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Ms. Kimberly Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

Subject: Service Comments on the Palomar Gasline Transmission Project's Permit Application and Final Resource Reports to the Federal Energy Regulatory Commission (FERC CP09-35-000)

Dear Ms. Bose:

Thank you for the opportunity to comment on the Palomar Gasline Transmission Project's permit application and final resource reports to the Federal Energy Regulatory Commission (FERC Docket CP09-35-000, hereafter referred to as Project). As a cooperating agency with respect to the National Environmental Policy Act (NEPA), the U.S. Fish and Wildlife Service (Service) continues to work with the Federal Energy Regulatory Commission (FERC) and the Project's sponsors (Applicant) to address broadscale and site-specific concerns associated with pipeline construction and operations. The Service anticipates that our involvement in the NEPA process will result in FERC's Draft Environmental Impact Statement (DEIS) and Biological Assessment (BA) clearly illustrating the Project's commitments to impact avoidance, minimization, restoration, and mitigation.

COMMENTS AND CONCERNS REGARDING EFFECTS ANALYSIS

Quantifying Project Effects on Mt. Hood National Forest

The Service attempted to locate summary tables and/or narratives of Project-related impacts to resources protected under the Northwest Forest Plan (Plan) in the Project's December 2008 Resource Reports. It was very difficult to determine the types, intensity, duration, and extent of impacts on Mt. Hood National Forest (Forest) resources. In addition, it is not clear that effects from all Project activities (construction right-of-way, temporary extra work areas, above ground facilities, pipe storage yards, hydrostatic test sites, rock source and disposal sites, temporary and

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permanent access roads, and other associated project features) have been considered and fully quantified in these Resource Reports. While the Service could not locate data tables or narratives that quantified impacts to each of the Forest resources of concern, we did determine that the Project will substantially impact the Forest's Riparian Reserves (Table 2C-1: a total of 61 waterbody crossings in Riparian Reserves with total crossing length of 9.8 miles; and 223.3 acres of "Temporary" impacts and 32.7 acres of "Permanent" impacts to Riparian Reserves on the Forest) as well as LSRs. Resource Report 3 (Table 3.2.4-3) indicates 3.5 miles of LSR and LSR100 habitat will be impacted, totaling 38 acres of "temporary" impacts and 19.1 acres of "permanent" impacts to LSR and 2.4 acres of "temporary" impacts and 2.4 acres of "permanent" impacts to LSR100s. We could not find any data or narratives associated with riparian areas or streams within LSRs, and are therefore unsure whether these aquatic and riparian habitats were accounted for in the above Riparian Reserves summaries. Impacts to riparian areas within LSRs should be clearly displayed in addition to information already provided for Riparian Reserves. Additionally, a total of 31 old growth tree stands on the Forest will be bisected (42 total crossings of old growth tree stands), totaling 7.2 miles of old growth tree habitat and associated species impact. A total of 836.4 acres of construction impact and 150 acres of operational impact are anticipated on the Forest (Table 3.2.3-2, Resource Report 3), mainly to Westside low forest, Montane mixed forest and eastside mixed forest habitats.

Lack of Application of the Habitat Characterization Analysis

While the Project undertook an additional and more complex analysis of habitat type and quality (as described in Resource Report 3 Appendices 3E-1, 2, and 3) that might provide a more useful and complete analysis of Project impacts on habitats throughout the Project's alignment, the Resource Reports do not appear to summarize or quantify the various habitat types and associated habitat quality across the Project within these more useful habitat categories. The Service has previously recommended that the Project develop a habitat characterization and mapping product that allows multiple applications, including enhanced impact analyses. Examples of applications of habitat characterization include determination of extent and type of riparian and aquatic impacts; identification of the highest risk migratory bird of conservation concern habitat; and identification of habitats that will be destroyed or degraded in the long-term, therefore requiring compensatory mitigation. Unfortunately, other than placing the habitat analysis report in Appendices E-1, 2, and 3, the Project made no additional application of these habitat characterizations. The Service strongly suggests that the Project expand on Appendices E-1, 2, and 3, and use these habitat characterizations to update Project impact analysis on Forest and non-Forest habitats.

Incorrect Definition of Temporary Construction Impacts

The Service is concerned that "temporary" construction impacts, as defined by the Project, may actually hide the true, longer-term and/or permanent nature of these adverse Project impacts to key terrestrial, riparian, and aquatic habitats. Additionally, because the Project assumes these "temporary" impacts will rapidly dissipate, the Project does not appear to propose any offsetting compensatory mitigation to ensure overall neutral to beneficial Project effects after these "temporary" Project impacts to resources, such as Riparian Reserves, LSRs, and other upland habitats and riparian areas. Finally, for the limited quantity of "permanent" Project impacts to key resources that the Project actually discloses, the Project commits to exceptionally limited compensatory mitigation actions that appear incomplete, insufficient, and poorly-targeted to offset these "permanent" effects to key resources (e.g., Resource Report 3, section 3.3.4.1 Old

Growth Forest – the Project’s compensatory mitigation proposal indicates the Project will simply place down material and install snags to offset old growth forest habitat loss, fragmentation, and increased “edge effect”). Simply placing some down materials and installing snags will not replace lost services from Project construction in old growth forest, and acre:acre replacement of lost LSR habitat, through land use designation adjustments via the Forest’s proposed Plan amendment, will not ensure that the Project has addressed and offset the wide variety of longer-term and permanent construction and operational effects to aquatic, riparian, and upland habitats. To illustrate these multiple Service concerns, the Project estimates 223.3 acres of “temporary” impacts and 32.7 acres of “permanent” impacts to Riparian Reserves on the Forest from Project construction. Resource Report 3, section 3.3.4.2 Riparian Communities and Wildlife indicates the Project’s compensatory mitigation proposal for permanent effects to riparian habitats will only be addressed through “placement of downed logs in various stages of decomposition” and, in section 3.1.2.2 Clean-up and Restoration, other non-specific placement of large wood onto the stream channel and banks. The Service counters that the majority of Project construction impacts to the Forest’s Riparian Reserves and other non-Forest riparian and aquatic resources will be long-term or permanent in nature and will require many years, especially in mid- to late-seral riparian forest habitats, as well as in certain aquatic habitats within these riparian and aquatic areas, to recover to the original conditions with associated services that these riparian and aquatic habitats provided. Extensive compensatory mitigation, in addition to those minimal “down log and large wood placement” actions proposed by the Project for the minor amount of identified “permanent” impacts, will be necessary to ensure the overall Project effect to riparian and aquatic habitat resources is neutral to beneficial.

The Project-defined “temporary” and “permanent” effects categories, associated data tables/narratives in Resource Report 3, overall lack of compensatory mitigation for Project-defined “temporary” impacts, and insufficient and poorly targeted compensatory mitigation for Project-defined “permanent” impacts therefore do not appear to be an acceptable starting point for analyzing Project effects or considering actions needed to offset Project impacts. If the Project’s December 2008 Resource Report impact data and proposed compensatory mitigations were to be used to begin analysis of Plan resource impacts, the overall impact of Project activities on Plan resources would be greatly underestimated, and would require significantly less compensatory mitigation for these unaddressed, additional Plan resource impacts. This is especially troubling to the Service when considering the significant, but undescribed Project effects to resources associated with the Forest’s Riparian Reserves and LSRs. These protected habitats under the Plan, which are foundational recovery components for NSO as well as Endangered Species Act (ESA) listed fish species, will incur mainly longer-term and permanent impacts from the Project’s construction and operation activities. However, as currently analyzed and presented as mainly temporary effects, the Project does not accurately quantify and portray these longer-term or permanent impacts.

Based on the substantial number of acres and/or miles of terrestrial, riparian and aquatic resources impacted by the Project, and the confusing and potentially controversial fashion that these impact data are presented (Temporary vs. Permanent disturbance during Construction vs. Operation period), all stakeholders should be in agreement as to the nature and extent of impacts to key resources. Therefore, the Applicant should fully reveal, in tabular and narrative form, the nature, extent, and duration of impact to terrestrial, riparian, and aquatic resources, and any actions that are proposed to ameliorate these impacts. Additional compensatory mitigation actions may be required to compensate for the disparity in the Project-defined “temporary” disturbance and the true nature and extent of these long-term impacts to key resources. Finally

the Applicant should address and expand the insufficient nature of the limited compensatory mitigation proposals that were presented in Resource Report 3 for “permanent” impacts.

Waterbody Crossing Concerns

The FERC Waterbody Crossing Procedures indicates that a Project’s Procedures may be modified and strengthened by more restrictive local waterbody crossing methodologies. Agencies in Oregon undertake an intensive process for proposing, analyzing, designing, implementing, and monitoring in-water work activities which reflects a high level of state-of-science knowledge and professional approach to these risky and potentially-impactful aquatic construction activities. The Service has been involved in, and provided ESA consultation and technical assistance on, numerous ESA-listed fish habitat restoration projects and other in-water construction activities in the Project area. Unfortunately, limited or non-existent site-specific data are presented in the Resource Reports to assist in the Service’s assessment of adequacy of design, construction, restoration, and monitoring of these waterbody crossings. The most extensive data, contained in a sub-contractor’s field report (Appendix 6C of Resource Report 6), and mainly developed via a desktop analysis, only provides limited and incomplete site-specific information for a small subset of the Project’s high number of waterbody crossings.

The Project’s proposed waterbody crossing methods may have acute impacts to the waterbody and adjacent bank, riparian, and upslope areas, including significant modification and disruption of channel and floodplain form, and riparian zones in alluvial systems. Long-term physical habitat impacts occur at waterbody crossings, even with minimization techniques and best management practices, such as the protective measures proposed by the Project. Thus, new waterbody crossings may result in long-term channel instability unless the waterbody crossing is properly designed with site specific information, and the site is properly restored after construction. General habitat impacts related to waterbody crossings may include, but are not limited to:

- channel simplification due to open trench excavation and subsequent fill, thus resulting in reduced habitat diversity;
- direct removal of spawning gravel from the streambed, and modified substrate following site reclamation;
- change in channel cross-sectional shape due to a decrease in natural bank stability;
- disruption of longitudinal connectivity resulting from excavation of the trench and filling with “clean gravel or native cobble”;
- lateral channel migration resulting from decreased bank stability and loss of riparian vegetation, which may require future bank stabilization projects;
- increased vertical streambed variability due to localized scour and fill in the area of disturbed streambed material, potentially resulting in disconnection with the floodplain possibly exposing the pipeline, thus resulting in additional in-channel work; and
- floodplain disturbance and riparian impacts resulting from both the initial construction work, which will require vegetation removal, and future impacts due to the management of woody vegetation in the vicinity of the pipeline.

Other impacts from waterbody crossings may include:

- increased suspended sediment downstream due to streambed disturbance (removal of the armor layer);
- increased water turbidity downstream due to destabilized banks and inundation of recently disturbed areas in the channel and on the floodplain;

- embedded stream gravel downstream due to increased turbidity;
- filling of an open trench with highly porous cobble and gravel may result in alteration in the hyporheic exchange with the surface water;
- alteration of aquatic community composition, leading to cumulative effects on the food chain;
- increased flow velocities due to removal of form roughness (i.e. sediment bars, pools, and riffles) and energy dissipation (large wood and vegetation); and
- temporary or permanent blockage of fish access due to physical changes of the stream channel, including channel widening and subsequent subsurface flow as well as risk for pipe exposure during major hydrologic events or other geomorphic process.

Cumulative impacts to stream habitats from waterbody crossings may include:

- decreased primary productivity;
- changes to invertebrate assemblages due to changes in species composition;
- slow biotic colonization or recolonization onto substrates;
- reduced food availability to fish;
- decreased fish biomass and fish species diversity due to less food and negative impacts to habitat.

The Service has previously recommended, via formal comments to the Applicant and FERC, that certain site-specific waterbody crossing data must be collected and analyzed to correctly design and eventually restore aquatic and riparian habitats that are impacted by the Project's high number of waterbody crossings. Information provided in the Project Resource Report (e.g., Resource Report 6, Appendix 6C), begins to fulfill these site-specific waterbody crossing data needs, but even these detailed Project data sets do not fulfill the types of data that the Service generally require for inwater activities.. Because of the Project area's natural stream complexity, diversity, and sensitivity to disturbance, significant field data should be collected *for each waterbody crossing* followed by an appropriate level of analysis and design, thus resulting in the least-impactful waterbody crossing. Specific remediation/restoration plans and monitoring plans are also necessary for each waterbody crossing. The following are specific data requirements and analyses that should be required for the Project's open cut and dry-ditch methods, as well as monitoring and mitigation needs associated with waterbody crossings. Please note this information was formally presented to Palomar, its consultants, FERC, and its consultants, as well as multiple interested state, federal, and tribal partners on March 5, 2009:

Recommended pre-project, site-specific waterbody crossing *data collection and analyses needs* include, but are not limited to:

- depth of maximum scour for various events: to ensure that the pipeline will not be exposed under any flow conditions.
- meander Belt Width: to determine lateral migration potential.
- representative cross-sections showing morphology for each habitat type, floodplain elevations, and infrastructure: to adequately reclaim the site
- longitudinal profile of the channel bed including detailed slopes of specific habitat units such as pools, riffles, steps, and cascades: to adequately reclaim the site
- roughness coefficients for various flows: to ensure adequate energy dissipation in the channel and on the floodplain.
- floodplain soil description and/or map, where applicable.
- bank material description: to adequately restore the banks.

- bed material particle size distribution: for specification of fill material, if needed.
- riparian vegetation composition, density, and distribution;
- large wood loading;
- presence of any sensitive, threatened or endangered species;
- presence of Essential Salmonid Habitat, ESA Critical Habitat, and/or Essential Fish Habitat.

Recommended pre-project, site-specific waterbody crossing *design plans needs* include, but are not limited to:

- vertical stability analysis to determine long term potential scour depth, long term potential for channel incision, and reach-scale channel evolution state;
- site diagram including channel dimensions, bed and bank material, channel and floodplain slope, floodplain soils, and vegetation;
- dewatering/rewatering plan for each site, including minimization efforts and contingencies;
- fish salvage and handling plan;
- erosion control plan, including BMPs to prevent soil and all fine sediment from entering stream;
- hazardous material plan.

Waterbody crossing site restoration plans should be site-specific, and should include *aquatic and bank restoration, revegetation, monitoring and remediation plan components*. Development of a successful waterbody crossing restoration plan requires a complete understanding of pre-project, site-specific conditions, including:

- channel and floodplain dimensions, including relative floodplain elevation;
- channel and floodplain slope;
- channel planform;
- bed and bank material;
- floodplain soils, and;
- bank, riparian, and upslope vegetation.

A waterbody crossing site restoration plan should be developed by the Project, that defines how the Project will restore or enhance these site-specific, pre-project waterbody conditions, monitor the restoration efforts to ensure site-specific conditions are achieved, and ensure remediation actions are implemented if site-specific objectives are not realized after restoration.

COMPENSATORY MITIGATION

Project representatives have begun to indicate their willingness to develop comprehensive mitigation ratios and mitigation plans for the Project's multiple, unaddressed adverse effects. However, the Project has not yet provided any agencies with a compensatory mitigation plan or hosted a compensatory mitigation discussion with the multiagency team. We anticipate, as the Applicant completes its efforts to describe the Project's impacts, they will begin hosting multiagency mitigation discussions, to develop and finalize compensatory mitigation ratios and plans for the Project, and will eventually file these compensatory mitigation plans with FERC.

As a cooperator, the Service requests that FERC/TetraTech make sure there is a placeholder in the DEIS for the Applicant's commitment to provide compensatory mitigation for Project

impacts on all lands and waters, whether impacts occur on lands and waters of federal or non-federal ownership. Where the Project's mitigation plan details are currently available, we hope these commitments are clearly included in the DEIS and BA documents. Where additional work to finalize the Project mitigation plans is ongoing, especially for the compensatory mitigation plans for Project's impacts to non-federal lands and waters, we hope a clear placeholder for these Project mitigation commitments is provided in the Final EIS (FEIS) and BA documents.

One area where some compensatory mitigation is described is associated with waterbody crossings. The Project's compensatory mitigation proposal for permanent effects to aquatic and riparian habitats is "placement of downed logs in various stages of decomposition" and other non-specific placement of large wood into the stream channel and banks. Based on the extensive data that needs to be collected at each waterbody to ensure fully successful long-term protection of the aquatic and riparian resources, the current lack of Project site-specific waterbody crossing geomorphic data, and lack of design, restoration, and monitoring commitments currently provided in the December 2008 Project Resource Reports, as well as the wholly inadequate type and magnitude of compensatory mitigation proposed by the Project for long-term and permanent impacts to the riparian and aquatic habitats, uncertainty remains as to the full suite of Project effects to these habitats. The Applicant should provide this site-specific information to the Service, develop well designed, implemented, restored, mitigated, and monitored waterbody crossing actions, then collaboratively define sufficient types and magnitude of compensatory mitigation actions for any remaining long-term and permanent effects that result from crossing waterbodies.

ENDANGERED SPECIES ACT AND DATA NEEDS FOR THE PROJECT

The information currently provided in the Resource Reports appears to be inadequate for ESA consultation. It was apparent to the Service, based on presentations made by the Project and their consultants on March 4 and 5, that the information necessary to complete formal ESA consultation is not readily available. The Service suggests that the FERC does not plan on including the FERC biological assessment as part of the DEIS. Multiple, ongoing discussions, analyses, and negotiations will take significant time to complete, to assure all parties that the final FERC biological assessment is sufficient. There is much higher likelihood that all information is available, if FERC begins to plan on "decoupling" the biological assessment from the DEIS, and submit the biological assessment at a later date.

Currently, Northern Spotted Owl surveys are not complete in all LSR, Riparian Reserve, and other suitable Forest and non-Forest habitat, and therefore the final avoidance, minimization, restoration, compensatory mitigation measures and other conservation actions have not been finalized, and the final effects have not been disclosed. The Project should not move forward with such uncertain effects to LSRs, Riparian Reserves, and other suitable habitat, and the ESA-listed species that depend on these habitats for their survival and recovery needs. The Applicant should ensure all effects to LSRs and Riparian Reserves and other suitable habitat, and the ESA species that depend on these resources, are fully determined, and subsequent avoidance, minimization, restoration, compensatory mitigation, and other conservation actions are fully finalized before the final BA is transmitted to the Service.

On March 4, 2009, Project representatives hosted a meeting with the Service and other interested agencies to discuss terrestrial ESA issues. During this meeting, Project representatives presented an outline of Project effects to four ESA-listed species of Willamette Valley plants (Nelson's

checker-mallow, Willamette daisy, Bradshaw's lomatium, and Kincaid's lupine), and the ESA-listed Fender's blue butterfly. The Service provided significant comment on the Project's species distribution and occurrence information, as well as to the applicant's analysis of Project effects to these listed species. The meeting notes for this terrestrial ESA meeting, which should clearly identify ESA-listed Willamette Valley plant and insect information and data needs that are currently missing, and identify much more conservative ESA effects determinations, have not been provided by the Applicant. The Service expects the following information to be a major component of the eventual March 4 ESA meeting notes. This information is largely missing from the final Resource Reports, and should be incorporated into the DEIS and BA.

The Applicant should expand their maps of ESA-listed Willamette Valley plant distributions and potential occupancy, and consider any potential habitat as occupied. Additionally, Fender's blue butterfly use multiple lupine species and other nectar species during its brief adult life stage, and may move from 2 to 5 km from its natal plant, therefore the analysis of effects to butterflies and their host/nectar plants needs to be re-developed.

Almost no access to private lands has been granted in the range of these listed ESA plants and butterfly, therefore no surveys have been conducted. Additionally, limited existing information on ESA species occurrence is available from these private lands. A desktop analysis of potentially suitable habitat should be conducted, using existing map products and easily-obtainable information on habitat needs for listed ESA plants and butterfly. A more conservative approach to determining species occurrence and project should be employed, as many Willamette Valley species may occur in heavily disturbed habitats. A prescriptive proposal, for future species and habitat surveys, as well as activities that will be undertaken during Project construction and operation to avoid, minimize, restore, and compensate for impacts to listed plants and butterfly (as well as host and nectar plants), should be developed. Salvage, propagation, and relocation plans (including long-term site protection and monitoring) should be established for any target plants encountered. To address the high degree of uncertainty associated with the Willamette Valley ESA-listed plants and butterfly, additional conservation actions should be proposed that support the recovery of the Willamette Valley listed plants and butterfly. The Service has numerous species conservation actions that could be undertaken or supported by the Project, to offset the overall impacts of the Project.

Finally, recent case law indicates that Federal projects should allow for the opportunity for both recovery and survival of the species.¹ These recent judicial opinions underscore the importance of demonstrating that the Project's proposed action will not appreciably decrease the likelihood of survival and recovery (jeopardy analysis), or not appreciably diminish the value of critical habitat for either survival or recovery of listed species. The Service is willing to discuss potential conservation actions that would be clearly beneficial to listed species and their habitats and assist with recovery of these species.

¹ *See Gifford Pinchot Task Force v. U.S. Fish & Wildlife Service*, 378 F.3d 1059, 1063 (9th Cir. 2004) (the Ninth Circuit held that the ESA requires the U.S. Fish and Wildlife Service to address the twin goals of recovery and survival in the context of a section 7 consultation on a proposed action that may affect designated critical habitat); *see also National Wildlife Federation v. National Marine Fisheries Service*, Case No. 05-35736 (9th Cir. 2006) Judge Redden extended the reasoning in *Gifford Pinchot Task Force* from consultations involving critical habitat to consultations on effects to species under a section 7 jeopardy analysis under the ESA).

MIGRATORY BIRD CONCERNS

In order to reasonably ensure the Project addresses requirements of the Migratory Bird Treaty Act, and that FERC meets its responsibilities under E.O. 13186, we recommend using Project's habitat characterization maps to define the migratory bird habitats and associated migratory bird species (especially birds of conservation concern) that will be impacted by Project construction. Because the Project will cross so many different habitat types, there will be a variety of migratory bird species (i.e., ground, shrub, tree nesting) that will occur along the Project's right-of-way and other associated access roads and other Project features, including the following species:

- Acorn Woodpecker
- Band-tailed Pigeon
- Brewer's Sparrow
- Ferruginous Hawk
- Flamulated Owl
- Golden Eagle
- Harlequin Duck
- Lewis' Woodpecker
- Loggerhead Shrike
- Long-billed Curlew
- Marbled Murrelet
- Northern Goshawk
- Northern Spotted Owl
- Olive-sided Flycatcher
- Oregon Vesper Sparrow
- Peregrine Falcon
- Purple Martin
- Rufous Hummingbird
- Sage Sparrow
- Streaked Horned Lark
- Western burrowing Owl
- White-headed Woodpecker
- Willow Flycatcher
- Yellow-breasted Chat

Surveys to determine which migratory bird species are present may be necessary in each of the habitats impacted by the Project's various features and activities. We should then collaboratively discuss ways to reroute Project activities around those areas of highest habitat quality and migratory bird species occurrence, as well as to define measures to minimize Project effects (e.g., construction timing restrictions during bird nesting periods for certain species and/or habitats). Additionally, since construction, operation, and maintenance of the Project may still result in long-term and/ or permanent impacts on migratory birds, namely as a result of habitat loss, we should work together to develop compensatory mitigation plans for migratory bird habitats that will be impacted by project activities and lost, either for a meaningful period of time or permanently.

The Service has begun discussions with the Applicant and its consultant on development of a Migratory Bird Conservation Plan. The Applicant will use the above list of birds of conservation

concern to develop habitat maps, and associated conservation activities, for key migratory bird locations along the pipeline's alignment. The Service is encouraging the Applicant to use the attached Rockies Express East Migratory Bird Conservation Plan as a template for the Project's eventual migratory bird avoidance, minimization, restoration, and habitat mitigation plan. The DEIS should reflect these ongoing efforts to collaboratively develop, and eventually file, a Palomar Migratory Bird Conservation Plan with FERC.

PALOMAR "WEST" IS NOW CLEARLY LINKED TO THE BRADWOOD LANDING PROJECT

Prior to resource reports filing, the Service spent numerous meetings with FERC staff and the Applicant discussing the apparent association between the Project and the Bradwood Landing/Northern Star project (Bradwood). Until resource report filing, FERC and the Applicant had made it clear that these two projects were not associated for purposes of either NEPA or ESA analysis. However, as identified in the Project's resource reports, Palomar "West" is directly linked to Bradwood. The Service believes these concerns are still valid, and should be addressed by FERC and the Applicant before the biological assessment is developed.

- Separate analysis of the Project and Bradwood and could represent "piecemealing" of a single project (or strongly interdependent projects), which is inconsistent with ESA policy and regulation.
- Additive adverse effects to listed species and critical habitats are frequently masked by separate impact analyses of strongly interdependent projects. Example: downstream migrating juvenile listed fish adversely affected by Bradwood could also potentially be adversely affected by the Project stream crossings in the fish's spawning and rearing habitat in the Deschutes and Clackamas River drainages. Such additive impacts would probably not be identified or analyzed in the BAs developed for each separate project, and therefore might not be reflected in the jeopardy and adverse modification analyses of the associated Biological Opinions (BO).
- Lack of consideration for such additive adverse effects in the BA/BO for Bradwood also may have the effect of foreclosing the formulation or implementation of reasonable and prudent alternative measures for the Project, and could represent an irreversible or irretrievable commitment of resources with respect to Bradwood. Again, both of these scenarios are inconsistent with ESA policy and regulation.
- Because the environmental analyses for the Project and Bradwood have been occurring separately but simultaneously, the lower Columbia River's environmental baseline identified for Bradwood's environmental analysis appears to be the same as the environmental baseline used for analysis by the Project. This is not how the ESA environmental baseline is used. Since the Project's eventual BA will be submitted after Bradwood's consultation, the Project's ESA environmental baseline must reflect an adjusted environmental baseline, to reflect the Bradwood's adverse as well as beneficial effects.
- FERC's policy of consulting *separately* on strongly interdependent projects has a potential significant negative impact on any project (or project component) that is "next in line" for ESA consultation. The Project is a good example: because the environmental baseline for listed species will be adjusted after the Bradwood consultation is completed, the potential for the Project to jeopardize listed species and/or adversely modify/destroy critical habitat may be increased.

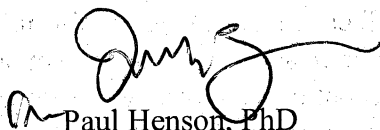
FERC should ensure that ESA documents for the Project and Bradwood are adequate by thoroughly identifying and assessing the interrelated and interdependent effects of strongly connected projects, addressing environmental baseline concerns, and by avoiding the piecemealing of "projects" that by ESA standards should reasonably be considered a single project. Doing so will: a) minimize delays to ESA consultation brought on by a determination of BA inadequacy; b) support the legal and biological integrity and defensibility of resulting BOs, and; c) present a clearly understood and equitable consultation context to applicants.

CONCLUSION

In our comments and recommendations above, the Service identified numerous concerns associated with the Project's data quality, potentially inaccurate effects analyses, lack of migratory bird conservation information, insufficient, ill-targeted, and/or nonexistent compensatory mitigation proposals, ESA consultation, and lack of defined ESA Section 7(a)(1) conservation actions associated with the Project's application and final Resource Reports. The Service does not believe, without significant expansion of data sets, accurate effects analyses, and commitment to compensatory mitigation and Section 7(a)(1) conservation actions, the Applicant satisfies NEPA or ESA requirements to adequately address the Project's impacts to fish and wildlife resources.

The Service appreciates FERC's efforts to coordinate and discuss resource agency concerns associated with this complex and extensive pipeline project and looks forward to working with the Applicant and FERC on further refining the overall Project's action and reducing the Project's effects. If you have any questions on these comments, or need more information, please contact Doug Young, Energy Projects Coordinator, Oregon Fish and Wildlife Office, at (503) 231-6179.

Sincerely,



Paul Henson, PhD
State Supervisor

cc: John Cassady, Palomar
Cameron Young, NRG
John Styduhar, BLM
Rob Markle, NMFS
Rose Owens, ODFW
Doug Sipe, FERC
Joe Iozzi, TetraTech

Attachment

**Guidelines for Achieving Compliance
With the Migratory Bird Treaty Act and
Executive Order No. 13186 Through Voluntary
Conservation Measures**

Developed by

Rockies Express Pipeline LLC

and

U.S. Fish and Wildlife Service

**Associated with the Construction and Operation of the
Rockies Express Pipeline – East Project in
Missouri, Illinois, Indiana, and Ohio**

March 2008

PREFACE

Rockies Express Pipeline LLC (Rockies Express) proposes to construct and operate pipeline, compression, and ancillary facilities to transport natural gas produced in the Rocky Mountain basins for delivery primarily to other pipelines and distribution customers located in the upper Midwest and Eastern United States (U.S.). The proposed project, the Rockies Express Pipeline – East Project, or REX-East Project, falls under the jurisdiction of the Federal Energy Regulatory Commission (FERC) and FERC is the lead federal agency for the project. This project is the subject of these Guidelines for Achieving Compliance with the Migratory Bird Treaty Act and Accompanying Executive Order No. 13186 Through Voluntary Conservation Measures (Guidelines).

The REX-East Project will consist of approximately 639.1 miles of new pipeline facilities from Audrain County, Missouri, to a terminus in Monroe County, Ohio, five new compressor stations along the REX-East route, two new compressor stations along the REX-West and REX-Entrega pipeline routes, and ancillary facilities consisting of 36 mainline valves and 13 meter station locations.

Rockies Express filed for a Certificate of Public Convenience and Necessity (Certificate) with FERC to construct and operate the REX-East Project. As part of its review of the proposed project, FERC has prepared an environment impact statement (EIS) for the project (CP07-208-000). The EIS references these Guidelines as a means to avoid and minimize impacts to migratory birds and to minimize and mitigate habitat impacts from forest loss and fragmentation (Sections 4.4 and 4.5). The EIS recommends (Section 4.5.3) that Rockies Express and FWS follow these Guidelines as described below.

Habitat assessments were conducted by Natural Resource Group, LLC (NRG), consultant for Rockies Express, to identify the major types of vegetation communities that will be disturbed by construction of the REX-East Project. Rockies Express will typically use a 125-foot-wide construction right-of-way in upland areas to allow for the safe and efficient construction of its pipeline. Rockies Express will acquire a permanent right-of-way width of 30 to 50 feet depending on existing land use type, which is explained in more detail in this document. The REX-East Project will disturb approximately 14,349 acres. Nearly 74.4 percent of the acreage that will be disturbed consists of agricultural lands. Of the remainder, approximately 2,307 acres is made up of forested land. This vegetation community provides foraging, cover, and breeding habitat for a diversity of wildlife species, including migratory birds. The project will result in permanent alteration (i.e., 30 to 50 feet ROW width maintained in an herbaceous or shrub condition) of 433 acres of forested land with the remaining 1,874 acres of forested land being allowed to return to forested condition over time.

The primary impact on the forested vegetation community will be the cutting, clearing, and/or removal of existing vegetation within the construction work area. Impacts on woody vegetation communities will be long-term given the length of time needed for the communities to mature to pre-construction conditions (approximately 50 years). Some of these impacts, particularly on woody vegetation, will be permanent due to normal maintenance activities conducted in accordance with Rockies Express' Upland Erosion Control, Revegetation and Maintenance Plan (Plan) and Wetland and Waterbody Construction and Mitigation Procedures (Procedures). These maintenance activities include annual vegetation clearing over a 10-foot-wide corridor centered over the pipeline and clearing of trees greater than 15 feet tall every 3 years within the 50-foot-wide permanent right-of-way in non-riparian areas, and a 30-foot-wide permanent right-of-way in forested wetlands and upland forests noted as FWS areas of concern.

There is also the impact of forest fragmentation, which is often greater than the actual acreage cleared. Many species of migratory birds, and often those of greatest conservation concern, require large blocks of contiguous forest to successfully reproduce and survive. Construction and maintenance of pipeline rights-of-way through forests fragments the forest, with the resulting fragments sometimes losing or having reduced capacity to successfully sustain interior forest species. Much of the REX-East Project corridor is collocated with existing rights-of-way or in areas fragmented by agricultural or other development and, as such, will not fragment areas of contiguous forest.

Rockies Express anticipates beginning construction of the REX-East Project in the summer 2008 and completing construction in fall 2008. This construction schedule means that at least the months of June and July of the proposed schedule may coincide with the recognized nesting season of migratory birds protected under the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712: Ch. 128 as amended).

The typical nesting season for migratory songbirds, game birds, and shorebirds in the four-state area where the REX-East Project is proposed ranges from April 1 through July 15. Some species and individuals within a particular species may begin nesting prior to April 1 or complete their nesting cycle shortly after July 15, but the vast majority will complete their initial nesting during this period. Depending upon the year and species, some bird pairs will typically undertake a second nesting effort, which could be impacted by forest clearing.

The Migratory Bird Treaty Act prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the MBTA has no provision for allowing unauthorized take, the FWS recognizes that some birds may be taken during activities such as pipeline construction even if all reasonable measures to avoid take are implemented. The FWS's Office of Law Enforcement carries out its mission to protect migratory birds not only through investigation and enforcement, but also through fostering relationships with individuals and industries that proactively seek to eliminate their impacts on migratory birds. Although it is not possible under the MBTA to absolve individuals, companies, or agencies from liability (even if they implement avian mortality avoidance or similar conservation measures), the Office of Law Enforcement focuses on those individuals, companies, or agencies that take migratory birds with disregard for their actions and the law, especially when conservation measures have been developed but are not properly implemented.

Rockies Express recognizes that construction of the project and maintenance of the permanent right-of-way for the pipeline will result in temporary and/or permanent impacts to migratory birds and the habitats upon which they depend for various life requisites. Rockies Express also recognizes that due to the size of the project and the fact that some construction and operation will occur during the nesting season for a majority of migratory bird species found in the project area, take of active nests, (i.e., eggs and young) may occur in spite of all reasonable efforts to avoid such take.

Rockies Express desires to take all reasonable measures to comply with MBTA and also desires to provide for the restoration and preservation of habitats for migratory birds in the four states where the pipeline will be constructed, operated, and maintained. Accordingly, Rockies Express and the FWS have prepared, and will follow, these Guidelines for Achieving Compliance With the Migratory Bird Treaty Act and Executive Order No. 13186 Through Voluntary Conservation Measures (Guidelines):

3

GUIDELINES

I. PURPOSE

The purpose of these Guidelines is to set forth all reasonable measures that Rockies Express may take to comply with MBTA. Rockies Express and the FWS (the Parties) will work cooperatively to implement conservation measures that will provide benefits to bird species protected under MBTA within the states where the REX-East Project will be constructed, operated, and maintained. This document will remain in effect for the life of the Rockies Express Pipeline - East Project (FERC Docket #CP07-208-000). If these Guidelines are followed, the FWS does not anticipate the need for any additional mitigation for forest loss or forest fragmentation, not already described herein, for any future disturbance associated with this pipeline for the area in the existing construction route.

These Guidelines do not address issues related to the Section 7 review by the FWS for Federally listed species. That review and associated issues will be addressed in a separate Biological Assessment and appropriate response from the FWS. These Guidelines also do not address issues related to crossing of Wild and Scenic Rivers and their tributaries. Those issues are being addressed by the National Park Service under separate review.

II. ROLES OF THE PARTIES

Rockies Express Pipeline, LLC

Rockies Express recognizes that construction, operation, and maintenance of the project will result in temporary and/or permanent impacts on migratory bird habitats. Accordingly, Rockies Express has taken, or will take, the following actions to minimize and/or offset these impacts:

The pipeline route proposed by Rockies Express utilizes, to the degree possible, areas that have limited or no habitat suitable for migratory birds to nest. More than 59 percent of the REX-East Project facilities will be collocated with existing rights-of-way and approximately 74.4 percent of the proposed pipeline route occurs in areas that are utilized for agricultural production. By routing the proposed pipeline to areas that are predominantly agricultural and collocating it with existing rights-of-way, Rockies Express has substantially reduced the project's impacts on habitats of value to migratory birds.

To avoid impacts on riparian forests, Rockies Express will avoid those forested communities, as feasible, by staging horizontal directional drill (HDD) equipment outside of those areas where they occur adjacent to waterbodies crossed via HDD. Those areas avoided by HDD are summarized in Attachment 1.

To reduce impacts on vegetation within the project footprint and to improve the probability of successful revegetation of disturbed areas, Rockies Express will implement the restoration measures included in the Rockies Express' Plan and Procedures.

Rockies Express recognizes that it must take all reasonable measures to comply with MBTA by avoiding the take of active nests (e.g., eggs and young) of migratory birds during the construction, operation, and maintenance of the REX-East Project. In a letter dated September 12, 2007, to Rockies Express, the FWS recognized specific migratory birds of conservation concern and specific habitat areas of concern for migratory birds. Subsequent correspondence with the Columbia, Missouri, Field Office and the Bloomington, Indiana, Field Office of the FWS identified additional areas of concern. Attachment 2 and its corresponding maps (Attachment 3) summarize the FWS's primary areas of concern for forest fragmentation and migratory birds along the proposed route. Additionally, Rockies Express analyzed its proposed route and isolated forest crossings greater than 0.25 mile in length that were not cited by the FWS. These areas are also included in Attachments 2 and 3. All other forest impacts not accounted for by these two analyses were totaled and also taken into account.

Rockies Express created a decision tree (Attachment 4) to assign mitigation ratios for forest impacts according to the quality of forest affected. Areas cited by the FWS as being of concern for migratory birds, forest fragmentation, and riparian corridors have been assigned to Categories A, B, and C, with A and B being the highest quality (unfragmented, with Category A longer than 0.5 mile and Category B shorter than 0.5 mile) and C being the lowest quality (collocated or previously fragmented). For the remaining areas not indicated by the FWS but of possible fragmentation concern, Rockies Express assigned the areas to Categories D, E, and F, with D and E being the highest quality (unfragmented, with Category D longer than 0.5 mile and Category E shorter than 0.5 mile) and F being the lowest quality (previously fragmented). All other forest impacts not accounted for by the flow chart were assigned to Category G, being of the lowest quality, so that all forest impacts incurred by the project would be taken into account.

To summarize:

Category A = Large intact block of forest in area of concern

Category B = Small intact block of forest in area of concern

Category C = Fragmented or collocated forest in area of concern

Category D = Large intact block of forest not in area of concern

Category E = Small intact block of forest not in area of concern

Category F = Fragmented forest not in area of concern

Category G = All other low-quality forest impacts, based on Land Use Land

Classification data

Accordingly, Rockies Express has taken, or will take, the following actions in forested areas specified in the attached forest fragmentation table (Attachment 2):

In non-collocated forested areas identified by the FWS as sensitive in the September 12 letter and whose combined length totals approximately 20 miles (Attachment 5 and footnoted in Attachment 2), Rockies Express will avoid construction prior to July 15, unless the FWS determines in writing, based upon current surveys, that it would be safe to do so.

Restoration in forested stands of concern will include a 30-foot-wide maintenance area within a 50-foot-wide right-of-way for Categories A, B, D and E (Attachment 2). Ten (10) feet centered over the pipeline will be kept in an herbaceous state with the remaining 20 feet of the corridor to return to a scrub/shrub community.

Trees larger than 15 feet tall will be removed from the 30-foot right-of-way every three years.

In forested areas categorized as A, B, and D (Attachment 2), Rockies Express will plant bare root seedlings (both hard- and soft-mast species, as identified through discussions with the FWS) within the temporary construction right-of-way to expedite the return of forest community, unless otherwise restricted by landowner easement conditions. Tree species will be primarily deciduous as identified for the various areas by the FWS.

Despite these efforts, Rockies Express recognizes that construction, operation, and maintenance of the project may still result in temporary and/or permanent impacts on migratory birds, namely as a result of habitat loss. Accordingly, Rockies Express has taken, or will take the following actions to offset these impacts:

Rockies Express will install 24 bird houses on Blackburn Island in the Mississippi River during restoration in order to mitigate for potential prothonotary warbler nesting cavities that may be removed during tree clearing of the HDD staging area on the island (see site number 11 in Attachments 2 and 3). In accordance with established recommendations, the wooden bird houses will be 4x4x6-inches with a 1.5-inch-diameter entrance hole 4 inches from the bottom, and installed between 4 and 12 feet high on trees adjacent to open water. These bird houses will be installed prior to completing construction and hung at least 5 feet above the highest floodwater levels.

To offset for impacts on forested and scrub-shrub wetlands, Rockies Express will provide on-site and off-site mitigation, including restoration and preservation of approximately 66.2 acres of forested communities in accordance with permit requirements from the U.S. Army Corps of Engineers (COE) (Summarized in Attachment 6) for construction in Missouri, Illinois, Indiana, and Ohio, and permit requirements for the Indiana Department of Natural Resources (IDNR) (Summarized in Attachments 7a and 7b). This number is subject to change as surveys and consultations continue.

Rockies Express will cooperate with the FWS to mitigate for habitat impacts on migratory birds, forest loss, and for forest fragmentation by contributing funds to the FWS for impacts on approximately 2,307.4 acres of forestland that will be cleared in the four states where the REX-East Project will be constructed. This number is based on impacts as identified in Attachment 2. Construction and permanent forest impacts will be mitigated on a category basis using the following ratios:¹

- Category A: Construction: 2.2:1, Permanent: 6:1
- Category B: Construction: 1.2:1, Permanent: 3:1
- Category C: Construction: 1.2:1, Permanent: 2.2:1
- Category D: Construction: 1.2:1, Permanent: 2.2:1
- Category E: Construction: 1.2:1, Permanent: 2.2:1
- Category F: Construction: 1.2:1, Permanent: 2.2:1
- Category G: Construction: 1.2:1, Permanent: 2.2:1

¹ Minimum ratios for construction and permanent impacts were determined using Habitat Equivalency Analysis

These mitigation ratios and the calculations used to reach the total number of forested acres that will be mitigated are summarized in Attachment 8. From that total, Rockies Express subtracted 66.2 acres because an additional 18.9 acres of permanent impacts on wetland communities will be mitigated through permit stipulations required by the COE (Attachment 6), and an additional 47.3 acres of permanent impacts on forests in floodways will be mitigated in Indiana through permit stipulations required by the IDNR (Attachments 7a and 7b). This total is subject to change as surveys and consultation continue, but the finalized total will be subtracted from Rockies Express' forest impacts mitigation total.

To accomplish this mitigation objective, Rockies Express will contribute funds to an account for the purpose of cooperating with the FWS to protect migratory bird habitat through the acquisition of lands (through fee title or perpetual conservation easements), implementation of habitat restoration, and management the lands for the benefit of migratory birds. The amount of the funds contributed by Rockies Express to ensure that the objectives of the habitat mitigation are met is based on land values, fee title costs, easement costs, habitat restoration costs, costs for administration of the fund, and other anticipated costs as necessary to meet the agreed upon mitigation acreage. Total acres for mitigation equal 3,785 (see Attachment 8). As explained above, Rockies Express is mitigating for 66.2 acres of forested impacts through other regulatory mechanisms. Subtracting these mitigated acres from the total number of acres results in the mitigation of 3,718 acres. Rockies Express will contribute \$4,150,000 in an effort to mitigate for the loss of forest habitat and to conduct appropriate studies. Accordingly, Rockies Express will contribute funds in this amount prior to the commencement of construction to be placed in an interest-bearing escrow account to be drawn upon by 1) qualified personnel, as described below, for pre-construction survey purposes at the successful completion of those surveys and, by 2) an appropriate conservation organization, as described below, for mitigation purposes and post-construction surveys at the successful completion and placement in-service of the project.

Rockies Express will identify, with FWS concurrence, qualified personnel to conduct pre-clearing surveys to determine the number and species of nesting migratory birds along sensitive portions of the proposed right-of-way. Rockies will also assist the bird survey personnel in locating and identifying the routes. Based on the results of these surveys, the FWS may determine, in writing, that it would be safe to clear some areas prior to July 15. An appropriate conservation organization, as discussed above, will conduct post-construction surveys during subsequent years (years 2, 5, and 10 following construction) to determine if there is a reduction in utilization by nesting birds along non-located rights-of-way.

U.S. Fish and Wildlife Service

The FWS will continue to cooperate with Rockies Express in an effort to provide for the conservation of migratory birds while the company proceeds with the construction of the REX-East Project. The FWS will do the following:

The FWS will continue to cooperate with Rockies Express through technical assistance and guidance concerning reasonable measures to be taken by Rockies Express to comply with MBTA and avoid or minimize the impacts to

migratory birds during construction, operation, and maintenance of the REX-East Project.

- Rockies Express will identify, with FWS concurrence, an appropriate conservation organization to establish an account(s) into which Rockies Express will contribute funds for the conservation of migratory bird habitat.

Rockies Express will identify, with FWS concurrence, qualified personnel to conduct pre-clearing surveys to determine the number and species of nesting migratory birds along sensitive portions of the proposed right-of-way. Rockies will assist the bird survey personnel in locating and identifying the routes. Based on the results of these surveys, the FWS may determine, in writing, that it would be safe to clear some areas prior to July 15. An appropriate conservation organization, as discussed above, will conduct post-construction surveys during subsequent years (years 2, 5, and 10 following construction) to determine if there is a reduction in utilization by nesting birds along non-collocated rights-of-way. Costs for these latter surveys will also be paid from the mitigation fund described above as they are incurred.

ACKNOWLEDGEMENT

All promotional materials (i.e., signage, brochure, articles, etc.) for the Rockies Express Pipeline-East Project regarding migratory bird habitats preserved through acquisition of fee title or conservation easements and/or restored with contributed funds shall contain the following statement acknowledging the source of the contributed funds and technical assistance: "These lands are being conserved, in part, by funding and technical assistance made available as mitigation for impacts caused by construction and maintenance of Rockies Express Pipeline, LLC in partnership with the U.S. Fish and Wildlife Service."

GENERAL PROVISIONS

Limitations on Authorities:

Nothing in these Guidelines shall be construed as affecting the authorities of any party or as binding them beyond their respective authorities or responsibilities. Nothing in these Guidelines shall be construed as obligating the United States, their officers, agents or employees, to expend any funds in excess of appropriations authorized by law.

Third Party Challenges or Appeals

These Guidelines may not be the basis of any third party challenges or appeals.

No Restriction of Similar Agreement:

These Guidelines in no way restricts the Parties from participating in similar activities with other public or private agencies, organizations, or individuals. It is the express intent of the Parties that the contributed funds be leveraged to the maximum extent practicable by supplemental funding from any legally available source.

CONTACTS

Notifications required hereunder may be sent by first class mail, postage pre-paid, or by properly addressed electronic mail to the following principal contacts:

Rockies Express Pipeline, LLC U.S. Fish and Wildlife Service
Alice Weekley Robyn Thorson
Project Manager Regional Director, Region 3
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Houston, TX 77002 Fort Snelling, MN 55111
alice_weekley@kindermorgan.com robyn_thorson@fws.gov

ATTACHMENTS

ATTACHMENT 1 Rockies Express Pipeline - East Project Summary of Riparian Impacts Avoided through use of Horizontal Directional Drill Crossing Method

ATTACHMENT 2 Rockies Express Pipeline - East Project Construction and Permanent Acreage Impacts to Forested Areas by Category

ATTACHMENT 3 Rockies Express Pipeline - East Project Maps of Impacted Forest Areas Summarized in Attachment 2

ATTACHMENT 4 Rockies Express Pipeline - East Project MBTA Mitigation Decision Tree

ATTACHMENT 5 Rockies Express Pipeline - East Project Areas of Fragmentation Concern and Pipeline Collocation for Migratory Birds as Outlined by the U.S. Fish and Wildlife Service on September 12, 2007

ATTACHMENT 6 Rockies Express Pipeline - East Project U.S. Army Corps of Engineers Preliminary Compensatory Mitigation Requirements for Permanent Impacts to Wetlands

ATTACHMENT 7 Rockies Express Pipeline - East Project Indiana Department of Natural Resources Preliminary Compensatory Mitigation Requirements for Permanent Impacts to Forested Wetlands and to Forested Land within Floodways

ATTACHMENT 8 Rockies Express Pipeline - East Project MBTA Mitigation Requirements Summary

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SIGNATORY PAGE

IN WITNESS WHEREOF, the Parties have caused these Guidelines to be executed by their respective authorized representatives.

Date: _____

By: _____

Alice Weekley, Project Manager

Rockies Express Pipeline, LLC

Date: _____

By: _____

Robyn Thorson, Regional Director, Region 3

U.S. Fish and Wildlife Service