



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

September 3, 2021

Honourable Jonathan Wilkinson  
Minister of Environment and Climate Change  
Government of Canada  
ec.ministre-minister.ec@canada.ca

### **Comments on the Proposed Recovery Strategy for the Bank Swallow (*Riparia riparia*) in Canada**

Dear Minister Wilkinson:

Alberta Wilderness Association (AWA) appreciates the opportunity to provide feedback on the proposed *Recovery Strategy for the Bank Swallow (Riparia riparia) in Canada* (hereafter referred to as the Recovery Strategy). AWA is an Alberta-based conservation group with 7,500 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.

Bank swallow populations in Canada have declined by 98% over the last 40 years and were classified as threatened in Schedule 1 by Canada's *Species at Risk Act* (SARA) in 2017. Under SARA, the competent federal ministers must prepare recovery strategies for listed species and this Recovery Strategy seeks to satisfy this statutory obligation by the Government of Canada.

AWA appreciates the release of the proposed Recovery Strategy as there is great urgency to act in order to halt the decline and recover this imperiled species. Upon reading and understanding the Recovery Strategy, we feel that the strategy falls short in many areas crucial for the protection and recovery of bank swallow populations in Canada and more specifically in Alberta.

AWA's detailed comments on the Recovery Strategy are organized by section.

#### **Section 4. Threats**

AWA concurs with listing the 11 threats (and sub-threats) included in the Threat Assessment (Section 4.1) of this Recovery Strategy. We agree with the threats identified in this document and we appreciate Environment and Climate Change Canada's (ECCC) recognition that the impact of cumulative stressors is likely contributing to the decline of bank swallow populations. Understanding the impact of these threats individually and cumulatively is crucial to protecting this imperiled species. However, despite agreeing on the threats included in the Recovery Strategy, we believe several other threats merit inclusion and consideration in the final strategy.

Despite average temperatures increasing across Alberta as a result of anthropogenic climate change, spring temperatures in central Alberta have been observed to be cooler. Between 1984 to 2012, one study found that these colder spring temperatures contributed to a decline in tree swallow productivity (unpublished data collected by a retired research scientist from the Canadian Wildlife Service). These

findings raise a major concern that cold spring weather might kill bank swallows that arrive back to Alberta too early in the year, through either hypothermia and/or a lack of insect-prey availability.

Gravel pits created by/for human development activities can unintentionally create bank swallow nesting habitat within the vertical banks that encompass the perimeter of these pits. As gravel pits are mined over the course of the bank swallow breeding season, nesting sites may be destroyed. These gravel pits have created an ecological trap for any swallows that may be inside the nests if the nests are destroyed. Human created nesting sites have been acknowledged elsewhere in this Recovery Strategy, however we feel that the erosion of these artificial nesting sites should be recognized as a threat to species recovery within the strategy, as well as associated strategies to mitigate this threat in the appropriate section(s).

Another threat that warrants inclusion in the Recovery Strategy is the use of insecticides as applied to livestock such as cattle. Insecticides are not only applied to crops, but can be applied to cattle directly on multiple occasions each year, leading to insecticide presence within cow dung. Cow dung provides an excellent egg laying environment for flies, beetles, and other insects - all potential prey species for bank swallow populations found in or near livestock rangelands. The application of insecticides to cattle can disrupt insect-prey reproduction and therefore needs to be included as a threat in this Recovery Strategy and addressed in the strategies and approaches for recovery.

## **Section 5. Population and Distribution Objectives:**

In the Recovery Strategy, the short term population objective is to achieve a reduced rate of decline while ensuring that the population size remains above 80% of the 2021 level by 2033. AWA doesn't believe this objective is ambitious enough, especially over a 12-year period. AWA is very disappointed that the Strategy accepts a continued decline in the swallow population. It is a mistake to explicitly tolerate further declines as part of this Recovery Strategy. Accepting additional population declines turns the commonsensical expectation of a "recovery" strategy on its head. The Recovery Strategy should seek to halt those declines as soon as possible, rather than explicitly allowing for further population reductions. If there is ample research to suggest that the population declines will stop at 80% of 2021 levels, then this evidence should be provided, otherwise this objective will only serve to let the Government of Canada and ECCC off the hook if population declines continue until 2033. Why is tolerating a further 20% decline in bank swallow populations an acceptable goal for a strategy explicitly created to support recovery?

The distribution objective for bank swallow populations in Canada seeks to maintain the extent of occurrence [as identified from a minimum convex polygon] based on the critical habitat presented in this recovery strategy. However, the strategy then goes on to state that the critical habitat identified is insufficient to meet the population and distribution objectives. Therefore, the Recovery Strategy – as written – seems to seek only to maintain bank swallow distributions within critical habitats that are insufficient for a meaningful population recovery. By maintaining the extent of occurrence only in areas that have been identified and deemed insufficient, this objective and any actions taken to accomplish it may likely be inconsequential for the recovery of bank swallow populations. To strengthen this objective, AWA recommends including studies and/or enacting policies that would seek to identify and protect any and all additional critical habitat for bank swallow – to ensure that the critical habitat is sufficient to meet these objectives.

## **Section 6. Broad Strategies and General Approaches to Meet Objectives:**

AWA appreciates that the Recovery Strategy recognizes the pivotal role that insect-prey populations occupy in recovery efforts and that declines in aerial insect-prey populations are the most likely primary threat to the bank swallow in Canada. The Recovery Strategy lists management approaches (Table 5) which include introducing incentives for farmers, landowners, and municipalities to limit the use of pesticides in agricultural practices. As written, this approach could have a positive effect on both insect-prey and bank swallow populations; however, AWA feels that incentives may be insufficient to guarantee bank swallow recovery. This incentive-oriented approach would be improved through introducing complementary outright restrictions on pesticide use and requiring the use of organic farming practices in agricultural areas neighbouring bank swallow habitats. Mandating a shift to more sustainable agricultural practices could increase the likelihood that insect populations rebound, and would give bank swallow populations a better chance at recovery. Their recovery should not be based too heavily on the hope that farmers choose the incentivized approaches instead of current practices.

AWA would like to acknowledge the importance and necessity of the management approaches listed under Ecosystem and Natural Process (re)Creation in Table 5. Restoring shorelines into nesting habitat where erosion-control measures have been constructed, replacing erosion-control measures with natural solutions, and revegetating the tops of nesting cliffs and banks are crucial to ensuring the protection of bank swallow critical habitat. We appreciate and endorse the inclusion of these land-use approaches in this Recovery Strategy.

Another possible land-use approach which would strengthen this Recovery Strategy and complement the approaches already included is limiting timber logging upstream of, and within, bank swallow habitat. Timber harvesting increases the likelihood and severity of flooding, which necessitates erosion control measures. Erosion control measures such as bank stabilization are explicitly recognized in the Recovery Strategy as a major cause of nesting habitat loss for bank swallows. These erosion-control measures are implemented widely along shorelines in human settlements to reduce damage to infrastructure from erosion. That erosion is exacerbated by flooding events. Therefore, AWA recommends including a land use approach that would restrict (i.e., wider buffers) or outright ban logging practices in areas upstream of, and within bank swallow habitat, to minimize the risk of flood and/or erosion damage, reducing the need for erosion-control infrastructure.

## **Section 7. Critical Habitat:**

To identify bank swallow critical habitat, the Recovery Strategy applies a 500-meter radial distance around selected shorelines to encompass potential foraging habitat. AWA appreciates the inclusion of nearby foraging habitat in the identification of critical habitat; however, the foraging zone can be dynamic in its distribution and varies depending on the breeding stage of individual birds. For example, early in the breeding cycle it can be larger than 500-meters. If prospective breeders are using this larger zone to evaluate habitat quality and make breeding decisions, the 500-meter distance may be too restrictive, and we recommend expanding the foraging distance used to define critical habitat to a minimum of one kilometer.

The Recovery Strategy's definition of critical habitat includes a radial dispersal distance of five kilometers from nesting colonies to allow for the relocation of breeding individuals. AWA would like to see this dispersal distance expanded from five to seven kilometers at a minimum, as the current

definition may mostly protect only returning adults and not their offspring, which can disperse beyond five kilometers. One study recorded that 11% of birds were found at sites greater than 6.6 km away from their original nesting colonies<sup>1</sup>, and although 11% does not represent the majority of bank swallows, this Recovery Strategy needs to protect as many individuals as possible to ensure the recovery of the population.

AWA recognizes and appreciates that the Recovery Strategy includes a schedule of studies required to identify additional critical habitat for the bank swallow (Section 7.2 – Table 7). The five-year timeline from 2022 to 2027 could be shortened to accelerate the identification and protection of additional habitat that meets the population and distribution objectives of this strategy. However, if newly identified nesting, foraging, and dispersal sites are protected as critical habitat as soon as they are identified, then Section 7.2 is likely sufficient as written. Ideally, AWA would like to see that each study for the identification of critical habitat (Table 7) has its own more detailed timeline. The all-encompassing timeline (i.e., 2022 to 2027) could allow for recovery efforts to delay until 2026 without ensuring accountability for the start and completion of these studies.

To assist ECCC in their efforts to identify additional bank swallow critical habitats, AWA has solicited information from our group of valued members on potential riparian areas across Alberta where bank swallow nesting colonies have been observed recently and in the past. Our hope is that this list of suggested habitats could serve as a starting point for ECCC's identification activities, helping to speed up the process – ensuring more critical habitat is protected sooner rather than later. The list of suggested potential bank swallow habitats is included in Appendix A (Table A1).

## **Section 8. Measuring Progress:**

The Recovery Strategy lists five performance indicators that will define and measure progress towards bank swallow population and distribution objectives. Of these five indicators, the three long term (by 2053) performance indicators include the following:

- By 2053, the population trend of the Bank Swallow is stable as measured by the Breeding Bird Survey over a 10-year period;
- By 2053, the population size remains above 90% of the 2021 level as measured by a population index derived from the Breeding Bird Survey;
- By 2050, the extent of occurrence of the Bank Swallow is maintained in reference to the 2001 to 2017 period as calculated by the area of a minimum convex polygon of confirmed breeding occurrences reported in the latest 17-year period (e.g. 2034 to 2050).

AWA is disappointed by these indicators as they are written, because they tolerate the idea that a population lower than today's is acceptable and that a reduced geographical distribution for bank swallows are acceptable. These are poor indicators of successful recovery. Maintaining bank swallow populations at 90% of their current level – a level already 98% lower than historical populations – can hardly be deemed a suitable Recovery Strategy for any species-at-risk. AWA recognizes the need to stabilize bank swallow populations to prevent further declines, however one of the primary purposes of SARA is to provide for the recovery of wildlife species that are extirpated, endangered or threatened as

a result of human activity, and this recovery strategy needs significant changes to meet that requirement.

**Final Comments:**

Overall, AWA considers this Recovery Strategy to be an important document that provides much needed direction and a roadmap for bank swallow recovery activities. The recommendations we have included would further strengthen this document and we hope our feedback is incorporated in the final document.

Sincerely,  
ALBERTA WILDERNESS ASSOCIATION

A handwritten signature in black ink that reads "Phillip Meintzer". The signature is written in a cursive, flowing style.

Phillip Meintzer  
Conservation Specialist

**References:**

1. Wallace N, MacBriar J, Stevenson DE. Dispersal and Survival of the bank swallow (*Riparia riparia*) in Southeastern Wisconsin. In: Wilwaukee Public Museum. 1976. p. 16. (Contributions in Biology and Ecology).

## Appendix A – Suggested bank swallow habitat locations:

Table A1. Potential bank swallow habitat locations as submitted by members of Alberta Wilderness Association. Estimated density is listed where provided.

General Area	Detailed Location	Estimated Density
Bearspaw	North shore of the Bearspaw reservoir	
Black Diamond & Turner Valley	Along Sheep River between Black Diamond and Turner Valley (eBird hotspot Sheep River Flats)	
Calgary	Along the bank of Nose Creek before it joins the Bow River, opposite Pierce Estate Park	
Calgary	Bowness area, along the north bank of the Bow River	
Calgary	Along the cliffs at Dale Hodges Park, just below 51°05'21.1"N 114°10'08.9"W	
Calgary	Fish Creek Provincial Park – many locations	
Calgary	Glenbow Ranch Provincial Park – many locations	
Calgary	Northeast of the Glenmore Dam along the banks near the off leash dog park	30 to 50 Nesting Sites
Calgary	Northwest side of the Glenmore Reservoir by the pedestrian bridge	
Calgary	Along a sandy cliff above access road into a gravel pit off Springbank Heights Way (extension of RR32 north of TWP road 250)	50+ Nesting Sites
Calgary	Springbank - Below Pinebrook golf course & above the elbow river	100+ Nesting Sites
Calgary	Weaselhead – many locations	
Cochrane	Immediately west / upstream of Cochrane along the north shore of the Bow River	60+ Nesting Sites
Cochrane	North bank of the Bow River just east of the Ghost Dam	
Cypress Hills Provincial Park	Northern banks of Elkwater Lake	Several Nesting Sites
Drumheller	Banks of the Red Deer River - 90km North of Drumheller	
Edmonton	Laurier Park along the North Saskatchewan River	
Edmonton	SW of Edmonton, along the N. Saskatchewan River upstream of Genesee Bridge at about 53.429564 and - 114.275,452.	
Fort Saskatchewan	Along the North Saskatchewan River south of Fort Saskatchewan on the north section of the Riverside Nature Trail	
Lake Newell	SE corner of Lake Newell & sandy cliffs north of the link between Lake Newell and Rolling Hills Reservoir	200 to 250 Birds
Wyndham-Carseland Provincial Park	Along the Bow River across from the Wyndham-Carseland Provincial Park campground, below the Speargrass Golf Course	