



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

July 10, 2020

The Honourable Bernadette Jordan, MP
Minister, Fisheries, Oceans and the Canadian Coast Guard
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SARA Directorate
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Draft Recovery Strategy for Athabasca Rainbow Trout

Dear Minister Jordan,

Alberta Wilderness Association (AWA) appreciates the opportunity to provide comments on the draft *Recovery Strategy for the Rainbow Trout (*Oncorhynchus mykiss*) in Canada (Athabasca River populations)*.

AWA is an Alberta-based conservation group with 7,000 members and supporters in Alberta and around the world. AWA seeks the completion of a protected areas network and good stewardship of Alberta's public lands, waters and biodiversity to ensure future generations enjoy the abundant benefits they provide.

AWA appreciates the timely release of the draft Recovery Strategy for endangered Athabasca rainbow trout. There is great urgency to act to recover this imperiled species as the decline of Athabasca rainbow trout has been precipitous. As COSEWIC noted in its assessment, "the majority of sites are declining in abundance with an estimate of >90% decline over three generations (15 years)."

AWA supports the increased clarity and commitments to action in this document when compared to previous strategies. However, **we believe the actions outlined in the draft Recovery Strategy fall short, given that Athabasca rainbow trout face imminent extinction unless immediate actions are taken.**

AWA believes that the draft Recovery Strategy does not contain the necessary level of legal habitat protection required to save the species and that all floodplains and headwaters watersheds containing Athabasca rainbow trout must be unconditionally protected with a Critical Habitat Order. This would include removing the "Bounding Box" approach to critical habitat protection, which we believe may perpetuate ongoing habitat destruction.

In addition to immediate critical habitat protection, the Recovery Strategy must commit to the completion of an Action Plan and any necessary studies as quickly as possible, while simultaneously proceeding with actions that can support the recovery of Athabasca rainbow trout without delay.

The following are detailed comments on the Recovery Strategy:

Population Abundance and Distribution: We support the classification of Athabasca rainbow trout into three categories (Core, Conservation and Impure, Stocked, or Naturalized (ISN) Populations) in order to prioritize recovery actions.

4.5 Residence: AWA believes that the definition of “residence” should – at minimum - be expanded to include overwintering habitat used by Athabasca rainbow trout. AWA believes that overwintering habitat meets the criteria of residence as defined by the Species at Risk Act: “a dwelling place, such as a den, nest or other similar area or place, that is occupied or habitually occupied by one or more individuals during all or part of their life cycles, including breeding, rearing, staging, wintering, feeding or hibernating”.

As the Recovery Strategy indicates, winter water withdrawals pose a risk to the future survival of the species. In addition, effluent discharge in the winter months has caused dissolved oxygen in the Athabasca River to fall “below acceptable thresholds on occasion”. Even if “there is generally no lack of suitably deep pools and runs to support overwintering” AWA believes it is important to protect Athabasca rainbow trout overwintering habitat as a residence, which includes ensuring an abundant and well-oxygenated water supply in the winter months.

5.2 Description of Threats: The Recovery Strategy is strong in its identification and communication of major threats facing Athabasca Rainbow Trout. For example, we support these threat descriptions:

- “Road stream crossings typically contribute higher loads of fine sediments to streams than all other land use activities combined. Temporary crossings (< 3-year life-span) constructed during exploration or forest harvesting on small, intermittent and ephemeral headwater streams often cause the greatest number of problems because of their high density.”
- “Following forest harvesting, riparian canopy removal and understory disturbance in the Tri-Creeks study area, increases in mean annual water temperature and summer maximum temperatures up to near lethal (23°C) levels were observed.”
- “In the Tri-Creeks study area, a doubling of fine sediment in spawning areas decreased Athabasca Rainbow Trout embryo survival by more than seven-fold (Sawatzky 2018).”
- “Coal mining within the range of Athabasca Rainbow Trout has caused widespread selenium loading to surface waters in the upper McLeod watershed (COSEWIC 2014). [...] Embryonic deformities have been documented in Rainbow Trout in the upper Athabasca River watershed.”

6 Population and Distribution Objectives: AWA supports the population and distribution objective of the Recovery Strategy: “To protect, maintain and enhance self-sustaining, native populations of Athabasca Rainbow Trout within the Athabasca River drainage, which will allow for sustainable use.”

However, some clarification is required. AWA’s understanding is that the Recovery Strategy has committed to the recovery of all Core and Conservation populations to self-sustaining populations that have enough individuals and genetic variety to survive unpredictable extreme events; this should be explicit within the Recovery Goal. While it may currently be difficult “to determine precise numbers of individuals or populations”, clear guidelines should be provided as to when a population will be considered “self-sustaining”, and when “recovery” of Athabasca rainbow trout will be considered to have been achieved.

AWA also supports the adoption of the proposed objective for the first five years: “To increase the number of Athabasca Rainbow Trout populations to self-sustaining levels, and increase the number of pure strain (that is, core) populations. This will be achieved, while maintaining or increasing population size, by improving habitat quality, connectivity, and reducing impacts of competition and genetic introgression from non-native fish species in current Athabasca Rainbow Trout range.”

7.3.3 Habitat assessment, management and monitoring: Given the vulnerability of Athabasca rainbow trout to habitat disturbances (which can cause sedimentation, pollution from, and temperature increases) the Recovery Strategy should commit to identifying and addressing the major sources that are contributing to these risks. Similar work has already been conducted by the Alberta government to identify which culverts are stranding native trout populations. This research should be coupled with funding/regulatory actions to tackle the biggest contributors to habitat loss and degradation within the first five years.

Population assessment, monitoring and research: While it is understandable that DFO would like to obtain genetic information of all populations in order to guide recovery efforts in an informed manner, AWA continues to be concerned with the years-long delays in delivering genetic data for westslope cutthroat trout; this has effectively stalled recovery actions from taking place. AWA urges DFO to commit to spearheading aggressive genetic sampling and processing of data so that it is completed and published within one year. Meanwhile, DFO and the Alberta government should immediately implement habitat actions to benefit Athabasca rainbow trout – regardless of genetic purity – such as the protection and restoration of watersheds.

7.3.4 Management and regulatory actions: AWA supports the Recovery Strategy’s commitment to pursue new or revised management and regulatory actions to address human-caused threats to Athabasca rainbow trout. We emphasize that there is great urgency to do so.

Critical Habitat

As AWA noted in our comments on the westslope cutthroat trout Recovery Strategy, AWA does not support the bounding box approach that DFO is using. This approach is easily abused and will likely perpetuate further habitat destruction. 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. As many Athabasca rainbow trout are migratory and rely on different habitats through their lifecycle, and as rivers are dynamic environments, it is incorrect and harmful for DFO to decide that only certain portions of a stream that contain certain attributes need to be protected. **AWA believes the riparian buffer should be expanded significantly and that all floodplains and headwaters watersheds containing Athabasca rainbow trout must be included as critical habitat.**

AWA believes a 5 year timeline to complete the schedule of studies to identify critical habitat is not aggressive enough and risks great losses in the remaining Athabasca rainbow trout populations. We strongly suggest that the schedule of studies be completed within 2 years for inclusion in the Action Plan.

Measuring Progress: AWA supports the listed performance indicators. Regular measurement and reporting on the recovery of Athabasca rainbow trout populations will help to maintain accountability. We recommend that “a decline in all existing human threats” be split into two components – one that describes regulatory measures in place and the scope of best practice programs that have been funded,

and another that measures the on-the-ground habitat recovery and protection actions that have been taken.

In addition, a feedback mechanism should be required in which reported successes, failures, and gaps in recovery work are used to improve future recovery actions

Other comments: The draft Recovery Strategy fails to recognize the severe impacts that cumulative human-caused disturbances have had on the entire ecosystem of the Athabasca watershed. AWA urges recognition in the Recovery Strategy that the protection and recovery of Athabasca rainbow trout habitat will:

- help to protect other native fish species of conservation concern in the Athabasca watershed, including western Arctic bull trout (COSEWIC-assessed Species of Special Concern) and Arctic grayling (high priority for COSEWIC assessment);
- have numerous additional habitat benefits to other wildlife species , including SARA-listed woodland caribou, interior-forest reliant boreal songbirds and valued fur-bearing animals; and
- help protect the upper Athabasca watershed, by reducing the severity of flood and drought events and supporting a clean drinking water supply for municipalities downstream.

We thank you in advance for your careful consideration of our comments.

Sincerely,
ALBERTA WILDERNESS ASSOCIATION



Joanna Skrajny
Conservation Specialist