

Three Rivers: Protecting the Yukon's Great Boreal Wilderness

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Abstract—The Three Rivers Project in the Yukon, Canada, aims to protect a magnificent but little known 30,000 km² (11,583 miles²) wilderness in the Peel watershed, using the tools of science, visual art, literature, and community engagement. After completing ecological inventories, conservation values maps, and community trips on the Wind, Snake, and Bonnet Plume rivers, the Yukon chapter of the Canadian Parks and Wilderness Society (CPAWS) embarked on the Three Rivers Journey in 2003. First Nations, community participants, nationally selected artists, writers, scientists, photographers and conservationists paddled hundreds of kilometers down three tributaries of the Peel watershed. These journeys resulted in a national touring art exhibition, multi-media shows, and a book featuring the land and people. This paper describes the conservation campaign and the challenges in advocating wilderness protection in light of complex community priorities and government policies on resource use. CPAWS urges full protection for the Three Rivers wilderness and conservation of ecological integrity throughout the greater Peel watershed. CPAWS recommends special conservation zones in the remainder of the Peel watershed to protect critical wetlands, sensitive river corridors and other important biological and cultural features. The Peel watershed is identified as a candidate biosphere reserve.

Northern Canada's Peel Watershed

The Wind, Snake, and Bonnet Plume rivers, along with their sister tributaries the Hart, Blackstone and Ogilvie, rise in the stunning Selwyn and Wernecke Mountains and flow through the vast Peel River basin on the Yukon's north-eastern border, an area that accounts for 14 percent of the territory. Perched at the apex of Canada's boreal forest and the northern end of the Rocky Mountain chain, the Peel watershed also includes some of the unglaciated area known as Beringia. A blend of biomes, it is a distinct and varied land of plateaus and mountains, rivers and wetlands, not yet fully revealed to science.

Here, unbounded and colorful mountain ranges frame pristine taiga forests and subarctic watersheds. Robust woodland and barren ground caribou, free-ranging wolverine and grizzly bear, the threatened Anatum Peregrine Falcon,

unspoiled aquatic habitat, and thousands upon thousands of boreal songbirds and migratory waterfowl occupy an ancient and unfettered landscape that is the essence of wildness.

This is the traditional territory of the Nacho Nyak Dun and Tetl'it Gwich'in First Nations; for generations they were sustained by the plants, fish and wildlife of this region as they traversed its valleys and mountains on a network of travel and trade routes. Today the wilderness of the Peel basin serves as a vital benchmark of untamed nature; ancient and complex ecological processes continue to evolve freely, and the full complement of predators and prey ranges across the landscape. Although fishing, hunting and trapping are still important to the way of life in the region, local people and visitors from around the world also value the watershed as a premiere destination for canoeing, backcountry travel, photography, education, cultural activities and scientific research (fig. 1).

A Brief Political History

When the oil industry cast its gaze to the Canadian north in the late 1960s and early 1970s Chief Justice Thomas Berger understood what was at stake. During public hearings on the proposed Mackenzie Valley natural gas pipeline, he broke new ground by saying that conservation areas should be set aside at the same time as any decisions to permit big resource development projects. He reasoned these protected areas would help compensate for loss of wildlife habitat and the diminished arena for aboriginal people to sustain their traditional economy. For the northern Yukon, Berger recommended a new type of wilderness park, one that would preserve wildlife and natural landscapes but include continued aboriginal hunting and fishing. Years later, partly as a result of Berger's work, Ivvavik and Vuntut National Parks were established through First Nations final agreements, protecting key Porcupine caribou herd range and the bounty of arctic and subarctic life found in the northern Yukon. Now, farther south, the Peel River watershed offers one of Canada's and the Yukon's best remaining chances for conservation that is worthy of international recognition to protect its mountain boreal forests, intact large mammal ecosystems, pristine rivers and unbounded wilderness.

In the days when the people of four northern First Nations—the Nacho Nyak Dun, the Tetl'it Gwich'in, the Tr'on dek Hwech'in, and the Vuntut Gwich'in—traveled throughout the greater Peel watershed, making their living from the wildlife and fish and trading goods with their neighbors, legal boundaries had no meaning. Now, all four peoples have settled land claims in their traditional territories, though hammering out these agreements was not easy; it took decades of Canadian judicial rulings, hearings, hundreds of hours in meeting rooms, and many, many lawyers.

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Figure 1—Northern Canada's Peel River watershed is a vital benchmark of untamed nature (photo by author).

In their 1992 land claim settlement, the Nacho Nyak Dun people, reflecting their desire to conserve an important part of the Peel River basin, nominated the Bonnet Plume watershed as a Canadian Heritage River. Unfortunately, Heritage River designation proved to be purely symbolic, offering no legal protection. Early Tetl'it Gwich'in land plans also called for conservation in the Peel watershed. In historic times they traveled throughout this watershed, but now the Yukon border bisects their traditional territory. They live downstream on the Peel River in the Northwest Territories but still own 600 km² (232 miles²) of land in the Yukon and have been forceful about their right to maintain the abundant clean water of the Peel River that flows into their territory.

The Tr'on dek Hwech'in territory includes another Peel River tributary, the upper Blackstone River, west of the Ogilvie Mountains. The Vuntut Gwich'in, based in Old Crow, Yukon, are part of the Gwich'in Nation spread across the western subarctic. After years of responding to ad hoc development proposals and calls for an improved process, all four First Nations participate in a regional land use planning commission that began setting a course for the future of the Peel watershed in 2005.

The Catalyst for a Wilderness Campaign

In the early 1990s prospectors exploring for copper, staked the flanks of the Bonnet Plume valley. They did so armed with the historic privileges afforded by the Yukon's free-entry mining law, which grants powerful rights to those who first lay claim to the land. Ironically, the Bonnet Plume was soon to be honored as a Canadian Heritage River.

It was apparent that one corporation was on the verge of setting the entire future for the Bonnet Plume valley, and we (CPAWS) could not accept surrendering this wild river to a money play in the southern penny market. If this northern

wilderness were to be diminished, where would we draw the next boundary for nature?

CPAWS initiated a judicial review of the mining exploration on the grounds that the federal government had failed to conduct an adequate environmental review. At that time, work on mining claims in the Yukon was exempt from the Canadian Environmental Assessment Act. In the end, CPAWS lost the case under the weight of legal minutia, but CPAWS did win an important point: the judge conceded that the federal government was obliged to consider how mining could affect a Canadian Heritage River. For its part, the federal government realized its antiquated mining regulations were no longer tenable, and it dusted off long-awaited new rules to improve the way mining companies carry out exploration work in the Yukon. After a few years of exploratory work the company had found less copper than anticipated and, when metal prices dropped, they packed up and left, abandoning their airstrip, drill pads, and mining camp.

CPAWS joined a government-led planning group to work out the Bonnet Plume land use puzzle. At the first meeting, it appeared the nervous bureaucrat at the front of the room had made a mistake when he said, "Wilderness is *not* an option for the Bonnet Plume Heritage River." But in uncharacteristically plain language he was actually expressing the government policy of the day: a fresh articulation of the persistent frontier myth that the North's only purpose was to provide raw materials for the South.

We didn't accept that "no wilderness" edict for the Bonnet Plume; instead, we embarked on a long journey to learn the rhythms of the Peel watershed and to persuade people in the Yukon and elsewhere in Canada that here was a place worthy of leaving alone. Having heard too many voices over the years lamenting the wild places lost because too few people knew about them, we were determined to avoid that mistake, and we gathered wildlife biologists, botanists, and First Nations youth and elders to join our conservation crews to survey the heart of the Peel watershed. Since the

proponents of industry were charting a course for resource extraction, it was obvious we had to draw maps for nature, too. But when I asked one of the staff in a community lands office to point out the First Nation's traditional lands along the Bonnet Plume, I realized the young man wasn't sure where that distant river flowed. Although their ancestors traveled the headwaters of the Peel for generations, the aboriginal youth of today rarely have a chance to visit these places. So it became clear that the scientific value of our research trips would be outweighed by the chance for community members to renew their acquaintance with ancestral lands.

At first it was hard to find community folks willing to paddle for two weeks with strangers. Then Gladys Netro, a Vuntut Gwitchin woman from Old Crow, used her family connections across the western Arctic to reach out to northern communities and bring them together on the work to save the Peel watershed. She brought an acute sense of purpose to this work from her years of campaigning for the protection of the Porcupine caribou herd calving grounds in the Arctic National Wildlife Refuge in Alaska. As a result of her leadership, for close to 10 years Gwich'in and Nacho Nyak Dun people joined the CPAWS river trips, enriching these experiences for all of us.

We learned much from each other. Peter Kay, a Gwich'in from Fort McPherson who traveled with us on the Snake River, spoke of his long family history in the Peel basin and explained the lay of the land around his traplines. But he could not conceal his amusement over where we liked to camp—windswept gravel bars, free of bugs but short on shelter and food. Elder Jimmy Johnny, who knows the headwaters country better than anyone, pointed out big herds of sheep and caribou high on mountain slopes where we could see only scenery. For Jimmy, a Nacho Nyak Dun and long time hunting guide in the Wind, Snake and Bonnet Plume valleys, this place is home.

Those river surveys and the scientific data and maps we gathered helped make a strong case for conservation in the Peel watershed. Yet, for the First Nations people who live in the lands of the Peel watershed, its value is not in question. To Elaine Alexie, a young filmmaker and conservation activist from the Peel River community of Fort McPherson, these are the storied ancestral lands of her Gwich'in nation. In 2003, while on the Three Rivers Journey, she said, "Going through these lands, I think about the old people going through the Wind River area and remember the stories my father told me about how our people used to travel. We need to ensure clean waters keep flowing out of these mountains."

For this river system to endure—both as an anchor for the Yellowstone to Yukon region and as a benchmark for Canada's boreal forest—it was clear we needed to convey the value of the watershed from fresh and compelling perspectives. Northerners sometimes take for granted how exceedingly rare such places have become in the rest of the world. Continental economic forces leaning on the future of the Peel watershed called for a counter-weight to aid the local conservation effort. Our response to this challenge was the Three Rivers Journey.

The Three Rivers Journey

Wilderness without beginning or end; wild spaces big enough for a journey of discovery almost beyond the imagination of

most Canadians—that's the country of the Wind, Snake and Bonnet Plume rivers. How does one celebrate and protect a vast boreal mountain wilderness area unknown to most people? CPAWS took on this challenge by bringing to life the ambitious Three Rivers Journey project in the summer of 2003, when we invited 18 nationally prominent artists, writers, journalists, and photographers to join people from the Yukon and Northwest Territories in simultaneous journeys along the remote Wind, Snake, and Bonnet Plume rivers.

After 18 exhilarating and arduous days, the Three Rivers Journey ended at the confluence of the Snake and Peel rivers. Here, members of the Tetl'it Gwich'in First Nation greeted the 37 paddlers—artists, writers, filmmakers, scientists, conservationists and First Nation community members—with traditional gun salutes and a chorus of cheers, welcoming them to an elders' feast held on the banks of the Peel. More than 100 people participated in this gathering, the majority having traveled upstream by riverboat from Fort McPherson—a trip of at least eight hours. We feasted on fresh moose meat and grayling and listened to elders and First Nation members speak eloquently about the importance of the land, wildlife and waters of the Peel basin. Elaine Alexie, on behalf of Gwich'in youth, said:

We, the youth of the Tetl'it Gwich'in, a generation of tomorrow, are here today to express our profound concern for the well-being of our sacred and ancestral lands within the Peel River watershed and our right to maintain our cultural way of life.

Later, in return for sharing in the Three Rivers Journey, many of the participants created art and literary works that responded to this wild and mystic landscape. These artistic explorations of northern Canada's primeval origins and cultural heritage were then embodied in a national touring art exhibit, and an anthology of photography, essays and poetry.

The national group art exhibition, *Three Rivers: Wild Waters, Sacred Places* is an eclectic response to a sojourn in one of Canada's wildest places. After paddling down the Wind, Snake, and Bonnet Plume Rivers, the eight artists produced works in a variety of media, including photography, installations, painting, and sculpture (fig. 2). This engaging show challenges the way we perceive the links between art and nature. It will compel many, who may never have connected art with conservation, to re-think their notions about our remaining northern wilderness. The Three Rivers Journey fits within a long tradition of artistic engagement with nature—its unique contribution in Canada is the scale and complexity of the endeavor. The project combined visual art and photography with writing, science, traditional and community perspectives on the land, amidst the urgency of conservation advocacy.

The resulting book, *Three Rivers: the Yukon's Great Boreal Wilderness*¹, celebrates one of the world's finest wild mountain river systems and highlights the threats to its integrity. Through visual art, imagery, essays, stories and poems, the book aims to present conservation essentials that will help safeguard this vital wilderness.

¹ Parts of this paper were adapted from *Three Rivers: The Yukon's Great Boreal Wilderness* (2005).

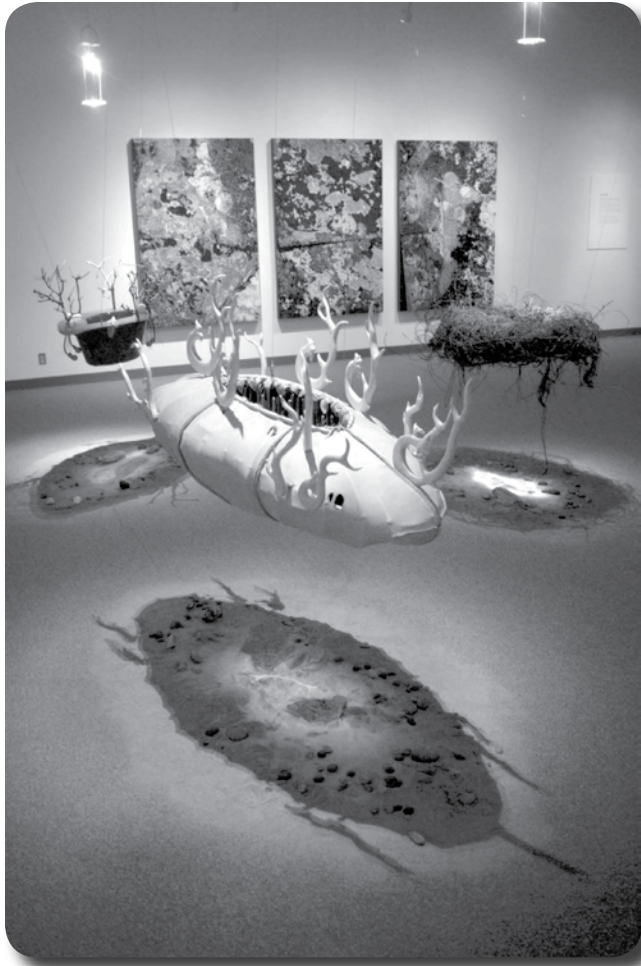


Figure 2— The national group art exhibition, Three Rivers: Wild Waters, Sacred Places is an eclectic response to a sojourn in one of Canada's wildest places (photo by Cathie Archbould).

Conservation Essentials in the Peel Watershed

In the Yukon, as Three Rivers Journey participant Richard Nelson reminded us, there is a chance to achieve what has eluded us elsewhere in Canada—to live on the land and draw from its resources while assuring that the entire living community remains whole. As wildlands and mountain rivers such as those of the Peel watershed become increasingly rare in North America and around the world, we have a profound responsibility to bequest these wonders of nature to future generations—both for humanity and for their intrinsic value.

Why Protect It?

The Peel watershed and the Three Rivers wilderness are globally important and vital to northern conservation. Some of the key values to protect include:

- Pristine mountain boreal ecosystem, a benchmark of Canadian significance, with a full complement of native predator and prey species;

- Elements of four distinct biomes represented in the Peel watershed—boreal forest, Beringia, western cordillera, and sub-arctic plateaus and plains;
- Intact mountain watersheds and wilderness on a vast scale, with fresh clean waters and undisturbed aquatic ecosystems, rare in the world;
- Largest intact woodland caribou herd in the Yukon, a species vulnerable elsewhere;
- 25 percent of the Yukon's Peregrine Falcons breed in the Peel watershed;
- Large and numerous critical wetland areas of territorial significance, used by waterfowl for staging and nesting; and
- Refuge for large carnivores such as grizzly bears, wolves, wolverine, species that require large wilderness to survive.

Wilderness, or traditional homeland as it is viewed by many aboriginal people, is an integral part of the Canadian North; it has intrinsic and spiritual value now and for the future. Conservation provides lasting community and economic benefits, supporting traditional land uses such as harvesting, and sustaining cultures and local ways of life.

What Are the Threats?

Just as the Three Rivers area slowly begins to gain the recognition that it deserves, plans for development are already compromising its future. The Peel watershed, like much of Canada's North, is vulnerable to the continental hunger for hydrocarbons, including new development schemes for oil and natural gas, pipelines, coal and coal-bed methane. Consecutive Yukon governments have offered these precious lands to industry at bargain prices.

Others dream of building roads and rails to extract iron ore, copper, and other metals from the remote mountains. And the Yukon government is promoting all of this activity before citizens have had a chance to consider the watershed's future by completing a land use plan. Our governments seem especially eager to industrialize the Peel before setting aside conservation lands, even though pre-emptive resource development would have an overwhelming impact on the Peel watershed and the ecological health of its major tributaries. As the continental energy and natural resources debate heats up, promoters with their eyes on the Peel are already at work, and the supporting wheels of governments are in motion. After the heavy machinery is gone and tracts of land laid waste, what future would be left for the people, communities and wildlife in the North?

Three Rivers Project Goal

Our goal is to protect and conserve the wilderness of the Three Rivers and the ecological integrity of the greater Peel watershed.

To achieve this goal, CPAWS proposes wildland areas in the Three Rivers watersheds, including territorial park protection for the Snake River drainage. We call for special conservation zones in the remainder of the Peel watershed to protect critical wetlands, sensitive river corridors and other important biological and cultural features.

Taken as a whole, the Peel watershed is an exceptional candidate for a "biosphere reserve," a place where conservation supported by local communities, can contribute to a lasting economy that respects the region's way of life and is sustained by an intact ecosystem (fig. 3).

This focus on wildland conservation within the Peel watershed reflects many of the protected area proposals put forward during the past 20 years by First Nations, territorial governments, local renewable resource councils, and non-government organizations such as CPAWS. It is also consistent with the Canada-wide effort to conserve the boreal ecosystem and protect key landscapes within the Yellowstone to Yukon Conservation Initiative.

The Science Behind the Proposal

Canada, as if finally awakening to its history, is asking urgent questions about its boreal forest—the northern land of spruce, pine, myriad lakes and rivers, the root of so much of our country's story. Even though industrial development is outpacing conservation in many southern parts of Canada,

the northern boreal forest is still one of the largest intact ecosystems left on the planet. About 70 percent remains in a natural state, 30 percent is tenured for industrial uses, and 10 percent is protected. In the Yukon the amount protected roughly matches the 10 percent national average, but is far short of the 50 percent protection goal recommended by scientists and conservation organizations such as the Canadian Boreal Initiative and CPAWS.

We propose a conservation strategy that includes core protected wilderness areas in the Three Rivers watersheds, along with special conservation zones in the Greater Peel watershed. The core wilderness area is approximately 30,000 km² (11,583 miles²), a sufficient size to support species and ecological processes that depend on intact ecosystems.

The conservation strategy would:

- Conserve a globally important mountain boreal ecosystem both for its inherent value and as a benchmark for more developed ecosystems elsewhere in the boreal;
- Allow for appropriate new economic and community development compatible with maintaining a healthy ecosystem;

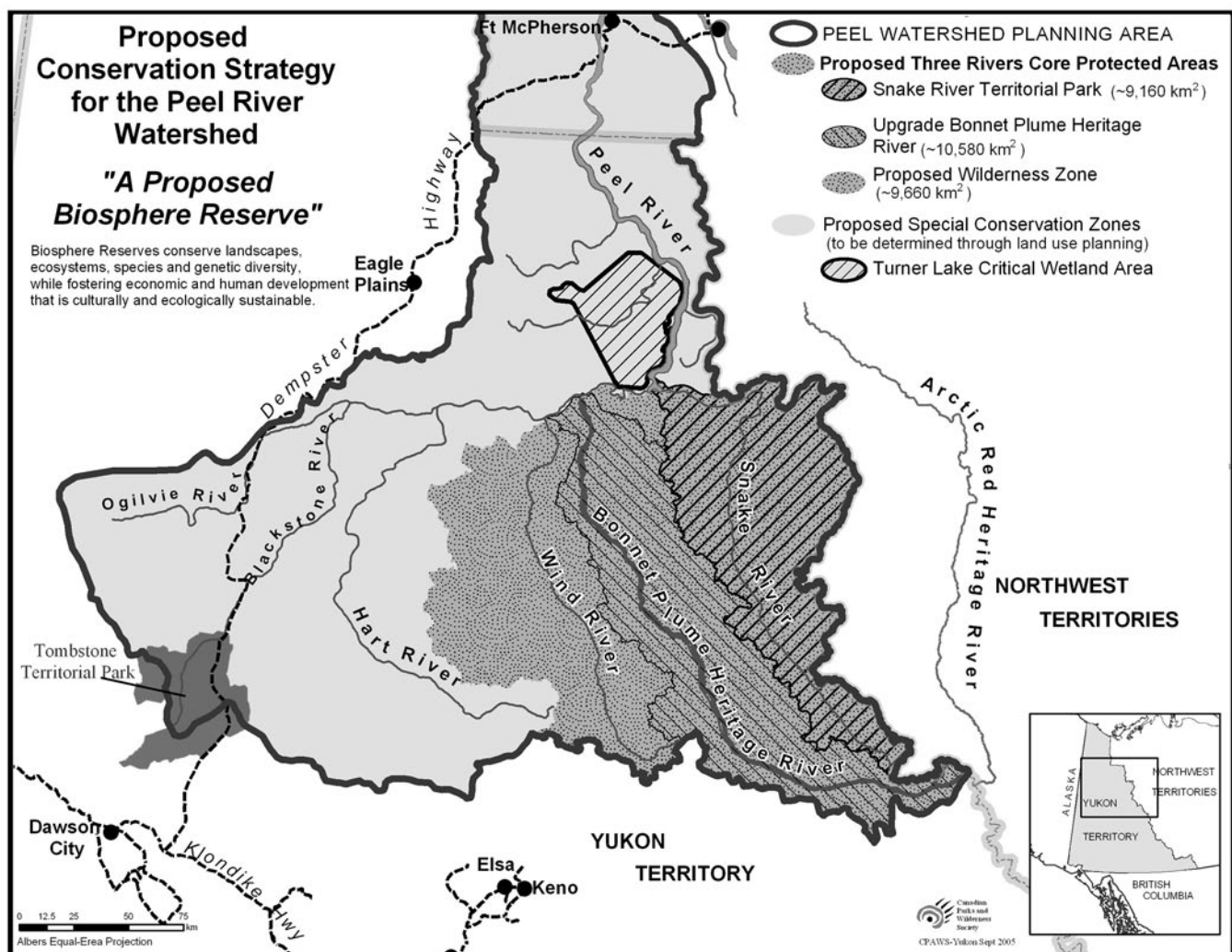


Figure 3—Proposed conservation strategy for the Peel River Watershed.

- Help ensure continued robust populations of woodland caribou, grizzly bear, wolverine, wolf, Peregrine Falcon and a host of other species;
- Protect the pristine headwaters of the Peel, large intact tributary watersheds, aquatic ecosystems and critical wetlands of territorial importance;
- Protect one of Canada's finest arrays of wild mountain river watersheds, supporting existing tourism and service businesses, and attracting new investment;
- Protect a representative part of four distinct biomes in the Peel watershed—boreal forest, Beringia, western cordillera, sub-arctic plateaus and plains; and, embody the Mackenzie Mountains and Peel Plateau Ecoregions which are not yet adequately represented in the Yukon protected areas network;
- Protect a northern Canadian cultural landscape, and support continued traditional activities and harvesting throughout the Peel watershed; and
- Help meet Yukon's commitment to complete a territorial network of protected areas, and address its obligations under the international convention to conserve biodiversity.

A Biosphere Reserve?

The greater Peel watershed is a good candidate for nomination as a Biosphere Reserve. Biosphere Reserves conserve landscapes, ecosystems, species and genetic diversity, while fostering economic and human development that is culturally and ecologically sustainable. They are recognized by the Man and Biosphere Program of the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Biosphere Reserves promote solutions for the conservation of biodiversity and sustainable use. Each biosphere reserve provides for landscape and biodiversity conservation areas; appropriate development activities that are culturally and ecologically sustainable; and support for research, monitoring, education and information exchange.

Biosphere Reserves identify core protected areas, buffer zones where compatible development can take place, and a transition zone that may allow for a variety of economic activities.

Community and Economic Benefits of Conservation in the Peel Watershed

Conservation and protected areas are a proven way to develop local and regional economies through public investment; training, education and research; tourism and related services; transportation, facilities and infrastructure; conservation management; increased visitor spending and investment from outside the region (see table 1). In the remote Peel watershed, conservation could provide a viable economic development alternative to cyclical industries based solely on resource exploration and extraction. An economy based in part on conservation would tend to be more stable and retain economic benefits in the region.

The value of abundant clean water and air, or plentiful fish and wildlife, can be measured as ecosystem services of direct benefit to the community. The social and spiritual

Table 1—Examples of potential conservation-based economic activities in the Peel Region.

Activity
• Continued traditional harvesting and other cultural activities; • Wilderness guiding and outfitting for canoeing, rafting, hiking, horse-back travel, photography, research, education; • Guided hunting, fishing, lodge-based recreation and nature or culture appreciation; • Wilderness tourism services such as air charters, ground transportation, supplies, operating recreation facilities, food and accommodation; • Professional services such as web-based businesses, natural and cultural sciences consulting; • Research, monitoring, education, rediscovery by local people; • Art, photography, local crafts, cultural activities, development of local businesses; • Resource and wildlife management, with public investment; • Enforcement, conservation stewardship, river guardians programs; • Development of tourism and recreation infrastructure, with public investment; and • Increased resident and visitor spending in the region.

values of wilderness are well known, yet harder to estimate in economic terms.

Conclusions

The work to protect the ecological and cultural integrity of the Peel watershed began with First Nations in both the Yukon Territory and Northwest Territories, who, in the early 1990s, put in place the legal framework to conserve the lands, waters and wildlife. Although these Final Agreements provided the structure and processes to address questions of land use, resource development and conservation, they did not in themselves set out a specific conservation strategy for the Peel watershed.

The Peel watershed remains vulnerable to ad hoc resource extraction and other developments such as roads, due to laws permitting free entry mining exploration, or the disposition of large tracts of land to oil and gas or coal interests. In light of recent government resistance to complete a protected areas network in the Yukon, there is an important continued role for the public and non-government organizations to engage in land use and conservation planning.

Uncertainties about future development led CPAWS-Yukon to undertake the multi-faceted Three Rivers project in support of conservation in the Peel watershed. Close to a decade of ecological surveys, community meetings and river trips, along with conservation advocacy, culminated in the Three Rivers Journey in 2003. The Journey engaged local people and invited guests from across Canada. It highlighted the importance of the Three Rivers to Yukoners, and introduced the region to the rest of Canada. The resulting national group art exhibition, *Three Rivers: wild waters, sacred places*, will tour through 2007, and the book celebrating the Three Rivers was published in 2005. The

immediate legacy of the Three Rivers project includes a broader awareness of the Peel watershed's wilderness and conservation values, re-acquaintance of local people with remote reaches of traditional lands, and fostering of a constituency for protection (see www.cpawsyukon.org). In the Three Rivers country we have a chance to protect all that is needed to retain wildness on an inspiring scale, including the full suite of native species, for generations ahead. It's a wilderness dream—protected areas and conservation dominant in the landscape, not remnants of a former ecosystem.

During the clamour to build pipelines and drill for natural gas or coal-bed methane, it would be easy to overlook the grizzly bear and wolverine as they retreat to shrinking islands of intact high country. It would be convenient to argue merely for careful management of the Bonnet Plume woodland caribou herd while seismic lines, roads and drill

pads decimate its habitat, a fate faced by many dwindling mountain caribou herds in Alberta and British Columbia.

The people of the North will need courage to decide which of the many competing values and perspectives are most important—for it is not a question they can leave to others. The future of the Three Rivers and the Peel watershed will be set during the next few years; whatever the outcome in legally protected wilderness areas, conservation demands our continued vigilance.

Reference

Peepre, Juri; Locke, Sarah, eds. 2005. *Three Rivers: The Yukon's Great Boreal Wilderness*. Madeira Park, BC: Harbour Publishing. 148 p.