November 1, 2021

Debbie Nagano (Chair)
Dawson Land Use Planning Commission
Suite 201
307 Jarvis Street
Whitehorse, YT
Y1A 2H3

RE: Ducks Unlimited Canada's Comments on Draft Regional Plan

Dear Ms. Nagano,

Ducks Unlimited Canada (DUC) commends the Dawson Regional Land Use Plan Commission, both Commissioners and staff, for producing the *Draft Regional Plan 2021*. We appreciate the amount of effort required to put together such a comprehensive land use plan for a region that faces the challenges associated with multiple land uses, deep cultural relationships with the land, a desire for environmental sustainability, potential for a continuing mineral development economy, other emerging economic activities such as agriculture and tourism, and in a region that is feeling the impacts of climate change. The draft plan has made great strides towards finding a balance between these competing land uses and we are pleased to be able to provide our thoughts on what is working well within this plan, some further analysis we have conducted regarding wetland values to aid the Commission in determining appropriate management directions, and some ideas to help achieve the stated goals as the Commission drafts the Recommended Plan.

As a reminder of who we are, DUC was established in 1938 by a group of conservation-minded hunters who recognized the importance of wetlands. We are a non-profit conservation organization that aims to conserve wetlands and associated habitats that support waterfowl and other ecological goods and services. As a grassroots organization and registered charity, DUC partners with government, First Nations, industry and a diverse spectrum of other stakeholders to help conserve habitats in the Yukon and across Canada. We take a pragmatic, science-based approach to tackle the conservation issues we face. During the writing of the draft plan, DUC had the opportunity to present information directly to the Commission on two occasions. During these presentations we provided updates on a wetland inventory we conducted in partnership with Tr'ondek Hwech'in to provide the background information on wetlands that we trust was found helpful in the Commission's deliberations.

Below, please find our comments on the draft plan along with the results of some analyses we have recently completed. We understand the difficulty in determining how best to manage activities in wetlands and humbly suggest our comments will aid the Commission in your considerations of how to guide development activities that occur in wetlands while maintaining the values wetland provide. At any time, we are very willing to further discuss our suggestions or the results of our analyses with Commissioners or your staff. Feel free to contact DUC at 668-3824 or at j_kenyon@ducks.ca

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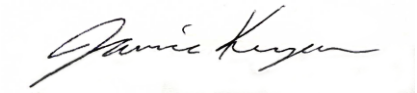
Again, congratulations on achieving this milestone, thank you for the opportunity to provide our feedback, and we wish the Commission the very best as you work towards finalizing the Recommended Plan in the coming months.

Sincerely,



Jamie Kenyon
Head – NWT and Yukon Operations
Ducks Unlimited Canada
Whitehorse, YT

Ducks Unlimited Canada Comments on Draft Regional Plan

For DUC, our priorities for a land use plan are to see wetlands, including their functions and values, conserved. We feel this can be accomplished through a mixture of protection of the most important wetlands and robust sustainable land use measures for areas that are open to development activities. We are not opposed to development and understand that resource extraction industries are important to both the local and global economies. However, we believe it is possible for these industries to be undertaken in a manner that maintains the ecological values that wetlands and other ecosystems currently provide.

DUC believes the Draft Plan provides a strong foundation for a land use plan for the Dawson region that can help ensure sustainability of the numerous values this region provides people. We saw many positive planning measures within this plan but also noticed some areas where we believe an improvement could better ensure the goals of the plan are achieved. Within our comments below we will highlight those planning measures that we see as being critical to the success of the plan and provide suggestions for how to improve areas we see as less than optimal. This will include providing some further analyses that will supply a better understanding of the carbon storage value wetlands provide to people to help the Commission answer the questions that were raised within the plan about how best to manage development in wetlands.

We applaud the Commission for providing a strong Vision and Guiding Principles for this land use plan. DUC strongly supports these statements and believe that the land will be used in a manner that allows for sustainability when these measures are followed. We agree that sustainable development and stewardship, guided by the precautionary principle and adaptive management, and combined with important areas being protected is an excellent approach for this plan. We also support the Plan Goals. We feel these are appropriate and acknowledge the breadth of land uses that currently exist throughout the planning region.

We feel the Plan Concepts, such as Land Use Designations and Cumulative Effects Indicators, are a good approach to guide decision making and monitor impact levels over time. We agree with most of the boundaries for these Land Management Units (LMU) but will provide a different option for the White River LMU below. We also support the overall land designation system proposed in the Draft Plan. We agree that used in conjunction with LMUs, different intensities of development are justified. We will provide our suggestions on a few aspects of the land designation system that we feel could benefit from further clarification, particularly Special Management Area (SMA) II, as well as a couple LMUs that we feel should receive a higher level of conservation.

Over the next few sections, we provide our suggestions on the topics of wetland management, Wetlands of Special Importance, SMA II designations, Ladue River and Flat Creek designations, and other points of clarification.

Section 4.2.4 Wetlands

DUC agrees that managing development activities within wetlands is a difficult topic. Wetlands provide benefits to people but also overlap with other land uses. Unfortunately, these land uses, particularly placer mining, have significant impacts to wetlands and their benefits. To help implement effective

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actions that provide clear and consistent direction for those looking to undertake development activities in wetlands, and those who assess and regulate these activities, a vision of what the desired outcome for wetlands and their values is required. DUC believes that the objective provided in the draft plan could benefit from further clarification to provide the necessary level of detail to allow the policy recommendations made by the Commission to be successfully implemented. It is our opinion that clarifying the objective to better describe what the Commission envisions for wetlands in the future will provide a logical and implementable set of policy recommendations. Below, we provide information and options for strengthening the plan's policy and research recommendations. These comments include our suggestions for improving the objective for wetlands, options for accomplishing a clarified objective, plus we provide analysis on the carbon storage value of fens to help answer the question the Commission has posed regarding trade-offs.

We believe an objective that states what the future of all wetlands looks like, in terms of how of their values will be conserved, will provide a better outcome for wetlands and an improved regulatory process. While we are pleased to see that wetland values are recognized, the objective needs to state how those values will be recognized through the implementation of the plan. Our preference is for the objective to state that all wetland values that currently exist on the landscape will be maintained. It is our position that an objective such as this is more in line with the draft plan's Vision Statement, Guiding Principles including sustainable development, and the ecological goals of maintaining healthy aquatic habitats and supporting natural integrity by reclaiming and restoring cumulative impacts. We believe that maintaining wetland values can be done in a manner that still allows for responsible and ethical development activities to occur through implementing the mitigation hierarchy with a goal of no-net-loss of wetland values. DUC supports the policy recommendation to not allow further development in bogs and marshes in all LMUs and for fens in some LMUs and believes that this can be compatible with a no-net-loss approach. We encourage the Commission to keep this recommendation in the Recommended Plan. We also believe that the Commission is within their mandate to propose such a vision despite the ongoing wetland policy development of Government of Yukon.

With respect to how best to achieve the goal of no-net-loss of wetland values, we suggest the framework for this is already written into the plan but needs the linkages to be explicitly stated. The draft plan lists a number of Recommended Management Practices that have been discussed during Government of Yukon's wetland policy development process. It is unclear in the draft plan how the Commission intended to use these practices, if at all. We suggest that the Commission explicitly adopt the mitigation hierarchy but add a goal of no-net-loss of wetland value as the management direction for all Land Management Units. This approach will stress the preference for development to avoid wetlands as the first option. When this is not possible then impacts should be minimized, and as a last resort reclamation of wetlands could occur. If reclamation does not replace all values, then further offsetting of impacts would occur, for example, contribution to the Land Stewardship Trust (see below for more comments on the Trust) or reclaiming historic impacts. Adopting a no-net-loss mitigation sequence is consistent with the precautionary principle and adaptive management framework that guides this land use plan.

We understand there could be some confusion over management direction of wetlands given Government of Yukon's development of a wetland policy is underway and expected to be completed by

mid-2022. We suggest it is within the Commission's mandate to provide recommendations that may overlap or go beyond the management directions that may be contained in the upcoming wetland policy. We propose that the Commission consider stating their expectation for how wetlands should be managed with the caveat that a wetland policy would only supersede or replace the Commission's management direction if it meets or exceeds the Commission's wetland management goals.

There is limited information on wetland values that has caused debate about the true value of wetlands to people. This also has prevented the Commission from making firm recommendations on how best to manage activities in wetlands. To help the Commission, DUC is providing a new analysis that estimates the amount of carbon stored in fens across the planning region with subsequent descriptions of what that could mean for the proposed management direction of an ISA IV. As the Draft Plan correctly pointed out, a function of wetlands is the storage of carbon. Wetland classes vary in how much carbon they store with bogs and fens, together classified as peatlands, storing much more carbon than the other wetland classes or uplands. Carbon is stored in the peat layer, which is semi-decomposed organic matter, of bogs and fens. This carbon can be stored for millennia but can be released when wetlands are altered through a disturbance such as placer mining, road building, drainage activities, or climate change. When this carbon is released, it acts as a greenhouse gas and can contribute to climate change.

Using our recently completed wetland inventory we were able to produce conservative estimates of the amount of carbon stored in fens within the planning region. Due to the limited data available regarding the characteristics of peat in the planning region we made some assumptions. We acknowledge that fens may develop peat differently in the Dawson region compared to other areas of Canada, resulting in shallower peat depths and possibly lower density peat. Therefore, our assumptions used minimum estimates or a range of low estimates to minimize the likelihood of overestimating the actual amount of carbon in fens in the planning region. We assumed that all fens were shallow with only 40cm of peat and we chose a range of carbon volume estimates (measured in g/cm^3) from Zoltai et al (2000)[1] that included the lowest measured carbon volume for the top 40cm of peat, the mean carbon volume for the top 40cm of peat, and an average carbon volume of all peat depths. Using peat depth and carbon volume we calculated carbon density estimates (tonnes/hectare) for each carbon volume as shown in the following table.

Estimate	Carbon Volume (g/cm^3)	Carbon Density (tonnes/ha)
Low Volume	0.013	52
Medium Volume	0.041	164
High Volume	0.052	209

We calculated soil organic carbon estimates by multiplying the carbon density by the area of fen. We estimated CO_2 equivalents using a conversion factor of 3.666. A common comparison for CO_2 estimates is conversion into the number of vehicles required to emit that amount of CO_2. For this analysis we looked at how many years the number of cars and trucks registered in the Yukon (40,500 in

[1] Zoltai, S.C., R.M. Siltanen, and J.D. Johnson. 2000. A wetland data base for the western boreal subarctic, and arctic regions of Canada. Northern Forestry Centre Information Report NOR-X-368. https://d1ied5g1xfgpx8.cloudfront.net/pdfs/12183.pdf

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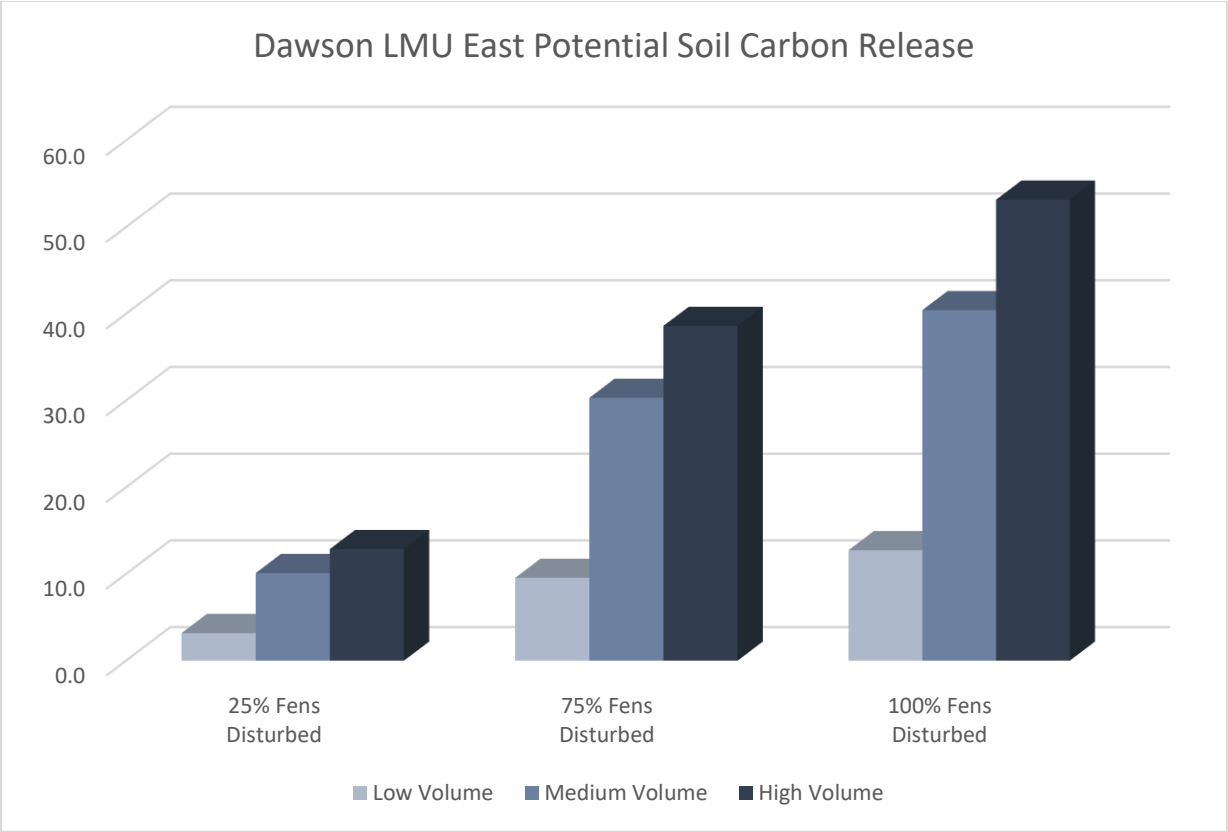
2000 as per Yukon Bureau of Statistics[2]) and estimates of CO_2 emission from the U.S. Environmental Protection Agency[3] of 4.6 tonnes per year.

Our results suggest that the fens of the Dawson planning region contain a low volume estimate of over 31,895 kilotonnes of CO2 equivalents, a medium volume estimate of 101,200 kilotonnes of CO2 equivalents, and a high volume estimate of 128,864 kilotonnes of CO2 equivalents. Please see Appendix 1 for a table of these estimates for each LMU. To make this more applicable to understanding the ramifications of the proposed management direction, we provide an example of the amount of carbon that could be impacted by development in fens in LMU 12 – an Integrated Stewardship Area (ISA) IV where the Commission is considering between 25-75% of fens could be disturbed. The following table provides the amount of soil carbon and CO_2 equivalents in the 12,507 ha of fen in LMU 12 that is at risk of release at the 25% and 75% disturbance levels.

Carbon Estimate	Soil Organic Carbon (kilotonnes)		CO_2 Equivalents (kilotonnes CO_2)	
	25% Disturbance	75% Disturbance	25% Disturbance	75% Disturbance
Low Volume	161	485	593	1,780
Medium Volume	513	1,540	1,882	5,647
High Volume	654	1,962	2,397	7,192

To put this into perspective, according to Government of Yukon's *Our Clean Future*[4], in 2017 the Yukon emitted 624 kilotonnes of CO_2 equivalents, not including emissions from mining. Assuming the lowest estimate of CO_2 equivalents, if only 25% of fens are permitted to be developed then nearly a year's worth of the Yukon's CO_2 equivalents could be released from activities in fens (593 vs. 624 kilotonnes) from a single LMU. If the Commission recommends a higher amount of development activity in fens, such as 75%, then anywhere from almost 2.9 to 11.5 times as much of the Yukon's annual CO_2 equivalents is at risk of being released into the atmosphere where it will contribute to the climate change impacts this region is already experiencing today. Put another way, given the 40,500 trucks and cars currently registered in the Yukon and depending on the disturbance level and the carbon volume estimate used, it would take anywhere from 3.2-38.6 years to release a similar amount of CO_2 equivalents. The following graph depicts the relationship between the amount of fen permitted to be disturbed and the years of estimated emissions from the Yukon's existing vehicle fleet. It is important to recognize that a disturbance, including removal of the fen for an activity such as placer mining, does not mean the carbon is released immediately. Rather, this analysis is meant to show the amount of carbon stored in fens and that some portion of this carbon is at risk of being released due to development activities.

[2] Yukon Bureau of Statistics. 2000. Yukon Statistical Review 2020. Government of Yukon. https://yukon.ca/sites/yukon.ca/files/ybs/2020_annual.pdf
[3] https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle
[4] https://yukon.ca/sites/yukon.ca/files/env/env-our-clean-future.pdf



The Commission asked to consider the trade-offs between allowing economic development and the protection of fens and other wetland classes. We undertook this analysis to provide a quantitative example of what exactly is being traded-off when development is allowed in fens. As described in the draft plan, wetlands provide numerous benefits to people in addition to carbon storage such as water quality, flood and drought mitigation, biodiversity, and sociocultural values. These latter values are more difficult to provide a quantitative measure for due to limited data availability but nonetheless are likely to be impacted in a negative manner when development occurs in wetlands. Also, the Commission noted that current reclamation and restoration techniques are limited in fully replacing many of these values. This is particularly true for carbon storage as the carbon currently found in wetlands accumulated over thousands of years.

The Commission also asked for a recommendation on the percentage of fens that should be set aside from development. Unfortunately, at this time DUC cannot provide a number as the scientific knowledge has not been sufficiently gathered to make a reliable estimate. Instead, we recommend the clarification of the objective for wetlands to maintain wetland values through the implementation of a mitigation hierarchy with a goal of no-net-loss of wetland value under the guidance of the precautionary principle and an adaptive management framework will more successfully achieve the overall vision of the draft plan. We suggest an arbitrary threshold approach will be difficult to implement, particularly without an overall objective for wetlands and their values.

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Section 4.2.5 on climate change in the draft plan refers to the role wetlands play in mitigating climate change. Similarly, Government of Yukon's draft wetland policy uses as a guiding principle that "the removal and loss of wetlands contribute to greenhouse gas emissions, and therefore reducing wetland losses supports the Government of Yukon's commitment to achieving its emissions targets". DUC agrees with these statements. Considering the *Our Clean Future* strategy calls for an annual reduction of 263 CO_2 equivalents, the release of any of the carbon stored in fens in the Dawson planning region will further challenge Yukoners to meet the carbon emissions goals that have been set. While we agree with the Recommended Actions the Commission proposes at a high level in terms of conserving wetlands as a means of climate change mitigation, we propose that adopting the recommendations we made above (no-net-loss of wetland value) and the ones we will make below regarding Wetlands of Special Importance, supported by this analysis of the carbon storage value of fens, can strengthen the Recommended Actions in Section 4.2.5.

The Commission proposed a Research Recommendation regarding buffers for wetlands. We agree with the rationale use by the Commission and agree there is a need for further research to determine the most appropriate buffer. However, we suggest that under the guidance of the precautionary principle and an adaptive management framework it would be justified for the Commission to propose an initial buffer that will be used until the adaptive management framework allows for the initial buffer size to be evaluated. In our opinion, moving forward with no buffer included within the land use plan is not consistent with a precautionary principle. While the initial buffer may end up not being of adequate size it is likely to be better than no buffer from an ecological perspective. During the Hearing in the Public Interest held by the Yukon Water Board in October 2020, DUC provided a response to a question from the Yukon Water Board regarding the appropriate size for a wetland buffer. Based on our research, we encourage the Commission to adopt an initial 30 metre buffer for activities around wetlands with the caveat that this distance will be evaluated under an adaptive management framework.

The Commission recommends that development not occur without detailed wetland inventories being available for some regions. We understand why there is a desire for these wetland inventories and agree that having detailed wetland inventories should be produced in a timely manner as part of plan implementation. However, it may not be necessary for the wetland inventories to be completed prior to development being permitted if a different management direction is used. One of the benefits of a no-net-loss mitigation hierarchy is that each development proposal needs to show how wetland values will remain through the actions of avoidance, minimization, and reclamation. Knowing if a wetland will be impacted is critical but can be done on a case-by-case basis until a wetland inventory is completed for concentrations of wetlands.

We have discussed the relationship between the draft plan and Government of Yukon's upcoming wetland policy. With respect to the policy recommendation of the Commission supporting the completion of this policy along with guidelines from the Yukon Water Board, DUC does support the completion of these processes as well. As we described above, we do believe that a land use plan can provide further direction, particularly when the completion and implementation of the policy will occur sometime in the future.

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As for the remaining policy and research recommendations in this section, we fully support the recommendation for further public awareness initiatives. It is our experience that what a wetland is and why they are important is not common knowledge for those who conduct development activities in wetlands and sometimes those who assess, regulate, monitor and enforce licence permits. This lack of knowledge contributes to the land use conflict in wetlands. We strongly agree with the Commission's research recommendation for wetland research initiatives. The four areas proposed by the Commission are the highest priority research topics in our opinion as well. We also are pleased to see the Commission call for a collaborative approach to conducting this research. Co-production of knowledge with all stakeholders, particularly Tr'ondek Hwech'in, is our preferred option. Finally, we will provide our comments on Special Management Areas and Wetland of Special Importance in their own sections below.

Wetlands of Special Importance

DUC agrees fully with the idea that some wetlands need to be protected to ensure the values they provide are maintained. Land use planning processes are an appropriate mechanism for identifying these areas. We also agree with the Commission on the two areas that have been recommended for protection – Scottie Creek and Upper Indian River – including the justification provided in the draft plan. Scottie Creek wetlands provides habitat for numerous species including waterfowl as it has a relative abundance of rarer wetland classes such as marsh and open water. It also is the headwaters for the Tetlin National Wildlife Refuge in Alaska, another wetland dominated ecosystem. The Upper Indian River Wetlands are also a good candidate due to the relative limited impacts to these wetlands within a watershed that has experienced a large amount of wetland impacts.

We feel clarification would be beneficial however on the intent of what the Commission is hoping to achieve with this designation. This is due to confusion on our part of some of the terminology being used. The Government of Yukon's wetland policy process has introduced Wetlands of Special Importance as a mechanism to help ensure wetlands that have some sort of exceptional value are protected. We believe the term protection is a proper interpretation as the draft policy proposes that wetlands will have no-loss of wetland benefits. A no-loss policy, in our view, means that wetlands would not be able to have any activity occur within them that could lead to a loss of any wetland value or benefit. Government of Yukon's policy supports this view as legally binding protection via legislation, such as creating a territorial park or Habitat Protection Area, is an option to achieve the desired level of protection. It is our understanding that wetlands that are given this designation, particularly wetlands that are part of a wetland complex as is the case in both Scottie Creek and Upper Indian River, applies to all wetland classes. However, the draft plan recommends only bogs, fens, and marshes would receive any protection with swamp and shallow open water wetlands open for development. DUC prefers that the designation of Wetlands of Special Importance would apply to all wetland classes within the LMU.

Wetlands are often highly connected systems with water flowing from one wetland into another with the transition between wetland classes being difficult to accurately determine. Given the current state of knowledge regarding the local hydrology and connectivity within a wetland complex such as those found in both the Upper Indian River and Scottie Creek there is a risk that allowing development in

swamps could still have negative impacts on fens. This connectivity provides the basis for our recommendation that all wetlands within a Wetland of Special Importance have a Special Management Direction of no disturbance.

With respect to the Scottie Creek LMU, we agree fully with the Management Intent Statement. Similar to our comments above, we suggest that to fully protect the function of the wetlands and allow connectivity beyond the boundaries of the region, all wetland classes should be designated as no disturbance as is currently proposed for bogs, fens and marshes. This will better ensure wetland function is protected. We also question whether the allowance of development to occur guided by the cumulative effects thresholds for an ISA II will achieve the Management Intent. There is little information regarding how these wetlands are hydrologically connected to adjacent uplands. Allowing development without knowing this information could jeopardize wetland function. Based on the "current" disturbance levels analysis provided by Commission staff, Scottie Creek already has passed the precautionary threshold for both surface and linear disturbance for an ISA II. We therefore suggest Scottie Creek be designated as an SMA I. We feel that given the existing disturbance levels, an SMA I designation is a better option than an SMA II, even with a change to a disturbance threshold equal to that of an ISA I since the disturbance levels are already at or very near the cautionary levels for an ISA II. An SMA I designation will provide increased clarity, along with the recommendation for designation as a Habitat Protection Area, to better facilitate implementation of this plan.

As we said above, we support the desire that the Upper Indian River Wetlands receive some level of protection. However, we too struggle with determining the best land designation. While an SMA I designation would ensure the wetlands are protected it would limit opportunities for development to occur in the uplands. An SMA II designation is also an option but we suggest would benefit from an improved definition of SMA II that better aligns with the desired management outcomes. We suggest that the management direction for the Upper Indian River Wetlands would be a no-loss of wetland values. This no-loss designation we believe should apply to all wetland classes. The implementation of this management direction may be difficult given the tools currently available to the parties but we believe it is the Commission's prerogative to set these management directions and the duty of the parties to implement it as best as possible. The upcoming completion of the wetland policy as well as Government of Yukon's commitment to successor mining legislation could well provide some of the mechanisms to achieve the Commission's vision for this LMU.

Special Management Area II

Similar to our Wetlands of Special Importance discussion, we suggest that further clarification be provided by the Commission in the Recommended Plan about the intent of the designation of SMA II and how it should differ from an SMA I or an ISA I or II. We feel some of the management directions can be interpreted as contradictory. For example, existing mineral claims and land tenures are permitted to be developed but all other land use tenure should be withdrawn as well as new surface access can be allowed depending on the restrictions of a given LMU. We are unclear as to whether this means a new road that is not currently planned for, or has an existing land tenure, would be permitted in an SMA II. Isolating existing mineral claims does have precedent as seen in the Peel River Watershed Land Use

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Plan although we do recognize the difficulty for claim holders to economically work their claims in that situation.

Another example of a management intent that is unclear to us is that the word protection is used to describe the Management Intent Statement, yet the Commission seeks no formal legal designation for the LMU, and in fact recommends against having a legal designation provided, particularly one that would require a management plan. Furthermore, for the Scottie Creek Wetlands LMU, the draft plan recommends a Habitat Protection Area as an appropriate designation despite this designation requiring a management plan. Similarly, LMU 4 recommends establishment of an Indigenous Protected and Conserved Area which would likely require a management or strategic plan (Thaidene Nene has a strategic plan as well as legal designations[5]). For the record, DUC strongly supports the idea that LMU 4 is recommended as an Indigenous Protected and Conserved Area.

During some of the public consultation events, DUC had the pleasure to speak informally to some Commission members and staff. During these conversations we were made aware that there were some concerns of the Commission regarding negative impacts associated with some existing protected areas with respect to human activity within the protected area and a desire by the Commission to not have those negative impacts affect areas designated as an SMA II in the draft plan. We respect the Commission's concerns about this issue. It is our opinion that this concern can be mitigated through a more fulsome explanation of the concerns surrounding designation of an SMA I versus an SMA II and the legal designation that would go along with that. A more explicit Management Extent Statement and further clarification regarding the level of development that would be permitted would be beneficial in our opinion. There are existing protected areas in the Yukon that also have concerns about the impact of human use and we suggest the Commission look at the management plan for the Nisutlin River Delta National Wildlife Area[6] to consider if the management objectives within that plan would adequately address the Commission's concerns. DUC is open to the idea that some LMUs do not get formal protection via mechanisms such as territorial parks as long as explicit and well-defined management objectives are provided that stress a high level of conservation and strong enough withdrawals are enacted by the Parties during implementation (for example, an Order In Council as was done for the interim withdrawals that have been put in place for SMA II).

To further ensure that the management objectives are more explicit and ensure guidance towards a more conservation-focussed outcome, we suggest that an SMA II designation would require disturbance levels to be no higher than those recommended for an ISA I. Given that an SMA II designation suggests the LMU is recognized for its important ecological and cultural values, it seems contradictory that it would allow for a higher level of development than an ISA I whose purpose is to allow for industrial development to take place.

[5] http://www.landoftheancestors.ca/uploads/1/3/0/0/130087934/thaidene_nene_strategic_plan_2020-2025.pdf
[6] https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas/locations/nisutlin-river-delta/management-plan.html#_05

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Ladue River Watershed and Flat Creek Wetlands

We mentioned above that DUC supports the overall use and direction provided by the Land Management Unit and Land Use Designation framework employed within this draft plan. Also, we mentioned that while we support the framework there were a couple of LMUs that we believe should be considered for a higher level of conservation. Increasing the level of conservation can be done through more than one mechanism. It could be by assigning a different land use designation, use of the Wetlands of Special Importance designation, or splitting an existing LMU into multiple LMUs.

The two areas we ask the Commission to consider increasing the level of conservation for are the Flat Creek Wetlands and the Ladue River Watershed within the White River LMU. Both areas have high concentrations of wetlands that are recognized for conservation through the proposed Special Management Directions. We believe that the value of the wetlands in both LMUs justify an increased conservation focus.

For the Ladue River Watershed, we suggest considering an SMA I designation. Depending on how the Commission alters the definition of SMA II, that designation may be appropriate as well. We also suggest designating this as a Wetland of Special Importance, regardless of the Land Use Designation given, is warranted assuming our recommendations suggested above are adopted. Our rationale for this suggestion is due to the intactness of the wetlands within the LMU, the limited existing land tenure, and the opportunity to improve habitat connectivity across the planning region. The first two rationale are supported by the description of the LMU within the draft plan. Given the intactness and limited land tenure, the lack of existing land use conflicts merits now as a good opportunity to set the management direction for this LMU. With respect to habitat connectivity, the draft plan proposes a high degree of connectivity east-west given the level of protection proposed in the northern portion of the planning area. However, there is not as much north-south connectivity. Moving the Ladue River Watershed into some type of SMA would allow for more connectivity between Scottie Creek Wetlands in the south and Matson Uplands in the north. While there would still be a gap between Matson Uplands and the protected areas in the north, providing a strong connection for the southern portion of the planning region should help achieve the connectivity goals of the plan.

We have focussed on the Ladue River Watershed which is currently part of the White River LMU. We understand the need for areas of the planning region to be available for industrial development to occur under the guidance of a sustainable land use framework. While wetlands are located throughout this LMU and the wetlands located outside the Ladue River Watershed are no less important than those located within in, we feel that ensuring protection of a watershed such as the Ladue River is an opportunity that should be acted upon. DUC is open to the idea of splitting this LMU so that the White River portion remains as an ISA I. If the Commission prefers to minimize the number of LMUs, we suggest that the White River LMU would then be considered as some sort of SMA and receive a Wetland of Special Importance designation.

DUC also suggests a Wetland of Special Importance designation for the Flat Creek Wetlands. To reiterate our comments above, we believe that a Wetland of Special Importance designation would require a no-loss of wetland value within this LMU. We do not believe that this designation would negatively impact the fuel wood activities that this LMU is also being managed for. This is a relatively

small LMU with limited mineral potential so putting forward a conservation focussed management objective should have minimal impact to potentially competing land use interests.

Other Comments

In this section, we provide comments on other portions of the plan not covered above. These comments focus more on clarification on inconsistencies between plan sections or wording issues.

In Section 3.5.1.3 under wetlands, there is a reference to protection of 40% of fens in Section 4.0. We do not see this number mentioned in Section 4. We assume this is likely a typo that needs to be made consistent with however the Commission determines is the best approach to managing wetlands.

We would like to see a more precautionary approach taken to the assigning of cumulative effect thresholds. Section 3.5.3 states that thresholds were determined by examining the current levels of disturbance and ensuring that thresholds were higher than this level to allow for further development. We question whether this aligns with the Vision and Guiding Principles of the plan. We prefer to see thresholds determined through use of the best available knowledge, both scientific and traditional. While we acknowledge that these sources may currently be limited then employing the precautionary principle and an adaptive management framework that sets thresholds in a conservative manner is an approach that meets the Vision and Guiding Principles of the plan.

A Recommended Action in section 4.2.1.2 regarding moose discusses progressive reclamation, particularly of wetlands, for the benefit of moose. To the best of our knowledge, moose use a number of wetland types including the bogs, fens, and swamps that were present prior to industrial development in addition to the open water wetlands that often replace these wetlands during reclamation activities. While DUC encourages progressive reclamation in an effort to minimize the temporal impacts of industrial activities, we are not as supportive of the statement that progressive reclamation should be done to benefit moose. Our comments above speak to how we hope wetlands will be managed and guide how reclamation will and should occur.

Section 4.3.2 introduces the concept of a Land Stewardship Trust as a Recommended Action. One of the sources of funding for the Trust was offsetting. By this, we are assuming that the Commission means that in situations where wetland reclamation, for instance, is unable to avoid, minimize, or reclaim/restore the values of the wetlands then there would be a potential option for financial payments into this fund to help pay for research into new reclamation techniques for example. If this is correct, DUC does support the theory of offsetting and a Land Stewardship Fund. However, we do wish to provide a few words of caution. The goal of a mitigation hierarchy is to promote the first step over the subsequent step – it is preferred that avoidance occurs rather than minimization rather than reclamation, etc. Offsetting is at the bottom of this hierarchy so it should be the least desired option available for developers to choose. The challenge in implementing an offsetting policy will be to ensure the amount paid into the fund is sufficient to not dissuade developers from choosing this option, or to put it another way, so that developers choose to do better minimization or reclamation activities rather than conduct offsetting. We encourage the Commission to consider the implementation of this aspect of offsetting and provide guidance on how the contributions to the Trust from offsetting should occur.

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Summary

This land use plan is necessarily long, complicated, nuanced, and comprehensive as this is what is required to guide the numerous land uses and overlapping values within the Dawson region. As we have already said, we applaud the Commission and their staff on pulling this together over the last few years. The amount of work is staggering and you should be proud of what has been accomplished so far. As the Commission has stated in their public engagement sessions this summer, the draft plan is not perfect but is a best attempt. We are thankful for this opportunity to provide our thoughts to the Commission in an attempt to help create the desired improvements for the Recommended Plan.

Like the plan itself, our comments are also long. Here is a summary of DUC's recommendations that we feel, if adopted, will help the Recommended Plan successfully achieve the Commission's Vision.

- Clarify the management objective for wetlands by providing a detailed vision of how the current existing wetland values will compare to how much of these wetland values remain at some point in the future with a goal of maintaining existing wetland values
- Adoption of the mitigation hierarchy with a goal of no-net-loss of wetland values as the policy recommendation to achieve the management objective
- Provide the Commission's vision for wetland management within for the planning region with the caveat that the land use plan will defer to a Government of Yukon policy that meets or exceeds the management objectives within the land use plan
- Retain the commitment to no development in bogs and marshes in all LMUs and fens in select LMUs
- Consider our analysis that provides estimates of the amount of carbon stored in fens within the Dawson planning region (a low-end estimate of 31,895 kilotonnes CO_2 equivalents) along with its ties to the Draft Plan's climate change goals and Government of Yukon's *Our Clean Future* document
- Consider adding a 30m buffer around wetlands to help ensure protection from adjacent developments with a commitment to monitoring and adjusting the buffer size in an adaptive management framework
- Clarifiy the intent of Wetland of Special Importance with respect to the management objective listed in the plan and that proposed in Government of Yukon's draft wetland policy
- Adoption of a no-loss of wetland values for all wetlands within areas designated as a Wetland of Special Importance
- Designate Scottie Creek Wetlands as an SMA I with a recommendation to the Parties to implement the LMU as a Habitat Protection Area
- Ensure Upper Indian River Wetlands has a no-loss of wetland values
- Clarify the management intent of SMA II to articulate the vision more clearly for these regions including what activities are permitted and why certain legal designations are not adequate
- Support the establishment of Indigenous Protected and Conserved Areas for LMU 4 and potentially elsewhere in the plan
- Consider SMA II having maximum disturbance thresholds equivalent to ISA I
- Consider an SMA I and Wetland of Special Importance designation for the Ladue River portion of the White River LMU, or the entire White River LMU if the Commission does not wish to split existing LMUs

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- Consider a Wetland of Special Importance designation for Flat Creek Wetlands
- Explore lowering cumulative effects thresholds for ISA units to better utilize the precautionary principle and adaptive management framework
- Consider providing enhanced guidance on when offsetting activities could and should occur to contribute to the Land Stewardship Trust.

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Ducks Unlimited Canada

Appendix 1

Estimates of carbon storage (in tonnes of CO_2 equivalents) for fens in each LMU for three levels of carbon volume estimates.

Land Management Unit	Area of Fens (Hectares)	Low Volume (tonnes CO2 Equivalents)	Medium Volume (tonnes CO2 Equivalents)	High Volume (tonnes CO2 Equivalents)
North	53,316	10,116,074	32,097,171	40,881,010
Eagle Plains	3,338	633,337	2,009,508	2,559,438
Yukon River	6,743	1,279,378	4,059,322	5,170,212
Fifteen/Chandindu	6,814	1,292,826	4,101,991	5,224,558
Tombstone	25,790	4,893,381	15,526,151	19,775,098
Klondike	1,343	254,738	808,254	1,029,444
Upper Brewery/Hamilton	2,469	468,377	1,486,107	1,892,801
Lower Brewery/Hamilton	4,539	861,148	2,732,327	3,480,067
Clear Creek	258	48,886	155,111	197,559
Upper Klondike	6,159	1,168,666	3,708,046	4,722,805
Flat Creek Wetlands	4,448	843,923	2,677,673	3,410,456
East	12,507	2,373,016	7,529,313	9,589,815
Klondike Valley	1,061	201,262	638,583	813,340
Dawson City	67	12,692	40,271	51,292
Fortymile River	889	168,742	535,398	681,917
Swede Creek	38	7,166	22,736	28,958
Sixtymile	7,704	1,461,761	4,638,004	5,907,258
Matson Uplands	534	101,384	321,680	409,712
Upper Indian River Wetlands	2,002	379,823	1,205,137	1,534,940
Coffee	588	111,597	354,084	450,984
White	19,384	3,677,800	11,669,249	14,862,702
Scottie Creek Wetlands	5,430	1,030,260	3,268,901	4,163,481
Forty Mile Caribou Corridor - Low	2,645	501,916	1,592,524	2,028,341
Forty Mile Caribou Corridor - High	37	6,976	22,135	28,192
Total	168,101	31,895,129	101,199,678	128,894,382

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