

# Yukon Wetlands

## Identification, Function, and Value

JAMIE KENYON – DUCKS UNLIMITED CANADA

J\_KENYON@DUCKS.CA



*80 Years of  
Conservation  
Excellence*

# What is a wetland?

Yukon Government adopted the Canadian Wetland Classification System

*“A wetland is defined as: land that is saturated with water long enough to promote wetland or aquatic processes as indicated by poorly drained soils, hydrophytic vegetation and various kinds of biological activity which are adapted to a wet environment” (National Wetlands Working Group 1988)*

# Wetland Types



Bog



Swamp



Marsh



Fen



Shallow Open Water



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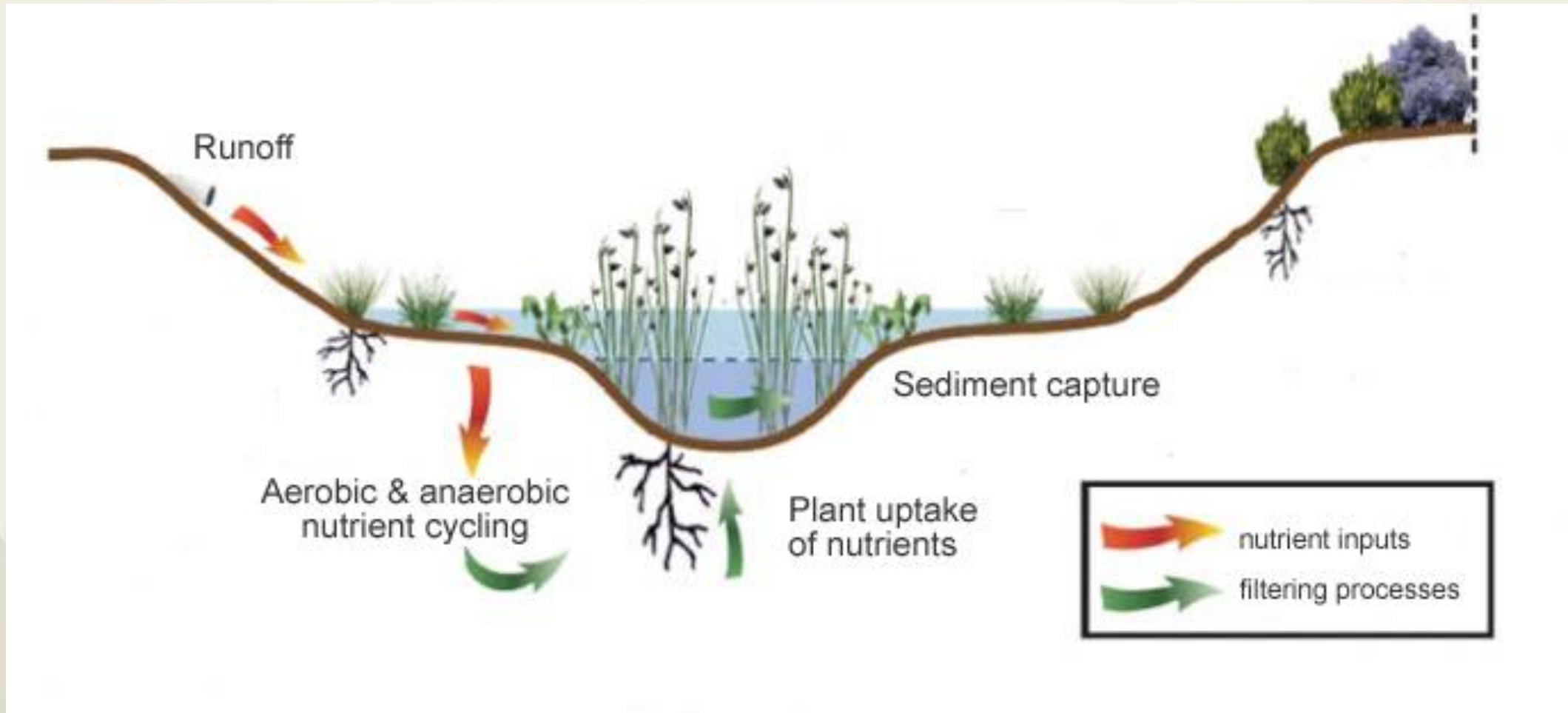


# Wetland Diversity



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# Water Filtration



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# Store and Slow Runoff

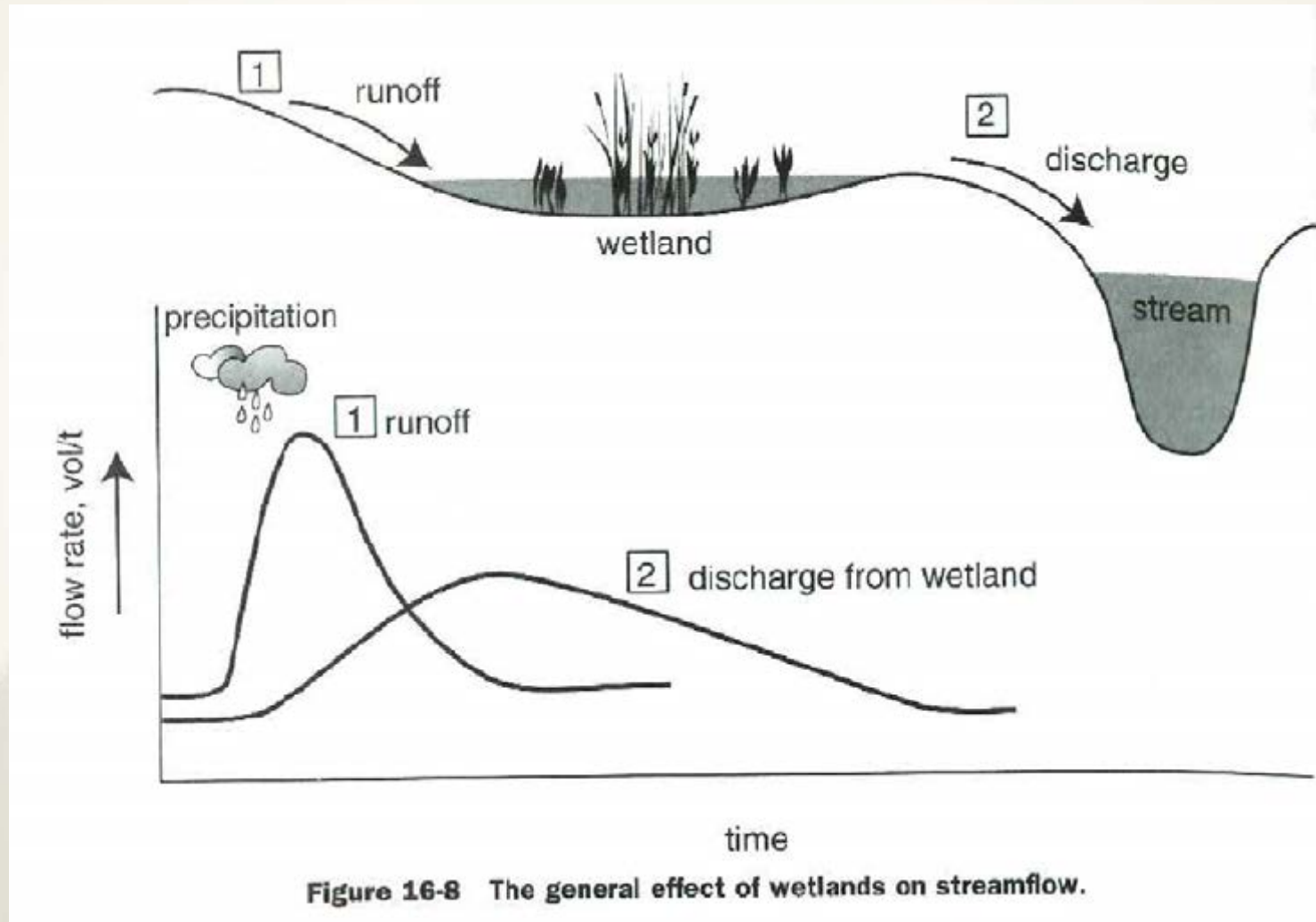


Figure 16-8 The general effect of wetlands on streamflow.



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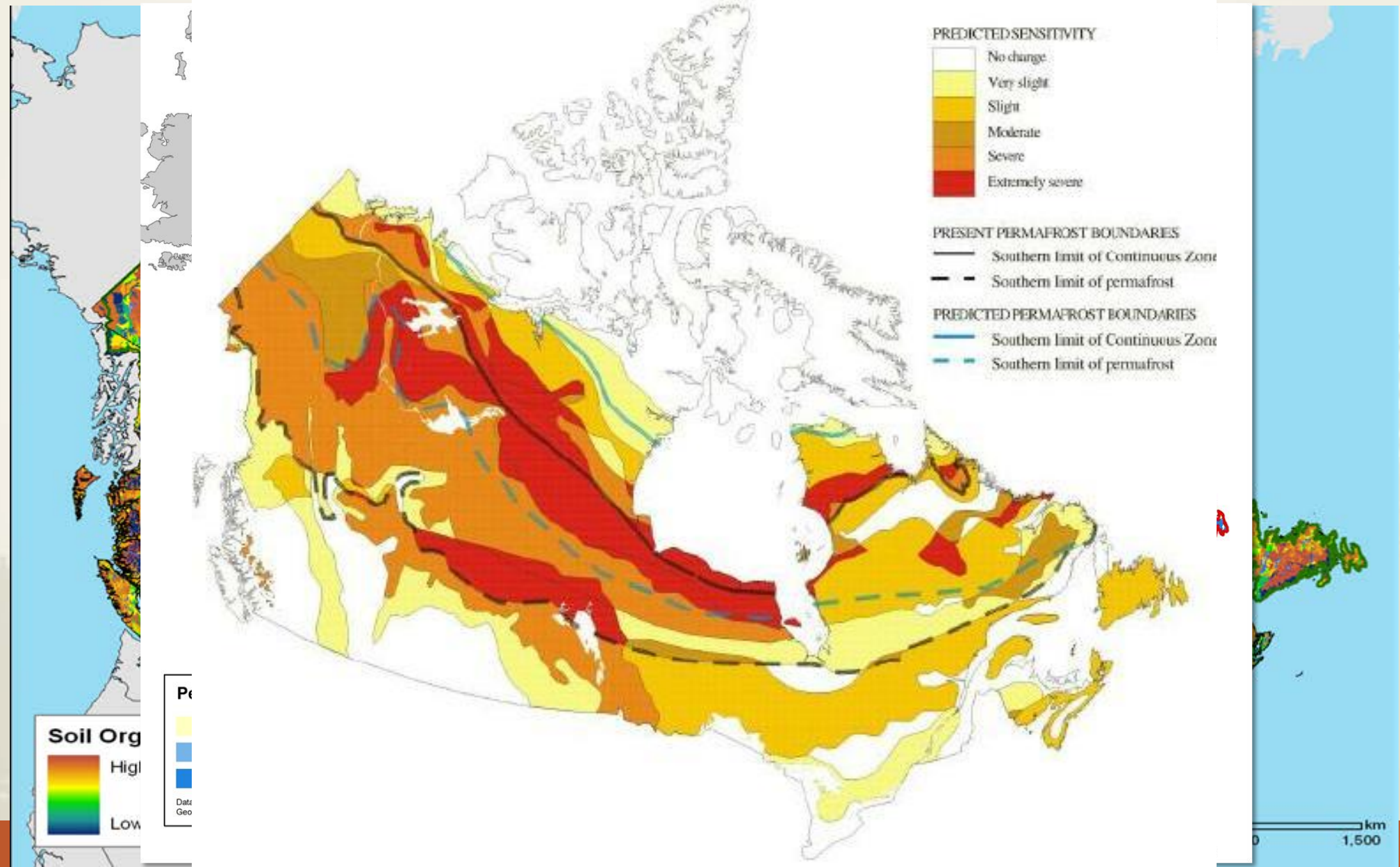


# Biodiversity



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# Carbon Storage

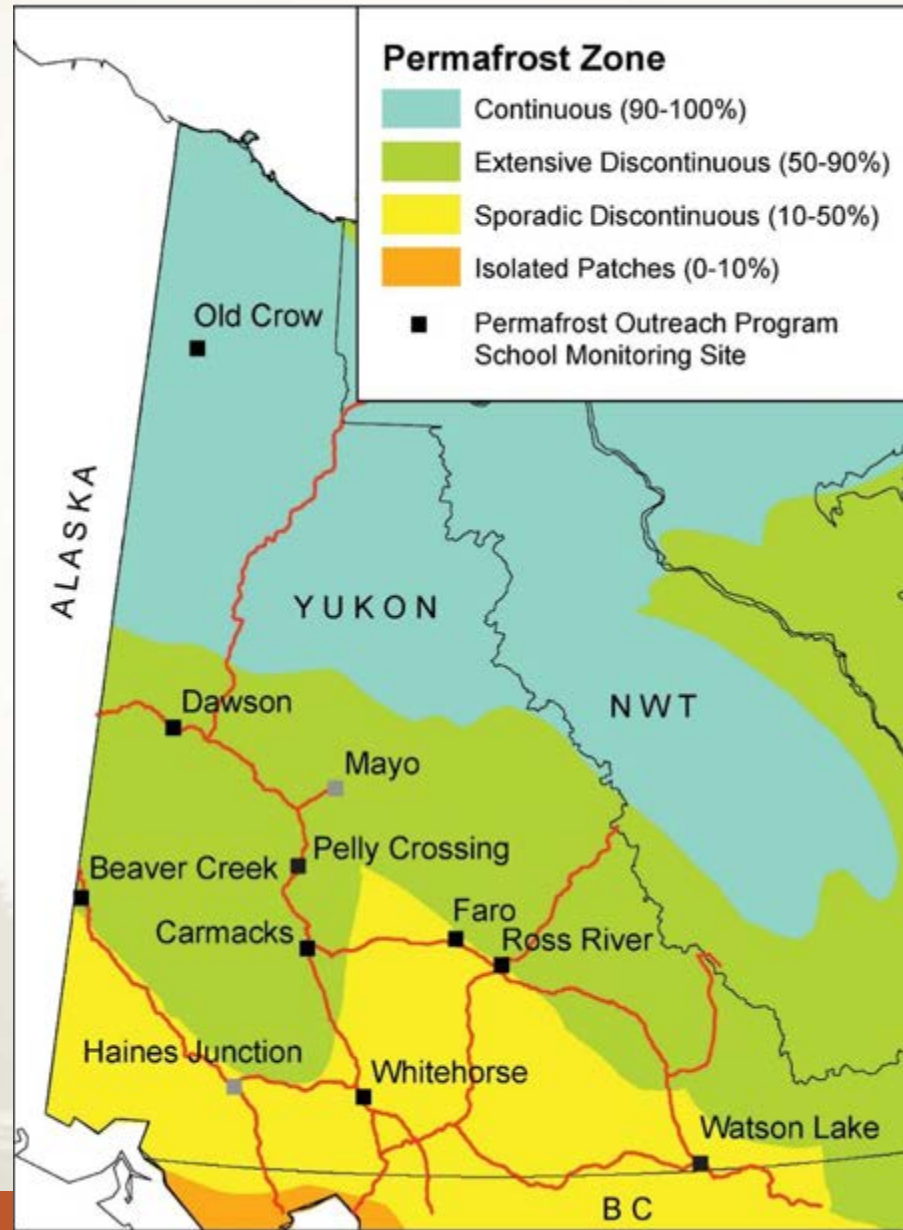




# Permafrost and Wetlands



# Yukon Permafrost



# Permafrost and Wetlands

- Wetlands and permafrost are highly linked
- Impacts to one can impact the other
- Feedback cycles may lead to larger impacts



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# Permafrost and Wetlands are Linked

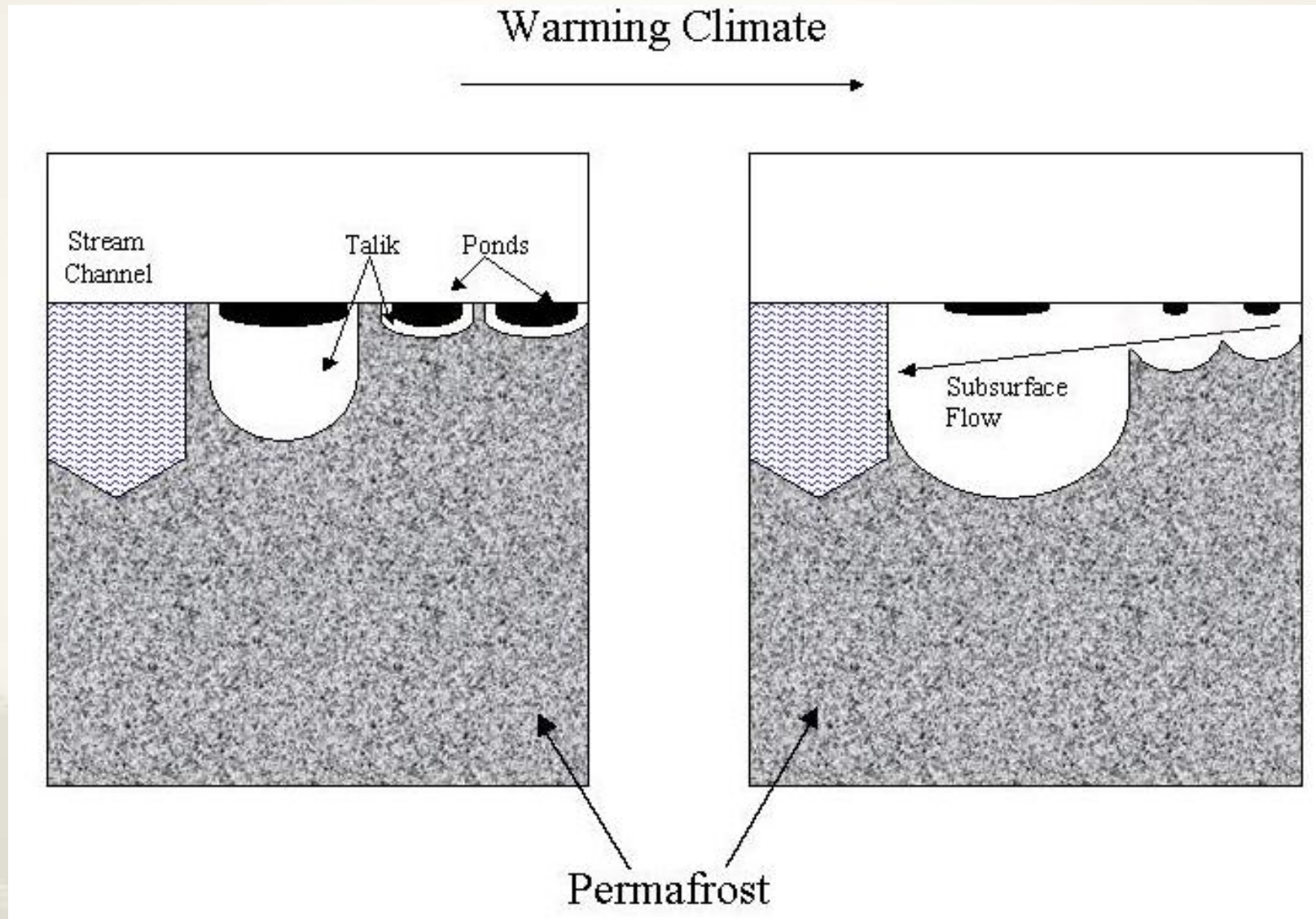


O'Neill and Burn 2015



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# Permafrost and Wetlands are Linked



Riordan 2005



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# Permafrost – Wetland Science

- Focussed on climate change impacts
  - Carbon storage and release
  - Wetland drying or expansion
- Little science comparing function of wetlands in permafrost vs. non-permafrost regions



# Permafrost – Wetland Considerations

- Wetlands perform similar functions in permafrost vs. non-permafrost regions
- Magnitude of the function may vary but it varies between wetlands within a region
- Permafrost wetlands may be more sensitive due to the relationship with permafrost
- Precautionary principle should be used

# Questions?

