

Beaver Dams Regulate Water Levels In Columbia River Wetlands



Columbia Wetlands Stewardship Partners

Catriona Leven, Dr. Suzanne Bayley, Jessica Holden, Rylee Haubrich

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The Columbia Wetlands Are Very Biodiverse



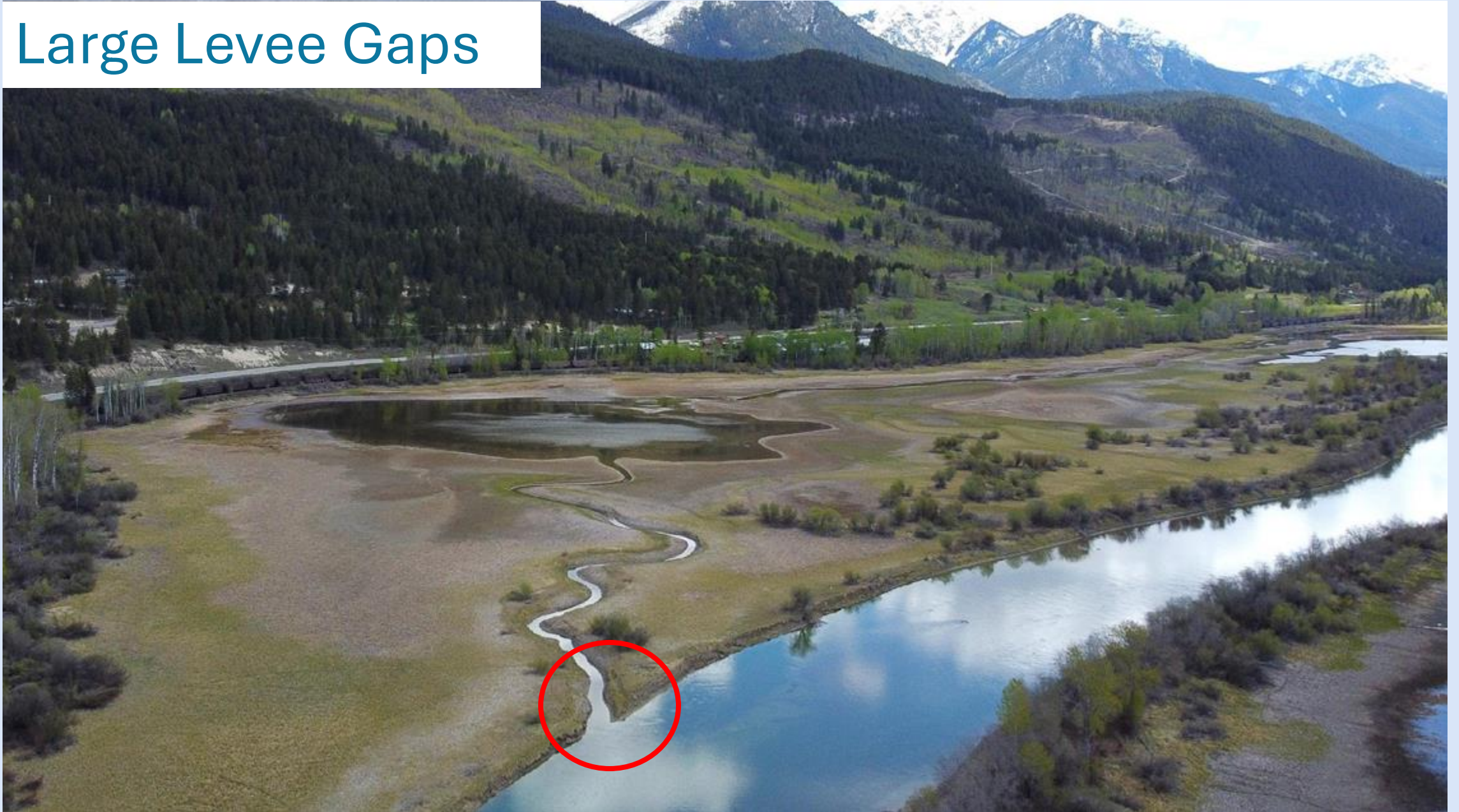
The Columbia Wetlands Are A Complex of Different Wetland Types

- Forested wetlands common around Golden
- Open marshes more common further south



Wetlands Defined By Connectivity To Columbia River

Large Levee Gaps



Different Wetlands Provide Different Habitats

Less Connected

More Connected

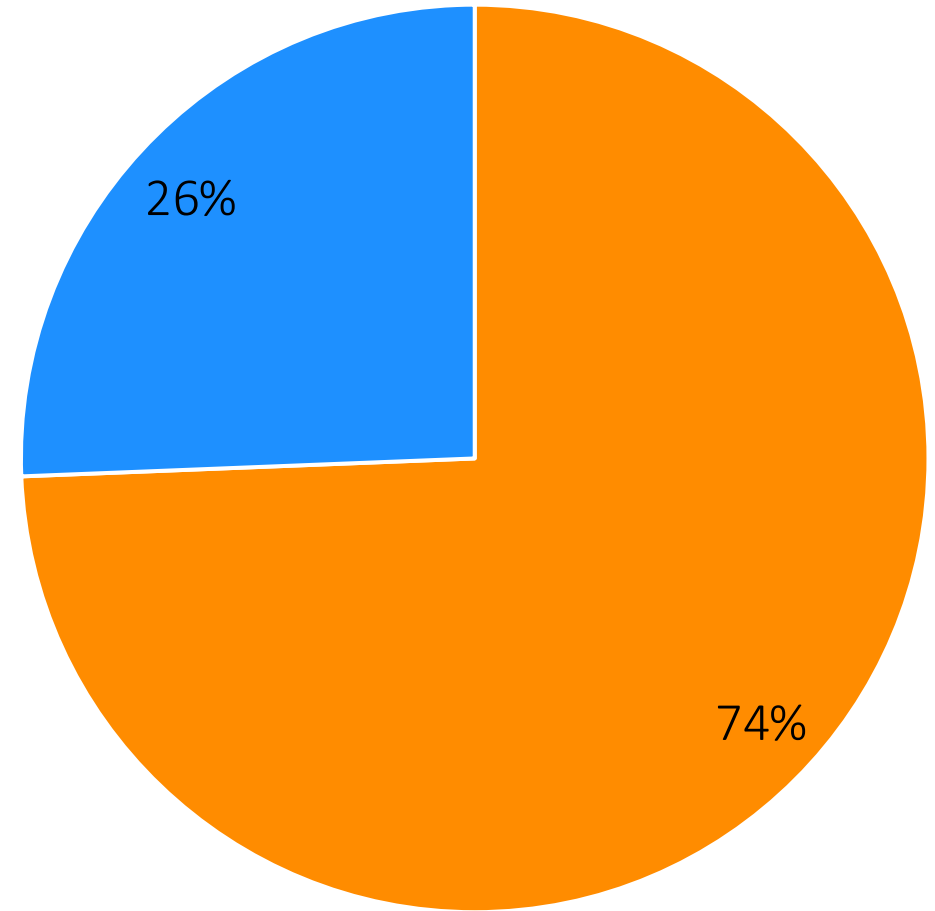
Beaver Dams



Levee Gaps and Beaver Dams Explain 60% of Variation in Hydrology



75% of the Columbia Wetlands are Fully Connected to the Columbia River



■ Most Connected ■ Partially and Least Connected

The Impacts of Climate Change

- Shorter and earlier flood pulse
- Less water overall
- Impacts already being seen



Beaver Dam Analogues For Increasing Diversity and Mitigating Climate Change



Living Lakes Canada and CWSP Collaboration

- Restoring flow to the Columbia River
 - Identifying places where flow is being affected (e.g., Spillimacheen Dam, wing dam remnants in main stem)
 - Creating plan looking at removal of those barriers and associated risks



In Summary

- Beavers play a large role in creating habitat diversity and increasing ecosystem resilience in the Columbia Wetlands
- ~75% of wetlands within the Columbia Wetlands are fully connected to the Columbia River
- Beaver Dam Analogues can be used to increase habitat diversity and mitigate climate change
- Barriers to flow exist in the Columbia River and removing them would restore processes



Thank You!



Columbia Basin **trust**



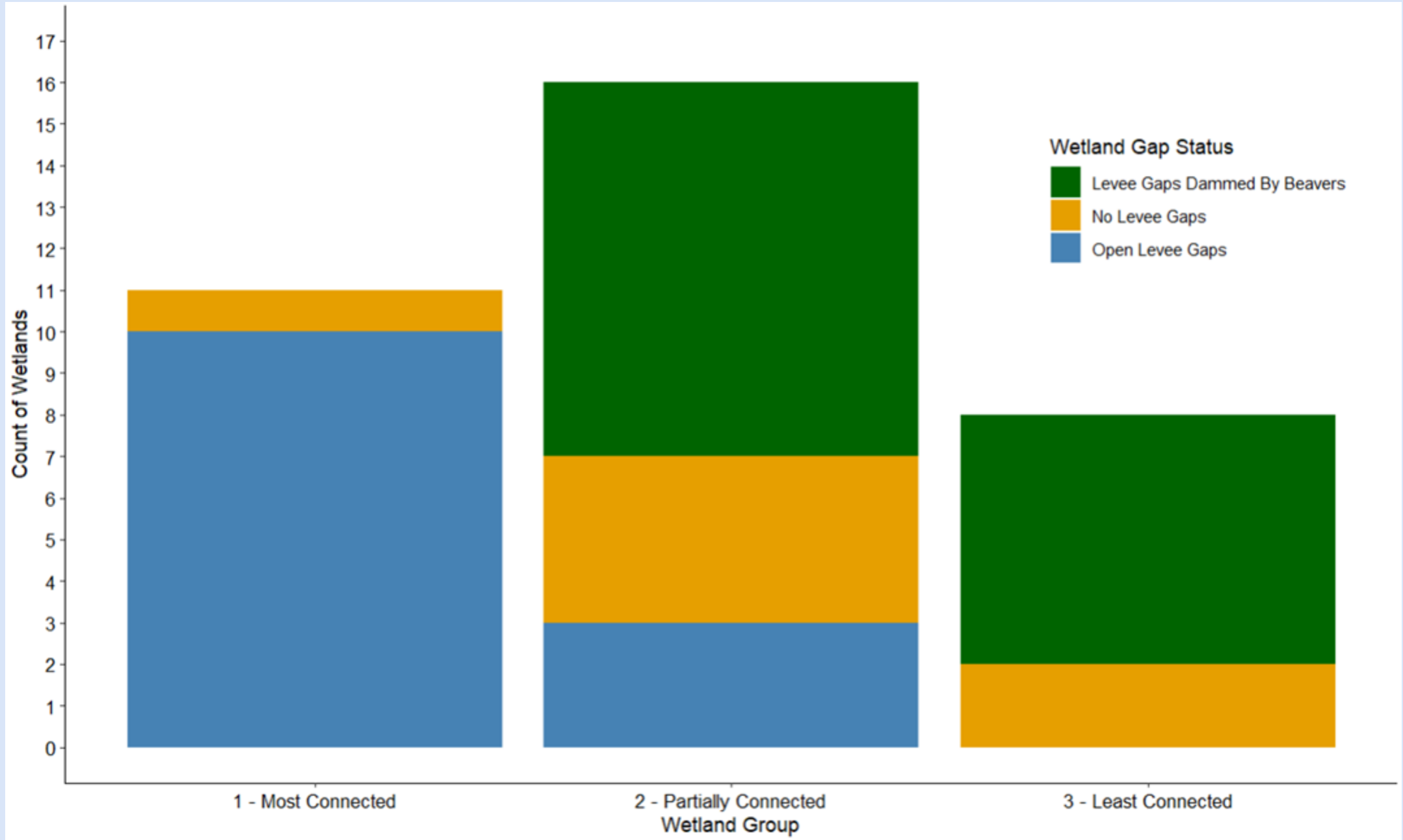
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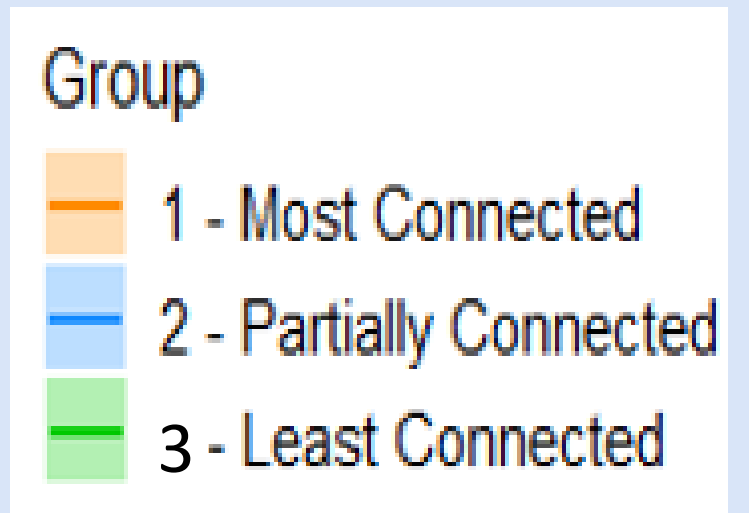
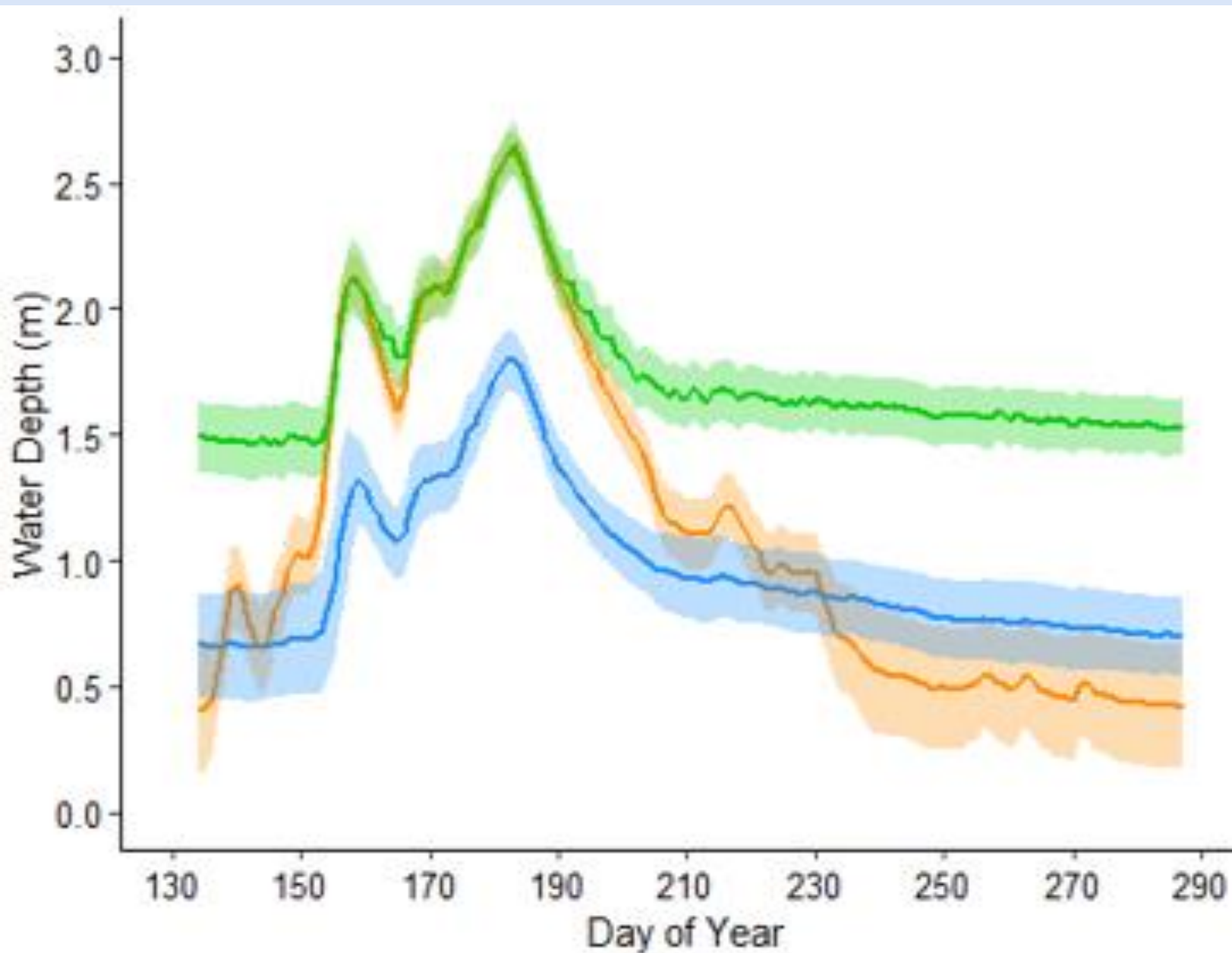
- All the amazing people who have helped us in the field
- All the landowners who let us work on their land
- All our funders
- All the CWSP partners

Email: catrionasleven@gmail.com

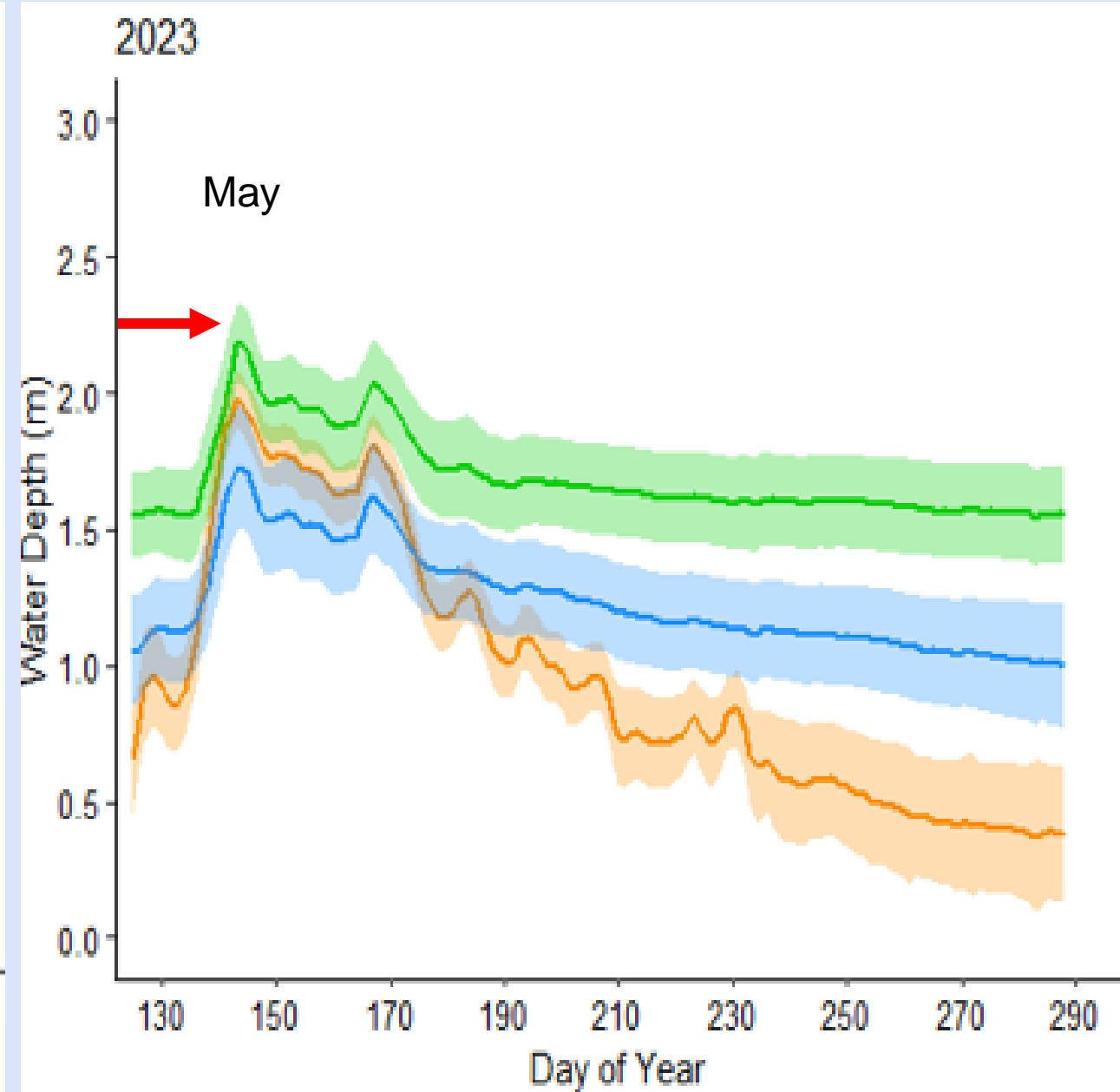
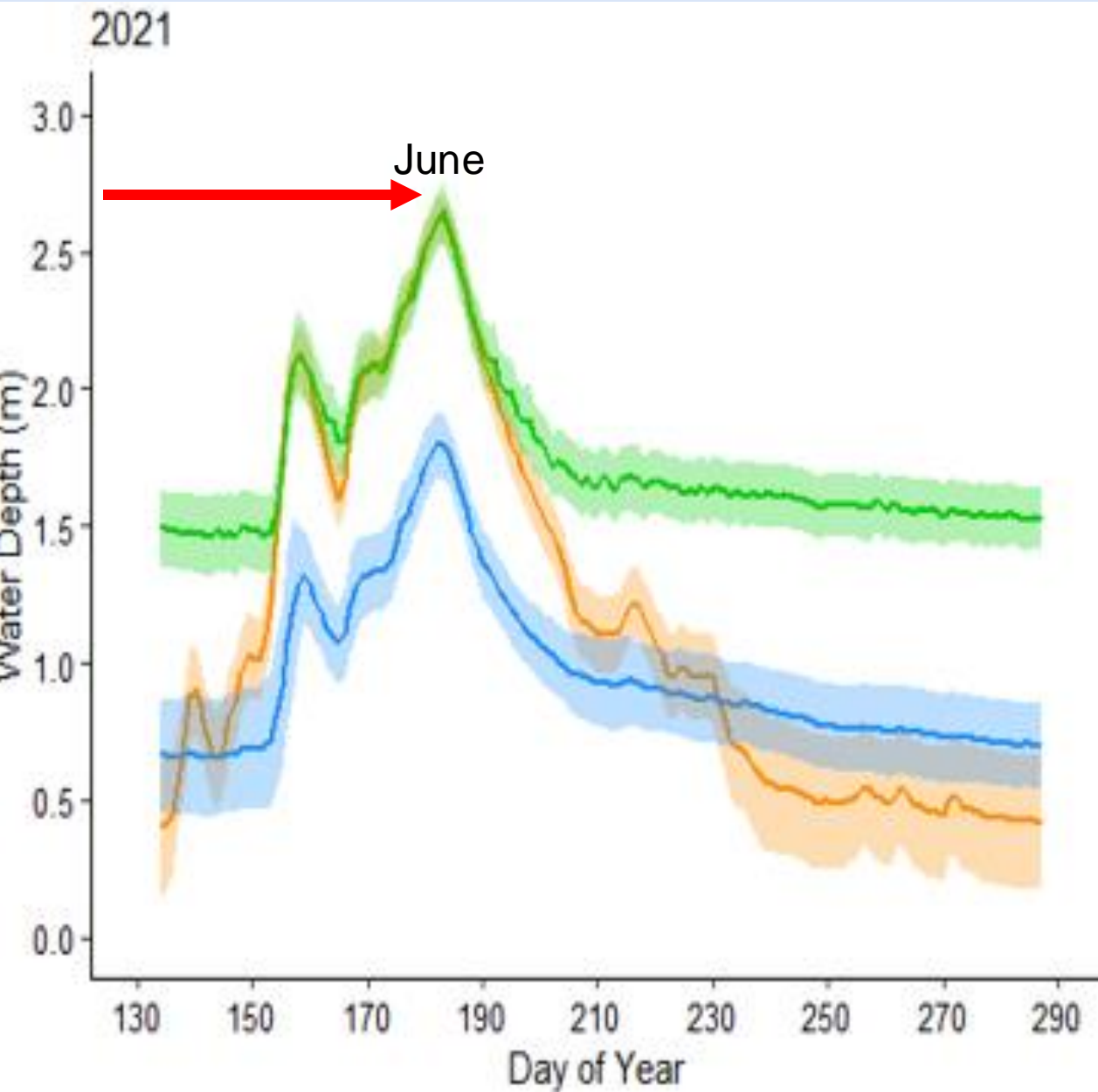
Levee Gaps and Beaver Dams Explain Wetland Groups



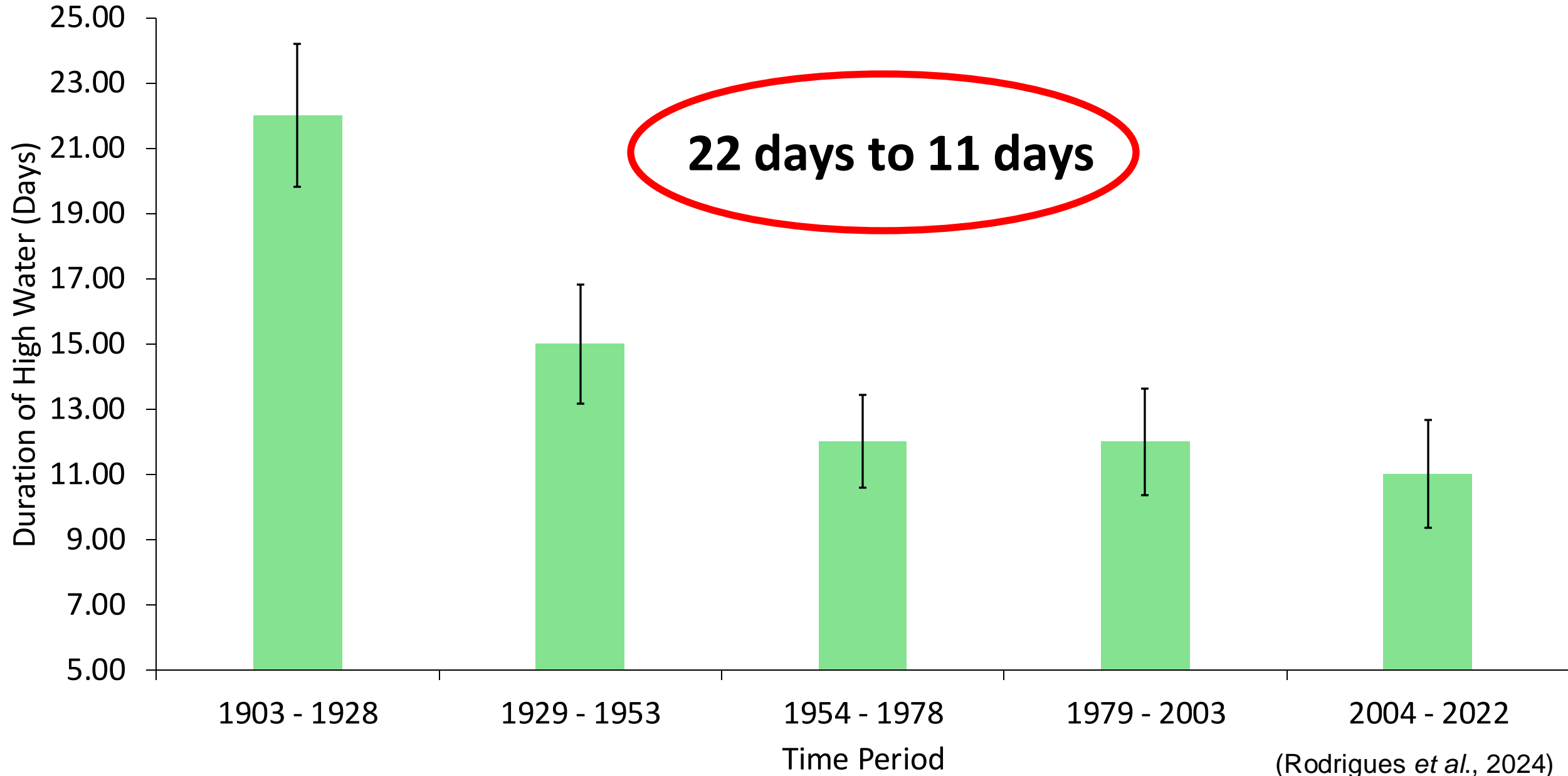
Different Groups Have Different Hydrology



2023 Was A Low Water Year

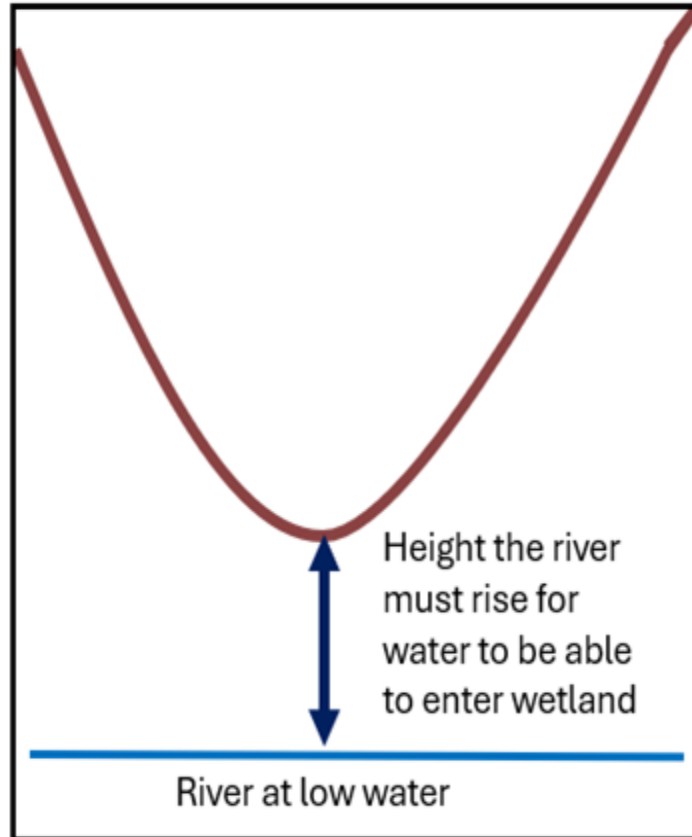


Climate Change Reducing Flood Pulse Duration

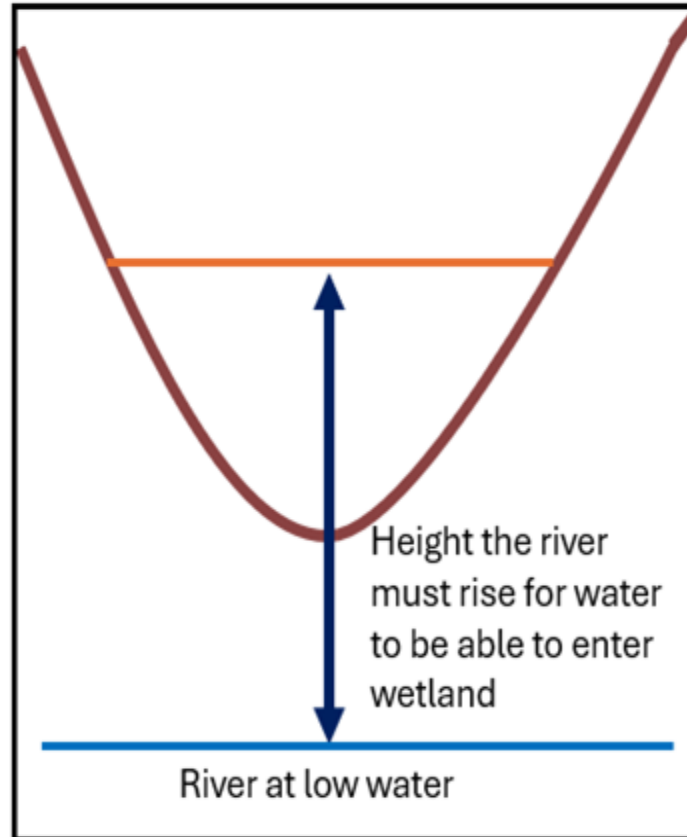


Three Types of Wetland

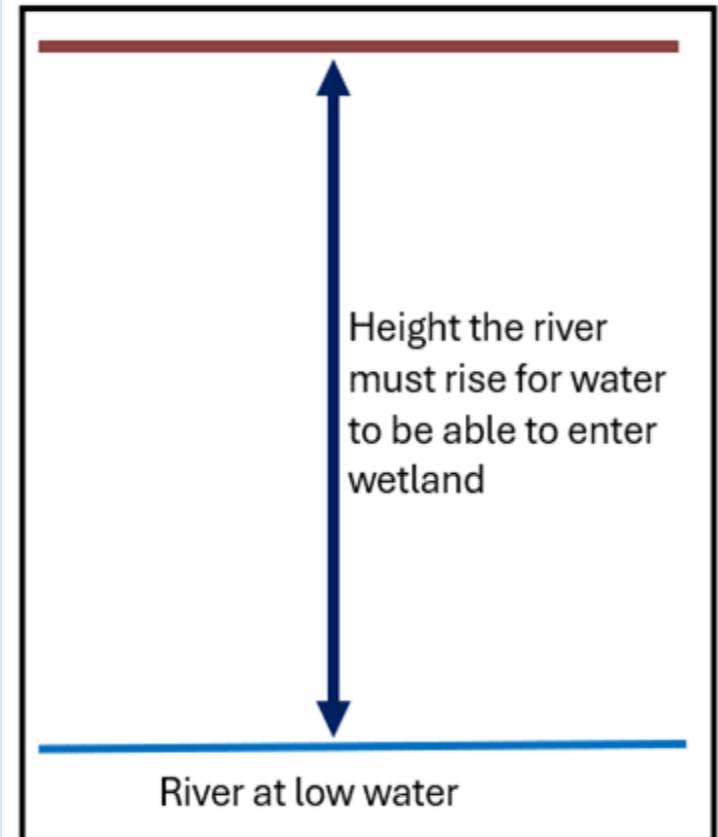
Most Connected



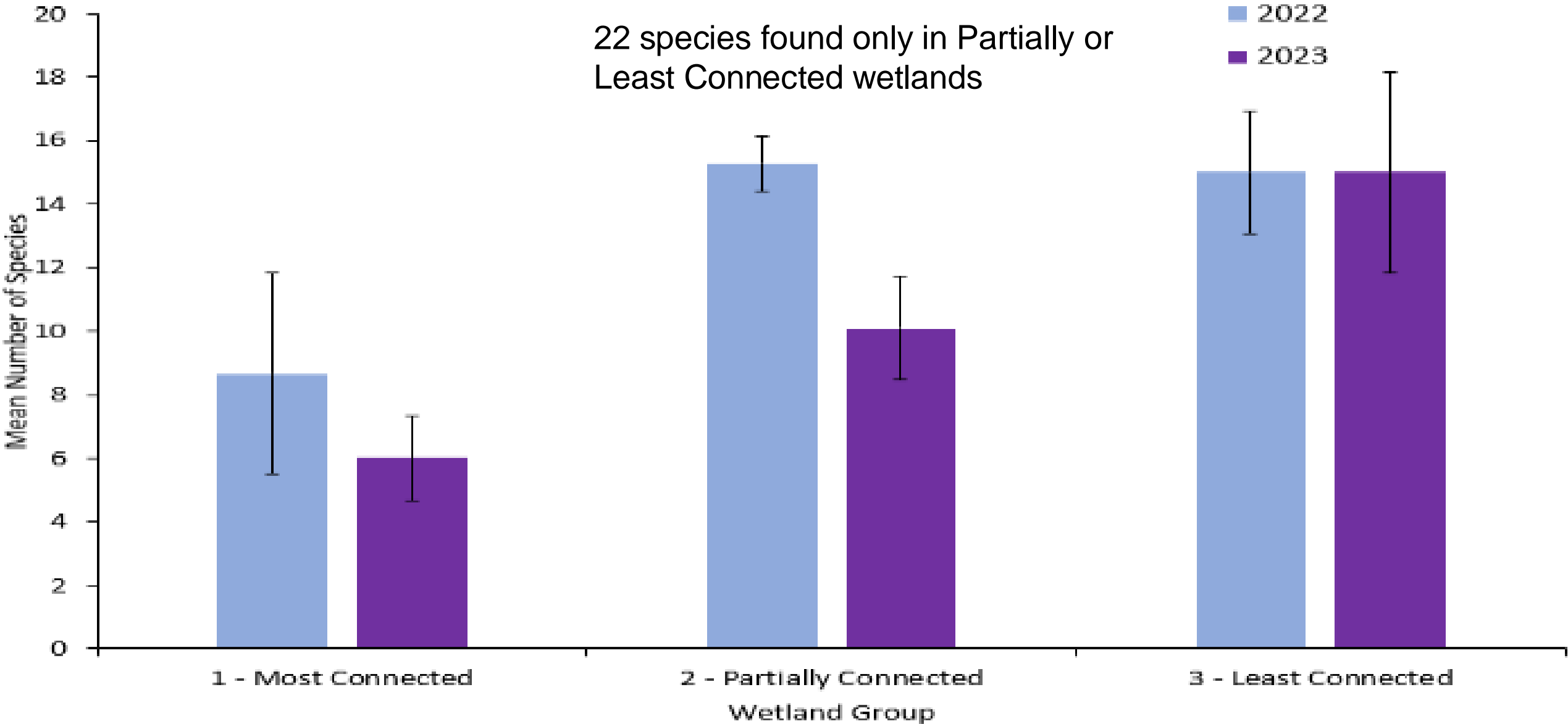
Partially Connected



Least Connected



Different Wetlands Provide Different Habitat



Wetlands Defined By Connectivity To Columbia River

- Most Connected
- Partially Connected
- Least Connected

