

11530

Inter-Mountain Basins Greasewood Flat

BpS Model/Description Version: Aug. 2020

Modelers		Reviewers	
Jeff Rose	Jeffrey_rose@blm.gov	None	None
John Foster	jfoster@tnc.org	None	None
None	None	None	None

Reviewer: Andrea Laliberte

Vegetation Type

Mixed Upland and Wetland

Map Zones

7, 8, 9

Geographic Range

Occurs throughout much of the western United States in intermountain basins. Common in southern Idaho, Nevada, and Utah. Also occurs in eastern Oregon and possibly eastern Washington.

Biophysical Site Description

This site occurs on alluvial flats or lake plains usually adjacent to playas. Sites typically have saline soils and shallow water table and flood intermittently but remain dry for most growing seasons. The water table remains high enough to maintain vegetation, despite salt accumulations. Slope gradients of <2% are most typical. Elevations are between 3,800-5,800ft. Average annual precipitation is 5-8in, mean temperature is 45°-50° F, and average growing season is 100-120 days. The surface layer will normally crust, inhibiting water infiltration and seedling emergence.

Vegetation Description

This system sometimes occurs as a mosaic of multiple communities, with open to moderately dense shrublands dominated or co-dominated by *Sarcobatus vermiculatus* (greasewood). *Atriplex confertifolia* (shadscale) may be present or co-dominant. Occurrences are often surrounded by mixed salt desert scrub. Herbaceous layer, if present, is usually dominated by graminoids. There may be inclusions of *Sporobolus airoides* (alkali sacaton) and *Distichlis spicata* (saltgrass). Vegetation on this site is normally restricted to coppice mound areas that are surrounded by playa-like depressions or nearly level, usually barren, inner spaces. Potential vegetative composition is about 15% grasses, 5% forbs, and 80% shrubs. As ecological condition declines, herbaceous understory is reduced or eliminated and the site becomes a community of halophytic shrub dominated by greasewood.

BpS Dominant and Indicator Species

Symbol	Scientific Name	Common Name
SAVE4	<i>Sarcobatus vermiculatus</i>	Greasewood
DISTI	<i>Distichlis</i>	Saltgrass
LECI4	<i>Leymus cinereus</i>	Basin wildrye

ATCO	<i>Atriplex confertifolia</i>	Shadscale saltbush
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Species names are from the NRCS PLANTS database. Check species codes at <http://plants.usda.gov>.

Disturbance Description

Historically, fire was extremely infrequent. Greasewood is a vigorous resprouter following low-to moderate-severity fires, although severe fires may result in some mortality (Anderson 2004). Some reseeding may occur from nearby remnant plants.

Vegetation may be killed by standing water that lasts >40 days based on observation of inundations of Lake Bonneville flats in 1983 (personal observation, Gary Medlyn, Ely BLM).

Fire Frequency

Severity	Avg FI	Percent of All Fires	Min FI	Max FI
Replacement	1020	100	500	2000
Moderate (Mixed)				
Low (Surface)				
All Fires	1020	100		

Fire interval is expressed in years for each fire severity class and for all types of fire combined (All Fires). Average FI is the central tendency modeled. Percent of all fires is the percent of all fires modeled in that severity class. Minimum and Maximum FIs show the relative range of fire intervals as estimated by model contributors, if known.

Scale Description

10s to 100,000 of acres.

Adjacency or Identification Concerns

Halogeton is likely to invade this site.

Issues or Problems

Native Uncharacteristic Conditions

Comments

Andrea Laliberte reviewed this model during the 2016 BpS review and made minor descriptive edits. Laliberte also suggested that it would make more sense geographically to include map zone (MZ) 8 with the MZ07/09 variant even though the MZ08 model was identical to the MZ06 et al. variant. Blankenship accepted the recommendation, noting that the descriptions were identical, except the s-class information, and that a previous MZ08 reviewer had suggested a 3-box model such as in MZ07 and MZ09. Laliberte also questioned whether a two box model could adequately represent this Biophysical Setting (BpS) as was done in the MZ06 et al. variant.

LANDFIRE National Comments:

Local data in Oregon informed this three box model in MZ07 and MZ09.

MZ08 was reviewed by Jeff Rose (jeffery_rose@blm.com). Rose suggested that there be a 3-box model reflecting recent data collected in Oregon.

Succession Classes

Mapping Rules

Wind or Weather or Stress	Late1:OPN	Early1:ALL	0.0067	149	Yes	0
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References

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