

V. CAUSAL FACTOR ANALYSIS AND MANAGEMENT RECOMMENDATIONS

The Local AMRTs are tasked with completing a causal factor analysis and provide management recommendations associated with each population or habitat trigger. The results from this process are provided below in a *Causal Factor* table for each Conservation Planning Area.

5.6 WASHOE/LASSEN CONSERVATION PLANNING AREA (POINT OF CONTACT – MELANY ATEN)

	AMRT Management Recommendations <i>Please list appropriate, realistic, and targeted responses for each causal factor. Please limit/prioritize to a maximum of 5 actions per/PMU. Actions need not be restricted to federal agencies (i.e., BLM/Forest Service), they may involve other governmental organizations (e.g., NDOW, County, State, etc.). Please identify which agencies the recommendations are meant for.</i>	Agency Response <i>Please provide a brief, detailed explanation that responds to the request. If the request cannot be addressed, please detail the reason and how future requests may be more meaningful.</i>
Category	<u>Virginia/Pahrah PMU Habitat Trigger:</u> Multiple wildfires in 2018 (1), 2017 (1), and 2016 (6) have contributed to habitat declines (~200,000 acres total fire disturbance)	
Invasive Weeds	1. Aerial weed treatment in PHMA north and west of Spanish Flat, continued medusahead treatment at sheep springs flat lek (BLM-Carson FO)	BLM-NV Response: “Consider submitting a project proposal through next year’s AMRT to address this. Identify location, acreage, treatment options, possible partners, etc.”
Fuels Management	1. ½ mile wide fuel break along 395, and Fish Springs Road county road, Winnemucca Ranch Road (Carson- FO, Eagle Lake- FO, NDOT, Caltrans, CDFW, Washoe County, Lassen County)	BLM-CA Response: “1. Currently, the Eagle Lake Field Office does not have fuel breaks projects proposed in the recommended locations. However, the field office is willing to work with the partners and other field offices listed to further discuss and possibly develop a project.” NDOT Response:

		<p>“Generally, highways serve as effective fuel breaks, however any fuels management on NDOT ROW must consider Department’s air quality and stormwater requirements and incorporate reviews for other resource impacts.”</p> <p>BLM-NV Response:</p> <p>“The <i>Programmatic EIS for Fuel Breaks in the Great Basin</i> (DOI-BLM-ID-0000-2017-0001-EIS) is available for use.</p> <p>Consider submitting a proposal for this project. The roads are identified, so submit the miles of fuelbreaks needed along these roads, and identify possible partners to assist with implementation.”</p>
Vegetation Management	<ol style="list-style-type: none"> 1. Request status and possible implementation of non-implemented fire rehabilitation efforts in Virginia portion of the PMU (BLM- Carson FO) 2. Coordinate with partners and implement currently feasible fire restoration actions for Virginia mountain complex fire (~62,020 acres) and long valley (2016, ~84,000 acres) fires, prioritized in PHMA (Carson-FO) 3. Implement future fire rehabilitation plans within recommended timeframes (Carson-FO, NDOW) 4. Coordinate with pyramid lake tribe on fire rehabilitation in, Terrace hills, lower elevation in Virginia mtns on tribal lands (BIA-Pyramid Lake, BLM-Carson FO, NDOW, NDF) 5. Implement NDOW identified spring enhancements in the Virginia mtns. (BLM-Carson) 	<p>BLM-NV Response:</p> <ol style="list-style-type: none"> 1. “As part of next year’s AMRT process, submit a proposal for this project. Identify the location, acreage, and types of rehabilitation efforts. 2. As part of next years AMRT process, submit a proposal for this project. Identify the location, acreage, types of restoration actions, and possible partners for implementation. 3. The BLM makes every effort to implement fire rehab plans within the recommended timeframes. 4. As part of next year’s AMRT process, consider submitting a proposal for this project or possibly submitting a proposal to hire someone to do the coordination between BIA, BLM, NDOW, and NDF. 5. Consider submitting a proposal for these spring enhancement projects. Identify locations, acreages, types of enhancement efforts (will the areas need to be fenced?), possible partners for implementation.”
Misc	<ol style="list-style-type: none"> 1. Past, current and anticipated disturbance makes restoration efforts in the Pah-Rah portion of the PMU not recommended. 	<p>BLM-CA Response:</p>

	<ol style="list-style-type: none"> 2. Recommend splitting the Virginia/Pah-Rah PMU (NDOW) 3. Wild Horse removal in the Flanagan Allotment (BLM- Carson FO) 4. Fence maintenance and gathering along horse free areas (BLM-Carson FO, Pyramid Lake Tribe) 5. Future inclusion of Buffalo-Skedaddle group/PMU in adaptive management due to bird movement from Virginia mtns to the BS unit. (SETT) 	<p>“5. BLM Eagle Lake Field Office will add this to the agenda at the next Buffalo-Skedaddle meeting. The next meeting is scheduled for April 28, 2020, however it may be postponed due to the CA Governors shelter in place order.”</p> <p><u>BLM-NV Response:</u></p> <ol style="list-style-type: none"> 1. “Thank you for the recommendation. 2. Thank you for the recommendation 3. The BLM is committed to working with Congress, state and local governments, partner organizations, and the public to find commonsense solutions for putting the wild horse and burro program back on a sustainable and fiscally responsible track. The BLM could prioritize HAF assessments and sage-grouse habitat inventory in HMAs that are within triggered areas to help support gather priorities. However, gathers are scheduled at a national level, not at a State Office or District Office level. 4. If the fence maintenance is on BLM managed public land and if the horses are BLM managed wild horses, consider submitting a project proposal for the fence maintenance project (location, miles of fence maintenance needed, possible partners for implementation). If the horses are outside of an HMA, identify the need for the WH/B gather. 5. N/A to BLM”
<p style="text-align: center;"><u>Sheldon PMU Population Trigger:</u> 1 soft cluster/PMU + 1 Soft Lek Possible causal factor(s): Extreme drought conditions have contributed to population-level stress. Combined with drought conditions, animal use of late brood-rearing areas have led to wet meadow habitat declines which is a limiting factor for sage grouse recruitment.</p> <p style="text-align: center;">Data contributed by ODFW can contribute to knowledge</p>		
Vegetation Management	<ol style="list-style-type: none"> 1. Evaluate large fire rehabilitation on the Sheldon NWR (USFWS) 	<p><u>USFWS Response:</u></p> <p>“Sheldon NWR has not experienced a large fire since 1999 Badger Fire. Recent observations of Badger Mountain show habitat is exhibiting</p>

		significant recovery with an abundance of native grasses, forbs, and shrubs. If the Refuge were to experience a large fire, significant effort would go into Emergency Stabilization and follow up Burned Area Rehabilitation. Efforts would include annual grass chemical control, native reseeding, and monitoring.”
Misc	<ol style="list-style-type: none"> 1. Make Sheldon NWR annual work plan available to local partners and engage NWR staff (USFWS) 2. Acquire population data from ODFW to ascertain relevance of trigger 	<p><u>USFWS Response:</u></p> <p>“The Sheldon NWR Comprehensive Conservation Plan (CCP), which includes approved management actions, is the framework for guiding refuge management decisions and is available to the public. Our annual work plan, which is not detailed and prescriptive, is comprised of mostly administrative and operational objectives for all refuge program areas. All habitat management actions outlined in an annual work plan are stepped down from the CCP. Refuge staff would be very supportive of being engaged with local partners to discuss ongoing and future management and identify additional management actions to support all sagebrush dependent wildlife.”</p> <p>“The Refuge is supportive of sharing historic and current lek data. Refuge staff conduct ground counts at approximately 30 sage grouse lek complexes per year on Sheldon NWR. Lek data from Oregon would need to be requested from ODFW and Lakeview BLM.”</p>
<p><u>Massacre PMU Population Trigger:</u> 1 Soft Lek Trigger</p> <p>Possible lack of water causing birds to move to adjacent lek (original Cherry Creek North 1). Possibly an erroneous trigger.</p>		
Invasive Weeds	<ol style="list-style-type: none"> 1. Aerial weed management in the following areas: -Aerial Cheatgrass treatment North of wall canyon reservoir + reseeding efforts (BLM-Applegate FO) -Spraying all noxious weeds along 34A and 8A (NDOT, Washoe County, BLM-Applegate FO) 	<p><u>BLM-CA Response:</u></p> <p>“1. The Applegate Field Office is currently spraying weeds north of Wall Canyon and along 34A and 8A.” “2. The Applegate and Eagle Lake Field Offices coordinate weed treatments annually. Coordination with the Winnemucca Field Office has</p>

	<p>2. Eagle lake BLM Field office needs to coordinate weed treatment with Applegate and Winnemucca FO (BLM EL, APL, & Winnemucca FO)</p>	<p>occurred but has not been consistent. Both field offices are willing to coordinate annually with the Winnemucca Field Office.”</p> <p><u>NDOT Response:</u></p> <p>“Neither road (34A/8A) is administered by NDOT and any effort to use NDOT resources to assist Washoe County would need to be made by NDOT management and implemented through an agreement.”</p> <p><u>BLM-NV Response:</u></p> <p>“See attached Massacre PMU Weeds Management Plan”</p>
Fuels Management	<p>3. Fire break and Riparian Actions in Massacre PMU are occurring in coordination with the Applegate BLM office and NDOW.</p> <p>4. Applegate BLM FO added the following recommendation: “Improvements to the Wall Canyon Reservoir Recreation site to reduce the potential for human caused wildfires.”</p>	<p><u>BLM-CA Response:</u></p> <p>“3. The Applegate Field Office and our partners are currently planning to implement approximately 60 miles of fuel breaks. Fuel breaks are being planned within the Massacre PMU or in areas that would provide protection for the PMU. Fuel break projects are high priority projects for the BLM and a Programmatic EIS will be published later this year which will accelerate the NEPA process. Additional sites for fuel breaks will be analyzed in the future.”</p> <p>“4. The Applegate Field Office recognizes the rapid increase in recreational use of the Wall Canyon Reservoir and the potential for future fire ignitions as a result. The Applegate Field Office has submitted a funding request in FY21 to address this increase in use and wildfire potential. The funding will be used to purchase and install fire rings, vault toilets and develop more formalized camp sites.”</p>
Vegetation Management	<p>1. Lost fire rehabilitation success evaluation (BLM-Applegate and Black Rock FO)</p>	<p><u>BLM-CA response:</u></p> <p>“1. The total acres treated as part of Lost Fire Rehabilitation Plan was 2,898. Treatments included broadcast seeding of dozerlines, hand planting of bitterbrush and mountain big sagebrush, and aerial seeding of mountain big sagebrush. Dozerlines were seeded in the fall/winter of 2012. Hand planting projects were implemented in November of 2012 and 2013. Aerial</p>

		<p>seeding was completed in February of 2015. According to the annual plan monitoring report, approximately 59% of the seedlings planted in FY13 were still alive one year after being planted. For seedlings planted in FY12, the seedling success rate was estimated to be nearly 80% for sagebrush and 50% for bitterbrush. Average density of big sagebrush aerially seeded was < 0.008/M2 which was below the > 0.5 per meter square threshold. The broadcast seedings failed to take and they were discontinued after the winter of 2012/13. Currently, the Applegate Field Office does not have any plans for implementing projects within the perimeter of the Lost Fire. However, it is possible that the Applegate Field Office will consider implementing additional projects.”</p>
Misc	1. Develop a list of priority areas	<p><u>BLM-CA Response:</u></p> <p>“1.The Applegate Field Office includes approximately 50% of the area within the Massacre PMU. Projects completed or planned to bolster this population include:</p> <ul style="list-style-type: none"> •Supported a 5-year demographic study that identified chick survival as the most vulnerable life stage for this population. Projects that improve forage and cover, particularly in early brood-rearing habitat and near water sources during late brood-rearing, will support population growth. •Identified approximately 12 spring exclosure projects, with two currently being implemented at Divine Springs and Mt View Spring. •Currently working with partners on developing two large-scale meadow habitat restoration projects in Grassy Valley and Mt View Creek. •Initiating a telemetry study with UNR and NDOW to monitor the impact of late brood-rearing habitat (and restoration efforts) on population growth. •Completed 4,500 acres of juniper removal since 2005. •Approximately 2,200 acre of juniper removal is contracted within the Bull Creek Project Planning Area (FIAT PPA-Twin Lakes). •An additional 5,200 acres is proposed for juniper removal throughout the Massacre PMU. •Initiated effectiveness monitoring of juniper removal projects in the neighboring Vya PMU.

		•The need for targeted raven control is being assessed throughout the PMU.”
--	--	-----------------------------------------------------------------------------

5.8 COMMENTS NOT SPECIFIC TO ANY AREA

NDOT Comments:

- **Noxious and invasive weed management:** NDOT recognized the importance of this issue last year and NDOT through the ENV Division now provides funding to the Nevada Department of Agriculture for a NDOT dedicated full-time position to serve as point for NDOT’s weed management efforts. This position will provide review of noxious weed management plans submitted by contractors and permittees as well as provide training and specialist assistance to NDOT staff.
- **Fuel Breaks:** generally, highways serve as effective fuel breaks, however any focus to increase the effectiveness of NDOT ROW as fuels breaks must consider Department air quality and stormwater requirements if reducing vegetation is the goal.
- **Wildfire:** NDOT through its District personnel will continue to work closely with wildfire incident teams.
- **Health of grass scrub communities:** NDOT will continue to use native seed mixes as part of its revegetation efforts within NDOT ROW.
- **Wild and stray horse population management:** NDOT supports efforts to manage the populations of wild and stray horses as growing populations have become a safety issue on NDOT roadways.

USFWS Comments:

- The U.S. Fish and Wildlife Service (Service) recommends the Ruby Lakes National Wildlife Refuge be included in the list of interested stakeholders. They have been contacted for a review of this report and their comments are included herein.

Massacre PMU Weeds Management Plan

In response to the soft lek trigger and for general maintenance of public lands, Winnemucca BLM plans to conduct weeds management activities in the Massacre PMU. These activities will primarily be Early Detection Rapid Response (EDRR), whereby areas are inventoried for the presence of noxious weeds and prioritized for rapid treatment. By treating infestations before they become large and well established, greater weeds control is possible with limited staff and resources. Inventories will be centered around the lek experiencing the soft trigger and roads, which tend to serve as corridors for the introduction and expansion of noxious weeds. Previously recorded weeds infestations and treatments will be monitored and retreated if necessary.

Timing of surveys and treatments is critical in identifying and effectively treating weeds infestations. Because of the variety of noxious weeds known to exist in the PMU, Winnemucca BLM plans to conduct EDRR throughout the spring, summer, and fall. Table 1 gives an outline of EDRR activities for each of the noxious species known to exist within the PMU.

Treatments of noxious weeds are designed to provide maximum control of target species while limiting negative impact to desirable vegetation, wildlife, wilderness values, and overall rangeland health. All environmental protection measures identified in the Programmatic District-Wide Vegetation Management Plan (DOI-BLM-NV-W00-2014-0004-EA), including buffer distances to surface water and chemical selection, will be followed. Also, all applicable required design features from both the 2015 and 2019 Nevada and Northeastern California Greater Sage-Grouse Approved Resource Management Plan Amendments will be implemented. EDRR treatments up to five acres in size may be made immediately, while larger treatments, if necessary, will require additional analysis under the National Environmental Policy Act.

Integrated pest management techniques will be used to improve weed-infested areas to a higher functioning state. Due to the composition of noxious weed species occurring within the PMU, most treatments should be accomplished with chemicals. Physical treatments, such as hoeing and cutting, would be incorporated to enhance or replace chemical treatments where applicable. Reseeding treated areas is an effective way to provide perennial cover to bare ground following treatments and competitively exclude reintroduction or expansion of noxious weeds. No seeding treatments are currently planned, but future treatments will be considered as noxious weeds are removed from the landscape.

After fall treatments are complete, a report summarizing EDRR activities can be submitted to the Sagebrush Ecosystem Technical Team. This report would include areas surveyed, infestations recorded, treatments implemented, early treatment effectiveness monitoring results, and an update of next year's plan of work in the PMU.

Table 1. Treatment by species

Species (Common name, <i>Scientific name</i>)	Life Cycle	Survey Timing	Treatment Timing	Treatment Method*
Canada thistle <i>Cirsium arvense</i>	Perennial	Spring-Fall	Spring, Summer, Fall	picloram, aminopyralid, metsulfuron methyl, clopyralid, imazapyr, glyphosate
Leafy spurge <i>Euphorbia esula</i>	Perennial	Spring-Fall	Spring	picloram
			Summer	picloram, glyphosate, aminopyralid
			Fall	imazapic
Medusahead rye <i>Taeniatherum caput-medusae</i>	Annual	Spring, Fall	Fall, Winter	imazapic
			Late Spring	glyphosate
Russian knapweed <i>Acrotilon repens</i>	Perennial	Late Spring-Fall	Fall	imazapic
			Late Spring, Summer	glyphosate, chlorsulfuron, clopyralid
			Late Summer	aminopyralid, picloram
Saltcedar <i>Tamarix</i> spp.	Perennial	Year-round	Late Spring, Summer, Early Fall	Foliar- imazapyr
			Year-Round	Basal Bark/Cut Stump- triclopyr, imazapyr
Scotch thistle <i>Onopordum acanthium</i>	Biennial	Spring-Fall	Spring, Summer	hoeing, 2,4-D, Aminopyralid, glyphosate
Sulfur cinquefoil <i>Potentilla recta</i>	Perennial	Spring-Fall	Spring	aminopyralid, chlorsulfuron, glyphosate, picloram, metsulfuron methyl
			Summer	aminopyralid, glyphosate, picloram
			Fall	picloram
Tall whitetop <i>Lepidium latifolium</i>	Perennial	Spring-Fall	Spring	metsulfuron, chlorsulfuron, imazapyr, glyphosate
			Summer, Early Fall	imazapic, imazapyr, glyphosate
Whitetop <i>Cardaria draba</i>	Perennial	Spring-Early Fall	Spring	2,4-D, aminopyralid + metsulfuron methyl, glyphosate
			Spring, Summer	chlorsulfuron, metsulfuron methyl, aminopyralid, glyphosate, imazapyr, imazapic
			Late Summer	imazapic, aminopyralid + metsulfuron methyl

*All chemical treatments will be made according to label requirements and conform to environmental protection measures outlined in DOI-BLM-NV-W00-2014-0004-EA.