# **Ecosystem Services, Science, and Municipal Risk Management**

Alberta Land Institute Land Use Conference May 4, 2016

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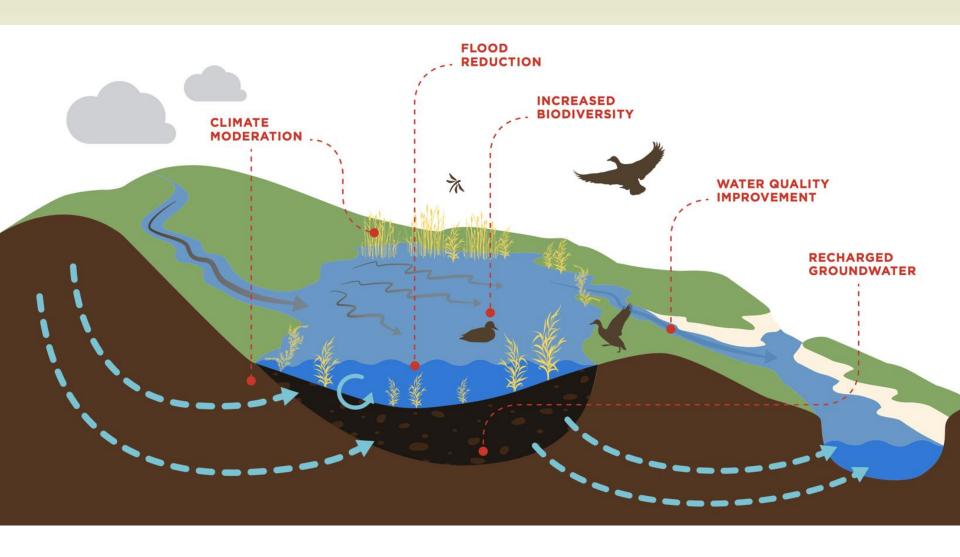


### **Major Questions:**

- 1. How can the presence of wetlands provide significant benefits for municipalities?
- 2. How is research contributing to our understanding of these issues?



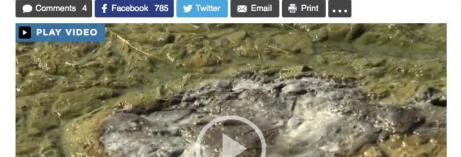
### **Wetland Benefits:**





## 'I can't stand it': Pigeon Lake residents concerned about stench coming from water





Extinction

JAMES P. COLLINS & MARTHA L. CRUMP

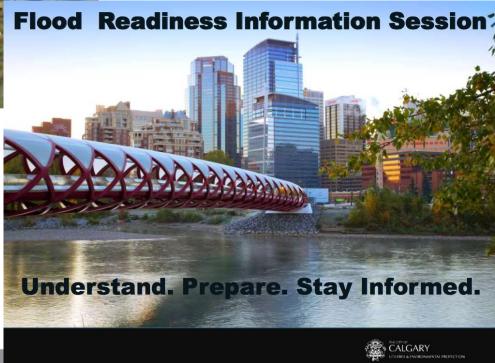
in Our Times



#### **BOW RIVER PHOSPHORUS MANAGEMENT PLAN**

Taking Action to Manage Phosphorus Together

### Bow River Phosphorus Management Plan



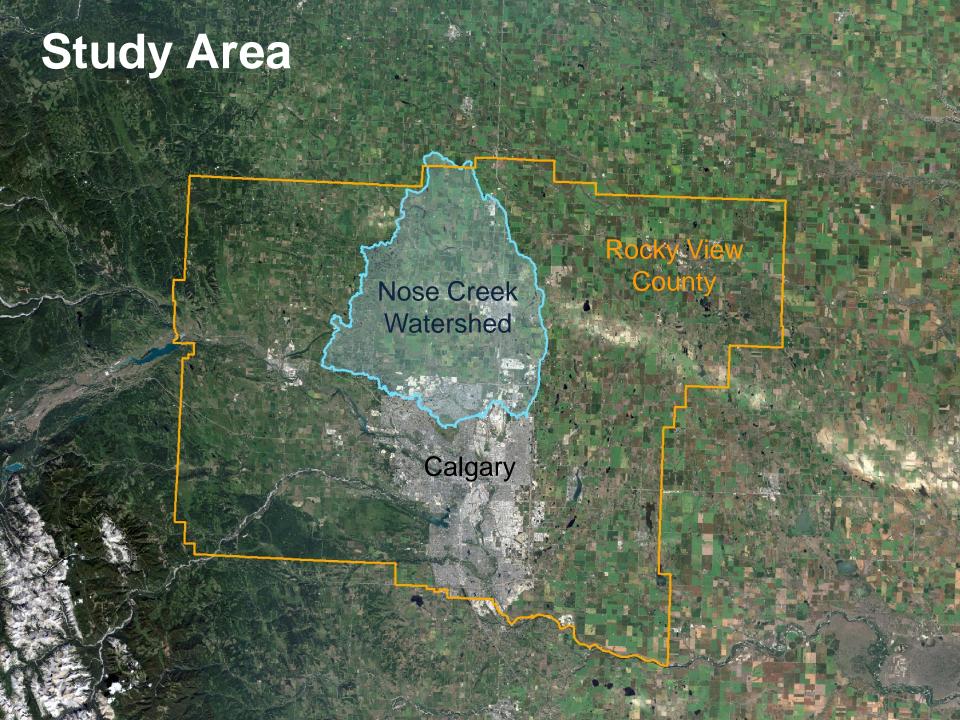
### **Wetlands Research**



Restoring our wetlands together



www.restoreourwetlands.ca



### **Research Questions**

- 1. What is the predicted ecosystem function of drained wetlands?
- 2. How do you target drained wetlands for restoration?
- 3. Can market-based instruments create incentives for wetland restoration on private lands?
  - What are the barriers to land owner participation?
  - What are the regulatory barriers to wetland restoration?
- 4. What is the rate and yield of ecosystem function that is returned after a wetland is restored?

