

# Notice of Appeal

Indigenous Environmental Network; Minnesota Center For Environmental Advocacy; and Sierra Club,  
  
v.  
  
Chippewa National Forest, Responsible Official.

) Notice of Appeal of the Record of Decision  
) for the Alberta Clipper and Southern Lights  
) Diluent Pipeline Projects, Enbridge Energy  
) Pipeline Construction across the Chippewa  
) National Forest, signed 6/29/09.  
)  
) Responsible Official: Robert M. Harper, Forest  
) Supervisor, Chippewa National Forest,  
) Appeal Deciding Officer: Kent Connaughton,  
) USDA Forest Service Eastern Regional Office  
) 626 E. Wisconsin Ave., Suite 700  
) Milwaukee, WI 53202  
)  
) Appeal Date: August 17, 2009

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## Notice of Appeal And Statement of Reasons Pursuant to 36 C.F.R. § 215

### Appellants:

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August 17, 2009

## **I. BASIS OF APPEAL**

On behalf of the Indigenous Environmental Network, the Minnesota Center for Environmental Advocacy, and the Sierra Club, (“Appellants”), we submit to the U.S. Forest Service and the Forest Supervisor for the Chippewa National Forest (“CNF”) the following appeal of the June 2009 decision to amend the Special Use Authorization and to issue a Temporary Construction Special Use Permit for the Alberta Clipper Pipeline Project (“Alberta Clipper Project”) and Southern Lights Diluent Pipeline Project (“Diluent Project”) across the CNF.

Appellants have a window of 45 days for submission of appeals starting from the date of publication of a Record of Decision in the newspaper of record. Appellants’ Appeal is timely, having been filed on or before August 17, 2009, on the first day of federal business following 45 days from the publication of the Notice of Decision in the newspaper of record, *The Pioneer* (Bemidji, MN), on July 3, 2009.

As set forth in Appellants’ Statement of Reasons below, in amending the Special Use Authorization and granting the Temporary Construction permit (collectively “Alberta Clipper permits”), the Forest Service violated the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 *et seq.* and NEPA’s implementing regulations by: i) failing to analyze the impacts of connected, cumulative, and/or similar actions including the Southern Lights project; ii) failing to take a hard look at the Alberta Clipper project’s stated purpose and need or adequately consider a reasonable range of alternatives; and iii) failing to assess all reasonably foreseeable environmental impacts of the project, including direct, indirect, and cumulative effects, before granting the permits. The Alberta Clipper permits also violate the National Forest Management Act (NFMA), 16 U.S.C. §§ 1600 *et seq.*, because they are inconsistent with the Chippewa National Forest Plan

Accordingly, we appeal the Forest Service decision to amend the Special Use Authorization and to issue a Temporary Construction Special Use Permit for the Alberta Clipper and Southern Light Diluent Pipeline Project. No new or amended permit should be issued until the Forest Service has remedied the procedural and informational deficiencies in the Forest Service’s environmental review.

## **II. APPELLANTS**

### **A. Sierra Club**

Sierra Club is a national nonprofit organization of over one million members and supporters dedicated to exploring, enjoying, and protecting the wild places of the earth; practicing and promoting the responsible use of the earth’s ecosystems and resources; educating and enlisting humanity to protect and restore the quality of the natural and human environment; and using all lawful means to carry out these objectives. The Sierra Club has chapters and members in each of the states through which the Alberta Clipper pipeline would pass, and in the state(s) where the refining of the tar sands crude would take place. The Sierra Club’s concerns encompass the protection of wildlands, wildlife habitat, water resources, air, climate change and

the public health and the health of its members, which stand to be affected by these pipelines. The Sierra Club's headquarters are located at 85 2nd Street, 4th Floor, San Francisco, CA 94109-3441.

### **B. Minnesota Center for Environmental Advocacy**

Minnesota Center for Environmental Advocacy (MCEA) is a Minnesota-based non-profit environmental organization whose mission is to use law, science, and research to preserve and protect Minnesota's wildlife, natural resources, and the health of its people. MCEA works on a wide range of environmental policy issues, including the environmental impacts from large construction projects, energy consumption, and climate change. MCEA is located at 26 E. Exchange Street, Suite 206, St. Paul, Minnesota 55101.

### **C. Indigenous Environmental Network**

Indigenous Environmental Network (IEN) is a non-profit organization that works with indigenous individuals and grassroots community groups to protect their sacred sites, land, water, air, natural resources, and the health of their people and all living things, and to building economically sustainable communities. IEN's work encompasses a range of environmental and economic justice issues that impact the lands and cultures of indigenous peoples and individuals, including mining and oil development on and near indigenous lands; soil and water contamination from energy exploration and development; climate change; and water conservation. IEN is located at P.O. Box 485, Bemidji, MN 56619.

## **III. PROJECT DESCRIPTION**

### **A. Enbridge's Pipeline Expansion Proposal**

Enbridge Energy LP and its affiliates (collectively, "Enbridge"), propose to expand significantly the existing pipeline system they own and operate between Alberta, Canada and United States. The expansion includes the Alberta Clipper project and the Southern Lights project.

The Alberta Clipper pipeline is a 992-mile long, 36-inch diameter pipeline running from Hardisty, Alberta, Canada, crossing the border near Neche, North Dakota, and continuing through northern Minnesota, across the Chippewa National Forest, to a terminal in Superior, Wisconsin. The Alberta Clipper pipeline will carry approximately 450,000 barrels per day (bpd), with an ultimate capacity of 880,000 bpd, of heavy crude oil, also referred to as "bitumen," from the Canadian tar sands to refineries throughout the Midwest. The pipeline will be integrated with and form part of the Enbridge Pipelines, Inc. mainline oil pipeline system. At Superior, the Alberta Clipper pipeline will connect to a mainline to Chicago, Illinois.

The Southern Lights project is comprised of two components: the Line 13 Reversal/New Diluent pipeline ("diluent pipeline") and the LSr Capacity Replacement pipeline ("LSr pipeline"). The diluent pipeline would transport light hydrocarbons known as "diluent" from Midwest refineries to the Alberta tar sands. Because bitumen crude from the Canadian tar sands

is too viscous to be pumped through a pipeline, it must be diluted with lighter liquid hydrocarbons in order to be transported by pipeline. For the diluent pipeline, Enbridge proposes to construct a new 678-mile, 20-inch pipeline from Manhattan, Illinois, to Clearbrook, Minnesota, where it would connect with Enbridge's existing Line 13. Enbridge proposes to reverse the flow of Line 13, which currently transports light sour crude from Alberta, Canada to Clearbrook, to create a dedicated diluent delivery system from refineries in Illinois to the tar sands production centers in Alberta. The diluent pipeline would have an initial capacity of 180,000 bpd with expansion capability up to 330,000 bpd. The 188-mile segment of diluent pipeline from Clearbrook, Minnesota to Superior, Wisconsin, which crosses the Chippewa National Forest, would be constructed at the same time and in the same right-of-way as the Alberta Clipper pipeline.

The LSr Capacity Replacement pipeline is a new 313-mile 20-inch pipeline being constructed between Cromer, Manitoba, Canada, and Clearbrook, Minnesota to transport light sour crude. According to Enbridge, diversion of the capacity of Line 13 to the diluent pipeline necessitates the construction of an additional pipeline to replace that capacity. The LSr pipeline was proposed and permitted for that purpose. The LSr pipeline would deliver 186,000 bpd of crude oil from a supply hub near Cromer, Manitoba to the existing Enbridge terminal in Clearbrook. The "ultimate capacity" of the LSr pipeline is 300,000 bpd.

## **B. Environmental Impacts of the Project**

### **1. Impacts of pipeline construction.**

In the United States, construction of the Alberta Clipper pipeline would require the installation of approximately 326.9 miles of new 36-inch-diameter pipeline starting at the Canadian border in Neche, North Dakota, crossing Minnesota and bisecting the Chippewa National Forest, and ending in a terminal in Superior, Wisconsin. The pipeline would involve a total of three perennial and 24 intermittent waterbody crossings in North Dakota; 76 perennial and 86 intermittent crossings in Minnesota, and one perennial and 13 intermittent waterbody crossings in Wisconsin. Construction of the pipeline could result in increased sedimentation, degradation and alteration of aquatic habitat, increased runoff and erosion, changes in channel morphology and stability, temporary reductions in flow, and temporary to short-term surface water degradation during or after construction.

During construction this pipeline would impact 1,254.5 acres of upland forested lands, 655.4 acres of open lands, and 1,346.16 acres of wetlands. The primary impacts to vegetation would be cutting, clearing and the potential introduction of noxious weeds. It would result in both short-term disturbance and long-term modification to wildlife habitats, including impacts from habitat fragmentation and widening of existing rights-of-way. It could affect fisheries resources by loss or alteration of habitat, reduced spawning success, direct and indirect mortality, adverse health effects, and loss of individuals and habitats due to hydrostatic testing and exposure to toxic materials.

In addition, the pipeline would cut through a rare wetland area known as a calcereous fen. This is the rarest wetland plant community in Minnesota and Wisconsin and one of the rarest in

North America. It is protected from all disturbance under Minnesota law. On July 7, 2009, after the State Department issued the final EIS for public comment, the Minnesota Department of Natural Resources (MDNR) discovered on a site visit that the proposed pipeline route would cut through a calcareous fen. On July 22, 2009 Plaintiffs sent a letter to the State Department requesting consideration of an alternate route for the pipeline to avoid this calcareous fen, but received no response.

## 2. Impacts of extracting and refining tar sands crude oil.

Tar sands are composed of clay, sand, water, and bitumen – a heavy black viscous oil, which can be mined and processed. Extracted bitumen is then refined into synthetic oil and other petroleum products. Because the bitumen cannot be pumped from the ground in its natural state, deposits are mined using energy intensive extraction and separation techniques to separate bitumen from the sand, clay and water.<sup>1</sup> Surface tar sand deposits can be recovered by open pit mining techniques, using large hydraulic and electrically powered shovels to dig up tar sands and transport them for extraction using a hot water separation process. Compressed air and steam injection methods are used to extract deep tar sand deposits, and those methods require large quantities of water and energy for heating and pumping. About two tons of tar sands are required to produce one barrel of oil.<sup>2</sup>

According to a 2007 U.S. Geological Survey report, the type of oil extracted from Canadian tar sands contains eleven times more sulfur, six times more nitrogen, eleven times more nickel, and five times more lead than conventional oil.<sup>3</sup>

Both mining and processing of tar sands cause significant environmental impacts, including emissions of global warming gases, destruction of wildlife habitat, and impacts to air and water quality. Tar sands development is significantly more energy intensive than conventional oil and gas development. Greenhouse gas emissions from tar sands production are three times those of conventional oil and gas production, and producing synthetic crude oil emits up to 20% more greenhouse gas emissions than low-sulfur, light crude oils.<sup>4</sup>

In addition, large quantities of water are required for tar sands extraction operations and would draw down surface water flow, adversely impacting stream habitat for migratory fish and other species dependant on local water resources. Drilling one well consumes 5.5 acre-feet of water each year, and the production of one gallon of oil requires thirty-five gallons of water.<sup>5</sup>

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<sup>1</sup> Dan Woynillowicz, “Oil Sands Fever: The Environmental Implications of Canada’s Oil Sands Rush,” (The Pembina Institute, November, 2005), at 11.

<sup>2</sup> *Id.* at 12.

<sup>3</sup> Meyer, R.F., Attanasi, E.D., and Freeman, P.A., 2007, “Heavy Oil and Natural Bitumen Resources in Geological Basins of the World: U.S. Geological Survey Open-File Report 2007-1084,” USGS, 2007, at page 14, Table 1, *available at* <http://pubs.usgs.gov/of/2007/1084/OF2007-1084v1.pdf>. The USGS also found that natural bitumen contains 17,992 times more aluminum; 1,706 times more titanium; 666 times more iron; 102 times more copper; and 21 times more vanadium than conventional oil. *Id.*

<sup>4</sup> See Simon Mui and Roland Hwang, “White Paper: Life Cycle analysis of Greenhouse Gas Emissions from Tar Sands,” (NRDC, Nov. 2008).

<sup>5</sup> Woynillowicz, *supra* note 1, at 12.

The Enbridge expansion project will supply U.S. refineries with heavy crude oil extracted from Canadian tar sands. Some of this heavy crude oil will replace supplies of conventional light or medium crude oil, while some of it will represent additional supplies to meet projected increasing demands for oil in the United States. Refining tar sands crude transported through the Alberta Clipper pipeline will likely result in higher air emissions of harmful pollutants such as sulfur dioxide, hydrogen sulfide, sulfuric acid mist, and nitrogen oxides, as well as toxic metals such as lead and nickel compounds. According to the U.S. Environmental Protection Agency, the human health effects of these pollutants may include premature death; cancer; permanent lung damage; reproductive, neurological, developmental, respiratory, and immunological problems; cardiovascular and central nervous system disorders; bio-mutations; respiratory illness, including bronchitis and pneumonia; and aggravation of heart conditions and asthma. Also according to EPA, the environmental damage caused by these pollutants includes acid rain; concentration of toxic chemicals up the food chain; creation of ground-level ozone and smog; visible impairments that migrate to sensitive areas such as National Parks; and depletion of soil nutrients.

Refining oil transported by the expansion project can be expected to produce more greenhouse gases, such as carbon dioxide, than refining conventional crude oil, because the tar sands crude requires more energy to refine. The requisite additional energy is most likely to come from sources, such as coal-fired power plants, that emit large quantities of greenhouse gases. This will add to harmful emissions emanating from the refineries themselves. Greenhouse gases, such as carbon dioxide, contribute to global warming and a wide range of related adverse ecological and human health effects, including both water shortages and coastal flooding, increased risk of wildfires and stronger hurricanes, new pests and insect-borne diseases, and disruption of habitats.<sup>6</sup>

Refineries processing tar sands crude from the expansion project are likely to increase discharges of water pollutants, including ammonia and total suspended solids, which may damage surrounding waterways. Refinery construction and expansion may also compromise or destroy wild or agricultural lands.

### **C. NEPA Review of the Alberta Clipper and Southern Lights Projects**

Because Enbridge's proposed expansion would involve construction on the U.S.-Canada border and the import and export of crude oil and refined petroleum products, Enbridge applied to the State Department for Presidential permits. Enbridge submitted permit applications for the import of heavy crude and construction of the Alberta Clipper pipeline, for the import of light sour crude and construction of the LSr pipeline, and for the export of diluent in Line 13.

The State Department claimed to be the lead federal agency on the project for purposes of NEPA and assumed responsibility for conducting the environmental review for the expansion. The CNF is one of several cooperating agencies. Instead of conducting the environmental review for the entire expansion, as NEPA requires, the State Department segregated the component parts of Enbridge's proposal and conducted its environmental review in separate

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<sup>6</sup> IPCC, *Climate Change 2007: Synthesis Report*, (Nov. 2007), at 52, *available at* [http://www.ipcc.ch/publications\\_and\\_data/publications\\_ipcc\\_fourth\\_assessment\\_report\\_synthesis\\_report.htm](http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synthesis_report.htm).

pieces. On July 27, 2007, the State Department issued two separate Notices of Intent to prepare separate environmental assessments (EAs) for the LSr pipeline and the Alberta Clipper pipeline. Although Enbridge had applied for a Presidential permit allowing it to reverse the flow in Line 13 and export diluent, the State Department, in a letter dated November 28, 2007, told Enbridge that a new or amended permit was not necessary. The State Department, therefore, did not issue a Notice of Intent to prepare an EA for the diluent pipeline.

The State Department then determined it would proceed with an EA for the LSr pipeline, but prepared an environmental impact statement (EIS) for the Alberta Clipper pipeline. Appellant MCEA, in comment letters sent to the State Department in December 2007, pointed out that all three pipelines were part of one project and that NEPA required the State Department to evaluate all three in one environmental impact statement. Over MCEA's objections, the State Department proceeded with separate environmental reviews.

The State Department's EA for the LSr pipeline did not evaluate environmental impacts from the Alberta Clipper pipeline or the Southern Lights diluent pipeline. In its final EA and Finding of No Significant Impact (FONSI) for the LSr pipeline, the State Department represented that the diluent pipeline would be evaluated in the NEPA analysis for the Alberta Clipper project.

The State Department issued its draft EIS for the Alberta Clipper project, including the "Draft Environmental Analysis of the Proposed Alberta Clipper and Southern Lights Diluent Pipeline Projects within the Chippewa National Forest" Appendix R ("Appendix R"), on December 5, 2008. Although the diluent pipeline was included nominally in Appendix R, the State Department excluded both the LSr and diluent pipelines from its definition of the project under review and asserted that these two pipelines and the Alberta Clipper pipeline were not connected actions for NEPA purposes. Moreover, to the extent that Appendix R did address the diluent pipeline, it included only the 188-mile segment between Clearbrook, Minnesota and Superior, Wisconsin and omitted the rest of the diluent project.

The draft EIS stated that the purpose and need for the project is to transport additional crude oil into the United States from existing Enbridge facilities in western Canada to meet growing U.S. demand. The draft did not fully analyze all reasonably foreseeable cumulative impacts of the proposal such as the impacts of refining and burning the additional heavy crude oil, or the impacts of increased greenhouse gas emissions. The draft EIS also did not adequately evaluate the risks, environmental impacts, and available mitigation measures associated with spills and operational leaks from the pipeline.

Appellants submitted comments on the draft EIS January 30, 2009 noting these failures. In these comments Appellants notified the State Department that NEPA requires evaluation of all the component parts of the Alberta Clipper project, including the connected diluent and LSr pipelines, and assessment (and, as warranted, mitigation) of the reasonably foreseeable environmental impacts of the project, including tar sands extraction, expanded U.S. refining of heavy crude from the Canadian tar sands, and increased greenhouse gas emissions from extraction, refining, and end-use of tar sands crude oil. In addition, Appellants challenged the

accuracy of the crude oil demand forecasts underpinning the project's stated purpose and need, and commented on the State Department's failure to adequately consider reasonable alternatives.

On June 8, 2009, the State Department released a final EIS for the project. The final EIS included the "Environmental Analysis of the Proposed Alberta Clipper and Southern Lights Diluent Pipeline Projects within the Leech Lake Reservation and the Chippewa National Forest" Appendix U ("Appendix U"). Appellants submitted comments on the final EIS July 2, 2009.

Although Appendix U purported to cover both the Alberta Clipper and the diluent pipeline, the final EIS did not include the diluent or the LSr pipelines as connected actions. To the extent that Appendix U did address the diluent pipeline, it included only the 188-mile segment between Clearbrook, Minnesota and Superior, Wisconsin and omitted the rest of the diluent project. The final EIS did not adequately respond to Appellants' comments that the EIS does not consider the reasonably foreseeable environmental impacts of tar sands extraction, of expanded U.S. refining of heavy crude from the Canadian tar sands, or of increased greenhouse gas emissions from extraction, refining, and end-use of tar sands crude oil. The final EIS also did not adequately address the impacts that spills and operational leaks would have on the environment, especially soil and water resources, or on human health, and does not discuss measures to mitigate these impacts, but instead defers to a future review process by the Department of Transportation.

Because the State Department failed to consider the diluent pipeline in the Alberta Clipper EIS, and because it failed to consider the diluent pipeline in its NEPA review for the LSr pipeline, no adequate study has been conducted to date evaluating the environmental impacts from the diluent pipeline.

As of the date of this appeal, the State Department has not issued a Record of Decision (ROD) concerning the Presidential permit for the Alberta Clipper pipeline.

#### **D. Forest Service Permitting Process**

On November 30, 2006, Enbridge filed two applications with the CNF, one for the Alberta Clipper Project, and one for the Southern Lights Diluent Project, seeking amendments to its existing Special Use Permit to allow construction, operation, and maintenance of the portions of the pipelines on National Forest Service land managed by the CNF. Upon the acceptance of the applications by the CNF, the consideration of a new special use became a Forest Service action.

On June 29, 2009, the CNF Forest Supervisor issued an ROD recommending an amendment to Enbridge's existing Special Use Authorization, and issuance of a Temporary Construction Special Use Permit to allow the construction, operation, and maintenance of the Alberta Clipper Project and the Southern Lights Diluent Project across the CNF. The ROD was published in the newspaper of record, *The Pioneer* (Bemidji, MN), on July 3, 2009.

#### IV. STATEMENT OF REASONS

The Forest Supervisor of the CNF is responsible for management and evaluation of the occupation and use of CNF lands and may approve or deny certain special uses on those lands in accordance with the Mineral Leasing Act of 1920, Section 28. The Forest Supervisor's decision must comply with NEPA and with other applicable laws and regulations, including the National Forest Management Act; the Mineral Leasing Act of 1920; and the CNF Land and Resource Management Plan (Forest Plan) as revised in 2004.

NEPA is our "basic national charter for the protection of the environment." 40 C.F.R. § 1500.1. Congress enacted NEPA "[t]o declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; [and] to enrich the understanding of the ecological systems and natural resources important to the Nation." 42 U.S.C. § 4321. To accomplish these purposes, NEPA requires all agencies of the federal government to prepare a "detailed statement" that discusses the environmental impacts of, and reasonable alternatives to, all "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). This statement is commonly known as an environmental impact statement (EIS). See 40 C.F.R. Part 1502.

The Forest Supervisor's decision to issue the Alberta Clipper permits is based on the EIS prepared by the State Department, including Appendix U prepared in conjunction with CNF. This EIS fails to meet the requirements of NEPA for the following reasons: 1) The EIS fails to analyze the impacts of connected, cumulative, and/or similar actions including the Southern Lights project; 2) the EIS fails to take a hard look at the Alberta Clipper project's stated purpose and need or adequately consider a reasonable range of alternatives and 3) the EIS fails to assess all reasonably foreseeable environmental impacts of the project, including direct, indirect, and cumulative effects, before granting the permits. In relying on an inadequate EIS, the Forest Service has failed to take the required hard look at the environmental impacts of the Alberta Clipper and Southern Lights Diluent Projects before issuing the Alberta Clipper permits.

##### **A. Issuance of the Albert Clipper Permits violates NEPA because the EIS fails to evaluate the full range of actions.**

Pursuant to the CEQ regulations implementing NEPA, decision-makers are must address in a single EIS all "connected," "cumulative," and "similar" actions. 40 C.F.R. § 1508.25(a). See also *Wetlands Action Network v. United State Army Corps of Eng'rs*, 222 F.3d 1105, 1118 (9<sup>th</sup> Cir. 2000); *Earth Island Inst. v. United States Forest Serv.*, 351 F.3d 1291, 1306 (9<sup>th</sup> Cir. 2003). Actions are connected if they: "(i) [a]utomatically trigger other actions which may require environmental impact statements; (ii) [c]annot or will not proceed unless other actions are taken previously or simultaneously; [or] (iii) [a]re interdependent parts of a larger action and depend on the larger action for their justification." 40 C.F.R. § 1508.25(a). Cumulative actions are those which have "cumulatively significant impacts and should therefore be discussed in the same impact statement." *Id.* Similar actions are those which have "similarities ... such as common timing or geography." *Id.* Analysis should be done in a single document when the record raises "substantial questions about whether there will be significant environmental

impacts from the collection of anticipated projects.” *Klamath-Siskiyou Wildlands Center v. Bureau of Land Management*, 387 F.3d 989, 999 (9<sup>th</sup> Cir. 2004).

Courts have routinely held that agencies may not break a project or activity into components in order to avoid the full range of environmental analysis and that cumulative impacts analysis is necessary for all reasonably foreseeable results of the action under consideration. *See e.g., O’Reilly v. United States Army Corps of Eng’rs.*, 477 F.3d 225 (5th Cir. 2007); *Great Basin Mine Watch v. Hankins*, 456 F.3d 955 (9th Cir. 2006); *Native Ecosystems Council v. Dombeck*, 304 F.3d 886 (9th Cir. 2002); *Grand Canyon Trust v. Federal Aviation Admin.*, 290 F.3d 339 (D.C. Cir. 2002). In this case, the Forest Service has failed to meet these requirements.

Alberta Clipper pipeline, the Southern Lights diluent pipeline and the LSr pipeline are connected, cumulative, and/or similar actions that the Forest Service must evaluate in a single EIS. The Alberta Clipper and diluent pipelines will be constructed simultaneously and in the same corridor and are thus similar action pursuant to 40 C.F.R. § 1508.25(a)(3). Without an increased supply of diluent to facilitate transportation of viscous tar sands crude, the Alberta Clipper pipeline would not be able to transport the 450,000 bpd of crude for which it is designed. Because the Alberta Clipper and diluent pipelines are interdependent parts of a larger action and when viewed together have cumulatively significant impact, they meet the definition of connected and cumulated actions set forth in 40 C.F.R. § 1508.25(a)(1) and (2).

Similarly, Enbridge refers to the LSr pipeline as the “capacity replacement project” because its primary purpose is to replace the transport capacity of Line 13 which will be reversed and diverted to transport diluent as part of the diluent pipeline. Because the new LSr pipeline is an interdependent part of the larger expansion project and depends on the diluent pipeline and the Alberta Clipper Project for its justification, it meets the definition of a connected action under 40 C.F.R. § 1508.25(a)(1).

Even Enbridge, the project proponent, treats the pipelines as one project. Enbridge applied for a certificate of need and routing permit for both pipelines together from the Minnesota Public Utilities Commission. In its application, Enbridge stated that the “diluent project will be constructed concurrently with the Alberta Clipper project within the same construction footprint, with the intention of maintaining a 25 foot offset between the existing pipelines, the new pipelines and the outside boundary of the right-of-way.”<sup>7</sup> The Minnesota PUC accepted Enbridge’s single application for both pipelines and opened a single docket for consideration of the pipelines together.<sup>8</sup> They are likewise treated together by the Army Corps of Engineers with regard to the Section 404 permits. The segregation of environmental review for the two pipelines provides an inaccurate assessment of the environmental impacts of the project.

The omission of the diluent pipeline from the scope of the EIS is contrary to the commitment that the State Department made in finding that the LSr pipeline would have no significant environmental impacts. Appellants alleged in their comments on the Environmental

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<sup>7</sup> Enbridge AC CON App., Section 7853.0230, MPUC Docket No. PL9/CN-07-465, at 8.

<sup>8</sup> Order Accepting Application, MPUC Docket No. PL9/CN-07-46, (August 1, 2007).

Assessment for the LSr pipeline that the LSr pipeline was connected to the Alberta Clipper/Southern Lights diluent project and required an EIS. However, the State Department issued a Finding of No Significant Impact (FONSI), declaring that the LSr line was “independent of other planned or approved pipeline projects.” Southern Lights LSr FONSI, 73 Fed. Reg. 32620 (June 9, 2008). In its finding, the State Department stated: “The Alberta Clipper pipeline proposed by a related Enbridge entity to transport heavy oil sands crude to the United States and the construction by Enbridge of another pipeline that would bring diluent north to the oil sands project, will be addressed in a separate Environmental Impact Statement that is being prepared for the Alberta Clipper project by the DOS working with other agencies.” *Id.* The State Department clearly represented that it would evaluate the environmental impacts of the new Southern Lights diluent pipeline and Line 13 reversal in the Alberta Clipper EIS.

In its ROD and in Appendix U, the Forest Service acknowledges the essential and connected nature of the diluent project and the Alberta Clipper project by considering them collectively, and by defining the purpose for the diluent project as “to deliver light petroleum liquids, referred to as ‘diluent,’ from U.S. refineries to the Alberta oil sand producers to dilute the heavy crude oil produced in that region, thereby facilitating pipeline transportation.” Appendix U, at 1-3. For its environmental analysis, however, the Forest Service relies on the EIS prepared by the State Department as lead agency for the project. “As such, the U.S. Department of State is preparing an Environmental Impact Statement (EIS) that will document the environmental effects of the combined pipeline projects from the Canadian border in North Dakota to Superior, Wisconsin.” Appendix U, at 1-2. The Southern Lights diluent project and the LSr, however, have been excluded from the project description in the EIS, and therefore the Forest Service is basing its decision on an environmental impact analysis that does not exist.

While Appendix U acknowledges the connected nature of the Southern Lights Diluent Project, it still fails to analyze the particular impacts of the diluent line. Appendix U characterizes diluent as behaving in a similar manner to gasoline, basing its analysis on the impacts of crude leaks and spills. The analysis does not, however, identify the specific chemicals and hydrocarbons that will be utilized as diluent and fails to analyze the impacts on the environment distinct from those of heavy crude upon which the State Department’s EIS is based. *See* Appendix U, at 3-3. Risks associated with breaks in the Southern Lights Diluent pipeline, therefore, are left unaddressed.

The Forest Service’s failure to assess the full range of connected, cumulative and similar actions in the Alberta Clipper EIS violated and continues to violate section 102(2)(C) of NEPA, 42 U.S.C. § 4332(2)(C), and NEPA’s implementing regulations including 40 C.F.R. § 1508.25(a).

**B. Issuance of the Alberta Clipper Permits violates NEPA because the EIS fails to adequately consider the No Action alternative.**

The EIS must “provide full and fair discussion of significant environmental impacts and shall inform decision-makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.” *Id.* at § 1502.1. The alternatives analysis is considered to be the “heart” of an EIS. 40 C.F.R. § 1502.14. An EIS

“should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear choice among options by the decisionmaker and the public.” *Id.* NEPA requires the State Department to “rigorously explore and objectively evaluate all reasonable alternatives,” including the “alternative of no action,” and to “devote substantial treatment to each alternative ... so that reviewers may evaluate their comparative merits.” *Id.*

An EIS must “specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” 40 C.F.R. § 1502.13. An agency must not define its project purpose and need so narrowly as to preclude consideration of reasonable alternatives. *Muckleshoot Indian Tribe v. United States Forest Serv.*, 177 F.3d 800, 812-14 (9th Cir. 1999).

The Forest Service failed to take a hard look at the no action alternative. Instead, the ROD rejects the no action alternative with the conclusory assertion that it “would be limiting Enbridge’s ability to meet the demands of this region’s energy users” and thus “would not meet the purpose and need for the project.” ROD, at 13.

The ROD defines the purpose and need as follows:

The purpose of the proposed projects is to increase the capacity of Enbridge’s existing crude oil pipeline system between Alberta, Canada and Superior, Wisconsin. The projects stem from a request for an economical and reliable supply of crude oil, particularly heavy crude oil, from existing Enbridge facilities in western Canada into the U.S. and eastern Canada. An increased supply of crude oil would allow refineries to meet consumer needs for lower-cost refined petroleum products (such as gasoline for automobiles and heating oil for homes).

ROD, at 2. This statement of the projects’ purpose and need is different from that in the State Department’s final EIS, which defines the purpose as to “help meet current and future demand for oil by increasing the import of a safe and reliable supply of Canadian crude oil to replace portions of the imported crude coming from foreign sources that are substantially less reliable and stable.”<sup>9</sup> Final EIS, at 1-2.

Moreover, the ROD’s stated purpose is based on inaccurate assumptions about future demand for heavy tar sands crude. Current forecasts from the U.S. Energy Information Administration (EIA) show that the demand for crude oil in the United States is flat and that the

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<sup>9</sup> The purpose that the State Department states in the final EIS is not reflected in the Presidential permit application for the Alberta Clipper or the LSr pipeline, which cite satisfying growing demand for petroleum products throughout the Midwest as the purpose of the proposed projects. Nor is the State Department’s re-stated purpose supported by any evidence that importation of crude from “less reliable and stable” foreign sources will be reduced because of the perceived instability of its country of origin. Instead, the purpose seems to have been amended in the final EIS in order to justify the project in light of arguments that Appellants raised in their comments regarding the erroneous demand projections in the draft EIS.

need for net imports will decline dramatically over the next two decades.<sup>10</sup> Adding to that the likelihood of state and federal laws to confront climate change and reduce U.S. dependence on fossil fuels, it is clear that there is no objective or reliable demand forecast that would support the statement of purpose and need in the EIS.

Without an adequate assessment of the purpose and need for the project, the entire EIS is deficient – the State Department cannot take a “hard look” at alternatives and balance costs and benefits of the project as it considers the national interest unless it has first established that the need for the project as proposed is accurate. The failure to adequately assess purpose and need has led to the State Department’s erroneous summary dismissal of the “no action” alternative without adequate justification.

Even if the perceived future energy shortfall in the United States were based on reliable forecasts, the construction of these new pipelines is not the only alternative for filling this perceived need. Other alternatives include energy efficiency, renewable energy, clean technologies, and demand-side management. NEPA regulations specifically require consideration of energy requirements and conservation in environmental review documents. 40 C.F.R § 1502.16(e). The EIS does not adequately address alternatives to expanding U.S. capacity to import tar sands oil in considering the no action alternative.

The State Department’s EIS for the Alberta Clipper also fails to adequately consider the enormous expansion in transport capacity that has already been added to the pipeline systems that serve U.S. refineries, and fails to address this additional capacity availability in evaluating the no action alternative.

1. There is no reliable forecast showing increased demand in the Midwest or nation-wide.

The stated purpose and need for the Alberta Clipper and diluent projects is based on an erroneous premise: a projected increase in demand for Canadian tar sands crude in either the Midwest or nation-wide.

Before the State Department issued the final EIS, Congress enacted and the President signed the American Recovery and Reinvestment Act (ARRA) and based on this new legislation the Energy Information Administration (EIA) issued an updated Annual Energy Outlook 2009 (AEO 2009).<sup>11</sup> The AEO 2009 projects no increase in demand for crude oil over the next two decades. It further shows that oil imports, including imports from Canada, will decline sharply. Although Appellants raised concerns about mistaken demand projections in their comments on both the draft and final EIS, neither the State Department nor the Forest Service took the required hard look at the facts and evidence in response to these comments.

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<sup>10</sup> Energy Information Administration, Annual Energy Outlook 2009 (Apr. 2009), available at <http://www.eia.doe.gov/oiaf/aeo/>.

<sup>11</sup> Appellants submitted key excerpts of the AEO 2009, including Table 127, to the State Department as exhibits to their comments on the final EIS. It is thus part of the administrative record for the Alberta Clipper EIS on which the Forest Service relies for issuance of the ROD.

According to the federal government's own source of information regarding energy supply, demand and price, crude oil imports from Canada slowly decline from today to 2030. AEO 2009 states that as of 2006 Canada exported 1.6 million barrels per day of crude oil to the United States. In 2030, the federal government is projecting Canada will export 1.37 million barrels per day of crude oil to the United States. That is a decrease of 14%. Taken as a whole, total crude imports decline from 10.1 million barrels per day in 2006 to 6.92 million barrels per day in 2030 – a decline of over 3 million barrels per day or 32% in imported crude oil.

AEO 2009 also forecasts rates of consumption of liquid fuels refined from crude oil, which provides another method for projecting demand and evaluating the necessity of the Alberta Clipper pipeline. These forecasts are made for the nation and also for various regions. The “West North Central” region and the “East North Central” region together comprise the Midwest and “PADD II” – the region Enbridge purports will have increased demand necessitating its infrastructure expansion. According to AEO 2009, the amount of energy consumed in the form of liquid fuels declines slightly in the West North Central region by 2.8 quad BTUs in 2006 and 2.7 quad BTUs in 2030. Excluding the large projected growth in E85, a liquid fuel derived primarily from non-crude sources, energy consumption from crude oil-derived liquid fuels declines even more. For the East North Central region, energy consumption from liquid fuels likewise declines, from 5.3 quad BTUs in 2006 to 5.1 quad BTUs in 2030. Excluding E85, energy consumed from crude oil-derived liquid fuels declines from 5.3 to 4.8 quad BTUs in 2030. National level consumption follows the same pattern.

Even these EIA forecasts overstate U.S. and Midwest demand because they do not take into account any future laws or regulation that will certainly further dampen demand for carbon-intensive fuels such as those derived from the tar sands. On April 24, 2009, EPA published its proposed Endangerment Finding, widely acknowledged as the first step toward regulation of greenhouse gas emissions (whether under the Clean Air Act pursuant to the Finding or through other legislation). 74 Fed. Reg. 18886 (April 24, 2009). On June 28, 2009, the U.S. House of Representatives passed the American Clean Energy and Security Act, placing a cap on carbon emissions in the United States which will be lowered to a level of 83% below 2005 emissions by mid-century. American Clean Energy and Security Act, H.R.2454, 111th Cong. (2009). Permitting a huge new source of carbon-intensive fuel is in direct conflict with the goals of this legislation and at odds with the Obama Administration's stated goals of reducing carbon emissions and transitioning to a low-carbon economy.<sup>12</sup>

Because the State Department and Forest Service rely on inaccurate statements of need for the pipeline projects, the agencies err in rejecting the no action alternative. In its discussion of the no action alternative, the EIS says “the demand for crude oil in the United States is expected to rise slightly until about 2030.” Final EIS, at 3-2. The statement is factually incorrect and no evidence has been provided in support of it. Further, the final EIS says that “[t]he current

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<sup>12</sup> See, for example, the Obama-Biden Comprehensive New Energy for America Plan which includes investment in “a clean energy future,” improving energy security by “sav[ing] more oil than we currently import from the Middle East and Venezuela combined,” renewable portfolio standards for utilities, and an “economy-wide cap-and-trade program to reduce greenhouse gas emissions 80 percent by 2050.” Available at [http://www.whitehouse.gov/agenda/energy\\_and\\_environment/](http://www.whitehouse.gov/agenda/energy_and_environment/). It is particularly noteworthy that the plan does not look to replace Middle Eastern and Venezuelan oil with oil from Canada, but instead proposes within 10 years to eliminate US demand for that oil.

EIA projection is that meeting domestic demand will require the ‘unconventional’ oil supply from Canada, which is predominately heavy crude from reserves in western Canada, and that the Canadian oil supply will grow from approximately 1.5 million bpd in 2008 to over 4.3 million bpd in 2030.” *Id.* It concludes that “[i]mplementation of the no action alternative would not alter the increasing need for Canadian crude oil in the United States.” *Id.* at 3-3. In fact, the current EIA projection is that domestic demand for Canadian crude will decline. There is no evidence of any increasing need for Canadian crude oil in the United States. The Forest Service cannot reject the no action alternative based on statements that are contradicted by the very sources on which the EIS relies.

Moreover, the discussion of Canadian crude in the EIS appears to confuse production with imports. In the discussion of U.S. Crude Oil Market Demand, Section 1.2.2.1, for example, the State Department cites to AEO 2009 for the proposition that unconventional (heavy) crude production in Canada (and negligibly in Mexico) is expected to increase from 1.5 million barrels per day in 2006 to 4.3 million barrels per day in 2030. *See* Final EIS, at 1-4. The fact that the Canadian petroleum industry has plans to increase production of tar sands crude is not relevant to whether another half million barrels per day of heavy bitumen should be transported through the Midwest and does not justify selection of the proposed project over the no action alternative. If the purpose of the project is to allow Canadian oil producers better access to international crude oil markets, there are many alternatives that can achieve that purpose without destroying or placing at risk significant natural resources such as the Chippewa National Forest.

2. Neither the State Department nor the Forest Service have adequately considered alternatives for meeting purported demand increases.

Appellants noted in their comments to the EIS that conservation and renewable energy should be considered as possible alternatives to the Alberta Clipper. The State Department and the Forest Service failed to consider either. In a one-paragraph addition to the final EIS, the State Department asserted that “the projected energy demands of this market” could not be met by conservation or renewable sources. Such conclusory statements are not an alternatives analysis under NEPA, which requires that agencies “rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.” 40 C.F.R. § 1502.14(a).

Appellants also noted that the EIS failed to evaluate whether any purported increase in demand could be met by existing and newly constructed pipelines. The EIS fails to evaluate the alternative of increasing supply capacity without new line construction. Moreover, neither the State Department nor the Forest Service has provided an explanation for why the already permitted increases in supply capacity will not address the purported need for the project. As set out in Appellants’ comments on the draft EIS, Enbridge reports that it already has the capacity to transport 2.4 million bpd to Superior Wisconsin. The new LSr pipeline and upgrades to its North Dakota lines add 350,000 bpd to that amount for a total of 2.75 million bpd. Adding in the permitted and partly constructed Keystone pipeline with its capacity of 590,000 bpd, the overall capacity coming into the United States from Enbridge’s system and the Keystone pipeline is 3.34 million bpd. The EIA says U.S. consumption of Canadian crude is currently 1.6 million bpd and by 2030 it will decrease to 1.3 million bpd, and there is already the capacity to deliver

3.34 million bpd to the United States from Canada. The State Department and Forest Service's rejection of the no action alternative without addressing the adequate supply capacity is arbitrary and capricious. Based on the record, U.S. consumption of Canadian crude could nearly double before any new supply capacity would be needed. Neither the State Department nor the Forest Service has adequately explained its rationale for not choosing the no action alternative in the face of this evidence.

The Forest Service's failure to take a hard look at the stated purpose and need for the proposed expansion and to adequately evaluate all reasonable alternatives, including the no action alternative, violated and continues to violate section 102(2)(C) of NEPA, 42 U.S.C. § 4332(2)(C), and NEPA's implementing regulations, including the requirement to "rigorously explore and objectively evaluate all reasonable alternatives," including the "alternative of no action." 40 C.F.R. § 1502.14.

**C. Issuance of the Alberta Clipper Permits violates NEPA because the EIS fails to adequately analyze indirect and cumulative impacts.**

NEPA requires that an EIS must "provide full and fair discussion of significant environmental impacts and shall inform decision-makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1. This discussion must include an analysis of "direct effects," which are "caused by the action and occur at the same time and place," as well as "indirect effects which ... are later in time or farther removed in distance, but are still reasonably foreseeable." 40 C.F.R. § 1508.8. An EIS must also consider the cumulative impacts of the proposed federal agency action together with past, present and reasonably foreseeable future actions, including impacts from "cumulative actions." 40 C.F.R. § 1508.7; *Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 895-96 n.2 (9th Cir. 2002); *Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 969, 971-73 (9th Cir. 2006). "In short, NEPA requires that a federal agency consider every significant aspect of the environmental impact of a proposed action and inform the public that it has indeed considered environmental concerns in its decisionmaking process." *Earth Island Inst. v. U.S. Forest Serv.*, 442 F.3d 1147, 1153 (9th Cir. 2006) (internal quotations omitted).

The regulations define a cumulative impact as:

[T]he impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C.F.R. § 1508.7. "[P]roper consideration of the cumulative impacts of a project requires some quantified or detailed information. General statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided." *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 993 (9th Cir.

2004). An agency cannot simply offer conclusions but must instead identify and discuss the impacts that will be caused by each successive project, including how the combination of those various impacts is expected to affect the environment, so as to provide a reasonably thorough assessment of the projects' cumulative impacts. *Id.* "The analysis must be more than perfunctory," *id.* at 994, and "must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment." *Lands Council v. Powell*, 395 F.3d 1019, 1028 (9th Cir. 2005).

1. The EIS does not adequately address the indirect and cumulative impacts of refining heavy tar sands crude.

Tar sands oil is not useable in its crude form. Instead, it must be refined into lighter petroleum products such as gasoline and other liquid fuels. Different types of crude require different processes for upgrading and refining. Heavy bitumen crude like tar sands crude cannot be refined at refineries processing other types of crude. Refineries must upgrade their facilities in order to process tar sands crude. The EIS does not adequately consider all of the indirect and cumulative impacts of refinery expansions necessary to refine the increased amount of tar sands crude oil that will be imported into the United States.

The Alberta Clipper pipeline proposal already is catalyzing expansions at several refineries in the United States that will cause additional air, water and climate pollution. Refining heavy sour (sulfurous) crude oil extracted from tar sands requires more energy inputs than refining conventional crude due to the energy needed to crack the heavy, long hydrocarbon molecules into final products and remove the high levels sulfur contaminants.<sup>13</sup> This process yields significant increases in emissions of pollutants including heavy metals such as mercury, conventional air pollutants (in particular sulfur dioxide and carbon monoxide) and carbon dioxide.<sup>14</sup> Permits issued for these expansions will result in significant increases in the discharge of water contaminants to local waterbodies, including the Great Lakes. The increase of emissions of air pollution and discharges of water contaminants has serious implications for public health in local communities near the refineries being upgraded.

Enbridge has identified at least 28 refineries stretching from the Midwest down to Texas that will likely process and refine this heavy crude. While some of these may already be configured to process heavy crude, in order to accommodate up to 800,000 barrels per day from the Alberta Clipper pipeline it is likely that they will have to expand their capacity. Others not currently configured to process heavy crude will need to be upgraded. The EIS notes that refineries including the Marathon Detroit Oil Refinery in Detroit, Michigan; the BP Whiting, Indiana Refinery; and the ConocoPhillips refinery in Roxana, Illinois have recently been permitted to upgrade their refinery capacities for processing additional heavy crude oil anticipated to be delivered by the Alberta Clipper pipeline. The impacts of the reasonably foreseeable expansion in refining capacity of these additional refineries are not adequately addressed in the EIS.

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<sup>13</sup> Gary Brierly, et. al., "Changing Refinery Configuration for Heavy and Synthetic Crude Processing," (UOP, LLC 2006).

<sup>14</sup> *Id.*

First, the EIS dismisses the cumulative impacts on air quality by asserting that any refineries that would be upgraded to process this heavy crude oil would be required to implement Best Available Control Technology (BACT) to control and limit emissions. However, it is unclear what measures to reduce emissions would be deemed economically achievable in a BACT analysis and that the Department of State cannot rely on Clean Air Act compliance to eliminate all pollution impacts.

Second, the EIS summarily dismisses potential impacts of refinery expansion to water quality by asserting that new refineries or other existing refineries that propose upgrades would be required to satisfy NPDES discharge requirements and thus would avoid significant impacts to water quality. This is an inadequate analysis of the potential impacts to water quality and aquatic ecosystems. Increased transportation of crude oil from Canadian tar sands for refining in the United States can be expected to increase water pollution from U.S. refineries. An agency cannot ignore the environmental impacts of a project on the basis of an expectation that other federal agencies will address them. *See Illinois Commerce Comm'n v. ICC*, 848 F.2d 1246, 1259 (D.C. Cir. 1988).

Finally, the EIS does not consider the necessary expansions and upgrades to regional and national refining capacity in light of the combined increases in heavy crude supply from all the proposed pipeline constructions projects including not only the Alberta Clipper pipeline but also the North Dakota Expansion Project, the Southern Access Projects, the Enbridge-BP Pipelines Delivery System, the MinnCan pipeline expansion, and the TransCanada Keystone and Keystone XL pipelines. These projects will add to the existing infrastructure a combined increase of over 2 million barrels of oil per day by 2030. The cumulative impacts on the environment and public health of this dramatic system-wide increase in heavy crude oil refining are not adequately considered in the EIS.

2. The EIS does not adequately address the indirect and cumulative impacts of tar sands extraction.

The proposed Alberta Clipper pipeline will facilitate increased expansion of tar sands development in the Western Canada Sedimentary Basin in the province of Alberta. The EIS notes that the existing crude oil pipeline export capacity from Canada's tar sands region is insufficient to accommodate the forecasted crude oil supply growth. Final EIS, at 1-4. Limits on infrastructure limit expansion of tar sands oil extraction, while increased infrastructure for importing and refining tar sands oil, increases the pressure for rapid development in the Canadian tar sands. This expansion of tar sands development only exacerbates the many existing environmental and social problems caused by tar sands production in that region.

The EIS fails to include an analysis of the impacts in the United States caused by increased exploitation and development of Canadian tar sands through the Alberta Clipper project. These impacts include those related to greenhouse gas emissions and impacts on migratory species. The extraction and processing of tar sands to supply the Alberta Clipper Project is an indirect and cumulative impact of the pipeline, and the environmental effects of extraction and processing must therefore be evaluated in the EIS. 40 C.F.R. § 1508.25(c).

In its response to comments that the draft EIS did not include adequate analysis of the impacts of tar sands development, the State Department states that “the scope of the EIS is limited to matters within U.S. jurisdiction, in accordance with NEPA, CEQ guidance, relevant Executive Orders and Implementing Regulations, in particular 22 C.F.R. § 161.3. Thus, analyzing the environmental impacts of activities in Canada is outside the scope of NEPA, and this EIS.” Final EIS, at A-29. DOS further argues that analysis of the impacts of tar sands development is not necessary because “[s]election of the No Action Alternative would not stop the development or refining of oil sands in Canada, as warranted by market conditions.” *Id.* These arguments are without merit.

NEPA requires analysis of all the domestic environmental impacts of a major federal action, regardless of whether that action takes place inside or outside of the United States. In *Friends of the Earth v. Mosbacher*, the court held that requiring the preparation of environmental impact assessments regarding greenhouse gas emissions from overseas projects was not an extraterritorial application of NEPA because the projects would significantly impact the domestic environment in the United States. *Friends of the Earth v. Mosbacher*, 488 F.Supp.2d 889 (N.D. Cal. 2007); *see also*, *Sierra Club v. Adams*, 578 F.2d 389 (D.C. Cir. 1978); *NORML v. Dept. of State*, 452 F.Supp. 1226 (D.D.C. 1978). In *Border Power Plant Working Group v. Dept. of Energy*, the court held that an environmental assessment for a presidential permit of a proposed electricity transmission line must consider emissions not only from the construction and operation of the actual transmission lines, but also from the operation of power plants in Mexico to which the lines would be connected and whose operation constitutes an “adverse environmental effect” of the granting of the permit to construct and operate the transmission lines. 260 F. Supp. 2d 997, 1013, 1017 (S.D. Cal. 2003) (citing 42 U.S.C. § 4332(C)(ii)). The EIS, however, fails to consider any impacts on the domestic environment from increased tar sands development, including those related to greenhouse gas emissions and effects on migratory species.

Canada’s tar sands are the single largest contributor to global warming pollution emissions growth in Canada.<sup>15</sup> Further, tar sands oil production generates almost three times the global warming pollution as conventional oil production because of the large amounts of energy needed to extract, upgrade, and refine the oil.<sup>16</sup> Global warming pollution emissions from tar sands production already totaled 25 megatons in 2003 – more than the global warming pollution emissions from all the cars in Maryland that year.<sup>17</sup> Tar sands-related global warming pollution is projected to more than quadruple by 2015, to between 108 and 126 megatons.<sup>18</sup> As of early 2007, oil companies and government were discussing possibilities for a system for carbon capture and storage in the tar sands region, but without clear funding and timelines for the actual construction of such a system. Tar sands development is also largely responsible for the recent

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<sup>15</sup> Dan Woynillowicz, “Oil Sands Fever: The Environmental Implications of Canada’s Oil Sands Rush,” (The Pembina Institute, Nov. 2005), at 19.

<sup>16</sup> *Id.* at 22.

<sup>17</sup> Matthew Bramley, Derek Neabel, and Dan Woynillowicz, “The Climate Implications of Canada’s Oil Sands Development.” (The Pembina Institute, Nov. 29, 2005). Maryland’s emissions from automobiles were 24 MT CO<sub>2</sub> based on gasoline consumption. US Dept of Transportation, Highway Statistics 2003. CO<sub>2</sub> was calculated as 20 lbs per gallon of gasoline consumed.

<sup>18</sup> *Id.* at 5.

regional increase in air pollution from nitrogen oxides, sulphur dioxide, volatile organic compounds, and particulate matter.

Additionally, the tar sands lie beneath approximately 149,000 square kilometers of Alberta's northeastern boreal forest. Its destruction due to open pit mining and intensive drilling related to the exploitation of tar sands is eliminating an extensive and globally important carbon sink. Tar sands extraction is also eliminating peat bogs, which are the single best carbon sink of any habitat in terms of tons of carbon stored.

As discussed in greater detail below, the global warming impacts of tar sands oil extraction are felt not only in Canada but also in the United States, particularly in northern Alaska, where temperatures have increased at almost twice the global average rate. The latest U.S. government-commissioned climate report identifies climate change impacts already experienced in the United States, including "increases in heavy downpours, rising temperature and sea level, rapidly retreating glaciers, thawing permafrost, lengthening growing seasons, lengthening ice-free seasons in the ocean and on lakes and rivers, earlier snowmelt, and alterations in river flows."<sup>19</sup> The report predicts these changes to grow, noting that "[t]he amount and rate of future climate change depend primarily on current and future human-caused emissions of heat-trapping gases and airborne particles."<sup>20</sup> These types of impacts are the reasonably foreseeable effects of increasing tar sands production and transport capacity and must be included in the analysis of the environmental impacts of the proposed project.

The Boreal Forest in the area of tar sands extraction is home to many species sensitive to industrial development, such as caribou and lynx. Many of these species migrate across the U.S.-Canadian border. The extraction of tar sands through open pit mining is destroying acres of forest while the construction of wells, roads, and pipes is permeating the forest with industrial intrusion.

Both mining and drilling operations in the tar sands also have severe impacts on water supply and quality, threatening delicate wetlands and river ecosystems, including bogs, fens, shallow ponds, shoreline marshes, and river delta systems. The extraction of bitumen from oil sands produces large volumes of wastewater contaminated with polycyclic aromatic hydrocarbons (PAH), naphthenic acids, and salt which is stored in wastewater reservoirs or "tailings ponds" and reclaimed in aquatic systems.<sup>21</sup> Water in Lake Athabasca downstream from the tar sands has shown levels of arsenic, total mercury, and PAHs sufficient to pose a threat to wildlife or humans.<sup>22</sup> In studies of local fish, all walleye and female whitefish and almost all

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<sup>19</sup> U.S. GLOBAL CHANGE RESEARCH PROGRAM, GLOBAL CLIMATE CHANGE IMPACTS IN THE UNITED STATES, 12, (Cambridge University Press 2009), available at <http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/download-the-report>.

<sup>20</sup> *Id.*

<sup>21</sup> Dixon, G., R. Smith, B. Greenburg, L. Lee, G. Van Der Kraak, and M. Power. Undated. "Assessing the Cumulative Impacts of Oil-Sands Derived Chemical Mixtures on Aquatic Organisms in Alberta," Health Canada, available at [http://www.hc-sc.gc.ca/sr-sr/finance/tsri-irst/proj/cumul-eff/tsri-144\\_e.html](http://www.hc-sc.gc.ca/sr-sr/finance/tsri-irst/proj/cumul-eff/tsri-144_e.html).

<sup>22</sup> Kevin P Timoney, "A Study of Water and Sediment Quality as Related to Public Health Issues, Fort Chipewyan, Alberta," Treeline Ecological Research, (Nov. 2007), available at <http://www.borealbirds.org/resources/timoney-fortchipwater-111107.pdf>.

male whitefish tested exceeded U.S. guidelines for mercury consumption.<sup>23</sup> The high concentrations of pollutants such as naphthenic acids in tar sands tailings ponds are acutely toxic to aquatic life.

Collectively, these pools of waste cover almost 20 square miles, and are so vast that they can be seen from space. Many of the tailings ponds are next to water bodies such as the Athabasca River, and there are concerns about potential leakage from existing tailings ponds and from future “remediated” or buried tailings. The Alberta government does not regulate naphthenic acids, and future management of these pollutants is fraught with uncertainty. The deadly nature of these tailings ponds was demonstrated in May 2008 when over 500 migrating ducks died after landing in a tar sands tailings pond.<sup>24</sup> The contamination of waterways and wetlands and the creation of toxic tailings ponds threaten the habitat and health of migratory birds and other wildlife.<sup>25</sup> The FEIS, however, fails to include any discussion of these or other impacts of Canadian tar sands development on migratory species.

3. The EIS does not adequately address the indirect and cumulative impacts of downstream or end uses.

Assessment of the indirect impacts of increased importation of tar sands oil must include consideration of the air quality and climate change impacts of increased consumption of liquid petroleum-based fuels. In *Mid-States Coalition for Progress v. Surface Transp. Board*, 345 F.3d 520 (8th Cir. 2003), the Eighth Circuit held that the agency must include analysis of the indirect impacts from increased use of coal in an EIS examining a railroad intended to deliver coal from the Powder River Basin in Wyoming to Midwestern and Northeastern utilities. The court noted that the increased coal use was likely and foreseeable and the environmental effects of burning more coal must be included in the EIS. *Id.* at 549. Similarly, the Alberta Clipper pipeline will add 450,000 bpd (and combined with other tar sands pipelines currently being built or planned in Minnesota and across the Upper Midwest, over 2 million bpd) into the energy markets for refining into liquid fuels. The EIS must examine the full suite of environmental effects, not just from the Alberta Clipper, but from similar, and/or connected pipelines, from the resulting increases in tar sands extraction operations, the related refineries, and from the use of the tar sands themselves in the United States.

The EIS states that as a result of the refining process, the emissions associated with the end use of the oil by the consumer are not expected to be influenced by the source oil and that therefore end use emissions are not impacted by increased use of heavier crude oil. Final EIS, at 4-400. However, this analysis fails to recognize that increased access to tar sands oil will support refining and keep petroleum prices lower than without such access, with the impact of continued reliance on petroleum use. As the court in *Mid-States Coalition* held:

The increased availability of inexpensive coal will at the very least make coal a more attractive option to future entrants into the utilities market when

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<sup>23</sup> *Id.*

<sup>24</sup> Jeff Wells, “Danger In the Nursery: Impact on Birds of Tar Sands Oil Development in Canada’s Boreal Forest,” at 8, (Dec. 2008), available at <http://www.nrdc.org/wildlife/borealbirds.pdf>.

<sup>25</sup> *Id.*

compared with other potential fuel sources, such as nuclear power, solar power, or natural gas. Even if this project will not affect the short-term demand for coal, which is possible since most existing utilities are single source dependent, it will most assuredly affect the nation's long-term demand for coal.

345 F.3d at 549. Similarly, the increased availability of tar sands crude oil will increase the use of oil-based liquid fuels. Thus the likely and foreseeable environmental effects of burning more liquid fossil fuels must be included in the EIS. Finally, the relevant comparison is not the combustion of fuels derived from heavy synthetic crude compared to those derived from conventional crude oil. Instead, the impacts of combustion and use of heavy synthetic fuels should be compared to other reasonable alternatives such increased use of alternative fuels and improving energy efficiency and thus reducing demand for oil.

4. The EIS does not adequately address the cumulative impacts of increases in heavy crude supply from similar and future pipeline expansion.

The EIS does not consider reasonably foreseeable future expansions to the pipeline. Cumulative impacts include the incremental impacts on the environment resulting from the proposed action in combination with "reasonably foreseeable future actions." 40 C.F.R. § 1508.7. The EIS describes the possibility of future upgrades to the Alberta Clipper pipelines to increase its capacity from 450,000 barrels per day to 800,000 barrels per day. Final EIS, at 2-50. This increase in capacity would require new pumps or upgrades to existing pumps at seven stations in the United States: the Donaldson, Viking, Plummer, Clearbrook, Cass Lake, Deer River, and Floodwood Pump Stations. Three new 6,000-horsepower pumps would need to be installed at Donaldson, two at Plummer, three at Cass Lake, and three at Floodwood. *Id.* The remaining sites (Viking, Clearbrook, and Deer River) would require new pump impellers and related modifications. *Id.* The EIS does not consider the impacts of installing and operating these more powerful pumps, the increased energy that would be required to operate at this increased capacity and the corresponding increases in GHG emissions, or the cumulative impacts of the expansion of refining operations that would result from processing 350,000 additional bpd.

Moreover, the EIS does not analyze the cumulative impacts of increased importation, refining and use of tar sands crude oil in light of the combined increases in heavy crude supply from similar pipeline constructions projects. The incremental impacts of the Alberta Clipper pipeline are significant when added to other existing and reasonably foreseeable pipeline expansion project including the Southern Lights project, the North Dakota Expansion Project, the Southern Access Projects, the Enbridge-BP Pipelines Delivery System, the MinnCan pipeline expansion, and the TransCanada Keystone and Keystone XL pipelines. Because the EIS fails to assess the cumulative impacts of extracting, refining and using vastly increased volumes of tar sands crude oil, the EIS fails to satisfy NEPA's cumulative analysis requirement.

5. The EIS does not adequately address the climate impacts of the pipeline.

According to the Intergovernmental Panel on Climate Change, a group of over 2000 of the world's preeminent climate scientists, climate change is a fact. The IPCC concludes that

“warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level.”<sup>26</sup> Most of the observed increase in global average temperatures since the mid-20th century is “very likely due to the observed increase in anthropogenic greenhouse gas concentrations.”<sup>27</sup>

According to the IPCC’s assessment of the latest scientific literature, evidence from all continents and most oceans shows that many natural systems are being affected by regional climate changes, particularly temperature increases. In the United States, warming in western mountains is projected to cause decreased snowpack, more winter flooding and reduced summer flows, exacerbating competition for over-allocated water resources.<sup>28</sup> Rising temperatures will impact vegetation and animal species and could in the long term reduce agricultural yields.<sup>29</sup> More frequent and more powerful hurricanes are expected which, combined with rising sea levels, will damage coastal areas.<sup>30</sup> Because climate change is more pronounced in the Arctic, Alaska is particularly at risk due to melting permafrost, coastal erosion, decreased levels of sea ice and related impacts on ice-dependent species.<sup>31</sup> One of the key mitigation strategies that the IPCC identifies for reducing the rate and impacts of global warming is changing the sources on which we rely for energy from oil, coal and other fossil fuels to renewable low-carbon sources including wind, solar and geothermal energy.<sup>32</sup>

The direct, indirect and cumulative climate impacts of the Alberta Clipper project must be evaluated in the EIS. *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 508 F.3d 508, 550 (9th Cir. 2007) (“The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct.”).

Extraction and refining of tar sands oil is extremely energy- and greenhouse gas-intensive. A life-cycle analysis of the GHG emission of tar sands oil shows significantly increased carbon dioxide emissions over conventional oil.<sup>33</sup> A report by the Polaris Institute states that production of tar sands oil currently releases about three times more greenhouse gas emissions than pumping conventional oil, producing about 85.5 kg of carbon dioxide per barrel of tar sands oil.<sup>34</sup> The increase comes primarily from the fuel needed for the extraction of the tar sands (in most cases significant amounts of natural gas) and in the fugitive emissions from the

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<sup>26</sup> IPCC, *Climate Change 2007: Synthesis Report*, (Nov. 2007), at 30, *available at* [http://www.ipcc.ch/publications\\_and\\_data/publications\\_ipcc\\_fourth\\_assessment\\_report\\_synthesis\\_report.htm](http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synthesis_report.htm).

<sup>27</sup> *Id.* at 39. The authors of the IPCC reports use standardized terminology to describe their probabilistic assessments as follows: virtually certain – greater than 99% probability of occurrence; very likely – 90 to 99% probability; likely – 66 to 90% probability; about likely as not – 33 to 66% probability; unlikely – 10 to 33% probability; very unlikely – 1 to 10% probability; exceptionally unlikely – less than 1% probability. *See id.* at 27.

<sup>28</sup> *Id.* at 52.

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

<sup>32</sup> *Id.* at 60.

<sup>33</sup> *See* Simon Mui and Roland Hwang, “White Paper: Life Cycle analysis of Greenhouse Gas Emissions from Tar Sands,” (NRDC, Nov. 2008).

<sup>34</sup> Polaris Institute, “A Dirty Little Secret: Canada’s Global Warming Engine,” *available at* <http://www.tarsandswatch.org/files/adirtylittlesecret.pdf>.

overall process. The exploitation of this resource is resulting in Canada's violation of its Kyoto Protocol obligations and driving outsourcing of refining to the United States, which is not a signatory party to the Kyoto treaty. *Id.*

While exploitation of the tar sands will generate up to one-third more greenhouse gas pollution than conventional oil, the mining of the tar sands compounds the global warming effect because it destroys hundreds, potentially thousands, of square miles of some of the best natural carbon sequestration on the planet. As described above, the tar sands are located in the boreal regions of northern Alberta, an area covered with forest and peatbogs. Removing the trees and stripping away the bog eliminates the ecosystem's ability to store that carbon, and also releases previously stored carbon when the bogs dry out. On average, 516 tons of carbon are stored per acre of peatland, by far the largest level of carbon sequestration of any organic system. Multiplying the 516 tons per acre by the number of acres destroyed in tar sands extraction adds up very quickly, compounding the extremely negative carbon equation of tar sands exploitation.

To get a true sense of the life cycle GHG emissions attributable to tar sands oil, the GHG emissions generated during extraction and upgrading must be added to the emissions generated by refining the tar sands crude into final petroleum products and to the emissions associated with combustion or the final end use of those fuels. Approximately 200 kg of CO<sub>2</sub> equivalent are emitted for every cubic meter of "bitumen blend," or heavy crude, refined and the life cycle figure per cubic meter of bitumen blend is just over 3500 kg CO<sub>2</sub> equivalent.<sup>35</sup> Using the ultimate capacity of the Alberta Clipper pipeline – 800,000 barrels per day – the CO<sub>2</sub> equivalent emitted from refining Alberta Clipper crude alone would be approximately 18.77 million kg per day or over 7.5 million tons per year. The life cycle CO<sub>2</sub> equivalent emitted by the pipeline would be approximately 328.5 million kg per day, or approximately 132 million tons per year. Over the 50-year life of the pipeline, the project could be expected to contribute 6.6 billion tons of CO<sub>2</sub> equivalent to the earth's atmosphere.

By any standards, 132 million tons per year is a significant figure. A large coal-fired power plant may generate 5 to 10 million tons of CO<sub>2</sub> equivalent per year and the entire state of Minnesota emitted 157 million tons of CO<sub>2</sub> equivalent in 2005.<sup>36</sup> Because these emissions will have severe impacts on the health, welfare, economy, and environment of the Midwest, the nation, and the planet as a whole, the Forest Service should conclude that the Alberta Clipper project has severe unmitigated adverse environmental impacts and reject the application for an amended Special Use Authorization and a Temporary Construction Special Use Permit.

The EIS does not adequately address the Alberta Clipper project's global warming impacts. In the three pages devoted to the impacts of greenhouse gas emissions, the EIS fails to comprehensively describe or quantify the indirect emissions of GHGs and does not analyze the

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<sup>35</sup> Declaration of Ranajit Sahu ¶¶ 2-3. Appellants submitted Ron Sahu's declaration and supporting materials to the State Department as exhibits to their comments on the draft EIS. They are thus part of the administrative record for the Alberta Clipper EIS on which the Forest Service relies for issuance of the ROD.

<sup>36</sup> Randy Strait et. al., "FINAL Minnesota Greenhouse Gas Inventory and Reference Case Projections 1990-2025" at iii, (Center for Climate Strategies, Mar. 2008), *available at* <http://www.mnclimatechange.us/ewebeditpro/items/O3F20492.pdf>.

local, regional, or global environmental impacts of GHG emissions from the Alberta Clipper pipeline, the Southern Lights pipeline and related facilities.

The EIS also applies a number of different methodologies to calculate the GHG emissions from refining the oil transported by the pipeline and concludes that refining the oil transported by the Alberta Clipper Project would result in total carbon emissions in the range of 1.5 to 7.8 million metric tons per year. Final EIS, at 4-402. However, the EIS only assesses the significance of the GHG emissions associated with operation of the pipeline, concluding that “Alberta Clipper operations (0.3 million metric tons) would not constitute a substantial contribution to the emissions from specific refineries (as discussed above), total U.S. emissions, or global emissions.” *Id.* at 4-403.

The analysis of GHG emissions in the EIS does not account for (1) refinery upgrades and expansions necessary to accommodate the increased volumes delivered by the pipelines; (2) the upstream emissions generated by the increased tar sands development induced by increased U.S. transport and refining capacity; (3) the reasonably foreseeable future expansion of the Alberta Clipper pipeline capacity from 450,000 to 800,000 barrels per day; (4) the cumulative impacts of refining crude delivered by similar and connected pipeline expansions; or (5) the downstream use of the oil. Because it omits these significant indirect and cumulative sources of greenhouse emissions the EIS’s treatment of the global warming impacts is inadequate.

Finally, despite the significant emissions of greenhouse gases resulting from the project, the EIS fails to assess the impacts of global warming pollution on any environmental receptor such as wildlife, vegetation, water resources, humans, or land, with the exception of one paragraph in Appendix U regarding the impacts on Canada Lynx. Appendix U, at 3-74. Nor does the EIS consider the economic impacts of emitting 132 million tons of CO<sub>2</sub> equivalent annually. Peer reviewed studies modeling the economic costs of global warming and CO<sub>2</sub> emissions estimate that each ton of CO<sub>2</sub> emitted causes approximately \$85 in damage.<sup>37</sup> These impacts of the project must be fully analyzed before the EIS is finalized.

The Forest Service’s failure to consider and evaluate adequately the indirect and cumulative impacts of the Alberta Clipper and Southern Lights projects violated and continues to violate Section 102(2)(C) of NEPA, 42 U.S.C. § 4332(2)(C), and NEPA’s implementing regulations, including the requirements that agencies take a “hard look” at the impacts of their actions, and that they consider all direct, indirect and cumulative impacts. 40 C.F.R. § 1508.7.

**D. Issuance of the Alberta Clipper Permits violates NEPA because the EIS fails to adequately evaluate risks, impacts, and mitigation measures associated with spills and operational leaks.**

The EIS does not adequately address the impact that spills and operational leaks would have on the environment, especially soil and water resources, or on human health. The extent of environmental risk is dependent on the location and quantity of the oil spill, the type of soil and water resources in the area of the spill, the topography of the land area, and the type of material

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<sup>37</sup> NICHOLAS STERN, STERN REVIEW ON THE ECONOMICS OF CLIMATE CHANGE, Cambridge University Press (Oct. 2006), *available at* [http://www.hm-treasury.gov.uk/sternreview\\_index.htm](http://www.hm-treasury.gov.uk/sternreview_index.htm).

that is released into the environment. In particular, because the EIS does not consider the connected Southern Lights diluent pipeline, it does not provide information about or evaluate the risks, impacts, or measures available to mitigate leaks and spills from the diluent pipeline. The EIS fails to identify the specific refined petroleum product that will be used as diluent and offers the public and public officials no understanding of the environmental consequences of leaks and spills of diluent along the Southern Lights diluent pipeline.

Instead, the EIS defers to a future review process by the Pipeline and Hazardous Materials Safety Administration (PHMSA) within the Office of Pipeline Safety (OPS) at the Department of Transportation. However, PHMSA maintains that its review of Enbridge's emergency response plan (ERP) and integrity management program (IMP) are not subject to NEPA review.<sup>38</sup> An agency cannot ignore the environmental impacts of a project on the expectation that other federal agencies will address them. *See Illinois Commerce Comm'n v. ICC*, 848 F.2d 1246, 1259 (D.C. Cir. 1988). This is particularly so when, as here, the expectation is unwarranted.

The EIS states that Enbridge's ERP for its existing pipeline system "would be amended to incorporate the Alberta Clipper Project and would be submitted to OPS for review and approval." Final EIS, at 4-348. However, a comprehensive risk analysis cannot be jettisoned in reliance on an ERP that was created for a different project. The Forest Service has no basis for concluding that the environmental effects from leaks and spills that will occur during operation of the Alberta Clipper and Southern Lights projects will be the same as the effects from operation of Enbridge's other pipelines. Nor has it pointed to any environmental review that preceded PHMSA's approval of the ERP and IMP for any of Enbridge's other pipelines. NEPA requires a thorough analysis of environmental impacts considering on-the-ground circumstances in an effort to anticipate and mitigate for the inevitable spills and operational leaks that will occur from the Alberta Clipper and diluent pipelines. It further requires analysis of the measures in place to prevent or mitigate the harm that will result to the ecological and human communities. Defects in this risk analysis and mitigation plan could have catastrophic impacts on the environment and human health.

Moreover, the mere existence of a spill prevention plan is not an acceptable substitute for analysis of the environmental impacts of spills and operational leaks. Given the undisputed fact that pipeline spills and leaks occur, it is essential that the impacts of such releases be identified and taken into consideration in the permitting process. This requires assessment of the likelihood of small spills and leaks as well as large spills, and analysis of their potential impacts on different resources such as specific aquifers and wetlands, soil, and species.

Because the ERP and IMP are the primary mitigation measures to ensure that the pipeline is operated safely and that spills are remediated promptly and comprehensively, *see* 49 U.S.C. § 60109, 49 C.F.R. § 194.1, the EIS should not have been completed and an ROD should not have been issued absent consideration of the risks and harms associated with spills and operational leaks and assessment of the mitigation measures proposed in the ERP and IMP. Assessment of the risks and impacts and review of the spill prevention and response plans, as required by NEPA, must be completed before a decision on Enbridge's application for a Special Use

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<sup>38</sup> Letter from Jeffrey D. Wiese, Associate Administrator for Pipelines Safety, PHMSA, (Aug. 10, 2009).

Authorization and Temporary Construction Special Use Permit. It is not possible to complete a meaningful EIS for the Alberta Clipper and diluent projects absent a clear understanding of the spill prevention measures proposed by Enbridge and PHMSA.

Finally, the EIS does not provide adequate information on end-of-life impacts, nor does it evaluate mitigation measure that should be required of Enbridge to ensure restoration upon abandonment. The EIS projects that the Alberta Clipper will be abandoned in approximately 50 years. Final EIS, at 2-51. The Southern Lights diluent pipeline and the other pipelines in Enbridge's corridor have a similar lifespan. Yet the EIS does not discuss the process for or impacts of abandonment.

The EIS must assess the environmental impact that abandonment of the pipelines will have and consider mitigation measures, such as financial assurance, to deal with end-of-life impacts. *See* 40 C.F.R. § 1508.20. What will happen to remaining product in the pipeline? How will slow leaching of crude and diluent affect natural resources and waterbodies in Chippewa National Forest? Even if the pipelines are somehow completely emptied, what effect will corrosion of the pipes have? Will corrosion lead to slumping and what effect would such slumping have on the functions of the land? Should Enbridge be required to remove the pipelines upon abandonment to avoid these environmental impacts? None of these questions has been addressed in the EIS. These issues must be evaluated in order to make an informed decision that weighs all of the project's environmental costs.

#### **E. Issuance of the Alberta Clipper Permits Violates NFMA**

The National Forest Management Act (NFMA), 16 U.S.C. §§ 1600 *et seq.*, provides a two-tiered approach to governing our National Forest system. At the planning level, the Forest Service is required to develop a Land Resources Management Plan (or a "forest plan") for all national forest lands. *Id.*; 36 C.F.R. § 219.10(a). At the site-specific level, all activities in the forest must be determined to be consistent with the forest plan. 16 U.S.C. § 1604(i). The current forest plan for the Chippewa National Forest was finalized in July of 2004.<sup>39</sup>

On June 29, 2009, Robert Harper, the Forest Supervisor of the Chippewa National Forest, issued the ROD for the Alberta Clipper and Southern Lights diluent pipeline projects. The projects would cross each of the following Management Areas of the Chippewa National Forest: General Forest; General Forest Longer Rotation; Riparian Emphasis; and Unique Biological, Aquatic, Geological, or Historical (UB). The ROD for the Alberta Clipper violates NFMA because it is inconsistent with the Chippewa National Forest Plan (the Plan) in several respects.

First, the ROD violates management direction S RE-1. This standard provides that for Special Uses in Riparian Emphasis [RE] Management Areas "[n]ew special uses that would degrade the long term ecological function of riparian ecosystems are not permitted." CNF Plan, 3-31. The Alberta Clipper would transport heavy tar sands crude oil and the diluent pipeline would transport lighter hydrocarbons through or adjacent to many sensitive riparian areas, including Lake Winnibigoshish, Cass Lake, Leech Lake, and several river crossings. Tar sands

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<sup>39</sup> The forest plan for the Chippewa National Forest is available at: <http://www.fs.fed.us/r9/chippewa/plan/final/cnf/index.shtml>.

crude oil contains higher concentrations of heavy metals, nitrogen, and sulfur than conventional crude oil. Oil pipelines are susceptible to leaks, spills, and other types of accidents, and the risk of some type of rupture is high. When a rupture occurs, the damage to the riparian ecosystems would be irreversible and would degrade their long term ecological functions. The long term ecological function of RE areas will also be degraded during the construction of the project by the compaction of wetland soils, deposition of excess backfill materials, and other impacts that could alter the groundwater and surface water hydrology of the wetlands, cause erosion, and contaminate soil and water. Accordingly, the Alberta Clipper and diluent pipelines should not be permitted to cross the Riparian Emphasis Management Areas.

The ROD is also inconsistent with standard S-UB-6 of the Plan. The Plan states that, in Unique Biological, Aquatic, Geological, or Historical Areas (UB), “[f]ederal mineral exploration and development activities that disturb the surface are not permitted.” CNF Plan, 3-28. Construction of the Alberta Clipper and diluent pipelines is a development activity that would disturb the surface. Thus, according to the Plan, it is not permitted to cross a UB Management area.

Because the Alberta Clipper permits are inconsistent with the Chippewa National Forest Plan, the Forest Service’s approval of the permits violates the National Forest Management Act.

## **V. RELIEF REQUESTED**

For the reasons discussed above, the Forest Service’s ROD amending the Special Use Authorization and issuing a Temporary Construction Special Use Permit for the Alberta Clipper and Southern Lights diluent pipeline projects in the Chippewa National Forest violates NEPA and NFMA. We therefore appeal the Forest Supervisor’s decision to issue the Alberta Clipper permits and request that the permits be vacated unless and until the Forest Service complies fully with NEPA and NFMA.

Respectfully submitted,



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