



Louis Knox  
Director, Ontario Region  
Canadian Environmental Assessment Agency  
55 St. Clair Avenue East, Room 907  
Toronto, ON M4T 1M2

September 21, 2011

Via E-mail: [louise.knox@ceaa-acee.gc.ca](mailto:louise.knox@ceaa-acee.gc.ca)

**Re: Cliffs Chromite Project in Ontario's Ring of Fire**

Dear Ms. Knox,

On June 24, 2011, Cliffs Ferroalloys, a subsidiary of Cliffs Natural Resources Inc. submitted a project description (Project) in Ontario's "Ring of Fire" to the Canadian Environmental Assessment Agency (CEAA) requesting a comprehensive study environmental assessment. The Wildlife Conservation Society (WCS) Canada respectfully recommends that given the scale and precedent the Project sets for development in northern Ontario, a Joint Review Panel, coordinated and harmonized with the province of Ontario and with First Nations representation, be established. We also request that adequate participant funding to all affected First Nations be made to ensure meaningful Aboriginal consultation in this process.

We are submitting this request in our respective capacities as scientists specializing in fish and wildlife ecology, conservation biology, and landscape ecology (Appendix 1) in the region on behalf of the WCS Canada. WCS Canada ([www.wcscanada.org](http://www.wcscanada.org)) was established in May 2004 as a Canadian non-government organization with a mission to conserve wildlife and wildlands by improving our understanding of and seeking solutions to critical problems that threaten key species and large wild ecosystems throughout Canada. WCS Canada generates knowledge through research and tools for conservation of the northern boreal's wide-ranging fish and wildlife species, ecosystems, and biodiversity. WCS Canada provides this information to Government and First Nations decision-makers to create policies and governance systems that support biodiversity conservation, sustainable use of biological resources and best practices for industrial development. Through our role on the Far North

WCS CANADA

T. 807-472-1440

P.O. Box 10316

E. [CCHETKIEWICZ@WCS.ORG](mailto:CCHETKIEWICZ@WCS.ORG)

THUNDER BAY, ON, P7B 6T8 CANADA

[WWW.WCSCANADA.ORG](http://WWW.WCSCANADA.ORG)

Science Advisory Panel to Ontario's Minister of Natural Resources (OMNR), WCS Canada contributed advice on approaches to regional-scale land-use planning in Ontario's northern boreal forest. Of particular relevance to the Project, was the recommendation by the Far North Science Advisory Panel in its 2010 report<sup>1</sup> on the Ring of Fire. Specifically, the panel recommended that Ontario "immediately designate the Ring of Fire as a Priority Management Area with an interim sub-regional planning process." The rationale for this is rooted in the potential for irreversible impacts on terrestrial, aquatic, and social systems and the current lack of adequate planning tools and social institutions to address infrastructure, development activities, and climate change in the Ring of Fire from a broader regional perspective.

This Project will result in the first and largest chromite mine – to supply stainless steel markets – in North America. The quality and quantity of the chromite deposit is anticipated to produce a mine lasting 100 years. However, neither the company nor the federal and provincial agencies have any experience with this kind of mining operation, particularly in sub-Arctic boreal ecosystems. Infrastructure to support ore transportation is currently proposed to cross worldclass peatlands, wetlands, and an extraordinary number of waterbodies, including major rivers. Peatlands and wetlands provide critical ecosystem services such as sequestering carbon to mitigate Ontario and global greenhouse gas emissions (GHGs). Importantly, these ecosystems support First Nations traditional resource use and cultural values that will demand consideration beyond mitigation measures within a project-based environmental assessment. The infrastructure and energy requirements alone will require an economic investment at a scale that is unprecedented in Ontario and will require significant public funding to make it viable.

This Project is just one of a number of developments proposed at present (e.g., Noront Resources Ltd.), and experience has demonstrated that the infrastructure, once developed, will support future developments inviting cumulative ecological and social impacts. This Project is coming online at a time when there are a lack of equitable processes to engage affected First Nations and the public about issues of sustainability and alternative futures for the region, compounded by a lack of vision and long-term planning that acknowledges trade-offs and risk.

The social context for resource development in northern Ontario is complex for a non-Canadian proponent such as Cliffs Natural Resources Ltd. First Nations affected by the Project have Aboriginal and Treaty rights and are accorded specific obligations by the Crown and Ontario for consultation and accommodation under section 35 of the Constitution Act, 1982. The Canadian Government has also signed the United Nations Declaration on the Rights of Indigenous People (UNDRIP)<sup>2</sup> which includes articles on free, prior and informed consent, participation in effective decision-making, negotiation for activities that affect communities, and respecting and accounting for views and traditional and indigenous knowledge. Regrettably, Ontario has a history of conflict between First Nations and mineral exploration and development (e.g., Kitchenuhmaykoosib Inninuwug (KI) vs. Platinox Inc.) and critical reviews of the experiences of Fort Albany and Attawapiskat First Nations during the assessment process

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<sup>1</sup> Ontario Far North Science Advisory Panel. 2010. *Science for a Changing Far North*. <http://www.mnr.gov.on.ca/en/Business/FarNorth/2ColumnSubPage/266512.html>

<sup>2</sup> <http://www.un.org/esa/socdev/unpfii/en/drip.html>

for the Victor Diamond mine - Ontario's first diamond mine operated by De Beers Canada Ltd. - in northern Ontario highlight critical social justice issues with EA processes, including capacity to participate and validity and governance of EA decision-making about land. To date in the Ring of Fire, the scale and intensity of mineral exploration activities and company engagement with First Nations has resulted in First Nation blockades as well as a workers strike during June 2011. In British Columbia, the Tl'azt'en Nation recently issued a stop work order to Cliffs Natural Resources Inc., after they failed to negotiate and obtain an exploration agreement in good faith.

The quality and quantity of the chromite deposit is anticipated to produce a mine lasting 100 years. The value of the resource is based on both its depletion and a market that is not linked to local conditions. Market values for non-renewable resources fail to reflect the implicit environmental and cultural values in the region. As such, developments like this Project are not truly sustainable. Sustainable development expectations and assumptions for possible futures that include mines cannot be delivered by a process designed to mitigate adverse effects i.e., project-based environmental assessment. While we are recommending a Joint Review Panel with respect to the Project, WCS Canada respectfully requests that the Minister of Environment seek agreement with Ontario to establish a regional strategic environmental assessment (R-SEA) to place this Project in context given the rate, scale, and intensity of industrial development unfolding in northern Ontario as well as a number of provincial policies and legislative instruments on development, conservation, and land use planning.

To augment our own first-hand experience in the region, we have reviewed the public project description and listened to the presentations about the Project at the Regional Infrastructure Conference hosted by Ontario's Ministry of Northern Development Mines and Forestry in Thunder Bay on June 22nd and 23<sup>rd</sup> 2011. We have also received correspondence and updates from Matawa and Mushkegowuk First Nations who will be directly impacted by developments in the Ring of Fire where the Project will be situated. Under the *Canadian Environmental Assessment Act (CEAA)*, the Minister of the Environment has the discretion to refer an assessment to a Review Panel when a project has uncertainty or likelihood of causing significant adverse environmental effects (CEAA, section 28). Recently, the federal and provincial governments signed an agreement to establish a Joint Review Panel for the Marathon Platinum Group Metals and Copper Mine Project in Ontario. We were pleased to learn about this announcement, given the scale and intensity of Stillwater Canada's proposed mine within the Lake Superior watershed. We believe there is no evident justification for applying a lesser standard to this Project given the scale of the Project, complex environmental impacts, and First Nations demands.

In support of our recommendation to establish a Joint Review Panel for this environmental assessment in the immediate future and a SEA in the longer term, we highlight below the main concerns given the unique environmental, social and economic context in Ontario's northern boreal. Underscoring this complexity is the issue of cumulative environmental and social effects beyond the scope of a project-based environmental assessment and the recent submission by Noront Resources Ltd. for a new nickel mine and additional infrastructure in the Ring of Fire.

### ***Environmental context of the Project:***

**The Project will be situated in a locally, nationally and globally significant region.** At 452,000 km<sup>2</sup>, Ontario's northern boreal, almost half the area of Ontario, is globally, nationally, and locally significant. Fundamental to ecological processes that control the structure and function of ecosystems in the

northern boreal are supporting ecosystem services such as the maintenance of soil resources, water cycling, carbon and nutrient cycling, maintenance of disturbance regimes and biological diversity. Specifically, this region contains the world's largest intact tract of boreal forest, the world's second largest peatland complex, and North America's largest wetlands, including six of Canada's largest rivers. The environmental conditions create a diversity of habitats supporting terrestrial biological diversity, including caribou, wolverine, Canada lynx, gray wolf, marten, polar bear, and nurseries for many species of boreal songbirds. Some of these species have suffered declines in Ontario and Canada and are considered species at risk under Ontario and Federal legislation. In addition, the aquatic ecosystems are home to a diversity of freshwater fish and a globally significant migratory flyway along the Hudson Bay and James Bay coasts for waterfowl and shorebird breeding and migration.

**Boreal systems provide valuable supporting and regulating services.** Supporting services are the foundation for other vital ecosystem services for human societies, including the provisioning of fresh water, food, genetic resources and cultural and spiritual values for First Nations in particular. Regulating services provided by peatlands and wetlands for example include climate regulation, water quantity and quality controls and erosion controls. The ability of supporting services in this region to further absorb impacts from novel industrial developments like the Project depends on their resilience in light of a warming climate, including melting of permafrost, changing vegetation patterns, and warming lakes and rivers. Novel developments like the Project can compound vulnerabilities in delivering ecosystem services in this sub-Arctic environment.

**The Project will be situated in and destroy portions of provincially, nationally, and globally significant peatland ecosystems.** Peatland ecosystems are critical components of the global carbon cycle and have been implicated in regulating ecosystem services, including climate regulation, water quantity and quality, and erosion controls. Peatland ecosystems sequester and store carbon at rates that surpass tropical forests. Ontario's peatlands currently provide about a tenth of the globe's cooling benefit and offset as much as one third of southern Ontario's carbon emissions. As such, peatlands are important components of provincial, national and international mitigation strategies to address GHGs from industry and transportation. Not only does the Project destroy carbon sources currently being promoted to offset GHG, but the extraction of ore and processing of minerals proposed by the Project is energy-intensive and will contribute to GHG emissions in the north. There is a clear need to connect these costs and benefits explicitly.

**The Project will irreversibly impact freshwater ecosystems on an unprecedented scale in northern Ontario.** The mine itself will operate in wetlands within the headwaters of two of the last major undeveloped rivers in Ontario – the Attawapiskat River and Ekwan River. There will be impacts for water quality and quantity downstream that affect fish, wildlife, and local communities that depend on these surface waters. One presentation on infrastructure based on the current staked "rail line" from the deposits to Nakina requires an estimated 89 river crossings - 50 bridges and 39 culverts- across four major rivers (Attawapiskat, Albany, Ogoki, Esnagami) and numerous other waterbodies. The scale of the Project, the likely impacts to multiple waterbodies, and the uncertainties with respect to success of mitigation and compensation for fish habitat impacts poses a high risk of adverse environmental effects on fish and fish habitat in these waterbodies. There are aquatic species of concern (federal/provincial), including lake sturgeon, for which the Ontario Ministry of Natural Resources (OMNR) is currently developing a recovery plan. The plan emphasizes the lack of knowledge on lake sturgeon populations and their habitats in the river systems above. Lake sturgeon are important to First Nations communities as are walleye and lake whitefish which have spawning habitat in these river systems. Another

important feature in this region is the presence of unique populations of sea-run brook trout and migratory lake whitefish whose movements may also be impeded by the Project and infrastructure. Another likely impact of new infrastructure on freshwater ecosystems will be increased access to previously remote areas and waterbodies and increased harvest impacts. Ironically, the Projects infrastructure will damage and destroy important aspects of this environment's natural infrastructure. These impacts are more fully described in WCS Canada's freshwater fish conservation report.<sup>3</sup>

**The Project, particularly new infrastructure, will impact wide-ranging terrestrial species at risk including wolverine and woodland caribou.** Northern Ontario is a stronghold for wolverine and caribou, two species-at-risk with a demonstrated vulnerability to human development that have already lost close to half of their ranges in Ontario. For boreal caribou in particular, a robust body of empirical evidence has accumulated from across Canada establishing a clear negative relationship between cumulative disturbance and population persistence, demonstrating that higher proportions of ranges disturbed increase the risk of decline in a caribou population. Both species are wide-ranging, live at low densities, and serve as key indicators of the ecological integrity of boreal systems.

The Project's infrastructure corridor has been claim-staked along an esker. While eskers provide the most convenient source of aggregate and basis for infrastructure, they are relatively rare in this environment. Importantly, they contribute disproportionately to regional biodiversity as natural infrastructure in the form of travel routes for caribou and den sites for wolves and wolverines in a landscape that is both wet and dominated by bedrock and permafrost. Eskers are the natural infrastructure critical for movement processes of many terrestrial species, including plant species not found in surrounding forests. Their role in connectivity for plants and wildlife within the boreal forest is poorly understood.

**The Project energy demands will require additional hydro-development and transmission features beyond diesel operations.** The Project anticipates an additional 25 MW of energy to support mining operations. Smelter operations have high energy demands and can account for nearly one third of the cost of production. The location of the smelter is not known, but likely within larger communities outside of the Far North itself. It seems highly likely that these needs will warrant extensions of existing hydroelectric transmission facilities or new sources e.g., new dams, to support the operation. Hydro-development can also further compound the destruction of spawning habitat for walleye, whitefish, brook trout, and lake sturgeon. It is not clear how the cumulative energy requirements will be assessed in the Project.

**Northern boreal ecosystems are highly dynamic and widely acknowledged as vulnerable to climate change.** Aquatic and terrestrial systems in the boreal are dynamic in nature due to large-scale processes like fire, strong winds and flooding as well as the presence of discontinuous permafrost. The impact of climate change is more pronounced in northern latitudes because ecosystem processes are sensitive to direct and indirect effects of temperature. These dynamics have implications for agencies charged with addressing predictability and manageability of impacts and underscore the need for new development, particularly permanent infrastructure, to address operations under various futures given climate change

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<sup>3</sup> <http://www.wcscanada.org/Publications/tabid/2541/Default.aspx>

predictions. The Far North Science Advisory Panel Report emphasized a number of uncertainties related to our rudimentary, science-based understanding of this remote and dynamic environment.

***Recommendation 1. The Federal government require a review panel and seek to harmonize environmental assessment into a Joint Review Panel. We further recommend that this panel include scientists with experience in aquatic and peatland ecosystems as well as climate change scenarios for northern sub-Arctic environments.***

#### **Social context of the Project:**

**The Project will impact social systems, particularly First Nations, inextricably linked to the ecological systems in the north.** Ontario's northern boreal is the homeland of Cree and Ojibwe First Nations who have occupied the region continuously for millennia as stewards of the land. They know the land, and they rely on it. Their communities are remote, linked by air, water, winter roads, and modern communications. The traditional knowledge that is the basis for First Nations survival in this environment is likely the source of experience in understanding change, managing natural resources, and restoring and sustaining cultural values in this unique environment. This is particularly relevant given that scientific research and our knowledge of the environment in Ontario's northern boreal has barely commenced. We have limited information and no decision-support tools to evaluate how anthropogenic impacts of development and a changing climate will interact to affect social and ecological systems. More importantly, First Nations will experience the majority of the social, environmental and economic impacts of these developments, both positive and negative, for years to come.

**First Nations impacted by the Project request a Joint Review Panel.** The Matawa First Nations communities include Aroland First Nation, Constance Lake First Nation, Ginnoogaming First Nation, Neskantaga First Nation, Nibinamik First Nation, Long Lake # 58 First Nation, Webequie First Nation, Marten Falls First Nation, and Eabametoong First Nation. In May 2011, these communities passed a resolution (07-20/05/11) requesting the CEAA and the Ontario Ministry of the Environment negotiate a process to enable and implement a Joint Review Panel for the Project. First Nations communities, including Matawa First Nations, have already employed direct actions in the Ring of Fire through protests, blockades and court challenges to raise awareness about the scale and intensity of exploration activities and the lack of consultation by Government and industry. In July 2011, they signed the *Mamow Weecheekapawetahteewiin* (Unity Declaration) stating their commitment to asserting their Aboriginal and Treaty rights to the land, water, and resources. The *Mamow Weecheekapawetahteewiin* is in direct response to the scale and rate of mineral exploration activities in the Ring of Fire, lack of consultation processes by industry and Government, and concerns about the current environmental assessment processes. The Mushkegowuk First Nations include Attawapiskat First Nation, Kashechewan First Nation, Fort Albany First Nation, Moose Cree First Nation, Taykwa Tagamou Nation, Chaleur Cree First Nation, and Missanabie Cree First Nation. These communities will also be impacted by decisions in the Ring of Fire and have also requested a Joint Review Panel. A number of communities within the Mushkegowuk region are also in the midst of land use planning to support community visions for their future and address development, conservation, and traditional resource use on their lands.

#### **Government commitments to equitable processes with First Nations need to be implemented.**

Several recent actions by the Federal and Provincial governments indicate their commitment to equitable processes with First Nations around Aboriginal and Treaty Rights. In 2010, Canada endorsed

UNDRIP and Ontario explicitly recognized Aboriginal and treaty rights in provincial legislation when it modernized the *Mining Act*. This was the first time in Canadian history that a provincial or territorial government has legislated this recognition in Canadian mining legislation. Ontario also offered a “new relationship” with First Nations through community and regional land use planning instruments in the *Far North Act* (2010).

***Recommendation 2. As requested by the Matawa and Mushkegowuk First Nations communities, establish a Joint Review Panel, including First Nation representation from the region and provide adequate funding for First Nation participation.***

**Economic context of the Project:**

**Most northern economies are based on low-diversity economies such as single-species production forests or single extractive industries.** This is often deliberate because these economies can be managed efficiently as long as the conditions supporting their productivity persist. However, these industries are tied to global markets and technological innovations that can reduce the value of these products. They are weakly linked to local environmental and social conditions. In the case of the Ring of Fire in particular, chromite commodities are based on negotiations between buyers and sellers making the links to economic viability to assess sustainability challenging. In the Ring of Fire, the ability to develop new deposits will depend on huge financial and long-term investments in infrastructure (e.g., roads, railroads) and new energy supplies (e.g., hydro-developments) to bring chromite to market. These social and environmental conditions confer unique financial risks, particularly given that public funds will be a substantial portion of the investment. Mining Watch Canada provide a further analysis of the economic viability for chromite mining in the Ring of Fire<sup>4</sup>.

While First Nations have expressed interest and willingness to engage in natural resource development opportunities, they face a disproportionate number of challenges in participating in these economies, including unresolved issues with Ontario and Federal authorities over management and consultation processes that determine how natural resources are used and by whom, property rights, and weak governance institutions. Traditional livelihoods (e.g., trapping, hunting, fishing, medicines, and non-timber forest products) as well as cultural activities and values that depend on the availability and abundance of biodiversity and healthy environments are also at risk from emerging commercial and industrial economies.

***Recommendation 3. Given the environmental, social, and economic context and risks, some of which we’ve highlighted in our letter, we request the Minister of Environment seek agreement with Ontario to establish a Regional SEA.***

Employing R-SEA to support environmental assessment in Canada has precedent. There are many precedents in SEA-like projects beyond the legislated Federal directive. At the Federal level, SEA is widely recognized internationally ([www.sea.org](http://www.sea.org)) and required by Canadian development agencies funding development projects overseas that have high environmental, social, and economic risks similar to this Project. Provincially, R-SEA has been identified as a key area of interest by the Canadian Council

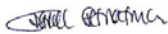
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<sup>4</sup> <http://www.miningwatch.ca/article/ontario-s-ring-fire-hope-or-hype-miningwatch-releases-report-ring-fire-economics>

of Ministers of the Environment, which stated in a 2009 report: "An inherently proactive and futures oriented approach, R-SEA is a means to ensure that planning and assessment for a region support the most desired outcomes rather than the most likely ones."

In conclusion, we seek a stronger commitment to the environment by Federal and Provincial governments given the unprecedented scale, pace, and intensity of industrial developments in Ontario's Ring of Fire. While we urge that an independent Joint Review Panel for the Project is required along with adequate participant funding to all affected First Nations to ensure meaningful consultation, we also use this opportunity to highlight the imperative for a larger more strategic process that is most appropriately initiated by CEEA. We welcome the opportunity to discuss our request for an SEA. We look forward to hearing your response.

Sincerely yours,



Cheryl Chetkiewicz, PhD



Jenni McDermid, PhD



Justina Ray, PhD

cc: Matawa communities, Mr. Raymond Ferris  
cc: Mushkegowuk communities, Grand Chief Stan Louttit  
cc: Grand Chief Stan Beardy, Nishnawbe-Aski Nation  
cc: Honourable Peter Kent (via email [Minister@ec.gc.ca](mailto:Minister@ec.gc.ca))  
cc: Honourable Linda Jeffrey (via email [ljeffrey.mpp.co@liberal.ola.org](mailto:ljeffrey.mpp.co@liberal.ola.org))  
cc: Honourable Michael Gravelle (via email [NDMminister@ontario.ca](mailto:NDMminister@ontario.ca))  
cc: Honourable John Wilkinson (via email [jwilkinson.mpp.co@liberal.ola.org](mailto:jwilkinson.mpp.co@liberal.ola.org))  
cc: Honourable Chris Bentley (via email [cbentley.mpp.co@liberal.ola.org](mailto:cbentley.mpp.co@liberal.ola.org))



## **Appendix 1.**

Dr. Cheryl Chetkiewicz is an Associate Conservation Scientist with WCS Canada hired to support broad-scale and community-based conservation planning in the Far North, specifically wildlife research and monitoring and developing cumulative effects landscape models for northern Ontario.

Dr. Jenni McDermid is a Fish Conservation Research Associate with WCS Canada and a fisheries biologist conducting field research to address impacts on lake trout and lake sturgeon from increased road access, mining activities, hydro development, and climate change.

Dr. Justina Ray is both the Director and Senior Scientist for WCS Canada. Dr. Ray has been engaged in field research in northern Ontario and is one of the few biologists to spend significant time in this remote region over the last decade, with a focus on wolverine and caribou. Dr. Ray serves on MNR's Provincial Caribou Technical Committee and the Ontario Wolverine Recovery team and was a member of the MNR's Far North Science Advisory Panel.