**DEPARTMENT OF STATE**
**RECORD OF DECISION AND NATIONAL INTEREST DETERMINATION**

**Vantage Pipeline US LP – Vantage Pipeline Application for Presidential Permit**

**Contents:**

**1.0 Summary**

**2.0 Introduction**

**3.0 Statutory Authority and Requirements**

**4.0 Purpose and Need for the Vantage Pipeline Project**

**5.0 Description of Environmental Impacts, Alternatives Considered and Finding of No Significant Impact**

**6.0 Public Review and Comment**

**7.0 Decision and Basis for Decision**

**8.0 National Interest Determination**

## 1.0 Summary

On November 15, 2010, Vantage Pipeline US LP ("Vantage") submitted a Presidential Permit application to the U.S. Department of State (DOS) for construction, connection, operation, and maintenance of pipeline facilities at the U.S.-Canada border to enable Vantage to export ethane destined for Alberta, Canada across the U.S.-Canada border between North Dakota and Saskatchewan.

Executive Order 13337, as amended, delegates to the Secretary of State the President's authority to receive applications for permits for the construction, connection, operation, or maintenance of facilities for the exportation or importation of petroleum, petroleum products, coal, or other fuels at the border of the United States and to issue or deny such Presidential permits upon a national interest determination. Those functions and authorities assigned to the Secretary have been further delegated within DOS to the Under Secretary of State for Economic Growth, Energy and the Environment (Department of State Delegations of Authority No. 118-2).

The proposed project would be a high vapor pressure ("HVP") pipeline of 10 inches, designed to transport liquefied ethane from Hess Corporation's natural gas processing plant in Tioga, North Dakota, crossing the border into Saskatchewan, Canada and onward to the Alberta Ethane Gathering System (AEGS) in Alberta, Canada, a distance of approximately 430 miles. Approximately 80 of the 430 miles of pipeline are in the United States. The pipeline is expected to initially transport up to 40,000 barrels per day (bpd) of liquid ethane, a natural gas liquid ("NGL") from the Hess facility, but will have the capacity to handle 60,000 bpd.

The pipeline path does not traverse any population centers in the United States. The pipeline pump stations would be located in Canada. The pipeline's mainline valves would be installed in both Canada and the United States.

The liquid ethane to be transported in the pipeline is a natural gas liquid ("NGL"); it is non-corrosive, flammable, odorless, and colorless, with similar characteristics to natural gas. Ethane is currently used as a chemical feedstock for other chemicals by Alberta-based petrochemical industry companies and it is ultimately converted to plastics, anti-freeze, rubber, detergents, solvents and like products.

The Vantage pipeline would serve the national interest. It would provide the natural gas, oil, and NGL-producing Bakken Formation region of North Dakota with access to the existing AEGS infrastructure and market in Alberta. Currently no market exists for petrochemical grade (also known as "specification or pure grade") ethane in North Dakota; however, the Vantage pipeline will make it feasible to extract the ethane by-product from the Bakken Formation and export it for use in the Canadian petrochemical industry. According to Vantage, NOVA Chemicals, a Canadian petrochemical company, has already agreed to purchase ethane produced at Hess' Tioga Plant under a long-term arrangement.

North Dakota producers of ethane have the opportunity to develop a revenue stream from selling ethane to the Canadian petrochemical industry as opposed to the current market situation of not extracting ethane from natural gas and therefore not generating revenue or additional value from the gas. Furthermore, the $300 million anticipated project investment in the construction of the pipeline will provide some additional economic benefit to communities where Vantage will construct and operate the pipeline and to the U.S. economy more generally.

The Vantage Pipeline would advance the goals of the President's National Export Initiative ("NEI") through increasing exports of ethane to Canada and opening a new ethane market for North Dakota NGL producers. These exports will contribute to an existing relationship with the United States' closest energy trading partner. The United States and Canada have the largest and most integrated bilateral trading partnership in the world, totaling over $715 billion in two-way goods and services trade in 2012. Approval of this Presidential Permit application will strengthen the bilateral relationship and advance the foreign policy interests of the United States. North Dakota natural gas production from the Bakken shale, which is situated in the northwest portion of the State, has increased rapidly in recent years with the dramatic rise in oil production from the region. However, due to insufficient natural gas pipeline capacity and processing facilities in the Bakken shale region, flaring of natural gas has also increased. For example, 29% of North Dakota's natural gas production in December 2012 was flared due to a lack of available pipeline facilities. Hess Corporation's natural gas gathering and processing plant in Tioga, North Dakota, along with the proposed Vantage project contribute to reducing gas flaring and bring value to otherwise unused or discarded natural gas and natural gas liquids by transporting it to the Canadian Alberta Ethane Gathering System.

DOS conducted an Environmental Assessment ("EA") of the project consistent with the National Environmental Policy Act of 1969 (NEPA) and released a final EA on May 10, 2013. The EA is specific to the U.S. portion of the project and provides an assessment of the existing environment along the proposed pipeline route, an analysis of the potential impacts that could result from the preparation, construction, operation and maintenance of the proposed facilities and a summary on the protection and restoration measures to be implemented to avoid and/or minimize potential impacts. The Department issued a Finding of No Significant Impact (FONSI) with regard to the proposed Project on May 13, 2013.

Consistent with Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, DOS, conducted assessments and inter-governmental consultations at various levels, including with Indian tribes, to consider potential impacts to historic properties that would result from construction of the Vantage pipeline project. DOS reviewed the information provided by Vantage and the consulted parties and executed a Programmatic Agreement (PA) which addresses the continuing roles and obligations of the consulting parties during the construction of the Vantage pipeline. As a result, DOS has determined that the requirements of Section 106 are satisfied.

Consistent with Section 7 of the Endangered Species Act (ESA), DOS consulted with and obtained the concurrence of the U.S. Fish and Wildlife Service (FWS) regarding potential impacts to federally listed species and designated critical habitat presented in the Biological Assessment (BA) for the Project. In the BA, DOS determined that the Project may affect, but is not likely to adversely affect five federally listed species, one candidate species, and designated critical habitat for one species. Section 7 informal consultation with FWS has been completed for the Project. In light of these findings, the Vantage Pipeline serves the national interest and a Presidential Permit should be issued to Vantage Pipeline US LP, to construct, connect, operate, and maintain at the border of the United States pipeline facilities for the transport of ethane between the United States and Canada as described in the Presidential Permit application received from Vantage by DOS on November 15, 2010 and the Environmental Assessment.

## 2.0 Applicant Information and Scope of Project

### *2.1 Applicant*

Vantage is a limited partnership organized under the laws of the State of Delaware. Its general partner is Vantage Pipeline US GP LLC, a Delaware limited liability company. Vantage's limited partner is Mistral Energy U.S. Inc., a subsidiary of Mistral Energy Inc. Mistral Energy Inc. is a private company based in Calgary, Alberta. Mistral Energy Inc. intends to transfer its ownership position in Vantage to Riverstone-Mistral U.S. Partnership prior to construction of the Vantage Pipeline. The limited partners of Riverstone-Mistral Partnership are Mistral Energy U.S. Inc., and Riverstone/Carlyle Fund IV, which is managed by Riverstone Holdings, LLC. Riverstone Holdings LLC is an energy and power-focused private equity firm headquartered in New York. Riverstone Holdings, LLC will be providing an estimated $300 million of financing for the project.

### *2.2 Vantage Pipeline*

The proposed Vantage pipeline would be a new high vapor pressure pipeline designed to transport liquid ethane from a Hess Corporation ("Hess") natural gas processing plant in Tioga, North Dakota to the Alberta Ethane Gathering System ("AEGS") in Alberta Canada, a distance of 430 miles. Approximately 80 of the 430 miles are located in the United States. The proposed 10 inch pipeline is expected to initially transport up to 40,000 barrels per day (bpd) of liquid ethane from the Hess facility, but will have the capacity to handle 60,000 bpd.

The primary components of the U.S. portion of the pipeline would be the new pipeline, and new mainline valves. The pipeline will cross the U.S.-Canada border near 151$^{st}$ Ave NW, Divide County, North Dakota. The border crossing is approximately 12.2 miles northwest of Fortuna North Dakota and approximately 9.3 miles south of Beaubier, Saskatchewan. The border crossing is located on pasture land typical of the area and is used by local farmers and ranchers for cattle grazing or hay cropping. At the border, the pipeline would be buried to a minimum depth of four (4) feet. Vantage proposes to use a 70 foot-wide construction right-of-way (ROW),consisting of a 25 foot-wide spoil side

(i.e. the side used to deposit material produced when digging the pipeline's underground trench) and a 45 foot-wide working side (an area in which to operate while conducting the construction). The permanent ROW would typically be 30 feet wide. Access to the crossing point in both Canada and the United States is available via non-maintained country roads.

The proposed pipeline would not traverse any population centers in the United States. Only two (2) uninhabited residential houses are currently located within a 500 foot radius of the proposed route. The largest population center near the pipeline is the town of Tioga, North Dakota with a population of 1,278 located approximately 4,500 feet from the pipeline. Approximately 20 % of the U.S. portion of the pipeline would follow existing land disturbances, such as roads and other pipelines. The remaining 80% would be constructed on agricultural and ranching land. No wetlands or major rivers would be traversed.

In Canada, the proposed system would include the construction of approximately 350 miles of pipeline in Saskatchewan, Canada and approximately 2 miles of pipeline in Alberta, Canada; one pump station located at the midpoint of the pipeline between Lafleche and Assiniboia, Saskatchewan; one pump station located at the terminus near Empress, Alberta; and other associated facilities. The Canadian National Energy Board approved the Canadian portion of the pipeline project on January 19, 2012.

**3.0 Statutory Authority and Requirements**

The Secretary of State has the authority under Executive Order 13337, as amended, to approve or deny applications for Presidential Permits and to issue such permits on such terms and conditions that the Secretary determines are appropriate, if the Secretary finds that issuance of the permit would serve the national interest. The President has delegated this authority to the Secretary based on his authority under the Constitution and laws of the United States, including Section 301 of Title 3 of the United States Code. The functions assigned to the Secretary have been further delegated within the Department of State to the Deputy Secretary of State, the Deputy Secretary of State for Management and Resources, the Under Secretary of State for Political Affairs and the Under Secretary of State for Economic Growth, Energy and Environment. (Department of State Delegations of Authority No. 245-1, 118-2).

Executive Order 13337 specifically authorizes the issuance of Presidential Permits for the "construction, connection, operation, or maintenance at the borders of the United States of facilities for the exportation or importation of petroleum, petroleum products, coal or other fuels to or from a foreign country." Because the proposed Project seeks to transport liquid ethane from the United States to Canada across the international border, the Project is within the scope of Executive Order 13337 and within the authority of the Secretary of State (or his delegate) under that Executive Order. Once the Secretary's proposed decision has been made, selected agency officials may indicate their disagreement with the decision and request that the Secretary refer the application to the President under Executive Order 13337. In the event no such request is made within 15 days of

notification of the Secretary's decision, the Secretary's decision is final and the Presidential Permit is issued or denied consistent with that decision.

As noted above, when reviewing an application for a Presidential Permit, the Secretary is required to determine if issuance of the permit would serve the national interest. The Secretary considers the environmental impacts of the proposed action consistent with NEPA and considers any other relevant statutory provisions. These have been determined to include:

- Section 7 of the Endangered Species Act - The Vantage pipeline will be constructed and operated in areas where federally listed species or designated critical habitats are known to occur. DOS has prepared a Biological Assessment (BA), in consultation with the U.S. Fish and Wildlife Service (USFWS) concerning effects of the Vantage pipeline on federally protected and candidate species and designated critical habitat consistent with the ESA.

- Section 106 of the National Historic Preservation Act of 1966 , as amended - DOS, as the lead federal agency on a federal undertaking (issuance of a Presidential Permit), considers the impacts to historic and cultural properties before that undertaking occurs and take appropriate actions.

The purpose of preparing a project-specific EA consistent with NEPA is to provide a public document that informs decision makers about the potential environmental impacts of a project if it is undertaken in accordance with existing laws and regulations.

The scope of the permits issued for pipeline facilities extends only from the international border to the first mainline shut-off valve in the United States. Executive Order 11423, specifically notes that "the proper conduct of the foreign relations of the United States requires that Executive permission be obtained for the construction and maintenance at the borders of the United States of facilities connecting the United States with a foreign country." Similarly, Section 1 of Executive Order 13337, states that DOS has authority for issuance of Presidential permits for the "construction, connection, operation, and maintenance at the borders of the United States of facilities... to or from a foreign country." Hence, in reviewing an application for a Presidential permit, DOS takes into account, among other matters, the impact the proposed cross-border facility (i.e., pipeline, bridge, road, etc.) will have upon U.S. relations with the foreign country most directly affected by the proposed project as well as its impact on U.S. foreign relations generally.

The permits DOS issues under Executive Orders 11423 and 13337 routinely include provisions permitting DOS to take possession of the facilities at the border for national security reasons or to direct the applicant to remove the facilities in the immediate vicinity of the international border if so directed by DOS. DOS has concluded that a limitation of the scope of the permit in this case to those pipeline facilities within the United States up to and including the first mainline shut-off valve or pumping station

would adequately protect DOS' foreign relations interest in implementing Executive Orders 11423 and 13337.

## 4.0 Purpose and Need for the Vantage Pipeline Project

The stated purpose of the proposed project is to transport liquefied ethane from the existing Hess Corporation Tioga Gas Plant in North Dakota to Alberta, Canada, to meet market demand for ethane created by the Canadian petrochemical industry. Vantage believes as a business proposition, that developing and delivering ethane supplies from North Dakota along with the demonstrated interest by the Canadian petrochemical industry in Alberta to purchase these increased supplies, would make the project economically viable.

Liquefied ethane is an NGL. Nearly all NGLs are derived from rich natural gas and include ethane, propane, isobutene, and butane among others. Natural gas is often discovered in the drilling for crude oil. In the Williston Basin, oil and gas condensate production is a direct consequence of new multi-directional fracturing and conventional drilling technologies that extract oils and gas from highly compressed rock formations such as the Bakken Formation (Bakken) where Hess has operations. The Vantage pipeline would provide the oil and natural gas producing Bakken Formation region of North Dakota with access to an existing ethane infrastructure and market associated with the AEGS in Alberta.

The proposed pipeline would facilitate the export of ethane from the United States. An increase in ethane exportation is consistent with the Executive Order for National Export Initiative (March 11, 2010). The project would allow natural gas producers to obtain additional revenue from an existing and currently underutilized NGL resource that would contribute to the national economy in general and the economy of North Dakota in particular. An economic benefit would occur as a result of the estimated $300 million project investment and additional earnings, employment, and tax revenue impacts through operation and maintenance of the pipeline. During the operation of the proposed project, Divide and Williams Counties, local school districts, townships, and other local taxing jurisdictions are anticipated to realize a rise in ad valorem property tax revenues assessed on the pipeline.

While no market for the sale of Bakken ethane exists in North Dakota, there is a robust market demand for it in Alberta consistent with established historical consumption of ethane in Canadian industrial facilities. The petrochemical industry in Alberta currently uses ethane as a chemical feedstock. Canadian facilities convert ethane to ethylene, which is a building block for a wide range of consumer and industrial products such as plastics, antifreeze, synthetic rubber, detergents and solvents.

The construction of the Vantage Pipeline is particularity timely in light of the rising demand in Canada's petrochemical industry for ethane supplies. The development of the rich oil and gas resources in North Dakota since 2008 has been a dynamic economic boost to the region and revived U.S. production of its own oil and gas resources that was

previously in steady decline. However, Vantage notes that due to current high demand for the oil coming from Bakken shale formations, much of the natural gas by-products that result from the drilling are flared into the atmosphere because there is insufficient infrastructure to accommodate natural gas gathering, compression, and processing on a large scale, combined with a market for the product that is currently inaccessible at an economically viable delivery cost. The gathering, processing and transportation of natural gas liquids such as ethane would reduce the amount of gas flaring, bring added value to natural gas production through the sale of its ethane derivative in Canada and contribute to the local and national economy in terms of jobs and tax payments.

## 5.0 Description of Potential Environmental Impacts, Alternatives Considered, and Finding of No Significant Impact

Consistent with NEPA, an EA was prepared to analyze the potential environmental, social, and economic impacts of the U.S. portion of Vantage's proposed pipeline when making the decision to approve or deny Vantage's Application for a Presidential Permit. The EA was prepared consistent with the CEQ implementing regulations on NEPA's Procedural requirements (40 CFR Parts 1500-1508), EO 11514 on Protection and Enhancement of Environmental Quality (35 FR 4247, March 5, 1970), and DOS's own regulations, 22 CFR Part 161. The EA examined the impacts of the U.S. portion of the Project, including connected actions. The scope of the EA was determined after consideration of input from the public, federal, state, and local agencies, and Indian tribes. Short-term and long-term construction and operations impacts were analyzed as were the cumulative impacts of construction and operation of the U.S. portion of the Project as well as other past, present, and reasonably foreseeable future projects.

Connected actions evaluated in the EA included modifications to the Hess Tioga Gas Plant. The Hess Tioga Gas Plant obtained a Certificate of Site Compatibility from the North Dakota Public Service Commission on September 8. 2010 to expand the operations of the plant to include four pipelines and a new rail terminal. DOS has determined that the Tioga Gas Plant modifications would be an independent action and the only component of the Hess facility modification that is specifically related to allowing for ethane recovery required for Vantage's Project is the operation of a heater. Therefore, the impacts resulting from operation of the heater are a connected action for the purposes of this review consistent with NEPA and 40 CFR 1508.25(a)1. Section 2.12 of the EA describes the connected action (i.e., heater) and the associated additional air and carbon dioxide ($CO_2$) emissions.

The EA included an analysis of reasonable Project alternatives to determine whether any would be preferable to Vantage's proposed action. Alternatives considered included: system alternatives (use of other existing or proposed pipelines), major route alternatives, route variations, and alternative sites for aboveground facilities. The No Action alternative was also evaluated. The EA analysis found that none of the system alternatives could reasonably meet the Project objectives presented by Vantage. Vantage's proposed pipeline route was found to be preferred to the other route alternatives considered because the other route alternatives did not reasonably meet

Project objectives or had greater potential environmental impacts as a result of greater length or increased effects on sensitive resources. The minor route variations were rejected as they also either had greater potential environmental impacts or did not demonstrate a comparative environmental advantage over the proposed pipeline route. The proposed route was approved by the NDPSC in June 2012.

Based upon a review of the EA and the supporting analyses and environmental planning documents (see, e.g., Sections ES.4, 1.11, 2.7.2.2, and 2.8.1), the proposed project would not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance consistent with 40 CFR 1508.27 and, therefore, an Environmental Impact Statement is not needed. This finding is based on the context and low intensity of the Project, as well as the mitigation measures to be adopted by Vantage, as summarized below and in the EA.

### *5.1 Geology*

The proposed Project would not involve substantial topographical alteration and would not disturb any geological features protected by federal or state laws. The potential for geologic hazards to significantly affect construction or operation of the proposed Project is anticipated to be low. To reduce potential Project impacts on the geologic environment and resulting from geologic hazards, Vantage would use construction techniques and the measures identified in its Environmental Protection Plan (EPP) and associated plans. The Draft EPP can be found in Appendix G of the EA. A Final EPP will be submitted to DOS for review and approval prior to beginning construction on the project.

Paleontological resources may be encountered during construction and fossil resources in the underlying glacial deposits may be exposed. Vantage would instruct construction personnel about the types of fossils that might be encountered and the steps to take (e.g., agency notification) if fossils are uncovered and to determine if additional mitigation is required.

Overall, geologic impacts associated with routine operations and maintenance of the proposed project are anticipated to be minimal. Routine pipeline operation and maintenance are not expected to affect physiography or bedrock geology, paleontological resources, mineral resources, or flooding.

### *5.2 Soils*

Construction of the proposed project would disturb soils, resulting in increased potential for erosion, compaction, and mixing of topsoil, and the introduction of rock to the surface soil. Vantage has proposed to construct the Project after the main agricultural growing and production season. Vantage has proposed construction procedures as outlined in its EPP and associated plans (e.g., Soil Conditions Contingency Plan, Soil Erosion Contingency Plan), which are designed to minimize the likelihood and severity of Project impacts, and to mitigate where impacts are unavoidable. Vantage has committed to

having two environmental inspectors (EIs) that would monitor construction. One EI would address environmental issues between right-of-way clearing and reclamation activities to ensure the construction contractor(s) comply with conditions of all permits. A second EI would monitor for cultural resources during the initial right-of-way stripping and trenching activities. Following construction, Vantage would conduct post construction monitoring of erosion and sediment controls and re-vegetation of the right-of-way.

Should a spill or equipment leak occur, Vantage would implement the Spill Prevention, Control and Countermeasure (SPCC) Plan, which provides best management practices (BMPs) for handling spills, and require that equipment refueling and servicing is conducted appropriately and in locations so as to avoid potential contamination of sensitive resources such as wetlands and waterbodies; and a Fuels and Hazardous Materials Spill Contingency Plan, which prescribes procedures to handle the initial spill response and reporting, spill clean-up procedures, and special situations such as spills next to waterbodies. In the event of a spill of liquid product from the pipeline, the ethane no longer under pressure would revert to gaseous phase.

Overall, construction and operation of the project are expected to cause minor impacts on soil resources with implementation of Vantage's plans and compliance with applicable regulations and permits.

### *5.3 Waterbodies/Wetlands*

Only short-term fluctuations of groundwater levels are expected during construction, and recharge is expected to occur in a short period after construction. The proposed project would cross 13 intermittent and ephemeral drainages that are more characteristic of wetlands. The proposed pipeline would be located near two FWS-designated critical habitat wetland basins: Radar Waterfowl Production Area and McCone Lake, which are known to provide breeding habitat for the federally threatened piping plover. The project would also cross wetlands within the FWS's Wetland Easement Program.

Construction of the pipeline could result in temporary or short-term impacts on waterbodies/wetlands due to increased storm water runoff and erosion. To minimize potential construction and operation impacts on waterbodies/wetlands where water is flowing, Vantage would use the horizontal bore technique with the entrance and exit points located outside the feature's boundaries. Wetlands would not be filled or permanently lost as a result of operation of the project and they would retain functionality similar to that of the pre-construction state. Other mitigation measures proposed to avoid and minimize potential impacts, including locating additional temporary work space (ATWS) at least 50 feet from the edge of a waterbody/wetland, providing temporary erosion control, and restoring work areas as soon as practical after construction. Vantage would implement the procedures outlined in the EPP for waterbody/wetland crossings and would comply with the authorizations required for construction. Implementation of Vantage's plans and procedures for minimizing the likelihood of a spill and controlling the impacts if a spill were to occur are expected to reduce potential impacts during

construction or operation, as described in the SPCC Plan and Fuels and Hazardous Materials Spill Contingency Plan.

Overall, it is not anticipated that groundwater quality would be significantly affected during pipeline construction or operation. Further, temporary and permanent impacts on waterbodies/wetlands, mitigated according to Vantage's plans and agency requirements, would result in minor impacts on waterbody/wetland resources.

### *5.4 Terrestrial Vegetation*

Vegetation affected by the Project includes agricultural lands (442.9 acres), open lands (290.8 acres), and wetlands (1.0 acre). The primary impacts on vegetation from construction would be cutting, clearing, or removing the existing vegetation within the construction work area, along with the potential introduction of noxious weeds. The same vegetation communities would be affected by the pipeline during operations because the permanent right-of-way would be maintained in an herbaceous condition. The permanent right-of-way would consist of agricultural lands (172.2 acres), open lands (117.9 acres), and wetlands (1.0 acre). Vegetation would be allowed to reestablish following construction, with the exception of relatively small areas (less than 1.0 acre) that would be used for operation of the MLBVs and roads providing access to the MLBV sites. The Project would also cross Conservation Reserve Program (CRP) and Grassland Easement Program lands.

To reduce short-term impacts, Vantage would adhere to the measures outlined in its EPP. Following construction, seed mixes used to re-vegetate the right-of-way would be selected to match the surrounding land use; cultivated crop land would be put back into production by the landowner or lessee. The vegetation on the right-of-way would be visually inspected by Vantage to identify issues such as invasive weed infestations, poor vegetation establishment, or reduced crop growth along the right-of-way. Vantage would monitor the right-of-way for two growing seasons following construction with the goal of reaching 70 percent cover relative to the adjacent areas. If re-vegetation efforts have not met reclamation goals after two growing seasons, Vantage would develop a remediation plan for specific areas. To address impacts on CRP land, Vantage would contact landowners enrolled in CRP and determine the seed mix that must be planted to satisfy the conditions of the agreement and the acceptable seeding window. Vantage would install the pipeline under the FWS Grassland Easement Program land using the horizontal bore method and would coordinate the crossing with the FWS. To mitigate the spread of any noxious weeds, Vantage would implement BMPs and weed control practices discussed in its EPP.

With implementation of Vantage's proposed mitigation measures, including landowner and agency coordination, impacts on terrestrial vegetation for the proposed Project would be minor.

### *5.5 Wildlife*

Construction and operation of the proposed Project would result in both short-term disturbance and long-term modification to wildlife habitats, including habitat fragmentation. Total habitat loss and alteration due to pipeline construction would be small in the context of available habitat because of the linear nature of the pipeline. Operation of the pipeline would be expected to have little, if any, additional effects on wildlife.

To limit potential construction and operation impacts to wildlife, Vantage would implement the measures listed in its EPP. Pipeline construction would also be conducted in accordance with required permits. In addition, Vantage would adopt the FWS's mitigation measures regarding migratory birds and implement the conservation plan prepared in consultation with the FWS- A *Voluntary Conservation Plan in Furtherance of the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act and Executive Order 13186* (see Appendix A), during construction and operation of the pipeline to protect migratory birds and bald and golden eagles.

Implementation of measures in Vantage's plans, along with the mitigation measures recommended by the FWS, would reduce impacts to wildlife. Consequently, overall impacts to wildlife resulting from the Project are expected to be minor.

### *5.6 Fisheries*

The proposed Project would not directly affect waterbodies supporting fisheries. To minimize potential impacts on downstream and aquatic resources, Vantage would cross waterbodies/wetlands using the horizontal bore method. The primary impact that could occur as a result of a horizontal bore is an inadvertent release of drilling mud (frac-out) directly or indirectly into a waterbody or wetland. Although drilling mud is a mix of naturally occurring nontoxic materials, such as bentonite clay and water, in larger quantities the release of drilling mud into a waterbody or wetland could affect aquatic organisms by settling in and temporarily inundating the habitats used by these species. Vantage would implement the measures discussed in its EPP that describe how each horizontal bore would be conducted to minimize the potential for an inadvertent release of drilling mud to occur, and the procedures to follow and the North Dakota Health Department personnel to contact in the event of a drilling fluid release. In general, Vantage's EIs would monitor during construction and after construction was completed. If a leak or "frac-out" is detected, Vantage would cease the boring operation and attempt to bore an alternative path. Potential impacts from sedimentation, turbidity, and potential contaminants encountered during and after construction would be minimized by Vantage's implementation of the measures included in its EPP and Storm water Pollution Prevention Plan.

Implementation of Vantage's plans would result in overall minor, if any, impacts on aquatic habitat and organisms.

### *5.7 Threatened, Endangered, Candidate, and Sensitive Species and Critical Habitat*

Federally listed threatened, endangered, or candidate species, and critical habitat consistent with the ESA identified by the FWS as potentially being affected by the Project include the whooping crane, gray wolf, pallid sturgeon, interior least tern, piping plover and its designated critical habitat, and Sprague's pipit. Of the federally listed species identified, the gray wolf, pallid sturgeon, and interior least tern are not anticipated to be present in the project area. The federally endangered whooping crane and federally designated critical habitat associated with the piping plover are known to exist in the project area. The federal candidate species Sprague's pipit may also occur in the project area. A BA of the potential impacts to these species and critical habitat was prepared for the project. In the BA, DOS determined that the Project may affect, but is not likely to adversely affect the whooping crane, piping plover, and Sprague's pipit and designated critical habitat based on Vantage's commitment to adhere to FWS-identified recommendations and to develop a voluntary Conservation Plan to protect migratory birds and bald and golden eagles in consultation with the FWS prior to construction. The Conservation Plan has been developed by Vantage and agreed to by both FWS and Vantage. The plan would be implemented during construction and operation of the project. The FWS concurred with and acknowledged the determinations presented in the BA and Section 7 informal consultation with FWS has been completed for the project.

In addition to the federally listed species identified, several state sensitive species were identified as potentially being affected by the U.S. portion of the proposed project. Vantage would mitigate impacts to state species by constructing the project after the nesting season has concluded for these species or by removing nesting habitat prior to the nesting season; implementing the mitigation measures identified in its EPP; and using the horizontal bore method at wetlands.

Implementation of measures in the BA and in Vantage's plans, along with the mitigation measures recommended by the FWS, would reduce impacts to federally listed and candidate species, state sensitive species and designated critical habitat. Consequently, overall impacts to federally listed and state sensitive species and designated critical habitat resulting from the project are expected to be minor.

### *5.8 Land Use*

Land uses that would be affected by the U.S. portion of the Project include agriculture, open land, and wetlands. In general, lands required for construction would be temporarily impacted, while lands required for operation of the pipeline would be permanently impacted. However, these land uses would be allowed to revert to preconstruction conditions, with the exception of the loss of trees (e.g., agricultural windbreaks) and shrubs within the permanent right-of-way, which would not be re-vegetated following construction, and areas required for operation of the MLBVs and roads providing access to the MLBV sites.

To address potential impacts on agricultural lands, Vantage would implement the mitigation measures listed in the EPP and, if possible, would make arrangements for a landowner or lessee to harvest hay or cereal grain crops prior to topsoil stripping. After

construction, Vantage would repair or restore fences and would conduct post-construction monitoring measures, including a post-construction soil assessment and visual inspections of the right-of-way to identify locations of invasive weed infestations, poor vegetation establishment, and reduced crop growth. Vantage would maintain all existing improvements, such as irrigation ditches, cattle guards, and reservoirs during construction and would repair the features to pre-construction conditions or better following construction. Construction impacts on general agricultural activities are expected to be minor and temporary; operations impacts would be minor but permanent with respect to MLBV sites and access roads to the MLBVs.

On open lands, construction would require clearing of herbaceous plants and shrubs on the existing right-of-way and in construction work areas. Clearing of these shrubs and plants would result in some minor impacts. Vantage would reseed open land areas after construction is completed, including restoring CRP areas consistent with agency requirements.

The Project would cross property known as Private Land Open to Sportsman (PLOTS). Vantage would contact the North Dakota Game and Fish Department prior to construction and would maintain coordination with agency contacts until Project completion, and would implement landowner notification and coordination procedures to develop, if necessary, mitigation to avoid disruptions to hunting on PLOTS parcels.

Implementation of measures in the Vantage EPP and associated plans (e.g., SPCC) would reduce potential land use impacts. Implementation of the Vantage plans and mitigation would result in overall minor impacts on land use.

### *5.9 Socioeconomics*

Construction and operation of the Project could result in several types of socioeconomic impacts. Impacts would be temporary during construction and more long-term or permanent during operation of the pipeline. Possible temporary impacts include changes to local population levels and demographics, increased demands for housing and public services, changes in transportation needs, increased traffic and increased employment opportunities or needs for local goods. Long-term impacts due to operation would include income benefits resulting from jobs created directly and indirectly by the project and ad valorem (i.e., tax based on the value of real estate or personal property) property tax revenues, which are expected to benefit Divide and Williams Counties' local school districts, townships, and other local taxing jurisdictions.

Overall, impacts from the Project related to socioeconomic resources are expected to be minor but beneficial.

### *5.10 Cultural Resources*

Field studies were conducted to identify archaeological and historic resources potentially affected by the project. Vantage submitted a Class III cultural resources inventory report

to the North Dakota State Historic Preservation Office (SHPO) on December 29, 2011. On January 11, 2012, the North Dakota SHPO submitted a letter to DOS stating that it concurred with the Class III cultural resources inventory report's conclusions of "no historic properties affected" and "no significant sites affected".

Twenty-one tribes were contacted by DOS and Vantage. Interested tribes were provided a copy of Vantage's Class III cultural resources investigation report for review and, in addition to tribal consultation letters and conference calls, DOS hosted four meetings in North Dakota with interested tribes. Vantage sponsored a tribal survey of portions of the Project route in June 2012. Subsequent to the tribal survey, the interested tribes, survey contractor, and Vantage could not reach agreement regarding the adequacy of landowner access along the route. Because the identification and/or evaluation of properties of religious and cultural significance to tribes has not been completed, DOS prepared a PA to establish the process by which DOS will complete the identification, evaluation, and mitigation of adverse effects on historic properties important to Indian tribes. During the development of the PA, the Advisory Council on Historic Preservation (ACHP) informed DOS that they would consult on the Project in a letter dated February 14, 2013 to Secretary of State John F. Kerry. The PA was prepared in consultation with the ACHP, the North Dakota SHPO, and consulting tribes, and provides for the completion of a tribal survey and tribal monitoring during project construction. The PA was signed by DOS, North Dakota SHPO, and the ACHP in April 2013. DOS has determined that, after review of the information provided by Vantage (e.g., Class III cultural resources inventory report), the North Dakota SHPO's comments on the Project, the ACHP comments, and consultations with interested Indian tribes, and ultimately the signing of the PA, the requirements of Section 106 are satisfied for the Project.

### *5.11 Air Quality*

Air quality impacts associated with construction of the Project would include emissions from fossil-fuel combustion emissions and fugitive dust. Air emissions during construction would be localized, intermittent, and short term. Emissions from construction would be controlled to the extent required by state and local agencies, while tailpipe emission from gasoline and diesel powered construction equipment would be subject to federal mobile source regulations. The total incremental emissions increase from the connected action at the Tioga Gas Plant and the Project would be well below major source permitting thresholds. Pipeline operations would not produce significant air quality impacts.

Long term, the project would have a potential overall benefit on air quality. As gas production in North Dakota increases, much of it is being burned into the atmosphere (i.e., flared) because there is insufficient infrastructure to accommodate natural gas gathering, compression, and processing. By processing the natural gas to separate out the ethane and installing infrastructure such as a pipeline to transport the ethane that is extracted, more of the natural gas by-products can be utilized, lowering the incentive to continue flaring and reducing the amount of carbon dioxide that is emitted.

Overall, the adverse impacts on air quality during construction of the proposed project are expected to be short term and minor. Adverse air impacts during operation of the project would be minor and offset by the potential long term positive impact on air quality in North Dakota.

### *5.12 Noise*

The construction activities associated with the Project would be temporary, intermittent, and vary over time. Construction noise would be limited to daylight hours and any horizontal bores for the Project would be completed within one day between 7 AM and 10 PM. As such, the construction activities would not exceed a nighttime noise level of 55 decibels on the A-weighted scale (dBA) because the equipment would not operate between 10 PM and 7 AM. Operational noise attributable to MLBV sites at the closest noise-sensitive area would barely exceed 0 dBA, which is below the U.S. Environmental Protection Agency's (EPA) noise guideline day-night sound level of 55 dBA applied to operational noise sources.

Overall, the impacts on noise during construction of the proposed Project are expected to be short term and minor. Noise impacts during operations of the Project would be minor but long term.

### *5.13 Reliability and Safety*

To minimize the potential for ethane releases from the Project, Vantage would design and construct the proposed pipeline in accordance with applicable design, engineering, and safety standards established by the U.S. Department of Transportation (DOT), the Pipeline and Hazardous Materials Safety Administration (PHMSA), and the North Dakota Pipeline Association, as well as applicable industry standards, including those issued by the American Society of Mechanical Engineers, National Association for Corrosion Engineers, and American Petroleum Institute.

To ensure the integrity of the pipeline and associated facilities during operation, DOT regulations at 49 CFR 195.452 require that a written integrity management program be in place not later than one year after the date the pipeline begins operation. The ethane proposed to be transported by Vantage is also considered by PHMSA to be a hazardous material and, therefore, would need to comply with all regulatory requirements applicable to such materials. Consistent with federal requirements, Vantage would develop an emergency response plan that discusses emergency contingencies in the event of a pipeline accident such as a pipeline leak, rupture, or failure. Contingencies would include pressure and leak detection monitoring, emergency valve closure procedures, aerial and foot surveillance, and hazardous materials response protocols.
With implementation of Vantage's plans and procedures, the reliability and safety of the proposed Project is expected to meet or exceed industry standards.

### *5.14 Cumulative Impacts*

The primary impacts of concern for the Project and other past, present, or reasonably foreseeable future projects in the Project area include short-term construction impacts and long-term land conversion and air emissions associated with the connected action. The Project-wide cumulative impacts assessment concluded that the Project would not result in significant cumulative construction or operation impacts when considered in conjunction with other past, present, or reasonably foreseeable future projects in the area of the Project, as well as the mitigation measures (e.g., EPP, BA, Conservation Plan, PA) that Vantage would implement to avoid, minimize, or compensate for adverse impacts on resources.

## SUMMARY OF MEASURES

Our analyses of potential impacts associated with construction and normal operation of the proposed Project on most resources along the proposed Project corridor are premised on the following, which would be required of Vantage under a Presidential Permit for this proposed Project.

- Vantage would comply with all applicable laws and regulations;
- Vantage would incorporate the mitigation measures required in permits issued by environmental permitting agencies listed in table 1.10-1 of the EA into the construction, operation, and maintenance of the proposed Project;
- Vantage would implement measures in the BA and implement the mitigation measures recommended by the FWS to reduce impacts to federally listed and candidate species, state sensitive species, and designated critical habitat.
- Vantage would adopt the FWS's mitigation measures regarding migratory birds and implement the conservation plan prepared in consultation with the FWS, A *Voluntary Conservation Plan in Furtherance of the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act and Executive Order 13186* (see Appendix A), during construction and operation of the pipeline to protect migratory birds and bald and golden eagles.
- Vantage would complete Indian tribal studies and consult with DOS, consistent with Section 106 of the NHPA;
- Vantage would construct, operate, and maintain the proposed Project as described in the EA; and
- Vantage would implement the measures designed to avoid or reduce impacts described in its application for a Presidential Permit and supplemental filings with DOS and the EPP and its attachments.

## 6.0 Public and Agency Review and Comment

During its consideration of Vantage's application for a Presidential Permit and consistent with established federal procedures for informing and involving the public, Indian tribes and other public agencies (both federal and state) with jurisdiction concerning aspects of this project, DOS conducted extensive public outreach and consultation in order to solicit input on various aspects of the Department's review. The outreach and opportunities for comment and input during consideration of Vantage's application included:

*a) Notice of Receipt of Application for a Presidential Permit to Construct, Operate and Maintain Pipeline Facilities on the Border of the United States*, which was published in the Federal Register on January 11, 2011 (Volume 76, page 1659).

*b) Notice of Intent to Prepare an Environmental Assessment and Request for Comments on Environmental Issues, and to Initiate Consultation Under Section 106 of the National Historic Preservation Act for the Proposed Vantage Pipeline Project* (NOI), which was published in the Federal Register on December 13, 2011 (Volume 76, page 77583) and issued directly to those parties the Department had reason to know were interested in the environmental and section 106 review. The NOI announced the public scoping period, which assisted the DOS in gathering input from the public and interested agencies on the project to determine what issues need to be evaluated in the EA, and which closed on January 17, 2012. DOS received eight public and agency comment letters in response to its August 2011 mailing and the NOI, and has taken them into account in completing the EA.

*c) Notice of Availability of the Environmental Assessment and Request for Comments on environmental Issues, and the National Interest Determination for the Vantage Pipeline Project*, which was published in the Federal Register on May 3, 2012 (Volume 77, page 26353).DOS did not receive any comments during the public comment period, however, two comments received from agencies following the public comment period were reflected in the final EA.

d) Consultations with Indian tribes. The Department contacted twenty-one Indian tribes for consultations and met with Indian tribes in March 2012, July 2012, January 2013, and February 2013. The Advisory Council for Historic Preservation participated in the January 2013 and February 2013 consultation sessions. All consultations took place in North Dakota. Fourteen Indian tribes actively participated in consultations with the Department on the Project, and are considered "Consulting Indian tribes" as defined in the Programmatic Agreement.

e) Execution of a Programmatic Agreement on April 15, 2013; and

f) Consultation with other Federal and State Agencies. E.O. 13337 § 1(b)(ii) requires that the Secretary request the views of specified U.S. officials. E.O. 13337 §§ 1(b)(iii) and 1(e) further authorizes the Secretary to request the views of such other U.S., state, local, and foreign officials as deemed appropriate. Pursuant to these directives, the Department of State requested the views of the Department of Defense, the Department of Justice, the Department of the Interior, the Department of Commerce, the Department of Transportation, the Department of Energy, the Department of Homeland Security, and the Environmental Protection Agency]. Comments were received from federal agencies during the EA comment period and were reflected as appropriate in the EA. No comments were received from the public. All comments received have affirmed that the project served the national interest.

Consistent with its authority under Executive Order 13337, the Department reviewed all of the available information and documentation, including comments submitted by

federal, tribal, and state agencies and the public. The Department has taken all public comments and agency views, as well as all tribal input and state agency views, into account in making its national interest determination.

**7.0 Decision and Basis for Decision**

The Under Secretary of State for Economic Growth, Energy and Environment has determined that a Presidential Permit should be issued to Vantage Pipeline U.S. LP to construct, connect, operate, and maintain facilities at the border for the export of liquid ethane from the United States to Canada across the international boundary, as described in the Application for a Presidential Permit dated November 15, 2010 and by information incorporated into the Final EA issued May 10, 2013. In making this determination, the Under Secretary finds that:

Construction and operation of the Vantage pipeline border facilities serves the national interest. The gathering, processing, and export of natural gas and its derivative liquefied ethane along with the addition of other natural gas liquids by increasing pipeline capacity between North Dakota and Alberta, Canada serves the strategic interests of the United States for the following reasons:

- The Vantage pipeline would secure a friendly export marketplace and petrochemical industry consumer with which the United States has close, longstanding, and strong economic ties. The United States and Canada have the largest and most integrated bilateral trading partnership in the world, totaling over $715 billion in two-way goods and services trade in 2012. Canada has authorized the building of this pipeline. Approval of this Presidential Permit application will strengthen the bilateral relationship and advance the foreign policy interests of the United States.

- The Vantage pipeline would contribute to the North Dakota and U.S. national economy facilitating the transport of a high-demand resource to the Canadian petrochemical industry. The Vantage pipeline provides a market to a supply-rich region that currently lacks the market access and infrastructure to sell ethane that would otherwise be wasted and go unexploited.

- At a time of short supply of pipeline and ethane gathering, processing and transport infrastructure in North Dakota that could open other export or U.S. internal consumption opportunities, the Vantage pipeline shortens the transportation pathway for a sizeable portion of U.S. ethane exports to Alberta's petrochemical industry and its Alberta Ethane Gathering System that represents the largest and closest foreign export market for these products.

- The export and sale of Bakken Basin natural gas derivatives such as ethane will increase the economic incentives to process natural gas that is produced in the region, which would help reduce the current environmentally harmful practice of burning off (i.e. flaring) excess natural gas.

- Construction and Operation of the Vantage pipeline meets applicable environmental protection policies – the Department concludes that the proposed Vantage Pipeline, if designed, constructed, and operated in accordance with the Project Description in the EA, as amended by additional approaches and mitigation measures agreed to by Vantage and as further reinforced by specific conditions contained in the permit and those to be assigned by the state and federal agencies with jurisdiction over aspects of the project along the pipeline corridor, would result in limited adverse environmental impacts.

## 8.0 National Interest Determination

Pursuant to the authority vested in me under Executive Order 13337 of April 30, 2004, as amended, Department of State Delegation of Authority No. 118-2 of January 26, 2006, and subject to satisfaction of the requirements of sections 1(g) and 1(i) of Executive Order 13337, I hereby determine that issuance of a permit to Vantage Pipeline US LP, a limited partnership organized under the laws of the State of Delaware to construct, connect, operate, and maintain facilities at the border of the United States and Canada for the transport of ethane from the United States to Canada across the international boundary at Divide County, North Dakota, would serve the national interest.

The Presidential Permit issued to Vantage shall include authorization to construct, connect, operate, and maintain at the border of the United States facilities for the export of liquefied ethane from the United States to Canada across the international boundary as described in the Presidential Permit application received from Vantage by DOS on November 15, 2010, as amended, and the Environmental Assessment, and in accordance with the mitigation measures described in the Environmental Assessment. No construction or other actions shall be taken by Vantage prior to Vantage's acquisition of all other necessary federal, state, and local permits and approvals from agencies of competent jurisdiction. Vantage shall provide written notice to the Department at such time as the construction authorized by this permit is begun, and again at such time as construction is completed, interrupted or discontinued. Should the Department not receive written notice within five years confirming project construction has begun, the permit becomes invalid.

This determination shall become final fifteen days after the Secretaries of Defense, Interior, Commerce, Energy, Homeland Security and Transportation, the Attorney General, and the Administrator of the Environmental Protection Agency have been notified of this determination, unless the matter must be referred to the President for consideration and final decision pursuant to section 1(i) of said Executive Order.

June 28, 2013
Date

Robert D. Hormats,
Under Secretary for Economic
Growth, Energy and Environment