Energy Gateway South Transmission Project Addendum to the Final Environmental Impact Statement and Proposed Land-use Plan Amendments

This addendum provides information to (1) address change in the regulatory status for greater sage-grouse (GRSG) and (2) evaluate compliance with Bureau of Land Management (BLM) and U.S. Forest Service (USFS) revised management for GRSG issued since the preparation of the Final Environmental Impact Statement (EIS) and Proposed Land-Use Plan Amendments for the Energy Gateway South Transmission Project (Project). Addendum Map 1 presents the alternative routes considered for the Project.

Change in Regulatory Status for Greater Sage-Grouse

In Appendix J of the Final EIS, information about the regulatory status of GRSG (*Centrocercus urophasianus*) refers to GRSG as a candidate species for listing as threatened or endangered under the Endangered Species Act of 1973. On October 2, 2015, the U.S. Fish and Wildlife Service announced a 12-month finding on petitions to list the GRSG, both rangewide and the Columbia Basin population, as an endangered or threatened species under the Endangered Species Act of 1973, as amended (80 Federal Register (FR) 59857). After review of the best available scientific and commercial information, the U.S. Fish and Wildlife Service found that the Columbia Basin population does not qualify as a distinct population segment and that listing the GRSG was not warranted.

Compliance with the Bureau of Land Management Approved Resource Management Plan Sage-Grouse Amendments

In Section 3.2.8.4.2 and Appendix K, Section K.2.1.3, of the Final EIS, information is provided about compliance of the Project with the proposed BLM Resource Management Plan sage-grouse amendments.

On September 24, 2015, the BLM announced the availability of the Record of Decision and Approved Resource Management Plan Amendments (ARMPAs) for the Rocky Mountain Region GRSG Subregions of Lewistown, North Dakota, Northwest Colorado, and Wyoming (80 FR 57639) and the Great Basin Region GRSG Subregions of Idaho and Southwestern Montana, Nevada and Northeastern California, Oregon, and Utah (80 FR 57633).

The following information addresses compliance of the Project with the BLM ARMPAs.

Wyoming and Colorado

The Project would cross GRSG priority habitat management areas (PHMAs) and general habitat management areas (GHMAs) in Wyoming and Colorado. The BLM ARMPAs for Wyoming and northwest Colorado identify PHMAs as avoidance areas for high-voltage transmission lines, except for specific priority high-voltage transmission projects, which include the Project (refer to MD LR 3 in the BLM ARMPAs for the Casper, Kemmerer, Newcastle, Pinedale, Rawlins, and Rock Springs Field Offices, and MD LR-4 in the BLM ARMPAs for Northwest Colorado, listed below). The ARMPAs also identified that the National Environmental Policy Act (NEPA) process for the Project has been underway for several years and impacts on sage-grouse were assessed in the Project EIS.

The ARMPA acknowledges that Project-specific conservation measures and the mitigation plan framework were developed for the Project through the Project NEPA process.

Specific la–nguage included in the BLM ARMPAs for Wyoming applicable to the Project includes:

> **MD LR 3:** Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:
>
> Priority Transmission Lines: PHMAs are designated as avoidance areas for high voltage transmission line and pipeline ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the following identified projects, must comply with the conservation measures outlined in this proposed plan, including the Required Design Features (RDF) and avoidance criteria presented in Appendix C of this document. The BLM is currently processing an application for Gateway South, Gateway West and TransWest Express and the NEPA review for these projects is well underway. The BLM is analyzing GRSG mitigation measures through the project's NEPA review process.

Specific language included in the BLM ARMPAs in Colorado applicable to the Project includes:

> **MD LR-4:** PHMA and GHMA are designated as avoidance areas for high-voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the following identified projects, must comply with the conservation measures outlined in this ARMPA, including the RDFs and avoidance criteria presented in this document. The BLM is currently processing applications for the TransWest and Energy Gateway South Transmission Line projects, and the NEPA review for these projects is well underway. Conservation measures for GRSG are being analyzed through the projects' NEPA review process, which should achieve a net conservation benefit for the GRSG.

While the conservation measures in the ARMPAs would not apply in Wyoming and Colorado, the Applicant has made commitments to comply with seasonal restrictions in the ARMPAs; complete the Habitat Equivalency Analysis (HEA); and develop a comprehensive mitigation plan (based on the components outlined in the Sage-Grouse Mitigation Framework Plan and HEA, included in Appendix K of the Project Final EIS), which will identify appropriate levels of compensatory mitigation to demonstrate a net conservation gain. The HEA will quantify the permanent or interim loss of habitat services resulting from Project-related impacts and potential habitat service gains that could be achieved by Project-related mitigation programs. The complete mitigation plan will be developed and reviewed and approved by the BLM and the cooperating agencies when the final design and engineering of any selected route has been completed. A Notice to Proceed will be required, documenting approval of the completed mitigation plan, prior to any surface-disturbing activity associated with construction of the transmission line being permitted. In addition, the BLM and cooperating agencies developed project specific conservation measures through the NEPA process, which included siting to avoid locally important habitats.

Utah

The Project would cross GRSG PHMAs and GHMAs in Utah (refer to Addendum Map 2). The BLM ARMPAs for Utah identify PHMAs as avoidance areas for high-voltage transmission lines, except for specific priority high-voltage transmission projects, including TransWest Express and Energy Gateway West, and the portions of other (nonpriority) projects that are colocated with the specific priority high-voltage transmission projects, which include the Project. The ARMPAs also identified that the NEPA process for the Project has been underway for several years and impacts on sage-grouse were assessed in

the Project EIS. Project-specific conservation measures and the mitigation plan framework were developed for the Project through the Project NEPA process. In areas where the Project is not colocated with priority high-voltage transmission projects, the mitigation measures in the ARMPAs apply, which include, but are not limited to, colocation with existing infrastructure; tall structure, noise, and seasonal restrictions; disturbance caps; lek buffers; required design features; and mitigation that results in a net conservation gain.

Components of the BLM ARMPAs in Utah applicable to the Project include MA-LR-2 and MA-SSS-3:

> **MA-LR-2:**
> Linear and Site-Type ROWs, Permits, and Leases (excluding wind and solar)
> PHMA will be avoidance areas for new linear and site type ROWs, permits, and leases except for within ROW corridors designated for aboveground use. Placement of new ROWs, permits, and leases in PHMA shall be avoided if at all possible. Where avoidance is not possible in PHMA, placement of a new ROW/permit/lease can be allowed if it applies the management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap, buffers, tall structure restrictions, seasonal restrictions, and applicable RDFs).
>
> In PHMA, lands ROWs, permits and leases that cannot be avoided shall be located in areas that minimize the effect on the GRSG population (e.g., non-habitat areas, least suitable habitat, collocated with existing disturbances).
>
> In PHMA, new proposals for power lines, access roads, pump storage, and other hydroelectric facilities licensed by Federal Energy Regulatory Commission will be subject to all GRSG ROW avoidance allocations and pertinent management for discretionary activities in MA-SSS-3.
>
> Outside PHMA, portions of opportunity areas within 4-miles of a lek that is located in PHMA will be avoidance areas for new ROWs, permits and leases, applying stipulations for noise and tall structures.
>
> In addition to the above requirements, the subsequent conditions will apply to specific types of ROW authorizations:
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> Transmission Lines
> PHMA are designated as avoidance areas for high voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the following identified projects, must comply with the conservation measures outlined in this plan, including the RDFs and avoidance criteria presented in MA-SSS-03. The BLM is currently processing an application for TransWest Express (including those portions of Energy Gateway South that are collocated) and the NEPA review for this project is well underway. Conservation measures for GRSG are being analyzed through the project's NEPA review process, which should achieve a net conservation benefit for the GRSG.
>
> In PHMA, high voltage transmission lines (100 kilovolt or greater) will be avoided if possible. If avoidance is not possible, they will be placed in designated corridors where technically feasible. Where not technically feasible, lines should be located adjacent to existing infrastructure, unless using a different alignment better minimizes impacts on GRSG. New ROWs constructed adjacent to existing infrastructure will be constructed as close as technically feasible to existing infrastructure to limit disturbance to the smallest footprint.

In PHMA outside of designated corridors, new transmission lines must be buried where technically feasible. Where burying transmission lines is not technically feasible:

- new transmission lines must be located adjacent to existing infrastructure, unless using a different alignment better minimizes impacts on GRSG; and
- they will be subject to GRSG ROW avoidance criteria described above.

In PHMA, if an existing transmission line is being upgraded to a higher voltage transmission line outside an existing corridor:

- the existing transmission line must be removed within a reasonable amount of time after the new line is installed and energized; and
- the new line must be constructed in the same alignment as the existing line unless an alternate route will benefit GRSG or GRSG habitat.

In PHMA, where existing guy wires are determined to have a negative impact on GRSG or its habitat, they shall be removed or appropriately marked with bird flight diverters to make them more visible to GRSG in flight.

MA-SSS-3: In PHMA, apply the following management to discretionary disturbances or activities that are not otherwise excluded or closed to minimize and mitigate effects on GRSG and its habitat from the project/activity:

A- Net Conservation Gain
In all GRSG habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species, including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.

Exceptions to net conservation gain for GRSG shall be made for vegetation treatments to benefit Utah prairie dog.

Mitigation will be conducted according to the mitigation framework contained in Appendix F.

Mitigation Strategy: Utah Greater Sage-Grouse RMPA.

Consider the likelihood of development of not-yet-constructed surface-disturbing activities – as defined in Table D.2 of the Monitoring Framework (Appendix D)−under valid existing rights prior to authorizing new projects in PHMA.

B- Disturbance Cap
In PHMA, manage discrete anthropogenic disturbances, whether temporary or permanent, so they cover less than 3 percent of 1) PHMA associated with a GRSG population area (Figure 2-2, GRSG Biologically Significant Units and Priority Habitat Management Areas [Appendix A] – referred to as BSU when coordinating across state lines) and 2) within a proposed project analysis area. See Appendix E, Greater Sage-Grouse Disturbance Cap Guidance, for additional information on implementing the disturbance cap, including what is and is not considered disturbance and how to calculate the proposed project analysis area.

If the 3 percent anthropogenic disturbance cap is exceeded on all lands (regardless of land ownership) within GRSG PHMA in any given population area (BSU), then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the Mining Law of 1872 [as amended], valid existing rights, etc.) will be permitted by the BLM within GRSG PHMA in any given population area (BSU) until the disturbance has been reduced to less than the cap.

If the 3 percent disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in PHMA, then no further anthropogenic disturbance will be permitted by the BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the Mining Law of 1872 [as amended], valid existing rights, etc.). Within designated utility corridors, the 3 percent 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 which fulfill the use for which the corridors were designated (ex., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location.

An area with disturbance is not excluded from the 3 percent until it has been restored to provide GRSG habitat. The objective of successful restoration is to provide for the needs of GRSG, as evidenced by one of the following:

- Vegetative cover is consistent with the GRSG habitat objectives and the ecological site description (Objective SSS-3), or
- Monitoring indicates the area is regularly used by GRSG to sustain one or more seasonal habitat requirements (nesting, brood-rearing, winter).

Final restoration success and approval for abandonment for disturbances will be subject to an interdisciplinary review of available monitoring data and final monitoring reports.

D- Predation
In PHMA, eliminate or minimize external food sources for corvids, particularly dumps, or waste transfer facilities. Apply best management practices (BMP) to development activities to reduce opportunities for GRSG predators (e.g., limiting food sources, nest/perches deterrents, and road kill).

Apply habitat management practices (e.g. grazing management and vegetation treatments) that decrease the effectiveness of predators.

Collaborate with applicable government entities to implement programs to control predator populations of GRSG (e.g., ravens, red fox, badgers, and raccoons).

E- Noise Restrictions
In PHMA, limit noise from discrete anthropogenic disturbances, whether during construction, operation, or maintenance, to not exceed 10 decibels above ambient sound levels (as available at the signing of the GRSG RMPA ROD or as first measured thereafter) at occupied leks from 2 hours before to 2 hours after official sunrise and sunset during breeding season (e.g., while males are strutting). Support the establishment of ambient baseline noise levels for PHMA habitat area leks.

Limit project related noise in other PHMA habitats and seasons where it will be expected to reduce functionality of habitats that support associated GRSG populations.

As additional research and information emerges, specific new limitations appropriate to the type of projects being considered will be evaluated and appropriate measures will be implemented where necessary to minimize potential for noise impacts on PHMA GRSG population behavioral cycles.

F- Tall Structure Restrictions
In PHMA, limit the placement of permanent tall structures within GRSG breeding and nesting habitats.

For the purposes of this restriction, a tall structure is any man-made structure that provides for perching/nesting opportunities for predators (e.g., raptors and ravens) that are naturally absent, or that decreases the use of an area by GRSG. A determination as to whether something is considered a tall structure will be made based on local conditions such as existing vegetation or topography.

G- Seasonal Restrictions
In PHMA, in coordination with the appropriate State of Utah agency, apply seasonal restrictions during the period specified below to manage discretionary discrete anthropogenic disturbances and uses on public lands to prevent disturbance to GRSG populations and habitat during seasonal life cycle periods as follows:

- In breeding (leks), nesting and early brood-rearing habitat from Feb 15 – Jun 15
- In brood rearing habitat from Apr 15 – Aug 15
- In winter habitat from Nov 15 – Mar 15

Specific time and distance determinations will be based on site-specific conditions and may be modified due to documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring and long and/or heavy winter) in order to better protect GRSG, in coordination with the appropriate State of Utah agency.

H- Buffers
In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the US Geological Survey Report *Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review* (Open File Report 2014-1239; Manier et al. 2014) in accordance with Appendix B, Applying Lek-Buffer Distances.

I- Required Design Features
In PHMA, apply the RDFs from the applicable sections identified in Appendix C, Required Design Features, when authorizing/permitting site-specific activities/projects for wildland fire management actions, travel and transportation, lands and realty, fluid minerals, nonenergy leasable minerals, coal, mineral materials, and locatable minerals (consistent with applicable law). The applicability and overall effectiveness of each RDF cannot be fully assessed until the project level when the project location and design are known. Because of site-specific circumstances, some RDFs may not apply to some projects and/or may require slight variations. All variations in RDFs will require that at least one of the following be demonstrated in the NEPA analysis associated with the project/activity:

- A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity (e.g. due to site limitations or engineering considerations). Economic considerations, such as increased costs, do not necessarily require that an RDF be varied or rendered inapplicable;
- An alternative RDF, state-implemented conservation measure, or plan-level protection is determined to provide equal or better protection for GRSG or its habitat;
- A specific RDF will provide no additional protection to GRSG or its habitat.

Under MA-SSS-3 in the ARMPAs, new authorizations in PHMAs are subject to a 3 percent disturbance cap. To determine whether the Project would result in exceedance of the 3 percent disturbance cap, an analysis was conducted for all alternative routes and route variations in Utah following the guidance provided in Appendix E- Greater Sage-grouse Disturbance Cap Guidance of the ARMPA. For route alternative COUT-C (the Agency Preferred Alternative), Project-related disturbance used to establish the Project-level analysis areas and to determine Project disturbance included both the right-of-way and new and improved access roads. For all other alternative routes, Project-related disturbance used to establish the Project-level analysis areas and to determine Project disturbance included only the right-of-way because new and improved access road data do not exist for routes other than COUT-C. Results from the disturbance cap analysis are displayed in Table 1.

TABLE 1
RESULTS OF DISTURBANCE CAP ANALYSIS CONDUCTED FOR ALL PROJECT ALTERNATIVE ROUTES[1]

Alternative Route	PHMA in Project Analysis Area (acres)	Existing Disturbance (acres)	Percentage Disturbed by Existing Disturbance	Existing and Project Disturbance (acres)	Percentage Disturbed by Existing and Project Disturbance
COUT-A	NA	NA	NA	NA	NA
COUT-B	81,714	2,219	2.7	2,838	3.5
COUT-C (Agency Preferred Alternative)	90,810	2,247	2.5	2,399	2.6
COUT BAX-B	13,580	196	1.4	328	2.4
COUT BAX-C	13,580	196	1.4	328	2.4
COUT BAX-E	41,797	1,275	3.1	1776	4.3
COUT-H	84,197	1,411	1.7	1815	2.2
COUT-I	56,203	735	1.3	1097	2.0

NOTES:
[1]For COUT-C, the Project analysis area and disturbance includes the right-of-way and new and improved access roads. For all other routes, the Project analysis area and disturbance includes only the right-of-way.
NA = Not Applicable; the disturbance cap analysis was not conducted for COUT-A because it would be colocated with the TransWest Express Transmission Project and, thus, the conservation measures, including the disturbance cap, in the Utah Bureau of Land Management (BLM) Approved Resource Management Plan Amendments (ARMPAs) would not apply (refer to MA-LR-2 in the Utah BLM ARMPAs).
PHMA = Priority Habitat Management Areas

Compliance with the sage-grouse ARMPAs for each of the alternative routes analyzed in the Final EIS is summarized in Table 2 and described below.

TABLE 2 COMPLIANCE OF PROJECT ALTERNATIVE ROUTES WITH BLM UTAH ARMPAS							
		Primary Criteria for Demonstrating Compliance with Utah ARMPAs					
Alternative Route	**ARMPA Compliance Achieved**	**Colocated with TransWest Express Project**	**Colocated with Existing Infrastructure in PHMA**	**Project Disturbance Would not Exceed 3 Percent Cap in PHMA**	**Avoids 2-Mile Lek Buffer in PHMA**	**Complies with Noise and Seasonal Restrictions in PHMA[1]**	**Net Conservation Gain Standard Achieved[2]**
COUT-A	Yes	Yes	NA	NA	NA	NA[1]	NA[2]
COUT-B	No	No	Partially	No	No	Yes	Yes
COUT-C (Agency Preferred Alternative)	Yes	No	Yes	Yes	Yes	Yes	Yes
COUT-H	No	No	Partially	Yes	No	Yes	Yes
COUT-I	No	No	Partially	Yes	No	Yes	Yes
COUT BAX-B	No	No	Partially	Yes	Yes	Yes	Yes
COUT BAX-C	No	No	Partially	Yes	Yes	Yes	Yes
COUT BAX-E	No	No	Partially	No	Yes	Yes	Yes

NOTES:
[1]The Applicant has committed to comply with all noise and seasonal restrictions included in the ARMPAs.
[2]The Applicant has committed to complete an HEA and a comprehensive mitigation plan (based on the components outlined in the Sage-Grouse Mitigation Framework Plan and HEA included in Appendix K of the Final EIS), that will identify appropriate levels of compensatory mitigation to demonstrate a net conservation gain. The HEA will quantify the permanent or interim loss of habitat services resulting from Project-related impacts and potential habitat service gains that could be achieved by Project-related mitigation programs. The complete mitigation plan will be developed, reviewed, and approved by the Bureau of Land Management and the cooperating agencies when the final design and engineering of any selected route is completed. A Notice to Proceed will be required, documenting approval of the completed mitigation plan, prior to any surface-disturbing activity associated with construction of the transmission line being permitted.

ARMPA = Approved Resource Management Plan Amendments
HEA = Habitat Equivalency Analysis
PHMA = Priority Habitat Management Areas
NA = Not applicable; the Project would be colocated with the route of the TransWest Express Transmission Project. Per MA-LR-2 in the Utah Bureau of Land Management ARMPAs, it was acknowledged that the Project, where co-located with the TransWest Express Transmission Project, analyzed conservation measures through the Project's NEPA process.

COUT-A: This alternative route would be colocated with the TransWest Express Transmission Project, and, therefore, per MA-LR-2 in the Utah BLM ARMPAs, it was acknowledged that the Project, where co-located with the TransWest Express Transmission Project, analyzed conservation measures through the Project's NEPA process. This alternative would also be co-located with the existing Mona to Bonanza 345-kilovolt (kV) transmission line. The Applicant has made commitments to complying with seasonal restrictions in the ARMPAs and developing a mitigation plan to demonstrate a net conservation gain. In addition, the BLM and cooperating agencies have developed project specific conservation measures through the NEPA process, which include siting to avoid locally important habitats.

COUT-B: Compliance with the ARMPAs would not be achieved because (1) the alternative route crosses within 2 miles of leks in PHMAs, and (2) the disturbance cap analysis indicates that Project-related disturbance would result in exceedance of the 3 percent disturbance cap.

COUT-C (Agency Preferred Alternative): Compliance with the ARMPAs would be achieved because (1) the alternative route is colocated with lower-voltage transmission lines and other linear rights-of-way, (2) the disturbance cap analysis indicates that the 3 percent disturbance cap would not be exceeded in PHMA, (3) the alternative route does not cross within 2 miles of leks through PHMAs, and (4) the Applicant has committed to complying with noise and seasonal restrictions in PHMA, and 5) the Applicant has committed to developing a mitigation plan that demonstrates a net conservation gain.

COUT-H: Compliance with the ARMPAs would not be achieved because the (1) the alternative route would only be partially colocated with existing infrastructure in PHMA, and (2) the alternative route crosses within 2 miles of leks in PHMA.

COUT-I: Compliance with the ARMPAs would not be achieved because the alternative route crosses within 2 miles of leks in PHMA.

COUT BAX-B: Compliance with the ARMPAs would not be achieved because the alternative route would only be partially colocated with existing infrastructure in PHMA.

COUT BAX-C: Compliance with the ARMPAs would not be achieved because the alternative route would only be partially colocated with existing infrastructure in PHMA.

COUT BAX-E: Compliance with the ARMPAs would not be achieved because the (1) the disturbance cap analysis indicates that Project-related disturbance would result in exceedance of the 3 percent disturbance cap and (2) the alternative route would only be partially colocated with existing infrastructure in PHMA.

Compliance with the U.S. Forest Service Land Management Plan Sage-Grouse Amendments

In Section 3.2.8.4.2 and Appendix K, Section K.2.1.3, of the Final EIS, information is provided about compliance of the Project with the proposed USFS Land Management Plan sage-grouse amendments.

On September 23, 2015, the USFS announced the availability of the Record of Decision and Approved Land Management Plan Amendments (ALMPAs) for the Great Basin Region GRSG Subregions of Idaho and Southwestern Montana, Nevada and Northeast California, and Utah (80 FR 57333) and the Rocky Mountain Region GRSG Subregions of Northwest Colorado and Wyoming (80 FR 57332).

The Project does not cross areas under USFS jurisdiction in Wyoming or Colorado, and, therefore, compliance with the USFS ALMPAs in Wyoming or Colorado is achieved. The following information addresses compliance of the Project with the USFS ALMPAs in Utah.

The Project would cross GRSG PHMAs and GHMAs on the Manti-La Sal National Forest. The Project does not cross sagebrush focal areas or Anthro Mountain in areas under USFS jurisdiction. Standards and guidelines identified in the USFS ALMPAs for Utah applicable to the Project include:

> **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-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.

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-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-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.

Under the GRSG-GEN-ST-004-Standard in the ALMPAs, new authorizations in PHMAs are subject to a 3 percent disturbance cap. To determine whether the Project would result in exceedance of the 3 percent disturbance cap, an analysis was conducted for all alternative routes and route variations in Utah following the guidance provided in Appendix E- Greater Sage-grouse Disturbance Cap Guidance of the ARMPA. For Alternative COUT-C (the Agency Preferred Alternative), Project-related disturbance used to establish the Project-level analysis areas and to determine Project disturbance included both the right-of-way and new and improved access roads. For all other alternative routes, Project-related disturbance used to establish the Project-level analysis areas and to determine Project disturbance included only the right-of-way because new and improved access road data do not exist for routes other than COUT-C. Results from the disturbance cap analysis are displayed in Table 1.

Compliance for each of the alternative routes analyzed in the Final EIS is summarized in Table 3 and described below.

COUT-A, COUT-B, COUT-C (Agency Preferred Alternative): Compliance with the ALMPAs would be achieved because these alternative routes do not cross designated sage-grouse habitat in areas under USFS jurisdiction.

COUT-H: Compliance with the ALMPAs would not be achieved because the alternative route crosses PHMA on the Manti-La Sal National Forest.

COUT-I: Compliance with the ALMPAs would not be achieved because (1) alternative route crosses PHMA on the Manti-La Sal National Forest, and (2) the alternative route crosses GHMA on the Manti-La Sal National Forest in an area outside of existing designated corridors or rights-of-way.

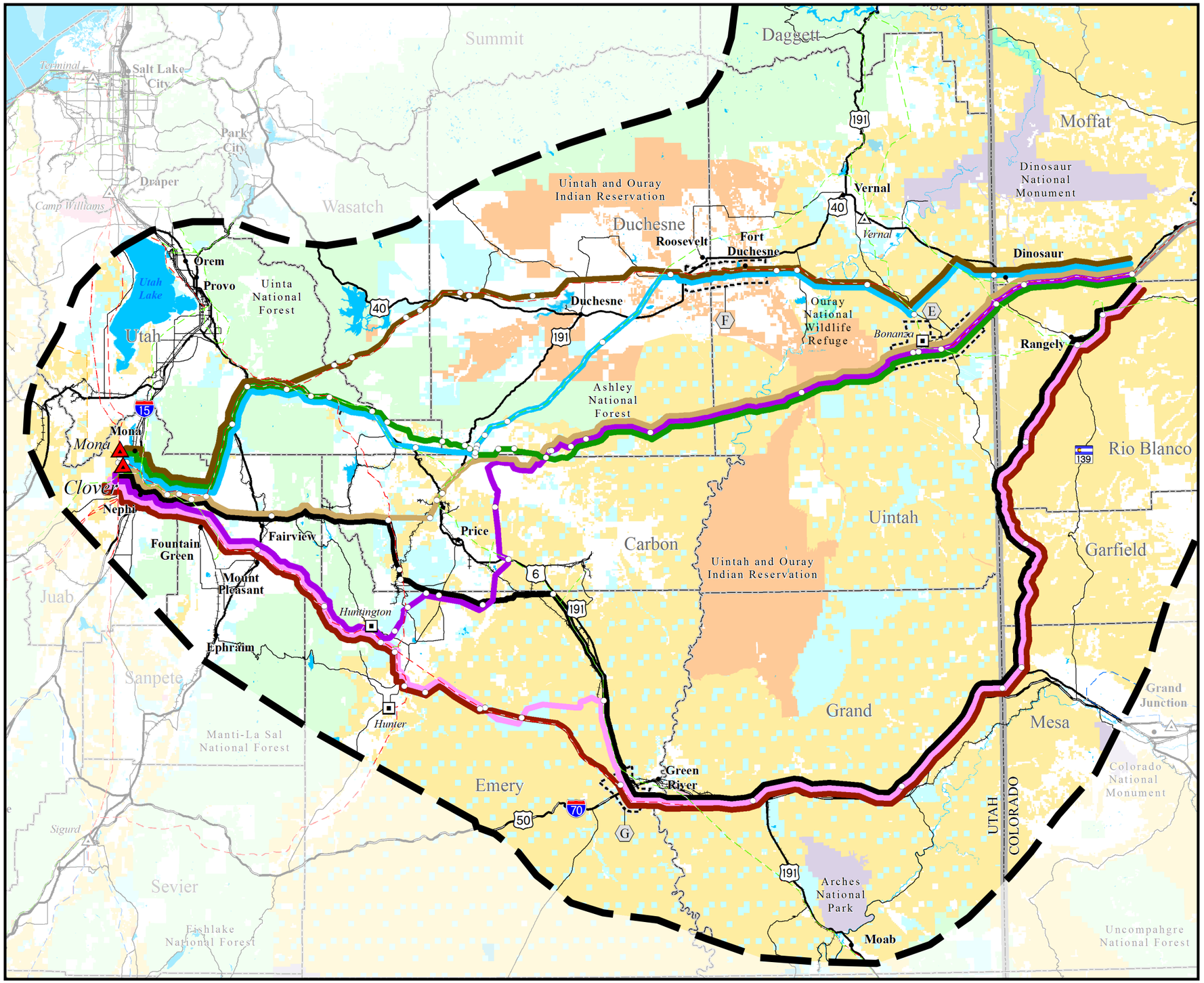
COUT BAX-B: Compliance with the ALMPAs would not be achieved because (1) alternative route crosses PHMA on the Manti-La Sal National Forest, and (2) the alternative route crosses GHMA on the Manti-La Sal National Forest in an area outside of existing designated corridors or rights-of-way.

COUT BAX-C: Compliance with the ALMPAs would not be achieved because (1) alternative route crosses PHMA on the Manti-La Sal National Forest, and (2) the alternative route crosses GHMA on the Manti-La Sal National Forest in an area outside of existing designated corridors or rights-of-way.

COUT BAX-E: Compliance with the ALMPAs would not be achieved because (1) alternative route crosses PHMA on the Manti-La Sal National Forest and (2) the disturbance cap analysis indicates that Project-related disturbance would result in exceedance of the 3 percent disturbance cap.

TABLE 3 COMPLIANCE OF PROJECT ALTERNATIVE ROUTES WITH USFS UTAH ALMPAs							
		Primary Criteria for Demonstrating Compliance with Utah ALMPAs					
Alternative Route	**ALMPA Compliance Achieved**	**Crosses PHMA**	**In GHMA, Located in Designated Corridors**	**Project Disturbance Would not Exceed 3 Percent Cap**	**Avoids 2-mile Lek Buffer**	**Complies with Noise and Seasonal Restrictions[2]**	**Net Conservation Gain Standard Achieved[3]**
COUT-A	Yes	NA[1]	NA[1]	NA[1]	NA[1]	NA[1]	NA[1]
COUT-B	Yes	NA[1]	NA[1]	NA[1]	NA[1]	NA[1]	NA[1]
COUT-C (Agency Preferred Alternative)	Yes	NA[1]	NA[1]	NA[1]	NA[1]	NA[1]	NA[1]
COUT-H	No	Yes	NA[4]	Yes	Yes	Yes	Yes
COUT-I	No	Yes	No	Yes	Yes	Yes	Yes
COUT BAX-B	No	Yes	No	Yes	Yes	Yes	Yes
COUT BAX-C	No	Yes	No	Yes	Yes	Yes	Yes
COUT BAX-E	No	Yes	NA[4]	No	Yes	Yes	Yes

NOTES:
[1]NA= Not Applicable; route does not cross designated sage-grouse habitat in areas under USFS jurisdiction.
[2]The Applicant has committed to comply with all noise and seasonal restrictions included in the ALMPAs.
[3]The Applicant has committed to complete a Habitat Equivalency Analysis (HEA) and a comprehensive mitigation plan (based on the components outlined in the Sage-Grouse Mitigation Framework Plan and HEA included in Appendix K of the Final EIS), which will identify appropriate levels of compensatory mitigation to demonstrate a net conservation gain. The HEA will quantify the permanent or interim loss of habitat services resulting from Project-related impacts and potential habitat service gains that could be achieved by Project-related mitigation programs. The complete mitigation plan will be developed and reviewed and approved by the BLM and the cooperating agencies when the final design and engineering of any selected route is completed. A Notice to Proceed will be required, documenting approval of the completed mitigation plan, prior to any surface-disturbing activity associated with construction of the transmission line being permitted.
[4]NA= Not Applicable; route does not cross GHMAs in areas under USFS jurisdiction.
ALMPA = Approved Land Management Plan Amendments
PHMA = Priority Habitat Management Areas
GHMA = General Habitat Management Areas



Addendum Map 1

Alternative Routes Southern Area

ENERGY GATEWAY SOUTH TRANSMISSION PROJECT

Alternative Routes[1, 2, 3]

- COUT-A
- COUT-B
- COUT-C - Applicant and Agency Preferred Alternative
- COUT-H
- COUT-I
- COUT BAX-B
- COUT BAX-C
- COUT BAX-E
- All Other Alternative Routes

Other Project Features

- Project Area Boundary
- Substation (Project Terminal)
- Link Node
- Series Compensation Station Siting Area

Land Ownership

- Bureau of Land Management
- Bureau of Reclamation
- Indian Reservation
- National Park Service
- U.S. Department of Defense
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- State Land
- Private Land

General Reference

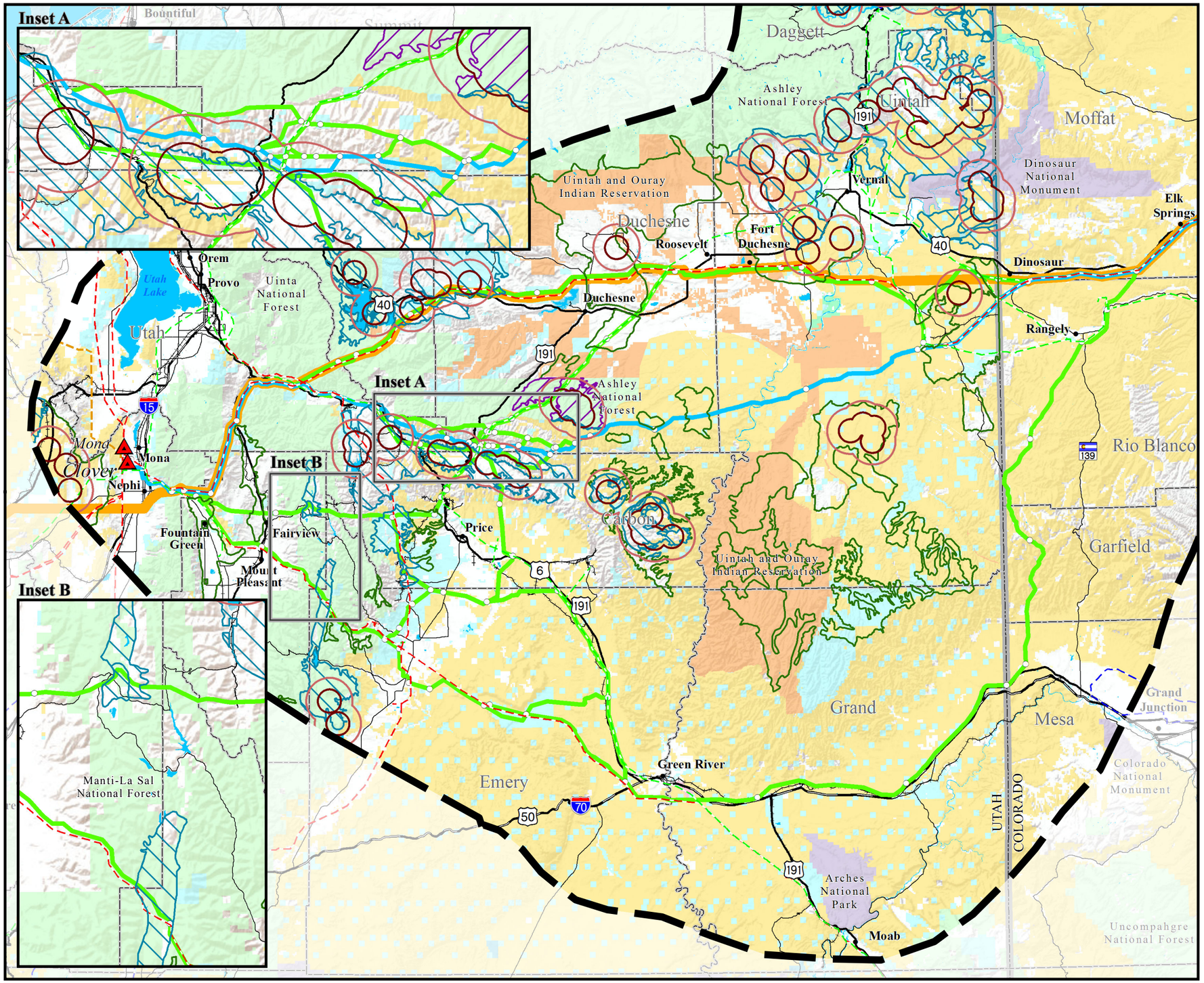
- City or Town
- Substation
- Power Plant
- 500kV Transmission Line
- 345kV Transmission Line
- 230kV Transmission Line
- 138kV Transmission Line
- Railroad
- Interstate Highway
- U.S. Highway
- State Highway
- Other Road
- Lake or Reservoir
- State Boundary
- County Boundary

SOURCES:
Series Compensation Station Siting Areas, Rocky Mountain Power 2015;
Land Jurisdiction, BLM 2013; City or Town, ESRI 2013;
Transmission Lines and Substations as digitized by EPG, POWERmap Platts 2009;
Highways, Roads, and Railroads, ESRI 2013; Water Features, ESRI 2008, USGS 2010;
State and County Boundaries, ESRI 2013

NOTES:
[1]Alternative routes are graphically depicted on map and, in most cases, share centerline alignment in common areas.
[2]Alternative routes, but not route variations, are shown within the overall geographic extent.
[3]All alternatives considered for the Final EIS terminate at Clover Substation.
• The alternative routes and series compensation station siting areas shown on this map are draft and may be revised and/or refined throughout the development of the Project.
• Substation symbols do not necessarily represent precise locations.

Alternative routes last revised: September 23, 2014
FINAL EIS: September 2015

0 5 10 20 30
Miles



Addendum Map 2

Greater Sage-grouse Utah

ENERGY GATEWAY SOUTH TRANSMISSION PROJECT

Greater Sage-grouse[1]

- Greater Sage-grouse Lek 2-mile buffer
- Greater Sage-grouse Lek 4-mile buffer
- Greater Sage-grouse Priority Habitat Management Area
- Greater Sage-grouse Utah Occupied - Anthro Mountain
- Greater Sage-grouse General Habitat Management Area

TransWest Express Alternative Route

- Agency Preferred Alternative

Project Features

- Project Area Boundary
- Substation (Project Terminal)
- Agency Preferred Alternative
- Alternative Route
- Link Node

Land Ownership

- Bureau of Land Management
- Bureau of Reclamation
- Indian Reservation
- National Park Service
- U.S. Department of Defense
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- State Land
- Private Land

General Reference

- City or Town
- 500kV Transmission Line
- 345kV Transmission Line
- 230kV Transmission Line
- 138kV Transmission Line
- Railroad
- Interstate Highway
- U.S. Highway
- State Highway
- Other Road
- Lake or Reservoir
- State Boundary
- County Boundary

SOURCES:
Sage-grouse Leks, UDWR 2014;
Sage-grouse Priority Habitat Management Area, BLM 2015;
Sage-grouse General Habitat Management Area, BLM 2015;
TransWest Express Transmission Line, BLM 2015; City or Town, ESRI 2013;
Transmission Lines and Substations as digitized by EPG, POWERmap Platts 2009;
Highways, Roads, and Railroads, ESRI 2013; Water Features, ESRI 2008, USGS 2010;
State and County Boundaries, ESRI 2013

NOTES:
[1]Greater Sage-grouse habitat is shown only in Utah within the Project area boundary.
• Substation symbols do not necessarily represent precise locations.

Alternative routes last revised: September 23, 2014
Final EIS: September 2015

0 5 10 20
Miles