Alberta Wilderness Association
"Defending Wild Alberta through Awareness and Action"

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Director
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Department of Fisheries and Oceans Canada
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The Honourable Jonathan Wilkinson
Minister, Department of Fisheries and Oceans Canada
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Comments on Recovery Strategy and Action Plan for the Alberta Population of Westslope Cutthroat Trout (*Oncorhynchus clarkii lewisi*) in Canada

Dear Director,

Alberta Wilderness Association (AWA) appreciates the opportunity to provide comments on the proposed *Recovery Strategy and Action Plan for the Alberta Population of Westslope Cutthroat Trout (Oncorhynchus clarkii lewisi) in Canada*.

Alberta Wilderness Association (AWA) works throughout Alberta towards more representative and connected protection of Alberta's landscapes that are the source of our abundant clean water, clean air and vital habitat for wildlife in each one of six natural regions. With over 7000 members and supporters, AWA remains committed to assuring protection of wildlife and wild places for all.

In general, while AWA appreciates the long overdue release of the proposed Recovery Strategy and Action Plan (RS-AP) and the preliminary identification of additional critical habitat, AWA believes that the proposed RS-AP, as written, is insufficient to protect and maintain - let alone recover - westslope cutthroat trout. The proposed plan is plagued by obfuscating language, is missing clarity on many key issues, and lacks concrete on-the-ground actions and recovery goals. In addition, AWA has serious concerns with the proposed "bounding box" approach to defining critical habitat.

2-3. Population and Distribution Objectives, Strategies and Recovery Actions

As currently written, the RS-AP is continuing to perpetuate a "plan to plan" by committing only to continued information gathering and planning. Work on updating genetic information and identifying work priorities has been ongoing for at least the past 2-3 years. Including these items as the primary focus of this plan, especially given that this plan is more than 4 years overdue is unacceptable. Information gathering, while important, will not recover or prevent the further decline of westslope cutthroat trout. **Action is required now.**

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The RS-AP must identify where work is to occur within discrete time increments (such as 5 year periods) and what will need to occur in order to successfully recover westslope cutthroat trout, beginning with those populations where recovery work is most needed.

Concrete actions and quantifiable recovery targets, including the following, should be the focus of the RS-AP:

Short Term (Years 1-5):

- **Develop and implement a monitoring plan:** As it currently stands, monitoring of westslope cutthroat trout is occurring on an ad-hoc and infrequent basis. As a result, the status of each population is unknown and declines are not being detected. At a bare minimum, the RS-AP must contain a plan and the funding to routinely monitor and report on the status of all remaining westslope cutthroat trout populations. The abundance, distribution and genetic integrity of each population must be determined on a routine basis. Monitoring should be robust enough so that any trends detected will be statistically sound, and results should be publicly available.
- **Rescue/recover the most vulnerable populations:** The RS-AP must plan to immediately begin recovery of the most vulnerable remaining populations of westslope cutthroat trout, such as those exposed to high angling pressures or under risk of hybridization. In particular, **how will Fisheries and Oceans Canada (DFO) protect and recover the last remaining fluvial populations of westslope cutthroat trout**, such as the ones in the Upper Oldman/Livingstone and in the Castle?
- **Expand and enforce protections:** An expansion of critical habitat is necessary in order to achieve recovery of westslope cutthroat trout (see critical habitat, below). However, this expansion of critical habitat must be more than symbolic. DFO must halt any activities with the potential to negatively impact westslope cutthroat trout habitat and abundance. An increase in enforcement capacity in order to ensure westslope cutthroat trout are actually protected is required.
- **Complete on-the-ground assessments of all habitat and prioritize areas for habitat restoration:** Once a habitat restoration plan is completed, recovery work can be aided by NGO partners.
- **Stabilize all remaining westslope cutthroat trout populations:** Until more extensive recovery actions can be undertaken, DFO must stop the further decline of the distribution and abundance of all remaining populations.

Mid Term (Years 5-10): Complete the recovery of at least 10 populations across the species' range
Long Term (30 years): Achieve the recovery of westslope cutthroat trout

In addition, the following pieces of information must be included within the RS-AP:

- What does DFO consider to be a "population"? Where are remaining populations located and what is their current status?
- What are the main threats currently facing each population? What actions must be undertaken in order to address them?
- What is the desired final distribution, number of adult individuals, and genetic status of each population when recovered?

- Where will westslope cutthroat trout be re-introduced and expanded, and from what population?
- Clear, scientifically defensible definitions of “core”, “conservation” and “self-sustaining” are required
- A feedback mechanism is required by which recovery work is monitored and reported upon and successes/failures are used to improve future recovery actions.

4. Critical Habitat

AWA does not support the bounding box approach as described in the proposed RS-AP, as this approach is easily abused and would likely perpetuate the further destruction of westslope cutthroat trout habitat. Due to the lack of available on-the-ground data, it is easy to imagine a hypothetical situation wherein a proponent destroys critical habitat, only to claim that those features did not exist in the first place. Since westslope cutthroat trout rely on the entire stream and its upland headwaters for their survival, it is erroneous to plan that only certain portions of a stream that contain certain attributes need to be protected, especially given the highly dynamic and changeable nature of headwaters streams.

Westslope cutthroat trout cannot sustain further habitat degradation; the populations that remain live in fragmented and isolated areas that are often already highly disturbed. AWA believes that **permanent protection must be afforded to the water bodies identified within Appendix D, along with the upland areas that sustain them:**

- Instream Habitat: We support the expansion of instream critical habitat and the inclusion of unnamed tributaries within those stream segments. These tributaries must include both ephemeral and permanent (mapped and unmapped) water bodies that feed water into westslope cutthroat trout streams. As with land uses adjacent to critical habitat, anything that occurs upstream of critical habitat impacts downstream ecosystems and may destroy critical habitat if improperly protected. In addition, AWA is concerned with the inconsistent approach with which the instream sections of critical habitat have been identified. **Some near-pure populations of westslope cutthroat trout have been omitted.** If AEP’s Genetic Delineation product was the basis for critical habitat identification, then that information must be published as well as an explanation of how it was used.

- Floodplain and Upland Areas: AWA has long maintained that riparian areas are necessary to the survival and recovery of westslope cutthroat trout, and we support the addition of riparian areas to critical habitat. Most of the instream attributes outlined in the proposed Recovery Strategy as essential parts of westslope cutthroat trout critical habitat – clean cold water, sediment/silt-free gravel substrate, large woody debris – depend entirely on healthy riparian habitat function. Westslope cutthroat trout are particularly sensitive to riparian habitat. The current degraded quality of riparian vegetation adjacent to instream habitats has resulted in decreased quality of westslope cutthroat trout habitat and has likely compromised their persistence. Restoration of degraded riparian areas should be a key action recommended within the RS-AP.

AWA believes that using an arbitrary number (such as 100m) is insufficient and that at minimum the entire floodplain – which, by definition encompasses the riparian area - must be included as the riparian portion of westslope cutthroat trout critical habitat. **We strongly disagree with the RS-AP's assertion that a 30m riparian buffer is a "reasonable" approach.** More protective measures are already being used in practice in many instances and yet westslope cutthroat trout remain in jeopardy. For example, as the primary industrial-scale logging company within westslope cutthroat trout critical habitat, Spray Lake Sawmills is already required to treat any water body where westslope cutthroat trout are found as Class 'A' (not permitted within 100m of the high water mark) as part of its Operating Ground Rules. In addition, under the Livingstone-Porcupine Land Footprint Management Plan, motorized access within 100m of streams has been severely restricted due to the provincial government's recognition of the impacts of riparian disturbance on trout populations.

An integral part of a river is the shallow connected groundwater in the floodplain beyond its active channel. Gravel-bed river floodplains are critical for healthy and functioning ecosystems, where water can travel hundreds of meters out from the river channel. These saturated underground gravels deliver cold, oxygen-rich water to the river system year-round, which is critical for the survival and recovery of native fishes, supports an abundance of vegetation and is relied upon by bird species[1].

Due to the interconnectedness of the floodplain and visible river channel, streams and rivers are constantly moving and shifting, which can affect the habitat quality of westslope cutthroat trout. If a stream has a 100m buffer between the flowing water and industrial activities or roads, but during a flooding event the waterbody shifts 60-70 metres, only a very small vegetation buffer is left to prevent erosion and sedimentation, and this causes key threats to trout survival. Natural channel meandering is important for the health of aquatic ecosystems and this only occurs if the flood plain is protected from vegetation loss. **Therefore, the entire floodplain must be included as critical habitat for westslope cutthroat trout** to accommodate movements in the stream channel and ensure critical habitat remains sufficient for the recovery of this species and their long term survival.

As with activities that occur within the floodplain, upstream activities such as industrial scale logging and linear disturbances can impact downstream water quality and adversely affect remaining westslope cutthroat trout populations, as well as prevent successful re-establishment in candidate streams. **AWA implores DFO to consider the inclusion of the entire watershed as westslope cutthroat trout critical habitat, particularly for the remaining fluvial populations.**

- Groundwater: Groundwater is important for stream flow regulation (maintaining stream flows within the range of natural variability), reducing water temperature fluctuations, and ensuring sediment loads to receiving streams are minimized. The interaction between ground water and

[1] Hauer, F.R., Locke, H., Dreitz, V.J., Hebblewhite, M., Winsor, H.L., Clint, M., Nelson, C., Proctor, M.F. and R. Stewart. 2016. Gravel-bed river floodplains are the ecological nexus of glaciated mountain landscapes. Science Advances 2. 10.1126/sciadv.1600026.

surface water creates a more stable quantity of water flowing downstream by acting as an underground sponge during flooding and ensuring continual flow during periods of drought. For a species like westslope cutthroat trout that relies on shallow headwater streams, this stability is essential.

Groundwater quantity and quality is also crucial for the wintering habitat of stream dwelling salmonids including westslope cutthroat trout. Winter flows can diminish to levels that essentially trap fish in deeper pools between the frozen riffles along streams. Clean, oxygenated groundwater influx acts as a recharge mechanism to ensure sufficient freshwater habitat for westslope cutthroat trout over winter months. Thus we strongly recommend that the critical habitat identification for westslope cutthroat trout includes any and all areas within the watershed responsible for groundwater storage and recharge regardless of distance from a watercourse.

The *Species at Risk Act* does not permit the inclusion of socio-economic impacts as part of the assessment of critical habitat. **We see no biological reason to adopt the bounding box approach and exclude these important and well known landscape elements that AWA has listed above from the critical habitat identification of westslope cutthroat trout.**

The protection of fisheries requires the ongoing maintenance of freshwater and riparian ecosystem health. There needs to be an emphasis on watershed management as a function of critical habitat and westslope cutthroat trout need to be managed as one ecological unit in a dynamic environment for a successful recovery. Riparian buffers, active floodplain areas, areas necessary for groundwater storage, historically occupied capable/restorable habitat and upstream tributaries must be included as critical habitat for westslope cutthroat trout.

3.2 Actions already completed or underway

Currently, Fisheries and Oceans Canada has failed to report on steps made to protect westslope cutthroat trout critical habitat and the effectiveness of recovery measures. Even basic information such as the status and health of each remaining population and actions to be undertaken in the coming fiscal year, are not published. What is the trend in westslope cutthroat trout distribution and abundance since the publication of the first Recovery Strategy? What populations have had recovery work completed and what were the impacts on population abundance and distribution? Without basic checks and balances, westslope cutthroat trout can and will be mismanaged into non-existence.

4.3 Activities likely to result in the destruction of critical habitat

Given the imperiled status of westslope cutthroat trout, AWA believes that a more precautionary approach to the protection of critical habitat is warranted. As currently written, the RS-AP purposefully omits pollution, grazing and forest harvest as having the potential to destroy critical habitat. It is the cumulative impact off all activities – both large and small – that have driven population declines of westslope cutthroat trout. Cherry picking which activities will be considered as potentially damaging is unacceptable, especially given DFO's recognition that "knowledge of [...] critical habitat's thresholds of tolerance to disturbance from human activities is lacking".

7. Activities permitted by the RS-AP

Given that incidental mortality from catch and release angling may be a threat to the survival and recovery of westslope cutthroat trout in some watersheds, DFO may need to reconsider its blanket approval of this activity, at least within areas identified as critical habitat.

Without a comprehensive action plan, AWA believes that individual WSCT populations will be driven to extinction, with grave consequences for recovering the species in Alberta. We thank you for your serious consideration of these comments and look forward to seeing these recommendations incorporated into the final Recovery Strategy – Action Plan for the Alberta population of westslope cutthroat trout.

Sincerely,

ALBERTA WILDERNESS ASSOCIATION

Joanna Skrajny, Conservation Specialist