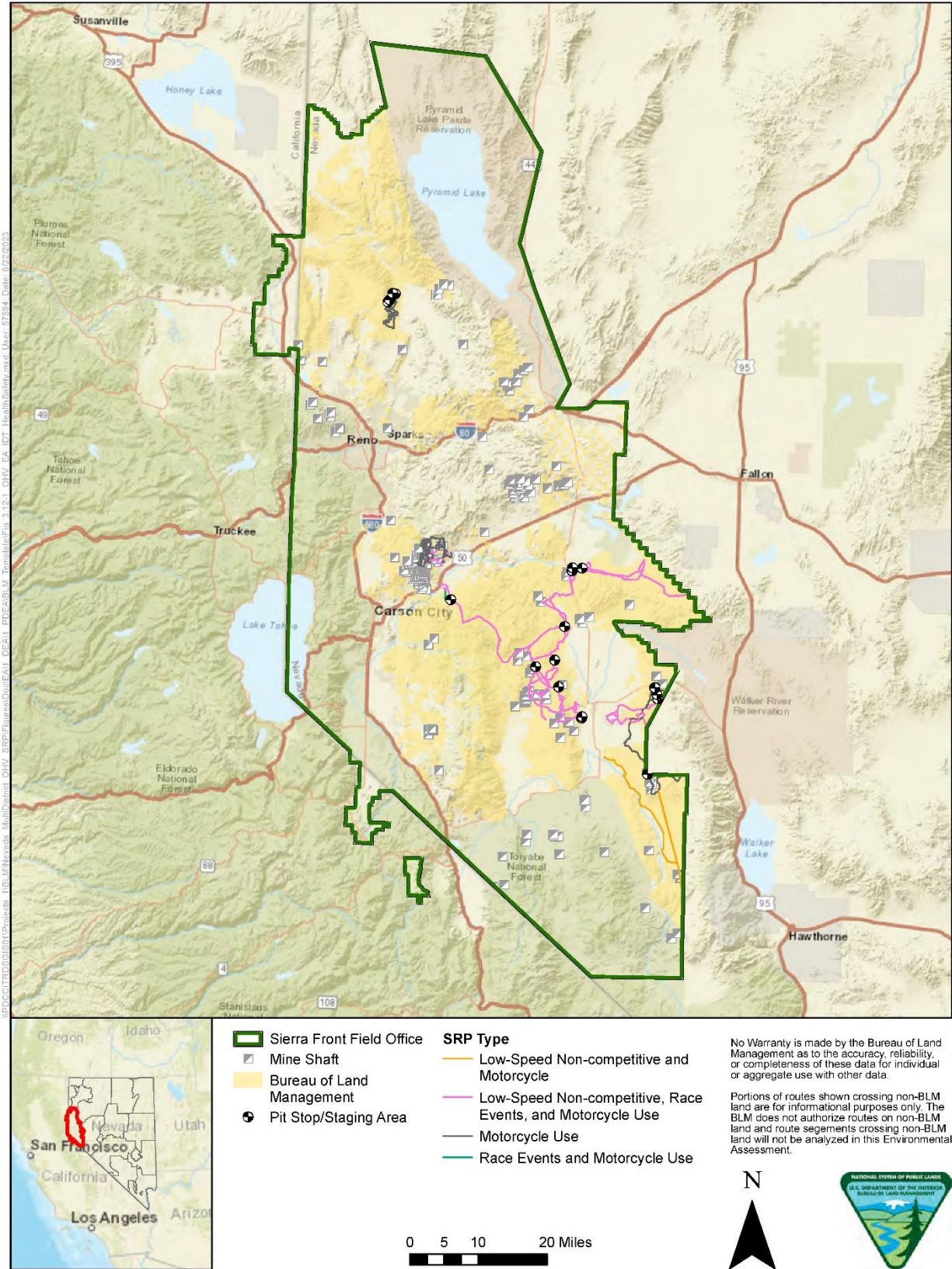


Figure 3.12-3 Sierra Front Field Office Mine Shafts

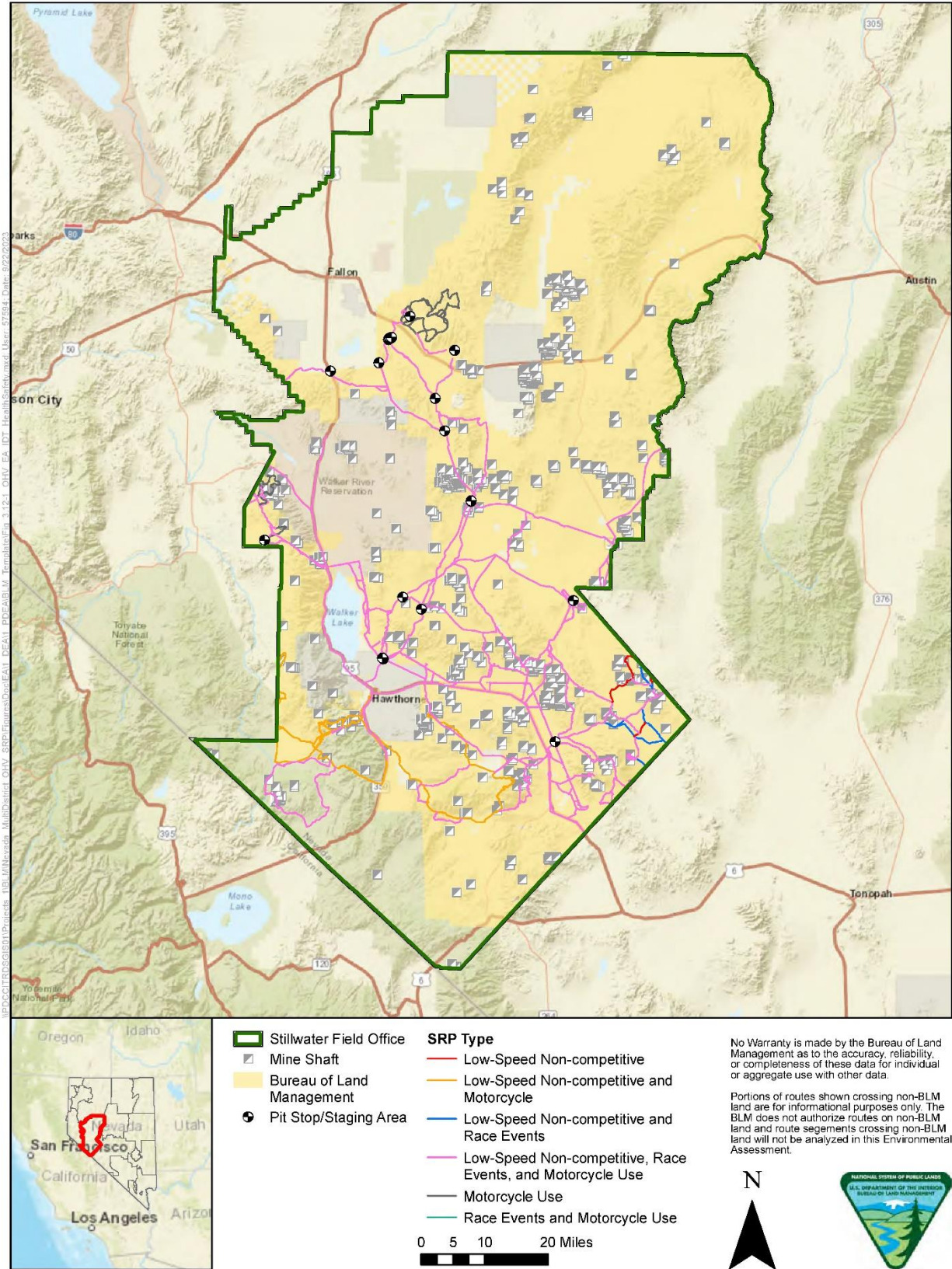


Figure 3.12-4 Stillwater Field Office Mine Shafts

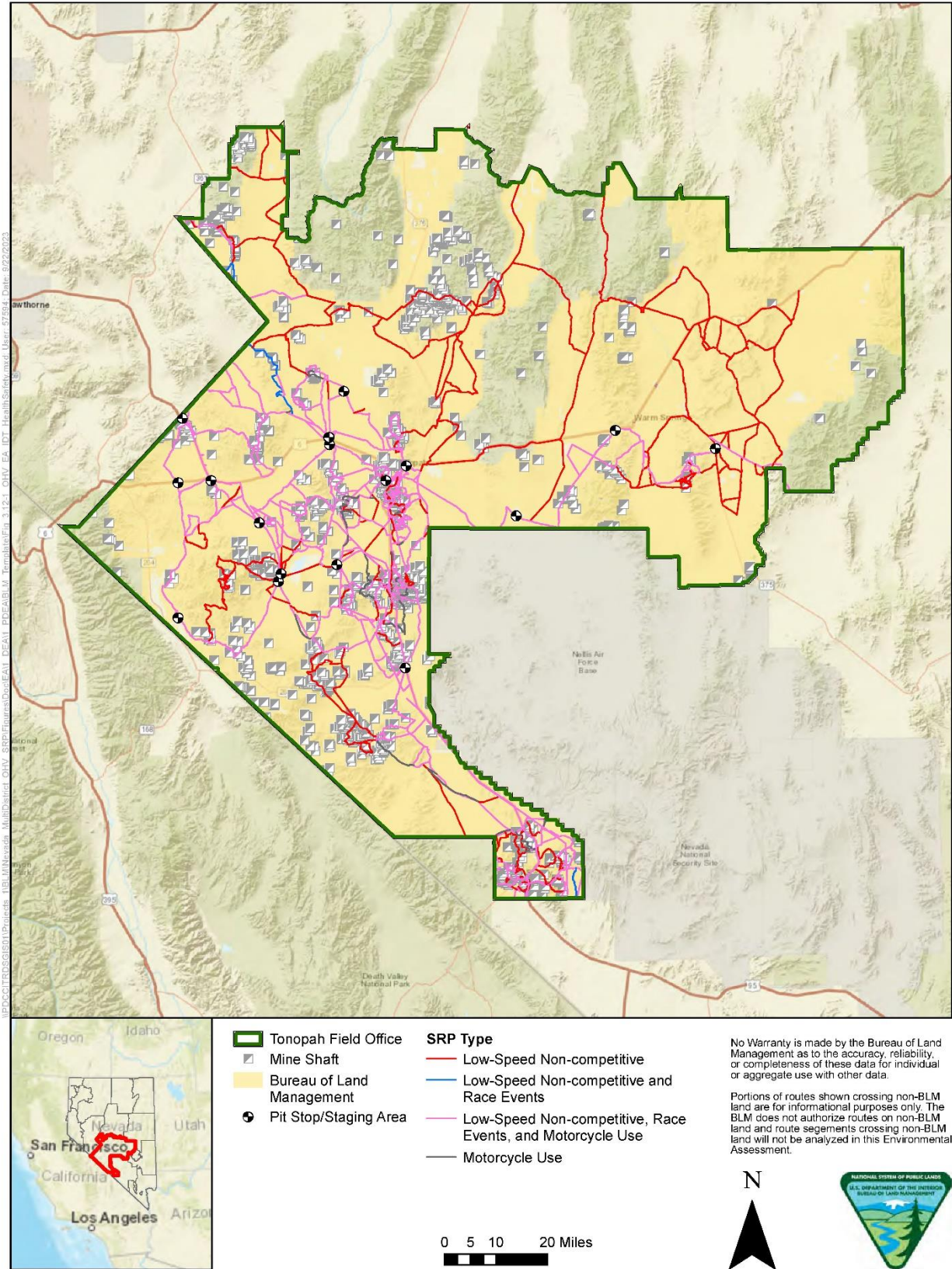


Figure 3.12-5 Tonopah Field Office Mine Shafts

Appendix C IPaC Reports by Field Office

Caliente Field Office

IPaC

U.S. Fish & Wildlife Service

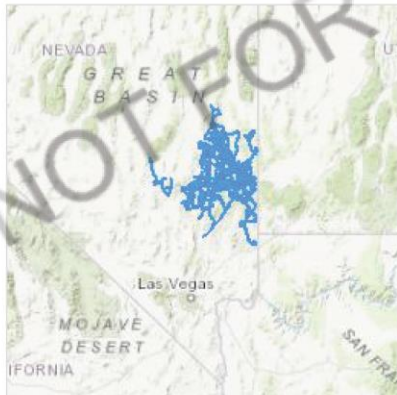
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Nevada



Local offices

Southern Nevada Fish And Wildlife Office

☎ (702) 515-5230

📅 (702) 515-5231

4701 N Torrey Pines Drive

1701 N. Torrey Pines Drive
Las Vegas, NV 89130-2301

Reno Fish And Wildlife Office

☎ (775) 861-6300

📠 (775) 861-6301

1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
<p>California Condor <i>Gymnogyps californianus</i></p> <p>There is proposed critical habitat for this species. https://ecos.fws.gov/ecp/species/8193</p>	EXPN
<p>Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6749</p>	Endangered
<p>Yellow-billed Cuckoo <i>Coccyzus americanus</i></p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911</p>	Threatened
<p>Yuma Ridgway's Rail <i>Rallus obsoletus yumanensis</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3505</p>	Endangered

Reptiles

NAME	STATUS
<p>Desert Tortoise <i>Gopherus agassizii</i></p> <p>There is final critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/4481</p>	Threatened

Fishes

NAME	STATUS
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Big Spring Spinedace <i>Lepidomeda mollispinis pratensis</i>	Threatened
Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5397	
Hiko White River Springfish <i>Crenichthys baileyi grandis</i>	Endangered
Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7004	
Moapa Dace <i>Moapa coriacea</i>	Endangered
Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1771	
Pahranagat Roundtail Chub <i>Gila robusta jordani</i>	Endangered
Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/782	
Pahrump Poolfish <i>Empetrichthys latos</i>	Endangered
Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7281	
White River Spinedace <i>Lepidomeda albivallis</i>	Endangered
Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6900	
White River Springfish <i>Crenichthys baileyi baileyi</i>	Endangered
Wherever found There is final critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/5633	

Insects

NAME	STATUS
------	--------

Monarch Butterfly <i>Danaus plexippus</i>	Candidate
Wherever found	
No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	

Flowering Plants

NAME	STATUS
Ute Ladies'-tresses <i>Spiranthes diluvialis</i>	Threatened
Wherever found	
No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2159	

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Desert Tortoise <i>Gopherus agassizii</i>	Final
https://ecos.fws.gov/ecp/species/4481#crithab	
White River Springfish <i>Crenichthys baileyi baileyi</i>	Final
https://ecos.fws.gov/ecp/species/5633#crithab	

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>

- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Oct 15 to Aug 31
<p>Golden Eagle <i>Aquila chrysaetos</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p>https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

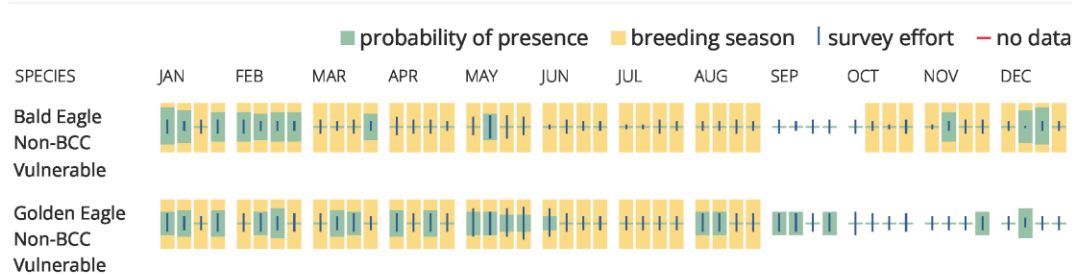
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p>American White Pelican <i>pelecanus erythrorhynchos</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6886</p>	Breeds Apr 1 to Aug 31
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Oct 15 to Aug 31
<p>Bendire's Thrasher <i>Toxostoma bendirei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9435</p>	Breeds Mar 15 to Jul 31

<p>Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093</p>	Breeds May 15 to Aug 20
<p>Black-chinned Sparrow <i>Spizella atrogularis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447</p>	Breeds Apr 15 to Jul 31
<p>California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 1 to Jul 31
<p>Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462</p>	Breeds May 15 to Jul 15
<p>Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Jun 1 to Aug 31
<p>Costa's Hummingbird <i>Calypte costae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470</p>	Breeds Jan 15 to Jun 10
<p>Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 15 to Aug 10
<p>Franklin's Gull <i>Leucophaeus pipixcan</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 1 to Jul 31
<p>Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31

<p>Grace's Warbler <i>Dendroica graciae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds May 20 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481</p>	Breeds elsewhere
<p>Mountain Plover <i>Charadrius montanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3638</p>	Breeds elsewhere
<p>Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914</p>	Breeds May 20 to Aug 31
<p>Pinyon Jay <i>Gymnorhinus cyanocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420</p>	Breeds Feb 15 to Jul 15
<p>Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002</p>	Breeds Apr 15 to Jul 15
<p>Rufous-winged Sparrow <i>Aimophila carpalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Jun 15 to Sep 30

<p>Sage Thrasher <i>Oreoscoptes montanus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9433</p>	<p>Breeds Apr 15 to Aug 10</p>
<p>Virginia's Warbler <i>Vermivora virginiae</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9441</p>	<p>Breeds May 1 to Jul 31</p>
<p>Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743</p>	<p>Breeds Jun 1 to Aug 31</p>
<p>Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	<p>Breeds Apr 20 to Aug 5</p>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum

probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

- The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

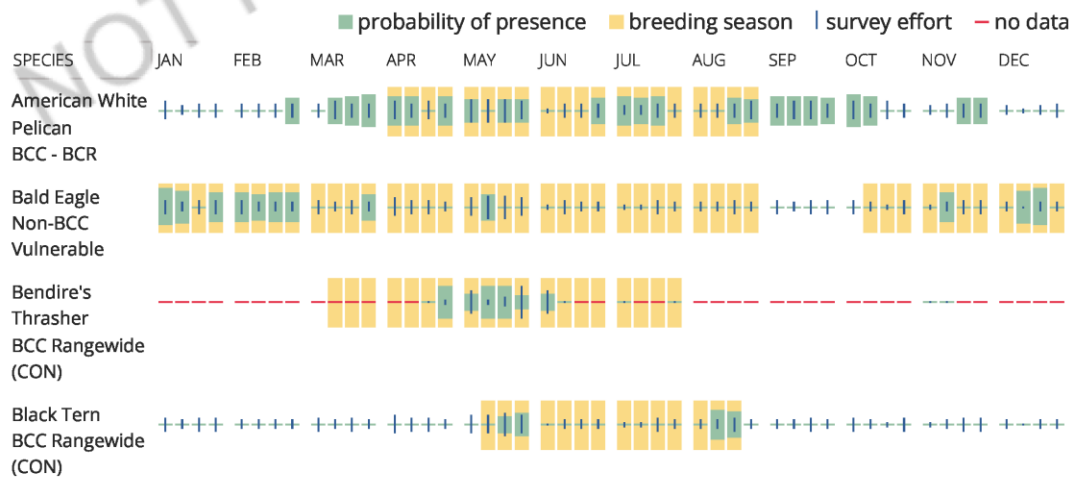
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

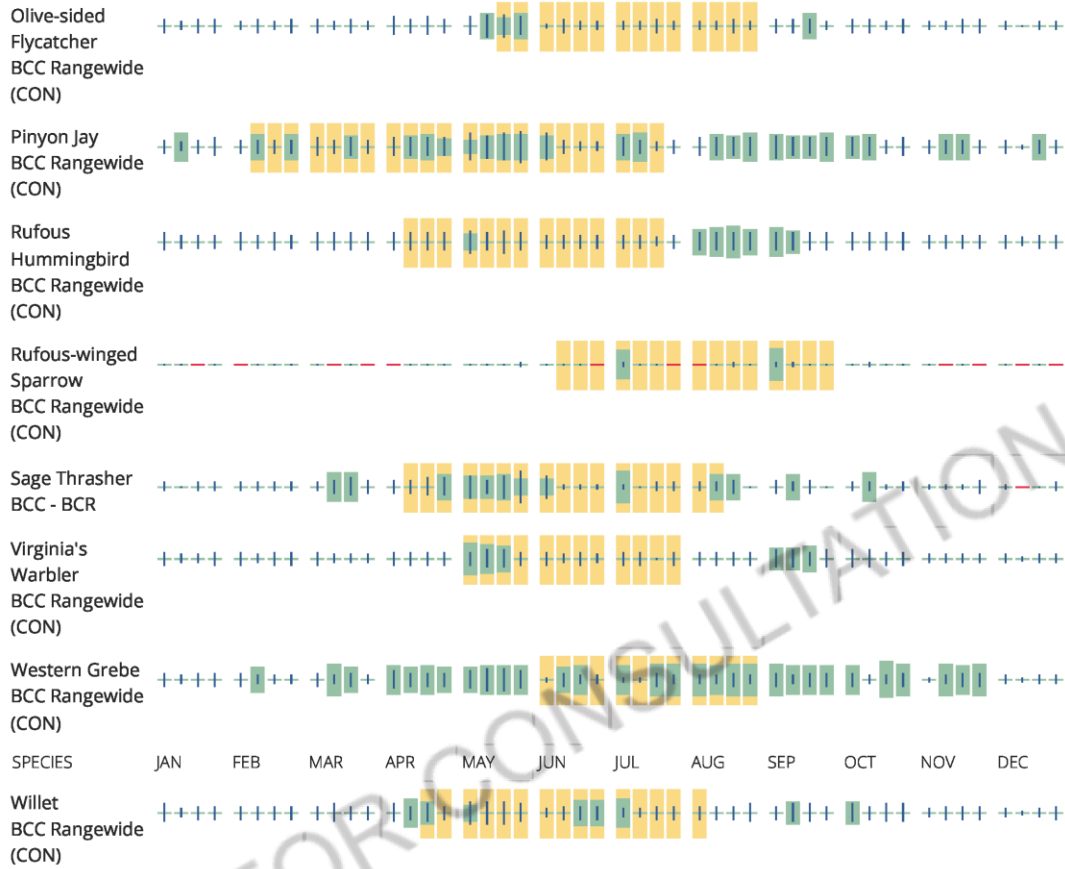
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.







Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid

cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to

you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on Federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

CBRA information is not available at this time

This can happen when the CBRS map service is unavailable, or for very large projects that intersect many coastal areas. Try again, or visit the [CBRS map](#) to view coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies.

Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Pahrump Field Office

IPaC

U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Clark and Nye counties, Nevada



Local offices

Southern Nevada Fish And Wildlife Office

☎ (702) 515-5230

📅 (702) 515-5231

4701 N Torrey Pines Drive

1701 W. Flamingo Avenue
Las Vegas, NV 89130-2301

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440

📠 (760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
<p>Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>https://ecos.fws.gov/ecp/species/6749</p>	Endangered
<p>Yellow-billed Cuckoo <i>Coccyzus americanus</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>https://ecos.fws.gov/ecp/species/3911</p>	Threatened
<p>Yuma Ridgway's Rail <i>Rallus obsoletus yumanensis</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species.</p> <p>https://ecos.fws.gov/ecp/species/3505</p>	Endangered

Reptiles

NAME	STATUS
<p>Desert Tortoise <i>Gopherus agassizii</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>https://ecos.fws.gov/ecp/species/4481</p>	Threatened

Fishes

NAME	STATUS
<p>Devils Hole Pupfish <i>Cyprinodon diabolis</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species.</p> <p>https://ecos.fws.gov/ecp/species/7409</p>	Endangered

Insects

NAME	STATUS
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Monarch Butterfly <i>Danaus plexippus</i>	Candidate
Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	

Flowering Plants

NAME	STATUS
Amargosa Niterwort <i>Nitrophila mohavensis</i>	Endangered
Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4072	
Ash Meadows Blazingstar <i>Mentzelia leucophylla</i>	Threatened
Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4582	
Ash Meadows Gumplant <i>Grindelia fraxinipratensis</i>	Threatened
Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8580	
Ash Meadows Ivesia <i>Ivesia kingii</i> var. <i>eremica</i>	Threatened
Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2411	
Ash Meadows Milk-vetch <i>Astragalus phoenix</i>	Threatened
Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4271	
Ash Meadows Sunray <i>Enceliopsis nudicaulis</i> var. <i>corrugata</i>	Threatened
Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5707	

Spring-loving Centaury *Centaureum namophilum*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/5559>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be

present and breeding in your project area.

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Oct 15 to Aug 31
<p>Golden Eagle <i>Aquila chrysaetos</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p>https://ecos.fws.gov/ecp/species/1680</p>	Breeds Dec 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week

12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

- The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

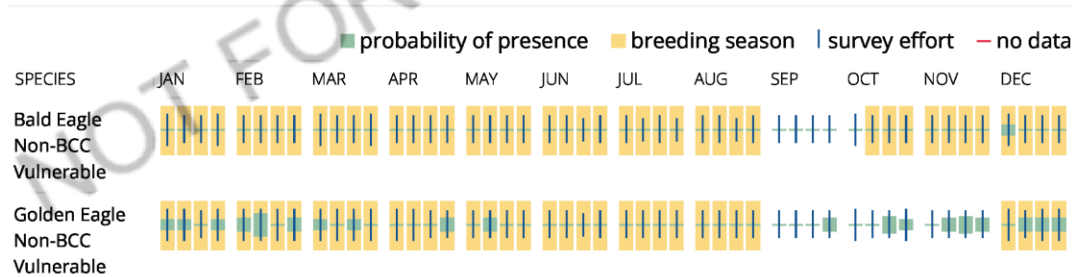
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-chinned Sparrow <i>Spizella atrogularis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447	Breeds Apr 15 to Jul 31
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Costa's Hummingbird <i>Calypte costae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470	Breeds Jan 15 to Jun 10

<p>Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680</p>	Breeds Dec 1 to Aug 31
<p>Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464</p>	Breeds Mar 20 to Sep 20
<p>Le Conte's Thrasher <i>toxostoma lecontei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8969</p>	Breeds Feb 15 to Jun 20
<p>Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481</p>	Breeds elsewhere
<p>Pinyon Jay <i>Gymnorhinus cyanocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420</p>	Breeds Feb 15 to Jul 15
<p>Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743</p>	Breeds Jun 1 to Aug 31
<p>Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds elsewhere

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

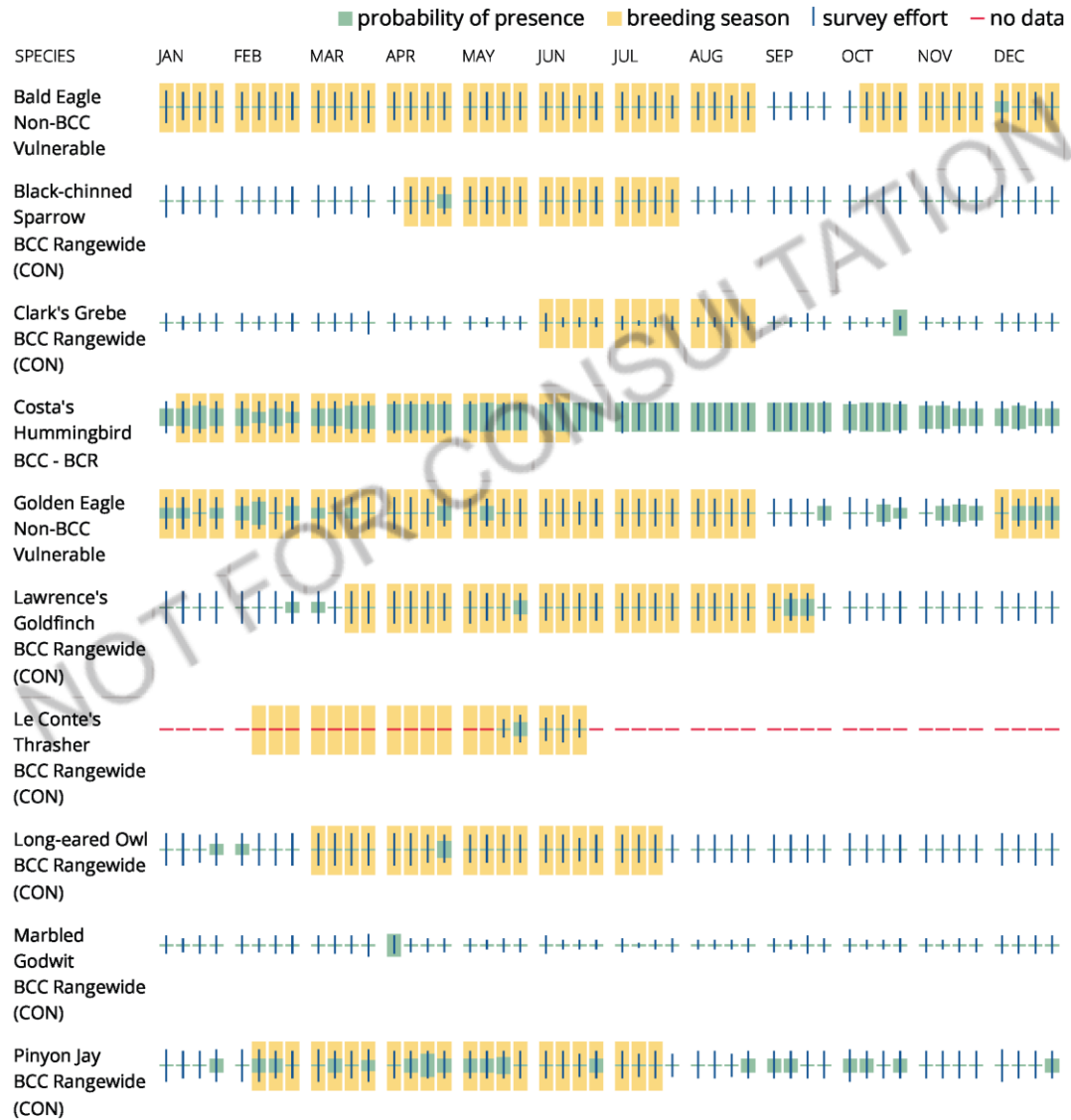
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

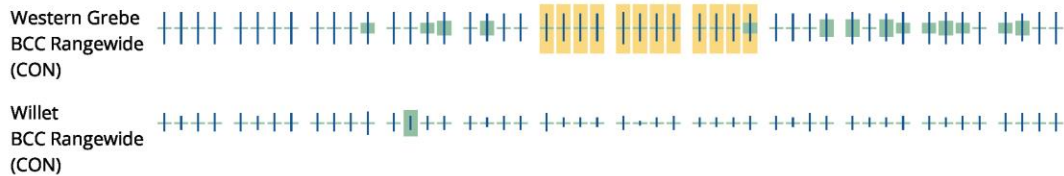
No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of

presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Sierra Front Field Office

IPaC

U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Nevada



Local office

Reno Fish And Wildlife Office

☎ (775) 861-6300

📠 (775) 861-6301

1340 Financial Boulevard Suite 234

1575 Industrial Boulevard, Suite 201
Reno, NV 89502-7147

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
<p>Greater Sage-grouse <i>Centrocercus urophasianus</i> There is proposed critical habitat for this species. https://ecos.fws.gov/ecp/species/8159</p>	Proposed Threatened
<p>Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911</p>	Threatened

Fishes

NAME	STATUS
<p>Cui-ui <i>Chasmistes cujus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/456</p>	Endangered

Insects

NAME	STATUS
<p>Carson Wandering Skipper <i>Pseudocopa eodes eunus obscurus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/674</p>	Endangered
<p>Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743</p>	Candidate

Conifers and Cycads

NAME	STATUS
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Whitebark Pine *Pinus albicaulis*

Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/1748>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Dec 1 to Aug 31
<p>Golden Eagle <i>Aquila chrysaetos</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p>https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

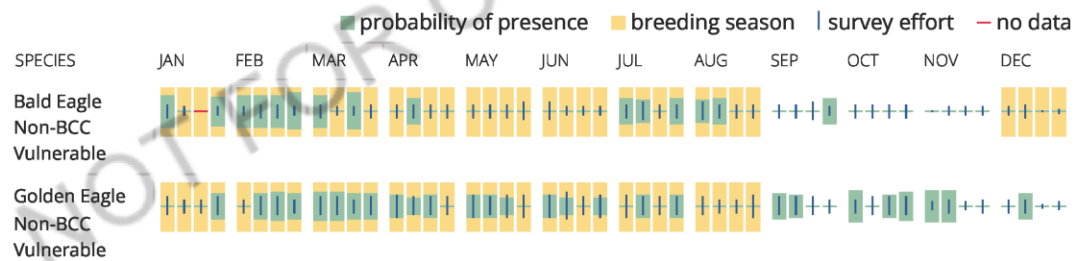
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see

exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American White Pelican <i>pelecanus erythrorhynchos</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6886	Breeds Apr 1 to Aug 31
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31
Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31

<p>Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 15 to Aug 10
<p>Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408</p>	Breeds Apr 20 to Sep 30
<p>Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481</p>	Breeds elsewhere
<p>Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914</p>	Breeds May 20 to Aug 31
<p>Pinyon Jay <i>Gymnorhinus cyanocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420</p>	Breeds Feb 15 to Jul 15

<p>Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002</p>	<p>Breeds Apr 15 to Jul 15</p>
<p>Sage Thrasher <i>Oreoscoptes montanus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9433</p>	<p>Breeds Apr 15 to Aug 10</p>
<p>Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743</p>	<p>Breeds Jun 1 to Aug 31</p>
<p>Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	<p>Breeds Apr 20 to Aug 5</p>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum

probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

- The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

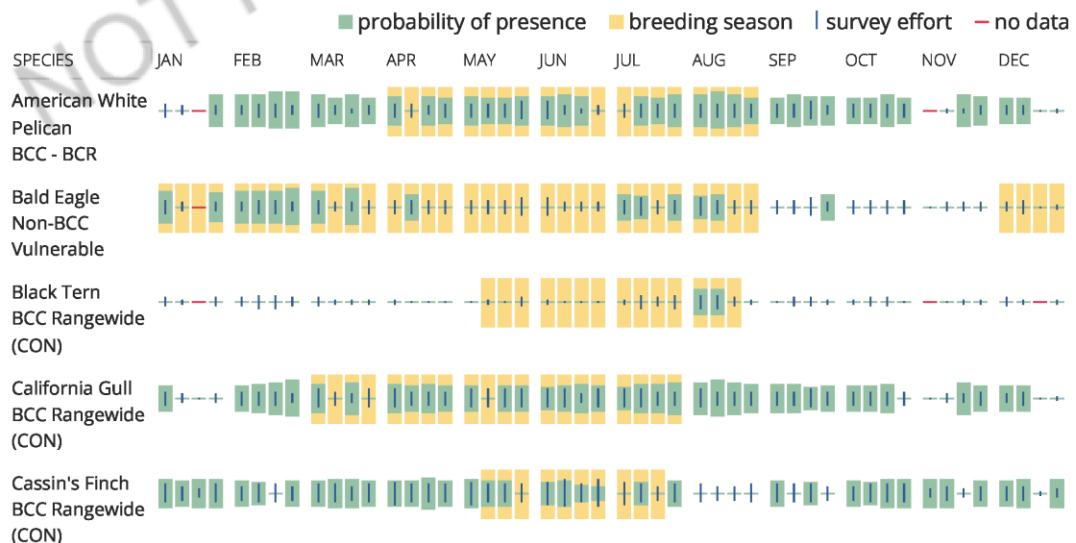
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

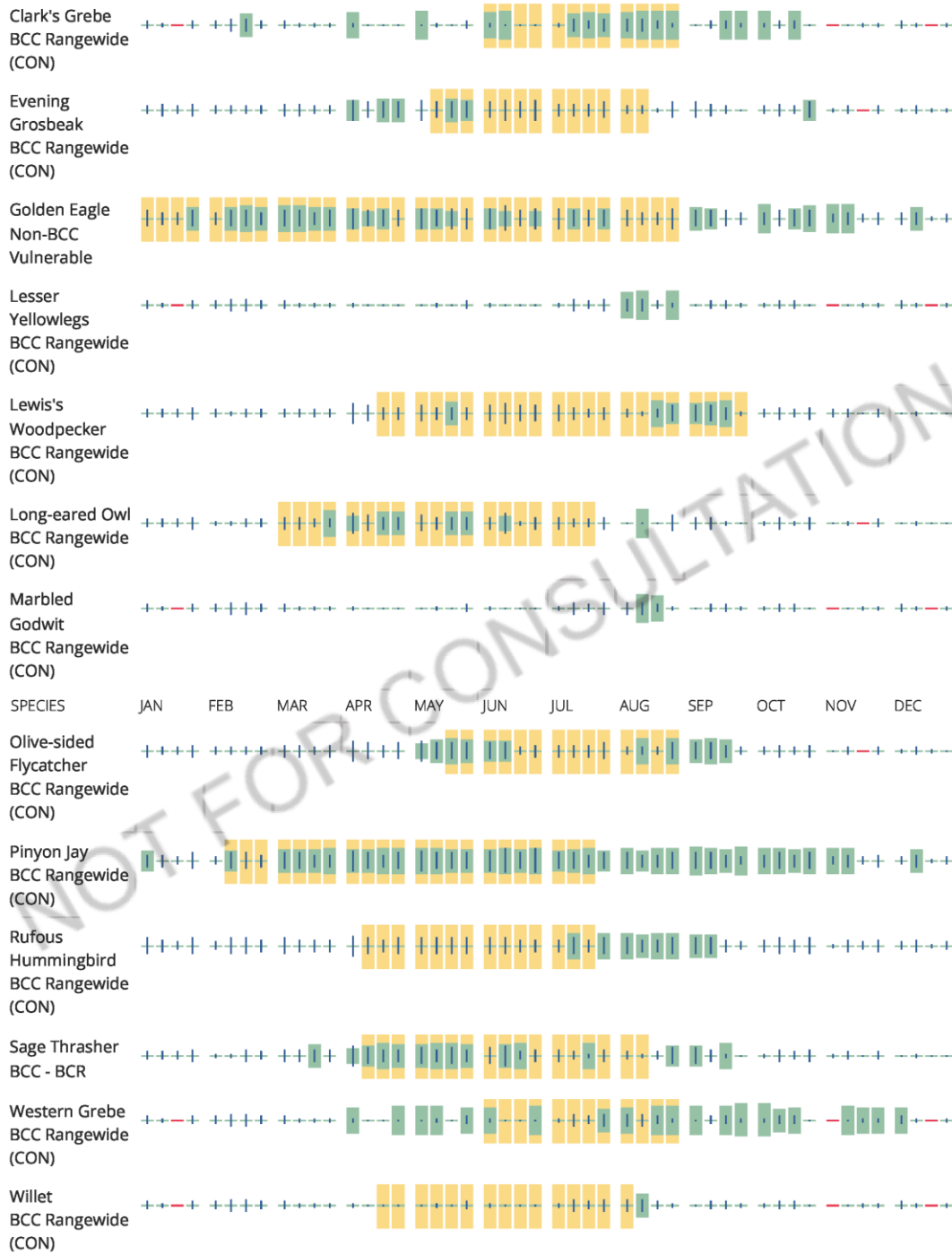
No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or

minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Stillwater Field Office

IPaC**U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Nevada



Local office

Reno Fish And Wildlife Office

☎ (775) 861-6300

🏠 (775) 861-6301

1340 Financial Boulevard Suite 234

1575 Industrial Boulevard, Suite 201
Reno, NV 89502-7147

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
<p>Greater Sage-grouse <i>Centrocercus urophasianus</i></p> <p>There is proposed critical habitat for this species. https://ecos.fws.gov/ecp/species/8159</p>	Proposed Threatened
<p>Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6749</p>	Endangered
<p>Yellow-billed Cuckoo <i>Coccyzus americanus</i></p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911</p>	Threatened

Amphibians

NAME	STATUS
<p>Dixie Valley Toad <i>Anaxyrus williamsi</i></p> <p>No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10635</p>	Endangered

Fishes

NAME	STATUS
<p>Hiko White River Springfish <i>Crenichthys baileyi grandis</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7004</p>	Endangered

Lahontan Cutthroat Trout *Oncorhynchus clarkii henshawi* Threatened
 Wherever found
 No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/3964>

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>

- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events

for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

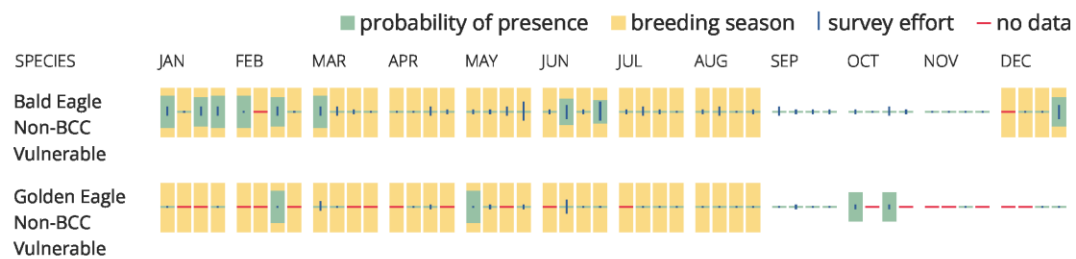
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take->

[migratory-birds](#)

- Nationwide conservation measures for birds

<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p>American White Pelican <i>pelecanus erythrorhynchos</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6886</p>	Breeds Apr 1 to Aug 31
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Dec 1 to Aug 31
<p>Black Tern <i>Chlidonias niger</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093</p>	Breeds May 15 to Aug 20
<p>California Gull <i>Larus californicus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 1 to Jul 31

<p>Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462</p>	Breeds May 15 to Jul 15
<p>Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Jun 1 to Aug 31
<p>Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 15 to Aug 10
<p>Franklin's Gull <i>Leucophaeus pipixcan</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 1 to Jul 31
<p>Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408</p>	Breeds Apr 20 to Sep 30
<p>Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15

<p>Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481</p>	Breeds elsewhere
<p>Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914</p>	Breeds May 20 to Aug 31
<p>Pinyon Jay <i>Gymnorhinus cyanocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420</p>	Breeds Feb 15 to Jul 15
<p>Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002</p>	Breeds Apr 15 to Jul 15
<p>Sage Thrasher <i>Oreoscoptes montanus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9433</p>	Breeds Apr 15 to Aug 10
<p>Virginia's Warbler <i>Vermivora virginiae</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9441</p>	Breeds May 1 to Jul 31
<p>Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743</p>	Breeds Jun 1 to Aug 31
<p>Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 20 to Aug 5

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

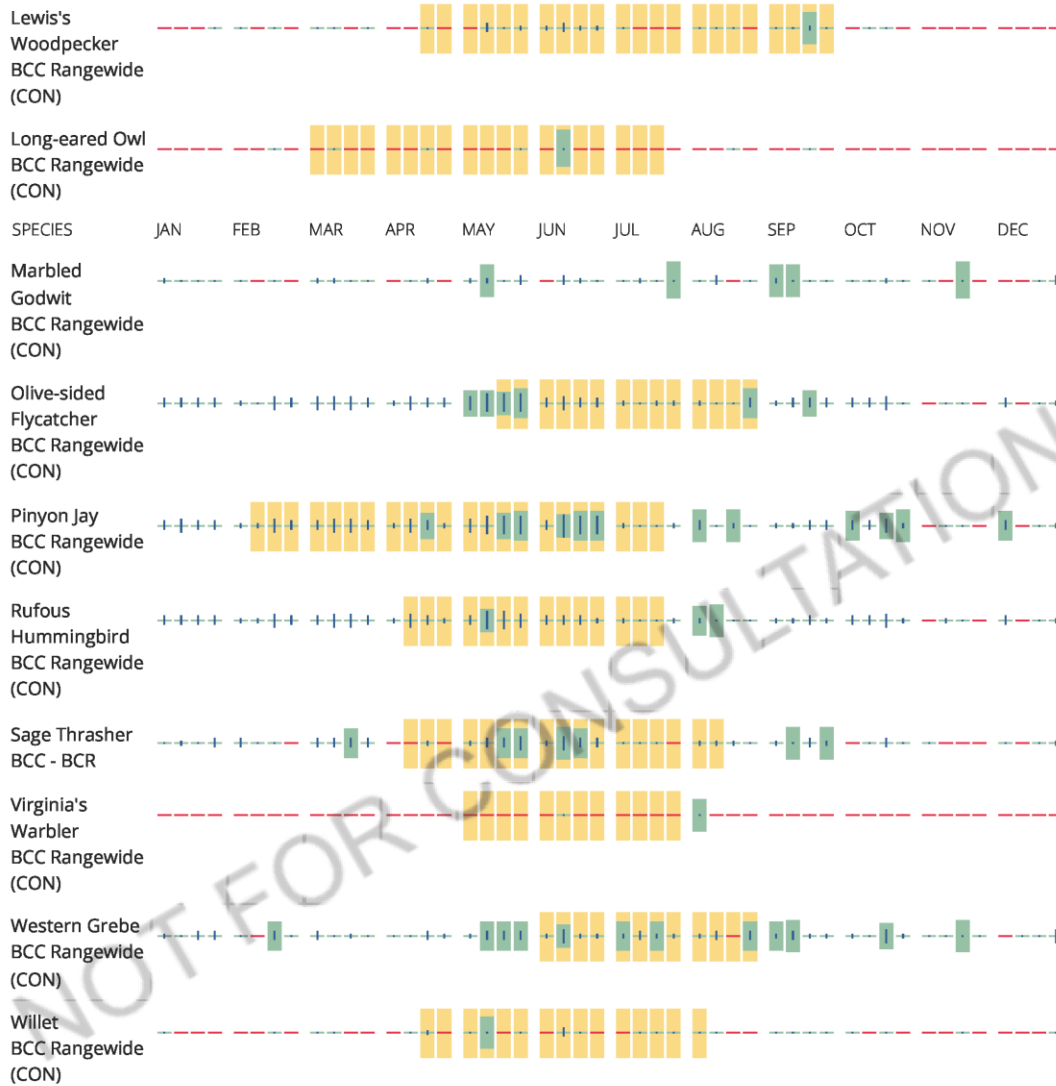
No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern \(BCC\)](#) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR COMPLETION

Tonopah Field Office

IPaC

U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Nevada



Local offices

Southern Nevada Fish And Wildlife Office

☎ (702) 515-5230

📅 (702) 515-5231

4701 N Torrey Pines Drive

1701 N. Torrey Pines Drive
Las Vegas, NV 89130-2301

Reno Fish And Wildlife Office

☎ (775) 861-6300

📠 (775) 861-6301

1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
<p>Greater Sage-grouse <i>Centrocercus urophasianus</i></p> <p>There is proposed critical habitat for this species. https://ecos.fws.gov/ecp/species/8159</p>	Proposed Threatened
<p>Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6749</p>	Endangered
<p>Yellow-billed Cuckoo <i>Coccyzus americanus</i></p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911</p>	Threatened

Reptiles

NAME	STATUS
<p>Desert Tortoise <i>Gopherus agassizii</i></p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4481</p>	Threatened

Fishes

NAME	STATUS
<p>Devils Hole Pupfish <i>Cyprinodon diabolis</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7409</p>	Endangered

Hiko White River Springfish *Crenichthys baileyi grandis* **Endangered**
 Wherever found
 There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
<https://ecos.fws.gov/ecp/species/7004>

Railroad Valley Springfish *Crenichthys nevadae* **Threatened**
 Wherever found
 There is **final** critical habitat for this species. Your location overlaps the critical habitat.
<https://ecos.fws.gov/ecp/species/302>

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Spring-loving Centaury <i>Centaureum namophilum</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5559	Threatened
Tiehm's Buckwheat <i>Eriogonum tiehmii</i> There is proposed critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/4217	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
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Railroad Valley Springfish <i>Crenichthys nevadae</i> https://ecos.fws.gov/ecp/species/302#crithab	Final
Tiehm's Buckwheat <i>Eriogonum tiehmii</i> https://ecos.fws.gov/ecp/species/4217#crithab	Proposed

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

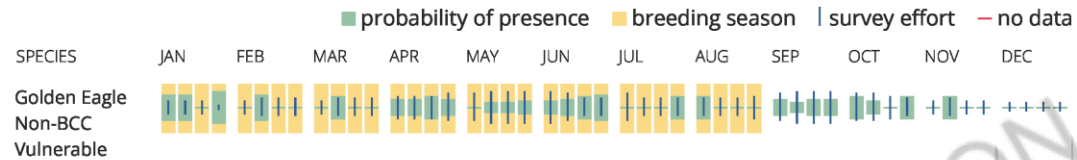
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\) list](#) or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

<p>American White Pelican <i>pelecanus erythrorhynchos</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6886</p>	Breeds Apr 1 to Aug 31
<p>Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093</p>	Breeds May 15 to Aug 20
<p>Black-chinned Sparrow <i>Spizella atrogularis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447</p>	Breeds Apr 15 to Jul 31
<p>Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 20 to Jul 31
<p>California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 1 to Jul 31
<p>Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462</p>	Breeds May 15 to Jul 15
<p>Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Jun 1 to Aug 31
<p>Costa's Hummingbird <i>Calypte costae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470</p>	Breeds Jan 15 to Jun 10
<p>Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 15 to Aug 10

<p>Franklin's Gull <i>Leucophaeus pipixcan</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 1 to Jul 31
<p>Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31
<p>Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464</p>	Breeds Mar 20 to Sep 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408</p>	Breeds Apr 20 to Sep 30
<p>Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481</p>	Breeds elsewhere
<p>Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914</p>	Breeds May 20 to Aug 31

<p>Pinyon Jay <i>Gymnorhinus cyanocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420</p>	Breeds Feb 15 to Jul 15
<p>Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002</p>	Breeds Apr 15 to Jul 15
<p>Sage Thrasher <i>Oreoscoptes montanus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9433</p>	Breeds Apr 15 to Aug 10
<p>Virginia's Warbler <i>Vermivora virginiae</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9441</p>	Breeds May 1 to Jul 31
<p>Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743</p>	Breeds Jun 1 to Aug 31
<p>Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 20 to Aug 5

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey

effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

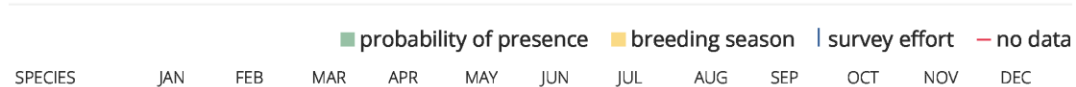
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

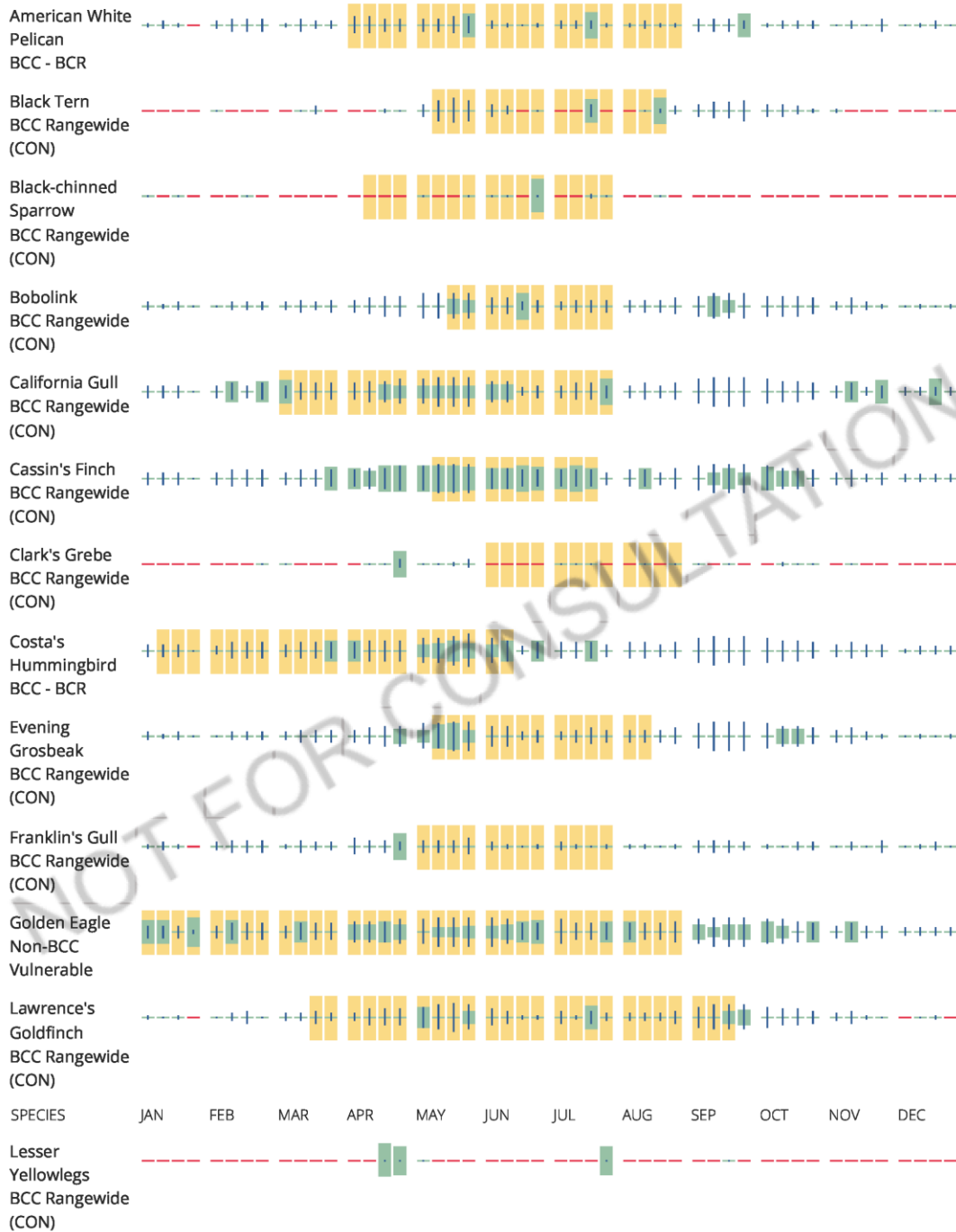
No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.







Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the [Probability of Presence Summary](#). [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern \(BCC\)](#) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Appendix D Biological Resources Support

Appendix D Biological Resources Support

Appendix D-1 Federally Listed Species Not Affected by the Proposed Action

Appendix D-2 Special Status Wildlife Species (not including federally listed species)

Appendix D-3 Special Status Plant Species

Appendix D-4 Special Status Rankings

Appendix D-1 Federally Listed Species Not Affected by the Proposed Action

The following species were identified in the USFWS IPaC list as occurring in the vicinity of the study area. The Proposed Action would have no effect on these species, as detailed below.

Bird

Yuma clapper rail (*Rallus obsoletus yumanensis*) is a secretive marsh bird that generally occurs in freshwater and alkali marshes dominated by emergent wetland vegetation. In Nevada they are resident along the Colorado River and its tributaries (NDOW 2012). The routes southeast of Pahrump are not expected to intersect with the range of this species and no suitable habitat is present in this portion of the project area. Therefore, the Proposed Action would have no effect on the species.

Amphibian

Dixie Valley toad is endemic to the Dixie Valley in Churchill County, Nevada. The Proposed Action routes do not enter Dixie Valley. Therefore, the Proposed Action does not include the range of the species and would have no effect on Dixie Valley toad.

Fish

Big spring spinedace (*Lepidomeda mollispinis pratensis*) is endemic to Condor canyon, below Delmue Falls, upstream northeast of the town of Panaca (USFWS 2021a). The Proposed Action does not include routes in Condo Canyon, would not cross occupied habitat, and would therefore have no effect on Big spring spinedace.

Cui-ui (*Chasmistes cujus*) is a large sucker fish (Catostomidae) endemic to Pyramid Lake. No Proposed Action OHV SRP routes are within 10 miles of Pyramid Lake; therefore, the Proposed Action would have no effect on the habitat for cui-ui and would have no effect on cui-ui individuals.

Devil's hole pupfish (*Cyprinodon diabolis*) is a small pupfish (Cyprinodontidae) endemic to Devil's hole. No Proposed Action routes are within 5 miles of Devil's hole; therefore, the Proposed Action would have no effect on Devil's hole pupfish or its habitat.

Hiko White River springfish (*Crenichthys baileyi grandis*) is restricted to three aquatic systems: Crystal Springs, Hiko Spring, and Blue Link Spring (USFWS 2022a). One Proposed Action route occurs in the vicinity of Crystal Springs; however, the route consists of several paved roads and one upland unpaved road. Because the routes do not intersect or cross wetlands in this area, there would be no impact on Hiko White River springfish or its habitat. The Proposed Action route passes by the vicinity of Hiko Spring, but is restricted to upland roads including Cannon Ranch Road and would not affect or intersect with Hiko Spring. The Proposed Action route passes within 500 feet of Blue Link Spring but is approximately 100 feet lower in elevation and on the far side of a ridgeline from Blue Link Spring and will therefore not affect or intersect with Blue Link Spring. The Proposed Action would therefore have no effect on Hiko White River springfish.

Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*) is a subspecies of trout native to the hydrographic Lahontan basin through central and northern Nevada and into eastern California and southeastern Oregon. Two routes occur in the vicinity of historically occupied habitat at Walker Lake (USFWS 2023a). The route follows paved roads on the western side of the lake and dirt roads on the eastern side of the lake. Roads on the eastern side of the lake are 0.5 mile from the lake shore. Walker River, a historically occupied stream, could potentially be crossed at a location over 2 miles north and downstream of Walker Lake. No currently occupied streams or lakes would be crossed within the project area. The route does not approach the currently occupied Pyramid Lake and Truckee River and would therefore have no potential effects on trout at that location. Historical and suitable habitat but currently unoccupied habitat would be crossed at locations in the Carson and Walker watersheds, including the Carson River. Because of the current lack of Lahontan cutthroat trout near the project area, the Proposed Action would have no effect on the species.

Moapa dace (*Moapa coriacea*) is endemic to the Muddy River in the Warm Springs area in northeast Clark County, Nevada. The Proposed Action does not include any routes in the vicinity of the Warm Springs area and would therefore have no effects on this species.

Pahranagat roundtail chub (*Gila robusta jordani*) is a small species endemic to thermal waters of the Pahranagat Valley. The currently known range extent includes 2.2 miles Pahranagat Creek and 1.6 miles of cement-lined ditch (Pahranagat Ditch), located entirely on private lands within Pahranagat Valley (USFWS 2022b). The proposed route crosses Pahranagat ditch. Because of the hardened cement lining, the Proposed Action would not have potential to alter the streambed habitat for Pahranagat roundtail chub.

Pahrump poolfish (*Empetrichthys latos*) is currently restricted to four refuge locations: (1) Corn Creek; (2) Shoshone Ponds; (3) Springs Preserve; and (4) Spring Mountain Ranch (USFWS 2023b). The only population on BLM-administered lands is Shoshone Ponds in White Pine County, Nevada. The Proposed Action does not enter White Pine County and would not affect this population. The Proposed Action routes do not occur in the vicinity of habitat for this species and would have no effect on Pahrump poolfish.

Railroad Valley springfish (*Crenichthys nevadae*) are extant at six springs in the Railroad Valley in Nye County (USFWS 2021b). The Proposed Action would include activities within Railroad Valley springfish critical habitat near Big Spring and Hay Corral Spring within the northeastern area of the jurisdiction of the Tonopah Field Office (Appendix B, Figure 3.3-2), which is the only habitat for this species near the routes. The route includes the paved State Route 6 and maintained dirt road Lockes Road and would not enter waterways supporting this species. Therefore, the Proposed Action would have no effect on Railroad Valley springfish or Railroad Valley springfish critical habitat.

White River spinedace (*Lepidomeda albivallis*) is endemic to the White River in White Pine and Nye Counties, Nevada. In Nye County, it is only known from the Adams-McGill Reservoir west of Nevada State Route 318 (USFWS 1994, 2021c). The nearest route to this reservoir is over 10 miles away. The Proposed Action routes do not occur in the vicinity of habitat for this species and would have no effect on White River spinedace.

White River springfish (*Crenichthys baileyi bailey*) is endemic to spring systems in Pahranagat Valley, Lincoln County, Nevada. Habitat at Ash Springs consists primarily of private land with a small parcel of land managed by the BLM. The BLM-managed portion was closed to recreation in 2013 (USFWS 2022a). The Proposed Action routes would not intersect with this habitat and the Proposed Action would have no effect on this species. The Proposed Action is adjacent to White River

springfish critical habitat within the jurisdiction of the Caliente Field Office (Appendix B, Figure 3.3-1) but would not include activities in the critical habitat and would therefore have no impacts on critical habitat.

Insect

Carson wandering skipper (*Pseudocopaedes eunusobscurus*) is a small butterfly with three remaining populations, which occur outside of Carson City. It occurs in lowland grassland habitats on alkaline substrates (USFWS 2007). A population along the Carson River in Douglas County, Nevada is the closest population to the action area but is outside of the proposed route (no routes in western Douglas County) and would not be affected by the Proposed Action.

Plant

Amargosa niterwort (*Nitrophila mohavensis*), Ash Meadows blazingstar (*Mentzelia leucophylla*), Ash Meadows gumplant (*Grindelia fraxinipratensis*), Ash Meadows ivesia (*Ivesia kingii* var. *eremica*), Ash Meadows milk-vetch (*Astragalus phoenix*), and Ash Meadows sunray (*Enceliopsis nudicaulis* var. *corrugata*) are endemic to (limited to) Ash Meadows National Wildlife Refuge. No routes from the Proposed Action are present within Ash Meadows National Wildlife Refuge, so none of these species would be affected by the Proposed Action. The routes of the Proposed Action would avoid Tiehm's buckwheat (*Eriogonum tiehmi*) critical habitat and would therefore have no direct effect on the species or critical habitat. The routes are far enough from Tiehm's buckwheat critical habitat to not contribute to existing fugitive dust deposition on the plants or habitat. Habitat descriptions for federally listed plant species are located in Appendix D-3.

List of References

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Appendix D-2 Special Status Wildlife Species (not including federally listed species)

Common Name Scientific Name	Habitat	Nevada WAP Key Habitats ¹	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ²	Battle Mountain	Carson City	Ely	Southern Nevada
Amargosa toad <i>Anaxyrus nelsoni</i>	Open, ponded, or flowing water, with riparian vegetative cover in an early to intermediate successional stage to form a partial canopy for shade with minimal emergent vegetation at the water's edges; adults also require adjacent vegetated uplands for nocturnal foraging	MB-DW, marsh, lakes, DP-EP, springs	BLM S; NDOW (SP); NS-S (S2); NS (G2)	x			
Arizona toad <i>Anaxyrus microscaphus</i>	Riparian areas from lowlands to high uplands including pine-oak scrubland; rocky stream courses; may occur along irrigation ditches and flooded fields, as well as streams bordered by willows and cottonwoods	MB-DW, WDR, DP-EP, Lakes	BLM S; USFWS (petitioned 2013); NS-S (S2); NS (G3G4)			x	x
Columbia spotted frog <i>Rana luteiventris</i>	Closely associated with clear, slow-moving or ponded surface waters, with little shade, and relatively constant water temperatures; breeding and egg-laying occurs in waters with floating vegetation and larger ponds such as oxbows, lakes, stock ponds, and beaver-created ponds; overwintering occurs in spring heads and deep undercuts with overhanging vegetation and ice-covered deep ponds	spring, marsh, lakes, rivers	BLM S; NDOW (SP); USFS (S); NS-S (S2S3); NS (G4T2T3Q)	x			
Dixie Valley toad <i>Anaxyrus williamsi</i> sp.	Springs, seeps, streams, and similar inundated areas. Presently thought to be endemic to Dixie Valley and potentially a distinct species of western toad	spring, marsh	BLM S; NS-S (S1); NS (GU)		x		
Northern leopard frog <i>Lithobates pipiens</i>	Permanent ponds, swamps, marshes, and slow-moving streams throughout forest, open, and urban areas; normally inhabit water bodies with abundant aquatic vegetation	spring, marsh, lakes, rivers	BLM S; NDOW (SP); NS-S (S2S3); NS (G5)	x	x	x	
Relict leopard frog <i>Lithobates onca</i>	Inhabit permanent streams, springs, and spring-fed wetlands; prefer relatively open shorelines where dense vegetation does not dominate; breeding habitat includes pools or slow-moving side areas of streams, with or without emergent vegetation	WDR, springs, marsh, DP-EP	BLM S; NDOW (PA); NS-S (S1); NS (G1G2)				x
Western toad <i>Anaxyrus boreas</i>	Wide variety of habitats ranging from desert springs to mountain wetlands; various upland habitats around ponds, lakes, reservoirs, and slow-moving rivers and streams; sometimes they move up to a few kilometers through uplands; egg laying sites include shallow areas of ponds, lakes, or reservoirs, or pools of slow-moving streams	spring, marsh, LMW&C, ICF&W, rivers, aspen, grass, lakes	BLM S; NS-S (S4); NS (G4)	x	x	x	
Bald eagle <i>Haliaeetus leucocephalus</i>	Near lakes, reservoirs, rivers, marshes, and coasts; scattered breeding occurrences in northern Nevada	ICDS, rivers, marsh, lakes	BLM S; NDOW (SE); NS-S (S1B, S3N); NS (G5); Bald and Golden Eagle Protection Act	x	x	x	x
Bendire's Thrasher <i>Toxostoma bendirei</i>	Desert, especially areas of tall vegetation, cholla cactus, creosote bush and yucca, and in juniper woodland	Mojave, MB-DW,	BLM S; NS-S (S1); NS (G4)			x	x
Black Rosy-finch <i>Leucosticte atrata</i>	Breeds in alpine areas, usually near rock piles, and cliffs; winters in open country, including mountain meadows, high deserts, valleys, and plains	LMW&C, grass, DP-EP, cliffs	BLM S; NS-S (S3); NS (G4)	x	x	x	
Brewer's Sparrow <i>Spizella breweri</i>	Arid sagebrush steppe; winter, occupy sagebrush shrublands similar to the breeding grounds, as well as a range of desert scrub habitats consisting mainly of saltbush and creosote	sage, MB-DW, Mojave, ICDS, LMW&C	BLM S; NDOW (SB); NS-S (S4B); NS (G5)	x	x	x	x
Burrowing Owl <i>Athene cunicularia</i>	Live in open habitats with sparse vegetation such as prairie, pastures, desert or shrub-steppe, and airports; in parts of their range they are closely associated with prairie dogs and ground squirrels, whose burrows they use for nests; breed throughout Nevada in salt desert scrub, Mojave shrub, and some sagebrush habitat, as well as in agricultural landscapes; winters most frequently in the southern half of Nevada, but has been recorded throughout the State during all months	ICDS, Mojave, grass, rivers, WDR, MB-DW, dunes, dev	BLM S; NS-S (S3B); NS (G4); Western Burrowing Owl NS-S (S3B); NS (G4T4)	x	x	x	x
Crissal Thrasher <i>Toxostoma crissale</i>	Uncommon in Nevada during all seasons; dense brush along desert streams, mesquite thickets; habitat varies; may be found in the densest mesquite thickets along washes, but also in sparse brush in open areas; occurs in dense chaparral, among manzanita and other scrub, in the southwestern mountains	Mojave, WDR, MB-DW	BLM S; NS-S (S3); NS (G5)	x			x
Ferruginous Hawk <i>Buteo regalis</i>	Preferred habitat arid and semiarid grassland regions; open, level, or rolling prairies; foothills or middle elevation plateaus largely devoid of trees; and cultivated shelterbelts or riparian corridors	ICDS, LMW&C, grass marsh, DP-EP, AL	BLM S; NS-S (S2); NS (G4)	x	x	x	x

Common Name Scientific Name	Habitat	Nevada WAP Key Habitats ¹	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ²	Battle Mountain	Carson City	Ely	Southern Nevada
Flammulated Owl <i>Psiloscops flammeolus</i>	Open pine forest in mountains	ICF&W	BLM S; NS-S (S4B); NS (G4)	x	x	x	x
Golden Eagle <i>Aquila chrysaetos</i>	Open country, especially around mountains, hills, and cliffs; use a variety of habitats ranging from arctic to desert, including tundra, shrublands, grasslands, coniferous forests, farmland, and areas along rivers and streams	cliffs, sage, ICDS, Mojave, WDR, LMW&C	BLM S; NS-S (S4); NS (G5); Bald and Golden Eagle Protection Act	x	x	x	x
Gray-crowned Rosy-finch <i>Leucosticte tephrocots</i>	Breeds in alpine areas, usually near snow fields or glaciers, talus, rockpiles, and cliffs; winters in open country, including mountain meadows, shrublands, roadsides, towns, cultivated areas, rocky hillsides, and margins of dry ditches	LMW&C, grass, DP-EP, cliffs	BLM S; NS-S (S3N); NS (G5)	x	x	x	
Great Basin Willow Flycatcher <i>Empidonax traillii adastus</i>	Montane riparian habitat, with some spill over into lowland riparian areas; found in both lowland and montane riparian habitats, and occasionally in other inundated areas such as aspen stands or wet meadows; uses the lower Colorado River corridor during migration	rivers, WDR	BLM S; USFS (S); NS-S (S1S2); NS (G5T5)	x	x	x	x
Greater Sage-grouse <i>Centrocercus urophasianus</i> (not including federally proposed threatened "bi-state" DPS)	Sagebrush steppe; nest in areas with relatively dense cover from big sagebrush; may use areas with rabbitbrush, greasewood, and grassy areas; leks are located in clear areas such as broad ridgetops, grassy swales, dry lakebeds, and sometimes recently burned areas. chick rearing areas include irrigated pastures, wet meadows, and alfalfa fields, in addition to sagebrush	sage	BLM S; NDOW (GB); NS-S (S3); NS (G3G4)	x	x	x	
Le Conte's Thrasher <i>Toxostoma lecontei</i>	Desert scrub, mesquite, tall riparian brush and, locally, chaparral	MB-DW, Mojave	BLM S; NS-S (S2); NS (G4)	x		x	x
Least Bittern <i>Ixobrychus exilis</i>	Habitat consists of tall emergent vegetation in marshes, primarily freshwater; prefers marshes with scattered bushes or other woody growth. Forages in shallow water or along banks; heavy growths of cattail, bulrush, wild rice, water smartweed, and reeds are favored feeding sites	marsh, river	BLM S; NS-S (S2B); NS (G5T3T4)	x	x		
Lewis's Woodpecker <i>Melanerpes lewis</i>	Open pine woodlands, and other areas with scattered trees and snags; unlike other American woodpeckers, it enjoys sitting in the open as opposed to sitting in heavy tree cover	ICF&W, aspen, rivers, LMW&C	BLM S; NS-S (S3); NS (G4)	x	x	x	
Loggerhead Shrike <i>Lanius ludovicianus</i>	Open country with short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns; frequent agricultural fields, pastures, old orchards, riparian areas, desert scrublands, savannas, prairies, golf courses, and cemeteries; are often seen along mowed roadsides with access to fence lines and utility poles	ICDS, sage, LMW&C, WDR, MB-DW, grass	BLM S; NDOW (SB); NS-S (S4); NS (G4)	x	x	x	x
Long-billed Curlew <i>Numenius americanus</i>	High plains, rangeland; breeds in Nevada but does not overwinter; breeding habitat is mostly native dry grassland and sagebrush prairie; may favor areas with some damp low spots nearby, to provide better feeding area for the young; may nest in pastures that are not too heavily grazed, rarely in agricultural fields; in migration and winter often in farm fields, marshes, coastal mudflats, in addition to grasslands; on mostly featureless terrain, often chooses site close to conspicuous rock, shrub, or other object; nest is shallow scrape in ground, usually with sparse lining of grass, weeds; may have slight rim built up around edge	grass, AL	BLM S; NS-S (S2S3B); NS (G5)	x		x	
Mountain Quail <i>Oreortyx pictus</i>	Dense brush in wooded foothills and mountains; most common in pine-oak woodland, coniferous forest, and chaparral; sometimes in pinyon-juniper woods or in scrub at lower elevations; may be common in areas of second-growth brush after fires or clearcuts; requires dense low thickets for cover; during hot weather, rarely found more than a mile from water	LMW&C, ICF&W, aspen, rivers, sage	BLM S; NDOW (GB); NS-S(S3); NS (G5)	x	x		
Northern Goshawk <i>Accipiter gentilis</i>	Nest in mature and old-growth forests with more than 60% closed canopy; often build nests near breaks in the canopy, such as a forest trail, jeep road, or opening created by a downed tree, and prefer sites with a creek, pond, or lake nearby; hunt in the forest, along riparian corridors, and in more open habitat, such as the sagebrush steppes	aspen, rivers, ICF&W, LMW&C	BLM S; USFS(S); NDOW (SB); NS-S (S2); NS (G5)	x	x	x	
Peregrine Falcon <i>Falco peregrinus</i>	Breed in open landscapes with cliffs (or skyscrapers) for nest sites; nesting at elevations up to about 12,000 feet, as well as along rivers and coastlines or in cities; migration and winter in nearly any open habitat, but with a greater likelihood along barrier islands, mudflats, coastlines, lake edges, and mountain chains	marsh, lakes, DP-EP, cliffs, dev	BLM S; USFS (S); USFWS (delisted 1999); NDOW (EB); NS-S (S2); NS (G4)	x	x	x	x
Phainopepla <i>Phainopepla nitens</i>	Desert, riparian woodlands, and chaparral; it is territorial, actively defending nesting and foraging sites, while in the woodlands it is colonial, with as many as four nesting pairs sharing one large tree; particularly notable for its enigmatic pattern of breeding twice each year, in two different habitats	MB-DW, WDR	BLM S; NS-S (S2B); NS (G5)	x		x	x

Common Name Scientific Name	Habitat	Nevada WAP Key Habitats ¹	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ²	Battle Mountain	Carson City	Ely	Southern Nevada
Pinyon Jay <i>Gymnorhinus cyanocephalus</i>	Pinyon-juniper woodland, sagebrush, scrub oak, and chaparral communities, and sometimes in pine forests; specialized for feeding on pine seeds.	LMW&C	BLM S; NS-S (S3S4); NS (G5)	x	x	x	x
Sage Thrasher <i>Oreoscoptes montanus</i>	Breeds exclusively in shrub-steppe habitats; require relatively dense ground cover for concealment, but also some bare ground for foraging and for getting around on their feet, which they often do in preference to flying; use arid or semiarid open country with scattered bushes, grasslands, and open pinyon-juniper woodlands	ICDS, sage	BLM S; NDOW (SB); NS-S (S5B); NS (G4)	x	x	x	x
Sandhill Crane (both Greater and Lesser) <i>Antigone canadensis</i>	Breed in open wetland habitats surrounded by shrubs or trees; nest in marshes, bogs, wet meadows, prairies, burned-over aspen stands, and other moist habitats, preferring those with standing water; breeders gravitate toward the edges between wetland and upland habitats, while nonbreeders may prefer open, grassy sites; winter roosting on shallow lakes or rivers at night and spending the day in irrigated croplands, pastures, grasslands, or wetlands	marsh, grass, rivers, AL	BLM S; NS-S (S2B, S3M); NS (G5T5)	x	x	x	
Short-eared Owl <i>Asio flammeus</i>	Live in large, open areas with low vegetation, including prairie and coastal grasslands, heathlands, meadows, shrub-steppe, savanna, tundra, marshes, dunes, and agricultural areas; winter habitat is similar, but is more likely to include large open areas within woodlots, stubble fields, fresh and saltwater marshes, weedy fields, dumps, gravel pits, rock quarries, and shrub thickets.; if food is plentiful, winter areas often become breeding areas	grass, marsh, ICDS, AL	BLM S; NS-S (S4); NS (G5)	x	x	x	
Swainson's Hawk <i>Buteo swainsoni</i>	Favor open habitats for foraging; hay and alfalfa fields, pastures, grain crops, and row crops, or perched atop adjacent fence posts and overhead sprinkler systems; they rely on scattered stands of trees near agricultural fields and grasslands for nesting sites	AL, river	BLM S; NS-S (S2B); NS (G5)	x	x	x	x
Western Snowy Plover <i>Charadrius nivosus nivosus</i>	Barren to sparsely vegetated sand beaches, dry salt flats in lagoons, dredge spoils deposited on beach or dune habitat, levees and flats at salt-evaporation ponds, river bars, along alkaline or saline lakes, reservoirs, and ponds	DP-EP, lakes, marsh	BLM S; NS-S (S3B); NS (G3T3)	x	x	x	x
Big Smoky Valley speckled dace <i>Rhinichthys osculus lariversi</i>	Endemic to Big Smoky Valley	spring, WDR	BLM S; NDOW (SF); NS-S (S1); NS (G5T1)	x			
Big Smoky Valley tui chub <i>Siphateles bicolor</i> ssp. 8	Endemic to Big Smoky Valley	spring	BLM S; NDOW (SF); NS-S (S1); NS (G4T1)	x			
Bonneville cutthroat trout <i>Oncorhynchus clarkii utah</i>	Native to streams and some lakes in the Bonneville Basin within portions of Utah, Wyoming, Idaho and Nevada; several out-of-basin populations once existed in the headwaters of the Virgin River basin from the west slope of the Pine Valley Mountains and on the west slope of Wheeler Peak	rivers	BLM S; USFS (S); NDOW (GF); NS-S (S1); NS (G4T4)			x	
Fish Lake Valley tui chub <i>Siphateles bicolor</i> ssp. 4	Endemic to the Charnock Ranch	spring, marsh	BLM S; NS-S (S1); NS (T1)	x			
Hot Creek Valley tui chub <i>Siphateles bicolor</i> ssp. 5	Ralston-Stone Cabin Valleys	spring	BLM S; NS-S (S1); NS (G4T1Q)	x			
Little Fish Lake Valley tui chub <i>Siphateles bicolor</i> ssp. 6	Only in springs at northern end of Little Fish Lake	spring	BLM S; NS-S (S1); NS (G4T1)	x			
Meadow Valley speckled dace <i>Rhinichthys osculus</i> ssp. 11	Meadow Valley Wash, from Eagle Valley Reservoir south to Rox; occurs in Clover Creek, a tributary of Meadow Valley Wash; Lincoln County, Nevada	rivers	BLM S; NS-S (S2); NS (G5T2)			x	x
Meadow Valley Wash desert sucker <i>Catostomus clarkii</i> ssp. 2	Prefers more rapid waters when feeding or spawning, moving to pools during resting periods; persists in muddy or turbid waters but does equally well in clear water; adults can be found in deeper water (up to 6–8 feet) but young prefer shallow water (6–18 inches)	WDR	BLM S; NDOW (SF); NS-S (S2); NS (G3G4T2)			x	x
Monitor Valley speckled dace <i>Rhinichthys osculus</i> ssp. 5	Endemic to Monitor Valley, NV	spring, WDR	BLM S; NDOW (SF); NS-S (S1); NS (G5T1)	x			
Mountain whitefish Prosopium williamsoni	Known populations are restricted to larger Sierra front streams (Truckee, Walker, and Carson). Limited distribution in the Carson River, where suitable habitat runs out near Minden; ALSO occurs in the Jarbidge, Bruneau, and South Fork and East Fork Owyhee Rivers; require streams with a minimum pool depth of 4 feet in season of least flow	rivers	BLM S; NDOW (GF); NS-S (S3); NS (G5)		x		
Oasis Valley speckled dace <i>Rhinichthys osculus</i> ssp. 6	Endemic to Oasis Valley; occurs in flowing water, desert springs, and shallow desert streams	spring, marsh, lakes	BLM S; NDOW (SF); NS-S (S1); NS (G5T1)	x			x

Common Name Scientific Name	Habitat	Nevada WAP Key Habitats ¹	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ²	Battle Mountain	Carson City	Ely	Southern Nevada
Pahranagat speckled dace <i>Rhinichthys osculus velifer</i>	Endemic to White River Valley in Nevada	WDR, marsh, springs	BLM S; NDOW (SF); NS-S (S1); NS (G5T1Q)			x	
Railroad Valley tui chub <i>Siphateles bicolor</i> ssp. 7	Endemic to cold springs in the Railroad Valley Basin	rivers, springs, marsh, lakes	BLM S; NDOW (SF); NS-S (S1); NS (G4T1Q)	x		x	
Relict dace <i>Relictus solitarius</i>	Occupies isolated spring, springbrook and wetland habitats	springs, rivers, marsh	BLM S; NDOW (SF); NS-S (S2S3); NS (G2G3)			x	
Virgin River chub (Muddy River pop.) <i>Gila seminuda</i> pop. 2	Most common in deeper areas where waters are swift, but not turbulent, as is generally associated with boulders or other cover; occurs over sand and gravel substrates in water less than 86 degrees Fahrenheit, and is very tolerant of high salinity and turbidity; found in habitats below (4,500 feet in elevation)	WDR	BLM S; NDOW (SF); NS-S (S1); NS (G1T1Q)				x
White River desert sucker <i>Catostomus clarkii intermedius</i>	Habitat consists of small to medium rivers with pools and riffles; individuals occur mainly over bottoms of gravel-rubble with sandy silt in interstices; unable to persist in reservoirs and lakes; large adults occupy pools during the day (in shady areas near cliff faces, boulders, or large woody debris), move to riffles at night and during periods of high turbidity; young tend to congregate along banks in quiet water among aquatic plants or algae, move to swifter water as they increase in size; tolerates a wide range of temperatures but is relatively intolerant of low dissolved oxygen levels; spawning occurs on gravel-and-cobble bottoms of riffles and rapids	spring, lakes	BLM S; NDOW (PF); NS-S (S1S2); NS (G3G4T1T2Q)			x	
White River speckled dace <i>Rhinichthys osculus</i> ssp 7	Endemic to White River system; warm, permanent and intermittent streams; and outflows of desert springs; usually found in shallow water; in streams, often congregates below riffles and eddies	rivers, lakes	BLM S; NS-S (S2S3); NS (G5T2T3Q)			x	
Allen's big-eared bat <i>Idionycteris phyllotis</i>	In southern Nevada; records limited to Clark County, primarily in the Spring Mountains; may be in southern Lincoln and Nye counties as well; in summer, generally occupies high elevation pine and oak woodland but also uses a variety of riparian woodland across a wide elevational gradient; winter found at lower elevations from creosote bush to pinyon-juniper habitats; current Nevada records indicate this species is distributed between 1,670–6,000 feet; ROOST HABITAT: Generally prefers to day roosts in trees (large dead snags) but mines and caves are also used; RESIDENT STATUS: probably year round resident, but shifts elevation from summer to winter; WINTER STATUS: hibernates but periodically arouses to actively forage and drink in the winter	LMW&C, ICF&W, WDR, Mojave, rivers, aspen, cliffs	BLM S; NDOW (P); NS-S (S1); NS (G4); WBWG (high)	x		x	x
Allen's chipmunk <i>Neotamias senex</i>	Generally prefers mature coniferous forests and chaparral slopes dominated by ponderosa pine, Jeffrey pine, sugar pine, black oak, Douglas fir, white fir, red fir, incense cedar, and mountain hemlock; the shrub layer includes buckbrush, manzanita, blackberry, and chinquapin; a study in the Sierra Nevada found that Allen's chipmunk was most abundant in red fir, than in mixed conifers	LMW&C	BLM S; NS-S (S2S3); NS (G5)		x		
American marten (Pacific marten) <i>Martes americana</i> and <i>M. caurina</i>	Primarily found in the Sierra Nevada although there is some recent evidence for occurrence in the Jarbidge Mountains; occurs in coniferous forest and may use rocky alpine areas; when inactive, they occupy holes in dead or live trees or stumps, abandoned squirrel nests, conifer crowns, rock piles, burrows, or snow cavities; in winter, much of a marten's activity occurs under the snow, often in coarse woody debris	aspen	BLM S; NDOW (FM); NS-S (S2S3); NS (G4G5)		x		
American pika <i>Ochotona princeps</i>	Typical rock-dwelling species; primarily inhabits talus and talus-like formations adjoining a meadow or source of vegetation in cool and moist microclimates; talus habitat is typically insular or patchy in nature at several spatial resolutions; prefer talus in rock-ice-feature formations and with rock diameters of 0.2–1.0 meter; may also occur in and anthropogenic habitats such as mine ore dumps or road cuts; occasionally they may live in piles of logs or similar habitat	grass, cliffs	BLM S; NDOW (PM); NS-S (S2); NS (G5)		x	x	
American water shrew <i>Sorex palustris</i>	Most abundant along small cold streams with thick overhanging riparian growth; around lakes, ponds, marshes, bogs, and other lentic habitats; normally associated with water, may disperse long distances away from water to establish new territories; nest sites are near water in underground burrows, rafted logs, beaver lodges, and other areas providing shelter	rivers	BLM S; NS-S (S2); NS (G5)	x	x		
Ash Meadows montane vole <i>Microtus montanus nevadensis</i>	Possibly endemic to Ash Meadows	grass	BLM S; NDOW (SM); NS-S (SH); NS (G5TH)				x

Common Name Scientific Name	Habitat	Nevada WAP Key Habitats ¹	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ²	Battle Mountain	Carson City	Ely	Southern Nevada
Big brown bat <i>Eptesicus fuscus</i>	Found throughout the State, from low to high elevations (720 to > 9,800 feet); occurs in a variety of habitats, including pinyon-juniper, blackbrush, creosote, sagebrush, agriculture, and urban habitats; better adapted to human habitation than most species; ROOST HABITAT: Selects a variety of day roosts including caves, trees (e.g., Ponderosa pine, quaking aspen and oaks), mines, buildings and bridges; often night roosts in more open settings in buildings, mines and bridges; roosts in groups up to several hundred; RESIDENT STATUS: Year round resident; WINTER STATUS: Hibernates but periodically arouses to actively forage and drink in the winter; characteristics and locations of winter hibernacula in Nevada are completely unknown, and poorly understood throughout this species range	LMW&C, sage, ICDS, ICF&W, aspen	BLM S; NS-S (S4); NS (G5); WBWG (low)	x	x	x	x
Big free-tailed bat <i>Nyctinomops macrotis</i>	In the southern portion of Nevada, from one location in the Las Vegas area and the other a historical unspecified locality; detected acoustically in moderate numbers within the Muddy River drainage from September through October; during July through September 2003, detected acoustically in Meadow Valley Wash, Eagle Valley, and Clover Creek in Lincoln County; associated primarily with very rocky country (canyon lands); found in arroyo, scrub desert, riparian areas, woodland habitats, although generally a floodplain-arroyo association; typically low elevation, although has been found 8,000 feet and higher outside of Nevada; ROOST HABITAT: Day roosts primarily in crevices in cliff faces, although occasionally in buildings and caves; generally roost in groups less than 100; RESIDENT STATUS: Transient but possible summer resident; records for this species are sparse and scattered; WINTER STATUS: probably does not hibernate	WDR, cliffs, ICDS	BLM S; NS-S (S1S2M); NS (G5); WBWG (low to high)	x		x	x
Bighorn sheep (California, desert, Rocky Mtn subspecies) <i>Ovis canadensis</i> spp.	In alpine meadows, mountain slopes, and foothills; like areas with rocky slopes that they can climb to evade predators	LMW&C, WDR, MB-DW, cliffs, grass	for desert bighorn sheep BLM S; USFS (S); NDOW (GM); NS-S (S4); NS (G4T4)	x	x	x	x
Brazilian (or Mexican) free- tailed bat <i>Tadarida brasiliensis</i>	Found through most of the State, ranging from low desert to high mountain habitats; found in a wide variety of habitats; although predominantly a lower elevation species has been found from 720 to > 11,480 feet in the Sierra Nevada; recent acoustic surveys reveal it is more widespread and common, at least in southern Nevada, than previously thought; current Nevada records indicate this species is distributed between 690–8,370 feet; ROOST HABITAT: Selects a variety of day roosts including cliff faces, mines, caves, buildings, bridges, and hollow trees; although colonies number in the millions in some areas, colonies in Nevada are generally several hundred to several thousand (largest known colonies have been estimated at approximately 70,000–100,000); some caves may be used as long term transient stopover roosts during migration; some evidence suggests that the colony at Rose Cave arrives in July and departs in mid October; RESIDENT STATUS: Summer resident; recent observations suggest pockets of year-round residents in southern Nevada; WINTER STATUS: Migrations of 1,140 miles are documented for this species; migrates away from colder regions and winters in areas with predominantly non-freezing temperatures but has been found to hibernate in Northern California; migratory animals appear to be active in the winter range; winter activity has been observed recently in the low desert of southern Nevada	Mojave, sage, ICDS, ICF&W, LMW&C	BLM S; NDOW (PM); NS-S (S3S4B); NS (G5); WBWG (low to medium)	x	x	x	x
California leaf-nosed bat <i>Macrotus californicus</i>	Warm diurnal roosts in caves, mines, and buildings; distribution is limited to the extreme southern portion of the State; historical roosts in the Las Vegas Valley and along the Colorado River have been destroyed by vandalism, abandoned mine closure, and inundation by the formation of Lakes Mead and Mojave; only a few roosts are known to exist although there may be some foraging activity along the Virgin River based on Arizona reports from the confluence of Virgin River and Beaver Dam Wash; recent capture of both sexes, including a pregnant female, in the Muddy River drainage indicate presence of maternity roosts in the immediate vicinity; although it is believed that this species does not migrate, local movements among roosts occur, particularly on a seasonal basis; low elevation desert scrub habitats; roosts are below 3,000 feet elevation in proximity to desert riparian areas; current Nevada records indicate this species is distributed between 690–2,260 feet primarily in creosote, Mojave scrub, and riparian areas; ROOSTING HABITAT: Dependent on caves and mines for day roosting; mines used as winter roosts have internal temperatures > 29 degrees Celsius, and are usually geothermally heated; more than one day roost may be used during the year; night roosting occurs in a variety of places, including buildings, cellars, porches, bridges,	Mojave, WDR, cliffs, dev	BLM S; NDOW (SM); NS-S (S2); NS (G3G4); WBWG (high)				x

Common Name Scientific Name	Habitat	Nevada WAP Key Habitats ¹	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ²	Battle Mountain	Carson City	Ely	Southern Nevada
California myotis <i>Myotis californicus</i>	rock shelters, and mines; RESIDENT STATUS: Year round; WINTER STATUS: Does not hibernate; both sexes congregate in specific, warm winter roosts; year-round activity Found throughout Nevada, primarily at the low and middle elevations (to 6,000 feet), although occasionally found at higher elevations; more common in the southern half of the State; found in a variety of habitats from Lower Sonoran desert scrub to forests; current Nevada records indicate this species is distributed between 680–9,000 feet; ROOST HABITAT: Crevice roosting; selects a variety of day roosts including mines, caves, buildings, rock crevices, hollow trees, and under exfoliating bark; night roosts in a wider variety of structures; generally roost singly or in small groups, although some mines in the Mojave Desert shelter colonies of over 100 in both the summer and winter; RESIDENT STATUS: Year round resident; WINTER STATUS: Hibernates but periodically arouses to actively forage and drink in the winter	Mojave, sage, ICDS, ICF&W, LMW&C	BLM S; NS-S (S4); NS (G5); WBWG (low to medium)	x	x	x	x
Canyon bat <i>Parastrellus hesperus</i>	Found throughout most of the State, primarily in the southern and western portions; most common in low and middle elevation (6,000 feet), although occasionally found at higher elevations (>8,000 feet); lower and upper Sonoran desert habitats of blackbrush, creosote, salt desert shrub and sagebrush, with occasional occurrence in Ponderosa pine and pinyon-juniper, usually in association with rock features such as granite boulders and canyons; current Nevada records indicate this species is distributed between 690–8,400 feet; ROOST HABITAT: Day roosts primarily in rock crevices but may include mines, caves, or occasionally in buildings and vegetation; generally roost singly or in small groups; RESIDENT STATUS: Year round resident; WINTER STATUS: Hibernates but periodically arouses to actively forage and drink in water	Mojave, sage, ICDS, ICF&W, LMW&C	BLM S; NS-S (S4); NS (G5); WBWG (low to medium)	x	x	x	x
Cave myotis <i>Myotis velifer</i>	Found primarily at lower elevations in arid habitat dominated by creosote bush, palo verde, brittlebush, cactus, and desert riparian; ROOST HABITAT: Day roosts in caves and mines, and occasionally buildings and bridges; tolerates summer roost temperatures as high as 37 degrees Celsius; night roosts may be same structures used for day roosts, but locations nearest the entrance are preferred; found repeatedly in swallow nests, particularly in nonreproductive season; hibernacula elsewhere are generally mines or caves; RESIDENT STATUS: Summer resident; WINTER STATUS: Hibernates, but a few individuals have been found active in mines in winter	Mojave, WDR, MB-DW	BLM S; NS-S (S1B); NS (G4G5); WBWG (low to medium)	x			x
Dark kangaroo mouse <i>Microdipodops megacephalus</i> ssp.	Dark kangaroo mice prefer loose sands and gravel; found in shadscale scrub, sagebrush scrub, and alkali sink plant communities; may occur in sand dunes near the margins of their range	ICDS, sage, grass, DP-EP	BLM S; NSOW (PM); NS-S (S2); NS (G4T2)	x	x	x	
Fringed myotis <i>Myotis thysanodes</i>	Found throughout central and southern Nevada; probably occurs in northern Nevada, as well; found in a wide range of habitats from low desert scrub habitats to high elevation coniferous forests; found from upper elevation creosote bush desert to pinyon-juniper and white fir (7,000 feet) in the White Pine Range; current Nevada records indicate this species is distributed between 1,400–7,000 feet; ROOST HABITAT: Day and night roosts in mines, caves, trees, and buildings; maternity colony of approximately 200 individuals was found in a mine in creosote bush scrub in the Mojave Desert; two maternity colonies have recently been found in mines on the Nevada Test Site in blackbrush habitat; has been radio tracked to tree hollows, particularly large conifer snags in Oregon and Arizona, and rock crevices in cliff faces in Southern California; known hibernacula are generally mines or caves; RESIDENT STATUS: Year round resident; WINTER STATUS: Hibernates but capable of periodic winter activity	LMW&C, aspen, sage, Mojave, aspen, LMW&C, cliffs, dev	BLM S; USFS (S); NDOW (PM); NS-S (S2); NS (G4); WBWG (medium to high)	x	x	x	x
Greater western mastiff bat <i>Eumops perotis</i>	Multiple acoustic records collected from the Spring Mountains, Las Vegas Wash, Meadow Valley Wash, and along the Colorado River near Laughlin; found in a variety of habitats from desert scrub to chaparral to montane coniferous forest; have been detected in montane meadows above 8,000 feet; distribution is tied to availability of suitable roosting habitat and can sometimes be predicated based on presence of significant rock features (e.g., large granite or basalt formations); ROOST HABITAT: Day roosts primarily in crevices in cliff faces and cracks in boulders, occasionally buildings; generally roost in groups less than 100; RESIDENT STATUS: Probable transient; WINTER STATUS: Active all winter at lower elevations	Mojave, MB-DW, LMW&C, grass, cliff	BLM S; NDOW (SM); NS-S (S1); NS (G5G4); WBWG (medium to high)	x		x	
Hoary bat <i>Lasiurus cinereus</i>	Distribution patchy known mostly from the capture of single animals while foraging or acoustic records; roosting locations are not well known; tree-associated species; found primarily in forested upland habitats, as well as in gallery-forest riparian zones and agriculture habitats; in valley basins	ICF&W, WDR, aspen, LMW&C, ICF&W	BLM S; NS-S (S3N); NS (G3G4); WBWG (medium)	x	x	x	x

Common Name Scientific Name	Habitat	Nevada WAP Key Habitats ¹	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ²	Battle Mountain	Carson City	Ely	Southern Nevada
	in pure stands of Rocky Mountain juniper (<i>Juniperus scopulorum</i>); may occur in park and garden settings in urban areas; current records indicate distributed between 1,870–8,270 feet; ROOST HABITAT: Solitary; day roosts in trees, within foliage 10–40 feet above the ground in both coniferous and deciduous trees; unusual roosting situations have been reported in caves, beneath a rock ledge, in a woodpecker hole, and in a squirrel's nest; RESIDENT STATUS: Summer resident; been captured at 5,900 feet in Spring Valley, east-central Nevada in Rocky Mountain juniper habitat; captured near Yucca Mountain at 3,250 feet; captured over a well pond (3,250 feet) in Mojave Desert scrub vegetation; captured in a dry wash; recent acoustic and capture surveys in the Muddy River and Meadow Valley Wash drainages documented arrival and continued presence from early April through late May; prolonged presence from March through June was recorded in the upper Moapa Valley; until recently, records from southern Nevada were from the spring; however, two localities at the Nevada Test Site and the Spring Mountains have yielded records in the fall; records from the northeast span July 15 to August 21; documented in July at Key Pittman Reservoir and in September in Eagle Valley, Lincoln County; WINTER STATUS: Migrates but probably hibernates in parts of its winter range; records are primarily from the spring and fall but migratory patterns in Nevada are not known						
Inyo shrew <i>Sorex tenellus</i>	Habitats include riparian zones and canyon bottoms; rocky mountain habitat in areas with logs, boulders, or sagebrush scrub; and red fir communities; species may be more tolerant of dry habitat than are closely related shrews. In Great Basin National Park, this shrew was found at 3,000 meters elevation in habitat dominated by Engelmann spruce	Aspen, rivers, sage, LMW&C, ICF&W, cliffs	BLM S; NS-S (S2); NS (G4)		x	x	
Little brown bat <i>Myotis lucifugus</i>	Found primarily throughout the northern part of the State, but little is known of its distribution and abundance. Found primarily at higher elevations and higher latitudes, often associated with coniferous forest; requires a nearby water source; occurrence in Dixie Valley (4,400) has been documented acoustically; ROOST HABITAT: Day roosts in hollow trees, rock outcrops, buildings, and occasionally mines and caves; one of the species most commonly found in human structures; night roosts may be same structures used for day roost but locations nearest the entrance are preferred; hibernacula elsewhere are generally mines or caves; often found in the same roost sites with <i>Myotis yumanensis</i> . RESIDENT STATUS: Probably a year round resident; WINTER STATUS: Hibernates but no hibernating colonies have been found in Nevada; suspected that there are elevational movements between summer and winter roosts; no large aggregations of this species, like those known in the eastern U.S. have been found	LMW&C, lakes, riparian, aspen, LMW&C, ICF&W, cliffs, DEV	BLM S; NS-S (S3); NS (G3); WBWG (low to medium)	x	x	x	x
Long-eared myotis <i>Myotis evotis</i>	Found throughout the State, primarily at the higher elevations associated with coniferous forest; more widespread and common in the northern half of the State; primarily a forest-associated species. In southern Nevada, only found in Ponderosa pine or above; found in pinyon-juniper in the northern portion of Nevada Test Site; in northern Nevada common in pinyon-juniper and above, but also found in sagebrush and desert scrub habitats; current Nevada records indicate this species is distributed between 2,300-10,100 feet; ROOST HABITAT: Day roosts in hollow trees, under exfoliating bark, crevices in small rock outcrops, and occasionally in mines, caves, and buildings; night roosts have been found in caves, mines, and under bridges. Generally roost singly or in small groups; RESIDENT STATUS: year round resident; WINTER STATUS; presumed to be non-migratory and to hibernate locally.	LMW&C, ICF&W, Aspen, LMW&C	BLM S; NS-S (S4); NS (G5); WBWG (low to medium)	x	x	x	x
Long-legged myotis <i>Myotis volans</i>	Found throughout the State but more widespread and common in the northern half; occurs from mid to high elevations; absent from the low desert; found in pinyon-juniper, Joshua tree woodland, and montane coniferous forest habitats; occasionally found in Mojave and salt desert scrub, and blackbrush, mountain shrub, and sagebrush; current Nevada records indicate this species is distributed between 930–3,420 meters; ROOST HABITAT: Day roosts primarily in hollow trees, particularly large-diameter snags or live trees with lightning scars; uses rock crevices, caves, mines, and buildings when available; caves and mines may be used for night roosts; hibernacula elsewhere are generally mines or caves; RESIDENT STATUS: Probably a year round resident; WINTER STATUS: Hibernates but has the capability of winter activity; it is suspected that there are	LMW&C, ICF&W	BLM S; NS-S (S4); NS (G4G5); WBWG (low to medium)	x	x	x	x

Common Name Scientific Name	Habitat	Nevada WAP Key Habitats ¹	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ²	Battle Mountain	Carson City	Ely	Southern Nevada
	elevational and latitudinal movements between summer and winter roosts; transient colonies in the spring on the east side of the Sierra Nevada						
Merriam's shrew <i>Sorex merriami</i>	Primarily in various grassland habitats, including grasses in sagebrush scrub/pinyon-juniper habitat, and also in mountain- mahogany and mixed woodlands	sage, aspen	BLM S; NS-S (S3); NS (G4)		x		
Mountain pocket gopher <i>Thomomys monticola</i>	Occur in mountain meadows and rocky slopes in pine, fir, and spruce; in rich moist soil, as well as gravelly or rocky ground; generally found on open forest floor and at the edge of meadows and at high altitudes where temperatures are lower than the habitat of other pocket gopher species	grass, rivers, dev	BLM S; NS-S (S3); NS (G5)		x		
Pahranagat Valley montane vole <i>Microtus montanus fucosus</i>	Alpine meadows in the south and mountain valleys in the north; found in wet meadows, cropland, especially fields and pastures of grass and legumes along fence rows; grassy areas by streams and lakes; occupy shallow burrows and surface runways	WDR, marsh, AL, grass	BLM S; NDOW (SM); NS-S (S1S2); NS (G5T2)	x		x	
Pale kangaroo mouse <i>Microdipodops pallidus</i>	Nearly restricted to fine sands in alkali sink and desert scrub dominated by <i>Atriplex confertifolia</i> (shadscale) or <i>Artemisia tridentata</i> (big sagebrush); often burrows in areas of soft, windblown sand piled at the bases of shrubs	ICDS, sage, grass, DP-EP	BLM S; NDOW (PM); NS-S (S2); NS (G3)	x	x	x	x
Pallid bat <i>Antrozous pallidus</i>	Found throughout the State, primarily in the low and middle elevations (5,900 feet), although has been found at over 10,200 feet; variety of habitats from low desert to brushy terrain to coniferous forest and non-coniferous woodlands; in pinyon-juniper, blackbrush, creosote, sagebrush, and salt desert scrub habitats; ROOST SITES: Selects a variety of day roosts including rock outcrops, mines (maternity colonies have been found in geothermally influenced adits), caves, hollow trees, buildings, and bridges; night roosts very commonly under bridges, but also caves and mines; intolerant of roosts in excess of 40 degrees Celsius; RESIDENT STATUS: Year-round resident; WINTER STATUS: Hibernates but periodically arouses to actively forage and drink in winter	LMW&C, ICDS, lakes, riparian, aspen, ICF&W, cliffs	BLM S; USFS (S); NDOW (PM); NS-S (S3); NS (G4); WBWG (medium to low)	x	x	x	x
Pocket gopher includes Botta's (<i>Thomomys botae</i>); Fish Spring pocket gopher (<i>T. b. abstrusus</i>), and San Antonio pocket gopher (<i>T. b. curatus</i>)	Associated with a wide range of vegetation and soil types. Residents of open habitats and meadows, where soils are deep enough to maintain permanent burrow systems. Two subspecies of priority interest are isolated to two valleys: <i>T. b. abstrusus</i> in Fish Spring valley (also known as Little Fish Lake Valley) in Nye County, and <i>T. b. curtatus</i> in Big Smoky Valley; a third isolate occurs near Eastgate	grass, rivers	BLM S; Botta's NS-S (SNR); NS (G5); Fish Springs and San Antonio (NS-S (SH); NS (G5TH);	x	x	x	x
Pygmy rabbit <i>Brachylagus idahoensis</i>	Occurs in patches correlating positively to the density of sagebrush; found from the State border in the north to the northern end of Nye and Lincoln Counties in the south and from the State border in the east to Vya, Nevada in the west; still found in most of the higher intermountain regions in the Great Basin Desert of Nevada	sage	BLM S; USFS (S); NDOW (GM); NS-S (S3); NS (G4)	x	x	x	
Silver-haired bat <i>Lasionycteris noctivagans</i>	Widely distributed in the State, but confined primarily to forested habitats; found in riparian habitats in the south and in woodland and riparian habitats in the central and northern portions of the State; forest-associated species, more common in mature forests; found primarily at higher latitudes and altitudes; found in coniferous and mixed deciduous/coniferous forests of pinyon juniper, subalpine fir, white fir, limber pine, aspen, cottonwood and willow; usually found at lower elevations in southern Nevada associated with riparian corridors; current Nevada records indicate this species is distributed between 1,570–8,200 feet; ROOST HABITAT: Roosts almost exclusively in trees in summer; maternity roosts are generally in woodpecker hollows and under the loose bark of large diameter snags; generally at least 50 feet above ground; uses multiple roost sites, switching them frequently; small groups and single animals will roost under exfoliating bark; winter roosts include hollow trees, rock crevices, mines, caves, and houses; also has been found roosting under leaf litter; RESIDENT STATUS: Poorly understood; recent August records of seven post-lactating females and four juveniles in mixed subalpine fir/limber pine/aspen habitat and four lactating females in mixed coniferous/deciduous forest indicates maternity activity in northeast Nevada; WINTER STATUS: Migrates but probably hibernates in some parts of its winter range; migratory patterns not well understood; recent October records of migrating individuals	rivers, aspen, LMW&C, ICF&W	BLM S; NS-S (S3B); NS (G3G4); WBWG (medium)	x	x	x	x
Spotted bat <i>Euderma maculatum</i>	Known from only 12 localities, but scattered distribution throughout Nevada; distribution is patchy and linked to availability of cliff roosting-habitat; recent studies have documented significant activity throughout the summer months in the Muddy River drainage; there are recent high-elevation records from the Sierra Nevada in California; found in a wide variety of habitats from	LMW&C, WDR, DP-EP, cliffs, BL, dev, rivers, ICF&W	BLM S; USFS (S); NDOW (TM); NS-S (S2); NS (G4); WBWG (medium to high)	x	x	x	x

Common Name Scientific Name	Habitat	Nevada WAP Key Habitats ¹	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ²	Battle Mountain	Carson City	Ely	Southern Nevada
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	low-elevation desert scrub to high-elevation coniferous forest habitats, including pinyon-juniper, sagebrush, riparian and on urban high-rise (cliff analog) habitats; closely associated with rocky cliffs; current Nevada records indicate this species is distributed between 1,770–7,000 feet; ROOST HABITAT: Day roosts primarily in crevices in cliff faces but some indication that mines and caves may occasionally be used, primarily in winter; has been found roosting on/in buildings but reliance on such roosts is unclear; likely roosts singly; RESIDENT STATUS: Year-round resident; WINTER STATUS: Hibernates but periodically arouses to actively forage and drink in the winter; characteristics and locations of winter hibernacula in Nevada are completely unknown, and poorly understood throughout this species' range	LMW&C, ICDS, sage, ICF&W	BLM S; USFS (S); NDOW (SM); NS-S (S2); NS (G4); WBWG (high)	x	x	x	x
Western red bat <i>Lasiurus blossevillii</i>	Historically known from only two locations, one of which (Fallon area) yielded additional specimens in 1958; third location near Dyer was documented in September 1999; recent acoustic sampling in the Muddy River drainage in Clark County have yielded records of occurrence in late spring and early summer 2000, and three females and two males were captured between July and September in the same drainage; been detected acoustically in the northern portion of the Nevada Test Site during the summers of 1999 and 2000; two acoustic records were obtained near the Truckee River west of Fernley; acoustic records from two localities in Lincoln County were documented in 2003; found primarily in wooded habitats, including mesquite bosque and cottonwood/willow riparian areas; current Nevada records indicate this species is distributed between 1,380–6,600 feet; ROOST HABITAT: Solitary rooster; day roosts in trees, within the foliage and presumably in leaf litter on the ground; RESIDENT STATUS: Thought to be a migrant but may be a summer resident in the Fallon and Muddy River areas; WINTER STATUS: Winter behavior poorly understood; thought to be migratory in NV, although migratory patterns are not well documented; this species is reported to be highly migratory throughout most of its range	WDR, rivers, sage, Mojave, aspen, LMW&C, ICF&W, cliffs, dev, AL	BLM S; NDOW (SM); NS-S (S1M); NS (G4); WBWG (high)	x	x	x	x
Western small-footed myotis <i>Myotis ciliolabrum</i>	found throughout the State; in the south, primarily found at the middle and higher elevations (> 5,900 feet), although occasionally found at lower elevations; in central and northern part of the State it is more common at valley bottoms (3,400–5,900 feet); inhabits a variety of habitats including desert scrub, grasslands, sagebrush steppe, and blackbrush, greasewood, pinyon-juniper woodlands, pine-fir forests, agriculture, and urban areas; current Nevada records indicate distribution between 1,600–9,000 feet; ROOST HABITAT: Roosts have been found in caves, mines, and trees; roosting preferences expected to be similar to those for <i>Myotis californicus</i> ; RESIDENT STATUS: Year round resident; WINTER STATUS: Hibernates; in some areas may tolerate drier and colder hibernacula than some other species; hibernates individually or in large colonies; a large colony (>100 individuals) was found at a depth of 450 feet in an abandoned mine near Eureka	LMW&C, ICDS, sage, ICF&W	BLM S; NS-S (S3); NS (G5); WBWG (low to medium)	x	x	x	x
Yuma myotis <i>Myotis yumaensis</i>	Found at least in the southern and western half of the State, primarily at low to middle elevations; recent collection in east central Nevada and a large colony near Rye Patch Reservoir suggests a wider distribution in the State; found in a wide variety of habitats from low to mid-elevations,	Mojave, WDR, ICDS, lakes, river, dev	BLM S; NS-S (S3S4); NS (G5); WBWG (low to medium)	x	x	x	x

Common Name Scientific Name	Habitat	Nevada WAP Key Habitats ¹	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ²	Battle Mountain	Carson City	Ely	Southern Nevada
	including sagebrush, salt desert scrub, agriculture, playa, and riparian habitats; one of the species that is most tolerant of human habitation and one of the few that thrives in a relatively urbanized environment; often considered to be a “building” bat, it is also found in heavily forested settings elsewhere; current Nevada records indicate this species is distributed between 1,500–10,900 feet; ROOST HABITAT: Day roosts in buildings, trees, mines, caves, bridges, and rock crevices; night roosts usually associated with buildings, bridges, or other human-made structures; RESIDENT STATUS: Year round resident; WINTER STATUS: Hibernates; no large winter aggregations have been found in Nevada						
Banded Gila monster <i>Heloderma suspectum cinctum</i>	Desert areas with shrubs and small trees; mountain slopes	Mojave, MB-DW, cliffs, WDR, dev	BLM S; NDOW (PR); NS-S (S2); NS (G4T4)			x	x
Common chuckwalla <i>Sauromalus ater</i>	Inhabits rocky desert; lava flows, hillsides, and outcrops; creosote bush occurs throughout most of the range; habitats encompass subtropical thornforest in the southern part of the range; individuals seek shelter in rock crevices	Mojave, MB-DW, WDR, dunes, cliffs	BLM S; NS-S (S3); NS (G5)			x	x
Desert glossy snake <i>Arizona elegans eburnata</i> (desert glossy) and <i>A. e. candida</i> (Mohave glossy)	Inhabits barren sandy desert, arid scrub, rocky washes	Mojave, WDR	BLM S; NS-S (S4); NS (G5)			x	x
Desert horned lizard <i>Phrynosoma platyrhinos</i>	Typically found in open sandy areas in deserts, chaparral, grassland, often near ant hills; often seen basking on asphalt roads or low rocks in the morning or afternoon	ICDS, Mojave, sage, MB-DW, DP-EP, WDR, LMW&C, grass, dunes, cliffs, dev, AL	BLM S; NS-S (S4)	x	x	x	x
Desert iguana <i>Dipsosaurus dorsalis</i>	Inhabits creosote bush desert from below sea level to 3,300 feet, although reported up to 5,000 feet; prefers hummocks of loose sand and patches of firm ground with scattered rocks and desert washes	Mojave, MB-DW, DP-EP, WDR, dunes, cliffs	BLM S; NS-S (S3); NS (G5)				x
Great Basin collared lizard <i>Crotaphytus bicinctores</i>	Occurs mainly in xeric, sparsely vegetated rocky areas, on alluvial fans, lava flows, hillsides, rocky plains, and in canyons; perches atop rocks and hides under rocks and be found from sea level to about 7,500 feet	ICDS, LMW&C, Mojave, WDR, MB-DW, cliffs, dunes	BLM S; NS-S (S4); NS (G5)	x	x	x	x
Greater short-horned lizard <i>Phrynosoma hernandesi</i>	Ranges from semiarid plains to high mountains (2,000–10,500 feet above sea level); occupies a variety of habitats, including sagebrush, and open pinyon-juniper, pine-spruce, and spruce-fir forests; substrate may be stony, sandy, or firm but some fine loose soil is usually present	ICDS, sage, LMW&C, grass, dunes, cliffs, ICF&W	BLM S; NS-S (S3/4)	x		x	
Long-nosed leopard lizard <i>Gambelia wislizenii</i>	Found in sandy and gravelly desert and semidesert areas with scattered shrubs or other low plants (e.g., bunch grass, alkali bush, sagebrush, creosote bush) especially areas with abundant rodent burrows; occurs from sea level to approximately 6,000 feet	ICDS, grass, MB-DW, DP-EP, WDR, grass, dunes, dev, aspen	BLM S; NS-S (S4); NS (G5)	x	x	x	x
Northern rubber boa <i>Charina bottae</i>	Grassland, meadows, and chaparral to deciduous and conifer forests, to high alpine settings	ICF&W, aspen, sage, rivers, aspen, LMW&C, grass, cliff	BLM S; NS-S (S3S4); NS (G5)		x		
Pygmy short-horned lizard <i>Phrynosoma douglassii</i>	Habitats of this lizard range from semiarid plains to high mountains; usually the species is in open, shrubby, or openly wooded areas with sparse vegetation at ground level	sage, LMW&C, grass	BLM S; NS-S (SNR); NS (G5)	x			
Ring-necked snake <i>Diadophis punctatus</i>	Occurs in forests, woodlands, grassland, chaparral, and riparian corridors in arid regions; habitats are moist, at least seasonally; individuals often are found near abandoned buildings and in junk piles in wooded areas; during daylight hours, this snake generally hides underground, in or under logs, or under rocks, stumps or other surface cover; eggs are laid (often communally) underground or under logs or rocks	Mojave, MB-DW, cliffs, WDR, rivers, springs, cliff	BLM S; NS-S (S3); NS (G5)			x	x

Common Name Scientific Name	Habitat	Nevada WAP Key Habitats ¹	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ²	Battle Mountain	Carson City	Ely	Southern Nevada
Sidewinder <i>Crotalus cerastes</i>	Primarily areas of wind-blown sands, especially where sand hummocks are topped with vegetation; also found in hardpan, open flats, rocky hillsides, and other desert areas, especially those grown with creosote bush, where the terrain is open, not obstructed by rocks or vegetation, allowing the broad sidwinding locomotion	grass, Mojave, WDR, dunes	BLM S; NS-S (G4); NS (G5)			x	x
Shovel-nosed snake <i>Chionactis occipitalis talpina</i> and <i>C. o. occipitalis</i>	Inhabits dry desert habitats with loose sand and often with little vegetation: washes, dunes, sandy flats, rocky hillsides	MB-DW	BLM S; NS-S (4); NS (G3)			x	x
Sonoran mountain kingsnake <i>Lampropeltis pyromelana</i>	Chaparral woodland and pine forests in mountainous regions, brushy rocky canyons, talus slopes, and near streams and springs; found from 2,800 to 9,100 feet above sea level	sage, rivers, LMW&C, ICF&W, cliffs	BLM S; NDOW (SP); NS-S (S2); NS (G4)			x	
Western pond turtle <i>Actinemys marmorata</i>	Limited range in western NV in Truckee and Carson Rivers and nearby ponds; found in permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, irrigation ditches, and reservoirs; sometimes found in brackish water	rivers, lakes, dev	BLM S; NS-S (S2); NS (G3G4)		x		
Western red-tailed skink <i>Plestiodon gilberti rubricaudatus</i>	Found in a variety of habitats, this lizard is most common in early successional stages or open areas of late successional stages; heavy brush and densely forested areas are generally avoided	Mojave, LMW&C, ICF&W, WDR, MB-DW, cliffs	BLM S; NS-S (S2S3); NS (G5T4Q)	x			

¹ Nevada Wildlife Action Plan (WAP) Key Habitats – habitat abbreviations:

DP-EP = Desert Playas and Ephemeral Pools

AL = Agricultural Lands

Aspen = Aspen Woodland

BL = Barren Landscapes

cliffs = Cliffs and Canyons

dev = Developed Landscapes

grass = Grasslands and Meadows

ICDS = Intermountain Cold Desert Shrub

ICF&W = Intermountain Coniferous Forest and Woodlands

rivers = Intermountain Rivers and Streams

lakes = Lakes and Reservoirs

LMW&C = Lower Montane Woodlands and Chaparral

marsh = Marshes

MB-DW = Mesquite Bosques and Desert Washes

Mojave = Mojave Warm Desert and Mixed Desert Scrub

dunes = Sand Dunes and Badlands

sage = Sagebrush

spring = Springs and Springbrooks

WDR = Warm Desert Riparian

² See Appendix D-4 for ranking descriptions.

Appendix D-3 Special Status Plant Species

Common Name Scientific Name	Habitat	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ¹	Battle Mountain	Carson City	Ely	Southern Nevada
Alexander's buckwheat <i>Eriogonum alexanderae</i>	Light-colored clay outcrops, hillsides, and badlands in the shadcale, sagebrush, and pinyon-juniper zones	BLM S; NS-S (S2S3); NS (G5T2T3)		x		
Alkali ivesia <i>Ivesia kingii</i> var. <i>kingii</i>	Sagebrush scrub, alkali sink, wetland-riparian; meadows, playas	BLM S; NS-S (S3); NS (G4)	x	x	x	
Alkali mariposa lily <i>Calochortus striatus</i>	Wetland-riparian in shadscale scrub or chaparral; usually occurs in wetlands but occasionally found in non-wetlands	BLM S; NS-S (S1); NS (G3)				x
Altered andesite buckwheat <i>Eriogonum robustum</i>	Dry, shallow, highly acidic, gravelly clay soils mainly of the Smallcone Series, derived from weathering of hydrothermal sulfide deposits formed in andesite, or sometimes in rhyolitic or granitoid rocks, forming mostly barren yellowish to orange-brown patches on ridges, knolls, and steep slopes	BLM S; USFS (S); NS-S (S2); NS (G2G3)		x		
Altered andesite popcornflower <i>Plagiobothrys glomeratus</i>	Dry, shallow, highly acidic (pH 3.3–5.5) gravelly clay soils mainly of the Smallcone Series, derived from weathering of hydrothermal sulfide deposits formed in andesite, or sometimes in rhyolitic or granitoid rocks, forming mostly barren yellowish to orange brown patches on ridges, knolls, and steep slopes on all aspects, on all but the most xeric sites supporting a sparse, stunted relict woodland of yellow pines and pinyon pine	BLM S; USFS (S); NS-S (S2); NS (G2G3)		x		
Amargosa niterwort <i>Nitrophila mohavensis</i>	Limited to highly alkaline, moist, salt-encrusted clay soils within the southern portion of Carson Slough	BLM S; USFWS (E); NAC (CE); NS-S (S1); NS (G1)	x			x
Ames milkvetch <i>Astragalus pulsiferae</i> var. <i>pulsiferae</i>	Sagebrush scrub; northern juniper woodland; mountains and plateaus	BLM S; NS-S (S1); NS (G4T2)		x		
Antelope Canyon goldenbush <i>Ericameria cervina</i>	Rock crevices and talus in shadscale and Douglas-fir-bristlecone pine communities at 1,600 to 2,685 meters elevation; often on calcareous substrates; less commonly on ash flow tuff	BLM S; NS-S (S1); NS (G3?)			x	x
Ash Meadows blazingstar <i>Mentzelia leucophylla</i>	Known to occupy alkaline soils in dry washes and on barren bluffs distributed along the eastern edge of Ash Meadows; associated with the Ash Meadows sunray; always associated with dry soils apparently uninfluenced by seepage from springs or seeps	BLM S; USFWS (T); NAC (CE); NS-S (S1); NS (G1Q)				x
Ash Meadows gumplant <i>Grindelia fraxinopratensis</i>	Thrives on salty soils, especially the moist, salt-encrusted, alkali soils of Ash Meadows in the Amargosa Valley	BLM S; USFWS (T); NAC (CE); NS-S (S2); NS (G2)				x
Ash Meadows milkvetch <i>Astragalus phoenix</i>	Occurs only in Nye County, Nevada on dry, hard, white, barren saline, clay flats, knolls, and slopes and in the Amargosa River drainage	BLM S; USFWS (T); NAC (CE); NS-S (S2); NS (G2)				x
Ash Meadows mousetails <i>Ivesia kingii</i> var. <i>eremica</i>	Grows in alkali washes throughout Ash Meadows; prefers moist, clay soils with a prominent salt crust	BLM S; USFWS (T); NAC (CE); NS-S (S1S2); NS (G4T1T2Q)	x			x
Ash Meadows sunray <i>Enceliopsis nudicaulis</i> var. <i>corrugata</i>	Known to occupy alkaline soils in dry washes and on barren bluffs distributed along the eastern edge of Ash Meadows; associated with the Ash Meadows blazing star; always associated with dry soils apparently uninfluenced by seepage from springs or seeps	BLM S; USFWS (T); NAC (CE); NS-S (S2); NS (G5T2)				x
Bashful beardtongue <i>Penstemon pudicus</i>	Mostly a woodland-border species growing in partial shade in pinyon-juniper woodlands and subalpine sagebrush zones between 7,500–9,000 feet in Nye County, Nevada	BLM S; USFS (S); NS-S (S1); NS (G1)	x			
Beatley buckwheat <i>Eriogonum beatleyae</i>	dry, volcanic outcrops	BLM S; NS-S (S3); NS (G2Q)	x	x		
Beatley scorpionflower <i>Phacelia beatleyae</i>	Dry, open, nearly barren scree and loose gravelly soils on slopes and bases of white to brownish volcanic tuff outcrops on all slopes and aspects, and in adjacent drainages, in the mixed-shrub, blackbrush, shadscale, and upper creosote-bursage zones	BLM S; NS-S (S3); NS (G3)				x
Beaver Dam breadroot <i>Pediomelum castoreum</i>	Found in sandy washes and roadcuts in the eastern Mojave of Nevada	BLM S; NS-S (S3); NS (G3)				x
Black woollypod <i>Astragalus funereus</i>	Dry, open scree, talus, or gravelly alluvium derived from light-colored volcanic tuff, on east, south, less commonly west, rarely north aspects	BLM S; NS-S (S2); NS (G2)				x

Common Name Scientific Name	Habitat	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ¹	Battle Mountain	Carson City	Ely	Southern Nevada
Blaine pincushion <i>Sclerocactus blainei</i>	Alkaline calcareous and volcanic gravelly-clay soils in open valley bottom areas in the shadscale and lower sagebrush zones with <i>Sarcobatus vermiculatus</i> , <i>Pleuraphis jamesii</i> , <i>Atriplex confertifolia</i> , <i>Artemisia tridentata</i> , <i>Ericameria nauseosa</i> , etc.	BLM S; NAC (CY); NS-S (S1); NS (G1G2Q)	x		x	
Blue Diamond cholla <i>Cylindropuntia multigeniculata</i> (<i>Opuntia whipplei</i> var. <i>multigeniculata</i>)	Dry, open carbonate ledges, crevices, and rocky colluvium on gentle to steep slopes of all aspects, but predominantly on northerly exposures, canyon walls, or other cooler or more protected exposures, in close proximity to overlying gypsum beds upslope, and associated with numerous other succulent and shrub species of the creosote bush and blackbrush vegetation zones	BLM S; NAC (CE); NS-S (S2); NS (G4?T2Q)				x
Bodie Hills draba <i>Cusickiella quadricostata</i>	Great Basin scrub, pinyon and juniper woodland; clay or rocky soils; elevations from 6,200 to 8,500 feet above sea level	BLM S; USFS (S); NS-S (S2); NS (G2)		x		
Bodie Hills rockcress <i>Boechea bodiensis</i>	Dry, open, rocky, high or north-facing slopes or exposed summits of granitic or rhyolitic material, on moisture accumulating microsites in sagebrush associations within the pinyon-juniper and mountain sagebrush zones	BLM S; USFS (S); NS-S (S2); NS (G2)		x		
Bullfrog Hills sweetpea <i>Lathyrus hitchcockianus</i>	Washes and canyon bottoms in rocky volcanic gravelly or sandy soil; desert scrub above creosote bush; 1,370–1,585 meters; often grows entangled with nearby shrubs; desert and shrubland/chaparral	BLM S; NS-S (S2); NS (G2)				x
Callaway milkvetch <i>Astragalus callithrix</i>	Deep, sandy soil on the valley floor or on dunes in barren openings with <i>Atriplex</i> , <i>Grayia</i> , <i>Chrysothamnus</i> , and <i>Artemisia</i> ; 1,550–1,710 meters	BLM S; NS-S (S3); NS (G3)		x		
Candelaria blazingstar <i>Mentzelia candelariae</i>	Barren, often calcareous, low-competition gravelly or clay soils on weathered volcanic ash deposits, scree slopes, hot spring mounds, washes, or road banks or other recovering disturbances, in the shadscale, mixed-shrub, and sagebrush zones	BLM S; NS-S (S3?); NS (G3?Q)		x		
Carson Valley monkeyflower <i>Erythranthe carsonensis</i>	Open areas of Great Basin sagebrush/bitterbrush scrub in coarse granite soils on gentle to moderate slopes (0-15 percent), usually on north aspects but also occasionally on south/southwest aspects; elevation 1,400–1,580 meters (4,600–5,200 feet)	BLM S; NAC (CE); NS-S (S2); NS (G1)		x		
Churchill Narrows buckwheat <i>Eriogonum diatomaceum</i>	Dry, relatively barren and undisturbed, white to yellowish tan, clay to silty diatomaceous deposits of the Coal Valley Formation, with a variable volcanic cobble overburden, on rounded knolls, low ridges, slopes, and especially small drainages on all aspects	BLM S; NAC (CE); NS-S (S1); NS (G1)		x		
Cima milkvetch <i>Astragalus cimae</i> var. <i>cimae</i>	Dry, open, relatively barren calcareous gravel slopes or clay hills	BLM S; NS-S (S2); NS (G3T2)	x			
Clarke phacelia <i>Phacelia filiae</i>	Light-colored outcrops and soils of calcareous and sometimes gypsiferous sandstone, siltstone, tuffaceous claystone, or limestone, on foothills and valley floors above the playas, in the creosote-bursage, shadscale, mixed-shrub, and blackbrush zones, often associated with <i>Atriplex confertifolia</i>	BLM S; NS-S (S2); NS (G2)	x			
Clokey buckwheat <i>Eriogonum heermannii</i> var. <i>clokeyi</i>	Carbonate outcrops, talus, scree, and gravelly washes and banks in the creosote-bursage, shadscale, and blackbrush zones	BLM S; USFS (S); NS-S (S2); NS (G5T2)				x
Currant milkvetch <i>Astragalus uncialis</i>	Dry, open, sparsely-vegetated, calcareous sandy-clay soils on flats and gentle slopes of hillsides and alluvial fans	BLM S; USFS (S) NS-S (S2); NS (G2)	x		x	
Currant Summit clover <i>Trifolium andinum</i> var. <i>podocephalum</i>	Crevices of volcanic or carbonate rock in the pinyon-juniper zone, 6,900–7,400 feet elevation	BLM S; USFS (S); NS-S (S1); NS (G3T1)			x	
Dainty moonwort <i>Botrychium crenulatum</i>	Aquatic or wetland-dependent in Nevada	BLM S; USFS (S); NS-S (S1?); NS (G3)			x	
Darin buckwheat <i>Eriogonum concinnum</i>	Deep loose sand derived from, or in crevices of, light-colored tuff or other volcanic rocks, often at bases of cliffs or outcrops, the soil sometimes covered by talus or scree, or on road cuts or other disturbances crossing such habitats, in the pinyon-juniper, sagebrush, mixed-shrub, blackbrush, and shadscale zones: possibly dependent on sand dunes or deep sand	BLM S; NS-S (S2); NS (G2)				x
Davis peppergrass <i>Lepidium davisii</i>	Hard-bottomed clay playas on volcanic plains in the sagebrush zone with sparse associated <i>Atriplex confertifolia</i> and <i>Artemisia cana</i> , surrounded by <i>Artemisia tridentata</i> vegetation: during spring, the playas are usually inundated up to a foot deep; aquatic or wetland-dependent in Nevada	BLM S; NS-S (S1); NS (G3)	x			
Death Valley beardtongue <i>Penstemon fruticiformis</i> ssp. <i>amargosae</i>	Grows in rocky scrub and woodland habitat	BLM S; NS-S (S2); NS (G4T3)				x
Death Valley sage <i>Salvia funerea</i>	Dry washes and rocky places, canyons to 3,000 feet, northeastern Mojave Desert	BLM S; NS-S (S1); NS (G3)				x

Common Name Scientific Name	Habitat	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ¹	Battle Mountain	Carson City	Ely	Southern Nevada
Deeth buckwheat <i>Eriogonum nutans</i> var. <i>glabratum</i>	In sandy gravelly soil	BLM S; NS-S (S2S3); NS (G5T2T3)	x			
Deer Lodge buckwheat <i>Eriogonum pharnaceoides</i> var. <i>cervinum</i>	Sandy or gravelly slopes, sagebrush and mountain mahogany communities, oak, pinyon-juniper, and montane conifer woodlands	BLM S; NS-S (S1); NS (G4G5T2)				x
Eastwood milkweed <i>Asclepias eastwoodiana</i>	In open areas on a wide variety of basic (pH usually 8 or higher) soils, including calcareous clay knolls, sand, carbonate or basaltic gravels, or shale outcrops, generally barren and lacking competition, frequently in small washes or other moisture-accumulating microsites, in the shadscale, mixed-shrub, sagebrush, and lower pinyon-juniper zones	BLM S; USFS (S); NS-S (S2S3); NS (G2Q)	x	x	x	
Elko rockcress <i>Boechera falcifruca</i>	Dry, densely vegetated, relatively undisturbed, light-colored silty soils with a high cover of moss and other soil crust components on moderate to steep north-facing slopes in the sagebrush zone, dominated by moss, <i>Artemisia tridentata</i> var. <i>wyomingensis</i> , <i>Chrysothamnus viscidiflorus</i> var. <i>puberulus</i> , and <i>Poa secunda</i> var. <i>secunda</i> ; also reported but not confirmed from rock crevices	BLM S; NS-S (S1S2); NS (G1G2)	x			
Garrett's California fuchsia (Garrett's firechalice) <i>Epilobium canum</i> ssp. <i>garrettii</i>	Known from a single collection in the Delamar Range of Lincoln County	BLM S; NS-S (SNR); NS (G5T4)				x
Gilman's milkvetch <i>Astragalus gilmanii</i>	On light-colored volcanic tuff slopes in pinyon-juniper woodland	BLM S; NS-S (S1); NS (G2)				x
Gold Butte moss <i>Didymodon nevadensis</i>	On or near gypsiferous deposits and outcrops or limestone boulders, especially on east- to north-facing slopes of loose uncompact soil, often associated with other mosses and lichens	BLM S; NS-S (S1); NS (G4)				x
Goodrich biscuitroot <i>Cymopterus goodrichii</i>	Moderate to steep scree and talus slopes of dark angular slate or limestone in the upper subalpine and lower alpine zones	BLM S; USFS (S); NS-S (S1); NS (G1)	x			
Great Basin fishhook cactus <i>Sclerocactus pubispinus</i>	Along the eastern edges of Elko and White Pine Counties, at elevations of 4,600 to 6,900 feet	BLM S; NAC (CY); NS-S (S2); NS (G3)				x
Halfring milkvetch <i>Astragalus mohavensis</i> var. <i>hemigyryrus</i>	Carbonate gravels and derivative soils on terraced hills and ledges, open slopes, and along washes in the creosote-bursage, blackbrush, and mixed-shrub zones	BLM S; NS-S (S2S3); NS (G3G4T2T3)				x
Holmgren lupine <i>Lupinus holmgrenianus</i>	Dry desert slopes, sandy washes, and valleys, sometimes on volcanic substrates; found within <i>Artemisia tridentata</i> -dominated communities to pinyon-juniper woodlands; 4,500–8,000 feet	BLM S; NS-S (S2); NS (G2)	x			
Intermountain wavewing (shadscales spring parsley) <i>Cymopterus basalticus</i>	Bare basaltic rocks, barren clays, gravelly hills and alluvial fans, mostly on dolomite; 4,400–7,000 feet in the pinyon-juniper, sagebrush, and shadscale zones	BLM S; NS-S (S1); NS (G2)				x
Inyo blazing star <i>Mentzelia inyoensis</i>	Washes, limestone soils, talus slopes, 2,500–6,000 feet, creosote bush scrub, Joshua tree and pinyon-juniper woodland, Clark Mountains and mountains of northern Mojave Desert	BLM S; USFS (S); NS-S (S1); NS (G3)		x		
Jaeger beardtongue <i>Penstemon thompsoniae</i> ssp. <i>jaegeri</i>	Gravelly limestone soils on knolls, slopes, and small drainages, mostly under conifers or other woody species, from the pinyon-juniper to the subalpine conifer zones	BLM S; USFS (S); NS-S (S2); NS (G4T2)				x
Jaeger ivesia <i>Ivesia jaegeri</i>	Grows in cracks and crevices in the limestone cliffs and slopes of the desert mountains	BLM S; USFS (S); NS-S (S2S3); NS (G2G3)				x
Lahontan Basin buckwheat <i>Eriogonum rubricaulle</i>	Dry, open, light-colored, strongly alkaline shrink-swell clay soils on bluffs and badlands derived from fluviolacustrine silt, volcanic ash, or diatomite deposits, sometimes perched on dark basaltic slopes, in the shadscale, mixed-shrub, and lower sagebrush zones	BLM S; NS-S (S3); NS (G3)		x		
Lahontan beardtongue <i>Penstemon palmeri</i> var. <i>macranthus</i>	Along washes, roadsides, and canyon floors, particularly on carbonate-containing substrates, usually where subsurface moisture is available throughout most of the summer; unknown if restricted to calcareous substrates	BLM S; NS-S (S2?); NS (G4G5T2?)	x	x		
Lahontan milkvetch <i>Astragalus porrectus</i>	Open, calcareous or alkaline, sandy to gravelly washes, alluvium, or gullies on clay badlands, knolls, or playa edges in the shadscale zone	BLM S; NS-S (S3?); NS (G3?)		x		
Las Vegas bearpoppy <i>Arctomecon californica</i>	Open, dry, spongy or powdery, often dissected ("badland") or hummocked soils with high gypsum content, often with well-developed soil crust, in areas of generally low relief on all aspects and slopes, with a sparse cover of other gypsum-tolerant species	BLM S; NAC (CE); NS-S (S3); NS (G3)				x

Common Name Scientific Name	Habitat	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ¹	Battle Mountain	Carson City	Ely	Southern Nevada
Las Vegas buckwheat <i>Eriogonum corymbosum</i> var. <i>nilesii</i>	Confined to gypsum-rich soils in central and eastern Clark County and southern Lincoln County, Nevada	BLM S; NS-S (S1S2); NS (G5T2)			x	x
Lavin eggvetch <i>Astragalus oophorus</i> var. <i>lavinii</i>	Open, dry, relatively barren gravelly clay slopes, knolls, badlands, or outcrops, derived from volcanic ash or carbonate, usually northeast to southeast aspects, openings in pinyon- juniper or sagebrush zones	BLM S; USFS (S); NS-S (S2); NS (G4T2)		x		
Lemmon buckwheat <i>Eriogonum lemmonii</i>	Open, light-colored, sometimes silty or sandy, sometimes gypsiferous shrink-swell clay soils on bluffs and badlands derived from fluviolacustrine silt and volcanic ash deposits in the shadscale zone	BLM S; NS-S (S3?); NS (G3?)		x		
Limestone buckwheat <i>Eriogonum eremicum</i>	Shadscale, desert shrub, and juniper communities on calcareous substrates at 5,100 to 6,300 feet elevation	BLM S; NS-S (S1); NS (G2G3Q)			x	
Long-calyx eggvetch <i>Astragalus oophorus</i> var. <i>lonchocalyx</i>	Pinyon-juniper, sagebrush, and mixed desert shrub communities at 5,800 to 7,500 feet; dry gravelly hillsides and stony flats, associated with sagebrush, on limestone	BLM S; NS-S (S2); NS (G4T2)			x	
Lone Mountain goldenheads <i>Tonestus graniticus</i>	Crevice of granitic cliffs and outcrops on protected exposures (north to east aspects, deep canyons, etc.) in the pinyon- juniper zone	BLM S; NS-S (S1); NS (G1)	x			
Long Valley Milkvetch <i>Astragalus johannis-howellii</i>	Sandy rhyolitic soils on flats and gentle slopes of mountain sagebrush	BLM S; NS-S (S2); NS (G2)		x		
Low feverfew <i>Parthenium ligulatum</i>	Relatively barren clay or sandy-clay knolls, slopes, and flats in the pinyon-juniper woodland zone	BLM S; NS-S (S1); NS (G3)	x			
Lunar Crater buckwheat <i>Johanneshowellia crateriorum</i>	Three occurrences in Nye County	BLM S; NS-S (S1); NS (G1)	x			
Maquire bitterroot <i>Lewisia maquirei</i>	Dry, sparsely vegetated carbonate scree or shallow gravelly-clay soils on steep slopes and ridgelines of all aspects in the pinyon-juniper zone	BLM S; USFS (S); NS-S (S1); NS (G1)			x	
Margaret rushy milkvetch <i>Astragalus convallarius</i> var. <i>margaretiae</i>	Rocky slopes and flats among sagebrush in the pinyon-juniper and sagebrush zones; endemic to the Pine Nut and Virginia Ranges	BLM S; NS-S (S2); NS (G5T2)		x		
Masonic Mountain jewelflower <i>Streptanthus oliganthus</i>	Rocky sites and talus, from 6,890 to 9,190 feet above sea level	BLM S; USFS (S); NS-S (S2) NS (G2G3)		x		
Mono County Phacelia <i>Phacelia monoensis</i>	Alkaline, barren or sparsely vegetated grayish, brownish, or reddish shrink-swell clays of mostly andesitic origin, on various slopes and aspects, mostly on stabilized or low-intensity artificial or natural disturbances, most abundant on road berms that cross such soils, less frequently on naturally eroding badlands or apparently undisturbed soil, in the pinyon-juniper and mountain sagebrush zones	BLM S; USFS (S); NS-S (S3) NS (G3)		x		
Monte Neva paintbrush <i>Castilleja salsuginosa</i>	Damp, open, alkaline to saline clay soils of hummocks and drainages on travertine hot-spring mounds	BLM S; NAC(CE); NS-S (S1); NS (G1Q)	x		x	
Mojave thistle (Virgin River thistle) <i>Cirsium mohavense</i> (or <i>C. virginense</i>)	Damp soils around desert springs, streams, and ditches; 1,500 to 9,000 feet elevation; open, moist, alkaline clay soils of seep and spring areas or gypsum knolls; aquatic or wetland dependent in Nevada	BLM S; NS-S (SNR); NS (G2G3)	x	x	x	x
Mokiak milkvetch <i>Astragalus mokiacensis</i>	Loose, sandy to gravelly soils, mostly in and near dry drainages or other periodic disturbances, sometimes on bluffs, cliff terraces, badlands, or basalt talus, in the creosote-bursage, blackbrush, and mixed-shrub zones	BLM S; NS-S (S1S2); NS (G3G4Q)				x
Mount Moriah beardtongue <i>Penstemon moriahensis</i>	Open, gravelly, or silty carbonate soils in drainages, on gentle slopes, and on road banks or other recovering disturbances with enhanced runoff, in the subalpine conifer, subalpine sagebrush, mountain mahogany, and upper pinyon-juniper zones	BLM S; USFS (S); NS-S (S1S2); NS (G1G2)			x	
Nachlinger catchfly <i>Silene nachlingerae</i>	Generally dry, exposed or somewhat sheltered carbonate (rarely quartzite) crevices in ridgeline outcrops, talus, or very rocky soils on or at the bases of steep slopes or cliffs, on all aspects but predominantly on northwesterly to northeasterly exposures, mainly in the subalpine conifer zone	BLM S; USFS (S); NS-S (S2); NS (G2)			x	
Needle Mountains milkvetch <i>Astragalus eurylobus</i>	Generally deep, barren, sandy, gravelly, or clay soils derived from sandstone or siliceous volcanics, frequently in or along drainages	BLM S; NS-S (S2); NS (G2)			x	
Nevada dune beardtongue <i>Penstemon arenarius</i>	Deep, volcanic, sandy soils at elevations of 3,940 to 4,430 feet above mean sea level; common associates include fourwing saltbush, littleleaf horsebrush, and greasewood	BLM S; USFS (S); NS-S (S2); NS (G2G3)		x		

Common Name Scientific Name	Habitat	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ¹	Battle Mountain	Carson City	Ely	Southern Nevada
Nevada suncup <i>Camissonia nevadensis</i>	Open, sandy, gravelly, or clay slopes and flats in the salt-desert, shadscale, and lower sagebrush zones	BLM S; NS-S (S3); NS (G3)		x		
Nevada willowherb <i>Epilobium nevadense</i>	Limestone soils, talus, cliffs, and rock outcrops with slopes of varying steepness from 5 to 45 percent	BLM S; USFS (S); NS-S (S2); NS (G3)	x		x	x
Nye pincushion (Tonopah pincushion) <i>Sclerocactus nyensis</i>	Dry rocky soils and low outcrops of rhyolite, tuff, and possibly other rock types, on gentle slopes in open areas or under shrubs in the upper salt desert and lower sagebrush zones	BLM S; NAC (CY); NS-S (S1); NS (G1Q)	x			
Oryctes <i>Oryctes nevadensis</i>	Deep loose sand of stabilized dunes, washes, and valley flats, on various slopes and aspects	BLM S; NS-S (S3); NS (G3)		x		
Pahrump silverscale <i>Atriplex argentea</i> var. <i>longitrichoma</i>	Alkaline or gypsiferous, sometimes seasonally moist, often disturbed silty clay soils of valley bottoms in salt desert vegetation surrounded by the creosote-bursage zone, or on roadsides or in abandoned fields	BLM S; NS-S (S1); NS (G5T2)				x
Pahrump Valley buckwheat <i>Eriogonum bifurcatum</i>	Mostly in barren, saline, heavy clay or silty hardpan soils on and near dry playa margins, and on adjacent shore terraces and stabilized sand dunes	BLM S; NS-S (S2); NS (G3)				x
Pahute Mesa beardtongue <i>Penstemon pahutensis</i>	In loose soil and rock crevices among boulders in pinyon-juniper woodlands and sagebrush shrublands	BLM S; NS-S (S3); NS (G3)	x			x
Parish phacelia <i>Phacelia parishii</i>	Moist to superficially dry, open, flat to hummocky, mostly barren, often salt-crustated silty-clay soils on valley bottom flats, lake deposits, and playa edges, often near seepage areas, sometimes on gypsum deposits	BLM S; NS-S (S2S3); NS (G2G3)			x	x
Pennell beardtongue <i>Penstemon leiophyllus</i> var. <i>francisci-pennellii</i>	Rocky calcareous slopes, shaded banks	BLM S; NS-S (S2); NS (G3T2)			x	
Pine Nut Mountains mousetails <i>Ivesia ptyocharis</i>	Seasonally or periodically wet, otherwise moist to dry decomposed granite soils or sod of meadow margins with shallow underlying water table or bedrock, associated with springs, moist drainages, or ephemeral ponds, typically on flats or gentle northwest to northeast exposures, but found on all aspects with slopes up to about 20 degrees; endemic to Pine Nut Mountains	BLM S; NS-S (S1); NS (G2)		x		
Pioche blazingstar <i>Mentzelia argillicola</i>	May be restricted to barren clay knolls and slopes between Panaca and the Patterson Wash area of southern Lake Valley	BLM S; NS-S (S1S2); NS (G1G2)			x	
Playa phacelia <i>Phacelia inundata</i>	Grows in alkali playas and seasonally inundated areas with clay soils; aquatic or wetland-dependent in Nevada	BLM S; NS-S (S2?); NS (G3)		x		
Polished blazingstar <i>Mentzelia polita</i>	Occurs on limestone or gypseous soils between 3,900 to 4,900 feet	BLM S; NS-S (S1S2); NS (G2)				x
Pueblo Valley peppergrass <i>Lepidium montanum</i> var. <i>nevadense</i>	Dependent on sand dunes or deep sand in Nevada	BLM S; NS-S (S1?); NS (G5?T1?)				
Railroad Valley globemallow <i>Sphaeralcea caespitosa</i> var. <i>williamsiae</i>	Dry, open, flat to gently sloped, gravelly carbonate soils on alluvium and valley fill, often more abundant on recovering disturbances such as washes and roadsides, in the greasewood, shadscale, and mixed shrubs zones	BLM S; USFS (S); NS-S (S2); NS (G2T2)	x		x	
Red Rock Canyon aster <i>Lonactis caelestis</i>	Dry and rocky slopes: desert checkerspot (<i>Charidryras neumoegeni</i>) caterpillars rely on the nectar of Mojave aster	BLM S; NS-S (S1); NS (G1)				x
Reese River phacelia <i>Phacelia glaberrima</i>	Open, dry to moist, alkaline, nearly barren, sometimes scree-covered, whitish to brownish shrink-swell clay soils derived from fluviolacustrine volcanic ash and tuff deposits, generally on the steeper slopes of low hills, bluffs, and badlands in the shadscale-greasewood, sagebrush, and lower pinyon-juniper zones	BLM S; NS-S (S3?); NS (G3?)	x	x		
Rock purpusia <i>Ivesia arizonica</i> var. <i>saxosa</i>	Crevices of cliffs and boulders on volcanic and possibly carbonate rocks in the upper mixed-shrub, sagebrush, and pinyon-juniper zones	BLM S; NS-S (S1); NS (G3T1)			x	x
Rock violet <i>Viola lithion</i>	Seasonally wet crevices in steep carbonate or quartzite outcrops in shaded northeast-facing avalanche chutes and cirque headwalls in the subalpine conifer zone	BLM S; USFS (S); NS-S (S1); NS (G1G2)			x	
Rosy two-tone beardtongue <i>Penstemon bicolor</i> ssp. <i>roseus</i>	Rocky calcareous, granitic, or volcanic soils in washes, roadsides, scree at outcrop bases, rock crevices, or similar places receiving enhanced runoff, in the creosote-bursage, blackbrush, and mixed-shrub zones	BLM S; NS-S (S3); NS (G3T3Q)				x

Common Name Scientific Name	Habitat	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ¹	Battle Mountain	Carson City	Ely	Southern Nevada
Rough angelica <i>Angelica scabrida</i>	Endemic to the Spring Mountains; bottoms of canyons and in avalanche chutes; often grows near ponderosa pine	BLM S; USFS (S); NS-S (S2); NS (G1G2)				x
Rough dwarf greasebush <i>Glossopetalon pungens</i> var. <i>pungens</i>	Crevice of carbonate cliffs and outcrops	BLM S; NS-S (S2); NS (G2G3T2Q)				x
Sagebrush pygmyleaf <i>Loeflingia squarrosa</i> ssp. <i>artemisiarum</i>	Sandy soils of desert dunes and flats in Great Basin sagebrush scrub and Mojave desert scrub; occurs at elevations of 2,300 to 4,000 feet	BLM S; NS-S (S1S2); NS (G5T2T3)		x		
Sand cholla <i>Grusonia pulchella</i>	Sand of dunes, dry-lake borders, river bottoms, washes, valleys, and plains in the desert; dependent on sand dunes or deep sand in Nevada	BLM S; NAC (CY); NS-S (S2S3); NS (G4)	x	x	x	
Scarlet buckwheat <i>Eriogonum phoeniceum</i>	White tuffaceous knolls, bluffs, and rocky flats, openings in pinyon and juniper woodland, with <i>Artemisia tridentata</i> , <i>Purshia tridentata</i> , <i>Petradoria pumila</i>	BLM S; NS-S (S1); NS (G1Q)				x
Schlesser pincushion <i>Sclerocactus schlesseri</i>	Open, stable or stabilized, gravelly, sandy silt or silty clay soils derived from somewhat ashy or gypsiferous lacustrine sediments, on mesic microsites created or maintained by gentle north to east aspects, dense shrub or grass canopies, high clay and silt content of the soil, or cryptobiotic soil crusts, usually associated with such soil crusts in the shadscale zone	BLM S; NAC (CY); NS-S (S1); NS (G1Q)				x
Schoolcraft buckwheat <i>Eriogonum microthecum</i> var. <i>schoolcraftii</i>	Sandy to rocky soil, sagebrush communities, pinyon-juniper woodlands; 4,600–7,200 meters	BLM S; NS-S (S1); NS (G5T3)		x		
Scrub lotus <i>Lotus argyraeus</i> var. <i>multicaulis</i>	Pinyon-juniper woodlands; sandy washes, ledges or clay slopes in canyons	BLM S; NS-S (S1?); NS (G4?T2)				x
Sheep fleabane <i>Erigeron ovinus</i>	Often associated with cliffs and ridgeline outcrops in the pinyon-juniper and montane conifer zones at elevations from 3,600 to 8,400 feet	BLM S; NS-S (S2); NS (G2)			x	x
Shevock bristlegrass <i>Orthotrichum shevockii</i>	Pinyon-juniper woodland, on granitic rocks	BLM S; USFS (S); NS-S (S1); GS (G3G4)		x		
Sierra Valley mouse-tails <i>Ivesia aperta</i> var. <i>aperta</i>	Shallow, vernal saturated, slowly draining, sandy to rocky clay soils derived from mostly andesitic volcanic rock or alluvium on benches and flats in meadows, seeps, intermittent drainages, etc., in the yellowpine, mountain sagebrush, and mountain mahogany zones; dependent on wetland margin areas in Nevada	BLM S; USFS (S); NS-S (S1); GS (G2T2)		x		
Silverleaf sunray <i>Enceliopsis argophylla</i>	Clay and gypsum cliffs to gravelly slopes in southern deserts at elevations 1,200–2,000 feet; partial to eroded soils containing gypsum	BLM S; NS-S (S1?); NS (G2)				x
Smooth dwarf greasebush <i>Glossopetalon pungens</i> var. <i>glabrum</i>	Crevice of carbonate cliffs and outcrops	BLM S; USFS (S); NS-S (S1); NS (G2G3T1Q)		x		x
Sodaville milkvetch <i>Astragalus lentiginosus</i> var. <i>sesquimetalis</i>	Moist, open, alkaline hummocks and drainages near cool springs with <i>Distichlis spicata</i> , <i>Sarcobatus vermiculatus</i> , <i>Sporobolus airoides</i> , etc.; aquatic or wetland-dependent in Nevada; near-exhaustive surveys of habitat have revealed only two populations in Nevada: one in Mineral County and the other in Nye County	BLM S; NAC (CE); NS-S (S1); NS (G5T1)		x		
Spring-loving centaury <i>Centaureum namophilum</i>	Open, moist alkali areas, including seeps and meadows at elevations from 2,100 to 3,500 feet	BLM S; USFWS (T); NAC (CE); NS-S (S2); NS (G2Q)	x			x
Spring Mountains milkvetch <i>Astragalus remotus</i>	Endemic to the southern portion of the Spring Mountains of Clark County; occurs in canyons and on rocky hillsides	BLM S; USFS (S); NS-S (S2); NS (G2)				x
St. George blue-eyed grass <i>Sisyrinchium radicum</i>	Open places where there is some moisture, particularly grassy areas, though it can also be found in woodlands	BLM S; NS-S (S1S2); NS (G2?Q)			x	
Steamboat buckwheat <i>Eriogonum ovalifolium</i> var. <i>williamsiae</i>	Young, shallow, poorly developed, dry soils derived from siliceous opaline sinter precipitated by past thermal spring flows, but not currently near surface water, in open areas	BLM S; USFWS (E); NAC (CE); NS-S (S1); NS (G5T1)		x		
Steamboat monkeyflower <i>Diplacus ovatus</i> (<i>Mimulus ovatus</i>)	Dry to somewhat moist, often barren, loose, sandy to gravelly slopes derived from siliceous sinter deposited by hot springs in the sagebrush zone, or from highly acidic hydrothermally altered andesite or rhyolite deposits; sometimes loose sandy soils on valley floors in openings among sagebrush, sometimes on adjacent roadsides or washes	BLM S; NS-S (S1S2); NS (G1G2Q)		x		

Common Name Scientific Name	Habitat	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ¹	Battle Mountain	Carson City	Ely	Southern Nevada
Sticky buckwheat <i>Eriogonum viscidulum</i>	Sand-loving, annual plant endemic to Clark and Lincoln Counties in southern Nevada	BLM S; NAC (CE); NS-S (S2); NS (G2)			x	x
Sticky ringstem <i>Anulocaulis leiosolenus</i> var. <i>leiosolenus</i>	Sandy washes and gravelly slopes to 3,000 feet; creosote bush scrub	BLM S; NS-S (S2); NS (G4T3)				x
Straw milkvetch <i>Astragalus lentiginosus</i> var. <i>stramineus</i>	Sandy and gravelly valley flats, washes, and dunes in the creosote-bursage, blackbrush, and mixed-shrub zones	BLM S; NS-S (S1S2); NS (G5T2T3)			x	x
Stream stippleback lichen (Silverskin lichen) <i>Dermatocarpon luridum</i>	On wet rocks, usually along edges of stream at water-line	BLM S; NS-S (S1); NS (G4G5)				x
Sunnyside green gentian <i>Fraseria gypsicola</i>	Open, dry, whitish, alkaline, often salt-crusted and spongy silty-clay soils on calcareous flats and barrens, with little if any gypsum content	BLM S; NAC (CE); NS-S (S2); NS (G1)			x	
Tahoe yellowcress <i>Rorripa subumbellata</i>	Grows exclusively on the shoreline of Lake Tahoe on the sandy beaches and dunes at the margin of the lake	BLM S; USFS (S); NAC (CE); NS-S (S1); NS (G1)		x		
Tecopa birdbeak <i>Cordylanthus tecopensis</i>	Open, moist to saturated, alkali-crusted clay soils of seeps, springs, outflow drainages, and meadows	BLM S; NS-S (S2); NS (G2)	x			x
Thickleaf pepperwort (pepperweed) <i>Lepidium integrifolium</i>	Saline or alkaline, cool, moist to permanently wet meadows	BLM S; NS-S (S1); NS (G2G3T2T3)			x	
Threecorner milkvetch <i>Astragalus geyeri</i> var. <i>triquetrus</i>	Open, deep sandy soil or dunes, generally stabilized by vegetation or a gravel veneer; dependent on sand dunes or deep sand	BLM S; NAC (CE); NS-S (S2S3); NS (G4T2T3)			x	x
Tiehm beardtongue <i>Penstemon tiehmii</i>	Neutral sandy-loam soil pockets on steep, southerly-facing volcanic talus and scree slopes	BLM S; NS-S (S1); NS (G1)	x			
Tiehm blazingstar <i>Mentzelia tiehmii</i>	Occupies white, alkaline clay badlands and flats	BLM S; NS-S (S2); NS (G1G2)		x	x	
Tiehm buckwheat <i>Eriogonum tiehmii</i>	Dry, open, relatively barren, light-colored rocky clay soils derived from a formation of interbedded claystones, shales, tuffaceous sandstones, and limestones, on all aspects with slopes up to about 50%, in pure stands or with a sparse cover	BLM S; NS-S (S1); NS (G1)	x			
Tiehm peppergrass <i>Stroganowia tiehmii</i>	Dry, open, very rocky clay soils or soil pockets in or near scree, talus, or boulder fields derived from basalt, other volcanic rocks, or fluviolacustrine sediments, on gentle to steep slopes of all aspects and topographic positions, but best developed on northeasterly aspects, in the sagebrush, upper shadscale, and lower juniper woodland zones	BLM S; NS-S (S2); NS (G2)		x		
Tonopah milkvetch <i>Astragalus pseudiodanthus</i>	Deep, loose, sandy soils of stabilized and active dune margins, old beaches, valley floors, or drainages, with <i>Sarcobatus vermiculatus</i> and other salt desert shrub taxa; dependent on sand dunes or deep sand in Nevada	BLM S; NS-S (S2); NS (G3Q)	x	x		
Toquima milkvetch <i>Astragalus toquimanus</i>	Dry, stiff, sandy to gravelly, generally somewhat basic or calcareous soils; mostly on flats or gentle slopes, frequently growing under or up through shrubs	BLM S; USFS (S); NS-S (S2); NS (G2)	x			
Torrey milkvetch <i>Astragalus calycosus</i> var. <i>monophyllidius</i>	Tends to grow in rocky places, at elevations from 4,900–11,600 feet	BLM S; NS-S (S2); NS (G5T2Q)			x	x
Tunnel Springs beardtongue <i>Penstemon concinnus</i>	Dolomite formation, gravelly soil; pinyon juniper woodlands	BLM S; USFS (S); NS-S (S2); NS (G3)			x	
Ute ladies' tresses <i>Spiranthes diluvialis</i>	Grows in moist wetland habitat, including bogs and riparian areas such as riverbanks, floodplains, lakeshores, riverside woodlands and forest, desert springs, and meadows, and human-made habitat such as ditches, reservoirs, and irrigated agricultural settings	BLM S; USFWS (T); NAC (CE); NS-S (S1); NS (G2G3)			x	
Veyo milkvetch <i>Astragalus ensiformis</i> var. <i>gracilior</i>	Gravelly, mostly calcareous, clay hillsides, flats, and gullied bluffs in the pinyon-juniper zone, often growing up through sagebrush	BLM S; NS-S (S1); NS (G3T1T2Q)			x	
Washoe pine <i>Pinus ponderosa</i> ssp. <i>washoensis</i>	Mountain slopes with lodgepole pine, western white pine, ponderosa pine, and California red fir	BLM S; NAC (CY); NS-S (S1); NS (G3Q)		x		

Common Name Scientific Name	Habitat	Designation and Ranking: BLM; NV Natural Heritage Program; U.S. Forest Service; NV ¹	Battle Mountain	Carson City	Ely	Southern Nevada
Wassuk beardtongue <i>Penstemon rubicundus</i>	Open, rocky to gravelly soils on perched tufa shores, steep decomposed granite slopes, rocky drainage bottoms, and roadsides or other recovering disturbances with enhanced runoff, locally abundant on recent burns, in the pinyon-juniper, sagebrush, and upper mixed-shrub and shadscale zones	BLM S; USFS (S); NS-S (S3); NS (G2G3)		x		
Watson spinecup <i>Oxytheca watsonii</i>	Dry, open, loose or lightly disturbed, often calcareous, sandy soils of washes, roadsides, alluvial fans, and valley bottoms, in salt desert shrub communities	BLM S; NS-S (S3?); NS (G3?)		x		
Waxflower <i>Jamesia tetrapetala</i>	Crevices in limestone cliffs	BLM S; USFS (S); NS-S (S2); NS (G2)			x	
Webber ivesia <i>Ivesia webberi</i>	Shallow shrink-swell clay soils with a gravelly surface layer over volcanic, generally andesitic bedrock, on mid-elevation benches and flats; known in Nevada from the Pine Nut and Carson ranges and Peavine Mountain	BLM S; USFWS (T); USFS (S); NAC (CE); NS-S (S2); NS (G2)		x		
White bearpoppy <i>Arctomecon merriamii</i>	Rocky limestone slopes and gravel washes in northeast Mojave Desert around 29–4,600 feet	BLM S; NS-S (S3); NS (G3)			x	x
White-margined beardtongue <i>Penstemon albomarginatus</i>	Prefers the base of hills and mountains in wind-blown sand dune-like areas, but are also found in deep loose sand in wash bottoms; may also occur in fine alluvial sand in a wide canyon within a creosote bush scrub community where deep and stabilized sands hold the long taproot in place	BLM S; NS-S (S2); NS (G2)				x
Whitebark Pine <i>Pinus albicaulis</i>	Subalpine and timberline zones; grows in cold, snowy, and generally moist climates; on semiarid ranges it is most common on cold, moist sites, whereas it is most common on warm, dry sites on moist ranges; common on ridges and near timberline, where trees are exposed to strong, desiccating winds	BLM S; USFWS (C); USFS (S); NS-S (S3); NS (G3G4)	x	x		
Williams combleaf <i>Polyctenium williamsiae</i>	Relatively barren sandy to sandy-clay or mud margins and bottoms of non-alkaline seasonal lakes perched over volcanic bedrock in the sagebrush, pinyon-juniper, and mountain sagebrush zones	BLM S; USFS (S); NAC (CE); NS-S (S2); NS (G2Q)	x	x		
Windloving buckwheat <i>Eriogonum anemophilum</i>	High elevations on dry, exposed, relatively barren and undisturbed, gravelly, limestone or volcanic ridges and ridgeline knolls, on outcrops or shallow rocky soils over bedrock; at low elevations on dry, relatively barren and undisturbed knolls and slopes of light-colored, platy volcanic tuff weathered to form stiff clay soils	BLM S; NS-S (S3); NS (G2G3)	x	x		
Yellow two-tone beardtongue <i>Penstemon bicolor ssp. bicolor</i>	Calcareous or carbonate soils in washes, roadsides, rock crevices, outcrops, or similar places receiving enhanced runoff, in the creosote-bursage, blackbrush, mixed-shrub, and lower juniper zones	BLM S; NS-S (S2); NS (G3T2Q)				x

¹ See Appendix D-4 for ranking descriptions

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Appendix D-4 Special Status Rankings

Conservation Rank Definitions (NatureServe):

NS-S = State rank; NS = Global rank

NS-G = refers to the global population of a species

NS-S = refers to the subnational (State) population of a species, subspecies, or variety

NS-T = refers to the subspecific or variety taxonomic level (used in conjunction with G rank)

NS-X = presumed extinct or extirpated (S rank)

NS-H = Possibly extinct

For both G and S ranks, the following numerical definitions apply:

1 = Critically Imperiled: At very high risk of extirpation in the jurisdiction due to very restricted range, very few populations or occurrences, very steep declines, or other factors

2 = Imperiled: At high risk of extirpation in the jurisdiction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors

3 = Vulnerable: At moderate risk of extirpation in the jurisdiction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors

4 = Apparently Secure: At fairly low risk of extirpation in the jurisdiction due to an extensive range or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors

5 = Secure: At very low or no risk of extirpation in the jurisdiction due to a very extensive range, abundant populations or occurrences, with little to no concern from declines or threats

S#S#, G#G3 = Range Rank - a numeric range rank (e.g., S2S3 or G1G3) is used to indicate uncertainty about the exact status of a taxon. Ranges cannot skip more than two ranks (e.g., S1S4 is not permissible).

NR = rank not yet assessed

U = unrankable: Currently unrankable due to lack of information or due to substantially conflicting information about status or trends

Q = questionable taxonomy: Taxonomic distinctiveness of the entity at the current level is questionable or currently being reviewed; resolution of this uncertainty may result in change from a species to a subspecies, variety or hybrid, or the inclusion

B = breeding: Conservation status refers to the breeding population of the element in the nation or State

N = non-breeding: Conservation status refers to the non-breeding population of the element in the nation or State (e.g., wintering bird population)

M = migrant: Migrant species occurring regularly on migration at particular staging areas or concentration spots where the species might warrant conservation attention. Conservation status refers to the aggregating transient population of the species in the nation or State/province.

USFWS Listing:

E = Endangered: In danger of extinction in all or a significant portion of the range

T = Threatened: Likely to be classified as Endangered in the foreseeable future if threats continue

C = Candidate for listing as Threatened or Endangered

U.S. Forest Service (USFS) Listing:

S = Sensitive or Watch List in either Region 4 (Humboldt-Toiyabe National Forest) or Region 5 (Lake Tahoe Basin Management Unit)

Nevada Department of Wildlife (NDOW) – State of Nevada Protection and Designations (Nevada Administrative Code [NAC] 503):

CE or E = critically endangered plant

CY or Y = protected as a cactus, yucca, or Christmas tree

GF = game fish

PF or P = protected fish

SF or S = sensitive fish

TF or T = threatened fish

EF or E = endangered fish

PA or P = protected amphibian

PR or P = protected reptile

TR or T = threatened reptile

GB = game bird

PB or P = protected bird

SB or S = sensitive bird

EB or E = endangered bird

GM = game mammal

FM = fur-bearing mammal

PM or P = protected mammal

SM or S = sensitive mammal

TM or T = threatened mammal

Western Bat Working Group (WBWG) Regional Bat Species Priority Matrix:

high = Based on available information on distribution, status, ecology, and known threats, this designation should result in these species being considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment.

medium = This designation indicates a level of concern that should warrant closer evaluation, more research, and conservation actions of both the species and possible threats. A lack of meaningful information is a major obstacle in adequately assessing these species' status and should be considered a threat.

low = This designation indicates that most of the existing data support stable populations of the species, and that the potential for major changes in status in the near future is considered unlikely. While there may be localized concerns, the overall status of the species is believed to be secure. Conservation actions would still apply for these bats, but limited resources are best used on red and yellow species.

Appendix E Social and Economic Conditions and Environmental Justice

Appendix E Social and Economic Conditions and Environmental Justice

Definitions

Race events include small and large OHV races. Race events are characterized by point-to-point routes that are competitively timed. Key race points include start and finish, community crossings, pit stops, and designated spectator areas. Race events can range from 250 miles to 700 miles in length, spanning 1 to 3 days. Event days may not all be competitive, and may include pre-event runs, post-event activities, and other general gatherings. Participants include both local and external patrons and can total upward of just over a thousand visitors, including drivers and crew. Race events are generally high-speed events (BLM 2018, 2022c).

Low-speed non-competitive SRPs include smaller exploratory activities such as poker runs and tours. Low-speed non-competitive SRPs are characterized by non-linear routes with non-competitive time limits. Routes may take drivers across a specific geographic area or community. These activities can range from 40 to 325 miles. Most low-speed non-competitive SRPs have fewer than 100 participants. Participants include both local and external patrons. Larger tour events with trail rides attract more local participation. These activities are generally low speed (BLM 2021, 2022a, 2022b).

Population Changes

The study area includes parts of most counties and of all three metropolitan areas in Nevada but only 4.6 of Nevada’s total population. However, the entirety of the 11 counties containing the study area represents 97% of Nevada’s total population. As such, demographics differ little between the 11 counties and the state. Between 2010 and 2020, the population of the 11 counties grew 15% to 3,083,315 and the state’s population grew 15% to 3,177,772 (U.S. Census Bureau 2021).¹ Detailed population changes per county are provided below:

Table E-1 Population Change from 2010 to 2020 in Study Area Counties

County	2010 (Census, April 1, 2010)	2020 (Census, April 1, 2020)	Change (%)
Clark	1,951,269	2,265,461	16.10%
Washoe	421,407	486,492	15.44%
Lyon	51,980	59,235	13.96%
Carson City	55,274	58,639	6.09%
Nye	43,946	51,591	17.40%
Douglas	46,997	49,488	5.30%
Churchill	24,877	25,516	2.57%

¹ Population change is calculated using Decennial Census data, which are more reliable than intercensal estimates.

County	2010 (Census, April 1, 2010)	2020 (Census, April 1, 2020)	Change (%)
Mineral	4,772	4,554	-4.57%
Lincoln	5,345	4,499	-15.83%
Storey	4,010	4,104	2.34%
Esmeralda	783	729	-6.90%

Three of the four counties with fewer than 10,000 people have experienced population decline, while more populous counties have experienced relatively high population growth, both in magnitude and in percentage change. The two counties with the highest absolute population growth—Clark County and Washoe County—belong respectively to the Las Vegas and Reno metropolitan areas, the two most populous of three Metropolitan Statistical Areas in Nevada. Population trends indicate growth in metropolitan areas and the most-populated non-metropolitan areas (e.g., Nye and Lyon) and stagnation or decline in less-populated areas.

Environmental Justice

A low-income community of concern is present if (1) the percentage of the population that is at or below 200 percent of the Federal poverty threshold is at or below the percentage for the reference area or (2) the population of the community experiencing poverty is at or above 50 percent. Low-income environmental justice communities of concern are identified in the study area. A total of 32.1 percent of the study area population is estimated to be low income. This slightly exceeds the reference area low-income percentage of 31.2 percent. A total of 57 census block groups within the study area had a low-income population that met this criterion (highlighted in the “Low Income” column in Table E-2 and shown in Appendix B, *Maps*, Figures 3.9-1 through 3.9-6).

Low-income communities were more concentrated in the southern part of the study area. No low-income communities were identified in Douglas, Storey, or Carson City. The BLM identified low-income communities in 3 of 9 study area block groups in Washoe, 6 of 15 study area block groups in Churchill, and at least half of the study area block groups in each of the remaining six counties. Only 7 block groups identified as low-income communities were also identified as minority communities but 24 were also identified as tribal communities.

A minority community of concern is present if the percentage of the population identified as belonging to a minority group in a study area is (1) equal to or greater than 50 percent of the population or (2) meets the “meaningfully greater” threshold. Meaningfully greater is calculated by comparing the minority group population percentage with 110 percent of the reference area minority population percentage. Minority environmental justice communities of concern are identified in the study area. A total of 28.3 percent of the study area population is estimated to belong to a minority population group. This is less than the reference area minority population percentage of 52.8 percent. A total of 11 census block groups within the study area had a minority identified population that met this criterion (highlighted in the “Minority” column in Table E-2 and shown in Appendix B, *Maps*, Figures 3.9-1 through 3.9-6).

The BLM identified relatively few block groups as minority communities. All but one minority block group (320019504001, Churchill County, Fallon Naval Air Station) were also identified as either a low-income or tribal community.

Tribal communities of concern are present if the percentage of the population identified as belonging to an indigenous community is equal to or greater than the reference population. Tribal communities of concern are identified in the study area. A total of 5.2 percent of the study area population is estimated to belong to a tribal population group. This is greater than the reference area tribal population percentage of 2.5 percent. A total of 50 census block groups within the study area had a tribal identified population that met this criterion (highlighted in the “Tribal” column in Table E-2 and shown in Appendix B, *Maps*, Figures 3.9-1 through 3.9-6).

A total of 24 tribal block groups are also identified as low-income communities, 7 are also identified as minority communities, and 5 (all in or near Pyramid Lake Paiute and Walker River Reservations) are identified as all 3, of which 3 are the only majority-tribal block groups. Within the study area, all block groups in Pyramid Lake Paiute and Walker River Reservations and Carson City and most in Mineral and Storey Counties are identified as tribal communities. Neither the Douglas nor the Esmerelda block group is identified as a tribal community.

Table E-2 Environmental Justice Study Area Block Group Data: Low-Income, Minority, and Tribal Percentages of the Population

Block Group	Description (ST, County, Key Locations)	Low Income	Minority	Tribal
320019501001	NV, Churchill Co., Carson Sink, Stillwater Wildlife Refuge, Clan Alpine Mountains	26.2%	20.8%	4.4%*
320019501002	NV, Churchill Co., Bass Flat, White Throne Mountains	21.7%	28.1%	0.3%
320019503011	NV, Churchill Co., Fallon	55.7%*	17.9%	2.3%
320019503012	NV, Churchill Co., Fallon Paiute Shoshone Reserve	39.4%*	31.7%	15.4%*
320019503013	NV, Churchill Co., Fallon	44.4%*	46.3%	4.0%*
320019503021	NV, Churchill Co., Fallon	11.9%	25.1%	0.0%
320019503022	NV, Churchill Co., Fallon	51.1%*	30.6%	0.0%
320019503023	NV, Churchill Co., N. Fallon	21.1%	19.0%	3.3%*
320019503024	NV, Churchill Co., Fallon	15.7%	25.7%	0.0%
320019503025	NV, Churchill Co., Fallon	51.7%*	34.8%	10.7%*
320019504001	NV, Churchill Co., Fallon Naval Air Station	30.3%	80.0%*	0.0%
320019507001	NV, Churchill Co., Fallon Naval Air Bombing Range	22.6%	21.2%	3.5%*
320019507002	NV, Churchill Co., W. Fallon	25.3%	7.0%	3.5%*
320019507003	NV, Churchill Co., Lahontan Reservoir, Carson River	4.4%	10.0%	0.0%
320019507004	NV, Churchill Co., W. Fallon, Sheckler Road	35.1%*	27.8%	1.4%
320030058181	NV, Clark Co., Spring Mountains	N/A	73.0%*	5.4%*
320030058182	NV, Clark Co., Indian Springs	40.2%*	39.2%	0.0%
320030058761	NV, Clark Co., Spring Mountains, Pahrump Valley	41.6%*	0.0%	0.0%
320030058762	NV, Clark Co., Sandy Valley	41.4%*	31.9%	0.0%
320030075001	NV, Clark Co., Spring Mountains	17.5%	24.0%	5.8%*
320099501001	NV, Esmeralda Co., Timba-Sha Shoshone Reservation	42.0%*	31.4%	0.9%
320179501001	NV, Lincoln Co., Cedar Range	26.3%	7.1%	6.2%*
320179501002	NV, Lincoln Co., Wilson Creek Mountains	45.5%*	56.6%*	1.5%
320179501003	NV, Lincoln Co., Schell Creek Range	25.3%	0.0%	0.0%
320179502001	NV, Lincoln Co., Pahranaagat Valley, South Pahroc Range, Timpahute Range	38.2%*	12.5%	0.8%
320179502002	NV, Lincoln Co., Caliente, Clover Mountains, Delamar Mountains	32.4%*	16.5%	8.0%*
320199602031	NV, Lyon Co., Stagecoach	41.3%*	7.6%	3.9%*
320199602032	NV, Lyon Co., Weeks, Churchill Butte	26.3%	25.5%	0.3%

Block Group	Description (ST, County, Key Locations)	Low Income	Minority	Tribal
320199602041	NV, Lyon Co., Silver Springs	61.0%*	9.0%	1.5%
320199602042	NV, Storey Co., Virginia Range	2.2%	23.2%	0.0%
320199602051	NV, Lyon Co., Churchill Valley, Silver Springs	49.6%*	13.7%	3.1%*
320199602052	NV, Lyon Co., Silver Springs	61.2%*	3.7%	3.7%*
320199602061	NV, Lyon Co., Churchill Valley	47.2%*	14.5%	0.0%
320199602062	NV, Lyon Co., Lahontan Reservoir, Churchill Valley	37.6%*	15.3%	0.0%
320199603011	NV, Lyon Co., Industrial Parkway	44.2%*	33.3%	1.2%
320199603012	NV, Lyon Co., Sutro/Dayton	40.0%*	51.6%*	0.7%
320199603031	NV, Lyon Co., Sutro/Dayton	11.0%	28.5%	3.1%*
320199603032	NV, Lyon Co., Como	22.8%	16.8%	1.2%
320199603032	NV, Douglas Co., Pine Nut Mountains, Buckskin Range	22.8%	16.8%	1.2%
320199603033	NV, Lyon Co., Sutro/Dayton	3.1%	35.8%	0.4%
320199603041	NV, Lyon Co., Sutro/Dayton	20.5%	10.5%	0.7%
320199603042	NV, Lyon Co., Sutro/Dayton	19.3%	24.6%	6.0%*
320199603043	NV, Lyon Co., Sutro/Dayton	11.9%	24.9%	9.0%*
320199603051	NV, Lyon Co., Sutro/Dayton	18.8%	50.9%*	7.0%*
320199603052	NV, Lyon Co., Sutro/Dayton	10.2%	15.5%	3.2%*
320199603053	NV, Lyon Co., Sutro/Dayton	10.6%	40.8%	0.6%
320199603054	NV, Lyon Co., Gold Canyon, Dayton	22.3%	32.7%	4.9%*
320199608011	NV, Lyon Co., Singaste Range	54.7%*	33.8%	1.7%
320199608012	NV, Lyon Co., Simpson, Smith Valley	20.4%	14.3%	1.4%
320199608021	NV, Lyon Co., Pine Grove Flat	22.6%	17.5%	2.8%*
320199609011	NV, Lyon Co., Yerington	49.7%*	42.8%	28.7%*
320199609012	NV, Lyon Co., Yerington	72.5%*	27.3%	0.0%
320199609021	NV, Lyon Co., Lux, Wabuska, Walker River Reservation	56.8%*	4.4%	0.0%
320199609022	NV, Lyon Co., Campbell Ranch	50.5%*	66.0%*	53.7%*
320199609023	NV, Lyon Co., Luhr Hill, Mason Valley	56.4%*	39.0%	7.0%*
320219707001	NV, Mineral Co., Hawthorne	53.5%*	26.0%	7.8%*
320219707002	NV, Mineral Co., Wassuk Range, W. Hawthorne	26.3%	33.1%	0.5%
320219707003	NV, Mineral Co., Hawthorne	50.7%*	2.6%	2.6%*

Block Group	Description (ST, County, Key Locations)	Low Income	Minority	Tribal
320219708001	NV, Mineral Co., Schurz, Wassuk Range, Garfield Flat, Walker River Reservation	53.9%*	79.2%*	66.5%*
320219708002	NV, Mineral Co., Walker River Reservation, Gabbs Valley	50.4%*	50.2%*	32.3%*
320239601001	NV, Nye Co., Gabbs, Ione, Yomba Reservation, Big Smokey Valley	41.0%*	24.0%	4.0%*
320239601002	NV, Nye Co., Monitor Valley, Railroad Valley, Duckwater Reservation	27.1%	27.1%	10.3%*
320239602001	NV, Nye Co., Tonopah, Warm Springs	41.1%*	39.5%	0.0%
320239602002	NV, Nye Co., Tonopah, Booker Mountain	56.9%*	5.7%	1.7%
320239603001	NV, Nye Co., Beatty, Amargosa Desert	61.0%*	41.9%	4.7%*
320239603002	NV, Nye Co., Beatty, Sarcobatus Flat, Bullfrog Hills	34.3%*	41.3%	0.0%
320239604051	NV, Nye Co., S. Pahrump, Pahrump Valley	26.4%	44.2%	4.6%*
320239604052	NV, Nye Co., S. Pahrump	55.6%*	9.1%	1.4%
320239604053	NV, Nye Co., Pahrump Valley	54.8%*	27.0%	17.6%*
320239604071	NV, Nye Co., Pahrump	41.5%*	35.4%	1.8%
320239604072	NV, Nye Co., Pahrump	60.0%*	34.2%	5.1%*
320239604081	NV, Nye Co., Pahrump	18.2%	16.8%	0.0%
320239604082	NV, Nye Co., Pahrump	21.9%	11.6%	4.0%*
320239604083	NV, Nye Co., Pahrump	42.8%*	7.4%	1.2%
320239604091	NV, Nye Co., Pahrump	35.9%*	45.2%	7.4%*
320239604092	NV, Nye Co., Pahrump	21.1%	53.0%*	0.0%
320239604093	NV, Nye Co., S. Pahrump, Mountain Falls Golf Course	9.8%	35.1%	8.3%*
320239604101	NV, Nye Co., Pahrump Valley	50.3%*	28.1%	0.0%
320239604102	NV, Nye Co., S. Pahrump, Pahrump Valley	7.9%	29.5%	5.6%*
320239604103	NV, Nye Co., Pahrump Valley	7.3%	34.7%	1.3%
320239604111	NV, Nye Co., Beatty, Amargosa Flat, Mount Schader, Point of Rocks	48.8%*	32.7%	0.0%
320239604112	NV, Nye Co., N. Pahrump	23.2%	40.2%	0.0%
320239604121	NV, Nye Co., E. Pahrump	42.2%*	32.1%	9.3%*
320239604122	NV, Nye Co., N. Pahrump	27.1%	21.7%	9.3%*
320239604123	NV, Nye Co., NE. Pahrump	36.4%*	20.6%	4.0%*
320239604131	NV, Nye Co., Pahrump	35.1%*	27.5%	0.7%
320239604132	NV, Nye Co., N. Pahrump	53.5%*	31.2%	0.0%
320239604141	NV, Nye Co., Pahrump	75.4%*	8.3%	1.8%

Block Group	Description (ST, County, Key Locations)	Low Income	Minority	Tribal
320239604142	NV, Nye Co., Pahrump	53.2%*	7.5%	2.2%
320239604151	NV, Nye Co., Pahrump	29.2%	10.7%	2.1%
320239604152	NV, Nye Co., N. Pahrump	37.2%*	31.7%	2.1%
320239604161	NV, Nye Co., High Peak, W. Pahrump	37.7%*	15.1%	2.7%*
320239604162	NV, Nye Co., W. Pahrump	46.5%*	25.9%	2.0%
320239604163	NV, Nye Co., W. Pahrump	35.5%*	23.9%	0.0%
320299702001	NV, Storey Co., Virginia Range	27.5%	45.7%	1.7%
320299702002	NV, Storey Co., Virginia Range	22.1%	7.1%	4.6%*
320299702003	NV, Storey Co., Virginia Range, Virginia City	11.3%	2.9%	2.6%*
320310022103	NV, Washoe Co., W. Virginia Range	2.8%	21.8%	0.2%
320310032051	NV, Washoe Co., W. Virginia Range	34.0%*	22.9%	1.5%
320310032052	NV, Washoe Co., W. Virginia Range, Pleasant Valley	10.9%	0.0%	0.0%
320310032071	NV, Washoe Co., Washoe Valley	7.2%	17.3%	9.2%*
320310032072	NV, Washoe Co., Washoe Valley	20.4%	0.0%	0.0%
320310032073	NV, Washoe Co., New Washoe City	14.5%	13.8%	3.7%*
320310035013	NV, Washoe Co., Warm Springs Valley	33.7%*	52.3%*	34.3%*
320319402001	NV, Washoe Co., Pyramid Lake Paiute Reservation	43.2%*	71.3%	60.9%*
325100004001	NV, Carson City	8.8%	18.1%	7.9%*
325100010021	NV, Carson City, Brunswick Canyon	11.4%	10.1%	4.0%*
BG Totals		32.1%	28.3%	5.2%
Nevada		31.2%	52.8%	2.5%

* Identified environmental justice population.

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Appendix F Minerals

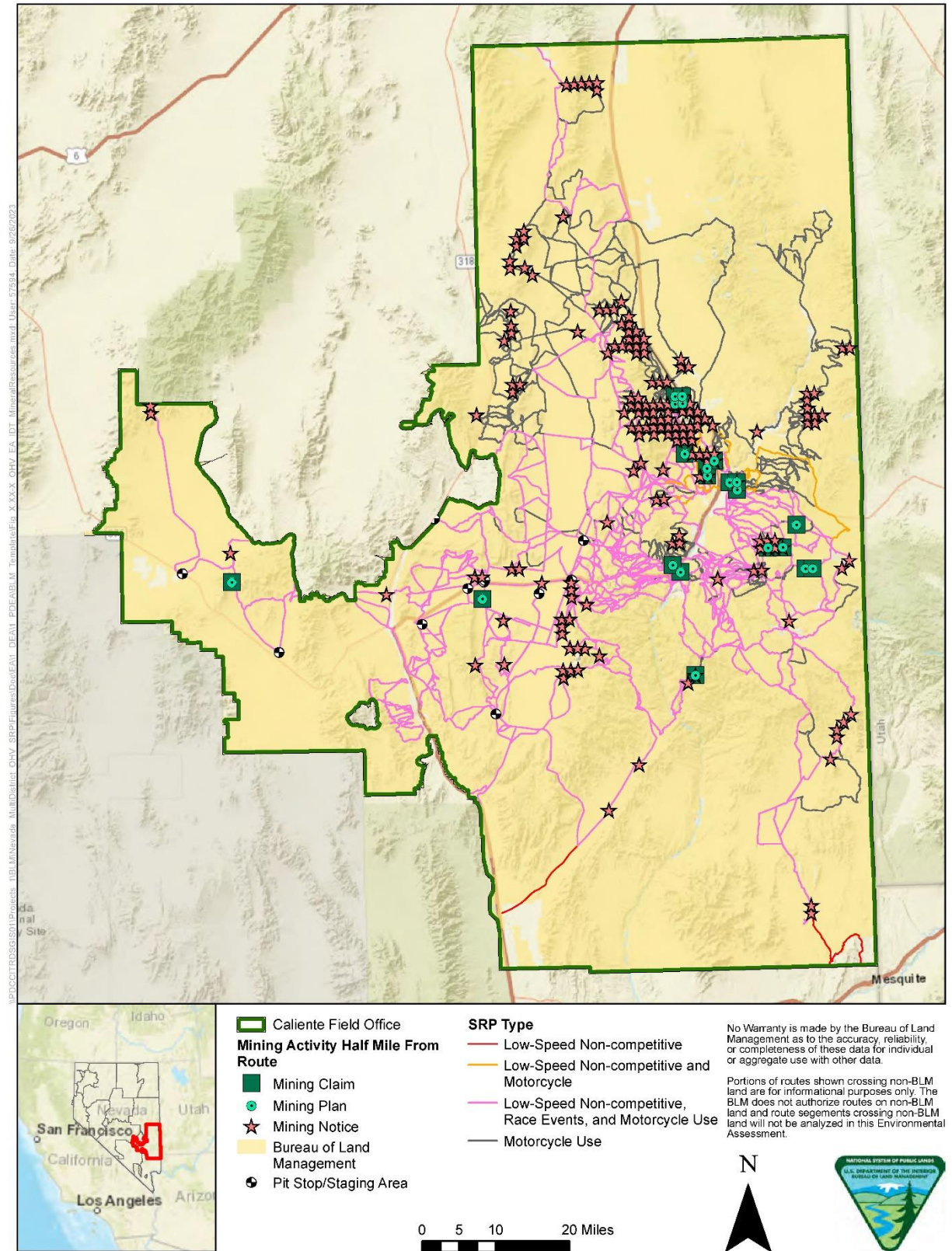


Figure F-1 Caliente Field Office Mineral Resources

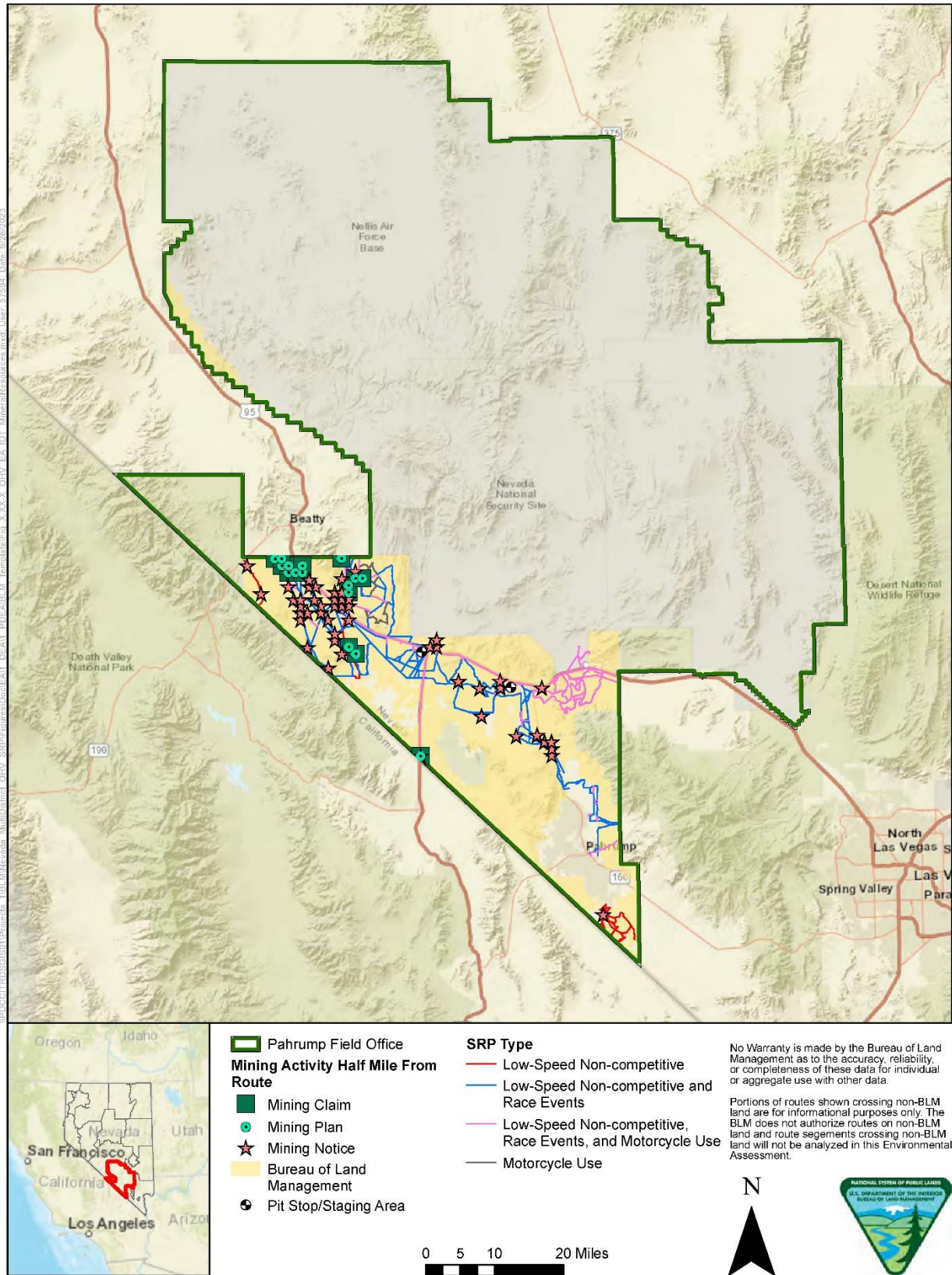


Figure F-2 Pahrapm Field Office Mineral Resources

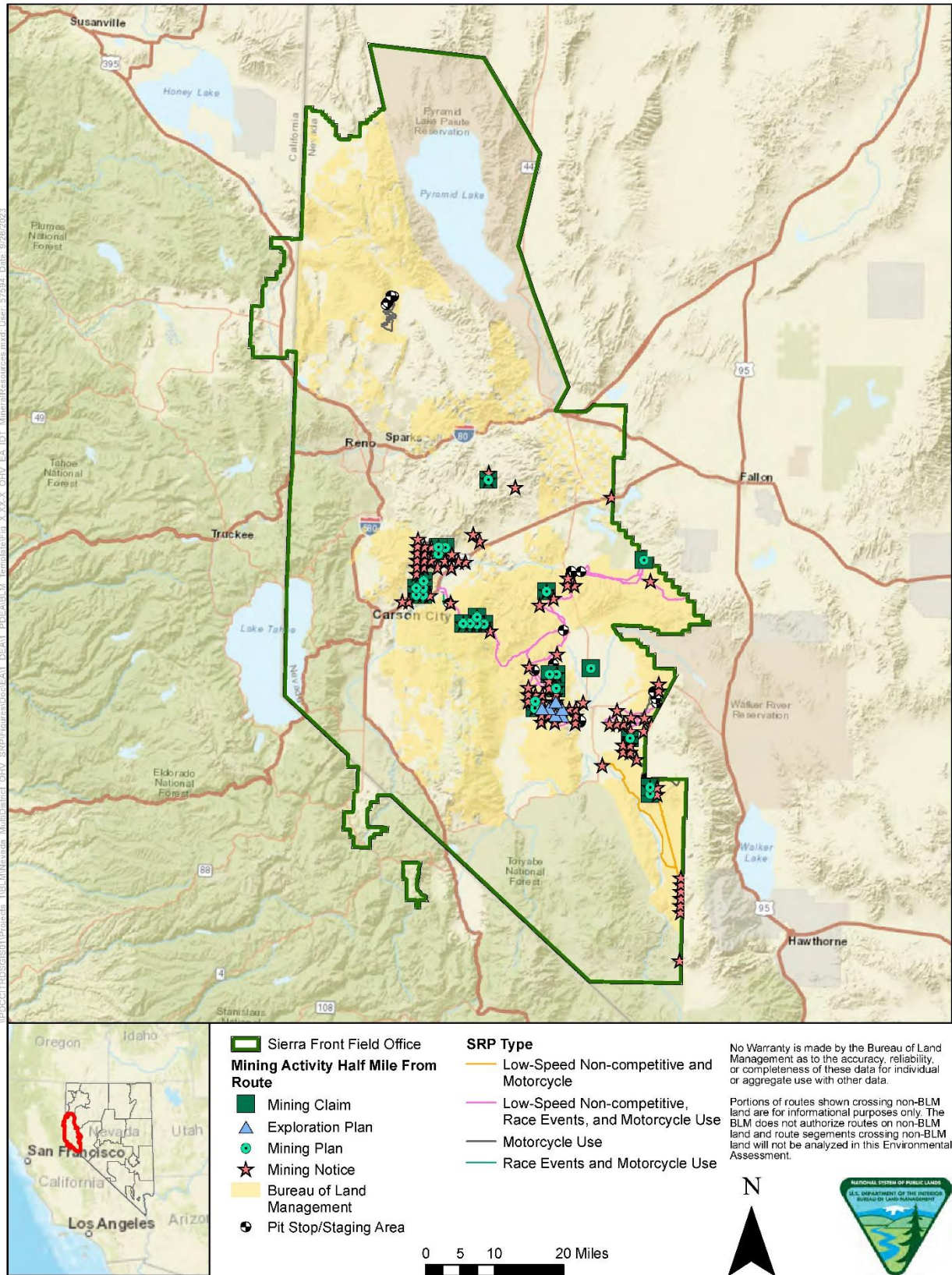


Figure F-3 Sierra Front Field Office Mineral Resources

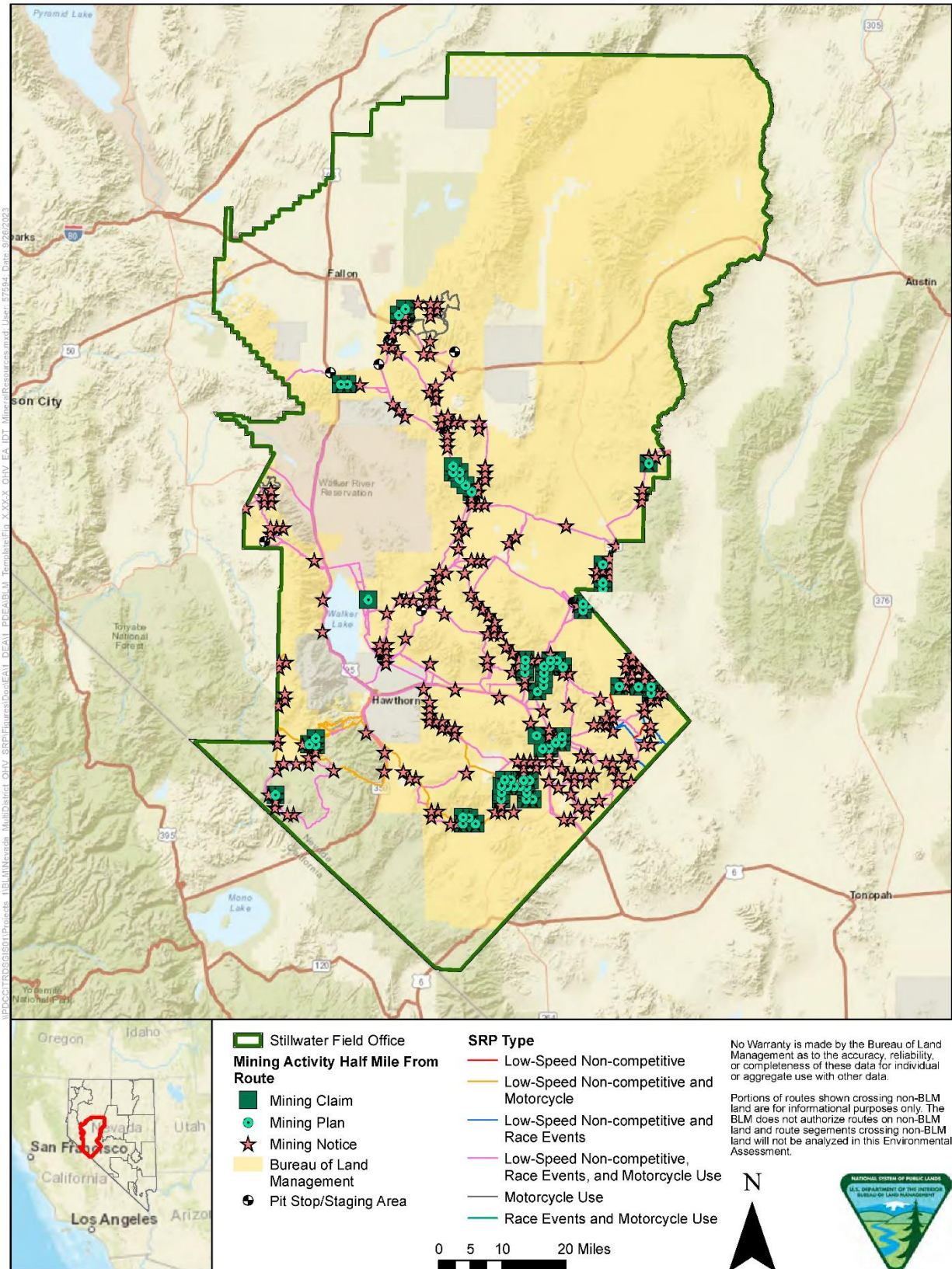


Figure F-4 Stillwater Field Office Mineral Resources

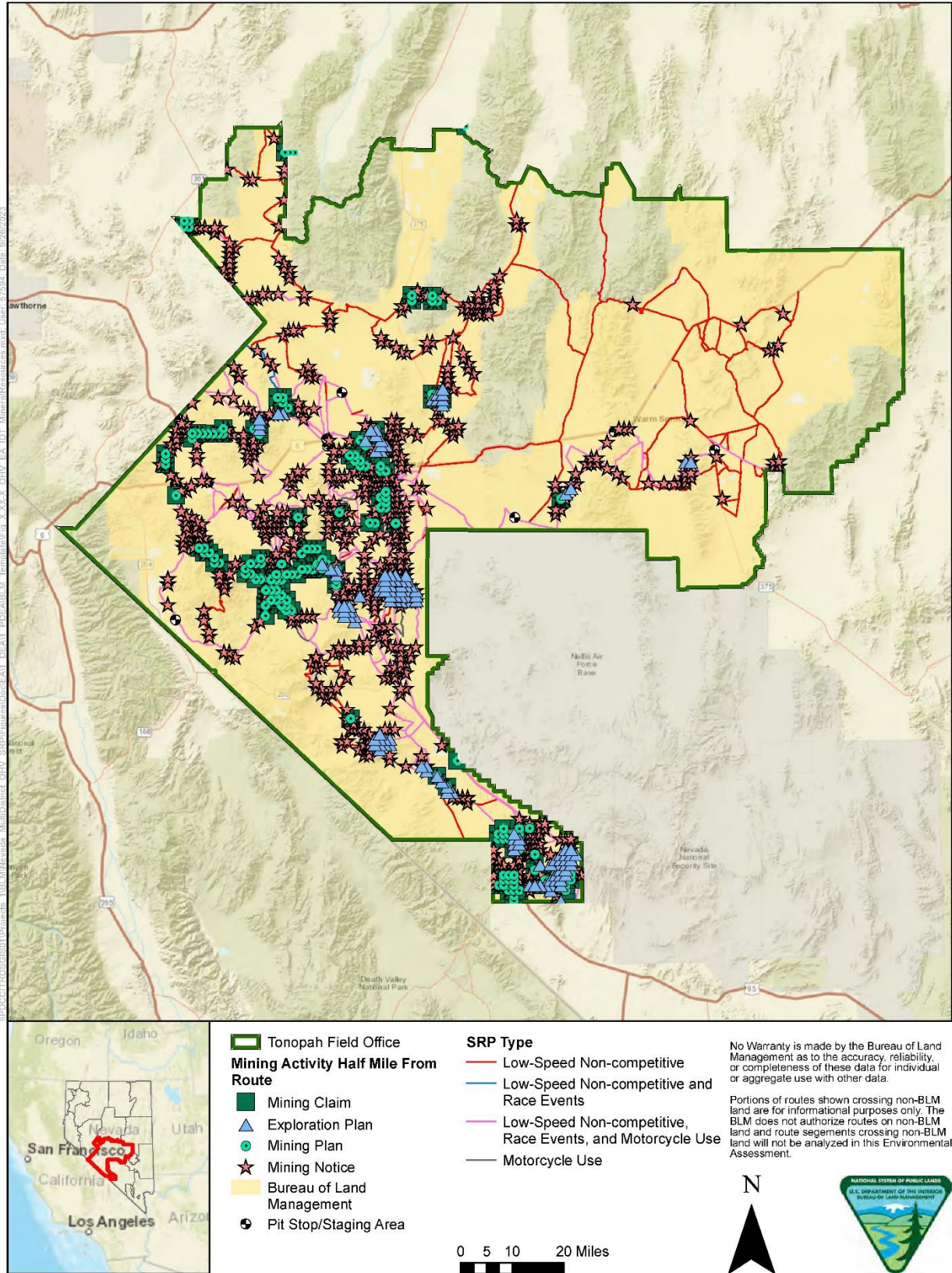


Figure F-5 Tonopah Field Office Mineral Resources

Direct Impacts: SRP Route Intersects

#	District Office	Field Office	Case Serial #	Case Type	Project Type
-	Southern Nevada	Pahrump	NO IMPACTS		
1	Ely	Caliente	N048723	360413	Community Pit
2	Ely	Caliente	N095405	360413	Community Pit
3	Battle Mountain	Mount Lewis	N088136	362113	Free Use Permit
4	Battle Mountain	Mount Lewis	N088137	362113	Free Use Permit
5	Battle Mountain	Mount Lewis	N063003	362113	Free Use Permit
6	Battle Mountain	Mount Lewis	N061775	362113	Free Use Permit
7	Battle Mountain	Mount Lewis	N097774	362113	Free Use Permit
8	Battle Mountain	Mount Lewis	N063285	362113	Free Use Permit
9	Battle Mountain	Mount Lewis	N086171	362113	Free Use Permit
10	Battle Mountain	Mount Lewis	N087802	362113	Free Use Permit
11	Battle Mountain	Mount Lewis	N093614	361113	Mineral Material Neg.
12	Battle Mountain	Mount Lewis	N093560	362113	Free Use Permit
13	Battle Mountain	Mount Lewis	N095243	362113	Free Use Permit
14	Battle Mountain	Mount Lewis	N073772	362113	Free Use Permit
15	Battle Mountain	Mount Lewis	N087801	362113	Free Use Permit
16	Battle Mountain	Mount Lewis	N086172	362113	Free Use Permit
17	Battle Mountain	Mount Lewis	N095248	362113	Free Use Permit
18	Battle Mountain	Mount Lewis	N088009	362113	Free Use Permit
19	Battle Mountain	Mount Lewis	N095235	362113	Free Use Permit
20	Battle Mountain	Mount Lewis	N101111	380913	Notice
21	Battle Mountain	Mount Lewis	N066281	362113	Free Use Permit
22	Battle Mountain	Mount Lewis	N067050	380913	Notice
23	Battle Mountain	Mount Lewis	N080059	361113	Mineral Material Neg.
24	Battle Mountain	Tonopah	N081781	380911	Plan of Operations
25	Battle Mountain	Tonopah	N087336	380913	Notice
26	Battle Mountain	Tonopah	N097155	380913	Notice
27	Battle Mountain	Tonopah	N072268	380910	Plan of Operations
28	Battle Mountain	Tonopah	N091871	362113	Free Use Permit
29	Battle Mountain	Tonopah	N095366	362113	Free Use Permit
30	Battle Mountain	Tonopah	N096868	380910	Plan of Operations
31	Battle Mountain	Tonopah	N100299	380913	Notice
32	Battle Mountain	Tonopah	N077286	380913	Notice
33	Battle Mountain	Tonopah	N083542	380913	Notice
34	Battle Mountain	Tonopah	N092819	362113	Free Use Permit
35	Battle Mountain	Tonopah	N073463	380913	Notice
36	Battle Mountain	Tonopah	N078054	380913	Notice
37	Battle Mountain	Tonopah	N093181	380911	Plan of Operations
38	Battle Mountain	Tonopah	N094969	380913	Notice
39	Battle Mountain	Tonopah	N096868	380910	Plan of Operations
40	Battle Mountain	Tonopah	N101565	380913	Notice

#	District Office	Field Office	Case Serial #	Case Type	Project Type
41	Battle Mountain	Tonopah	N094966	380913	Notice
42	Battle Mountain	Tonopah	N097202	380913	Notice
43	Battle Mountain	Tonopah	N095375	380913	Notice
44	Battle Mountain	Tonopah	N101176	380913	Notice
45	Battle Mountain	Tonopah	N101634	380913	Notice
46	Battle Mountain	Tonopah	N072383	380913	Notice
47	Battle Mountain	Tonopah	N073109	380910	Plan of Operations
48	Battle Mountain	Tonopah	N072542	380910	Plan of Operations
49	Battle Mountain	Tonopah	N091991	362113	Free Use Permit
50	Battle Mountain	Tonopah	N092040	361113	Mineral Material Neg.
51	Battle Mountain	Tonopah	N094570	361113	Mineral Material Neg.
52	Battle Mountain	Tonopah	N095852	380913	Notice
53	Battle Mountain	Tonopah	N094923	380913	Notice
54	Battle Mountain	Tonopah	N095101	362113	Free Use Permit
55	Battle Mountain	Tonopah	N097261	380913	Notice
56	Battle Mountain	Tonopah	N091910	380913	Notice
57	Battle Mountain	Tonopah	N094517	362113	Free Use Permit
58	Battle Mountain	Tonopah	N100607	380913	Notice
59	Battle Mountain	Tonopah	N093319	362113	Free Use Permit
60	Battle Mountain	Tonopah	N094811	380913	Notice
61	Battle Mountain	Tonopah	N089395	362113	Free Use Permit
62	Battle Mountain	Tonopah	N095022	362113	Free Use Permit
63	Battle Mountain	Tonopah	N076629	380911	Plan of Operations
64	Battle Mountain	Tonopah	N095436	380913	Notice
65	Battle Mountain	Tonopah	N095437	380913	Notice
66	Battle Mountain	Tonopah	N093515	380910	Plan of Operations
67	Battle Mountain	Tonopah	N096954	380913	Notice
68	Battle Mountain	Tonopah	N097429	380913	Notice
69	Battle Mountain	Tonopah	N098791	380913	Notice
70	Battle Mountain	Tonopah	N100896	380913	Notice
71	Battle Mountain	Tonopah	N101721	380913	Notice
72	Battle Mountain	Tonopah	N084202	362113	Free Use Permit
73	Battle Mountain	Tonopah	N072288	380913	Notice
74	Battle Mountain	Tonopah	N072284	380913	Notice
75	Battle Mountain	Tonopah	N094040	380913	Notice
76	Battle Mountain	Tonopah	N095856	380910	Plan of Operations
77	Battle Mountain	Tonopah	N100284	380913	Notice
78	Battle Mountain	Tonopah	N096619	380913	Notice
79	Battle Mountain	Tonopah	N072656	380910	Plan of Operations
80	Battle Mountain	Tonopah	N073343	380913	Notice
81	Battle Mountain	Tonopah	N091038	380910	Plan of Operations
82	Battle Mountain	Tonopah	N091331	380913	Notice

#	District Office	Field Office	Case Serial #	Case Type	Project Type
83	Battle Mountain	Tonopah	N091909	362113	Free Use Permit
84	Battle Mountain	Tonopah	N094482	362113	Free Use Permit
85	Battle Mountain	Tonopah	N094618	362113	Free Use Permit
86	Battle Mountain	Tonopah	N094680	360413	Community Pit
87	Battle Mountain	Tonopah	N100857	380913	Notice
88	Battle Mountain	Tonopah	N100525	380913	Notice
89	Battle Mountain	Tonopah	N094587	380913	Notice
90	Battle Mountain	Tonopah	N083002	380911	Plan of Operations
91	Battle Mountain	Tonopah	N092210	380913	Notice
92	Battle Mountain	Tonopah	N094679	361113	Mineral Material Neg.
93	Battle Mountain	Tonopah	N097812	380913	Notice
94	Battle Mountain	Tonopah	N097820	380911	Plan of Operations
95	Battle Mountain	Tonopah	N072769	380910	Plan of Operations
96	Battle Mountain	Tonopah	N072826	380913	Notice
97	Battle Mountain	Tonopah	N072943	380913	Notice
98	Battle Mountain	Tonopah	N096238	380911	Plan of Operations
99	Battle Mountain	Tonopah	N096894	380913	Notice
100	Battle Mountain	Tonopah	N097641	380911	Plan of Operations
101	Battle Mountain	Tonopah	N097811	380913	Notice
102	Battle Mountain	Tonopah	N097820	380911	Plan of Operations
103	Carson City	Stillwater	N101722	380913	Notice
104	Carson City	Stillwater	N100490	380913	Notice
105	Carson City	Stillwater	N086663	380911	Plan of Operations
106	Carson City	Stillwater	N100713	380913	Notice
107	Carson City	Stillwater	N101815	380911	Plan of Operations
108	Carson City	Sierra Front	N084570	380911	Plan of Operations
109	Carson City	Sierra Front	N085212	380911	Plan of Operations
110	Carson City	Sierra Front	N100771	380913	Notice
111	Carson City	Sierra Front	N069126	380911	Plan of Operations

n = 38: x3 Community Pits, x5 Negotiated Sales, x30 Free Use Permits

n = 73: x10 Mining Plans, x13 Exploration Plans, x50 Exploration Notices

Potential Impacts: SRP Route May Intersect

#	District Office	Field Office	Case Serial #	Case Type	Project Type
-	Southern Nevada	Pahrump	NO IMPACTS		
1	Ely	Caliente	N100444	380913	Notice
2	Battle Mountain	Mount Lewis	N099737	380913	Notice
3	Battle Mountain	Mount Lewis	N092963	380913	Notice
4	Battle Mountain	Tonopah	N072757	380913	Notice
5	Battle Mountain	Tonopah	N095559	380913	Notice
6	Battle Mountain	Tonopah	N095705	380913	Notice

#	District Office	Field Office	Case Serial #	Case Type	Project Type
7	Battle Mountain	Tonopah	N101095	380913	Notice
8	Battle Mountain	Tonopah	N100832	380913	Notice
9	Battle Mountain	Tonopah	N100263	380913	Notice
10	Battle Mountain	Tonopah	N100626	380913	Notice
11	Battle Mountain	Tonopah	N100707	380913	Notice
12	Battle Mountain	Tonopah	N100468	380913	Notice
13	Battle Mountain	Tonopah	N100779	380913	Notice
14	Battle Mountain	Tonopah	N101213	380913	Notice
15	Battle Mountain	Tonopah	N094235	380913	Notice
16	Battle Mountain	Tonopah	N100262	380913	Notice
17	Battle Mountain	Tonopah	N100303	380913	Notice
18	Battle Mountain	Tonopah	N100320	380913	Notice
19	Battle Mountain	Tonopah	N101633	380913	Notice
20	Battle Mountain	Tonopah	N097429	380913	Notice
21	Battle Mountain	Tonopah	N100746	380913	Notice
22	Battle Mountain	Tonopah	N100792	380913	Notice
23	Battle Mountain	Tonopah	N100300	380913	Notice
24	Battle Mountain	Tonopah	N6244501	353301	Lease
25	Battle Mountain	Tonopah	N100522	380913	Notice
26	Battle Mountain	Tonopah	N100792	380913	Notice
27	Battle Mountain	Tonopah	N101360	380913	Notice
28	Battle Mountain	Tonopah	N101608	380913	Notice
29	Battle Mountain	Tonopah	N101621	380913	Notice
30	Battle Mountain	Tonopah	N101608	380913	Notice
31	Battle Mountain	Tonopah	N077636	380910	Plan of Operations
32	Battle Mountain	Tonopah	N101129	380913	Notice
33	Battle Mountain	Tonopah	N093044	380913	Notice
34	Battle Mountain	Tonopah	N095322	380913	Notice
35	Battle Mountain	Tonopah	N101026	380913	Notice
36	Battle Mountain	Tonopah	N072799	380913	Notice
37	Battle Mountain	Tonopah	N073158	380910	Plan of Operations
38	Battle Mountain	Tonopah	N100269	380913	Notice
39	Battle Mountain	Tonopah	N073535	380913	Notice
40	Battle Mountain	Tonopah	N101165	380913	Notice
41	Battle Mountain	Tonopah	N094239	362113	Free Use Permit
42	Battle Mountain	Tonopah	N101192	380913	Notice
43	Battle Mountain	Tonopah	N072269	380910	Plan of Operations
44	Battle Mountain	Tonopah	N072527	380910	Plan of Operations
45	Battle Mountain	Tonopah	N087759	380910	Plan of Operations
46	Battle Mountain	Tonopah	N100427	380913	Notice
47	Battle Mountain	Tonopah	N100871	380913	Notice
48	Battle Mountain	Tonopah	N073153	380913	Notice

#	District Office	Field Office	Case Serial #	Case Type	Project Type
49	Battle Mountain	Tonopah	N100746	380913	Notice
50	Battle Mountain	Tonopah	N101244	380913	Notice
51	Battle Mountain	Tonopah	N101608	380913	Notice
52	Battle Mountain	Tonopah	N101621	380913	Notice
53	Battle Mountain	Tonopah	N088216	380913	Notice
54	Battle Mountain	Tonopah	N077877	380913	Notice
55	Battle Mountain	Tonopah	N097766	380913	Notice
56	Battle Mountain	Tonopah	N072286	380913	Notice
57	Battle Mountain	Tonopah	N072289	380913	Notice
58	Battle Mountain	Tonopah	N100695	380913	Notice
59	Battle Mountain	Tonopah	N072285	380910	Plan of Operations
60	Battle Mountain	Tonopah	N095115	380913	Notice
61	Battle Mountain	Tonopah	N101608	380913	Notice
62	Battle Mountain	Tonopah	N100284	380913	Notice
63	Battle Mountain	Tonopah	N096505	380913	Notice
64	Battle Mountain	Tonopah	N097276	380913	Notice
65	Battle Mountain	Tonopah	N099366	362113	Free Use Permit
66	Battle Mountain	Tonopah	N072792	380913	Notice
67	Battle Mountain	Tonopah	N078731	380913	Notice
68	Battle Mountain	Tonopah	N088133	380913	Notice
69	Battle Mountain	Tonopah	N094467	380913	Notice
70	Battle Mountain	Tonopah	N099507	380913	Notice
71	Battle Mountain	Tonopah	N099670	380910	Plan of Operations
72	Battle Mountain	Tonopah	N097688	380913	Notice
73	Battle Mountain	Tonopah	N072922	380913	Notice
74	Battle Mountain	Tonopah	N098530	380913	Notice
75	Battle Mountain	Tonopah	N101068	380913	Notice
76	Battle Mountain	Tonopah	N073162	380913	Notice
77	Battle Mountain	Tonopah	N073324	380913	Notice
78	Battle Mountain	Tonopah	N073332	380913	Notice
79	Battle Mountain	Tonopah	N073497	380913	Notice
80	Battle Mountain	Tonopah	N073647	380913	Notice
81	Battle Mountain	Tonopah	N094709	380913	Notice
82	Battle Mountain	Tonopah	N095648	380913	Notice
83	Battle Mountain	Tonopah	N096869	380913	Notice
84	Battle Mountain	Tonopah	N096887	380913	Notice
85	Battle Mountain	Tonopah	N099892	380913	Notice
86	Battle Mountain	Tonopah	N100217	380913	Notice
87	Battle Mountain	Tonopah	N100298	380913	Notice
88	Battle Mountain	Tonopah	N101220	380913	Notice
89	Battle Mountain	Tonopah	N072394	380913	Notice
90	Battle Mountain	Tonopah	N095357	380913	Notice

#	District Office	Field Office	Case Serial #	Case Type	Project Type
91	Battle Mountain	Tonopah	N100376	380911	Plan of Operations
92	Battle Mountain	Tonopah	N101433	380913	Notice
93	Battle Mountain	Tonopah	N074216	380910	Plan of Operations
94	Battle Mountain	Tonopah	N099442	380913	Notice
95	Battle Mountain	Tonopah	N099831	380913	Notice
96	Battle Mountain	Tonopah	N082356	380911	Plan of Operations
97	Battle Mountain	Tonopah	N099731	380913	Notice

n = 2: x2 Free Use Permits

n = 95: x1 Preferential Lease, x8 Mining Plans, x2 Exploration Plans, x84 Exploration Notices

Appendix G Air Quality

Appendix G Air Quality Calculations

Definitions

Term	Description
HP	Horsepower. This is a power rating applied to vehicle and equipment engines.
Load Factor	Average operational level of an engine in a given application as a fraction or percentage of the engine manufacturer's maximum rated horsepower.
Maintenance Area	Areas that were designated as non-attainment in the past, but that have attained NAAQS compliance and are covered by a NAAQS maintenance plan.
Nonattainment Area	Any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for a NAAQS.
Off-Road Equipment	Includes heavy equipment with spark-ignition engines, heavy equipment with compression-ignition (diesel) engines, off-road vehicles, and small equipment and tools the use fuel.
On-Road Vehicles	Vehicles designed and licensed for use on public roads
Tier	The emission control status of an engine. Newer engines are generally higher tier. The higher the tier, the lower the emissions

OHV SRP EA Large Race Example

The large race example emissions are based on the 2016 Best in the Desert Vegas to Reno Race Event (DOI-BLM-NV-B020-2016-0041-EA). The sum of the emissions from race participants, time trial, and travel to race are presented below in Table G-1 and calculation inputs are shown in the following tables (Tables G-3 through G-6). While the large race totals represented show PM10 emissions greater than 25 tons per year, a breakdown of PM10 emissions for large races in each air basin is included in Table G-2 to show that all PM10 is under the 25-ton-per-year Nevada Division of Environmental Protection threshold in any one air basin.

Table G-1 Large Race Emissions Sum

	NO _x	CO	VOC	SO _x	PM10	PM2.5	HAPs	CO _{2e}
Tons per Year	0.22	8.60	3.03	0.00	108.34	0.0034	0.04	260.47 metric tons per year

CO = carbon monoxide; CO_{2e} = carbon dioxide equivalent; HAP = hazardous air pollutant; NO_x = nitrogen oxides; PM2.5 = particulate matter 2.5 microns or less in diameter; SO_x = sulfur oxides; VOC = volatile organic compound

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Table G-2 Breakdown of Large Race PM10 Emissions by Air Basin

Air Basin	Amargosa	Soda Spring	Sarcobatus	Rawhide	Ralston	Oasis	Monte Cristo	Mason	Lida	Gabbs	Columbus	Churchill	Carson	Big Smoky	Alkali	Dayton
PM10 (tons per year)	8.26	4.35	9.85	2.27	6.96	1.21	6.75	0.34	9.83	15.09	4.87	10.15	6.27	13.85	6.15	2.15

Table G-3 Breakdown of Emissions Inputs for Race Participants in the Large Race Emissions Calculation

Project or Event OHV Description	Count	Average Speed (mph)	Daily Distance Traveled (miles)	Planned workdays	Race Participants										GHG Emission Factors (grams per VMT)		
					Off-road Emission Factors (pounds per VMT)										CO ₂	CH ₄	N ₂ O
					NO _x	CO	VOC	SO _x	Exhaust PM10	Fugitive PM10	Exhaust PM2.5	Fugitive PM2.5	HAPs2				
Gator	0	10	30	60	0.00072	0.1	0.042	0	0.0006	0.77584	5.51E-06	0.08	0	232	0.00823	0.0089	
Cars/trucks	135	65	533.7	1	0.00282	0	0.003	0	0.00041	1.552	1.1E-05	0.16	0	464	0.01646	0.0179	
UTVs	154	57	533.7	1	0.00072	0.1	0.042	0	0.0006	0.77584	5.51E-06	0.08	0	232	0.00823	0.0089	
Motorcycles/ATVs	97	64	533.7	1	0.00072	0.1	0.042	0	0.0006	0.77584	5.51E-06	0.08	0	232	0.00823	0.0089	

ATV = all-terrain vehicle; CH₄ = methane; CO = carbon monoxide; CO₂ = carbon dioxide; HAP = hazardous air pollutant; mph = miles per hour; N₂O = nitrous oxide; NO_x = nitrogen oxides; PM2.5 = particulate matter 2.5 microns or less in diameter; SO_x = sulfur oxides; UTV = utility task vehicle; VMT = vehicle miles traveled; VOC = volatile organic compound

Table G-4 Breakdown of Emissions Inputs for Time Trial Participants in the Large Race Emissions Calculation

Project or Event OHV Description	Count	Avg Speed (mph)	Daily Distance Traveled (miles)	Planned workdays	Time Trial										GHG Emission Factors (grams per VMT)		
					Off-road Emission Factors (pounds per VMT)										CO ₂	CH ₄	N ₂ O
					NO _x	CO	VOC	SO _x	Exhaust PM10	Fugitive PM10	Exhaust PM2.5	Fugitive PM2.5	HAPs2				
Gator	0	10	30	60	0.00072	0.1	0.042	0	0.0006	0.77584	5.51E-06	0.08	0	232	0.00823	0.0089	
Cars/trucks	28	55	9.7	1	0.00282	0	0.003	0	0.00041	1.552	1.1E-05	0.16	0	464	0.01646	0.0179	
UTVs	32	57	9.7	1	0.00072	0.1	0.042	0	0.0006	0.77584	5.51E-06	0.08	0	232	0.00823	0.0089	
Motorcycles/ATVs	20	59	9.7	1	0.00072	0.1	0.042	0	0.0006	0.77584	5.51E-06	0.08	0	232	0.00823	0.0089	

ATV = all-terrain vehicle; CH₄ = methane; CO = carbon monoxide; CO₂ = carbon dioxide; HAP = hazardous air pollutant; mph = miles per hour; N₂O = nitrous oxide; NO_x = nitrogen oxides; PM2.5 = particulate matter 2.5 microns or less in diameter; SO_x = sulfur oxides; UTV = utility task vehicle; VMT = vehicle miles traveled; VOC = volatile organic compound

Table G-5 Breakdown of Emissions Inputs for Travel to Race in the Large Race Emissions Calculation

Project Site Equipment Description	Count	Daily Distance Traveled (miles)	Planned workdays	Travel to Race (staff and spectators)											GHG Emission Factors (grams per VMT)		
				On-road Emission Factors (pounds per VMT)											CO ₂	CH ₄	N ₂ O
				NO _x	CO	VOC		SO ₂	PM10		PM2.5		HAPs				
				Running Exhaust	Running Exhaust	Running Exhaust	Running Evaporative	Running Exhaust	Running Exhaust	Tire & Brake Wear	Running Exhaust	Tire & Brake Wear	Running Exhaust	Running Evaporative	Running Exhaust		
Pick-up Truck (gasoline)	0	60	2	0.0002359	0.00667	0	3E-04	0	8.8E-06	6.8E-05	6.61E-06	0	0	0	474	0.016	0.007
Cars/trucks	1100	50	2	0.0002359	0.00667	0	3E-04	0	8.8E-06	6.8E-05	6.61E-06	0	0	0	474	0.016	0.007

CH₄ = methane; CO = carbon monoxide; CO₂ = carbon dioxide; HAP = hazardous air pollutant; N₂O = nitrous oxide; NO_x = nitrogen oxides; PM2.5 = particulate matter 2.5 microns or less in diameter; SO₂ = sulfur dioxide; VMT = vehicle miles traveled; VOC = volatile organic compound

Table G-6 Breakdown of Emissions Inputs for Aircraft Use in the Large Race Emissions Calculation

Aircraft Description	# Days Used	Hours Used Daily (hours per day)	Aircraft									
			Emission Factors (kilograms per hour)									
			NO _x	CO	VOC	SO _x	PM10	PM2.5	CO ₂	CH ₄	N ₂ O	HAPs
Helicopter - Hughes MD500	11.0	9.0	0.48	1.20	0.96	0.00	0.02	0.02	263.25	11.07	2.16	0.07
Helicopter - Hughes MD501	11	9.0	0.5	1.19985	0.95531	0.00207	0.01606	0.01606	263.25000	11.07	2.16	0.07

CH₄ = methane; CO = carbon monoxide; CO₂ = carbon dioxide; HAP = hazardous air pollutant; N₂O = nitrous oxide; NO_x = nitrogen oxides; PM2.5 = particulate matter 2.5 microns or less in diameter; SO_x = sulfur oxides; VOC = volatile organic compound

OHV SRP EA Small Race Example

The small race example emissions are based on the California Association of 4 Wheel Drive Clubs, Inc., Nevada Four Wheel Drive Association, 2021 Silver State Poker Run (DOI-BLM-NV-C020-2021-0020-CX) event. The sum of the emissions from race participants, travel to race, and aircraft are presented below in Table G-7 and calculation inputs are shown in the following tables (Tables G-8 through G-10).

Table G-7 Small Race Emissions Sum

	NO _x	CO	VOC	SO _x	PM10	PM2.5	HAPs	CO _{2e}
Tons per Year	0.00	0.04	0.00	0.00	0.20	0.00	0.00	4.89 metric tons per year

CO = carbon monoxide; CO_{2e} = carbon dioxide equivalent; HAP = hazardous air pollutant; NO_x = nitrogen oxides; PM2.5 = particulate matter 2.5 microns or less in diameter; SO_x = sulfur oxides; VOC = volatile organic compound

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Table G-8 Breakdown of Emissions Inputs for Race Participants in the Small Race Emissions Calculation

Project or Event OHV Description	Count	Average Speed (mph)	Daily Distance Traveled (miles)	Planned workdays	Race Participants										GHG Emission Factors (grams per VMT)		
					Off-road Emission Factors (pounds per VMT)										CO ₂	CH ₄	N ₂ O
					NO _x	CO	VOC	SO _x	Exhaust PM10	Fugitive PM10	Exhaust PM2.5	Fugitive PM2.5	HAPs2				
Gator	0	10	30.0	60.0	0.001	0.103	0.042	0.000	0.001	0.776	0.000	0.078	0.000	232.000	0.008	0.009	
Cars/trucks	15	35	15.0	1.0	0.003	0.033	0.003	0.000	0.000	1.552	0.000	0.155	0.000	464.000	0.016	0.018	
UTVs	5	35	15.0	1.0	0.001	0.103	0.042	0.000	0.001	0.776	0.000	0.078	0.000	232.000	0.008	0.009	
Motorcycles/ATVs	0	0	0.0	0.0	0.001	0.103	0.042	0.000	0.001	0.776	0.000	0.078	0.000	232.000	0.008	0.009	

ATV = all-terrain vehicle; CH₄ = methane; CO = carbon monoxide; CO₂ = carbon dioxide; HAP = hazardous air pollutant; mph = miles per hour; N₂O = nitrous oxide; NO_x = nitrogen oxides; PM2.5 = particulate matter 2.5 microns or less in diameter; SO_x = sulfur oxides; UTV = utility task vehicle; VMT = vehicle miles traveled; VOC = volatile organic compound

Table G-9 Breakdown of Emissions Inputs for Travel to Race in the Small Race Emissions Calculation

Project Site Equipment Description	Count	Daily Distance Traveled (miles)	Planned workdays	Travel to Race (staff and spectators)											GHG Emission Factors (grams per VMT)			
				On-road Emission Factors (pounds per VMT)											CO ₂	CH ₄	N ₂ O	
				NO _x	CO	VOC		SO ₂	PM10		PM2.5		HAPs					
				Running Exhaust	Running Exhaust	Running Exhaust	Running Evaporative	Running Exhaust	Running Exhaust	Tire & Brake Wear	Running Exhaust	Tire & Brake Wear	Running Exhaust	Running Evaporative	Running Exhaust			
Pick-up Truck (gasoline)	0	60	2	0.0002	0.0067	0.0002	0.0003	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	474.0000	0.0160	0.0070
Cars/trucks	100	50	2	0.0002	0.0067	0.0002	0.0003	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	474.0000	0.0160	0.0070

ATV = all-terrain vehicle; CH₄ = methane; CO = carbon monoxide; CO₂ = carbon dioxide; HAP = hazardous air pollutant; mph = miles per hour; N₂O = nitrous oxide; NO_x = nitrogen oxides; PM2.5 = particulate matter 2.5 microns or less in diameter; SO_x = sulfur oxides; UTV = utility task vehicle; VMT = vehicle miles traveled; VOC = volatile organic compound

Table G-10 Breakdown of Emissions Inputs for Aircraft Use in the Small Race Emissions Calculation

Aircraft Description	# Days Used	Hours Used Daily (hours per day)	Aircraft										
			Emission Factors (kilograms per hour)										
			NO _x	CO	VOC	SO _x	PM10	PM2.5	CO ₂	CH ₄	N ₂ O	HAPs	
Helicopter - Hughes MD500	11	9	0.483782	1.199846	0.955307	0.002074	0.016063	0.016063	263.25	11.07	2.16	0.073878	
Helicopter - Hughes MD501	0	0	0.483782	1.199846	0.955307	0.002074	0.016063	0.016063	263.25	11.07	2.16	0.073878	

CH₄ = methane; CO = carbon monoxide; CO₂ = carbon dioxide; HAP = hazardous air pollutant; N₂O = nitrous oxide; NO_x = nitrogen oxides; PM2.5 = particulate matter 2.5 microns or less in diameter; SO_x = sulfur oxides; VOC = volatile organic compound

Appendix H Resource Summary Table

Appendix H Resource Summary Table

The table below describes the resources identified by the BLM IDT as being potentially affected by the Proposed Action or alternatives. The table includes the findings and rationale used to conclude each resource determination. The findings in the table below use the acronyms NP, NI, and PI, which are defined as follows:

NP = not present in the area affected by the Proposed Action or alternatives

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for significant impacts that need to be analyzed in detail in the EA

Finding	Resource	Rationale for Determination
Land Resources		
PI	Air Quality (<i>Clean Air Act of 1955, as amended</i>) and Greenhouse Gas Emissions	<p>Criteria pollutant vehicle emissions from SRPs in Nevada should be quantified to determine whether they would have effects on air quality. Usually, the most noticeable air pollutant emission is airborne dust from disturbed soils, especially from vehicle travel on dirt roads and from agricultural cultivation. Airborne dust can affect human health, especially when it includes PM₁₀, which are small enough to be inhaled into the lungs.</p> <p>The effects from potential OHV SRPs on climate or climate change are expected to be small, but Council on Environmental Quality guidance issued in January 2023 requires that NEPA analysis present estimated direct and indirect GHG emissions related to the Proposed Action, descriptions of common activities that have equivalent GHG emissions to provide context, a discussion of how the Proposed Action would affect climate change, and a discussion of how projected climate change would affect the Proposed Action. The social cost of carbon is also required along with the estimated GHG amounts.</p> <p>Finding/Rationale: The Proposed Action and alternatives would not be anticipated to result in air quality impacts if estimated emissions are below Nevada Division of Environmental Protection and EPA thresholds. While the EPA non-attainment area for ozone pollution that overlaps the Sierra Front Field Office does not affect the BLM’s ability to issue OHV SRP permits, it may suggest timing and other OHV SRP restrictions when ozone levels are high. OHV routes that intersect with the area could present additional impacts related to ozone or ozone-causing pollutants (e.g., volatile organic compounds). While potential fugitive dust emissions related to SRPs in Nevada do occur, their effects are mainly localized and short term (limited to the day of the OHV SRP). In some cases, elevated fugitive dust levels may persist in the immediate area until the next rain event. OHV SRP routes following existing roads and trails present no long-term air quality effects.</p> <p>The effects from potential OHV SRPs on climate or climate change have been considered negligible, but Council on Environmental Quality guidance still requires data and analysis. The limited number of vehicles and duration of OHV SRPs are expected to reduce the potential for</p>

Finding	Resource	Rationale for Determination
		substantial changes in currently projected climate impacts related to OHV SRP GHG emissions.
NP	Cave and Karst Resources	Cave or karst resources are not known or anticipated to overlap with the existing roads and trails and previously disturbed areas that would be used by OHV SRPs under the Proposed Action and alternatives.
PI	Fish and Wildlife, excluding Special Status Species	<p>The project area provides habitat for fish and wildlife. For OHV SRP events on existing roads and trails, fish and wildlife are most likely be affected by noise disturbance and dust, as well as wildlife-vehicle collisions from animals crossing routes.</p> <p>Finding/Rationale: Wildlife encounters can/will occur. Vehicle collisions, habitat impacts, noise, seasonal breeding impacts (nesting failure, stress, abandonment, summer versus winter range), illegal collections, and other impacts are possible. Wildlife would be temporarily displaced due to noise and activity along the OHV SRP routes. Direct mortality of reptiles, small mammals, and birds could occur through collision or crushing on roads and at pit stops and gathering points. Habitat for these species (e.g., burrows, rock crevices) could also be crushed or removed along the edge of roads and at pit stops and gathering points. Roadkill could increase predator presence, affecting prey species.</p>
PI	Special Status Species (<i>Endangered Species Act of 1973, as amended</i>)	<p>The project area provides habitat for federally listed threatened, endangered, and candidate species as well as BLM Sensitive species. USFWS's IPaC tool reported threatened, endangered, and candidate species that have potential to occur in the project area (see Appendix C for IPaC Reports by BLM Field Office). In addition, IPaC reported critical habitat for species that occur near the project area. For OHV SRPs on existing roads and trails, threatened, endangered, and candidate species would most likely be affected by noise disturbance and dust, as well as through injury or mortality by vehicle contact in crossing routes.</p> <p>Finding/Rationale: Wildlife encounters can/will occur. Vehicle collisions, habitat impacts, noise, seasonal breeding impacts (nesting failure, stress, abandonment, summer versus winter range), illegal collections, and other impacts are possible. Wildlife would be temporarily displaced due to noise and activity along the OHV SRP routes. Direct mortality of reptiles, small mammals, and birds could occur through collision or crushing on roads and at pit stops and gathering points. Habitat for these species (e.g., burrows, rock crevices) could also be crushed or removed along the edge of roads and at pit stops and gathering points. Roadkill could increase predator presence, affecting prey species.</p>
PI	Migratory Birds (<i>Executive Order 13186</i>)	<p>The project area covers habitat that migratory birds may use year-round or during migration periods. For OHV SRPs on existing roads and trails, migratory birds would most likely be affected by noise disturbance and dust, as well as by potential injury or mortality from bird-vehicle collisions.</p> <p>Finding/Rationale: Wildlife encounters can/will occur. The breeding season for many migratory bird species is defined as March 1 through August 31. Noise disturbance during the breeding season could result in temporary displacement or nest abandonment, nest failure, and reduced reproductive output through premature fledging, predation, and starvation of young. Direct mortality could occur through collisions with vehicles or crushing of ground-nesting birds. This is particularly true for nocturnal or crepuscular species such as owls and nighthawks that hunt along roadsides during dark or nighttime hours. Habitat for these species</p>

Finding	Resource	Rationale for Determination
		(e.g., burrows, rock crevices) could also be crushed or removed along the edge of roads and at pit stops and gathering points.
NI	Vegetation	<p>The OHV SRP routes and pit stops are on existing roads and trails and in currently disturbed areas that generally lack vegetative cover. Areas adjacent to these project features are vegetated, with the type of vegetation in a particular area dependent largely on soil types and precipitation.</p> <p>Finding/Rationale: Direct impacts on vegetation would not occur if vehicles remain on route and activities are only allowed in previously disturbed areas. The potential for impacts would be reduced through monitoring of the OHV SRP route to prevent damage to vegetation (i.e., off-route travel).</p>
PI	Noxious Weeds and Invasive/ Non-Native Species (<i>Federal Noxious Weed Act of 1974, as amended</i>)	<p>Noxious weeds can be spread by OHVs, spectator vehicles, and foot traffic and can contaminate formerly weed-free areas.</p> <p>Finding/Rationale: All disturbance and travel vectors have increased risks of introducing and transporting noxious weeds. Issues carried forward for analysis include introduction and spread of noxious weeds. Avoidance of known infestations, adhering to best management practices, and keeping disturbances to previously disturbed areas can decrease these effects.</p>
NI	Fuels / Fire Management	<p>Fire restrictions are generally initiated May 1 through October 31 statewide. Conditions that support wildland fire spread can occur any time of year in Nevada, especially with the presence of invasive annual grasses like cheatgrass. For example, the BLM Southern Nevada District – Fire Prevention Order went into effect January 9, 2023.</p> <p>Finding/Rationale: The Proposed Action and alternatives are unlikely to affect fuels and fire management. Adherence to regulations on the use of spark arrestors, the use of standard fire prevention measures (outlined in Fire Prevention Orders), SRP permit stipulations, and best management practices to prevent fires (e.g., “know before you go,” shovel, fire extinguisher, 5 gallons of water, adherence to Fire Prevention Orders, adherence to fire restrictions) would limit the potential for impacts.</p>
NI	Floodplains (<i>Executive Order 11988</i>)	<p>The Federal Emergency Management Agency mapped 100-year and 500-year floodplains that occur across the project area. OHV SRP routes cross floodplains in several locations.</p> <p>Finding/Rationale: The Proposed Action and alternatives would use existing roads and stage in existing disturbed areas. No new direct impacts on floodplain function or indirect impacts from changes in downstream flooding are anticipated.</p>
NI	Wetlands / Riparian Zones (<i>Executive Order 11990</i>)	<p>National Wetlands Inventory data demonstrate that wetlands occur across the project area, including in areas directly adjacent to the existing roads and trails used for OHV SRPs.</p> <p>Finding/Rationale: OHV SRP routes under the Proposed Action and alternatives cross National Wetlands Inventory wetlands in multiple locations. However, because OHV SRP routes follow existing roads and trails and participants will be required to stage in existing disturbed areas, no new direct impacts on wetlands would occur.</p>
PI	Hydrologic Conditions	<p>Fugitive dust and sediment transport from OHV SRPs along existing roads and trails may enter surface waters. Multiple OHVs crossing washes/ watercourses in a single day could introduce greater potential for destabilization/erosion/sedimentation/fugitive dust.</p>

Finding	Resource	Rationale for Determination
PI	Soil	<p>Finding/Rationale: Issues carried forward for analysis include indirect impacts on hydrologic conditions from an increase in fugitive dust and sediment transport that could enter surface waters along OHV SRP routes. Adhering to best management practices could decrease these effects.</p> <p>Soils along the OHV SRP routes in the project area are known to have moderate to high susceptibility to wind and water erosion. Increased wind erosion and fugitive dust could result from OHVs.</p> <p>Finding/Rationale: The Proposed Action and alternatives take place on existing routes. Issues carried forward for further analysis include soil erosion due to wind and water. Adhering to best management practices could decrease these effects.</p>
PI	Lands with Wilderness Characteristics	<p>There are areas along existing OHV SRP routes that have been inventoried and found to contain wilderness characteristics. Effects from the Proposed Action and alternatives would occur if the size of inventoried units are reduced below a sufficient size or affected the naturalness and outstanding opportunities for either solitude or primitive and unconfined recreation in these units.</p> <p>Finding/Rationale: The Proposed Action and alternatives take place on existing routes that have already been identified as part of wilderness characteristics inventories. Existing roads (referred to as “primitive routes”) are part of the defined lands with wilderness characteristics components and their continued use in and of itself would not affect the continued existence of wilderness characteristics. However, if use of the primitive route for race SRPs shifts the road surface from primitive to more like that of developed roads over time, there could be effects on the size of specific units.</p>
PI	Wild Horses and Burros (<i>Wild and Free Roaming Horses and Burros Act of 1971, as amended</i>)	<p>BLM Nevada manages wild horses and burros in HMAs, which it uses to delineate herds and set appropriate management levels. Effects on wild horses and burros can occur through the loss of forage or water or disruptions during sensitive seasons.</p> <p>Finding/Rationale: The proposed permitted activities, including both OHV SRP routes and pit stops, overlap HMAs in each field office. Issues carried forward for analysis include displacement effects (short-term loss of access to forage and water sources) during OHV SRPs, particularly during sensitive foaling periods. Because OHV SRP routes and pits would use existing routes and existing disturbed locations, no long-term displacement of animals or effects on forage or water availability in HMAs would occur.</p>
Cultural and Socioeconomic Values		
NI	Cultural Resources (<i>National Historic Preservation Act of 1966, as amended; Archaeological Resources Protection Act</i>)	<p>Cultural resources include historic and pre-contact and post-contact Native American sites and may include architectural resources (e.g., structures, buildings), isolated finds, archaeological sites, and traditional cultural properties important to Native American tribes or other cultural groups. The BLM would be complying with the NHPA for this project by following the Protocol (revised 2014). In accordance with the Protocol, a Cultural Resources Inventory Needs Assessment form was sent to the SHPO on August 15, 2023, to notify them of this EA. Additionally, the BLM invited the SHPO to be a Cooperating Agency, but did not receive a response. The BLM has reviewed the proposed routes in this EA and determined they would fall under exemptions from inventory in the Protocol, Appendix A (Exemption from Inventory Requirements), as follows:</p>

Finding	Resource	Rationale for Determination
NI	Native American Religious Concerns (<i>Executive Order 13007</i>)	<ul style="list-style-type: none"> • A.16.b. “OHV events over courses where Section 106 consultation has already been completed and no changes in the course, spectator areas, pit areas, or other surface disturbing activities is allowed.” Physical damage to cultural resources can occur by OHVs traveling outside authorized areas and into or on archaeological sites, structures, buildings, places, and objects. New Class III cultural resources inventory and compliance with Section 106 of the NHPA would be required prior to any new ground disturbance for NEPA decisions tiering off this EA. • A.17. “Authorizing OHV SRPs that are limited to previously disturbed or non-historic routes and routes with no historic properties that are highly visible from the course. Previously disturbed and non-historic routes include: developed roads, roads and trails where use has created surface disturbance at least 2 meters wide, roads less than 50 years old, and active washes (washes with recent loose sandy/gravelly/silty in the non-vegetated bottoms of drainage) that are subject to annual water action.” <p>Finding/Rationale: No new ground disturbance is proposed. Direct and indirect physical effects on cultural resources would be avoided with implementation of SRP stipulations and with the requirements outlined in the 2014 Protocol. Temporary audible, atmospheric, visual, and olfactory effects may occur, but would be negligible.</p> <p>Executive Order 13007, “Indian Sacred Sites” (61 <i>Federal Register</i> 26771–26772 [1996]), directs Federal land-managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites.</p> <p>Finding/Rationale: The BLM’s ongoing consultation with Native American tribes may reveal Native American religious concerns; however, to date no impacts on Native American traditional values, sites, or religious practices have been identified. In accordance with Executive Order 13007, Native American access to sacred and traditional sites would not be prohibited. If areas important to Native American religious concerns are present in the project area, if they are avoided and access to such places by Native American is accommodated, then no impacts would occur. The BLM will be required to consult with tribes for any NEPA decisions tiering off this EA.</p>
NI	Paleontology (<i>Paleontological Resources Protection Act P.L. 111-011, HR 146</i>)	<p>The project area includes potential fossil yield classification 3 and 5 geologic units that have a moderate (3) to high (5) potential to contain significant paleontological resources (BLM Instruction Memorandum 2016-124). Effects on paleontological resources occur primarily through direct physical damage or exhumation caused by surface disturbance.</p> <p>Finding/Rationale: The Proposed Action and alternatives would utilize existing roads and trails, and off-road travel would not be permitted. As a result, OHV SRPs are unlikely to affect paleontological resources, even in portions of the project area with potential fossil yield classification 3 and 5 geologic units that have a moderate (3) to high (5) potential to contain significant paleontological resources.</p>
PI	Socioeconomics	<p>The OHV SRP routes pass through sparsely populated and rural areas, with potential pit stops and routes in the Proposed Action and alternatives intersecting small communities. Tourism, including from OHV and other types of recreational use on BLM-administered lands, is a component of</p>

Finding	Resource	Rationale for Determination
PI	Environmental Justice (<i>Executive Order 12898</i>)	<p>many rural economies in the project area. Counties and local communities may support OHV SRPs through emergency services and law enforcement.</p> <p>Finding/Rationale: Economic effects from potential OHV SRPs, including both positive employment and spending effects and adverse effects on community services and infrastructure, could occur under the Proposed Action and alternatives. These effects could be both short and long term.</p> <p>Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,”¹ established a requirement for Federal agencies to consider environmental justice in planning and decision processes to ensure that no person or group bears a disproportionate burden of adverse impacts. Executive Order 14096,² “Revitalizing Our Nation’s Commitment to Environmental Justice for All,” expanded the definition of environmental justice to mean the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment so that people: (i) are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and (ii) have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices.</p> <p>Finding/Rationale: Adverse health and environmental effects are not anticipated for any local communities, and the Proposed Action and alternatives would not adversely or disproportionately affect minority populations or low-income communities. Consultation with Native American tribes is ongoing, and no concerns have been brought forward to date related to tribal concerns on subsistence or cultural and religious practices.</p>
NI	Visual Resource Management (<i>Federal Land Policy and Management Act of 1976, NEPA of 1969</i>)	<p>The existing OHV SRP routes and pit stops are primarily in areas managed as VRM Class III and Class IV. VRM Classes III and IV allow moderate to high (respectively) levels of change to the character of the landscape. OHVs, in particular high-speed races, produce dust that is visible to other public land users.</p> <p>Finding/Rationale: Long-term visual resource impacts would not occur because OHV SRP routes and pit stops would use existing routes and existing disturbed locations. Under the Proposed Action and alternatives, this would remove the potential for change to the existing character of the landscape and would ensure consistency with VRM requirements. Dust clouds generated from vehicles could be visible from long distances but would settle quickly. Any short-term effects from dust could be reduced through application of permit stipulations (e.g., reduced speeds) near highly visible and visually sensitive areas.</p>
Resource Uses		
NI	Farmlands (Prime and Unique) (<i>Surface</i>)	Certain soils within the project area meet the requirements for prime or unique farmlands. Effects on prime and unique farmlands occur when they are converted to other uses.

¹ 59 *Federal Register* 7629, February 16, 1994.

² 80 *Federal Register* 25251, April 21, 2023.

Finding	Resource	Rationale for Determination
	<i>Mining Control and Reclamation Act of 1977)</i>	Finding/Rationale: Although lands in the project area can be classified as prime or unique farmland, OHV SRP routes and pit stops under the Proposed Action and alternatives would use existing road and trails and disturbed sites; there would be no new impacts on prime or unique farmlands.
NP	Woodland / Forestry	There are no designated woodland vegetation areas or areas that produce forestry products in the project area.
PI	Mineral Resources	Mineral resource exploration and development occurs across the project area. Mineral extraction activities use roads that overlap or intersect routes used by OHV SRPs. OHV SRPs are unlikely to directly damage minerals but could limit access to those holding valid existing mineral rights. Finding/Rationale: Issues carried forward for analysis consist of access issues on routes used by both mineral exploration and development vehicles and OHV SRPs. Any effects would be temporary or could be addressed through traffic management stipulations on SRP permits.
NI	Rights-of-Way	The project area contains numerous ROWs, including roads, power lines, and pipelines. For effects to occur on ROWs, OHV SRPs would need to damage or disrupt their use or performance. Finding/Rationale: The Proposed Action and alternatives would not affect existing BLM-administered ROWs. Potential OHV SRPs would use existing roads and trails and would therefore not damage, disrupt, or interact with other non-road ROW holders on BLM-administered lands. Should an OHV SRP have the potential to affect a ROW or lease holder, they would be notified of the OHV SRP. For road ROWs, the use of the ROW on BLM administered-land is not exclusive and the use of these routes for OHV SRPs is consistent with BLM's multiple use mandate under FLPMA.
PI	Livestock Grazing (<i>Taylor Grazing Act of 1934, NEPA of 1969, ESA of 1973, Federal Land Policy and Management Act of 1976, and Public Rangelands Improvement Act of 1978</i>)	Grazing permittees utilize the project area as part of BLM-issued grazing permits. Roads and trails used for OHV SRPs are also used for management of livestock such as moving cattle or hauling water or other materials. Road closures and road repair activities may make it temporarily difficult for ranchers to access routes needed to maintain cattle. Cattle and calf loss is a possibility with high-speed races. Infrastructure related to livestock management such as troughs, fences, and cattleguards have the potential to be affected where they occur on or immediately adjacent to OHV SRP routes. Finding/Rationale: Active livestock grazing and management occurs along OHV SRP routes under the Proposed Action and alternatives, and effects on livestock grazing could occur. Issues carried forward for analysis are cattle and calf collisions, damage to infrastructure and range improvements, and temporary impacts on road access for ranchers.
PI	Public Health and Safety	The roads and trails used by OHV SRPs are characterized by inherent risks associated with operation of motorized equipment and risks associated with the physical environment in which motorized vehicles would operate, including, e.g., hazards associated with abandoned mine sites, water and weather conditions, fire, landslide, and crossings of roads and trails open to other public users. Public gatherings also involve public health and safety aspects including physical site security, incident response, food safety, and safety of participants, visitors, and other public users. The BLM has established permit requirements, stipulations, and mitigation measures to reduce public health and safety risks associated

Finding	Resource	Rationale for Determination
		with OHV SRPs. Stipulations and mitigation measures applicable to OHV SRPs are provided in Appendix A.
		Finding/Rationale: Public health and safety risks are inherent in OHV events and are likely to be affected by the Proposed Action and alternatives.
PI	Recreation and Visitor Services	<p>The roads and trails that would be used by OHV SRPs are frequently used for other commercial recreational activities and permitted activities such as guided big game and upland bird hunting, competitive horse endurance rides, mountain bike events, and various horseback and wagon tours. These activities occur under BLM permits and may require county and other Federal land agency approval as well.</p> <p>Casual, public recreational uses of the area for which permits are not required include mountain biking, hiking, horseback riding, all-terrain vehicle riding, big game and upland bird hunting, and four-wheel drive exploration including touring historic sites, geologic exploration, and wildlife and wild horse and burro viewing.</p> <p>RMA, both SRMAs and ERMAs, occur along the potential OHV SRP routes. The allowable uses, management direction, and recreation setting characteristics for these RMAs vary.</p> <p>Finding/Rationale: Issues carried forward for analysis include effects between OHV SRPs and other recreational users of the OHV SRP routes, and consistency with RMA management frameworks.</p>
NP	Trails and Travel Management	The Proposed Action and alternatives would involve the use of existing roads and trails where OHV use is currently allowed. No new roads or trails would be developed or permanently closed in support of the Proposed Action or alternatives.
PI	Wastes (Hazardous or Solid) (<i>Resource Conservation and Recovery Act of 1976 and Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>)	<p>OHVs that use BLM roads and trails use petroleum products such as gasoline and diesel fuel and lubricants such as oil and grease or are electric vehicles that use lithium batteries. OHVs used in SRPs are additionally fueled, lubricated, and repaired at the pit locations. OHV SRPs also create waste through garbage brought in by spectators and participants, as well as through human waste and sanitation facilities.</p> <p>Finding/Rationale: The Proposed Action and alternatives could result in the release of petroleum products and other waste. Issues around these types of releases are carried forward for detailed analysis. Compliance with existing regulatory requirements and implementing Emergency Action Plans detailing the transporting, storing, and handling of hazardous wastes and hydrocarbons would reduce impacts.</p>
Special Designations		
NP	Areas of Critical Environmental Concern (<i>Federal Land Policy and Management Act of 1976</i>)	Areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities do not intersect any Areas of Critical Environmental Concern.
NP	National Monuments, National Conservation Areas, and	Areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities do not intersect any national monuments.

Finding	Resource	Rationale for Determination
	Similar Designations	
NI	National Scenic and Historic Trails and Trails Under Study or Recommended as Suitable for Congressional Designation	<p>The BLM identified segments of the Pony Express NHT and California NHT that intersect or are adjacent to small segments of existing OHV SRP routes in the Sierra Front and Stillwater Field Offices analyzed in this EA. According to the BLM's review of archaeological records, one previously identified trace of the Pony Express (26CH3712/CrNV-03-5421) overlapping with the proposed routes was determined to be non-contributing (not eligible) to the National Register of Historic Places due to its lack of physical integrity. The NPS National Trails Office was invited to be a Cooperating Agency, and did not respond, but did provide comments during the NEPA scoping process and subsequent informal conversations. A meeting with the BLM and NPS National Trails Office occurred on August 10, 2023. The BLM has sent the draft EA to the NPS Trails Office, the National Pony Express Association, and the Oregon-California Trails Association for review and comment.</p> <p>Finding/Rationale: Where the proposed routes intersect intermittently with NHTs, the existing roads are well established and are at least 2 meters wide. Physical damage to intact trail segments is not anticipated because all OHV SRPs would occur on existing roads and no new disturbance is being authorized. The scenic character of NHTs and integrity of setting and feeling are not anticipated to be altered by the analyzed routes because these OHV SRPs would not authorize new disturbance or new visual intrusions to the landscape. While increased levels of noise and dust may be present at the time of the OHV SRPs, they are temporary in nature and would not cause permanent changes in the scenic quality of NHTs. OHV SRPs in the Carson City District Office will also have timing restrictions to avoid conflict with the National Pony Express Association's annual re-rides that occur every June.</p>
NP	Wild and Scenic Rivers (<i>Wild and Scenic Rivers Act of 1968, as amended</i>)	Areas in which permitted activities would be conducted and areas to which participants, visitors, and other public users would have access during permitted activities do not intersect any designated wild and scenic rivers.
NI	Wilderness and Wilderness Study Areas (<i>Federal Land Policy and Management Act of 1976 and Wilderness Act of 1964</i>)	<p>The Proposed Action is outside of any designated Wilderness or WSAs. However, several routes are near Wilderness or WSA boundaries. The Proposed Action may have short-term, temporary impacts on solitude for areas in sight or hearing distance of routes where OHV SRPs are permitted during the time of the event when participants pass near these designations.</p> <p>Finding/Rationale: Limited, short-term effects on solitude within Wilderness or WSAs in sight or hearing distance of the routes where OHV SRPs are permitted could occur.</p>

FLPMA = Federal Land Policy and Management Act; NHPA = National Historic Preservation Act; NHT = National Historic Trail; NPS = National Park Service; Protocol = *State Protocol Agreement between The Bureau of Land Management, Nevada and The Nevada State Historic Preservation Officer for Implementing the National Historic Preservation Act*; ROW = right-of-way; SHPO = State Historic Preservation Officer; VRM = Visual Resource Management

Appendix I List of References

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Purpose and Need for the Proposed Action

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