

ATTACHMENT C – GREATER SAGE-GROUSE UTAH PLAN AMENDMENT

Forest Service Plan Components¹

Desired condition – A description of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Desired conditions must be described in terms that are specific enough to allow progress toward their achievement to be determined but do not include completion dates.

Objective – A concise, measurable, and time-specific statement of a desired rate of progress toward a desired condition or conditions. Objectives should be based on reasonably foreseeable budgets.

Standard – A mandatory constraint on project and activity decision making established to help achieve or maintain the desired condition or conditions; to avoid or mitigate undesirable effects; or to meet applicable legal requirements.

Guideline – A constraint on project and activity decision making that allows for departure from its terms so long as the purpose of the guideline is met. Guidelines are established to help achieve or maintain a desired condition or conditions; to avoid or mitigate undesirable effects; or to meet applicable legal requirements.

The direction in the following standards and guidelines will be applied consistently with applicable valid existing rights, laws, and regulations.

General Greater Sage-grouse

GRSG-GEN-DC-001-Desired Condition – The landscape for the greater sage-grouse encompasses large contiguous areas of native vegetation, approximately 6-to-62 square miles in area, to provide for multiple aspects of species life requirements. Within these landscapes, a variety of sagebrush-community compositions exist without invasive species, which have variations in subspecies composition, co-dominant vegetation, shrub cover, herbaceous cover, and stand structure to meet seasonal requirements for food, cover, and nesting for the greater sage-grouse.

GRSG-GEN-DC-002-Desired Condition – Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas and sagebrush focal areas.² Disturbance in general management areas is limited, and there is little to no disturbance in priority habitat management areas and sagebrush focal areas except for valid existing rights and existing authorized uses.

¹ Plan component definitions are based on generally accepted meanings under the 1982 rule and the Forest Service Plan Wording Style Guide 2009, http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5260265.pdf.

² Priority management areas and general management areas may contain non-habitat, but management direction would not apply to those areas of non-habitat. However, management direction would apply to all areas within sagebrush focal areas including non-habitat.

GRSG-GEN-DC-003-Desired Condition – In greater sage-grouse seasonal habitat, including all seasonal habitats, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 10% conifer canopy cover. In addition, within breeding and nesting habitat, sufficient herbaceous vegetation structure and height provides overhead and lateral concealment for nesting and early brood rearing life stages. Within brood rearing habitat, wet meadows and riparian areas sustain a rich diversity of perennial grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for the greater sage-grouse during this seasonal period. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in table 1.

Table 1. Seasonal Habitat Desired Conditions for Greater Sage-grouse at the Landscape Scale.

ATTRIBUTE	INDICATORS	DESIRED CONDTION
BREEDING AND NESTING^{1,2,3} (Seasonal Use Period from March 1 to June 15) Apply 4 miles from active leks.⁴		
Lek Security	Proximity of trees ⁵	Trees or other tall structures are absent to uncommon within 1.86 miles of leks. ^{6,7}
	Proximity of sagebrush to leks ⁶	Adjacent protective sagebrush cover within 328 feet of lek. ⁶
Cover	Seasonal habitat extent ⁷ (Percent of seasonal habitat meeting desired conditions)	>80% of the breeding and nesting habitat.
	Sagebrush canopy cover ^{6,7,8}	15 to 25%.
	Sagebrush height ⁷ Arid sites ^{6,7,9} Mesic sites ^{6,7,10}	12 to 32 inches. 16 to 32 inches.
	Predominant sagebrush shape ⁶	>50% in spreading. ¹¹
	Perennial grass canopy cover ^{6,7} Arid sites ^{7,9} Mesic sites ^{7,10}	≥10%. ≥15%.
	Perennial grass height ^{6,7,8}	Provide overhead and lateral concealment from predators ^{7,15}
	Perennial forb canopy cover ^{6,7,8} Arid sites ⁹ Mesic sites ¹⁰	≥5%. ^{6,7} ≥10%. ^{6,7}

ATTRIBUTE	INDICATORS	DESIRED CONDITON
BROOD-REARING/SUMMER¹ (Seasonal Use Period from June 16 to October 31)		
Cover	Seasonal habitat extent ⁷ (Percent of seasonal habitat meeting desired conditions)	>40% of the brood-rearing/summer habitat.
	Sagebrush canopy cover ^{6,7,8}	10 to 25%.
	Sagebrush height ^{7,8}	16 to 32 inches.
	Perennial grass and forb canopy cover ^{7,8}	>15%.
	Riparian areas/mesic meadows	Proper Functioning Condition. ¹²
	Upland and riparian perennial forb availability ^{6,7}	Preferred forbs are common with several preferred species present. ¹³
	Sagebrush cover adjacent to riparian areas/mesic meadows ⁶	Within 328 feet.
WINTER¹ (Seasonal Use Period from November 1 to February 28)		
Cover and Food	Seasonal habitat extent ^{6,7,8} (Percent of seasonal habitat meeting desired conditions)	>80% of the winter habitat.
	Sagebrush canopy cover above snow ^{6,7,8}	>10%.
	Sagebrush height above snow ^{6,7,8}	>10 inches. ¹⁴

¹Seasonal dates can be adjusted; that is, start and end dates may be shifted either earlier or later, but the local unit cannot lengthen or shorten the amount of days.

²Doherty, K. 2008. *Sage-grouse and Energy Development: Integrating Science with Conservation Planning to Reduce Impacts*. University of Montana. Missoula, MT.

³Holloran and Anderson. 2005. *Spatial Distribution of Greater Sage-grouse nests in relatively contiguous sagebrush habitats*. Condor 107:742-752.

⁴Buffer distance may be changed only if 3 out of 5 years if peer-reviewed and published telemetry studies indicate the 4 miles is not appropriate.

⁵Baruch-Mordo, S., J.S. Evans, J.P. Severson, D.E. Naugle, J.D. Maestas, J.M. Kiesecker, M.J. Falkowski, C.A. Hagen, and K.P. Reese. 2013. *Saving sage-grouse from trees: A proactive solution to reducing a key threat to a candidate species*. Biological Conservation 167: 233-241.

⁶Stiver, S.J., E.T. Rinkes, D.E. Naugle, P.D. Makela, D.A. Nance, and J.W. Karl, eds., 2015. *Sage-Grouse Habitat Assessment Framework: A Multiscale Assessment Tool*. Technical Reference 6710-1. BLM and Western Association of Fish and Wildlife Agencies, Denver, Colorado.

⁷Connelly, J., M.A. Schroweder, A.R. Sands, and C.E. Braun. 2000. *Guidelines to manage sage-grouse populations and its habitat*. Wildlife Society Bulletin 28 (4): 967-985.

⁸Connelly, J., K. Reese, and M. Schroder. 2003. *Monitoring of Greater sage-grouse habitats and populations*. Station Bulletin 80, Contribution 979. University of Idaho, College of Natural Resources Experiment Station. Moscow, ID.

⁹10–12 inch precipitation zone; *Artemisia tridentata wyomingensis* is a common big sagebrush sub-species for this type site (Stiver et al. 2015).

¹⁰≥12 inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (Stiver et al. 2015).

¹¹Sagebrush plants with a spreading shape provide more protective cover than sagebrush plants that are more tree- or columnar shaped (Stiver et al. 2014).

¹²Existing LMP desired conditions for riparian areas/wet meadows (spring seeps) may be used in place of properly functioning conditions, if appropriate for meeting greater sage-grouse habitat requirements.

¹³Preferred forbs are listed in Table III-2 (Stiver et al. 2015). Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred in Table III-2.

¹⁴The height of sagebrush remaining above the snow depends upon snow depth in a particular year. Intent is to manage for tall, healthy sagebrush stands.

GRSG-GEN-ST-004-Standard – In priority habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site-specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.

GRSG-GEN-ST-005-Standard – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, only allow new authorized land uses if after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, subject to valid existing rights, by applying beneficial mitigation actions. Any compensatory mitigation will be durable, timely, and in addition to what would have resulted without the compensatory mitigation as addressed in the Mitigation Strategy (Appendix B).

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 (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.

GRSG-GEN-GL-007-Guideline – During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.

GRSG-GEN-GL-008-Guideline – When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions in table 1.

GRSG-GEN-GL-009-Guideline – Development of tall structures within 2 miles from the perimeter of occupied leks, as determined by local conditions (e.g., vegetation or topography), with the potential to disrupt breeding or nesting by creating new perching/nesting opportunities for avian predators or by decreasing the use of an area, should be restricted within nesting habitat.

Adaptive Management

GRSG-AM-ST-010-Standard – If a hard trigger is met, immediate action is necessary to stop a severe deviation from greater sage-grouse conservation objectives. The hard trigger responses are identified in table 3 of the Adaptive Management Appendix C. The Forest Service will review available and pertinent data in coordination with greater sage-grouse biologists from multiple agencies.

GRSG-AM-ST-011-Standard – If a soft trigger is met, the Forest Service will determine the specific cause or causes that are contributing to the decline. In completing this evaluation, the Forest Service will coordinate with greater sage-grouse biologists from multiple agencies. If it is determined that the decline is related to a natural variation in the population, no specific management actions would be required. However, if Forest Service management actions are determined to be the cause or contribute to the decline, the Forest Service would apply measures within its implementation-level discretion to mitigate the decline of populations and/or habitat. These measures would apply more conservative or restrictive implementation-level conservation conditions, terms, or decisions within the agency’s discretion to mitigate the decline. (Appendix C)

Lands and Realty

Special-use Authorizations (non-recreation)

GRSG-LR-SUA-O-012-Objective – In nesting habitats, retrofit existing tall structures (e.g., power poles, communication tower sites, etc.) with perch deterrents or other anti-perching devices within 2 years of signing the ROD.

GRSG-LR-SUA-ST-013-Standard – In priority habitat, sagebrush focal areas, and Anthro Mountain, restrict issuance of new lands special-use authorizations that authorize infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites. Exceptions must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided by the exception. Existing authorized uses will continue to be recognized.

GRSG-LR-SUA-ST-014-Standard – In general habitat management areas, new lands special-use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites if they can be located within existing designated corridors or rights-of-way and the authorization includes stipulations to protect the greater sage-grouse and its habitat. Existing authorized uses will continue to be recognized.

GRSG-LR-SUA-ST-015-Standard – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize temporary lands special-uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impact on the greater sage-grouse or its habitat.

GRSG-LR-SUA-ST-016-Standard – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation, etc.) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites).

GRSG-LR-SUA-ST-017-Standard – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, locate upgrades to existing transmission lines within the existing designated corridors or rights-of way unless an alternate route would benefit the greater sage-grouse or its habitat.

GRSG-LR-SUA-ST-018-Standard – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when a lands special-use authorization is revoked or terminated and no future use is contemplated, require the authorization holder to remove overhead lines and other surface infrastructure in compliance with 36 CFR 251.60(i).

GRSG-LR-SUA-GL-019-Guideline – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, outside of existing designated corridors and rights-of-way, new transmission lines and pipelines should be buried to limit disturbance to the smallest footprint unless explicit rationale is provided that the biological impacts to the greater sage-grouse are being avoided. When new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines.

GRSG-LR-SUA-GL-020-Guideline – The best available science and monitoring should be used to inform infrastructure siting in greater sage-grouse habitat.

Land Ownership Adjustments

GRSG-LR-LOA-ST-021-Standard – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.

GRSG-LR-LOA-GL-022-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, and with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation, etc.) that supports improved greater sage-grouse population trends and habitat.

Land Withdrawal

GRSG-LR-LW-GL-023-Guideline – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, use land withdrawals as a tool, where appropriate, to withhold an area from activities that will be detrimental to the greater sage-grouse or its habitat.

Wind and Solar

GRSG-WS-ST-024-Standard – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).

GRSG-WS-ST-025-Standard – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).

Greater Sage-grouse Habitat

GRSG-GRSGH-O-026-Objective – Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species based upon the number of acres shown in table 2.

Table 2. Treatment Acres per Decade.¹

FOREST	ACRES		
	MECHANICAL ²	PRESCRIBED FIRE ³	GRASS RESTORATION ⁴
Ashley	10000	0	2000
Dixie	13000	1000	7000
Fishlake	7000	0	1000
Manti-La Sal	3000	0	4000
Uinta-Wasatch-Cache	9000	0	0

¹These are estimates of treatments required to achieve and/or maintain desired habitat conditions over a period of 10 years. There are many dynamic and highly variable disturbances that may happen over that period of time that could have a significant effect on the amount, type, and timing of treatment needed. Those disturbances are factored into the 10-year simulation using stochastic, not deterministic, techniques. Probabilities of events such as large wildfires are used in the model to make the simulation as realistic as possible, given empirical data about such events in the past, but the results of the simulation cannot be used to predict the future occurrence of such events, including their timing, size, or location, which are essentially random.

²Removal of conifers that have invaded sagebrush including phase 1 juniper that is 10% or less and reducing sagebrush cover in areas over 30% canopy cover

³Acres are those that are greater than 30% sagebrush canopy cover and/or invaded by 10% or greater conifer.

⁴Acres presently dominated by annual grasses that could be improved by herbicide application and seeding of perennial vegetation⁴ acres presently dominated by annual grasses that could be improved by herbicide application and seeding of perennial vegetation.

GRSG-GRSGH-ST-027-Standard – Design habitat restoration projects to move towards desired conditions (table 1).

GRSG-GRSGH-ST-028-Standard – On the Dixie and Fishlake National Forests, where greater sage-grouse priority habitat management areas overlap with identified Utah prairie dog habitat, the most current version of conservation measures developed by the U.S. Fish and Wildlife Service will be used during implementation of recovery actions.

GRSG-GRSGH-GL-029-Guideline – When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100-years old).

GRSG-GRSGH-GL-030-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.

GRSG-GRSGH-GL-031-Guideline – To facilitate safe and effective fire management actions in priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, fuel treatments in high-risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from the greater sage-grouse desired conditions in table 1) should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (table 1).

GRSG-GRSGH-GL-032-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, native plant species should be used when possible to maintain, restore, or enhance desired conditions (table 1).

GRSG-GRSGH-GL-033-Guideline – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (table 1).

Livestock Grazing

GRSG-LG-DC-034-Desired Condition – In priority and general habitat management areas, sagebrush focal areas, within lek buffers, and Anthro Mountain, livestock grazing is managed to maintain or move towards desired conditions (table 1).

GRSG-LG-ST-035-Standard – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not approve construction of water developments unless beneficial to greater sage-grouse habitat.

GRSG-LG-GL-036-Guideline – Grazing guidelines should be applied in each of the seasonal habitats in table 3. If values in table 3 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site potential analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in table 1 consistent with the ecological site potential. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in table 3 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.

Table 3. Grazing Guidelines for Greater Sage-grouse Seasonal Habitat.

SEASONAL HABITAT	GRAZING GUIDELINES
Breeding and nesting ¹ within 4 miles of occupied leks	Perennial grass height: ² When grazing occurs during breeding and nesting season (from March 1 to June 15) manage for upland perennial grass height of 7 inches. ^{3,5} Measure average droop height, assuming current vegetation composition has the capability to achieve these heights. Heights will be measured at the end of the nesting period (Connelly et al. 2000). When grazing occurs post breeding and nesting season (from June 16 to October 30) manage for 4 inches ^{5,6} of upland perennial grass height.
Brood rearing and summer ¹	When grazing occurs post breeding and nesting season (from June 16 to October 30), retain an average stubble height of 4 inches for herbaceous riparian/mesic meadow vegetation in all ⁷ greater sage-grouse habitats. ^{8,9}
Winter ¹	≤35% utilization of sagebrush

¹For descriptions of seasonal habitat and seasonal periods of greater sage-grouse see table 1.

²Grass heights only apply in breeding and nesting habitat with ≥10% sagebrush cover to support nesting.

³Holloran et al. 2005. *Greater sage-grouse nesting habitat selection and success in Wyoming*.

⁵Hagen C., J.W. Connelly, and M.A. Schroeder. 2007. *A meta-analysis of greater sage-grouse *Centrocercus urophasianus* nesting and brood-rearing habitats*. *Wildlife Biology* 13(1): 42-50.

⁶Stubble height to be measured at the end of the growing season.

⁷All GRSG habitat with greater than 10% sagebrush cover irrespective of lek buffers and designated habitat management areas.

⁸In riparian brood-rearing habitat, sage-grouse prefer the lower vegetation (5–15 cm vs. 30–50 cm; Oakleaf 1971, Neel 1980, Klebenow 1982, Evans 1986) and succulent forb growth stimulated by moderate livestock grazing in spring and early summer (Neel 1980, Evans 1986); moderate use equates to a 10-cm residual stubble height for most grasses and sedges and 5-cm for Kentucky bluegrass (Mosley et al. 1997, Clary and Leininger 2000) (Crawford et al. 2004. *Ecology and Management of sage-grouse habitat*).

⁹Stubble height to be measured in the meadow areas used by greater sage-grouse for brood-rearing (not on the hydric greenline). These meadows typically have sagebrush within 328 feet of the meadow.

GRSG-LG-GL-037-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when grazing permits are waived without preference or obtained through permit cancellation, consider the agency’s full range of administrative authorities for future allotment management, including but not limited to allotment closure, vacancy status for resource protection, establishment of forage reserve, re-stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (table 1).

GRSG-LG-GL-038-Guideline – Bedding sheep and placing camps within 1.2 miles from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted.

GRSG-LG-GL-039-Guideline – During the breeding and nesting season (from March 1 to June 15), trailing livestock through breeding and nesting habitat should be minimized. Specific routes should be identified; existing trails should be used; and stopovers on active leks should be avoided.

GRSG-LG-GL-040-Guideline – Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, or other design features).

GRSG-LG-GL-041-Guideline – New permanent livestock facilities (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of occupied leks.

Fire Management

GRSG-FM-DC-042-Desired Condition – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, protect sagebrush sage grouse habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat will be prioritized as a high value resource along with other high value resources and assets.

GRSG-FM-ST-043-Standard – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in table 1 or for pile burning.

GRSG-FM-ST-044-Standard – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in table 1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.

GRSG-FM-GL-045-Guideline – In wintering or breeding and nesting habitat, sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire or supports the attainment of desired conditions.

GRSG-FM-GL-046-Guideline – In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or consider using fire resistance non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.

GRSG-FM-GL-047-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, fuel treatments should be designed to maintain, restore, or enhance greater sage-grouse habitat.

GRSG-FM-GL-048-Guideline – Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority and general habitat management areas and sagebrush focal areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited.

GRSG-FM-GL-049-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in

greater sage-grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited.

GRSG-FM-GL-050-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, use fire management tactics and strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.

GRSG-FM-GL-051-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).

GRSG-FM-GL-052-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.

GRSG-FM-GL-053-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, where practical and available, all fire-associated vehicles and equipment should be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.

GRSG-FM-GL-054-Guideline – Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decisions; and aid in development of strategies and tactics for resource prioritization.

GRSG-FM-GL-055-Guideline – Localized maps of priority and general habitat management areas and sagebrush focal areas should be made available to fireline, dispatch, and fire support personnel.

GRSG-FM-GL-056-Guideline – In or near priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, a greater sage-grouse resource advisor should be assigned to all extended attack fires.

GRSG-FM-GL-057-Guideline – On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.

GRSG-FM-GL-058-Guideline – Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas and sagebrush focal areas, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.

GRSG-FM-GL-059-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.

GRSG-FM-GL-060-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, to minimize sagebrush habitat loss consider using the full range of suppression techniques to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.

Recreation

GRSG-R-DC-061-Desired Condition – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, recreation activities are balanced with the ability of the land to support them while meeting greater sage-grouse seasonal habitat desired conditions (table 1) and creating minimal user conflicts.

GRSG-R-ST-062-Standard – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize temporary recreation uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impacts on the greater sage-grouse or its habitat.

GRSG-R-GL-063-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included in new recreation special-use authorizations. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.

GRSG-R-GL-064-Guideline – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special-use authorizations for facilities and activities, should not be approved unless the development results in a net conservation gain to the greater sage-grouse or its habitat or the development is required for visitor safety.

Roads/Transportation

GRSG-RT-DC-065-Desired Condition – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experience minimal disturbance during breeding and nesting (from March 1 to June 15) and wintering (from November 1 to February 28) periods.

GRSG-RT-ST-066-Standard – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.

GRSG-RT-ST-067-Standard – Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.

GRSG-RT-ST-068-Standard – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not allow public motor vehicle use on temporary energy development roads.

GRSG-RT-GL-069-Guideline – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, new roads and road realignments should be designed and administered to reduce collisions with the greater sage-grouse.

GRSG-RT-GL-070-Guideline – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, road construction within riparian areas and mesic meadows should be restricted. If not possible to restrict construction within riparian areas and mesic meadows, roads should be designed and constructed at right angles to ephemeral drainages and stream crossings unless topography prevents doing so.

GRSG-RT-GL-071-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (table 1).

GRSG-RT-GL-072-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.

GRSG-RT-GL-073-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle- or human-caused wildfires and the spread of invasive plants. Such activities include but are not limited to the removal or mowing of vegetation a car-width off the edge of roads; use of weed-free earth-moving equipment, gravel, fill, or other materials; and blading or pulling roadsides and ditches that are infested with noxious weeds only if required for public safety or protection of the roadway.

Minerals

Fluid Minerals – Unleased

GRSG-M-FMUL-ST-074-Standard – In priority habitat management areas and Anthro Mountain, any new oil and gas leases must include a No Surface Occupancy stipulation. There will be no waivers or modifications. An exception could be granted by the authorized officer with unanimous concurrence from a team of agency greater sage-grouse experts from the U.S. Fish and Wildlife Service, the Forest Service, and state wildlife agency if:

- There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; or
- Granting the exception provides an alternative to a similar action occurring on a nearby parcel; and
- The exception provides a clear net conservation gain to the greater sage-grouse.

GRSG-M-FMUL-ST-075-Standard – In sagebrush focal areas, there will be No Surface Occupancy and no waivers, exceptions, or modifications for fluid mineral leasing.

Fluid Minerals – Leased

GRSG-M-FML-ST-076-Standard – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, when approving the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, require that leaseholders avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.

GRSG-M-FML-ST-077-Standard – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, when facilities are no longer needed or leases are relinquished, require reclamation plans to include terms and conditions to restore habitat to desired conditions as described in table 1.

GRSG-M-FML-ST-078-Standard – In general management areas, authorize new transmission line corridors, transmission line right-of-ways, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect the greater sage-grouse and its habitat, consistent with the terms and conditions of the permit.

GRSG-M-FML-ST-079-Standard – Locate compressor stations on portions of a lease that are non-habitat and are not used by the greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse or its habitat. If this is not possible, work with the operator to use mufflers, sound insulation, or other features to reduce noise, consistent with GRSG-GEN-ST-006-Standard.

GRSG-M-FML-ST-080-Standard – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when authorizing development of fluid mineral resources,

work with the operator to minimize impacts to the greater sage-grouse and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.

GRSG-M-FML-ST-081-Standard – Apply the following conditions of approval on existing fluid mineral leases in Anthro Mountain.

- Use a phased approach for development in greater sage-grouse habitat.
- No well pads or permanent structures will be permitted within a 0.6 mile buffer of an occupied lek.
- Project-related activities and vehicle access will not be allowed in or through the 0.6 mile lek buffer.
- No project-related vehicles or activities (including routine maintenance, production vehicles, or work-over rigs) will be allowed from 1 hour before sunset to 2 hours after sunrise within mapped sage-grouse habitat from March 1 to May 31.
- No surface disturbing activities (including construction, drilling, and well-flaring) will be allowed for wells located within mapped greater sage-grouse habitat from March 1 through June 30.
- No well pad construction, road construction, drilling, or work-over rigs will be allowed on ridge tops from November 1 to March 1 within 4 miles of a lek.
- Within mapped greater sage-grouse habitat, disturbance will be limited to an average of one disturbance per square mile (640 acres). Disturbance should be clustered in areas of habitat most distal from leks or areas of habitat least important to the greater sage-grouse.
- Disturbance within the mapped greater sage-grouse habitat on Anthro Mountain will be no more than 3%.
- Within 4 miles of a lek, well pads and roads should avoid openings in the pinyon/juniper tracts. If avoidance of an opening is not possible, then well pads and roads should be located as close to the edge of the opening as possible.
- Noise levels at leks must be limited to no more than 10dB above ambient (not to exceed 20-24 dB), measured at the perimeter of a lek, during the breeding season (from March 1 to May 31).
- Low profile tanks will be required for all well pads within mapped greater sage-grouse habitat.
- Raptor perch avoidance devices will be installed on any required tank batteries in greater sage-grouse habitat.
- Closed-loop drilling will be used for wells within greater sage-grouse habitat.

- If a new lek is discovered outside of mapped habitat, contiguous greater sage-grouse habitat within 4 miles of the lek will be mapped. Apply the same protections to the new mapped habitat and the new lek.

GRSG-M-FML-GL-082-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, operators should be encouraged to reduce disturbance to greater sage-grouse habitat. At the time of approval of the Surface Use Plan of Operation portion of the Application for Permit to Drill, terms and conditions should be included to reduce disturbance to greater sage-grouse habitat where appropriate and feasible and consistent with the rights granted to the lessee.

GRSG-M-FML-GL-083-Guideline – On existing Federal leases in priority habitat management areas, sagebrush focal areas, and Anthro Mountain, when surface occupancy cannot be restricted due to valid existing rights or development requirements, disturbance and surface occupancy should be limited to areas least harmful to greater sage-grouse based on vegetation, topography, or other habitat features.

GRSG-M-FML-GL-084-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, where the federal government owns the surface and the mineral estate is in non-federal ownership, coordinate with the mineral estate owner/lessee to apply appropriate stipulations, conditions of approval, conservation measures, and required design features to the appropriate surface management instruments to the maximum extent permissible under existing authorities.

Fluid Minerals – Operations

GRSG-M-FMO-ST-085-Standard – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize employee camps.

GRSG-M-FMO-ST-086-Standard – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, when feasible do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.

GRSG-M-FMO-GL-087-Guideline – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.

GRSG-M-FMO-GL-088-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.

GRSG-M-FMO-GL-089-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include the following:

- Increase the depth of ponds to accommodate a greater volume of water than is discharged.

- Build steep shorelines (greater than 2 feet) to reduce shallow water and aquatic vegetation around the perimeter of impoundments to reduce breeding habitat for mosquitoes.
- Maintain the water level below that of rooted aquatic and upland vegetation. Avoid flooding terrestrial vegetation in flat terrain or low-lying areas.
- Construct dams or impoundments that restrict down-slope seepage or overflow by digging ponds in flat areas rather than damming natural draws for effluent water storage or lining constructed ponds in areas where seepage is anticipated.
- Line the channel where discharge water flows into the pond with crushed rock or use a horizontal pipe to discharge inflow directly into existing open water.
- Line the overflow spillway with crushed rock and construct the spillway with steep sides.
- Fence pond sites to restrict access by livestock and other wild ungulates.
- Remove or re-inject produced water.
- Treat waters with larvicides to reduce mosquito production where water occurs on the surface.

GRSG-M-FMO-GL-090-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.

Coal Mines – Unleased

GRSG-M-CMUL-ST-091-Standard – When consenting to new underground coal leases, include a lease stipulation prohibiting the location of surface facilities in priority habitat management areas, sagebrush focal areas, and Anthro Mountain.

Coal Mines – Leased

GRSG-M-CML-ST-092-Standard – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new appurtenant surface facilities related to existing underground mines unless no technically feasible alternative exists. If new appurtenant surface facilities associated with existing mine leases cannot be located outside of priority habitat management areas and sagebrush focal areas, locate them within any existing disturbed areas, if possible. If location within an existing disturbed area is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements as identified by the Mine Safety and Health Administration mine-plan approval process and locate the facilities in an area least harmful to greater sage-grouse habitat based on vegetation, topography, or other habitat features.

GRSG-M-CML-GL-093-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to conserve, enhance, and restore greater sage-grouse and its habitat for long-term viability.

Locatable Minerals

GRSG-M-LM-ST-094-Standard – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, only approve Plans of Operation if they include mitigation to protect the greater sage-grouse and its habitat, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.

GRSG-M-LM-GL-095-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, to keep habitat disturbance at a minimum, a phased development approach should be applied to operations consistent with the rights granted under the General Mining Act of 1872, as amended. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.

GRSG-M-LM-GL-096-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, abandoned mine sites should be closed or mitigated to reduce predation of the greater sage-grouse by eliminating tall structures that could provide nesting opportunities and perching sites for predators.

Non-energy Leasable Minerals

GRSG-M-NEL-GL-097-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, at the time of issuance of prospecting permits; exploration licenses and leases; or readjustment of leases, the Forest Service should provide recommendations to the BLM for the protection of greater sage-grouse and its habitat.

GRSG-M-NEL-GL-098-Guideline – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, the Forest Service should recommend to the BLM that expansion or readjustment of existing leases avoid, minimize, or mitigate the effects to the greater sage-grouse and its habitat.

Mineral Materials

GRSG-M-MM-ST-099-Standard – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new mineral material disposal or development.

GRSG-M-MM-ST-100-Standard – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, free-use mineral material collection permits may be issued and expansion of existing active pits may be allowed, except from March 1 to April 30 between 6 p.m. and 9 a.m. within 2 miles from the perimeter of occupied leks, within the Biologically Significant Unit and proposed project area if doing so does not exceed the disturbance cap.

GRSG-M-MM-ST-101-Standard – In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, any permit for existing mineral material operations must

include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (table 1).

GLOSSARY OF TERMS AS USED IN THIS PLAN

Active lek – Any lek that has been attended by the male greater sage-grouse during the most recent strutting season.

Adjacent – Installation of new linear improvements (e.g., equipment or facilities) parallel, near, or next to existing linear improvements.

Administrative access – Access for resource management and administrative purposes such as wildfire suppression, cadastral surveys, permit compliance, law enforcement, and military in the performance of their official duty, or other access needed to manage National Forest System lands or uses.

Allotment – A designated area of land in which one or more livestock operators graze their livestock. An allotment may include one or more separate pastures. Livestock numbers and periods of use are specified for each allotment.

Ambient (noise level) – Sometimes called background noise level, reference sound level, or room noise level; the background sound pressure level at a given location, normally specified as a reference level to study a new intrusive sound source.

Anthropogenic disturbances – Human-created features including but not limited to paved highways; graded gravel roads; transmission lines; substations; wind turbines; oil and gas wells and associated facilities; geothermal wells and associated facilities; pipelines; landfills; agricultural conversion; homes; grazing-related facilities and structures; and mines.

Appurtenant (minerals) – A piece of equipment (e.g., pump jack, separator, storage tank, compressor station, metering equipment, etc.) necessary for production.

Authorized use – An activity (i.e., resource use) occurring on public lands that is either explicitly or implicitly recognized and legalized by law or regulation. The term may refer to activities occurring on public lands for which the Forest Service has issued a formal authorization document (e.g., livestock grazing permit, special-use authorization, approved plan of operation, etc.). Formal authorized uses can involve both commercial and non-commercial activity, facility placement, or event. These authorized uses are often spatially or temporally limited. Unless constrained or bounded by statute, regulation, or an approved forest plan decision, legal activities involving public enjoyment and use of the public lands (e.g., hiking, camping, hunting, etc.) require no formal Forest Service authorization.

Baseline condition – The pre-existing condition of a defined area and/or resource that can be quantified by an appropriate metric(s). During environmental reviews, the baseline is considered the affected environment that exists at the time of the review's initiation and is used to compare predictions of the effects of the proposed action or a reasonable range of alternatives.

Biologically Significant Unit – A geographical/spatial area within greater sage-grouse habitat that contains relevant and important habitat that is used as the basis for comparative calculations to support evaluation of changes to habitat. A Biologically Significant Unit or subset of the unit is used

in the calculation of the anthropogenic disturbance threshold and in the adaptive management habitat trigger. Specifically in Utah, a Biologically Significant Unit is considered the total priority habitat management area associated with a greater sage-grouse population area.

Co-location – Installation of new linear improvements (i.e., communication towers, electrical lines, other rights-of-way, or designated corridors) in, on, or adjacent to existing linear improvements.

Communication tower site – Sites that include broadcast types of uses (e.g., television, AM/FM radio, cable television, broadcast translator) and non-broadcast uses (e.g., commercial or private mobile radio service, cellular telephone, microwave, local exchange network, or passive reflector).

Compensatory mitigation – Compensating for the residual impact of a certain action or parts of an action by replacing or providing substitute resources or environments(s).

Compensatory mitigation projects – The restoration, creation, enhancement, and/or preservation of impacted resources, such as on-the-ground actions to improve and/or protect habitat (e.g. chemical vegetation treatments, land acquisitions, conservation easements, etc.).

Corridor – A tract of land varying in width forming passageway through which various commodities such as oil, gas, and electricity are transported.

Disruptive activities – Land resource uses/activities that are likely to alter the behavior, displace, or cause excessive stress to the greater sage-grouse population occurring at a specific location and/or time. Actions that alter behavior or cause the displacement of individuals such that reproductive success is negatively affected or an individual's physiological ability to cope with environmental stress is compromised.

Distribution line – An electrical utility line with a capacity of less than 100kV or a natural gas, hydrogen, or water pipeline less than 24” in diameter.

Diversity – The number and distribution of plant and animal species within a specified geographic area. For the purpose of the National Forest Management Act, the geographic area is a national forest or grassland.

Durable (protective and ecological) – The administrative, legal, and financial assurances that secure and protect the conservation status of a compensatory mitigation site and the ecological benefits of a compensatory mitigation project, for at least as long as the associated impacts persist.

Enhance – The improvement of habitat by increasing missing or modifying unsatisfactory components and/or attributes of the plant community habitat to meet greater sage-grouse objectives.

Exception (minerals) – A case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria apply. The authorized officer (any employee of the Forest Service to whom has been delegated the authority to perform the duties described in the applicable Forest Service manual or handbook) may grant an exception if an environmental record of review determines that the action, as proposed or

conditioned, would not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavioral needs of the greater sage-grouse.

Feasible – see technically/economically feasible.

Fluid minerals – Oil, gas, coal bed natural gas, and geothermal resources.

Forage reserve – Designation for allotments on which there is no current term permit obligation for some or all of the estimated livestock grazing capacity and where there has been a determination made to use the available forage on the allotment to enhance management flexibility for authorized livestock use (FSH id_2209.13-2007-1).

Forest transportation system – Roads, trails, and areas designated for motor vehicle use that provide access to National Forest System lands for both motorized and non-motorized uses in a manner that is socially, environmentally, and economically sustainable over the long-term; enhances public enjoyment of National Forest System roads; and maintains other important values and uses.

General habitat management areas – National Forest System lands that are occupied seasonally or year-round habitat outside of priority habitat management areas where some special management would apply to sustain the greater sage-grouse population. The boundaries and management strategies for general habitat management areas are derived from and generally follow the preliminary general habitat boundaries.

Habitat – An environment that meets a specific set of physical, biological, temporal, or spatial characteristics that satisfy the requirements of a plant or animal species or group of species for part or all of its life cycle.

Hard trigger – A threshold indicating that immediate action is necessary to stop a severe deviation from greater sage-grouse conservation objectives set forth in the land and RMP.

High-voltage transmission line – An electrical power line that is 100 kilovolts or larger.

Holder – An individual or entity that holds a valid special-use authorization.

Impact – The effect, influence, alteration, or imprint caused by an action.

Indicators – Factors that describe resource condition and change and can help the BLM and the Forest Service determine trends over time.

Invasive species (invasives plant species, invasives) – An alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. The species must cause or be likely to cause harm and be exotic to the ecosystem it has infested before considered invasive.

Isolated parcel – An individual parcel of land that may share a corner but does not have a common border with another parcel.

Landownership adjustment – Land adjustments to National Forest System lands by purchase, exchange, interchange, or conveyance under authority delegated by law to the Secretary of Agriculture.

Landscape – A distinct association of land types that exhibit a unique combination of local climate, landform, topography, geomorphic process, surficial geology, soil, biota, and human influences. Landscapes are generally of a size that the eye can comprehend in a single view.

Lease – A contract granting use or occupation of property during a specified period in exchange for a specified rent or other form of payment; a type of special-use authorization (usually granted for uses other than linear rights-of-way) that is used when substantial capital investment is required and when conveyance of a conditional and transferable interest in National Forest System lands is necessary or desirable to serve or facilitate authorized long-term uses and that may be revocable and compensable according to the terms.

Leasable minerals – Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act for Acquired Lands of 1947. These include energy-related mineral resources such as oil, natural gas, coal, and geothermal and some non-energy minerals, such as phosphate, sodium, potassium, and sulfur. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

Lek – A courtship display area attended by the male greater sage-grouse in or adjacent to sagebrush-dominated habitat. For management purposes, leks with less than five males observed strutting should be confirmed active for 2 years to meet the definition of a lek (Connelly et al. 2000; Connelly et al. 2003, 2004).

Lessee – A person or entity holding record title in a lease issued by the United States; a person or entity authorized to use and occupy National Forest System lands under a specific instrument identified as a lease. Forest special-use leases are limited to authorize certain wireless communication uses.

Livestock conversion – To change the kind of livestock authorized to graze on National Forest System lands (e.g., a change from sheep to cows).

Locatable minerals – Mineral disposable under the General Mining Act of 1872, as amended, that was not excepted in later legislation. These include hardrock, placer, and industrial minerals and uncommon varieties of rock found on public domain lands.

Major pipeline – A pipeline that is 24 inches or more in outside-pipe diameter (Mineral Leasing Act of 1920, as amended, 30 U.S.C. § 181; 36 CFR 251.54(f)(1)).

Mineral – Any naturally formed inorganic material; solid or fluid inorganic substance that can be extracted from the earth; any of various naturally occurring homogeneous substances (e.g., stone, coal, salt, sulfur, sand, petroleum, water, or natural gas) obtained usually from the ground. Under federal laws, considered as locatable (subject to the general mining laws), leasable (subject to the Mineral Leasing Act of 1920, as amended), and salable (subject to the Materials Act of 1947).

Mineral materials – Common varieties of mineral materials such as soil, sand and gravel, stone, pumice, pumicite, and clay that are not obtainable under the mining or leasing laws but that can be acquired under the Materials Act of 1947, as amended.

Minimization mitigation – Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

Mitigation – Includes specific means, measures, or practices that could reduce, avoid, or eliminate adverse impacts. Mitigation can include avoiding the impact altogether by not taking a certain action or parts of an action; minimizing the impact by limiting the degree of magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and compensating for the impact by replacing or providing substitute resources or environments.

Modification (oil and gas) – A fundamental change to the provisions of a lease stipulation either temporarily or for the term of the lease. A modification may include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria applied.

Native plant species – A plant species that occurs naturally in a particular region, state, ecosystem, and habitat without direct or indirect human actions.

Net conservation gain – The actual benefit or gain above baseline conditions. Actions which result in habitat loss and degradation include those identified as threats which contribute to GRSG disturbance as identified by the USFWS in its 2010 listing decision (75 *Federal Register* 13910) and shown in Table 2 in the Greater Sage-Grouse Monitoring Framework (Appendix A).

No Surface Occupancy – A major constraint where use or occupancy of the land surface for fluid mineral exploration or development and all activities associated with fluid mineral leasing (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes, construction of wells and/or pads) are prohibited to protect identified resource values. Areas identified as No Surface Occupancy are open to fluid mineral leasing, but surface occupancy or surface-disturbing activities associated with fluid mineral leasing cannot be conducted on the surface of the land. Access to fluid mineral deposits would require horizontal drilling from outside the boundaries of the No Surface Occupancy area.

Occupied lek – A lek that has been active during at least one strutting season within the prior 10 years.

Permit — A special-use authorization that provides permission, without conveying an interest in land, to occupy and use National Forest System lands or facilities for specified purposes and which is both revocable and terminable.

Permit cancellation – Action taken to permanently invalidate a term grazing permit in whole or part.

Persistent woodlands – Long-lived pinyon-juniper woodlands that typically have sparse understories and occur on poor substrates in the assessment area.

Plan of Operation – A Plan of Operation is required for all mining activity conducted under the General Mining Act of 1872, as amended, if the proposed operations will likely cause significant disturbance of surface resources. The Plan of Operation describes the type of operations proposed and how they would be conducted; the type and standard of existing and proposed roads or access routes; the means of transportation to be used; the period during which the proposed activity will take place; and measures to be taken to meet the requirements for environmental protection (36 CR 228.4).

Prescribed fire – Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist, and National Environmental Policy Act requirements, where applicable, must be met before ignition.

Priority habitat management areas – National Forest System lands identified as having highest habitat value for maintaining sustainable greater sage-grouse populations. The boundaries and management strategies for priority habitat management areas are derived from and generally follow the preliminary priority habitat boundaries. Priority habitat management areas largely coincide with areas identified as priority areas for conservation in the Conservation Objectives Team report.

Prohibit – To forbid (something) by law, rule, or other authority; no authorizations will be issued, meaning no authorization will be granted.

Reclamation plans – Plans that guide the suite of actions taken within an area affected by human disturbance, the outcome of which is intended to change the condition of the disturbed area to meet pre-determined objectives and/or make it acceptable for certain defined resources (e.g., wildlife habitat, grazing, ecosystem function, etc.).

Residual impacts – Impacts from an implementation-level decision that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

Restoration – Implementation of a set of actions that promotes plant community diversity and structure that allows plant communities to be more resilient to disturbance and invasive species over the long-term. The long-term goal is to create functional, high quality habitat that is occupied by the greater sage-grouse. The short-term goal may be to restore the landform, soils, and hydrology and increase the percentage of preferred vegetation, seeding of desired species, or treatment of undesired species.

Restriction/restrict – A limitation or constraint, not a prohibition, on public land uses and operations. Restrictions can be of any kind but most commonly apply to certain types of vehicle use, temporal and/or spatial constraints, or certain authorizations.

Right-of-way – Land authorized to be used or occupied for the construction, operation, maintenance, and termination of a project or facility passing over, upon, under, or through such land.

Road or trail – A road or trail wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.

Sagebrush focal areas – Areas identified by the U.S. Fish and Wildlife Service that represent recognized “strongholds” for the greater sage-grouse that have been noted and referenced as having the highest densities of greater sage-grouse and other criteria important for the persistence of the species.

Soft triggers – An intermediate threshold indicating that management changes are needed at the implementation level to address habitat or population losses.

Special-use authorization – A written permit, term permit, lease, or easement that authorizes use or occupancy of National Forest System lands and specifies the terms and conditions under which the use or occupancy may occur.

Stipulation (general) – A term or condition in an agreement, contract, or written authorization.

Stipulation (oil and gas) – A provision that modifies standard lease rights and is attached to and made a part of the lease. Lease stipulations include No Surface Occupancy, Timing Limitations, and Controlled Surface Use.

Surface disturbing activities – Actions that alter the vegetation, surface/near surface soil resources, and/or surface geologic features beyond natural site conditions and on a scale that affects other public land values. Examples of surface disturbing activities may include operation of heavy equipment to construct well pads, roads, pits, and reservoirs; installation of pipelines and power lines; maintenance activities; and several types of vegetation treatments (e.g., prescribed fire, etc.). Surface disturbing activities may be restricted, not allowed, or not authorized.

Surface occupancy – Placement or construction on the land surface of semi-permanent or permanent facilities requiring continual service or maintenance. Casual use is not included.

Surface use – Activities that may be present on the surface or near-surface (e.g., pipelines) of public lands. When administered as a use restriction (e.g., No Surface Occupancy), this phrase prohibits all but specified resource uses and activities in a certain area to protect particular sensitive resource values and property. This designation typically applies to small acreage sensitive resource sites (e.g., plant community study enclosure, etc.) and/or administrative sites (e.g., government ware-yard, etc.) where only authorized agency personnel are admitted.

Tall structures – A wide array of infrastructures (e.g., poles that support lights, telephone, and electrical distribution; communication towers; meteorological towers; high-tension transmission towers; and wind turbines) that have the potential to disrupt lekking or nesting birds by creating new perching/nesting opportunities and/or decreasing the use of an area. A determination as to whether something is considered a tall structure would be based on local conditions such as vegetation or topography.

Technically/economically feasible – Actions that are practical or feasible from the technical and economic standpoint and using common sense rather than simply desirable from the standpoint of

the applicant. It is the Forest Service's responsibility to determine what actions are technically and economically feasible based on a review of the applicant's rationale and the available best science. The Forest Service will consider whether implementation of the proposed action is likely given past and current practice and technology; this consideration does not necessarily require a cost-benefit analysis or speculation about an applicant's costs and profit.

Temporary special-use permit – A type of permit that terminates within 1 year or less after the approval date. All other provisions applicable to permits apply fully to temporary permits. Temporary special-use permits are issued for seasonal or short-duration uses involving minimal improvement and investment.

Term permit – An authorization to occupy and use National Forest System lands other than rights-of-way for a specified period that is both revocable and compensable according to its terms.

Timely – The conservation benefits from compensatory mitigation accruing as early as possible or before impacts have begun.

Timing Limitations – A moderate constraint, applicable to fluid mineral leasing, on all activities associated with fluid mineral leasing (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes; construction of wells and/or pads); and other surface disturbing activities (i.e., those not related to fluid mineral leasing). Areas identified for Timing Limitations are closed to fluid mineral exploration and development; surface-disturbing activities; and intensive human activity during identified timeframes. This stipulation does not apply to operation and basic maintenance activities, including associated vehicle travel, unless otherwise specified. Construction, drilling, completions, and other operations considered to be intensive in nature are not allowed. Intensive maintenance, such as workovers on wells, is not permitted. Timing Limitations can overlap spatially with No Surface Occupancy and Controlled Surface Use, as well as with areas that have no other restrictions.

Transmission line – An electrical utility line with a capacity greater than or equal to 100kV or a natural gas, hydrogen, or water pipeline greater than or equal to 24" in diameter.

Utility-scale and/or commercial energy development – A project that is capable of producing 20 or more megawatts of electricity for distribution to customers through the electricity-transmission-grid system.

Valid existing rights – Documented legal rights or interests in the land that allow a person or entity to use said land for a specific purpose and that are still in effect. Such rights include but are not limited to fee title ownership, mineral rights, and easements. Such rights may have been reserved, acquired, granted, permitted, or otherwise authorized under various statutes of law over time.

Vegetation treatments – Management practices that are designed to maintain current vegetation structure or change the vegetation structure to a different stage of development. Vegetation treatment methods may include managed fire, prescribed fire, chemical, mechanical, and seeding.

Viability – For purposes of the National Forest Management Act and its enabling regulations, viability is the availability of habitat that allows a species to persist on landscapes for long-periods (multi-generational) of time. It assumes that populations are abundant (sufficient numbers) and well-distributed (sufficient redundancy of populations) to provide for long-term population persistence on a landscape.

Waived without preference – A permittee waives a term grazing permit to the United States without identifying a preferred applicant (i.e., a third party that has purchased either permitted livestock, base property, or both).

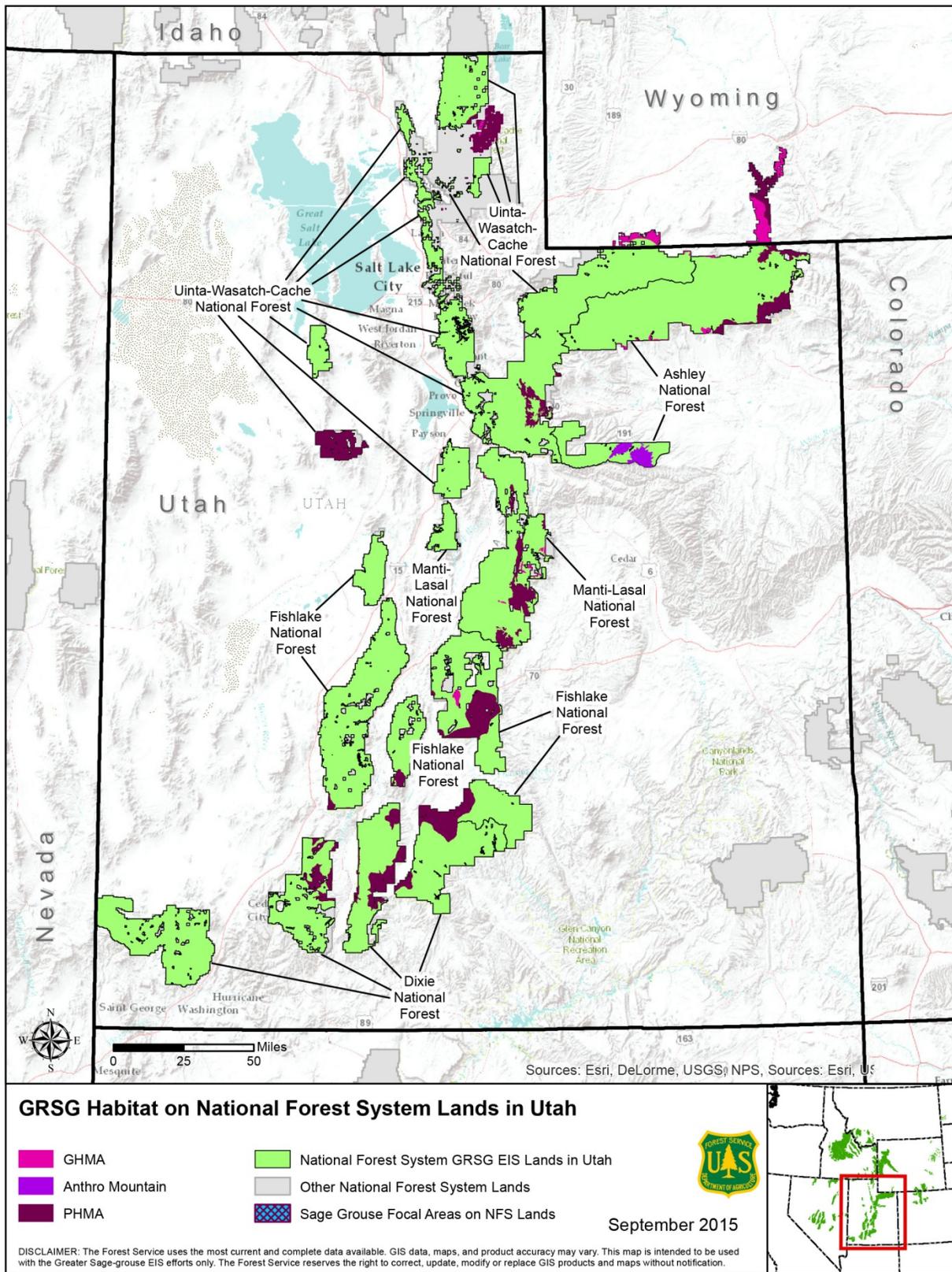
Waiver (oil and gas) – Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

West Nile virus – A virus that is found in temperate and tropical regions of the world and most commonly transmitted by mosquitoes. West Nile virus can cause flu-like symptoms in humans and can be lethal to birds, including the greater sage-grouse.

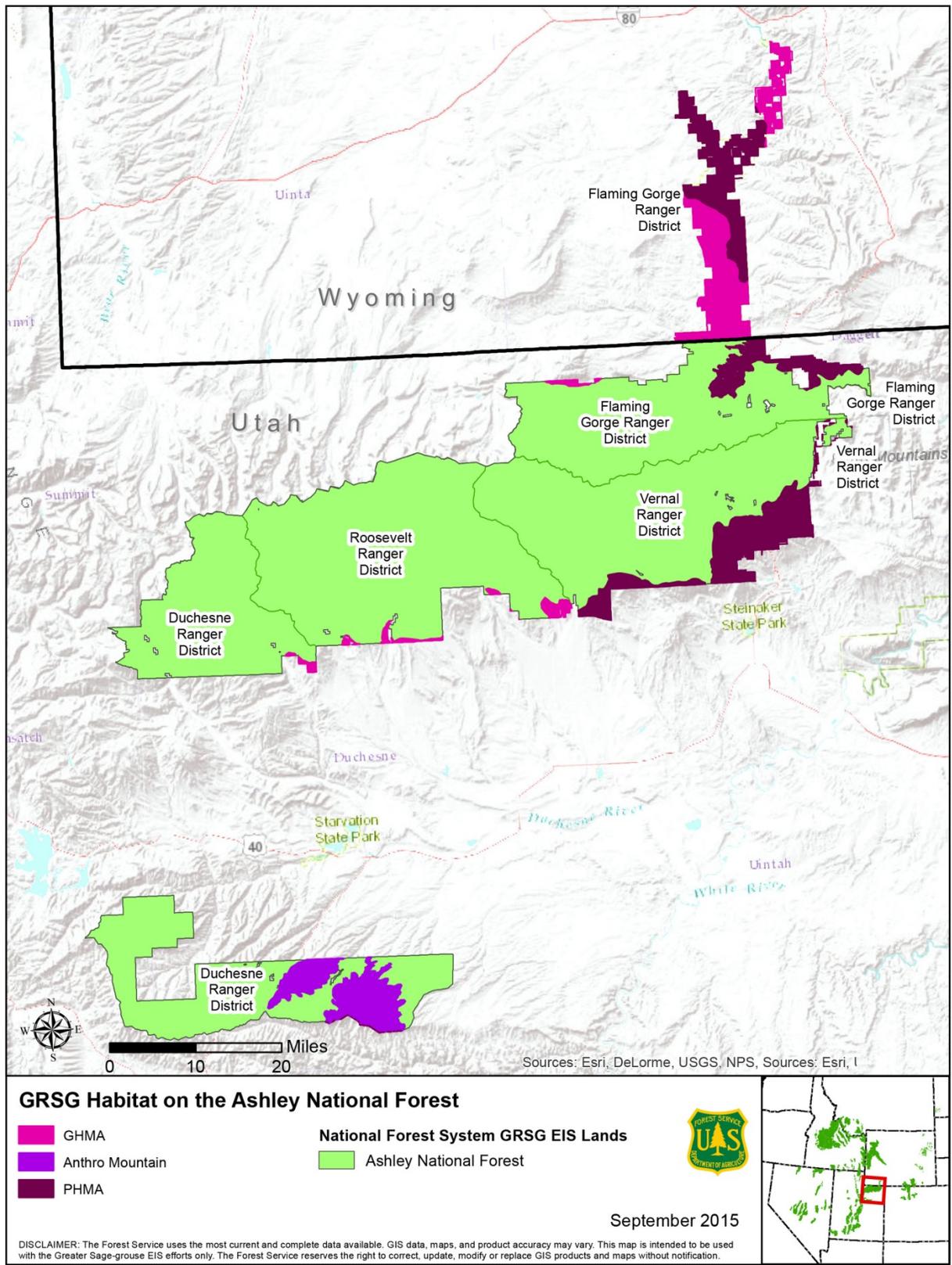
Wildfire suppression – An appropriate management response to wildfire or prescribed fire that results in curtailment of fire spread and eliminates all identified threats from the particular fire.

Withdrawal (land) – Withholding an area of federal land from settlement, sale, location, or entry under some or all of the general land laws, including the mining and mineral leasing laws, for the purpose of limiting activities under those laws to maintain other public values in the area or for reserving the area for a particular public purpose or program.

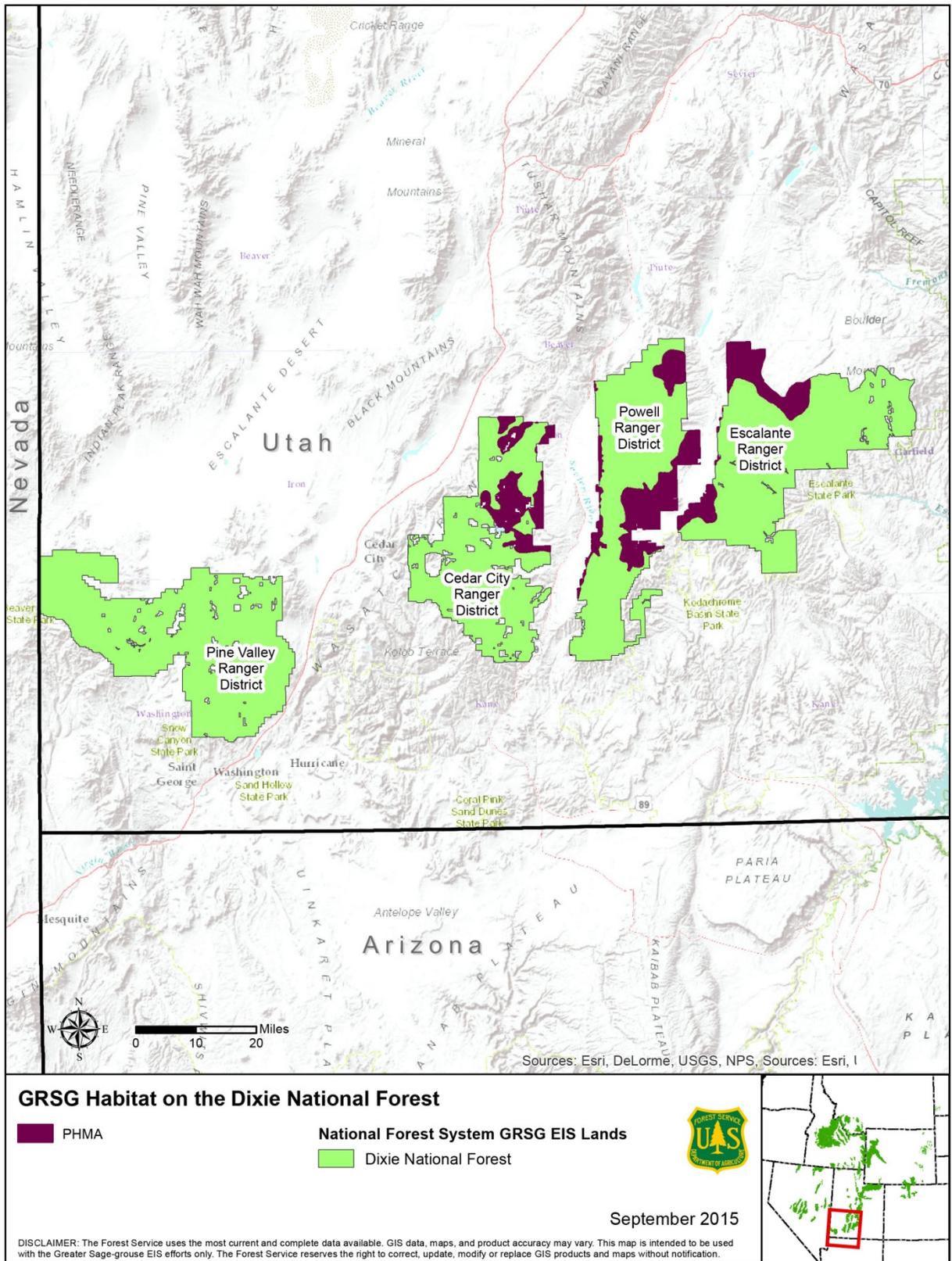
Map 1. GRSG Habitat on National Forest System Lands in Utah.



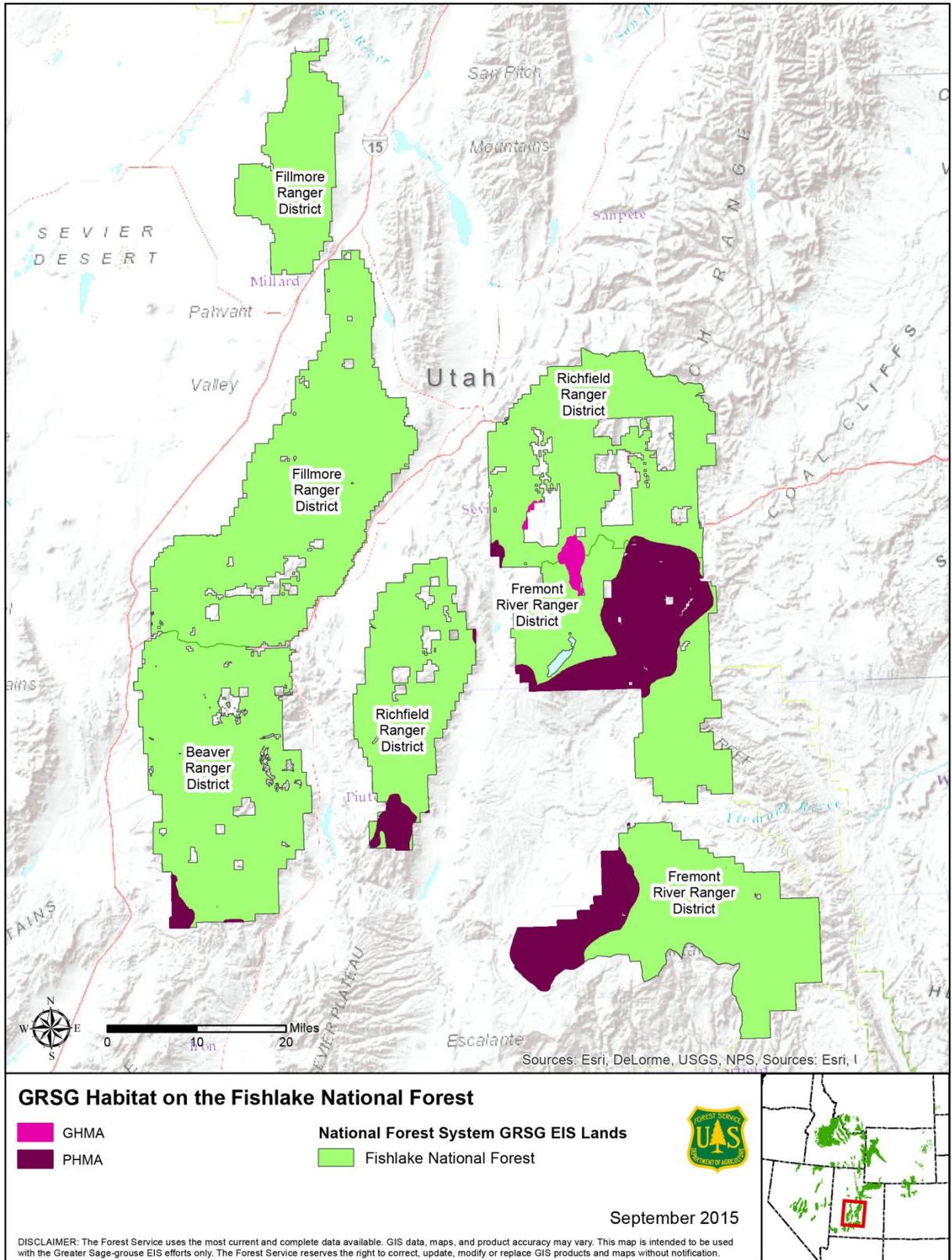
Map 2. GRSG Habitat on the Ashley National Forest.



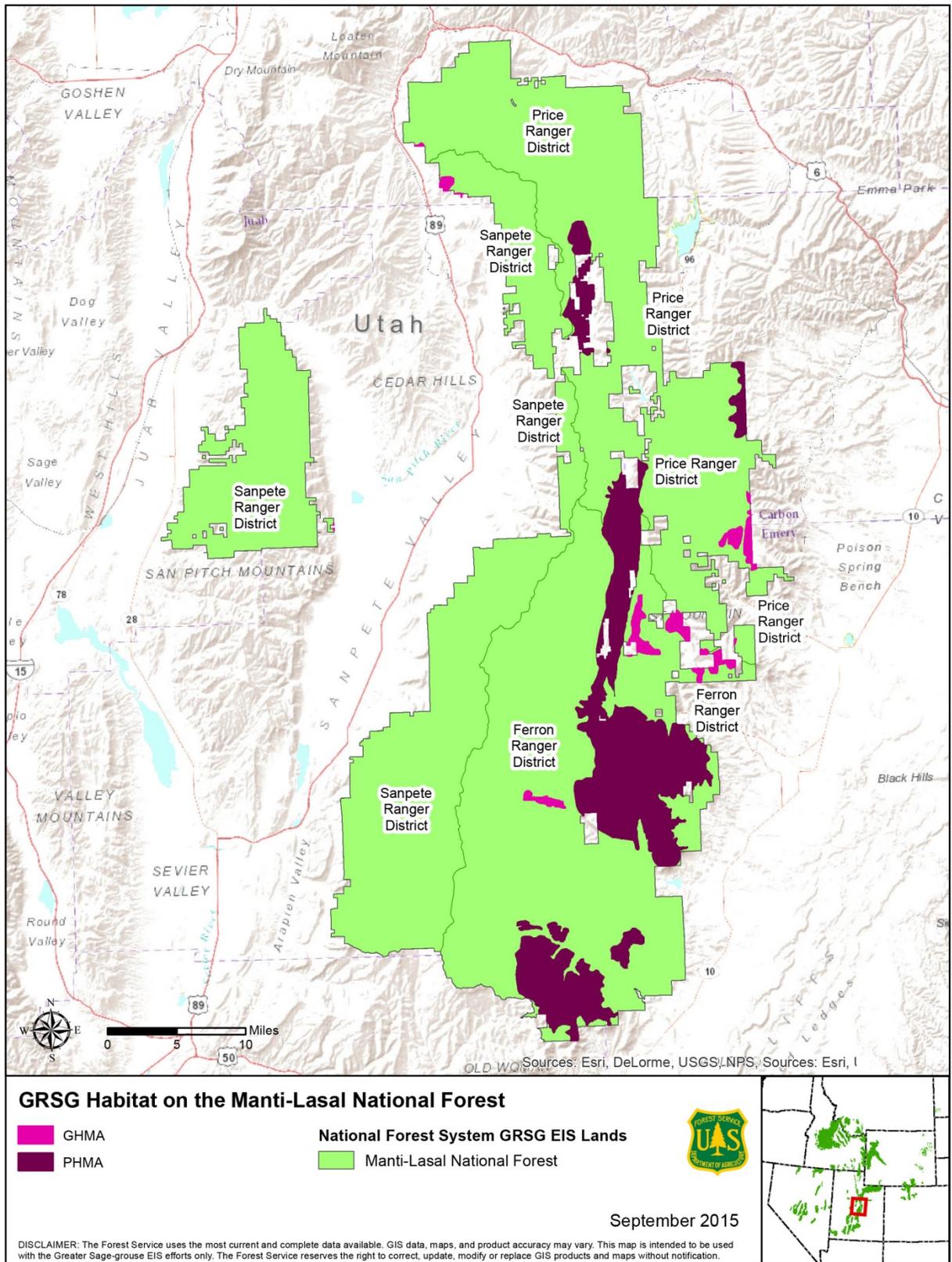
Map 3. GRSG Habitat on the Dixie National Forest.



Map 4. GRSG Habitat on the Fishlake National Forest.



Map 5. GRSG Habitat on the Manti-La Sal National Forest.



Map 6. GRSG Habitat on the Uinta-Wasatch-Cache National Forest.

