

Utah Lake Water Quality Study  
Science Panel Meeting  
February 8, 2019  
Salt Lake City, UT

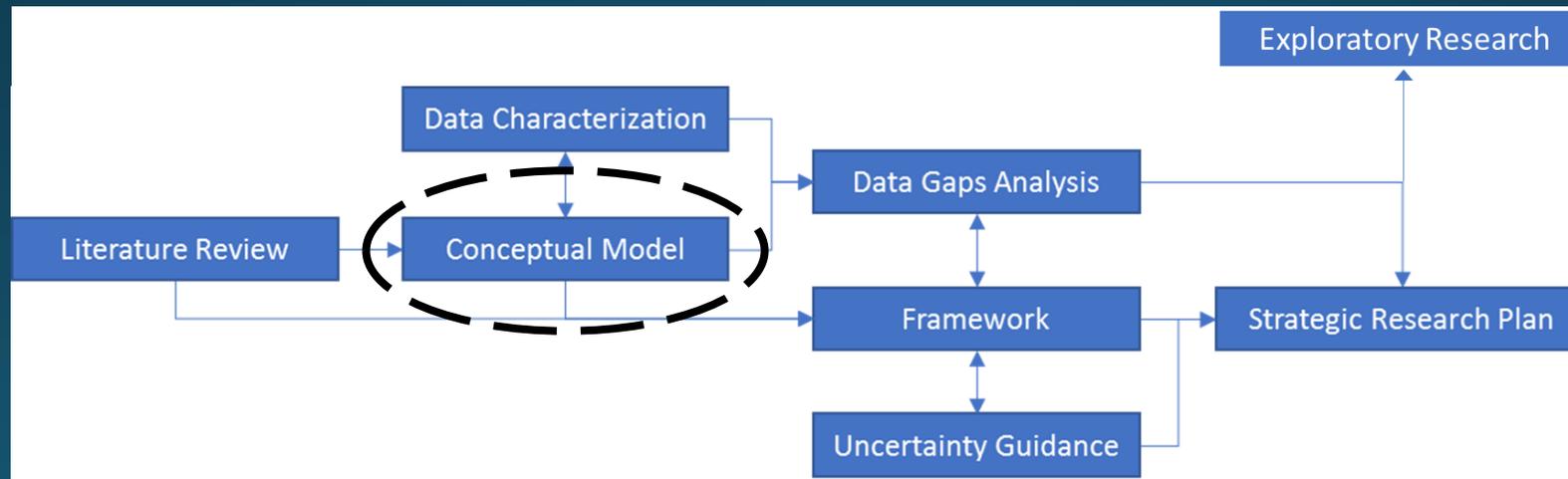
# Conceptual Models

## Utah Lake Nutrient Criteria Development Technical Support



# Objective

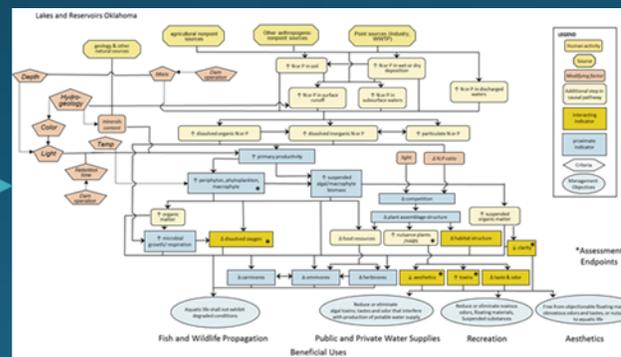
- Introduce and discuss conceptual model options
- Move towards agreement on a conceptual model approach
- Work on refining conceptual models



# Conceptual Models

- Define system understanding based on existing knowledge
- Illustrate important relationships for modeling
- Identify gaps in knowledge that drive future studies
- Communicates to stakeholders

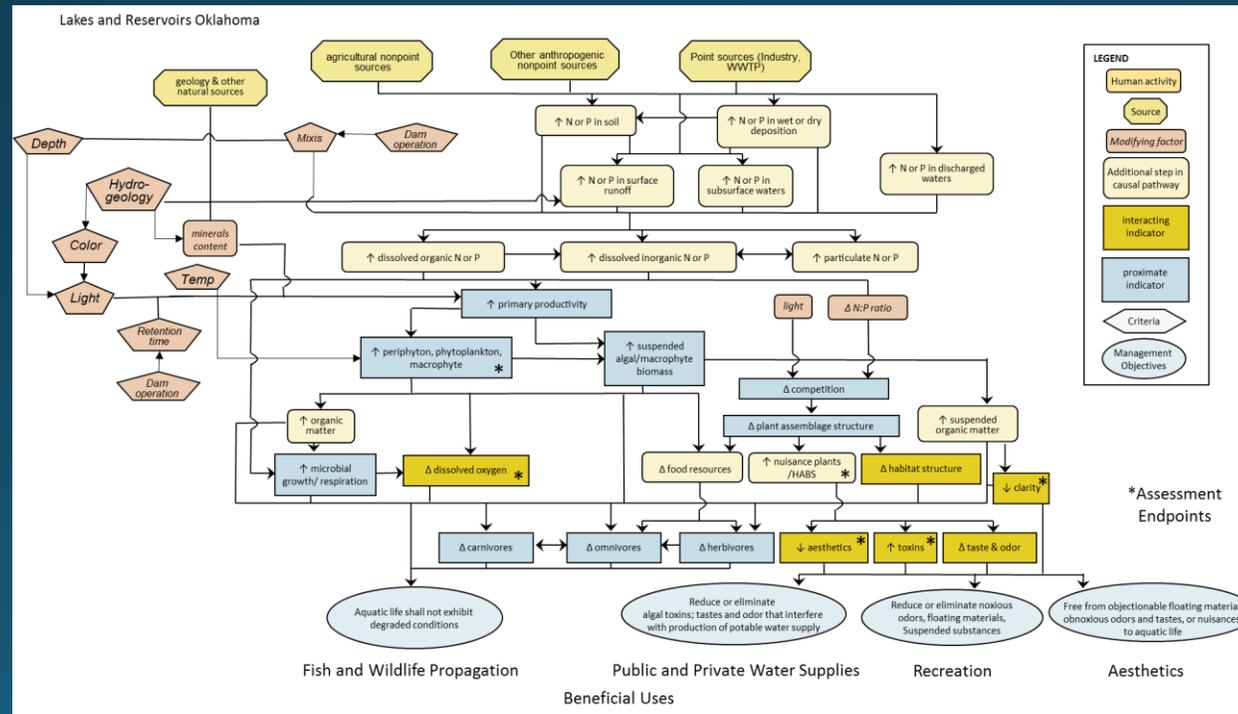
Knowledge

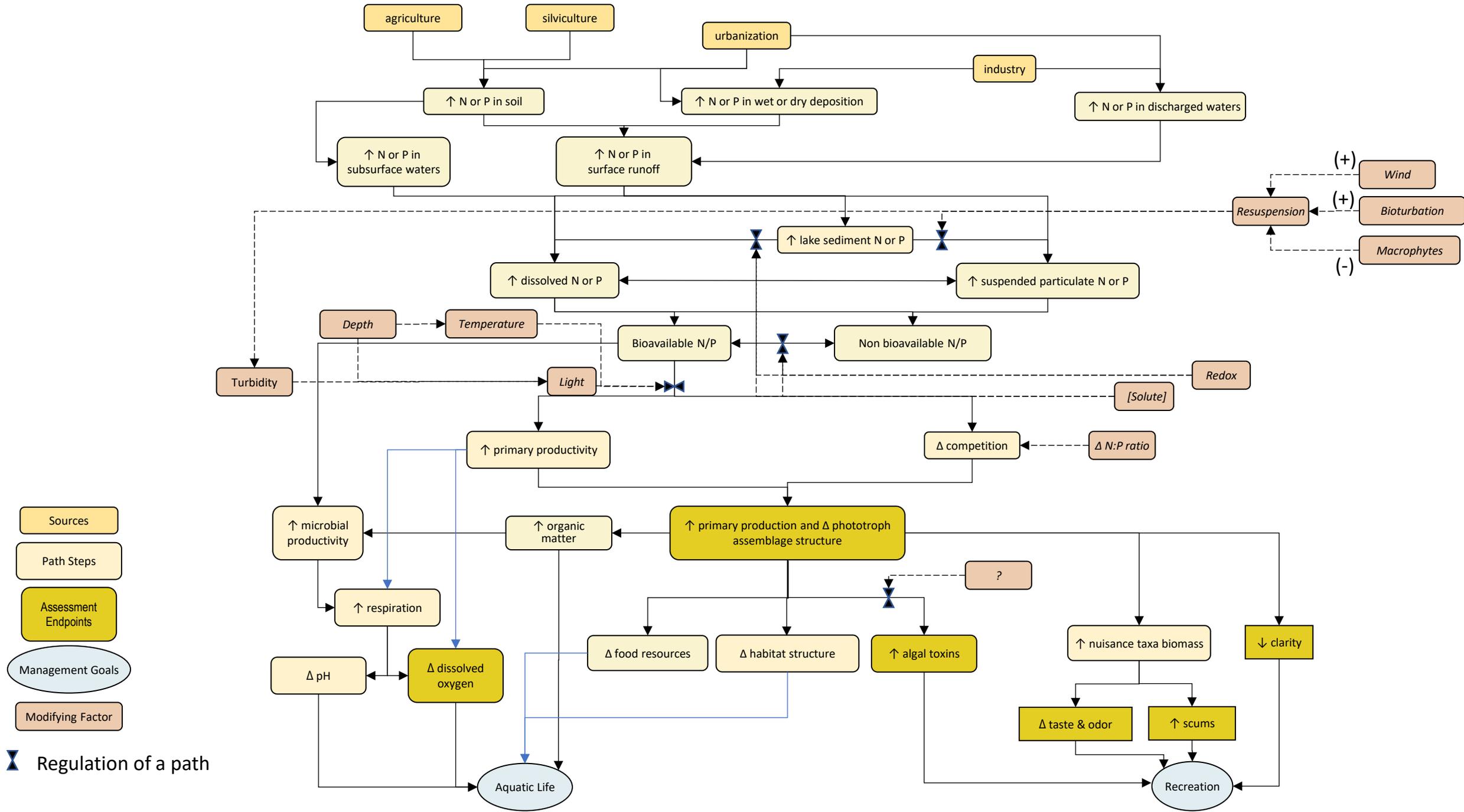


Public

# Conceptual Modeling Framework

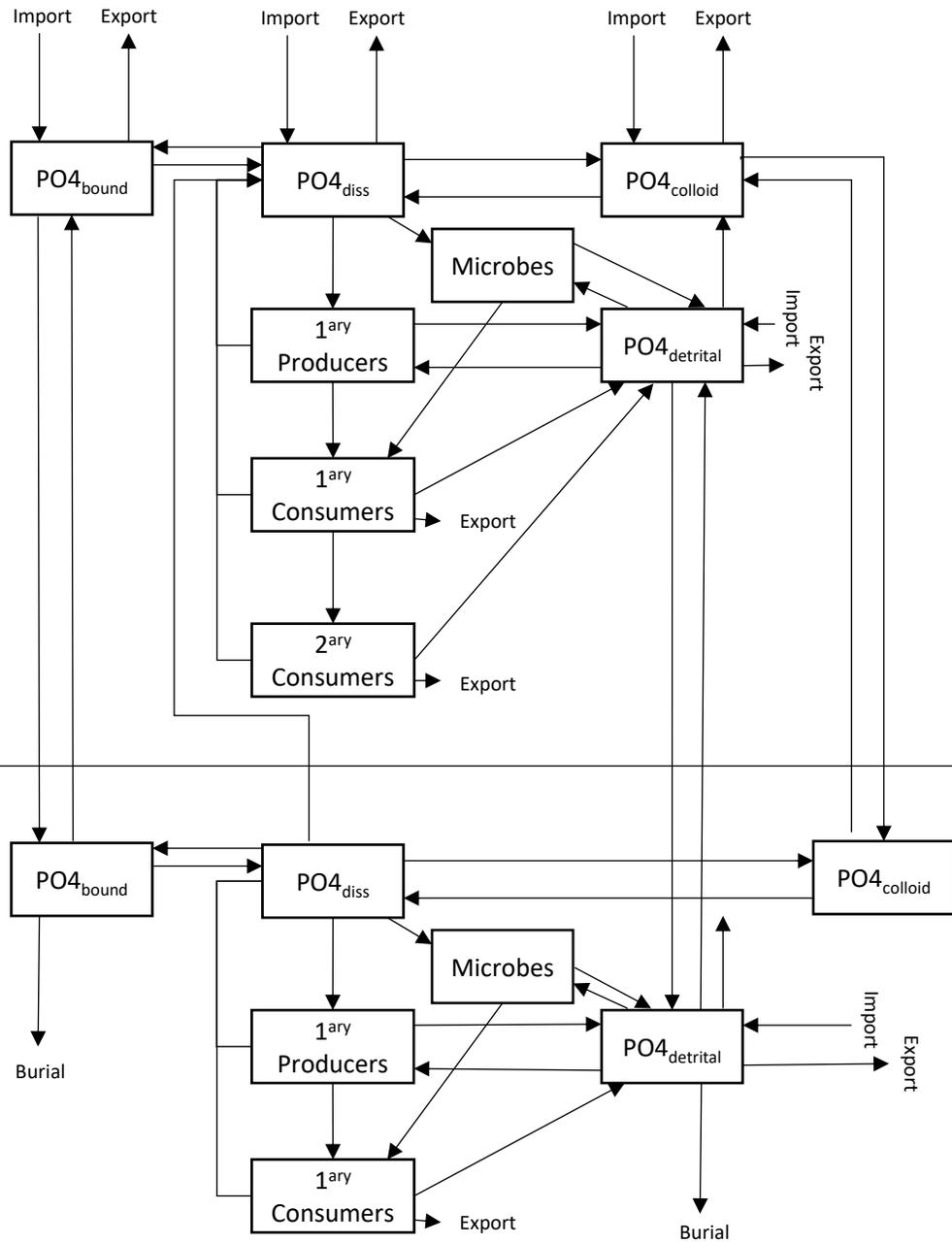
- CADDIS – Causal Analysis Decision/Diagnosis Information System
  - Risk assessment: Conceptual models are a big component
  - We started here





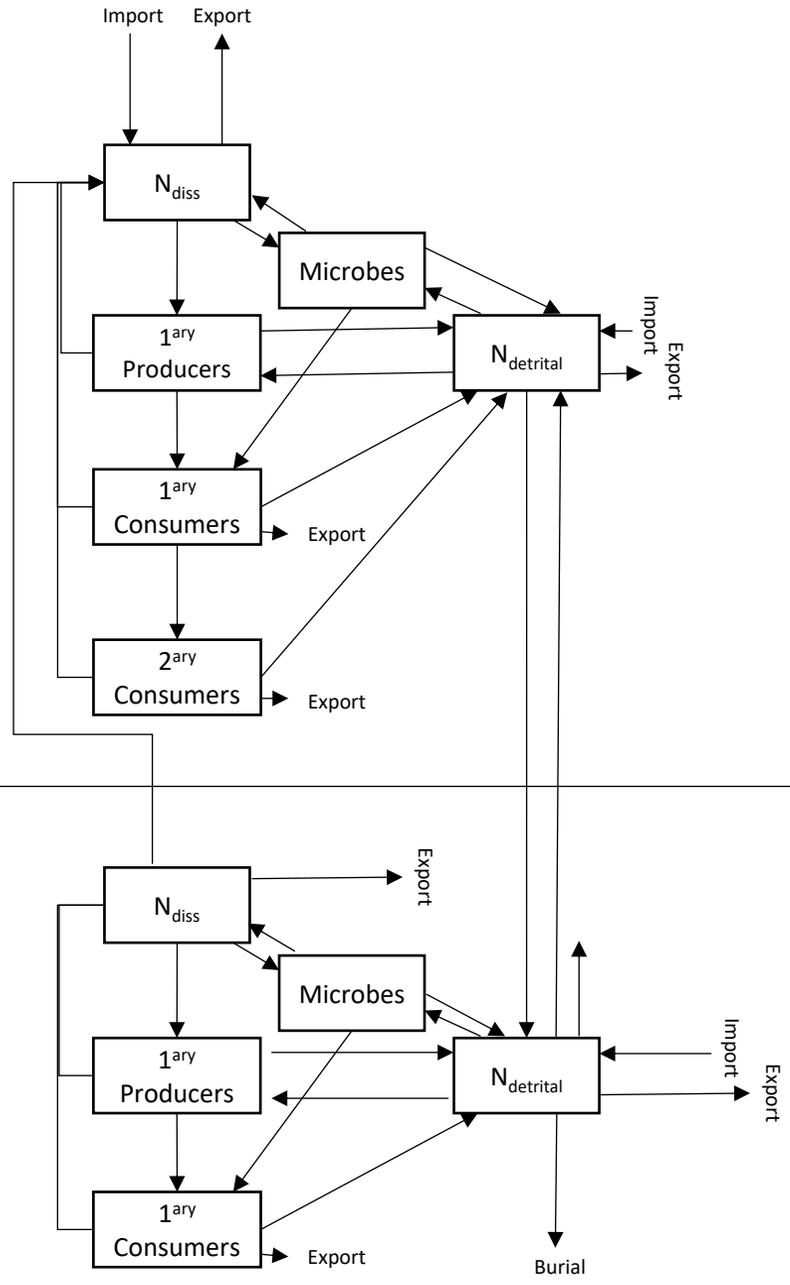
# Conceptual Model Options

- All models are wrong, but some are useful
- Is the CADDIS approach useful enough?
- Other options



Water

Sediment



Water

Sediment

# Conceptual Model Exercise

- Review the models
- Answer the following:
  - Is this an appropriate model framework for us?
    - Does it serve the needs?: capture understanding, identify gaps, communicate to public
  - What “important” variables/paths/feedbacks are missing?
- You have model versions, markers, flip charts – have at it
- Output: Report out on recommended changes to models

# Conceptual Model

- Report out

# Next Steps

- Refine models
- Iterate again with you (next meeting)
- Finalize
- Link paths to relevant literature

