LETTER FROM CONSERVATION ORGANISATIONS TO WORLD HERITAGE COMMITTEE

Canadian Parks and Wilderness Society * Dogwood Initiative * Flathead Coalition
Forest Ethics * Headwaters Montana * National Parks Conservation Association
Pembina Institute * Sierra Club BC * Wilderness Society * Wildsight
Yellowstone to Yukon Conservation Initiative

June 2, 2008

Mr. Francesco Bandarin
Director
World Heritage Centre
UNESCO
7, Place de Fontenoy
75352 Paris 07 SP
France

Cc: Mr. Kishore Rao, Deputy Director, World Heritage Centre
Mr. Guy Debonnet, Programme Specialist, World Heritage Centre
Dr. Christina Cameron, Chairperson, World Heritage Committee

Dear Mr. Bandarin:

We are writing to request the Secretariat and members of the Intergovernmental Committee for the Protection of the Cultural and Natural Heritage of Outstanding Universal Value (World Heritage Committee) to list Waterton-Glacier International Peace Park on the List of World Heritage in Danger pursuant to its authority under Article 11, paragraph 4 of the Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention). The eleven signatories to this letter are non-governmental organisations from both Canada and the United States whose members have direct interests in the transboundary watershed of the Flathead River and the greater ecosystem of the "Crown of the Continent," which contains Waterton-Glacier.

Our recommendation is prompted by the extremely serious threats presented to the park and its larger ecosystem by the proposed 'Lodgepole' open pit coal mine project of Cline Mining Company and the 'Mist Mountain' coalbed methane (CBM) extraction project of BP Canada. Both are located in the Crowsnest coalfields of southeastern British Columbia, an area encompassing the headwaters of the Flathead River, which forms the western boundary of Glacier National Park. These industrial projects threaten the features of Waterton-Glacier that warranted its World Heritage listing in 1995, and would severely impact a pristine area of unique and internationally recognised environmental importance.

Waterton-Glacier International Peace Park is a magnificent testament to the beauty of the wildlife and plant communities of the Rocky Mountains of North America. With diverse habitats

including glaciated peaks, untouched riparian valleys, mountain lakes, prairie grasslands, aspen stands, montane coniferous forests, subalpine forests and alpine meadows, the park's location in the western Cordillera of North America has led to the evolution of unique plant communities and ecosystem complexes that do not occur anywhere else in the world.

Coal and coalbed methane extraction activities in the headwaters of the Flathead River would have a significant impact on a landscape that provides premiere wildlife habitat supporting extraordinary densities of otherwise rare species including grizzly bears, wolves, Canada lynx, and wolverines. Important native fish populations, including populations of bull trout and westslope cutthroat trout are directly threatened by potential water quality changes in their spawning areas. The food webs of the Flathead River would be threatened by reduced fish populations, resulting in a ripple effect throughout the Waterton-Glacier ecosystem. An open-pit coal mine and CBM infrastructure of service roads, pipelines, powerlines, pump stations, compressors and flaring stations would reduce available habitat, fracture connectivity, and directly impact wildlife.

St. Mary Lake, Waterton-Glacier International Peace Park. Photo by Michael Melford/National Geographic Images.

Terrestrial wildlife are threatened by industrialization of key valley bottom habitats. These areas are crucial for wintering and birthing for many species that cross international and park boundaries using the Flathead River basin each year, including grizzly, wolf, wolverine, marten, moose, deer and elk. Gene flow between wildlife populations to the north and south of Waterton-Glacier is also threatened by these proposed projects. The danger from upstream coal and CBM extraction exacerbates the many other ascertained threats to the park's internationally significant resources, which include highways, increasing human settlement, ranching, timber, recreation and mining in areas surrounding Waterton-Glacier. We believe all of these factors merit your review.

Recent statements by the Province of British Columbia, BP Canada and Cline Mining indicate that the companies are investing over 100 million Canadian dollars in research and planning in anticipation of extensive mining, drilling, and infrastructure development in the Flathead headwaters. These activities are anticipated to start as early as 2009. If these projects proceed, the impacts to fish and wildlife in Waterton-Glacier and throughout the Crown of the Continent ecosystem are likely to be severe and irreversible.

We believe that the potential and cumulative impacts on the World Heritage Site from coal mining and CBM extraction must be assessed prior to approval of any of these projects. An investigation by the World Heritage Committee would ensure that the potential impacts of coal mining and CBM extraction on the international values of Waterton-Glacier are broadly understood. The environmental impacts of the projects must be rigorously assessed so that corrective or alternative actions to mitigate or eliminate risks to Waterton-Glacier may be fully explored and adopted.

Waterton-Glacier's status as an International Peace Park and World Heritage Site underscores the need for international cooperation to protect such a world treasure. That cooperation is needed now, more than ever. The signatories to this letter urge the World Heritage Committee to work with the United States and Canada to preserve the natural and cultural heritage of Waterton-Glacier International Peace Park.

Elk migrate in and out of Waterton-Glacier and the Flathead River Basin. Photo courtesy of Flathead Wild.

World Heritage Values At Risk

In 1995, the World Heritage Committee designated Waterton-Glacier as a World Heritage Site in recognition that it meets two of the criteria for natural heritage. First, it contains "superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance" (criterion vii, formerly criterion iii). Second, the two parks are "outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals" (criterion ix, formerly criterion ii).[1]

The Committee noted that "[t]he site is of biogeographical significance bringing mountain and prairie biomes in contact. The area serves as a genetic link between the northern and southern Rocky Mountains, and serves as a corridor for the movement of wildlife and gene flow in both directions across the international boundary."[2] The Committee also found that Waterton-Glacier contains the most important and significant natural habitats for threatened species:

> *[t]he two parks are at the interface of five major ecoregions, with many plants and animals found at the extremities of their respective ranges. A number of nationally threatened plant and animal species are found in the parks, and*

[1] UNESCO, Operational Guidelines for the Implementation of the World Heritage Convention (February 2005).
[2] World Heritage Committee, *Justification for Inclusion on the World Heritage List [for Glacier and Waterton Lakes National Parks]*, p. 2 (1995).

Glacier National Park contains 98% of the world's remaining stock of genetically pure westslope cutthroat trout.[3]

Upon inscription, the Committee also recommended that the site be eventually expanded to include the adjacent protected area in the Akamina/Kishinena, which includes part of the eastern side of the Flathead River drainage in British Columbia.[4]

The Flathead Basin is one of the most pristine watersheds in the Rocky Mountains. Photo courtesy of Flathead Wild.

The Flathead River basin is one of the most pristine river drainages in the Rocky Mountain region. It originates in and drains 4118 km^2 (1617 mi^2) of land between the MacDonald-Whitefish and Clark-Livingstone ranges of British Columbia (Canada) and Montana (United States). The river begins in southeast British Columbia and flows across the international boundary into northwest Montana, where it forms the western border of Glacier National Park before emptying into Flathead Lake. Approximately 40% of the basin is in British Columbia and 60% is in Montana.

Along the way, the river runs through a landscape that offers premiere wildlife habitat supporting extraordinary densities of otherwise rare species including grizzly bears, wolves, Canada lynx, wolverines, fisher, Rocky Mountain bighorn sheep, and tailed frog. The watershed contains eight "blue-listed" aquatic and terrestrial species in British Columbia and six species listed as endangered or threatened under the U.S. Endangered Species Act. The North Fork of the Flathead River in the United States is protected under the federal Wild and Scenic River classification.[5] Recognizing that the Flathead valley in British Columbia is the last, wide valley in southern Canada that has no permanent human settlement, B.C.'s 2004 Land Use Plan designates the upper headwaters of the Flathead River as "Core Grizzly Habitat," as well as key habitat for mountain goats and trout spawning.[6]

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[3] *Id.*
[4] World Heritage Committee, Report on the Nineteenth Session in Berlin, Germany (31 January 2006). Available at: http://whc.unesco.org/archive/repcom95.htm#354.
[5] Transboundary Flathead Research Needs Workshop, West Glacier, Glacier National Park, MT (Nov. 2005).
[6] British Columbia Ministry of Energy and Mines, *Crowsnest Coalfield Community Information Summary.* Government of British Columbia--CBG Team, p. 6, (July 2004). Available at: http://www.em.gov.bc.ca/dl/Oilgas/CBM/Crowsnest_community_information_summary.pdf.

The Flathead River itself hosts important native fish populations, including populations of bull trout (threatened in the United States), and rare genetically pure westslope cutthroat trout, both of which migrate from Montana to spawn in the Canadian headwaters.[7] Wildlife biologists have noted the critical importance of the Flathead River to the surrounding ecosystems, describing it as the ecological engine of the Crown of the Continent ecosystem, with one of the most outstanding large mammal assemblages in North America, including 16 carnivore and six ungulate species. This high diversity is attributed to a low human population, isolation of the basin, exceptional biodiversity of the landscape and habitat, functional connectivity, absence of industrial development and an intact floodplain ecosystem.[8]

Waterton-Glacier International Peace Park In Danger

Article 11.4 of the World Heritage Convention provides for listing of a World Heritage Site on the "List of World Heritage Sites in Danger" if it is threatened by "serious and specific dangers." The World Heritage Committee has identified two broad categories of the types of danger facing World Heritage Sites that may warrant listing a site on the List of World Heritage Sites in Danger: ascertained danger and potential danger. Ascertained danger is a specific and proven imminent danger, such as "severe deterioration of the natural beauty or scientific value of the property, as by … industrial and agricultural development, major public works, mining, pollution … or human encroachment on boundaries or in upstream areas which threaten the integrity of the property." The Committee defines potential danger as "major threats which could have deleterious effects on the site's inherent characteristics, … such as planned development projects within the property or so situated that the impacts threaten the property."

We believe Waterton-Glacier International Peace Park meets these criteria in light of the cumulative effects of the coal and coalbed methane development projects proposed within the Flathead River Basin.

Coalbed Methane Extraction

Coalbed methane (CBM) or coalbed gas (CBG) is natural gas trapped in coal seams and adsorbed or held in coal seams by water pressure. CBM is usually comprised of about 90 to 100% methane (CH_4), and may contain carbon dioxide (CO_2), nitrogen (N_2), and small amounts of ethane (C_2H_6) or propane (C_3H_8). Pressure from the overlying rock and water within the coal seam keeps the methane adsorbed in the coal. During production, water is pumped out of the coal seams, lowering the pressure and thus releasing the gas to be collected, compressed, processed and transported.

[7] Western populations of wolverine and grizzly bears are categorized as species of special concern in Canada. In the United States, grizzly bear and Canada lynx are listed as threatened. Bull trout are considered to be a sensitive species in Canada, and a threatened species under the U.S. Endangered Species Act.

[8] Transboundary Flathead Research Needs Workshop, West Glacier, Glacier National Park, MT (Nov. 2005).

One of the primary environmental impacts of CBM extraction is the creation of a dense network of roads, well pads, generators, drilling rigs, pumps, compressors, gas pipelines, water pipelines, power lines, water storage ponds, and other equipment across the landscape. Two to eight wells per section are typically used to access CBM, as compared to one well per section for conventional natural gas. B.C. law does not limit the density of coalbed methane wells.[9]

Coalbed methane infrastructure can create a dense network of well sites. Photo from Citizens Against Coalbed Methane.

CBM development has a dramatic impact on many elements of an ecosystem, including wildlife, soil, water quality and quantity, and air quality. Construction of roads and pipelines adversely affects wildlife. In addition to fragmenting wilderness and causing a cumulative loss of habitat, roads and pipelines alter behavior patterns, migration, and predator-prey relationships, cause reproductive failure in sensitive species, and increase hunting and poaching. Construction of roads can alter drainage patterns, trigger landslides, increase stream sedimentation and bank erosion, create barriers to fish passage, and destroy aquatic habitats.[10]

CBM development results in soil disturbance, erosion, and surface run-off when one hectare plots are bulldozed around well sites. It can also cause aquifer reductions due to de-watering of coal seams, methane contamination of ground water, and ground and surface water pollution from disposal of "produced" water from toxic hydraulic fluids, which may include benzene, polycyclic aromatic hydrocarbons, ethylbenzene, toluene, xylenes, naphthalene, methanol, sodium hydroxide, and MTBE.[11] Venting and flaring of wells and diesel-burning pumps and compressors cause air pollution. Loud, constantly-operating machinery causes noise pollution, and frequent truck traffic on rural roads results in air pollution from dust.

In 2003, the B.C. Ministry of Energy, Mines and Petroleum Resources produced a report on CBM opportunities in the Crowsnest Coalfield for potential investors. It warns that potential social and environmental impacts of CBM in the Crowsnest include conflicts between CBM and forestry, recreation, hunting and coal extraction. Possible wildlife issues include dissection of migratory routes, habitat loss, increased access for hunting, introduction of invasive species, provision of unnatural vantage points for raptors or hazards to flight (*e.g.*, electrical power lines), disturbance during breeding seasons (*e.g.*, due to noise from drilling or compressor stations), impacts on endangered species, and damage to or modification of wetlands and riparian zones.

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[9] West Coast Environmental Law, *Oil and Gas in British Columbia 10 Steps to Responsible Development* (April 2004). Available at: http://www.wcel.org/wcelpub/2004/14100.pdf.

[10] Vadgama, Jaisel, *Coalbed Methane and Salmon: Assessing the Risks*, p. 69 (Pembina Institute, May 2008) . Available at: http://pubs.pembina.org/reports/cbmandsalmon-rpt.pdf.

[11] Natural Resources Defense Council, *Hydraulic Fracturing of Coalbed Methane Wells: A Threat to Drinking Water* (January 2002). Available at http://www.earthworksaction.org/pubs/200201_NRDC_HydrFrac_CBM.pdf.

The study further noted the risks of conflicts with First Nations, disturbance of archaeological sites and cultural resources, soil erosion, air quality issues, vegetation disturbance, visual impacts from roads and powerlines, and noise and lights from compressors and fracturing equipment.[12] The report concluded:

> *The cumulative impact of future CBG developments is difficult to predict. Although no single CBG project may cause unacceptable impacts, collectively CBG development and production over two or three decades will add to overall cumulative effects in the Crowsnest region.*[13]

Forest clearing for CBM test site in the Elk Valley B.C., adjacent to the Flathead. Photo courtesy of Citizens Against Coalbed Methane.

The Mist Mountain CBM Project

BP Canada Energy Company (BP) is planning a vast CBM field that would cover more than 500 square kilometers, including significant portions of the Elk River watershed and part of the northwestern headwaters of the Flathead River watershed. In 2006, BP submitted a proposal for most of the exploration rights (called "tenure" in British Columbia) in the Crowsnest in response to the British Columbia Ministry of Energy and Mines' 2003 call for proposals. In 2007, Elk Valley Coal Partnership and BP entered into an agreement for a CBM development project known as the Mist Mountain Project. BP plans to conduct studies and drill test wells over the next three to five years. If the Mist Mountain Project proceeds, up to 150 well sites could be developed and in production for the next 50 years.[14] According to its website, BP Canada

> *anticipate[s] drilling up to 10 test wells per year over three to five years of appraisal activities. Commercial development could require approximately 100 to 150 multi-well pads, with up to 10 wells per pad. These pads would connect via a pipeline gathering system to nodal compression facilities. There, the gas would be compressed and transferred to one of two processing facilities which, following removal of excess CO2, would send the gas to the North American natural gas market on the existing TransCanada pipeline.*[15]

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[12] British Columbia Ministry of Energy and Mines, *Coalbed Gas (CBG) opportunities in Crowsnest coalfield - Information package for potential investors* - The Government of BC Oil and Gas Division, Oil and Gas Emerging Opportunities & Geosciences Branch, p. 25 (November 12, 2003). Available at: http://www.em.gov.bc.ca/DL/Oilgas/CBM/Main_text.pdf

[13] *Id.* at p. 19.

[14] British Columbia Ministry of Energy and Mines, *Coalbed Gas in the Crowsnest Coalfield* (2008). Available at: http://www.em.gov.bc.ca/subwebs/coalbedgas/FAQs/Web_QA_Crowsnest.pdf.

[15] BP, *Physical Footprint, Mist Mountain Coalbed Gas Project* (April 8 2008). Available at: http://www.bp.com/liveassets/bp_internet/bp_canada_mist/bp_canada_mist_english/STAGING/local_assets/downloads_pdfs/m/mist_mtn_physical_footprint_april_8_2008_.pdf.

British Columbia's 2007 Energy Plan advises that there should be no surface disposal of wastewater from CBM exploration, and according to BP Canada, wastewater associated with the Mist Mountain appraisal activities will be taken to a licensed injection site. However, it remains unclear where these sites will be located, or how local hydrology will be affected. There is no assurance that injected waste-water will not eventually reach aquifers that recharge riparian environments or aquifers used by agriculture, livestock or local communities. Moreover, there is no regulation or framework in place to enforce this guideline against surface disposal of wastewater. Indeed, EnCana/Storm Cat's CBM wells in the Elk Valley, adjacent to the Flathead in British Columbia, have continued surface dumping of wastewater, despite toxicity tests of the wastewater proving fatal to 100% of exposed young rainbow trout. The mortality was attributed to very high ammonium levels, which can threaten the entire food web of the receiving watershed. Nevertheless, surface discharge was permitted for a three and a half year period with no action taken on the part of the Province when water quality exceeded the standards and failed toxicity tests.[16]

BP America has stated that the Flathead Valley "is not in our development plans,"[17] and B.C.'s Premier Campbell has denied BP Canada exploration rights in the Flathead for the time being. Nevertheless, BP Canada is proceeding with environmental studies in the Flathead in anticipation of receiving drilling rights in the future. In public statements and on its website, BP Canada continues to state their interest in CBM development in the Flathead.

Cline Mining clearing roads in Foisey Creek drainage. Photo from Flathead Coalition.

The proposed Mist Mountain project constitutes both ascertained and potential threats to Waterton-Glacier International Peace Park, warranting its inclusion on the List of World Heritage Sites in Danger.

The Lodgepole Open-Pit Coal Mine

Waterton-Glacier also is threatened by a proposal of Cline Mining Corporation to construct and operate the Lodgepole open-pit coal mine near the Foisey Creek and McLatchie Creek tributaries to the Flathead, approximately 25 miles north of the U.S.-Canadian border. Associated infrastructure will include access roads, waste rock dumps, a coal

[16] Sexton, Erin, *Coalbed Methane in British Columbia: A Case Study of the EnCana Corp. Elk Valley Coalbed Methane Pilot Project*, National Parks Conservation Association, Glacier Field Office (August 2005).
[17] Letter from Robert Malone, Chairman & President, BP America, to U.S. Senator Max Baucus (April 2 2008).

washing plant, a dry tailings storage area, haul roads, a load-out facility, a power line corridor, a mine camp and a fuel storage area.[18]

Open-pit mining of coal is done where the overlying rock, called overburden, is relatively shallow. Large earth-moving equipment, draglines, or shovels are used to remove the fractured overburden from the coal. The coal is then typically broken up by blasting it with explosives before being loaded into special haulage trucks. Air pollution is caused primarily by coal dust, which results from blasting in the mines, and transporting the coal from mines to coal processing plants. Water pollution, in the form of acidified surface waters and stream sedimentation, is caused by runoff from overburden disposal sites.

Current plans call for Cline to remove two million tonnes of coal and 16 million tonnes of overburden rock from the mine each year, over a 20-year period, for a total of 40 million tonnes of "saleable" coal and roughly 300 million tones of waste.[19] The overburden rock will be deposited along the banks of Foisey and Crabb Creeks. The project plans to address water run-off to surface waters in the area through ditches and settlement ponds, which requires extensive road construction, land clearing and earth-moving activities that generate large amounts of sediment. According to the U.S. Department of Interior's comments on this proposal,

Mud drains from raw Cline culvert towards North Fork of Lodgepole Creek. Photo from Flathead Coalition.

> *[w]ater from rain and snow will leach through these overburden materials and will enter the Flathead River system carrying heavy metals such as selenium and high levels of nitrates from blasting compounds. It has been estimated that water leaching through these overburden materials will reach the border of the United States in 24 hours and will enter Flathead Lake in approximately 48 hours. Mine development, including associated construction activities, providing transportation corridors, the operation of heavy equipment and increased settlement, and human activity in and around the project area is expected to have significant adverse impacts upon fish and wildlife of high importance….*[20]

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[18] Canadian Environmental Assessment Registry, *Notice of Commencement of an environmental assessment: Lodgepole Coal Mine, British Columbia* (December 2007).
Available at: http://www.acee-ceaa.gc.ca/050/viewer_e.cfm?cear_id=36059.

[19] Cline Mining Corporation website, *Lodgepole Coal Mine Project, Canada* (May 2008). Available at: http://www.clinemining.com/projects/coal/lodgepole.html.

[20] Letter from Willie R. Taylor, Director, Office of Environmental Policy and Compliance, to Edward Alexander Lee, Director, Office of Canadian Affairs, p. 2 (Feb. 21, 2007). The Cline proposal is being analyzed in parallel environmental assessment processes being conducted by the British Columbia and Canadian governments.

Cline Mining is poised to begin operations at the Lodgepole mine as soon as the Province approves. According to Cline's website as of May 2008, "the permitting process for the Coal Project is proceeding subject to regulatory approval."

The proposed Lodgepole coal mine constitutes both ascertained and potential threats to Waterton-Glacier International Peace Park, warranting its inclusion on the List of World Heritage Sites in Danger.

Impacts to Riparian Ecosystems

In 1985, the International Joint Commission was requested to examine and report on the transboundary water quality and quantity implications of a very similar proposed coal mine on Sage Creek, also a tributary of the Flathead River. After three years of intensive study, in 1988 the Commission found "overwhelming evidence … that a significant loss of fish population will occur as the result of a combination of the adverse effects," including an "increased level of toxic substances" as well as "sedimentation, temperature change, flow modification, degradation of habitat, dissolved oxygen reductions, increased dissolved solids and others."[21] The Commission concluded that "damage will inevitably occur to this habitat which would be located in the midst of a major mining development, and consequently to the fishery dependent on that habitat."[22]

Noting the pristine nature of the North Fork of the Flathead River and the high level of protection afforded the river under U.S. law, the Commission expressed concern over the potential impact of mine development on groundwater flows between the proposed mine site and the creeks in the headwaters of the Flathead River; toxic levels of nitrogen compounds, temperature changes and dissolved oxygen levels; and the potential risk of extreme or unusual events such as the failure of waste dumps and settling ponds.[23] The Commission emphasized that the acceptability of even a low probability of risk must take into account the nature of the values at risk.

Genetically pure westslope cutthroat trout from Crabb Creek, Photo by Montana Fish Wildlife and Parks, September 2006.

Of critical concern to the Commission in evaluating the impact of mining in the headwaters of the Flathead was the proposed mine's proximity to a significant component of the remaining available spawning and rearing

[21] International Joint Commission, *Impacts of Proposed Coal In the Flathead River Basin*, p. 8 (December 1988).
[22] *Id.*
[23] *Id.*

habitat for prime game fish in the Flathead basin including bull trout, western (or westslope) cutthroat trout and mountain whitefish. The Commission found that the mine would have a deleterious effect on eggs and fry in the spawning ground, and would "undoubtedly act as an impediment to the adult fish in reaching and/or using those altered grounds." Thus, the Commission concluded that a significant loss of fish population would occur with "serious consequence to the integrity of the fishery itself."[24]

All available evidence indicates that the developments proposed today in the Flathead basin threaten equally dire consequences. Indeed, the location of the proposed Lodgepole mine appears to be at least as sensitive for fishery impacts as the site of the Sage Creek project examined in the Commission's 1988 report. A critical fact underlying the Commission's 1988 conclusions was its finding that the proposed mine would abut two streams that form a significant component of the remaining available spawning and rearing habitat for prime game fish in the Flathead basin, including the Howell Creek tributary to the Flathead River, which supported 55 percent of all bull trout spawning in the Canadian portion of the Flathead River system from 1980 to 1982.[25]

The current development threats would occur in the vicinity of Foisey and McLatchie Creeks in the upper reaches of the Flathead drainage. Although comprehensive baseline studies have yet to be conducted, a basin-wide bull trout spawning site inventory conducted in 2003 by the Montana Fish, Wildlife, and Parks agency determined that approximately 67 percent of all known bull trout redds, or spawning nests, in the Canadian portion of the North Fork Flathead River system were found in the North Fork near the mouths and immediately downstream of Foisie and McLatchie Creeks, representing 37% of the total redds detected in the entire North Fork drainage. Thus the current developments threaten an even greater impact on this critical transboundary resource than the project considered by the IJC in 1988.

Endangered bull trout from Foisey Creek. Photo by Montana Fish Wildlife and Parks, September 2006.

The 1988 Report of the IJC recommended withholding regulatory approval of the proposed mine until "potential transboundary impacts have been adequately determined with reasonable certainty" and the potential impacts on the fish populations and habitats in the Flathead River system "would not occur or could be fully mitigated."[26]

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[24] *Id.*

[25] International Joint Commission, *Flathead River International Study, Biological Resources Committee Technical Report*, pp. 264-65, (October 1987).

[26] International Joint Commission, *Impacts of Proposed Coal In the Flathead River Basin*, p. 11 (December 1988).

Such determinations rely on the compilation of adequate baseline environmental and biological information. However, the baseline data that was unavailable to the Commission in 1988 has yet to be collected. According to a report commissioned by the British Columbia government in 2004 to assess the existence of baseline environmental data in the Elk and Flathead valleys, there is very little water quality data available for the low-order streams that could be affected by proposed development. According to the report, "[t]his is a potentially critical information gap and baseline water quality monitoring will very likely be needed for at least three years" before development.[27] Other inventories of existing baseline data in the transboundary Flathead show a lack of botanical surveys, a lack of information on species at risk, and a failure to consider the cumulative impacts of coal development.[28] These substantial gaps in baseline data are of utmost concern because if ground-disturbing activities commence prior to the compilation of baseline information, the opportunity will be lost to monitor resource changes, identify impacts and mitigation strategies, and assess impacts to Waterton-Glacier and the surrounding Crown of the Continent ecosystem.

Impacts on Wildlife Migration and Habitat Connectivity

Beyond direct impacts to fisheries, fossil fuel development in the headwaters of the Flathead poses a serious threat to wildlife, especially large mammals and raptors that migrate seasonally, require large territories, or disperse widely over generations. Grizzly bear, grey wolf, mountain lion, lynx, wolverine, marten, moose, elk, mountain goats, deer and bald eagles move in and out of Waterton-Glacier Park, and require habitat connectivity along the Yukon to Yellowstone corridor. These species move across the international border, which is also the Park border, making the Flathead River basin truly a transboundary landscape that must be managed as one integral, ecological unit. If the headwaters of the Flathead are industrialized, ecological connectivity with pristine areas further north will be further disrupted, genetically isolating populations found at the furthest extremes of their ranges. This is particularly risky for grizzly bear and wolverine. In Canada, there is gene flow between animals in Waterton Park and the rest of the Canadian Rockies west and northward. In Montana, animals in Glacier National Park are connected to populations to the south. Thus populations are more resilient to changing environmental conditions because they have more habitat and genetic diversity to draw on in times of stress.[29] According to renowned wildlife biologist Dr. John Weaver:

Canadian lynx. Photo courtesy of Flathead Wild.

> *Due to these unique characteristics and its strategic position as a linkage between National Parks in both*

[27] Summit Environmental Consultants, *Summary of existing baseline water quality data*, Prepared for the British Columbia Ministry of Energy and Mines (March 31, 2004).
[28] Ecodomain Consulting, *Species at Risk Inventory Strategy for Dominion Coal Block*, Prepared for Natural Resources Canada, Canadian Forest Service (November 20, 2003).
[29] Dr Stephen Herrero, Prof. Emeritus of Env. Science, University of Calgary, *Letter* (January 17, 2001).

countries, the transboundary Flathead may be the single most important basin for carnivores in the Rocky Mountains.… It is in this context of biological vulnerability, vanishing spaces, and beckoning opportunity that the transboundary Flathead assumes critical importance for carnivores as a crucible for our commitment to conservation.[30]

Other Ascertained Threats to Waterton-Glacier

The threats that coal mining and CBM extraction present to Waterton-Glacier International Peace Park are of particular concern in light of other external stresses on the park's ecosystems. In 2000, the Panel on the Ecological Integrity of Canada's National Parks found that Waterton Lakes National Park faced major impacts from external sources, confirming a 1980 study by the U.S. National Park Service that found that Glacier National Park had the fourth highest number of threats facing any U.S. park.[31] External threats identified by these studies include cumulative impacts from proposed highway expansion, conversion of working ranch and forest lands to recreation, commercial, and residential developments, clearcut logging, a growing number of low-level sightseeing air tours, invasions of non-native species into parklands and waters, and potential extraction of coal, oil, and gas resources.

The results of these threats include fragmented, degraded, and destroyed habitat for many wildlife species, severe limitations on the movement of wide-ranging species like bears, wolves, deer, and elk, diminished populations of native fish unable to compete with invasive non-native species, and the potential for degraded water quality. Because of these existing threats, coal and CBM development in this unique and vulnerable region would be devastating.

Conclusions and Recommendations

The World Heritage Committee's Operational Guidelines recognise the need to protect World Heritage Sites from incompatible activities beyond their boundaries and specifically recommend the establishment of buffer zones around protected areas in which certain activities are restricted in order to afford an added layer of protection to the World Heritage Site.[32] Unfortunately, the grave threats posed to Waterton-Glacier Park by coal mining and CBM extraction projects within the Flathead River Basin illustrate the wholly inadequate protection from incompatible land uses in the area adjacent to the park. There is substantial danger that the existing statutory and regulatory framework will fail to adequately protect Waterton-Glacier International Peace Park and its surrounding lands from adverse impacts caused by mining and CBM development in the headwaters of the Flathead River.

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[30] Weaver, John L., *The Transboundary Flathead: A Critical Landscape for Carnivores in the Rocky Mountains*, WCS Working Papers No. 18 (2001). Available at: http://www.wcs.org/science.
[31] National Parks Conservation Association, *Waterton-Glacier International Peace Park: A Resource Assessment* (2002). Available at: http://www.npca.org/stateoftheparks/glacier/glacier.pdf.
[32] UNESCO Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage, *Operational Guidelines for the Implementation of the World Heritage Convention*, 103-07 (2008).

It is for these reasons that we request that the World Heritage Committee initiate an investigation to determine whether the Waterton-Glacier International Peace Park qualifies for inclusion on the World Heritage in Danger list. Further, consistent with the procedures described in the Operational Guidelines, we urge you to develop and encourage the adoption of "a program for corrective measures" that can eliminate the threats which may justify listing.

Placement on the List of World Heritage in Danger would highlight the threats of coal and coalbed methane industrialization to downstream freshwater and terrestrial ecosystems of Waterton-Glacier including fisheries, migratory birds and mammals. It would also provide impetus for actions by the governments of British Columbia, Alberta, Montana, Canada and the United States to act cooperatively in consideration of the impacts of upstream mining and development on this unique transboundary ecosystem and the species that depend upon its connectivity to other protected areas.

We would be pleased to assist you in any way appropriate. Please let us know if we can be of assistance.

Sincerely,

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jlawrence@earthjustice.org

On behalf of the following signatories:

The Canadian Parks and Wilderness Society – British Columbia Chapter
Chloe O'Loughlin
Executive Director
Canadian Parks and Wilderness Society - BC Chapter
#410-698 Seymour Street
Vancouver, B.C. V6B 3K6
www.cpawsbc.org
The Canadian Parks and Wilderness Society has advocated for protection of the Canadian portion of the Flathead River Watershed since 1980. Recently, we have been advising the Province of British Columbia on the Flathead River as a transborder river and on ways to improve the BC-Montana relationship prior to the renegotiation of the Columbia River Treaty.

Dogwood Initiative
Will Horter
Executive Director
Dogwood Initiative
PO Box 8701
Victoria, BC, Canada
V8W 3S3
Dogwood Initiative helps British Columbians exercise local control to create healthy and prosperous communities. Our goals are to increase the land under sustainable community and First Nation management; increase democratic, local control of land and resources throughout BC; inspire an informed and engaged citizenry at the local level; expand collaboration among diverse constituencies; and ensure strong and lasting support for public oversight of communal resources.

Flathead Coalition
Steve Thompson
Rich Moy
Flathead Coaliton
P.O. Box 4485
Whitefish MT 59937
www.flatheadcoalition.org
The Flathead Coalition has served as the local, binational voice for the protection of the Transboundary Flathead for 30 years. Comprised of Canadians and Americans who live in local communities surrounding the Flathead, the coalition is a grassroots effort to cooperate across the international border to protect the existing habitat, water quality, and fisheries values of this international watershed.

ForestEthics
Candace Batycki
523 Cedar Street Nelson, BC
V1L 2C2 Canada
candace@forestethics.org
http://www.forestethics.org
Forest Ethics, founded in 1994, is a nonprofit environmental organization with staff in Canada, the United States and Chile. Our mission is to protect Endangered Forests.

Headwaters Montana
Dave Hadden
545 Holt Drive
Bigfork, Montana 59911
paddler@centurytel.net
http://www.wildmontana.org
Headwaters Montana engages citizens of the Crown of the Continent in the region's critical conservation issues: climate change, and water and wildlife conservation.

National Parks Conservation Association
Will J. Hammerquist
Glacier Program Manager
National Parks Conservation Association
Protecting Our National Parks
PO Box 4485
Whitefish, MT 59937
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www.npca.org
National Parks Conservation Association is America's leading voice for the protection and enhancement of the cherished landscapes, ecosystems, and cultural resources that comprise our national parks. As the world's first peace park, Waterton-Glacier International Peace Park has been a source of global inspiration for generations. NPCA is committed to the protection of this UNESCO World Heritage Site and UN Biosphere Reserve through the work of the Glacier Field Office located in Whitefish, Montana, which seeks to educate local communities, citizens, and public officials regarding the environment risk of industrial coalfield development in the British Columbian headwaters of Waterton-Glacier International Peace Park

The Pembina Institute
Marlo Raynolds, PhD
200 - 608 - 7 Street SW
Calgary, Alberta, Canada T2P 1Z2
marlor@pembina.org
http://www.pembina.org
The Pembina Institute envisions a world in which our immediate and future needs are met in a manner that protects the earth's living systems; ensures clean air, land and water; prevents dangerous climate change, and provides for a safe and just global community.

Sierra Club BC
Rob Duncan
Sierra Club BC
#302 - 733 Johnson St.
Victoria, BC V8W 3C7
www.sierraclub.ca/bc
Sierra Club BC has been working to protect BC's threatened wilderness and wildlife since 1969. At the heart of our grassroots organisation are people from all over the province who are deeply committed to safeguarding the Flathead Valley and other wild places in B.C., and promoting the responsible use of our natural resources. We meet regularly with government and business to ensure conservation viewpoints are heard, and to provide input on policy and budget decisions that affect the environment.

The Wilderness Society
Jeff Fox
Crown of the Continent Outreach Coordinator
The Wilderness Society
1615 M Steet
Washington DC 20036
www.wilderness.org
The Wilderness Society, which has more than 325,000 members and supporters, is a nonprofit conservation organisation co-founded in 1935 by Robert Marshall (of the "Bob Marshall Wilderness Complex" south of Glacier-Waterton International Peace Park). The Society is committed to protecting America's wilderness forever, so that generations to come can enjoy the clean air and water, beauty, wildlife, and opportunity for recreation and spiritual renewal provided by wild places. The group pursues its mission through educating and engaging the public; building a solid and trustworthy scientific basis for decision-making; and advocating for sound policy now and in the future.

Wildsight
Ryland Nelson
2-495 Wallinger Ave.
Kimberley, BC V1A 1Z6
www.wildsight.ca
Wildsight works locally, regionally and globally to protect biodiversity and encourage sustainable communities in Canada's Columbia and Southern Rocky Mountain region. Wildsight is the lead conservation organisation in southern British Columbia. Wildsight's team has been working on conservation of Canada's southern Rocky Mountains for more than twenty five years. We have worked with government, industry and communities to protect the globally significant wilderness values in the region.

Yellowstone to Yukon Conservation Initiative (Y2Y)
Amica Antonellis
1240 Railway Ave., Unit 200
Canmore, AB T1W 1P4
http://www.y2y.net/
The Yellowstone to Yukon Conservation Initiative is an international organisation spanning five US states, two Canadian provinces and two northern territories from the Wind River Range in Wyoming to the Alaska/Yukon Border. We work with over 300 partners including government, Aboriginal communities, researchers, municipalities, and NGOs to maintain and restore the unique natural heritage of the region. The Flathead River Basin (located in Y2Y's Crown of the Continent Priority Area) is a vital component to maintaining terrestrial and aquatic connectivity, and has been identified through avian research as a priority hotspot for bird conservation. As such, we are working to advance protection of the Canadian portion of the Flathead River Basin and maintain the ecological integrity of Montana's North Fork of the Flathead.