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.

5.7 WHITE PINE CONSERVATION PLANNING AREA (POINT OF CONTACT – LAURIE CARSON)

	AMRT Management Recommendations	Agency Response
	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.	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.
	<u>Butte/Buck/White Pine - So</u>	uth Newark Valley 2 PMU Population Trigger:
Category	Possible Causal Factors:	
	 Horses – congregate at Monte Cristo (Valley) water and Predators – Ravens, Coyotes PAN Mine – noise (Exploration started 2008 and mining Drought – accentuates impacts for all wildlife, horse imp Predator perches – Monte Cristo Butte Oil and Gas exploration in area, but no production 	g in 2013)
	Notes:	
	Summer habitat includes Spring Creek Ranch	
	Other leks in the valley not declining at the same rate (all experie	ncing drought, ravens, historic livestock grazing, horses)

	David Little losing more ewes than normal to coyotes (winter timeframe).		
		nen ane).	
	 Historic sheep grazing 20-30K Sheep grazing - no major changes in operation (constan Easy Junior Mine – 10 Miles away 	t)	
	 History of coyote populations (APHIS)? Copper flat has had a recent increase loss of lambs (last two years), but this is after the 2016. Rabbit numbers low this year and how could it affect predation on sage grouse. Gold Rock Mine is about 6 miles. 		
Wildlife	1. Raven predator control	USFS Response: The Humboldt-Toiyabe National Forest has forest plan	
Management	2. Coyote predator control?? – not agreed upon by group	direction regarding managing the effects of ravens on sage-grouse.	
		GRSG-P-DC-116-Desired Condition – Anthropogenic uses on public lands are managed to reduce the effects of predation on greater sage-grouse This largely accomplished with managing habitat to ensure overhead concealment, adding perch deterrents, and limiting tall structures that would be desirable to ravens. Direct control of raven or coyotes numbers is not within Forest Service authority.	
		 BLM-NV Response: N/A to BLM. BLM manages wildlife habitat, not wildlife. N/A to BLM. BLM manages wildlife habitat, not wildlife. Obtain data on whether coyotes are truly a problem in this area and if they are impacting GRSG. Research project on coyotes and sage grouse in this area. 	

Misc.	 Noise Monitoring - <u>PAN & Gold Rock and Oil and</u> <u>Gas interest in area.</u> Manage horses at AML 	USFS Response: The Humboldt-Toiyabe National Forest has forest plan direction regarding noise in the 2015 Greater Sage Grouse Plan Amendment:
		GRSG-GEN-ST-006-Standard – Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (March 1 to May 15) from 6 pm to 9 am. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.
		For new actions proposed, such as new exploration projects, measures are typically implemented to only authorize to operations outside the lekking and nesting seasons to eliminate the possibility of noise impacts. If a new mine plan is submitted, GRSG-GEN-ST-006 would be applied. Noise protocols provided by NDOW are used to implement this standard. As future phases at mines are planned, additional NEPA analyses will be conducted and NDOW and the SETT will be consulted on noise management strategies.
		USFS Response: The Humboldt-Toiyabe National Forest has forest plan direction regarding management of wild horses and burros in the 2015 Greater Sage Grouse Plan Amendment:

GRSG-HB-DC-067-Desired Condition In priority and general habitat management areas, wild horse and burro populations are within established appropriate management levels.

GRSG-HB-GL-070-Guideline In priority and general habitat, herd gathering should be prioritized when wild horse and burro populations exceed the upper limit of the established appropriate management level.

GRSG-HB-GL-071-Guideline In priority and general habitat, wild horse and burro population levels should be managed at the lower limit of established appropriate management level ranges, as appropriate.

Most wild horse and burro territories need approved management plans. The Forest continues to pursue completion of Environmental Assessments to set AML ranges and approve population management actions. Current priority is the Spring Mountains Complex in Southern Nevada.

BLM-NV Response:

1. Fiore Gold has required mitigation for noise monitoring. Every year they are required to submit a GRSG noise monitoring plan for review by BLM and NDOW. Oil and Gas exploration has GRSG stipulations tied to the leases to protect GRSG; however timing stipulations do not apply if they go into production. This is when noise monitoring may be required at specific leks.

2. The BLM is committed to working with Congress, state and local governments, partner organizations, and the public to find commonsense

	solut	tions for putting the wild horse and burro program back on a
	susta	ainable and fiscally responsible track.
	The	DIM could prioritize LIAE accorregate and case groups behitst
		BLM could prioritize HAF assessments and sage-grouse habitat
		ntory in HMAs that are within triggered areas to help support gather
		rities. However, gathers are scheduled at a national level, not at a
	State	e Office or District Office level.
	BLM	Districts could work on updating gather EAs so should funding
	becc	ome available for additional gathers, the gathers can be implemented.
	Ely D	District is currently working on the Moriah and Pancake Horse Gather
	EAs.	
	<u>Butte/Buck/White Pine - Illiapah Reserv</u>	oir Population Trigger:
	1 Soft Lek Trigger	r
Possible Causal Factors:	:	
• Drought – loss	of water sources for summer/brood-rearing habitat.	
	te Pine Range; do not seem to be a problem in the valley	
	dries up and is hit hard by horses. Decline in quality of summer habitat. ement between some leks in area.	
	discovered leks Mokomoke Mountains; however, do not know if these are	e new or recently discovered.
Notes:		
Summer in White Pine and in Valley.		
Horses – 5 head for 6-7 years.		
Permittee passes through with livestock for a two-week period.		
2019 tree cutting on Forest Service lands		
USGS is updating and making an improvement to the model. Revised analysis this fall.		

Vegetation Management	 Additional PJ thinning south of California Spring Rd. and around springs. Protect existing riparian areas (design features for grazing, or fencing). Recommended springs: 	USFS Response : Many areas available for P-J thinning in this area have been treated including south of Illiapah Reservoir. There are sections of private land and a designated Archaeological District that limit some thinning options. Opportunities exist for Shared Stewardship projects on private land.
		Within the entire PMU on NFS lands, piperail fencing has been installed around 30+ springs/seeps. Within this population area, 4 spring fences and over 3000 acres of P-J thinning has occurred in the last 5 years. Future thinning will consider facilitating population connections by opening corridors.
		<u>BLM-NV Response</u> Be more specific and provide names of springs/riparian areas where treatments or protection is needed.
		It is possible that either the CX or PEIS (with District writing a DNA) could be used for these projects.
		The NEPA could be covered by use of this new CX: by June 1, 2020, a categorical exclusion (CX) for the BLM as directed by the amendment of the <u>Healthy Forests Restoration Act (HFRA) of 2003</u> by the Agriculture Improvement Act of 2018 for covered vegetation management activities carried out to protect, restore, or improve habitat for greater sage-grouse

		or mule deer will be available for use by the field offices. The CX includes manual, mechanical, chemical, some fire, and targeted grazing techniques up to 4,500 acres. Or the NEPA could be covered by the <i>Programmatic EIS for Fuels Reduction and Rangeland Restoration in the Great Basin</i> (DOI-BLM-ID-0000-2017-0003-EIS) will be available for use before September 2020.	
Wildlife	1. Collect data on GRSG movements and seasonal use.	USFS Response: The Forest Service partners with researchers from	
Management		University of Nevada Reno, the USGS, and NDOW to support this type of research in multiple locations across the state.	
		BLM-NV Response:	
		Consider submitting as a project proposal next year. This would be a good	
		type of project for a graduate student, USGS, or contractor.	
	Butte/Buck/White Pine - Central Ja	kes Valley Population Trigger:	
1 Soft Lek Trigger			
Possible Causal Factors:			
 Horses Ravens SWIP and the transfer substation Summer range issues with riparian habitat Drought affecting summer habitat 			
Permittee discovered birds in fields strutting but not consistently. NDOW explained that birds that are flushed by a predator, wherever they land they may strut in new location but move back to original lek.			
Vegetation	1. Promote summer habitat restoration in White Pine	USFS Response: Some areas of P-J that would otherwise be suitable for	
Management	Range (riparian improvements and PJ encroachment on upland)	thinning are restricted due to Wilderness boundaries. Some treatment is	

occurring south of the Shellback Wilderness and future treatments are being considered for that area. Opportunities exist for Shared Stewardship projects. Within the PMU on NFS lands, piperail fencing has been installed around 30+ springs/seeps. These actions are ongoing. In addition, funds are being sought for additional spring protection efforts through partnerships, conservation organizations, and through future project proposals. **BLM-NV Response:** Provide more specific areas for treatments in summer habitat. Include riparian area names, locations, possible acreages for treatment. It is possible that either the CX or PEIS (with District writing a DNA) could be used for these projects. The NEPA could be covered by use of this new CX: by June 1, 2020, a categorical exclusion (CX) for the BLM as directed by the amendment of the Healthy Forests Restoration Act (HFRA) of 2003 by the Agriculture Improvement Act of 2018 for covered vegetation management activities carried out to protect, restore, or improve habitat for greater sage-grouse or mule deer will be available for use by the field offices. The CX includes manual, mechanical, chemical, some fire, and targeted grazing techniques up to 4,500 acres. Or the NEPA could be covered by the *Programmatic EIS* for Fuels Reduction and Rangeland Restoration in the Great Basin (DOI-BLM-ID-0000-2017-0003-EIS) will be available for use before September 2020.

Wildlife	1. Predator (raven) control	USFS Response: The Humboldt-Toiyabe National Forest has forest plan
Management		direction regarding managing the effects of ravens on sage-grouse.
		GRSG-P-DC-116-Desired Condition – Anthropogenic uses on public lands are managed to reduce the effects of predation on greater sage-grouse
		This largely accomplished with managing habitat to ensure overhead concealment, adding perch deterrents, and limiting tall structures that would be desirable to ravens. Direct control of raven numbers is not within Forest Service authority.
		BLM-NV Response: N/A to BLM. BLM manages wildlife habitat, not wildlife.
Misc	1. Gather horses.	USFS Response: Gathering horses is one way to manage horses to AML. In order to manage to AML, the levels need to be set first. Most wild horse and burro territories need approved management plans. The Forest continues to pursue completion of Environmental Assessments to set AML ranges and approve population management actions. Current priority is the Spring Mountains Complex in Southern Nevada.
		In addition, the Humboldt-Toiyabe National Forest has forest plan direction regarding management of wild horses and burros in the 2015 Greater Sage Grouse Plan Amendment:

GRSG-HB-DC-067-Desired Condition In priority and general habitat management areas, wild horse and burro populations are within established appropriate management levels.

GRSG-HB-GL-070-Guideline In priority and general habitat, herd gathering should be prioritized when wild horse and burro populations exceed the upper limit of the established appropriate management level.

GRSG-HB-GL-071-Guideline In priority and general habitat, wild horse and burro population levels should be managed at the lower limit of established appropriate management level ranges, as appropriate.

BLM-NV Response:

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.

BLM Districts could work on updating gather EAs so should funding become available for additional gathers, the gathers can be implemented. Ely District is currently working on the Moriah and Pancake Horse Gather EAs.

	<u>Butte/Buck/White Pine – Deadn</u>	nans Wash Population Trigger:
	1 Soft Clust	er Trigger
Possible Causal Facto	ors:	
• SWIP	along the fenceline where the lek is located).	
Rosevear's cattle con	gregate in the winterfat in the spring.	
More horses seem to	congregate in this area due to water sources.	
Maria (BLM)		
- Provide lek n Alex (BLM)	numbers to us so maybe numbers may trigger an event.	
	be reviewing vegetation data 116 was included in USGS analysis.	
Vegetation Management	 Promote summer habitat restoration in White Pine Range (riparian and PJ encroachment on upland) 	USFS Response: Some areas of P-J that would otherwise be suitable for thinning are restricted due to Wilderness boundaries. Some treatment is occurring around Wilderness boundaries and future treatments are being considered. Opportunities exist for Shared Stewardship projects. Within the PMU on NFS lands, piperail fencing has been installed around 30+ springs/seeps. These actions are ongoing. In addition, funds are being sought for additional spring protection efforts through partnerships, conservation organizations, and through future project proposals.
		BLM-NV Responses:
		Provide more specific areas for treatments in summer habitat. Include

riparian area names, locations, and acreages for treatment.

		It is possible that either the CX or PEIS (with District writing a DNA) could be used for these projects.
		The NEPA could be covered by use of this new CX: by June 1, 2020, a categorical exclusion (CX) for the BLM as directed by the amendment of the <u>Healthy Forests Restoration Act (HFRA) of 2003</u> by the Agriculture Improvement Act of 2018 for covered vegetation management activities carried out to protect, restore, or improve habitat for greater sage-grouse or mule deer will be available for use by the field offices. The CX includes manual, mechanical, chemical, some fire, and targeted grazing techniques up to 4,500 acres. Or the NEPA could be covered by the <i>Programmatic EIS for Fuels Reduction and Rangeland Restoration in the Great Basin</i> (DOI-BLM-ID-0000-2017-0003-EIS) will be available for use before September 2020.
Wildlife Management	 Predator (raven) control (including on private property to south) Add sage grouse reflectors to fence-line if not marked already. Black and white markers and top two strands. 	 USFS Response: Direct control of raven numbers is not within Forest Service authority. USFS Response: The Forest Service has had an agreement with Great Basin Institute and Nevada Conservation Corps since 2016 to install flight diverters, remove fences, and to build wildlife-friendly fences. The Ely Ranger District will assess fences in this area for marking in the summer of 2020. BLM-NV Responses:

		2. N/A to BLM. BLM manages wildlife habitat, not wildlife.
		3. Be more specific where fence markers are needed. Locations and miles of fences needing reflectors should be identified. Consider submitting this as a project proposal next year through the AMRT process. The proposal could be purchasing the reflectors and/or hiring crews to do the fence marking. Are there possible partners that could assist with the project?
Misc.	1. Gather horses	USFS Response: Gathering horses is one way to manage horses to AML. In order to manage to AML, the levels need to be set first. Most wild horse and burro territories need approved management plans. The Forest continues to pursue completion of Environmental Assessments to set AML ranges and approve population management actions.
		In addition, the Humboldt-Toiyabe National Forest has forest plan direction regarding management of wild horses and burros in the 2015 Greater Sage Grouse Plan Amendment:
		GRSG-HB-DC-067-Desired Condition In priority and general habitat management areas, wild horse and burro populations are within established appropriate management levels.
		GRSG-HB-GL-070-Guideline In priority and general habitat, herd gathering should be prioritized when wild horse and burro populations exceed the upper limit of the established appropriate management level.

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	GRSG-HB-GL-071-Guideline In priority and general habitat, wild horse and
	burro population levels should be managed at the lower limit of
	established appropriate management level ranges, as appropriate.
	BLM-NV Responses:
	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.
	BLM Districts could work on updating gather EAs so should funding
	become available for additional gathers, the gathers can be implemented.
	Ely District is currently working on the Moriah and Pancake Horse Gather
	EAs.
	<u>Butte/Buck/White Pine – Beck Pass 3 Population Trigger:</u>
	1 Soft Cluster Trigger
Possible Causal Factors:	
• Ravens	
 Horses 	

- Kinross (Bald Mountain Mine) exploration (not full scale mining at this time)
- Coyotes
- Drought

Notes:

Kinross has been proactive in their noise monitoring. Limit traffic during lekking hours. However, could still be a mine influence

Sheep grazing but not at concentrated at Beck Pass area.

Comparison of coyotes harvested in the 60's compared to today. Permittee states coyotes are an issue.

Predominate nest predator is ravens. 1/3 to 2/3 of predation on nests. Coyotes have been documented as a predator but not at the extent to avian predators.

2015-dry

2011, 2012-2014 – dry winter, wet summers. Helped create an increase in numbers; then winter of 2014, 2015 were dry, 15-16 good winter.

Newark birds collared in 2013. Obtain data on nest, adult, brood survival, and habitat selection. Most nest predations were from ravens. Adult mortality are difficult to determine due to scavenging.

Ravens attracted to landfills, deadpills, roadkill and increase perches on powerlines and trees.

Golden eagle and other raptor predation is not at an unnatural rate.

Vegetation Management	1. 2.	P/J treatments in sagebrush sites Riparian fences on Buck Mountain.	USFS Response: The Beck Pass 3 Population is a significant distance from any NFS lands. The identified recommendation is not applicable to the USFS for this population. Buck Mountain is not on NFS lands.
			BLM-NV Response:
			Provide more specific areas for treatments and acreages, if known. Include riparian area names and locations for fences.
			It is possible that either the CX or PEIS (with District writing a DNA) could be used for these projects.

		The NEPA could be covered by use of this new CX: by June 1, 2020, a categorical exclusion (CX) for the BLM as directed by the amendment of the <u>Healthy Forests Restoration Act (HFRA) of 2003</u> by the Agriculture Improvement Act of 2018 for covered vegetation management activities carried out to protect, restore, or improve habitat for greater sage-grouse or mule deer will be available for use by the field offices. The CX includes manual, mechanical, chemical, some fire, and targeted grazing techniques up to 4,500 acres. Or the NEPA could be covered by the <i>Programmatic EIS for Fuels Reduction and Rangeland Restoration in the Great Basin</i> (DOI-BLM-ID-0000-2017-0003-EIS) will be available for use before September 2020.
Wildlife Management	1. Predator control (ravens, coyotes?) 2. Mark fenceline near the leks. Black and white markers and top two strands.	 USFS Response: The Beck Pass 3 Population is a significant distance from any NFS lands. The identified recommendation is not applicable to the USFS for this population. BLM-NV Response: N/A to BLM. BLM manages wildlife habitat, not wildlife. Be more specific where fence markers are needed (locations of fences, miles of fence needing reflectors).
Misc.	 Gather horses to AML Research different ways to prevent perching on irrigation systems. *does APHIS have data on coyote harvest? Population data on coyotes? 	USFS Response: The Beck Pass 3 Population is a significant distance from any NFS lands. The identified recommendation is not applicable to the USFS for this population. The Forest Service does not manage irrigation systems. BLM-NV Responses:

		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.			
		BLM Districts could work on updating gather EAs so should funding			
		become available for additional gathers, the gathers can be implemented.			
		Ely District is currently working on the Moriah and Pancake Horse Gather			
		EAs.			
	<u> Steptoe/Cave – Cattle Camp V</u>	Vash Population Trigger:			
1 Soft Cluster Triccor					
1 Soft Cluster Trigger					
Possible Causal Factors:					
• Loss of habitat due to seedings and a harsh winter in 2015. Lack of food in harsh conditions for survival.					
• Ravens					
Notas	N. A				
Notes:					
Sprouse is the permittee, and not at meeting.					
White Rock allotment has 4 permittees, but only one in the seeding.					
No horses in the area.					
Lots of recent habitat wo	Lots of recent habitat work completed by BLM. 27,000 acres already treated.				

South Steptoe has a lot of crested wheatgrass seedings. Leks are in the seedings. Winter habitat is limiting. Winter of 2015-2016 was a hard winter. Less of than 50% of sagebrush was showing due to snow cover. A necropsied GRSG had 0 percent fat.

Fence north to lek, has reflectors. Fence to west, and northwest. Lots of fences in the area. Windmill nearby for perching (windmill is going to be converted to solar but not sure if the windmill will be removed from site.

Utah State researcher is looking at how the birds are using treatments. Using them mostly in the summer-time.

Vegetation	1.	Riparian improvements	USFS Response: The Cattle Camp Wash Population is a significant distance
Management	2.	Continue with P/J treatments to increase habitat.	from any NFS lands. The identified recommendation is not applicable to
			the USFS for this population.
			BLM-NV Responses:
			DEMPAV Responses.
			Provide more specific areas for treatments in GRSG habitat. Include
			riparian area names and locations, locations of P/J treatments. Some
			areas may already have NEPA completed and easily implemented. Identify
			this in the planning process.
			It is possible that either the CX or PEIS (with District writing a DNA) could
			be used for these projects.
			be used for these projects.
			The NEPA could be covered by use of this new CX: by June 1, 2020, a
			categorical exclusion (CX) for the BLM as directed by the amendment of
			the <u>Healthy Forests Restoration Act (HFRA) of 2003</u> by the Agriculture
			Improvement Act of 2018 for covered vegetation management activities
			carried out to protect, restore, or improve habitat for greater sage-grouse
			or mule deer will be available for use by the field offices. The CX includes
			manual, mechanical, chemical, some fire, and targeted grazing techniques

	for F	4,500 acres. Or the NEPA could be covered by the <i>Programmatic EIS</i> uels Reduction and Rangeland Restoration in the Great Basin (DOI-		
	2020	<u>-ID-0000-2017-0003-EIS</u>) will be available for use before September		
Wildlife Management	2. Consider additional GRSG markers on fences. Add markers to second top strand. Use black and white	Response: The Cattle Camp Wash Population is a significant distance any NFS lands. The identified recommendation is not applicable to JSFS for this population.		
	BLM 1 2	 NV Response: N/A to BLM. BLM manages wildlife habitat, not wildlife. Be more specific where fence markers are needed, names and/or locations of fencelines, include miles of fence needing reflectors. 		
Schell/Antelope – North Creek Population Trigger:				
1 Hard Lek Trigger				
	l North Creek East lek were count by different surveyors, and confusion error. Recommend removal of trigger	in counts. NDOW has combined into one lek and it has not reached a		

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 estray horse population management: NDOT supports efforts to manage the populations of wild and estray 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.