

RESPONSE and COMMENTS
On the
DRAFT PEEL WATERSHED REGIONAL LAND USE PLAN

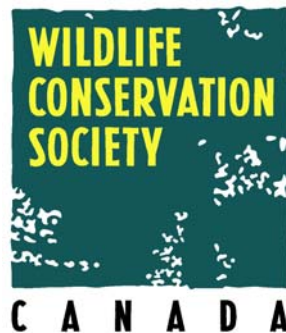
Prepared for the Peel Watershed Planning Commission

By

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June 2009



Introduction

Wildlife Conservation Society Canada (WCSC) is grateful to the Peel Watershed Planning Commission for the opportunity to review and comment on the Draft Peel Watershed Regional Land Use Plan as part of the public review process. Dr. Don Reid of WCSC has been involved in a technical capacity in this planning process, coordinating the Conservation Technical Advisory Group and co-authoring the Conservation Priorities Assessment Report for the Peel Watershed Planning Commission. He has not been involved in writing the Draft Plan, and WCSC has not engaged as a stakeholder in the process to date. However, WCSC is now keen to re-engage with the process as part of this public review, so as to provide our technical knowledge and advice on the content of the Draft Plan as well as our assessment of the potential of the Draft Plan to achieve its conservation objectives. As co-author of this document, Dr. Justina Ray, Director of WCSC, brings a broader perspective and the full endorsement of WCSC to our comments and recommendations.

We have organized our comments in three sections. The first is a Summary of our Recommendations, to bring them all in one list. The second deals with the Content of the Draft Land Use Plan, divided into General and Detailed Comments. In the General Comments we re-iterate our major Recommendations (italicized text boxes) in the context of the section of the Draft Plan being discussed. Specific issues, with our suggested solutions, are listed in the Detailed Comments. The third section deals with the Process of Land Use Planning that has been followed for the Peel Watershed.

Summary of Recommendations

These are our Recommendations regarding Draft Plan content listed in order of relative importance, followed by a recommendation regarding the land use planning process in Yukon. Each of these recommendations is repeated, with rationale, in the body of this document, where they are organized following the format of the Draft Plan.

Draft Plan Content

We recommend that:

- *The Commission gives conservation and protection precedence as a land use in the Peel watershed by including the establishment of new protected areas at the scale of full watersheds and by recommending specific legal protection designations to these areas.*

- *The Draft Plan put forward immediate full protection (analogous to Tier I) of significant large drainages (notably the Hart, and west side of Wind) within the Peel watershed, following the rationale provided in the Conservation Priorities Assessment Report, much of the public comment, and the Report commissioned by Yukon Parks Branch regarding the International Significance of the Peel watershed (Green, M.B., et al. 2008. Peel Watershed, Yukon: International significance from the perspective of parks, recreation and conservation.)*

- *The key elements of the conservation and protection portfolio be two protected areas (probably Territorial Parks), one based on the Peel Plateau wetlands and the other on one or more of the right bank Peel tributaries (notably the Hart), with much of the remainder of the current General Conservation Zone being proposed as a Wilderness Management Area.*
- *The Draft Plan specifies the legal land use designation(s), based on federal and territorial legislation, pertaining to the blocks of land proposed for conservation and protection.*
- *The number of Integrated Management Zones be reduced from 4 to 2 or 3, and that a rationale for their distinction be provided.*
- *The text of Section 5 be substantially reduced and streamlined with the goal of making the tabular format of Objectives, Strategies and Indicators the primary text, and relying on reference to technical Reports as sufficient rationale for the Key Issues.*
- *The Draft Plan provide most of the information in Section 5 in tabular format with Indicators and Indicator Levels joining Objectives and Strategies in the tables, and Best Management Practices and Policy Recommendations being condensed into the tabular format as Strategies or Indicators.*
- *Best Management Practices be removed from their own separate text boxes and be embedded in the tabular arrangement of Objectives, Strategies and Indicators, with appropriate referencing, titles, and identification of agency responsibility.*
- *The text be more forthright in the provision of Indicators, even if quantitative measures are not available, and we note that the degree of adherence to Best Management Practices and the application of new Policy both constitute indicators.*
- *The Draft Plan include an indicator of river traffic, with a threshold quota of number of person-days per drainage per day, above which no further traffic would be allowed.*
- *The Draft Plan include a more thorough explanation (perhaps in a flow chart) of the relationship between Terms of Reference, Guiding Principles, Issues and Management Goals. This explanation would ideally allow the reader to better understand the generic reasons for the particular 5 Issues and 7 Management Goals.*
- *The descriptor “Recommended” be dropped from the Conservation and Protection Zones name in the Land Use Designation System.*

- *Sections 3 and 4 be combined to one Section (especially for the Land Use Designation system), or significantly reduced where text is repetitive (see details in text above), to allow the reader to see the broad patterns in allowable activities and management issues, and more rapidly review the rationale for LMU designations.*

Land Use Planning Process

We recommend that:

- *The Parties to the Umbrella Final Agreement and the Yukon Land Use Planning Council work together to revise the current Land Use Planning Process. We recommend that a revised process more thoroughly engage the key interest groups who are stakeholders in the future land use and management of various portions of the territory with a clearly articulated mandate for achieving consensus. We believe that the engagement of stakeholders should happen comprehensively across the Territory, because the conflicting positions and interests of stakeholders are generic across regions within Yukon. We recommend that Parties to the Umbrella Final Agreement establish a Yukon-wide Stakeholder Round Table designed to facilitate and mediate discussions, among all interest groups, on land use and management issues, with the goal of deriving consensus outcomes and recommendations to the Parties for application in all future Regional Land Use Planning processes.*

Content of the Draft Plan

General Comments

This Draft Plan is based on a large amount of information, and attempts to deal with a wide diversity of positions and interests in the land. It has made a solid and hard-won attempt to incorporate all the information and interests, and deal with them in a fair and considerate way. It is a good first step.

We feel that various improvements are necessary to this Draft Plan, and we address many of these below, often referenced by page number. The biggest problem we have with the Draft Plan is the way the Commission proposes to achieve its stated goal of strong conservation and protection for wilderness and ecosystems. The Commission acknowledges that a message requesting robust conservation and protection has come loud and clear from the public, from various interest groups, from First Nations communities, and often from First Nations governments who are Parties to the planning process (see the Message from the Commission in the Foreword to the Draft Plan: <http://www.peel.planyukon.ca/downloads/DLUP.html>). The Plan's articulated conservation vision is, however, compromised by the Commission's attempt to find middle ground between the two principal competing interests, - mineral exploration and development, and wilderness protection. A compromise within the Peel River watershed is a no-win solution for both competing interests. Both are restricted to such an extent that neither can operate with certainty under the proposed compromise regime. Grandfathering of existing claims under a moratorium on future staking does not provide a realistic mineral exploration and development regime. Limiting protection to relatively small geographic spaces, often narrow river corridors, is an inappropriate scale for biodiversity conservation and wilderness protection.

We question the need to find a compromise between the two principal competing interests within the Peel watershed. The Peel watershed is particularly valuable for conservation and wilderness protection in the Yukon, national and even international contexts. The Yukon tourism industry recognizes that the wilderness imagery and experience offered by the Peel's rivers and landscapes effectively underpin the "branding" of the Yukon for international and national visitors, and that compromising this imagery and experience would be severely detrimental to the ability of the industry to bring tourists here (See comments from this and other stakeholders at: http://www.peel.planyukon.ca/downloads/input/Stk_hldr_Oct08.html). Globally, there are very few watersheds of such size having so little physical human footprint. At northern latitudes there are few regions with such high levels of biodiversity (Green, M.B., et al. 2008. Peel Watershed, Yukon: International significance from the perspective of parks, recreation and conservation. Available at: <http://www.peel.planyukon.ca/downloads/downsудо.html>). There are very few parts of the world left where large predator-prey ecosystems still operate with minimal human interference, including unimpeded large-scale wildlife migrations such as that of the Porcupine caribou (Harris, G. et al. 2009. Global declines in large aggregated migrations of terrestrial mammals. *Endangered Species Research* 7:55-76). In a recent survey of public interest, 67% of Yukoners state that the future of fish and wildlife in the Territory

is extremely important to their quality of life, 79% have concerns about the future of fish and wildlife, and rivers and wetlands are recognized as the principal habitats needing attention (Yukon Fish and Wildlife Management Board 2009. Yukon Fish and Wildlife – a 20:20 vision. Available at:

<http://www.yfwmb.yk.ca/assets/client/File/Reports/2020%20Yukon-Wide%20Telephone%20Survey%20Report.pdf>).

This planning region is so valuable for conservation and protection, and the conservation values it encompasses are so prominent, that we feel that this interest should take precedence, even at the risk of making the Plan unacceptable to one or more of the Parties. A compromise between competing interests should not be sought within the Peel, but needs to be found at a scale of the whole Territory.

We recommend that the Commission gives conservation and protection precedence as a land use in the Peel watershed by including the establishment of new protected areas at the scale of full watersheds and by recommending specific legal protection designations to these areas.

Section 1:

This Section provides a valuable summary of the guiding documents and direction the Commission had to follow, and also developed itself. It ends with a set of Key Issues and Management Goals that are obviously related. It is unclear how the 5 Key Issues and 7 Management Goals came to be chosen, and therefore how they are related to each other and to the guiding direction (e.g., Terms of Reference; Plan Principles). It seems that the Issues were made clear by technical analyses, and input from the stakeholders and public, but were there other forces involved? It seems that the Management Goals derive in part from the Issues, but what else stimulated these Goals?

We recommend that the Plan include a more thorough explanation (perhaps in a flow chart) of the relationship between Terms of Reference, Guiding Principles, Issues and Management Goals. This explanation would ideally allow the reader to better understand the generic reasons for the particular 5 Issues and 7 Management Goals.

Section 3:

3-2 Land Use Designation System: The draft Plan includes Conservation and Protection zones. This is a significant step forward in the need to provide future land use certainty for certain values (notably biodiversity and First Nations heritage) and certain renewable resource uses (notably wilderness tourism and outfitting). These are labeled “Recommended Conservation and Protection Zones”. All zoning in this Draft Plan is “recommended”, and the additional use of this adjective for Conservation and Protection Zones, but not for Integrated Management Zones, is unnecessary and confusing.

We recommend that the descriptor “Recommended” be dropped from the Conservation and Protection Zones name in the Land Use Designation System.

3-4 Recommended Conservation and Protection Zones. The initial text indicates that these Zones have a significant overlap of human heritage resources, rare/endangered species, and uses with small surface footprint. Later (3-6), general ecological values are put forward as a rationale for inclusion of significant lands in the Tier II category. In general, protected areas need to be designed to conserve a full suite of regional ecosystems (habitats) for fully functioning ecosystems (all species), and this criterion should be a prominent part of the rationale for protection zones. However, the way these zones are currently mapped, the potential of this Plan to provide significant future protection is in question.

The Draft Plan recommends immediate protection (Tier I) for three Zones (Critical Landscapes, River Corridors, Remote Access Lakes), totaling 15% of the region. None of these zones individually, nor cumulatively, can support a fully functioning ecosystem; they are too small and selective of certain geographies to be truly valuable for conservation. Two of these Zone types (River Corridors and Remote Access Lakes) derive from values associated with resource use (wilderness tourism and outfitting) more than their ecological or biodiversity attributes. To realize the larger conservation need and intent, the Draft Plan recommends that a further 48% of the region be placed in Tier II conservation zone (General Conservation), and that all future opportunities for mineral staking be withdrawn from this General Conservation Zone. This Commission's vision for a very significant portion of the land base zoned for protection is laudable. However, the key proposition for achieving that vision, - a moratorium on future mineral exploration with grandfathering of existing claims, - is a risky planning proposition because, if rejected as a part of the plan, the whole General Conservation Zone would be rejected and the vision of significant protection within a recommended plan would then be lost. The conservation vision requires a more forthright assertion of the need to protect significant large drainages for ecological reasons, even though such a vision may be rejected by some of the Parties with subsequent rejection of the whole Plan.

We recommend that the draft Plan put forward immediate full protection (Tier I) of significant large drainages (notably the Hart, and west side of the Wind) within the Peel watershed, following the rationale provided in the Conservation Priorities Assessment Report, much of the public comment, and the Report commissioned by Yukon Parks Branch regarding the International Significance of the Peel watershed (Green, M.B., et al. 2008. Peel Watershed, Yukon: International significance from the perspective of parks, recreation and conservation.)

3-6 Integrated Management Zones: The Draft Plan proposes four classes of Integrated Management Zone (IMZ), differing in relative intensity of allowed human footprint, but no rationale why so many classes of IMZ are required. This seems like a great deal of management detail (with associated justification of indicator levels) for a set of likely resource developments that have fairly straightforward development activities (i.e.; access routes; surface footprint; water withdrawals).

We recommend that the number of Integrated Management Zones be reduced from 4 to 2 or 3, and that a rationale for their distinction be provided.

3-9 Cumulative Effects Indicators: The draft Plan lacks an indicator for human recreational or other use along the river corridor zones themselves, in contrast to river crossings by linear developments. The River Corridors are considered of very high value, and are categorized as Tier I protection, but there is no explicit recognition of the volume of human traffic which is the major force that could reduce the quality of these zones as biodiversity habitat and wilderness experience.

We recommend that the Draft Plan include an indicator of river traffic, with a threshold quota of number of person-days per drainage per day, above which no further traffic would be allowed.

Section 4: Land Use Designation.

4-1 and on There is considerable overlap, and therefore repetition, between Sections 3 and 4, especially with regard to the Land Use Designation System. There is also considerable repetition within Section 4 on the management issues facing each LMU and sub-unit.

The overlap between Sections could be addressed by collapsing the two together, and summarizing the management issues (current bullets in Section 4) in some general statements that refer to all LMUs of each category (already provided in Section 3), and by providing a tabular summary of the management issues and the LMUs to which they pertain.

The detailed discussion of each grouping of sub-units in Section 4 is valuable, especially with regard to the rationale for designation in the introductory paragraph, but this paragraph frequently includes the management issues which are then sometimes further elaborated as bullets. The management issues could be dealt with in the introductory section for the category, and associated tabular format (suggested above), leaving the detailed text on each LMU or groupings of sub-units to focus just on the Recommendation and the rationale.

We recommend that Sections 3 and 4 be combined to one Section (especially for the Land Use Designation system), or significantly reduced where text is repetitive (see details in text above), to allow the reader to see the broad patterns in allowable activities and management issues, and more rapidly review the rationale for LMU designations.

4-1 Recommended Conservation and Protection Zone.

The Draft Plan proposes that certain blocks of land (LMUs) be protected, often with withdrawal of subsurface tenures, but grandfathering of some surface and even some subsurface tenures, and continuation of some kinds of access. The Draft Plan does not provide any direction to land managers regarding the legislation (e.g., Parks and Land Certainty Act; Umbrella Final Agreement) and associated formal designation(s) (e.g., Territorial Park; Special Management Area) that might fit the proposed land use

designations. This is a major weakness because the Draft Plan lacks the reality check that comes with tying a proposed land use class to an existing, legally-mandated, designation. As a result, there is no clear reference by which reviewers (especially government Departments with clear land designation responsibilities) can respond to the proposed land use classes. In addition, Parties considering signing such a Plan are left with too much uncertainty regarding what they might be agreeing to, and how they might implement the Plan through legislation, regulation and process.

We recommend that the Draft Plan specifies the legal land use designation(s), based on federal and territorial legislation, pertaining to the blocks of land proposed for conservation and protection.

Tier I protection includes Remote Access Lakes, River Corridors, and Critical Landscapes. Some of the Critical Landscapes are large enough to be Territorial Parks on their own, but cannot be readily combined because they are spatially disjunct blocks. Some are small and might be classed as Ecological Reserves. Remote Access Lakes will see considerable motorized activity and being small, and not ecologically intact units, are poor candidates for full protection status; they seem to be special subzones (with relatively high levels of motorized activity) within a broader wilderness land use class. River corridors, being extremely long and narrow parcels of land, are not ecologically intact units and have no current management analogue. They also seem to be special subzones within a broader wilderness vision.

Our view is that much of the General Conservation Zone (Tier II) is akin to a Wilderness Management Area (WMA), enabled by the Environment Act, and that such a WMA would include the Tier I Remote Access Lakes and River Corridors, and possibly some of the Critical Landscapes as subzones with particular local management vision and controls within the broader Wilderness Management Area. A WMA could also include ongoing exploration, but controls on the intensity of mine developments using a phased approach, a cap on concurrent activities, and regulations on roads to insure that they are non-public and reclaimed.

We also feel that the Critical Landscapes should be outlined in more meaningful ecological units, which means they should not be fragmented and they should include whole large watershed(s) of the scale of each of the major tributaries to the Peel. In such a plan, one such protection block could be a Territorial Park.

The conservation vision for this Draft Plan would be much more robust and ecologically valuable if it included complete protection for at least one whole drainage tributary to the Peel, and joined the proposed wetland protection units in the Peel Plateau into one large protection block. We recommend the Hart River drainage, combined with at least the west side of the Wind drainage, as a candidate Territorial Park, because it has the highest concentration of biodiversity values, the least mineral potential, and would join to an existing protected area,- Tombstone Territorial Park. Although the vision of this Draft Plan is for all the major tributary drainages to the Peel to gain full protection over time, the General Conservation Zone, based on a staking moratorium but with no clear legal

designation, is a compromise proposal. This compromise is unworkable for either full conservation or development. Development requires free entry for exploration on a specified land base because a viable ore body cannot be discovered without free entry; grandfathering with moratorium on future staking effectively negates the opportunity to make full discoveries. Full conservation requires certainty regarding closure of access throughout large intact watersheds; it cannot be achieved when there is ongoing possibility of development. If the Parties accept parts of the Draft Plan, but reject the key conservation provision which is the staking moratorium, then the conservation vision is unattainable for a very long time.

We recommend that the key elements of the conservation and protection portfolio be two protected areas (probably Territorial Parks), one based on the Peel Plateau wetlands and the other on one or more of the right bank Peel tributaries (notably the Hart), with much of the remainder of the current General Conservation Zone being proposed as a Wilderness Management Area.

Section 5: General Management Direction.

This Section includes a great deal of detail and provides a lot of background information. We think that a substantial portion of this (notably most of the introductory paragraphs) could be dropped from the Draft Plan and referenced in the existing planning documents such as the Resource Assessment Report. At present the background information is distracting from the punch of the Management Direction. A list of the Key Issues is probably sufficient background or introductory material in each sub-section, especially if the issues are referenced to the appropriate technical Reports.

The Section is organized by Management Goal, and these Goals are re-stated here in text boxes, but after the introductory material. We agree that the Goals need to be stated, but that they should be the first thing presented after the title of each sub-section, followed by the Key Issues. The Desired Future State can be dropped because such statements should be clear Objectives in the tabular format that makes up the bulk of each sub-section.

We recommend that the text of Section 5 be substantially reduced and streamlined with the goal of making the tabular format of Objectives, Strategies and Indicators the primary text, and relying on reference to technical Reports as sufficient rationale for the Key Issues.

This Section includes a lot of valuable detail in Objectives and Strategies, but frequently little concrete detail as to Indicators that are used to determine the effectiveness of or degree of adherence to Strategies. There is frequent reference to the future development of Indicators, Best Management Practices, and Policy Recommendations. The layout could also be improved by expanding the tabular format of Objectives and Strategies to include Indicators and Indicator Levels. The application of Best Management Practices is a Strategy itself, and frequently the dominant Strategy for many Objectives, so it doesn't logically need a separate section under each Goal. The indicator for the application of Best Management Practices is the degree of adherence and compliance

with those Practices. Similarly the development of new Policy, or the application of a Policy statement presented as a Strategy, becomes an Indicator. The Plan is weakened by postponing the development of Best Management Practices and new Policy to some future date, some future process, and therefore a different agency. These things need to be integrated into the General Management Direction as clear directives with timelines, even if their detail cannot be specified at this time.

We recommend that the Draft Plan provide most of the information in Section 5 in tabular format with Indicators and Indicator Levels joining Objectives and Strategies in the tables, and Best Management Practices and Policy Recommendations being condensed into the tabular format as Strategies or Indicators.

Indicators were introduced in some detail in Section 3, often with numerical measures, but these measures generally do not appear in Section 5 where, instead, the text often refers to future research and plan implementation as a means of achieving indicators. This is confusing. Perhaps the whole discussion of indicators in Section 3 was premature, and so should be dropped. If not, then Section 5 needs to take the bold step of providing indicators, sometimes with threshold levels, for most of the Strategies. Indicators do not have to be phenomena measurable on the land; they can be components of other Plans, policies, regulations, best management practices, agency staffing, budget line items, etc. The repeated reliance on the hope of future research and plan implementation to provide the detail weakens the vision and integrity of the Plan. If no indicators can be found, or quantitative measures cannot be derived, then there is some latitude in requesting future application, but it is weak as a normative approach.

We recommend that the text be more forthright in the provision of Indicators, even if quantitative measures are not available, and we note that the degree of adherence to Best Management Practices and the application of new Policy both constitute indicators.

Throughout this Section there is reference to Best Management Practices. It is often unclear whether these are existing documents (and if so, they are not always referenced), or whether they need to be developed, or what they should constitute. Where they already exist they need to be referenced, and their application should be an explicit Strategy with Indicator. Where they don't yet exist, the best way to bring these important components of a results based management regime to light is to make their development an explicit Strategy under an Objective with a responsible agency, with the Indicator being both whether or not they have been developed, and whether or not they are employed. When they are left in their own separate section of the text they seem like idealized add-ons, with less meaning because they are not tied to an Objective. We cannot overemphasize the importance of sound management of those landscapes that are not otherwise protected, because many ecological processes operate across geographies much larger than protected areas. Consequently the Plan needs to pay special attention to the direction and detail it provides regarding science-based means for achieving a sustainable ecological future on the working land base (notably Best Management Practices and indicators of human activity in Integrated Management Zones).

We recommend that Best Management Practices be removed from their own separate text boxes and be embedded in the tabular arrangement of Objectives, Strategies and Indicators, with appropriate referencing, titles, and identification of agency responsibility.

Detailed Comments

Section 1:

1-5 “Precautionary Principle”. Does the numbered reference refer to the UFA?

1-6 “Key Issues: Coordinated management for land use certainty”:

This text refers mostly to the need for certainty for resource use, apparently referring mostly to non-renewable resource use. It could be argued that the status quo already provides lots of certainty regarding land use options for non-renewable resource extraction industries (mining, and oil and gas) because there is free access for mineral staking, and the land use and management regime is clear for these sectors (e.g.: oil and gas lease bidding; environmental assessment process mandated; best management practices in place). The renewable resource use industries (tourism; outfitting; wilderness users) are the ones that require more certainty, because the future viability of their activities is always uncertain given the possibility of non-renewable resource developments on the same land base. This section would benefit from this distinction, and the explicit point that the plan is aimed at providing more certainty for all sectors.

1-7 “Key Issues: Management of aquatic resources”

The main reasons why this is a key issue are (i) the huge reliance of the Tetlit Gwich'in on fish and hence clean and adequate water flows from upstream; (ii) the local knowledge that indicates historic reductions in flow regimes, which will likely continue with climate warming and consequent loss of multi-annual snow packs and increased evaporation upstream. These need to be stated, because they make a more coherent case for a key issue than the geographic bounds of the plan area.

Section 2:

2-5 “Tourism”. The sentence referencing the paper by Earle (2008) has some grammatical problems (tense, and internal repetition), and does not make clear whether the dollar figure quoted is a cumulative or annual amount.

2-5 “Oil and Gas”. From this text alone the reader cannot tell where in the Planning Region some of the oil and gas basins lie. Is there an associated map (web-page) or background document that could be referenced to help the reader?

2-6 “Mining”. Can a map be referenced for locations of Crest Iron and Bonnet Plume coal (e.g., one of the draft plan maps on the web)?

2-7 “Significant Ecological and Cultural Values”. There are many statements of fact in this section that would benefit from references. Can a blanket reference be made to the Resource Assessment Report at the start of the section?

Section 3:

3-5 River Corridor Zones: A particular rationale for zoning these in some form of protection is to provide explicit management jurisdiction regarding quotas of human use and visitation. This needs to be clearly mentioned.

3-6, 3-7 Integrated Management Zones: There are 4 Integrated Management Zones in the designation system (not “sub-zones”, 3-7). The text identifies some considerations or criteria that may be used to quantify allowable levels of activity without specifying which will be employed and how (i.e. indicators). It also provides a multiplicative factor regarding development level as a way to differentiate zones. The text needs to reference the later section where indicators are put forward to represent the criteria quantitatively.

3-7 General Management Direction: Figure 3.1. Definition of Goal needs rewording,- “long-term”. The Example for Strategy needs rewording to fit.

3-10 Water Quality Indices: This section does not mention the use of benthic organism abundance and diversity as a potential water quality index tool. This approach is well underway in Yukon, and could be employed in conjunction with physico-chemical analyses.

3-10 River Corridor Zone Crossing Index: This section does not provide a rationale for this index, which is employed to minimize the number of intrusions of motorized traffic which destroy wilderness experience and reduce wildlife habitat quality.

3-10 Habitat Availability. “Habitat availability” is suggested as a potential indicator, whereby the amount of habitat disturbed or altered is recorded. There are two issues here: (i) complete or partial loss of habitat use in certain areas due to physical alterations to the habitat (e.g., development footprint); (ii) reduced habitat quality and use, in otherwise intact habitat, due to disturbance and proximity to developments. The first is largely covered by other proposed indicators (surface disturbance; linear density). The latter is better referred to as habitat effectiveness, where habitat suitability (use under current conditions) is downgraded because of human disturbance. Habitat effectiveness measures could be developed for certain focal species, but would require new research. The best way to acquire new data is to combine such research as a necessary condition for new development activities.

3-11 Minimum core area. This proposed indicator is unclear as written, and has a circular definition whereby the core area is defined as % of available habitat within the core area. It seems that the intent is to describe the size of contiguous blocks of habitat whose value has not been downgraded by human activity. The unit of measure would be area (square kilometers) and the measure would be contiguous (i.e. unfragmented) habitat

with suitability that is not affected by human developments. Core areas may or may not be larger than home ranges. That is part of the value of proposing such an indicator.

3-11 Minimum patch size. This proposed indicator is not clearly different from ‘minimum core area’. The intent seems to be the same. The biological relevance of an area used by a species in a 24-48 hour period is unclear, and often unknown.

3-11 Sensory disturbance. Although various disturbances can affect habitat use and stress levels, it is extremely difficult to quantify the threshold levels of disturbance at which behavioural effects occur, and there is a high likelihood of habituation in certain circumstances. This research agenda is huge and complicated, and it is not realistic to propose that new research provide indicator thresholds in the near future. There is some potential for using buffers around certain classes of highly suitable habitat as areas excluded for human activity (e.g. flight paths) or development in certain zones (e.g., Integrated Management Zones). Disturbance has a seasonal component, both for human wilderness users and other species, and this provides the opportunity for timing windows around certain activities.

3-12 Table 3.2 and Table 3.3. These Tables include the potential indicators: habitat availability; minimum core area; minimum patch size; sensory disturbance. These are poorly documented, defined, and calibrated as indicators and so should not be included, especially with quantitative values.

Section 4: Land Use Designation

4-2 and on. Recommended Conservation and Protection Zone.

The various LMU sub-units proposed for Tier I and Tier II protection are discussed in some detail, which is useful. With each section there are a number of bullets summarizing issues that ideally would be addressed for management of these zones. It should be made clear (in the introduction to this section) that these “issues” do not have to be addressed before designation for protection can proceed; as stated in this Draft Plan they could be used as arguments against immediate protection because we lack complete information. We know enough about the value of these landscapes (notably the wetland complexes, and upper Hart drainage) that, despite some lack of data, protection is justified and can proceed.

4-3 Turner Wetlands, etc.

One of the bullets regarding issues for future management refers to research on hydrological relationships. This is by far the most important outstanding information need, and deserves a bit more detail. Specifically it is a question of the hydrological relationships on continuous permafrost between the surrounding landscapes outside the proposed protected areas, where development may occur, and the wetland areas.

4-3 West Hart (LMU 4b)

This LMU is given the additional name “Hart River Caribou Herd Core Winter Area”. The other LMUs presented for protection are not given specific names reflecting the values to be protected, so it is not clear that a name is necessary. In addition, the reason

this LMU rises to the top in terms of biodiversity richness is only partly because of the Hart River caribou herd. It is also within the winter range of the Porcupine herd, is rich in the rare and endemic plants of Beringia, and has high nesting potential for rare birds. This LMU deserves protection because of this overlap of a large number of diverse biological attributes, and to label only the Hart River herd wrongly implies a single driving attribute and also implies something special about the Hart River herd compared to other herds. We recommend dropping this name from the LMU, and adding text to explain the broad biodiversity value of the LMU.

4-13 Upper Snake River Watershed.

The explanatory paragraph refers to “sheep migration routes”. This should be “sheep movement routes”.

4-17 IMZ Class 1 Descriptions

The Lower Snake River Watershed is mislabeled as 1b here. It should be 1a.

Section 5: General Management Direction

5-3 Cumulative Effects Management. The Draft Plan makes a strong case for the need for cumulative effects management, and points out the need for indicators, not only for Cumulative Effects but also for other management issues. It talks about the lack of an agency to deal with cumulative effects. We think the key point is that a Land Use Plan is the primary, and often only, means of achieving progress on this issue, because government agencies are not empowered or willing to take responsibility. The Plan needs to explain this problem, and specify where, institutionally, responsibility and tracking of cumulative effects should reside.

5-8 Climate Change Effects. Three habitats are listed as particular concern: “high elevation habitats used by Porcupine caribou and sheep; low to mid-elevation non-forested tundra habitats; wetland complexes”. (However, the text box then refers to river corridors as a habitat at greatest risk, which confuses the message). It is not clear that these are the broad habitat types most at risk of integrity from a changing climate; they may be, but others may as well. Regarding high elevation caribou and sheep habitat, herds other than Porcupine herd use tundra habitats too, so specific mention of the Porcupine herd is misleading. This “habitat” is better defined in terms of its vegetation composition than its herbivore community. At present it is not clear that the possible climate-change related threats to alpine tundra (e.g., permafrost degradation; tree-line encroachment; shrub expansion) will be more intense than threats to other habitats. Regarding low to mid-elevation tundra, this descriptor seems contradictory in that tundra is rarely if ever found at these elevations. A better term needs to be used to describe this habitat type (is it valley-bottom grass and shrub communities?). Wetlands, especially those perched on permafrost, are probably at relatively high risk.

The Climate Change discussion would benefit from a distinction of land use management or adaptation aimed at reducing risks from localized, operational-scale activities, as

compared to adaptation aimed at enhancing the ability of natural systems to respond. In terms of General Management Direction (the theme of this Section), the former set of activities is pertinent (though likely stated in other sub-sections such as Hydrology, to which this sub-section should refer). The latter set of activities (large-scale conservation zoning and connectivity) should have considered climate change in their outputs (which could also be referenced here).

A more general consideration not mentioned here (which might be considered a Policy Recommendation) is the generally respected need to act with additional precaution when considering potential harmful activities now, in a changing climate, than before. This is because many organisms and ecological processes are now additionally stressed by limitations induced by the changing climate (e.g., water stress; heat stress; changing competition and food quality) and have less resilience to novel limitations imposed by people (e.g., disturbance and habitat displacement; pollutant levels in water).

5-20 Terrestrial Resources.

Strategy 3.2.2 states: “Consider restrictions on motorized vehicle use”. This is a valuable topic to include, but the text provides no land use designation or agency context for this to occur. Such a strategy has a greater chance of application if recommended within certain land use designations such as a Territorial Park, or a Wilderness Management Area, where a specific Management Plan must be developed (by law). The inclusion of such restrictions in those Plans would be the Indicator of success in this Strategy.

This is one example of a Strategy which holds little hope of success as written, but would provide real hope of success if the Plan included clear land use designations (Section 4), and the Strategy was combined with an indicator that could move it forward.

5-25 Boreal Caribou

This sub-section is not laid out with Objective, Strategy and Indicator, and so it is weak in its potential application. Given that the ecotype is threatened, Yukon or any development proponent will be obliged to map critical habitat under SARA, though the definition of this critical habitat is still undecided. The relegation of this mapping exercise to a “research recommendation” is not appropriate given the recently released Critical Habitat Science Review by Environment Canada (https://www.registrelep-sararegistry.gc.ca/document/default_e.cfm?documentID=1761). It needs to be a strategy (“Map critical habitat as defined by the imminent Recovery Plan for this ecotype”) with an Indicator (“Presentation of critical habitat mapping, with mitigation measures, as part of any development proposal (e.g., to YESAB) within the identified range of this ecotype in the Planning region”) (Indicator Level: Yes or No).

5-42 Access Management.

Strategy 6.1.2. refers to mapping critical wildlife habitats for northern mountain caribou herds. These herds do not have legally identified “critical habitat” under SARA (and will not while they are listed as Special Concern), so perhaps for clarity another term is necessary, whereby a limiting season is identified. In addition, this strategy “asks” an agency (which one?) to do some technical work, which has already been done by this

planning process using best data currently available, so it seems redundant and unspecific as to responsibility. The strategy aims to insure that the best available data are taken into consideration in access planning, so the wording would better reflect the Strategy of applying the most up-to-date data and analyses of habitat data in access planning (which may or may not require re-doing the mapping), and the indicator would be whether or not such mapping (currently housed in the Yukon data warehouse) was employed in project proposal applications to YESAB. A precautionary approach would be to apply the critical habitat guidelines proposed for boreal caribou (referenced above) to the mountain caribou herds.

5-54 Tourism and Recreation.

Among the key issues, there is no explicit mention of the risk to wilderness experience posed by high levels of human use of river corridors and remote lakes. This problem needs to be identified. (It is embedded in part in one strategy, 7.8.2).

Most of the strategies are valuable but have little hope of application without being tied to agencies with responsibility along with indicators. This is where specific land use designations for River Corridor Zones, Remote Access Lakes, and the surrounding watersheds are essential, because they provide straightforward responsibility to a management agency, often with specific sub-regional planning responsibilities. However, the way the land use zoning has been developed in this Plan, many of the strategies call for controls on land uses beyond the boundaries of the particular zones (e.g., view-scape inventories which lie mostly beyond the river corridor zones; minimizing upstream effects on river corridor zones themselves). This makes the application of these Strategies difficult because they would involve various agencies, none of which is identified here in terms of its responsibility. Most of the Strategies need indicators to drive clear lines of responsibility and activity.

The Peel Land Use Planning Process

WCSC is keen to comment on the mechanism and process of land use planning in Yukon because we feel that the process has fallen short of facilitating a civil and consensual path to future certainty in land use and management. The crucial land use and management issue the Commission has wrestled with is the conflicting visions and positions of key stakeholders - the non-renewable resource extraction industry, the wilderness tourism industry, and the nature conservation community. This issue has confounded sustainable land management in Yukon for decades, and was clearly evident at the beginning of the Peel Watershed planning process. Unfortunately, with the Draft Plan out for public comment, this issue is now being addressed by stakeholders in the public media and through political lobbying.

Regional land use planning in Yukon can best be described as a government-to-government process. It derives from Chapter 11 of the Umbrella Final Agreement summarizing how federal, territorial and First Nations governments settle land claims and jointly govern Yukon. The territorial government and First Nations governments with traditional territories overlapping the planning region are all Parties to the plan, and a

plan cannot proceed to implementation without the collective agreement of all Parties. The Parties have ongoing influence on the planning process through their representation on both the Technical Working Group and the Senior Liaison Committee. These bodies periodically review progress within the planning process, provide direct advice and direction to the technical staff of the Commission, and are required to endorse budgets, timelines and staffing issues. Commission members, who have to make the difficult decisions about land disposition and management, are appointed by the Parties (governments).

Being a government-to-government process, land use planning is not a “stakeholder process”, where all interest groups with a “stake” in the land and how it is managed collectively derive a land use and management plan through a consensus process. Stakeholders were able to comment on background documents publicly released by the Commission from the start of the planning process, but were not invited to actively engage through face-to-face workshops organized by the Commission’s planning staff until the last stages of the process. These interactions have improved the Commission’s understanding of some of the stakeholder positions, but, at such a late stage and in their adversarial format, they could not result in a mutually derived consensus on a land use future. In the Draft Plan the Commission members have wrestled with the competing stakeholder visions and tried to find a happy medium (see their Letter of Introduction to the Draft Plan). The net result is a Draft Plan that is harshly criticized by most stakeholders (e.g., Whitehorse Star, April 21, 2009, page 4: “‘This is crazy’: mines chamber on Peel plan”), that is likely the subject of political lobbying, and will likely serve to harden the opposing positions of various groups in society. To engage with the underlying government-to-government process, stakeholders are forced to align themselves with one or other government because, as Parties to the Plan, these governments have power of veto. There is a high likelihood that the Draft Plan will be rejected by one or more Parties, and a growing risk that the whole process will not produce a final Plan recommended by all Parties. Government’s investment in the planning process could be wasted, and more importantly a large proportion of the goodwill and political capital embodied in the Umbrella Final Agreement and Yukon’s co-management regime for natural resources could be lost.

Although the current process has offered lots of opportunities for the public and stakeholder groups to review and comment, mostly in writing, on issues and interests, technical reports, and planning documents, such comments are being contributed in isolation of other positions so they are by nature uncompromising and even self-serving in many cases. The process has implicitly assumed that the Commission, as “wise arbiter”, would weigh this evidence and derive its own assessment of the relative importance of the various interests, - a valid assumption given the design of the process. However, the trade-offs and exchanges among stakeholders, necessary for a consensus outcome, can neither be accomplished solely by a wise and well informed Commission, nor at the scale limited to just this watershed within Yukon. Moving to agreement among stakeholders will require mediated face-to-face negotiations with the whole Yukon in mind.

We recommend that the Parties to the Umbrella Final Agreement and the Yukon Land Use Planning Council work together to revise the current Land Use Planning Process. We recommend that a revised process more thoroughly engage the key interest groups who are stakeholders in the future land use and management of various portions of the territory with a clearly articulated mandate for achieving consensus. We believe that the engagement of stakeholders should happen comprehensively across the Territory, because the conflicting positions and interests of stakeholders are generic across regions within Yukon. We recommend that Parties to the Umbrella Final Agreement establish a Yukon-wide Stakeholder Round Table designed to facilitate and mediate discussions, among all interest groups, on land use and management issues, with the goal of deriving consensus outcomes and recommendations to the Parties for application in all future Regional Land Use Planning processes.