

EXECUTIVE SUMMARY



ES-1 Executive Summary

ES-1.1 Introduction

The United States Fish and Wildlife Service (Service) is considering a proposal to exchange certain lands within the Yukon Flats National Wildlife Refuge (Refuge) with Doyon, Limited (Doyon). Doyon is an Alaska Native regional corporation established under the Alaska Native Claims Settlement Act of 1971 (ANCSA) and the largest private landowner in the Refuge.

The proposed land exchange (Proposed Action) would give Doyon fee title to 110,000 acres (surface and subsurface rights) of Refuge lands (primarily upland habitats) that may hold developable oil and gas resources, and subsurface oil and gas rights to an adjacent 97,000 acres of Refuge lands. In exchange, the United States Government would receive a minimum of 150,000 acres of Doyon lands that are primarily lowland habitats. Doyon would reallocate certain land entitlements so that 56,500 acres of ANCSA 12(b) land selections within the Refuge would remain in Federal ownership instead of being conveyed to Native corporations. Furthermore, each party would exchange an additional 132,000 acres (totaling 264,000 acres) to consolidate ownerships and facilitate land management within the Refuge boundaries.

If approved, the land exchange could be completed by the end of 2011, and oil and gas exploration on the lands received by Doyon could follow within a few years. If oil or gas resources are discovered, production could occur as early as 10 years after the approval and continue for 30 to 50 years.

ES-1.2 Background

National wildlife refuges in Alaska are noteworthy for the large amount of private lands within their boundaries. Alaska's refuges were created to conserve natural habitats and the species they support, yet many are checkered with private lands, the majority under Alaska Native corporation ownership. These for-profit corporations, created by ANCSA, commonly seek ways to generate revenue and shareholder income while conserving traditional Native culture and lifestyle. One of the quandaries facing the refuge system is finding ways to fulfill the Service's conservation mission while accommodating the needs of neighboring landowners whenever possible.

The Service must evaluate whether the proposed land exchange would benefit the Refuge and satisfy our statutory responsibilities, in addition to providing Doyon with potential oil and gas lands. Section 910 of the Alaska National Interest Lands Conservation Act (ANILCA; Public Law [PL] 96-487) exempts land conveyances to Alaska Native corporations from compliance with the National Environmental Policy Act (NEPA). Under this provision, a NEPA document is not required when the Service and a Native corporation exchange lands. However, at the request of the public and Doyon, the Service agreed to thoroughly analyze the impacts of this controversial land exchange to determine whether it would be in the public's interest to proceed.

ES-1.3 Objectives and Goals

The Service is considering the land exchange for the following reasons.

- To respond to a land exchange proposal put forth by Doyon.

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- To determine if Doyon's proposal would allow the Service to better meet the purposes of the Refuge and the mission of the Service than the current configuration of Refuge lands.
- To increase the total amount of public lands managed in accordance with the Refuge purposes and the National Wildlife Refuge System mission.
- To add priority wildlife habitats to the Refuge.
- To consolidate landownership in the Refuge.

This Final Environmental Impact Statement (EIS) analyzes whether the proposed land exchange will meet these objectives, as well as general Service objectives.

Doyon is pursuing the land exchange to acquire lands overlying the deepest part of the sedimentary basin in the Yukon Flats, which is one of the most promising areas for oil and gas exploration in the Yukon Flats basin. The land exchange could enable Doyon to:

- Fulfill the ANCSA requirement to provide economic opportunities for Doyon and its shareholders.
- Create a rural economy that would enable more people to live and work in their traditional villages rather than emigrating to urban centers.
- Consolidate landownership in the Yukon Flats Basin.

The EIS analyzes a No Land Exchange (No Action) Alternative, which is the Service's Preferred Alternative, the Proposed Action, and two other action alternatives. All of the action alternatives would involve a land exchange between the Service and Doyon, with a net gain of lands by the Service. If all phases of the land exchange are completed, the net increase would be greater than or equal to 216,500 acres under the Proposed Action, 96,500 acres under the Land Exchange with Non-Development Easements Alternative, and 169,000 under Land Exchange Excluding the White-Crazy Mountains Alternative. There would be no land exchange under the No Land Exchange Alternative.

ES-1.4 Proposed Action – Agreement in Principle

The Agreement in Principle (Agreement) between Doyon and the Service would provide Doyon title to lands within the Refuge that may hold developable oil and gas resources. In exchange, the Service would receive lands characterized as priority habitat for fish and wildlife. Under the terms of the Agreement, the proposed land exchange would proceed in two phases.

Under Phase I, the following would occur:

- Doyon would receive fee title to 110,000 acres of "core lands" (surface and subsurface rights) from the Service.
- Doyon would receive 97,000 acres of "halo lands," which would include subsurface oil and gas interests only.
- The Service would receive from Doyon a minimum of 150,000 acres of lands having priority fish and wildlife habitat.
- Doyon would reallocate its remaining ANCSA (12b) entitlement (roughly 56,500 acres) to an area outside the Refuge.

- Both parties would exchange additional lands, up to 132,000 acres by each side, to consolidate ownerships and facilitate land management.
- Doyon would reserve a subsistence easement on all lands conveyed to the Service, ensuring a subsistence priority to local rural residents.
- To protect public access, the Service would reserve a 1-mile-wide public use easement along the segment of Beaver Creek flowing through the core lands conveyed to Doyon.

Phase II would go into effect should Doyon locate and produce oil and gas resources on the lands acquired in Phase I. Under Phase II, the following would occur:

- The Service would receive a perpetual production payment of 1.25% of the value of the wellhead from any oil and gas produced on these core lands or halo lands.
- Doyon would sell, at fair market value, up to 120,000 acres more of its land holdings in the Refuge to the Service.
- Should the Service grant Doyon a right-of-way (ROW) to transport oil and gas by pipeline across Refuge lands, Doyon would convey 640 acres of land to the Service for every linear mile of ROW crossing the Refuge, and would increase the Service's perpetual production payment to 1.5%.
- Doyon would reserve a subsistence easement on all lands conveyed to the Service.

ES-1.5 Land Exchange with Non-Development Easements Alternative

This alternative was developed in response to concerns that lands would leave Alaska Native ownership and be added to the Refuge under Service management. Under this alternative, the Service would provide Doyon title to lands within the Refuge that may hold developable oil and gas resources. In exchange, the Service would receive lands having priority fish and wildlife habitat. Phase I of the land exchange under the Land Exchange with Non-Development Easements Alternative would occur as described above for the Proposed Action with several additions. First, Doyon would donate non-development easements on 120,000 acres, but would not sell land to the Service. These lands would be donated to the Service regardless of whether or not Doyon produced oil and gas on any of the lands Doyon received from the Service, and these lands would be in addition to the 150,000 acres the Service would receive from Doyon as described under the Proposed Action. These easements would be on the same land that is available for purchase by the Service in Phase II of the Proposed Action. Non-development easements are permanent, legal agreements that become part of the title to the property and function to specifically allow or preclude certain uses of the land. These easements would provide habitat protection by preventing oil and gas exploration and/or development and other commercial activities on the easements. Allowable surface activities and uses (such as timber and firewood harvest, subsistence cabin construction and use, and access to inholdings) would be permitted and controlled by Doyon, not the Service.

Under Phase II of this alternative, Doyon would not sell the Service any additional lands, but the Service would receive a perpetual production payment of 0.25% of the value at the wellhead for oil and gas produced on core or halo lands. If a ROW were granted across Refuge land, Doyon would increase the perpetual production payment to 0.5% and convey 640 acres of land to the Service for every linear mile of ROW crossing the Refuge.

ES-1.6 Land Exchange Excluding the White-Crazy Mountains Alternative

This alternative was developed in response to specific concerns that land previously recommended by the Service for Wilderness designation under the Wilderness Act of 1964 should be excluded from any land exchange proposals. Under this alternative, recommended-Wilderness land would be excluded from the land exchange and would not be subject to surface oil and gas development. However, an access ROW could still traverse these lands if oil and gas development were to occur on lands received by Doyon. This transportation corridor would not qualify as wilderness under the Wilderness Act of 1964 and would be excluded from any future Wilderness designation. The two phases of this alternative would be similar to those under the Proposed Action, with the following differences:

- Doyon would receive fee title to 83,500 acres of core lands (surface and subsurface interests) from the Service.
- Doyon would receive subsurface oil and gas interests under 105,000 acres of halo lands from the Service.
- The Service would receive a minimum of 115,000 acres of lands with priority fish and wildlife habitat from Doyon.
- Under Phase II, the Service would receive a perpetual production payment of 1.25% of the value of the wellhead from any oil and gas produced on these lands.
- Under Phase II, Doyon would sell up to 81,000 acres more of its land holdings in the Refuge to the Service.
- If a ROW for a northern pipeline route across Refuge land was granted, Doyon would convey 640 acres of land to the Service for every linear mile of ROW crossing the Refuge, and would increase the Service's perpetual production payment to 1.5%. If a ROW for a southern route was granted, there would be no additional compensation to the Service.

ES-1.7 Preferred Alternative - No Land Exchange Alternative (No Action Alternative)

Under the No Land Exchange Alternative, the Service would not enter into a land exchange with Doyon. Consolidation exchanges could take place, though none are planned. There would be no oil or gas development on Refuge lands proposed for exchange to Doyon.

Under the No Land Exchange Alternative, Doyon could pursue oil and gas exploration on other Doyon lands inside the Refuge. Of course, oil and gas development would occur only if technically and economically recoverable oil and gas resources are discovered on Doyon lands. If production does occur on Doyon-owned lands inside the Refuge, the Service would be required to provide access across Refuge lands (subject to reasonable regulations to protect Refuge resources), but would not be entitled to receive perpetual production payments or other forms of compensation.

The No Land Exchange Alternative has been identified as the Service's Preferred Alternative for the Final EIS for several reasons. First, the Service has a limited understanding of the effects that oil and gas development would have on the hydrology of lands exchanged to Doyon and lands that would be retained by the Service. Second, the exchange would create a private lands corridor that would bisect the Refuge north to south and cause habitat fragmentation on the Refuge.

Although the exchange of lands is not expected to significantly impact resources, it would facilitate infrastructure development and increase access, which are expected to affect resources, especially wildlife with large home ranges (e.g., bears, moose, wolverines, wolves). Third, the Service is concerned that the proposed land exchange could magnify projected changes to Refuge resources from climate change. Fourth, infrastructure associated with access corridors from the proposed exchange (corridors to remove oil and gas product, transport equipment for exploration, and connect developed sites between villages) would increase human use of the Refuge. Fifth, there is concern that the final Agreement could differ substantially from the draft Agreement. During the early negotiations, it was the Service's understanding that development opportunities would be restricted to the core lands in the south-central portion of the Refuge. Thus, the Service negotiated to receive parcels in lowlands in areas distant to the 110,000-acre parcel. Revised U.S. Geological Survey oil and gas basin data (Till et al. 2006; Rowan and Stanley 2007) now indicate a much larger area of the Yukon Flats Basin and Refuge as sufficiently deep to have potential oil and gas generation than was the case when parcels were originally selected for the proposed land exchange and the Agreement in Principal was negotiated. These new findings make it more likely that parcels proposed for acquisition by the Service (parcels near Stevens Village and Beaver Village) would be adjacent to prospective areas of development and ultimately less desirable to the Service. Finally, the majority (>90%) of the general public and local residents oppose the proposed exchange.

ES-1.8 Summary of Impacts

It is difficult to predict with certainty how the proposed land exchange or the land exchange alternatives would affect the resources and people in the Refuge. Much of the difficulty stems from uncertainty about whether recoverable quantities of oil or gas actually exist and where these resources may be. The EIS assumes that only oil, and not gas, would be developed in the reasonably foreseeable future and that Doyon would develop an oil field in the core lands received in the land exchange. In addition, the EIS assumes there could be a second oil field development on other lands currently owned by Doyon inside the Refuge. The effects of this second field are analyzed as cumulative effects that could occur under any of the alternatives, including the No Land Exchange Alternative.

Impacts under Phase I would be associated with the exchange of land and with oil and gas exploration, including seismic surveys and exploratory drilling. Impacts under Phase II would be associated with oil field development, which may or may not occur. The environmental consequences analysis of the EIS assumes a reasonably foreseeable future exploration development scenario, in which exploration efforts and any subsequent development would be limited to the deeper portions of the Yukon Flats Basin with thick sedimentary fill and the surrounding area. The effects analysis takes into account two hypothetical development scenarios: a small oil field and a large oil field. Most impacts associated with development would occur on lands acquired by Doyon as part of the land exchange and would be associated with ground disturbance and construction (e.g., gravel drilling pads, roads, airstrips, staging areas, and pipelines), water use, drilling waste, and possible oil spills.

ES-1.8.1 Phase I

Impacts under Phase I associated with exploration would largely consist of impacts to the hydrological landscape of the Yukon Flats from snow-packed trails and seismic survey lines; impacts to air quality from emissions from drilling rigs and transport equipment; subsidence and

deepening of the permafrost active layer; loss of vegetation from clearing seismic survey lines, access trails, and drilling pads; consumption of up to 80 acre-feet of surface water; minor effects on water quality due to erosion and sedimentation from clearing and use of seismic survey lines and accessing drill sites; loss of 420 to 590 acres of wildlife habitat; disturbance to burrowing and denning mammals; reduced visual aesthetics on approximately 100 to 200 miles (170 to 340 acres) of seismic survey lines and 70 miles of access trails (250 acres); increased personal income and an increase in jobs; and possible impacts to undocumented cultural resources. These impacts would be similar under all three action alternatives.

Other impacts associated with Phase I pertain to the transfer of lands and the resources they support, which may represent either a net loss or a net gain for the Service. There would be a net loss of lands with oil and gas potential, and a loss of some of the more scenic areas on the Refuge.

There would be a net increase in lands administered by the Service and consolidation of surface ownership. There would be a net gain of water bodies and fish habitat, high quality waterfowl habitat and other wildlife habitat, known cultural resource sites, and lands for subsistence use. There also would be a positive effect on Refuge purposes with the increase in bird and mammal habitat.

In general, the net losses and gains associated with changes in landownership would be similar under the Proposed Action and Land Exchange with Non-Development Easements Alternative, with similar gains and slightly fewer losses under the Land Exchange Excluding the White-Crazy Mountains Alternative. Under the No Land Exchange Alternative, there would be no transfer of lands.

ES-1.8.2 Phase II

Impacts under Phase II associated with oil development would include impacts to the hydrological landscape of Yukon Flats; impacts to air quality from emissions from oil development activities; an increase in greenhouse gas emissions; loss of soil and mineral resources; increased consumption of surface water; impacts to water quality from erosion and sedimentation; likely impacts to water quality from small oil spills; modifications in drainage patterns and the potential for excessive drawdown of surface water resources during low-flow periods; loss of vegetation; loss of wetlands and floodplains; loss and alteration of fish habitat; loss of bird and mammal habitat; an increase in invasive plants; modification of wilderness values on some lands; reduced scenic views, particularly in the Beaver Creek Wild River corridor and the White Mountains; potential for construction of a pipeline across Refuge lands or the White Mountains National Recreation Area; an increase in jobs; an increase in tax revenues for the State, and perpetual production payments to the Service; and possible disturbance to undocumented cultural resources. These impacts would be similar under all the action alternatives. Since there would be no transfer of land, there would be no oil and gas development impacts associated with a land exchange under the No Land Exchange Alternative.

Additional impacts under Phase II are associated with the potential purchase of additional lands by the Service, should an oil field be developed. The purchase of Phase II lands would result in an increase in Federal lands and consolidation of Federal ownership, and an increase in water bodies, fish habitat, bird habitat, aquatic mammal habitat, opportunities for recreation, lands with high wilderness value, cultural resource sites, and lands for subsistence use on Refuge lands. There also would be an associated positive effect on Refuge purposes with the increase in bird and mammal habitat. The benefits associated with acquiring additional lands would be greatest under

the Proposed Action and somewhat less under the Land Exchange Excluding the White-Crazy Mountains Alternative, as fewer acres would be available for purchase. These benefits would not occur under Land Exchange with Non-Development Easements Alternative, because Doyon would not sell the Service any additional lands during Phase II. Since there would be no transfer of lands, there would be no oil and gas development impacts associated with a land exchange under the No Land Exchange Alternative. Thus, there would be no purchases of additional lands under this alternative.

It is important to note that impacts, especially those related to the hydrological cycle, could have ecological effects to land resources throughout the Yukon Flats, irrespective of ownership boundaries. Proposed development could negatively impact water, fish and wildlife populations, and other resources beyond the footprint of development. Impacts from oil development must be compared to the benefits the Service may gain by acquiring additional lands.

Development on Doyon-owned lands could drain oil and gas resources from adjacent Refuge lands. Federal regulations require producers to use methods that maximize the volume of oil and gas recovered. If the oil or gas reservoir spans both private and Federal lands, drainage from the adjacent Federal estate could result.

In cases where a leased well on public lands is draining adjacent unleased oil on Federal lands, there are two avenues of recourse (43 CFR Section 3162.2-2[b] and [c]). The Government may either: (1) enter into an agreement with the owner of the producing well to compensate the Government for the drainage, or (2) the Government may choose to lease the lands being drained. The lessee would pay royalties to the Government for the right to drill on Federal land. Traditionally, most of the funds generated by these royalties have gone directly into the general U.S. Treasury.

The case in the Yukon Flats National Wildlife Refuge, however, would be somewhat different. A well on Doyon lands would not be operating under a Federal lease, so it is unclear how the Government could persuade Doyon to compensate the Government for the drainage. Therefore, if a well on Doyon lands were to drain the adjacent Federal estate, the Government's recourse would be to lease the Federal lands and curb drainage by drilling off-set wells. Statutory prohibitions against leasing do not apply when the Federal estate is being drained. According to 43 CFR 3100.0-3(d), if oil or gas is being drained from lands otherwise unavailable for leasing, there is implied authority in the agency having jurisdiction of the lands to grant authority to the BLM to lease those lands.

ES-1.9 Cumulative Impacts

Major reasonably foreseeable future activities considered in the cumulative effects analysis include construction of a natural gas pipeline in Alaska, incorporation of communities in the Yukon Flats region into a borough, the purchase of additional private lands in the Refuge by the Service, and oil and gas exploration and oil development on non-exchange private lands in the Refuge.

The primary cumulative effects resulting from the action alternatives when compounded with other past, present, and future activities are related to oil and gas exploration and development in the Refuge. Under all action alternatives, there would be a cumulative increase in greenhouse gas emissions that could contribute to climate change; a cumulative increase in consumption of mineral resources and surface water; a cumulative loss of vegetation, wetlands, and fish and

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wildlife habitat; and a greater likelihood of impacting cultural resources. Risks for impacts to resources from an oil spill also would increase. Development in the Refuge would result in additional ROWs across Federal lands, which could impact wildlife movements, and alter visual resources and wilderness qualities over a larger, additive, area. Subsistence use also could be impacted cumulatively as development occurs over a larger area.

The cumulative effects to socioeconomics are expected to be positive, as jobs would be created that would likely improve the regional economy. Jobs for local residents would likely be short-term (3 to 5 years) during the construction phase of the project. Some long-term (up to 50 years) jobs could be available to local residents during the production phase of the project.

The cumulative effects given above would also occur under the No Land Exchange Alternative. Under the No Land Exchange Alternative, Doyon could pursue oil and gas exploration on other Doyon lands inside the Refuge. However, as there would be no land exchange, direct effects associated with oil and gas exploration and development would be limited to Doyon lands within the Refuge. Cumulative effects associated with oil and gas exploration and development under the No Land Exchange Alternative would be less than would occur under the action alternatives.