

Increasing Knowledge: What Do We Need to Know?

Water Supply Symposium
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Questions

1. How much water is there (and when)?
 - Surface water and groundwater
2. How much water is needed instream (and when)?
 - Fish and other aquatic resources
3. What is the condition of the habitat?
4. What is the quality of the water?

Questions

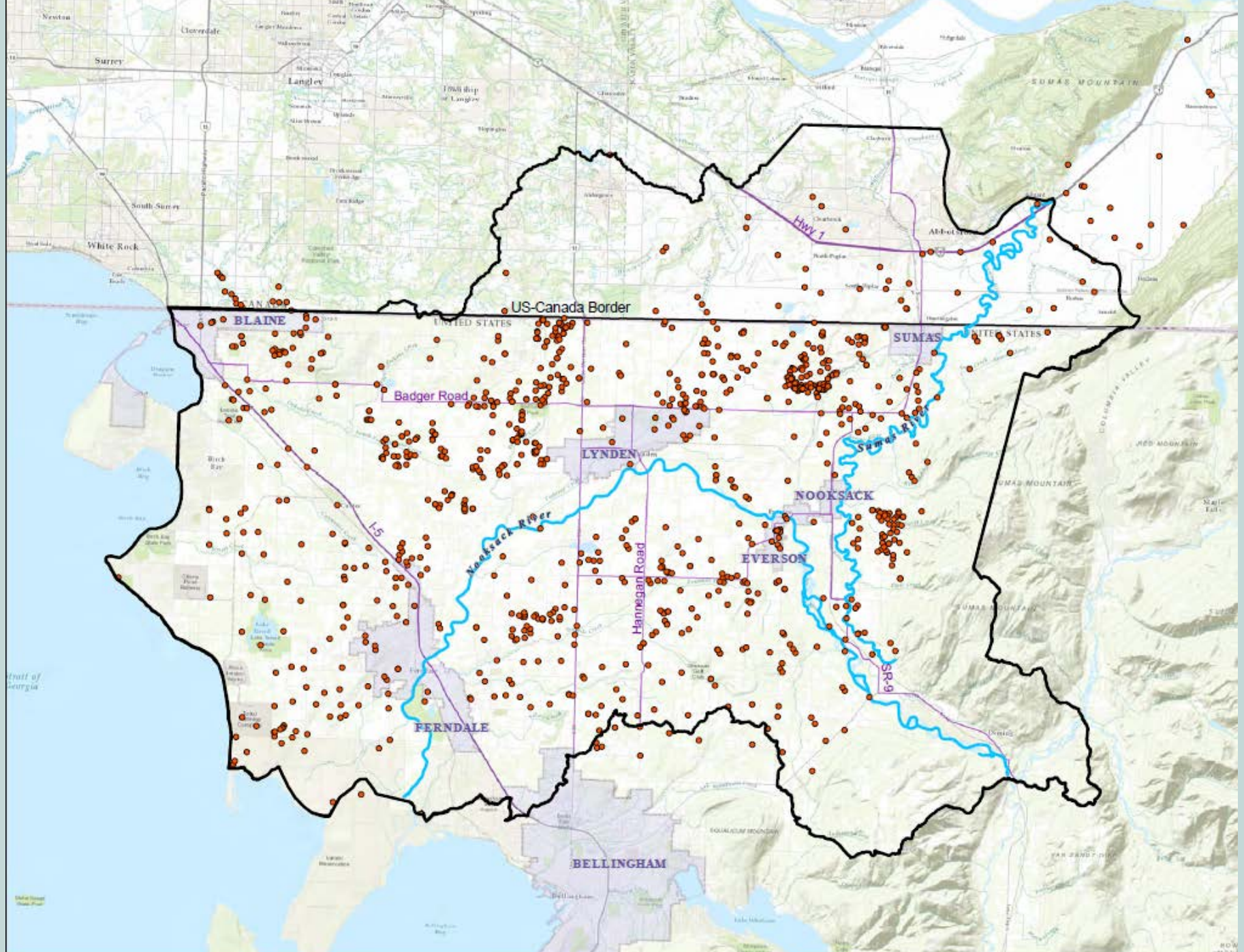
5. How much water is needed out-of-stream (and when)?
 - Domestic/municipal, industrial, agricultural
6. How do we get the water to where we need it?
7. What will be the impacts of climate change?
8. How does all of this fit together?

Answers

1. How much water is there (and when)?
 - Lower Nooksack Water Budget – 2012 – WRIA 1 Joint Board
 - Lynden-Everson-Nooksack-Sumas Groundwater Model – 2019 – WRIA 1 Joint Board/Whatcom County
 - Birch Bay Deep Aquifer Study – 2018 – Birch Bay Water & Sewer District

Groundwater Model

- Coupled with Surface Water Model
- Resolution
- Additional Data Needs
- Climate Change
- Ongoing Monitoring Needs
- Maintenance



Answers

2. How much water is needed instream (and when)?

- Instream Flow Studies – 2007 – WRIA 1 Joint Board
- Instream Flow Adoption and Action Plan – 2007 - WRIA 1 Joint Board

Answers

3. What is the condition of the habitat?

- Nooksack River Watershed Riparian Function Assessment (2001)
- Bertrand Creek Salmonid Habitat Assessment (2002)
- WRIA 1 Salmonid Recovery Plan (2005)
- Fish Passage – Whatcom County Fish Passage Barrier Inventory (2005)
- Detailed salmon habitat assessments done for North, Middle and South Forks
- Nooksack Estuary Habitat Assessment (2005)
- Riparian Vegetation Inventory and Function Assessment of Tributaries and Marine Shoreline (2010, 2012)
- Bellingham Habitat Restoration Technical Assessment (2015)
- Terrell Creek 2015 Habitat Assessment & Restoration Priorities (2015)
- Mainstem (Deming to delta) geomorphic and habitat assessments are (in progress)

Answers

4. What is the quality of the water?

- TMDL Studies
- Groundwater nitrate studies
- Whatcom Clean Water Program – Fecal coliform

Answers

5. How much water is needed out-of-stream (and when)?

- Lower Nooksack Water Budget - 2013
- Coordinated Water System Plan - 2016
- Agricultural Needs Assessment - 2016

Answers

6. How do we get the water to where we need it?

- Water Supply Plan

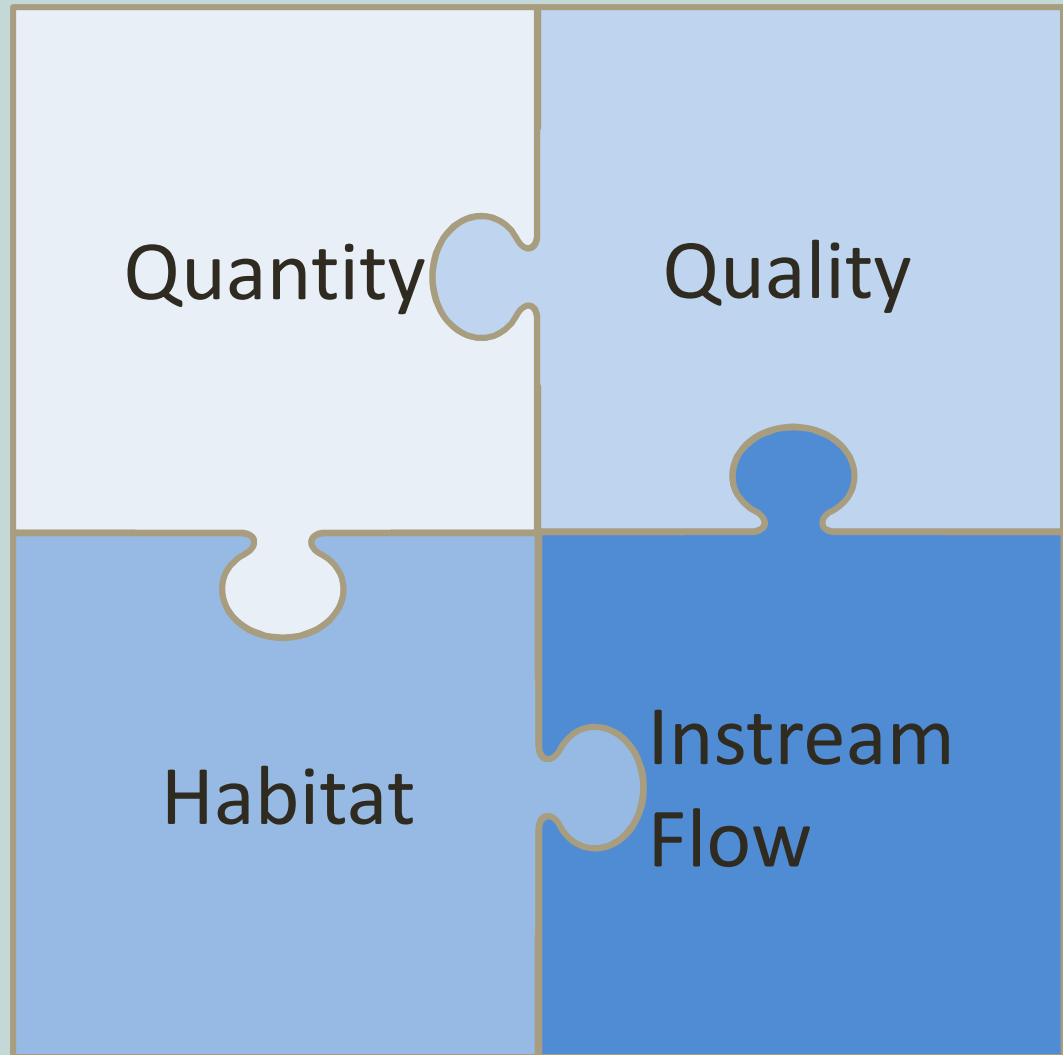
Answers

7. What will be the impacts of climate change?

- Evaluating the Impacts of Climate Change on Endangered Species Act Recovery Actions for the South Fork Nooksack River (2015)
- Drought Contingency Plan (in progress)

Answers

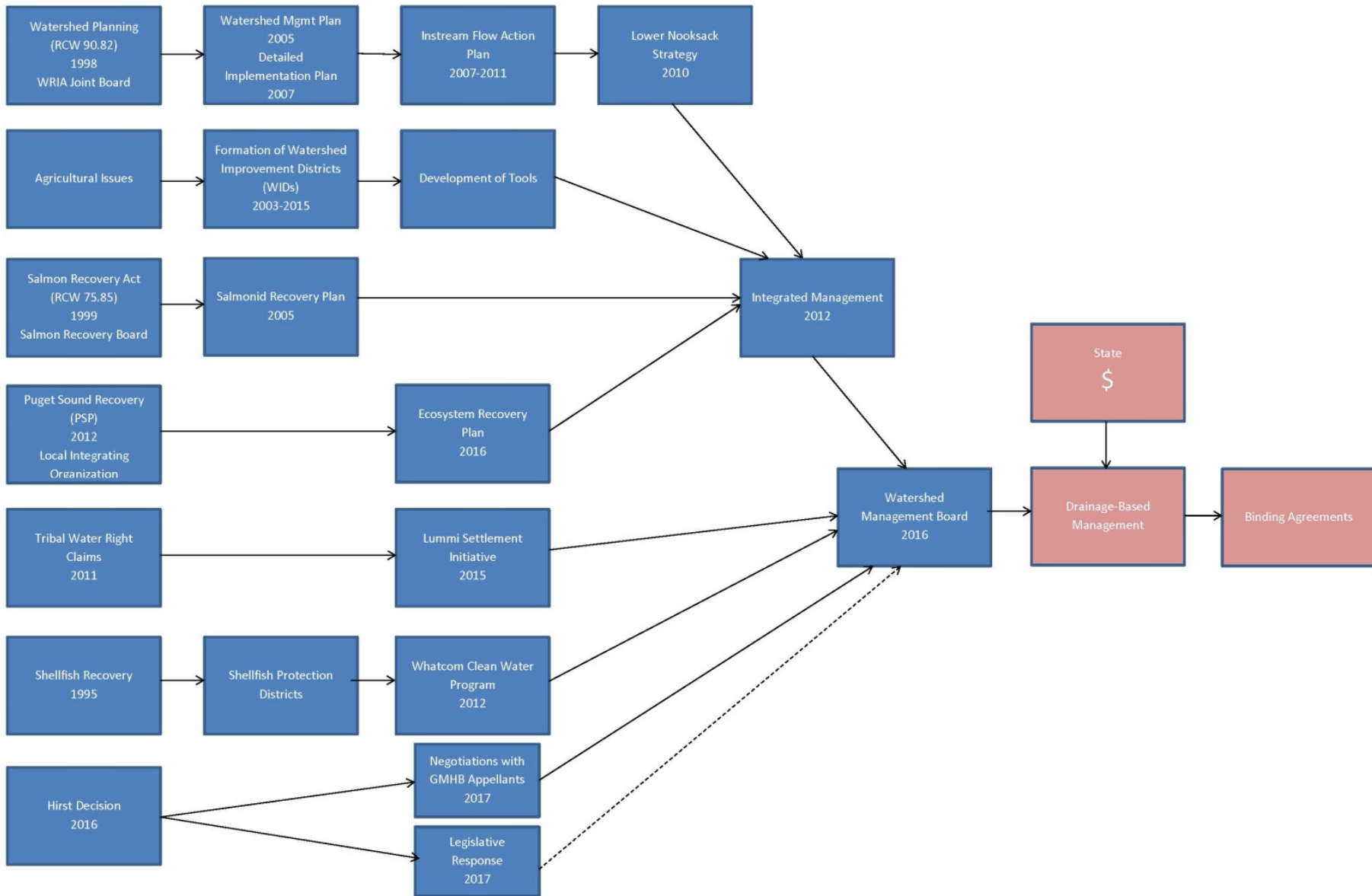
8. How does everything fit together?



To Do List

- Develop Water Supply Plan
- Comprehensive Drainage-Based Management Plans
- Implement Plan
- Monitor Effectiveness
- Long-term Monitoring
- Adaptive Management

How do we move forward?



Questions?