Salt Desert Scrub

Salt Desert Scrub vista, with playa in the foreground and sand dune in the background, Churchill County. Photo by Elisabeth Ammon.

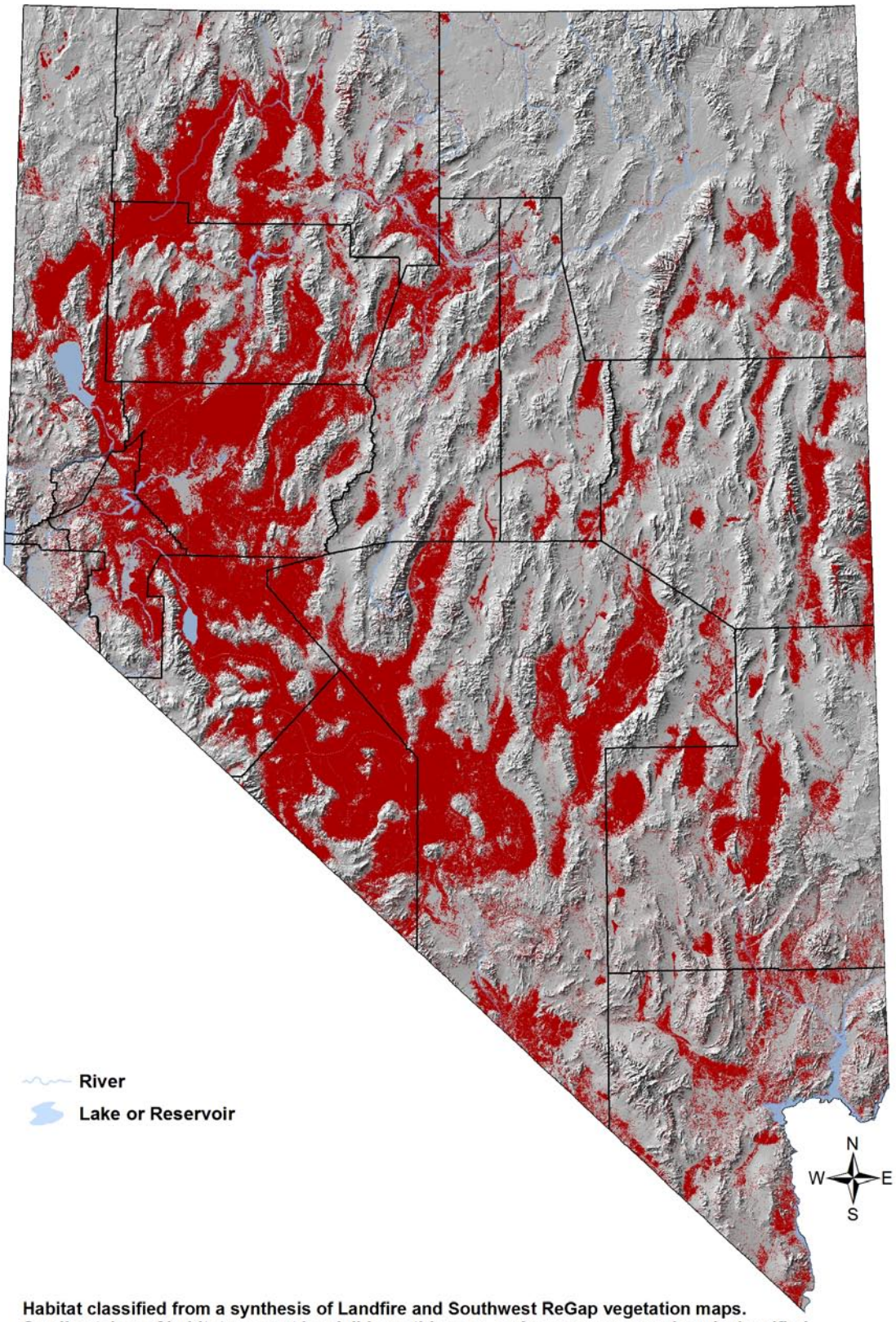
Key Bird-Habitat Attributes

Stand Structure	Open scrub stands with several shrub species and varying heights and densities, usually based on available soils and water; understory usually sparse, but important where present; sparsely vegetated and bare patches also important to some priority species
Ideal Scale for Conservation Action	> 200 ah [500 ac], preferably much larger
Plant Species Composition	Saltbush and associated shrubs, often with saltgrass; some Great Basin areas almost pure greasewood, which are important if they are tall
Plant Condition and Ephemeral Washes	Plants located in ephemeral washes have access to additional moisture, and provide important resources for birds during drought periods
Distance to Riparian/Spring Habitats	Proximity of water-dependent habitats increases value to birds
Presence of Cliffs > 30 m [100 ft] Tall	Presence of tall cliffs increases value to birds

Conservation Profile

Estimated Cover in Nevada	6,022,000 ha [14,880,000 ac] 21% of state
Landownership Breakdown	BLM = 75% Private = 11% DOD = 7% Other = 7%
Priority Bird Species	Prairie Falcon Burrowing Owl Sage Thrasher Le Conte's Thrasher Brewer's Sparrow Sage Sparrow (Ferruginous Hawk) (Golden Eagle) (Common Poorwill)
Indicator Species	Black-throated Sparrow
Most Important Conservation Concerns	Energy development Motorized recreation Livestock, wild horse and burro grazing Invasive weeds Urban development
Habitat Recovery Time	25-50 years
Regions of Greatest Conservation Interest	Washoe, Humboldt, Churchill, Lincoln, and Clark counties
Important Bird Areas	Ash Meadows NWR Catclaw Washes Franklin Lake Gridley Lake High Rock Resource Area Lahontan Valley Wetlands Moapa Valley North Ruby Valley Oasis Valley Pahranagat Valley Complex Pyramid Lake Swan Lake Walker Lake Washoe Valley

Salt Desert Scrub



Habitat classified from a synthesis of Landfire and Southwest ReGap vegetation maps.
Small patches of habitat may not be visible on this map, and some areas may be misclassified.

Salt Desert Scrub

Overview

At first glance, the Priority species list for the driest of Nevada's habitats, Salt Desert Scrub, seems relatively impressive. However, large expanses of salt desert have very limited bird life. The salt desert is one of the most difficult western environments for both plants and wildlife. Vegetation consists primarily of drought-adapted plants such as saltbush, shadscale, budsage, and several forb species. For the purpose of this plan, we also include in this habitat type greasewood-dominated plant communities that usually occur near playas or in other locations where they can access groundwater. As in Mojave Scrub habitats, birds that can tolerate living in the salt desert generally have large home ranges within which they forage for sparse and ephemeral resources, and they are often attracted to features that interrupt the salt desert landscape, such as cliffs, ephemeral washes, burrows, sandy areas, or patches of dense, tall shrubs (Figure Hab-19-1-a and b).

Despite its foreboding nature, Salt Desert Scrub is one of the primary habitats for Le Conte's Thrasher in Nevada. As recent work has shown (D. Fletcher *pers. comm.*, Floyd et al. 2007), Le Conte's Thrasher occurs in a spotty and seemingly unpredictable pattern across the Mojave region's salt deserts, likely because its food resources naturally occur in an ephemeral pattern over space and time. This pattern conjures the image of salt desert birds "living on the edge" ecologically, and it is likely that impacts to their habitat have effects in similarly unpredictable ways.

Main Concerns and Challenges

The following top five conservation concerns were identified in our planning sessions for Salt Desert Scrub habitat in Nevada:

- Energy development
- Motorized recreation
- Livestock, wild horse and burro grazing
- Invasive weeds
- Urban, suburban, and industrial development

Land uses of the salt desert are generally light because of their relative lack of desirable resources. Cattle grazing is widespread throughout most of Nevada, but where salt deserts are part of the livestock range, they typically experience light use unless springs or other mesic habitats are interspersed in the landscape. However, in the Mojave region, burro use continues to be a concern, as burros appear more adept at foraging in very dry vegetation than other types of livestock (Abella 2008). OHV recreation, accelerating energy development, and invasive plants pose threats of more recent genesis to this habitat type. Groundwater pumping may also pose a threat to greasewood stands that depend on access to ground water near playas or where upwelling occurs.

Salt Desert Scrub

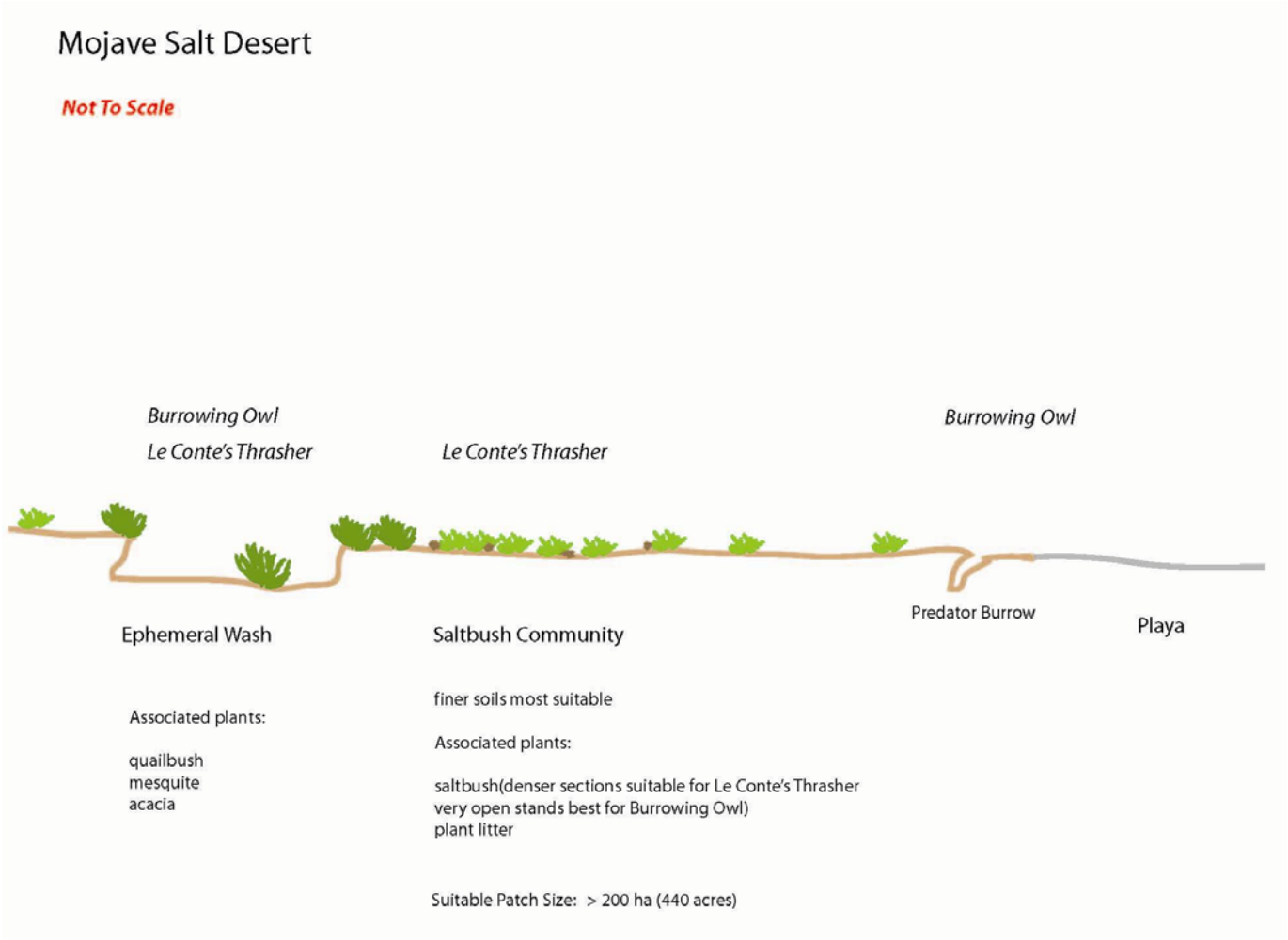


Figure Hab-18-1-a: Idealized Mojave salt desert landscape to maximize the number of salt desert associated Priority bird species.

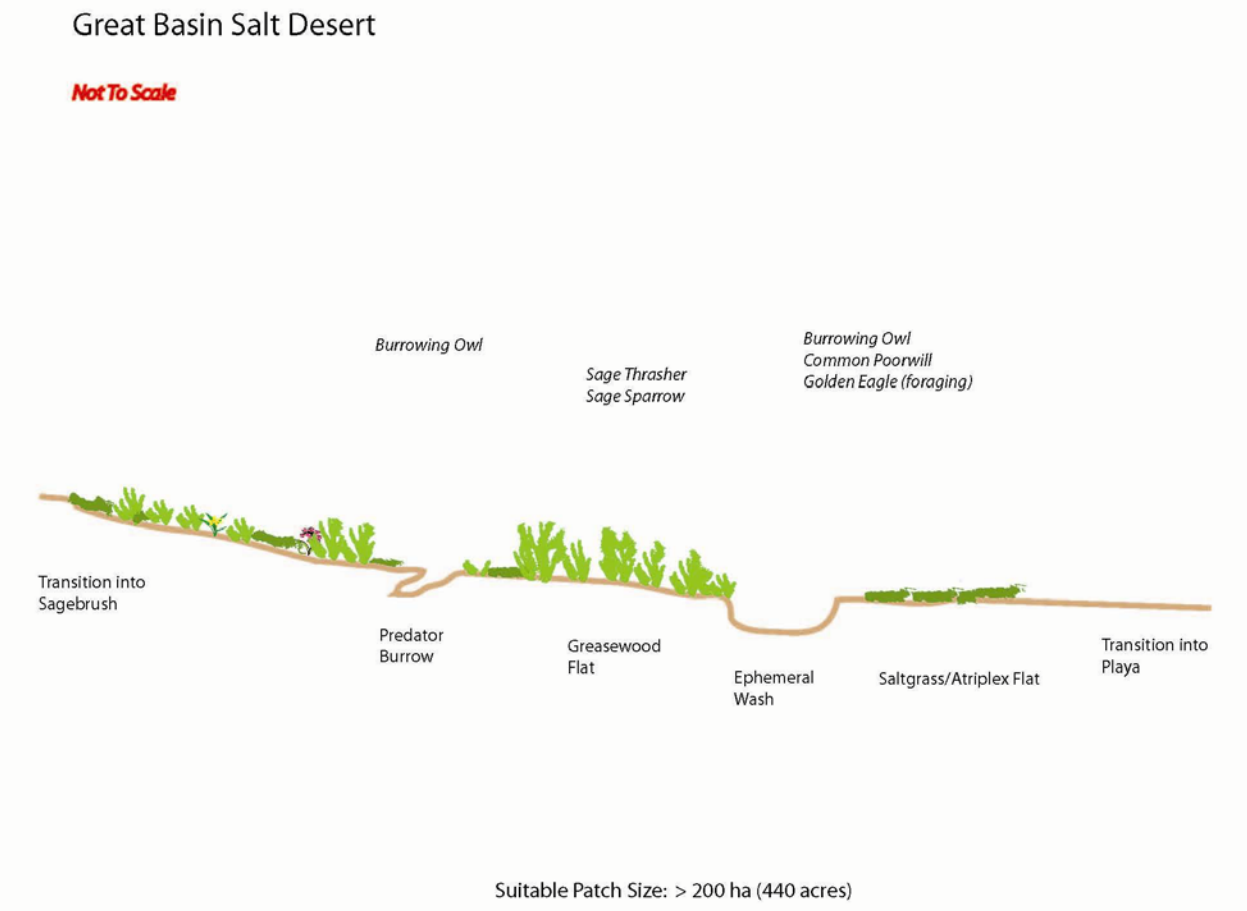


Figure Hab-18-1-b: Idealized Great Basin salt desert landscape to maximize the number of salt desert associated Priority bird species.

Conservation Strategies

Habitat Strategies

- **Manage at a landscape scale (> 200 ha [500 ac])** with the goal of maintaining a natural mosaic of stand types, size classes, and different densities and understories. If other habitats are interspersed, for example cliffs > 30 m [100 ft] tall, springs, playas with ephemeral water, or ephemeral washes, conservation efforts should focus on these areas by avoiding habitat conversion and degradation within a radius of > 1,000 m [3,300 ft] from these features
- **Weed control** is recommended where invasive annuals are becoming established, because they change fire regimes and are largely unsuitable for Priority species
- **Wild horses, burros, and domestic livestock** should be managed to minimize their use of high priority areas, particularly those occupied by Le Conte's Thrasher
- Maintain **grazing and OHV use** at levels that do not permanently impact the shrub layer or forb understory
- The majority of priority bird species nest between **April 1 and July 15**, and some of them are particularly sensitive to nest disturbance. This is the time period when disturbances should be minimized

Research, Planning, and Monitoring Strategies

- **Clarify habitat requirements** of species that may rely on ephemeral resources, such as Le Conte's Thrasher, Prairie Falcon, Golden Eagle, and Burrowing Owl. Particularly needed is information on **patch size requirements and landscape variables** that need to be considered in effective conservation planning
- Study **effects of OHV use** on Priority landbirds and habitat integrity
- Continue **long-term monitoring of landbirds** statewide through the Nevada Bird Count
- Monitor status of **invasive weeds** to assess threat level locally and statewide

Public Outreach Strategies

- **Promote responsible OHV uses**, such as avoiding nesting areas of Priority species