

A photograph of a bird, likely a shorebird, perched on a weathered wooden post that protrudes from a body of water. The bird has a long, straight beak and mottled brown and grey feathers. The water is calm with some ripples. The background is a soft, out-of-focus greenish-grey.

Biodiversity, Green Infrastructure and Climate Change: a practitioners perspective

A Bird's Eye View

James Casey

December 1, 2020



Green Infrastructure: The Nexus of Mitigation, Adaptation, Biodiversity

Sources: <https://livingplanet.panda.org/en-us/>, [IIAC - 2020](https://www.iiac-2020.org/)

[Climate Risks Report \(insuranceinstitute.ca\)](https://www.climate-risks-report.com/),

<https://carbontracker.org/Factoring-Climate-Risk-into->

[Financial-Valuation.pdf \(intactcentreclimateadaptation.ca\)](https://www.intactcentreclimateadaptation.ca/)



Mitigation

2.7-3.1° Warming



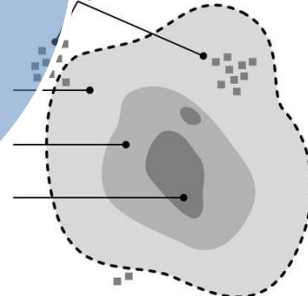
Adaptation

The process of adjustment to actual or expected climate and its effects.

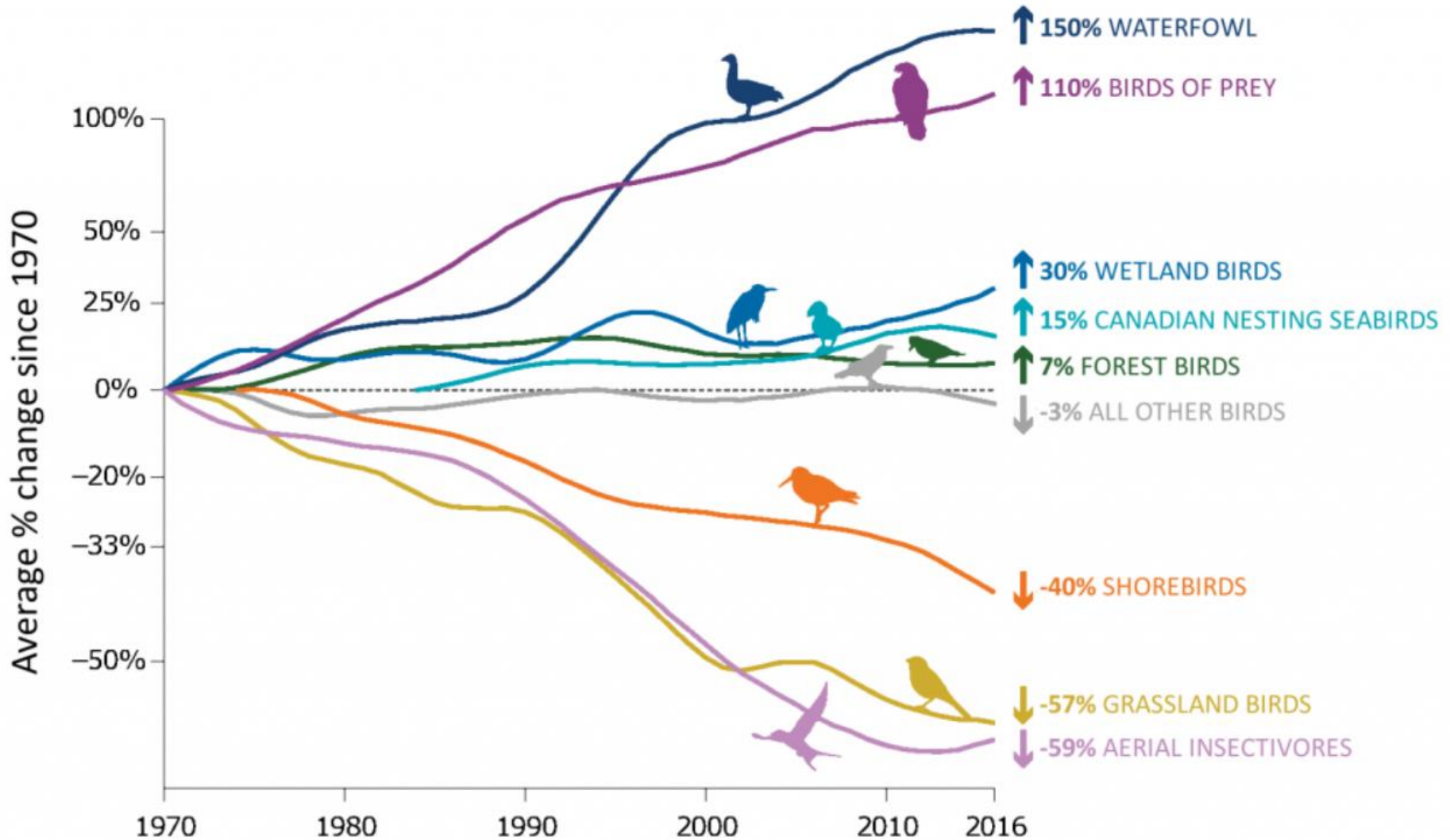
Disaster Financial Assistance Arrangements \$902 million a year

68% Loss in average wildlife population size

Sustainable development

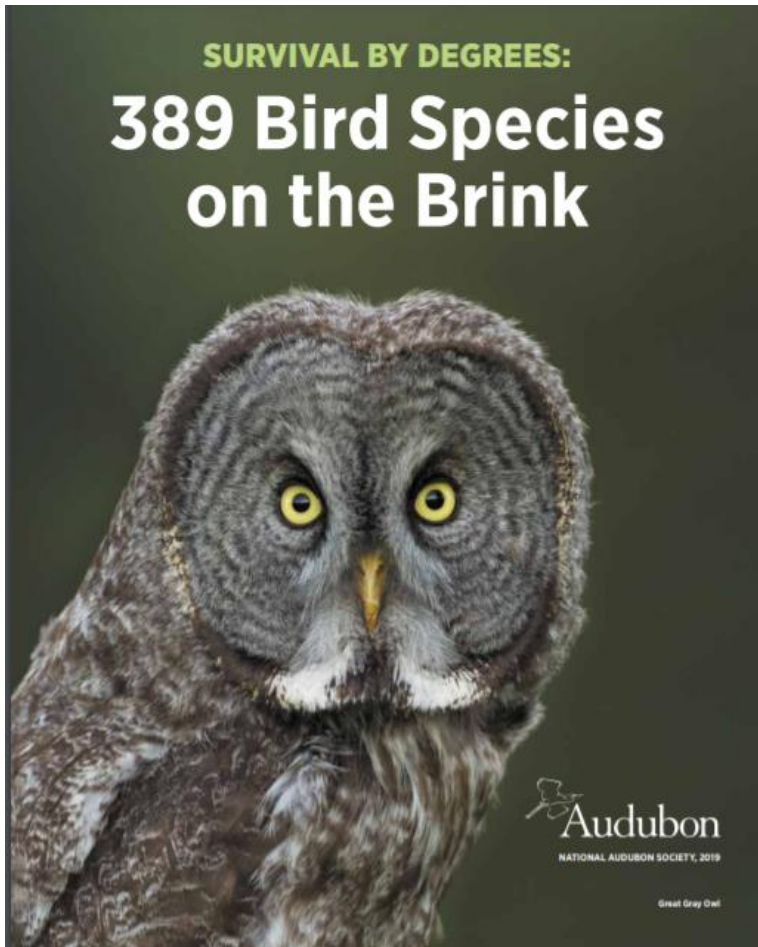


Loss of 3 Billion Birds Since 1970

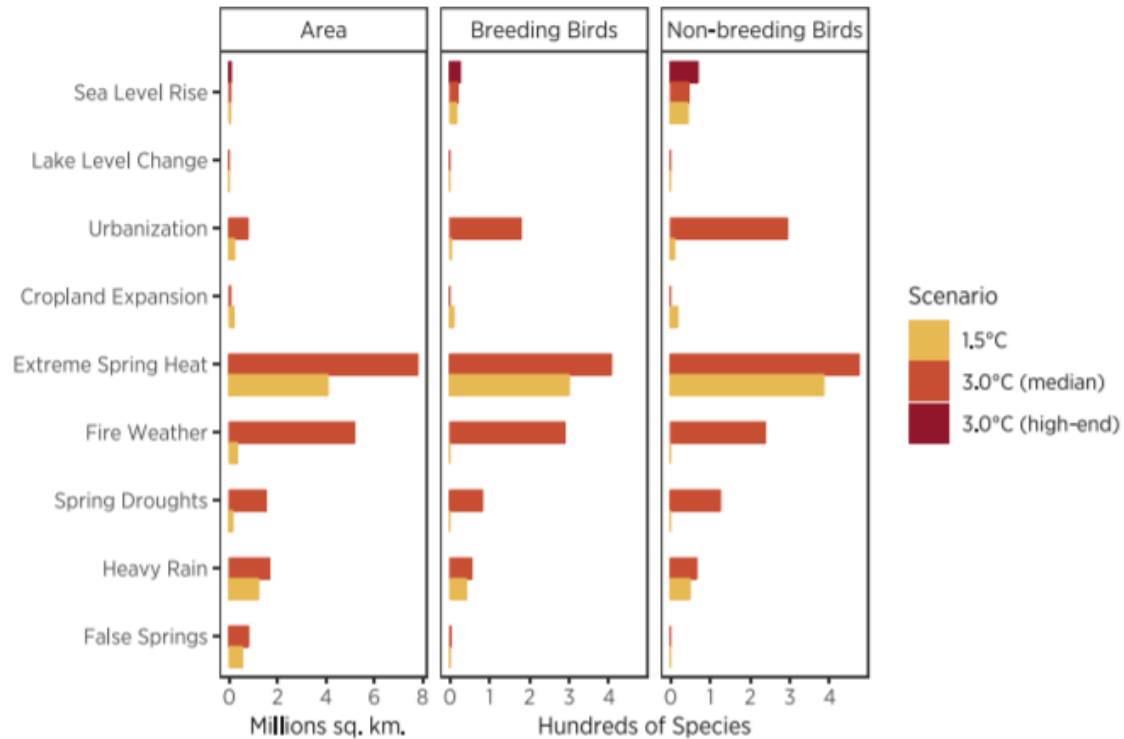


Source: <http://nabci.net/resources/state-of-canadas-birds-2019/>

Climate Impacts on Birds

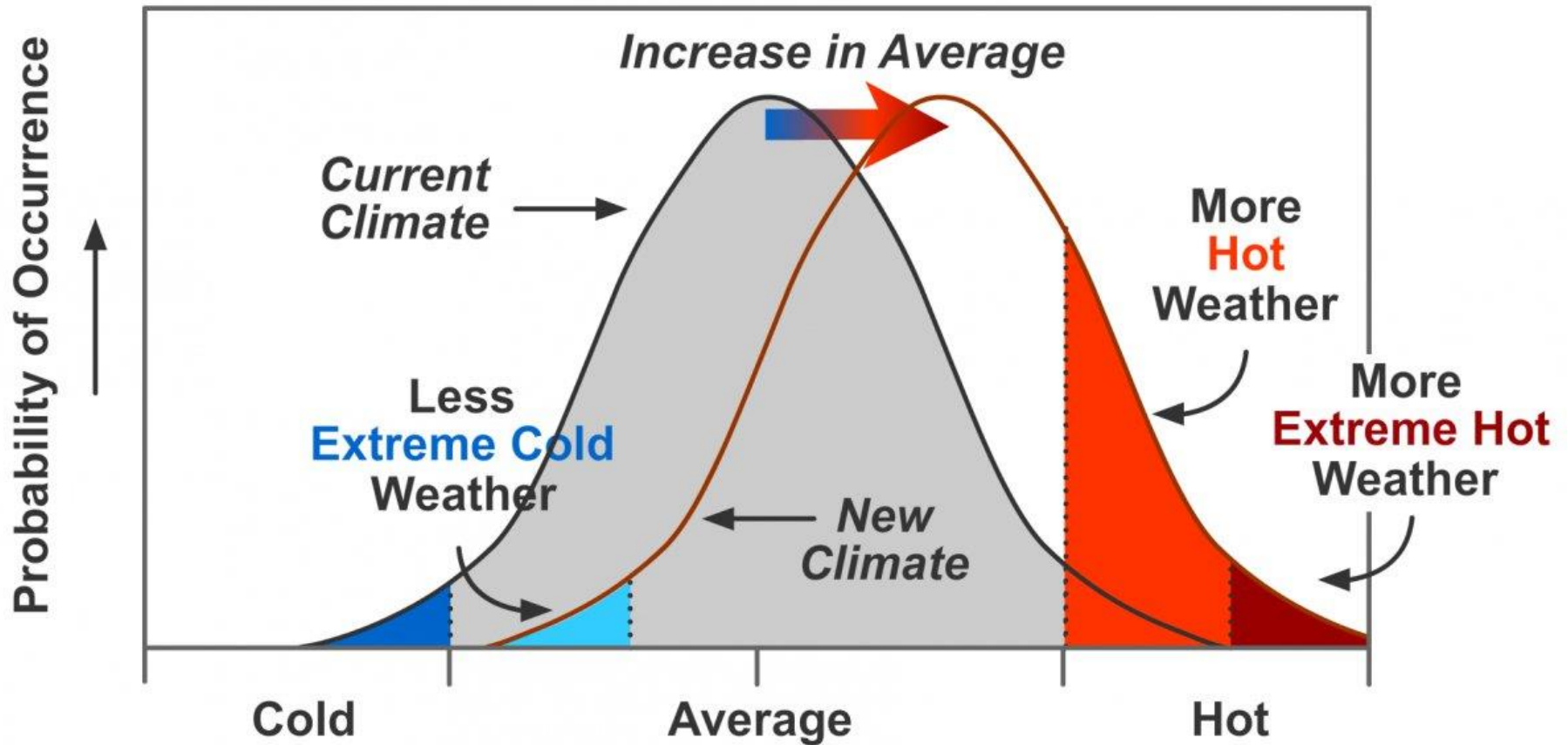


Impacts of Climate Change-Related Threats



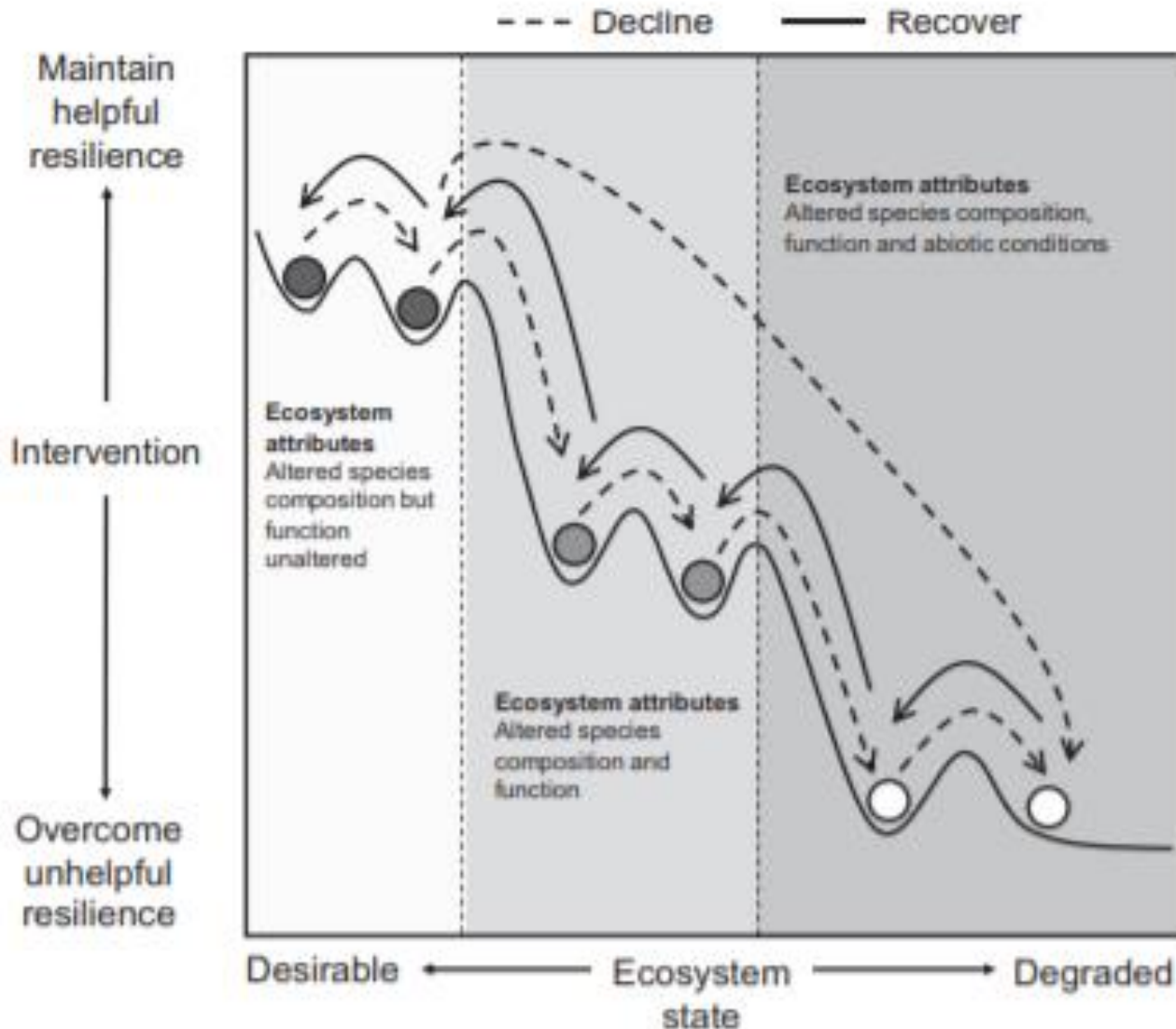
Source: <https://www.audubon.org/sites/default/files/climatereport-2019-english-lowres.pdf>

The Issue of Extreme Events



Source:
[https://www.researchgate.net/publication/295852403 Arctic Large Aquatic Basin climate change assessment part 2 Impacts Vulnerabilities and Opportunities IVO - A contribution to the Aquatic Climate Change Adaptation Services Program/figures?lo=1](https://www.researchgate.net/publication/295852403_Arctic_Large_Aquatic_Basin_climate_change_assessment_part_2_Impacts_Vulnerabilities_and_Opportunities_IVO_-_A_contribution_to_the_Aquatic_Climate_Change_Adaptation_Services_Program/figures?lo=1)

Managing Disturbance to Enable Predictability



Source: <https://www.researchgate.net/publication/263699155> Resilience in ecology Abstraction distraction or where the action is/figures?lo=1

Wetlands as Green Infrastructure



Photo: Caroline Biel

Source: <https://davidsuzuki.org/wp-content/uploads/2018/07/municipal-natural-assets-initiative-nanaimo-b-c.pdf>

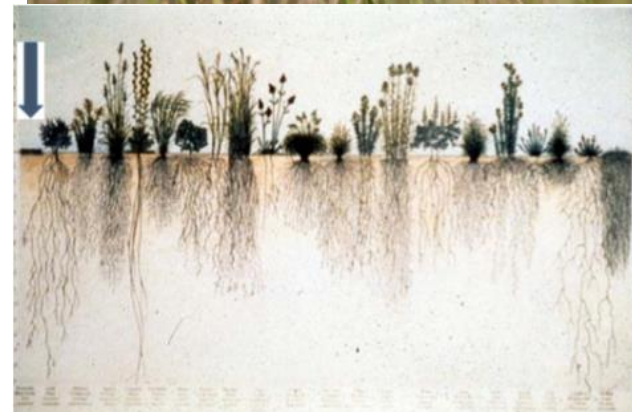
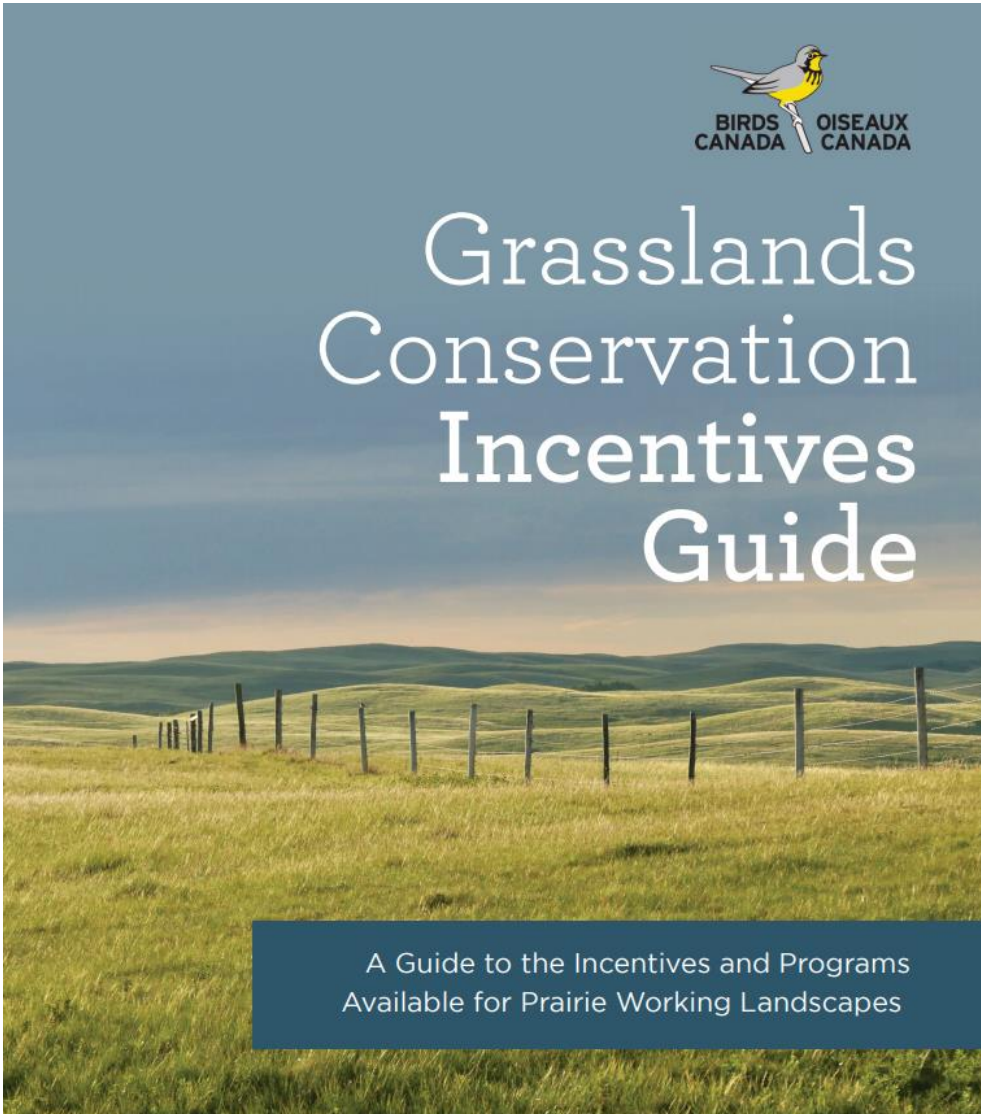
Beef as Grasslands Disturbance

This large, intact native prairie pasture in western Manitoba is home to these cows as well as Chestnut-collared Longspurs, Sprague's Pipits, Western Meadowlarks, and many other grassland birds.

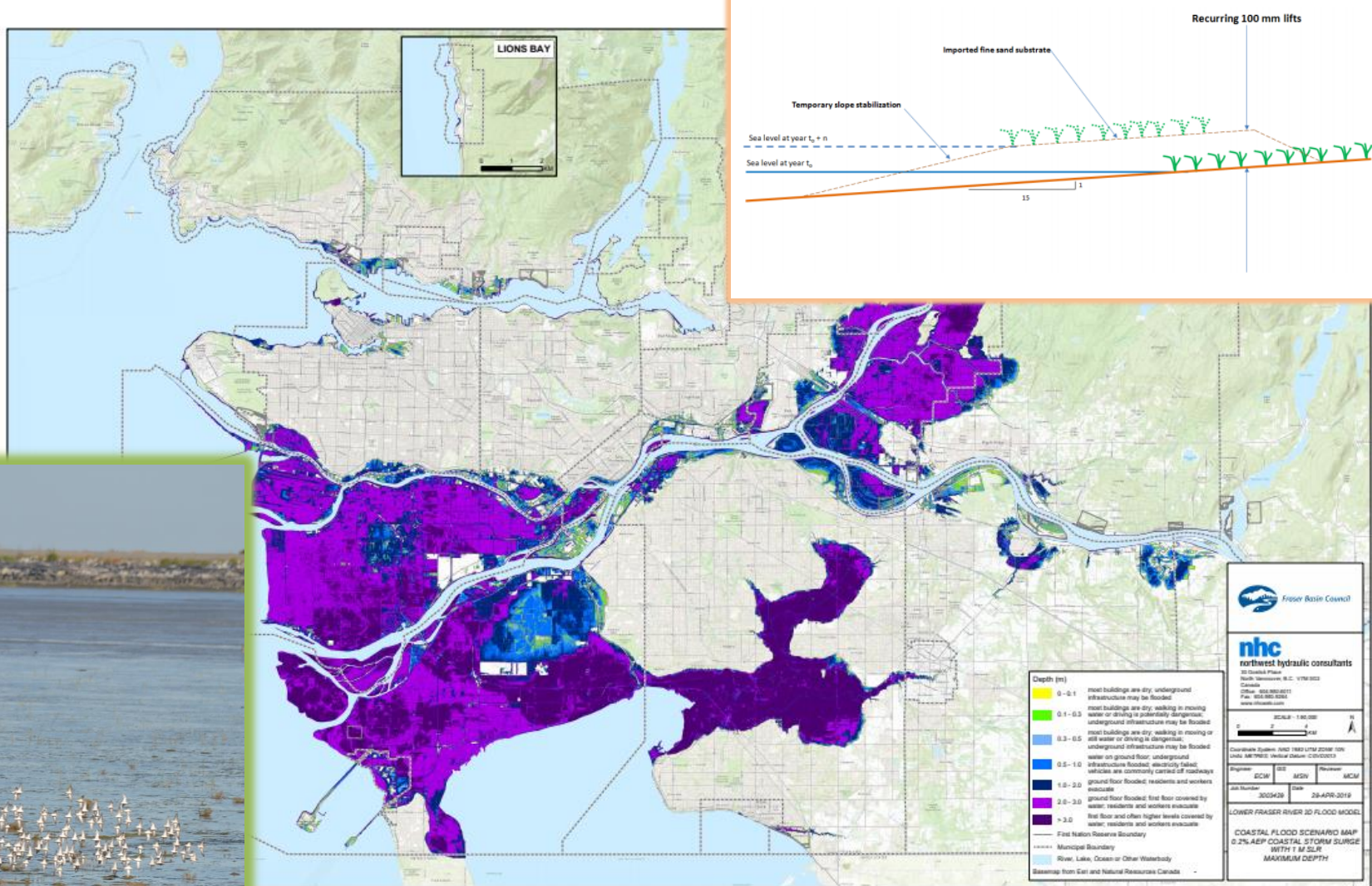
Photo: Tim Poole

Public Benefits from Private Land

Source: [Grasslands Report.ai](http://Grasslands_Report.ai) (birdscanada.org)
[Carbon Sequestration – Tallgrass Ontario](#)



Coastal Flood Risk in the Lower Fraser



Source: [1 \(wcel.org\)](http://wcel.org) ,
https://www.fraserbasin.bc.ca/water_flood.html

Photo: Caroline Biel





Working Together for Birds

And Their Habitats

Pacific Birds is working with partners to:



Identify

the estuaries that birds need the most.



Recommend

the most effective strategies for conservation
in light of current and future stressors.



Unite

stakeholders around common conservation
goals and strategies.