Aquatic Species Restoration Plan Update

Sequencing Recommendations

November 5, 2020

Sequencing Recommendations

- Scope of ASRP is large and sequencing is needed to effectively approach implementation
  - These hard decisions allow the ASRP to focus work while being transparent about approach taken
  - Sequencing follows the vision of the ASRP and ensures smart investments are made toward program goals

- Sequencing guides the implementation over time to ensure alignment with our scientific priorities

Implementation Periods

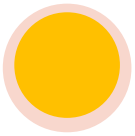
30-year program implementation timeframe

2021-2031

Near Term

2031-2041

Mid-Term

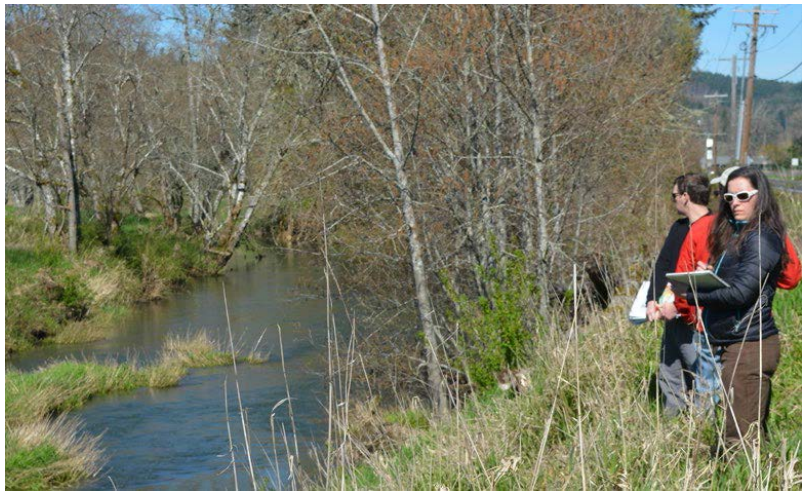


2041-2051

Long Term

Sequencing: Pace Needed

- Phase 1 ASRP identified the need for an aggressive pace of implementation in order to achieve the results we seek for native aquatic species and their habitats.
  - Modeling future conditions based on restoration in place now
  - Declining baselines of species due to climate change



Guiding Principles

Guiding principles developed to approach sequencing of the 30-year plan:

1. **Maintain and restore physical and biological processes** across the Chehalis Basin that increase the resilience of species and habitats to climate change and human population increases
2. **Prioritize actions for most at-risk species** (e.g. spring Chinook salmon, Oregon spotted frog, Coastal tailed frog)
   - Restore and protect physical processes
   - Ensure connectivity of habitats
   - Address biological processes (e.g., exotics, hybridization)
3. **Protect unique and at-risk core habitats**
4. **Use targeted learning projects to improve effectiveness** of restoration actions and adaptively manage ASRP implementation

Guiding Principles

5. Concentrate restoration to **produce demonstrable change** in habitat in the face of degrading external conditions
   - Climate change
   - Human population increase

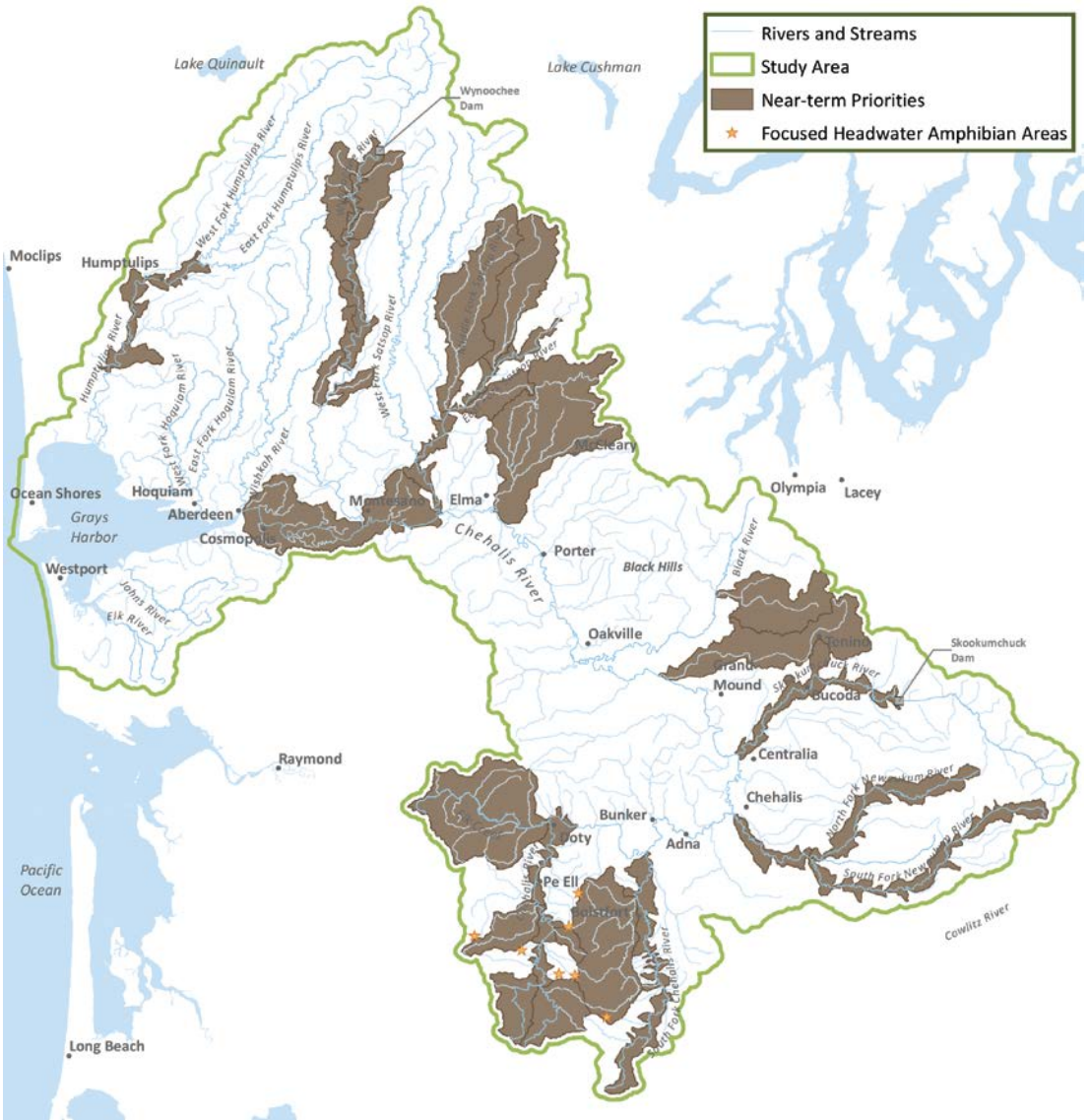
6. Address issues to **optimize connectivity** across the life history of targeted species

7. **Take advantage of opportunities for synergisms** between habitats for co-occurring at-risk species

8. **In the near-term period, initiate actions with long ramp-up periods** so that their biological benefits can be realized on the shortest timeline possible

Years 1-10 Plan

- Scientific goal to implement 235 miles of restoration & protection
- Approximately 6,500 acres of riparian and floodplain restoration and reconnection



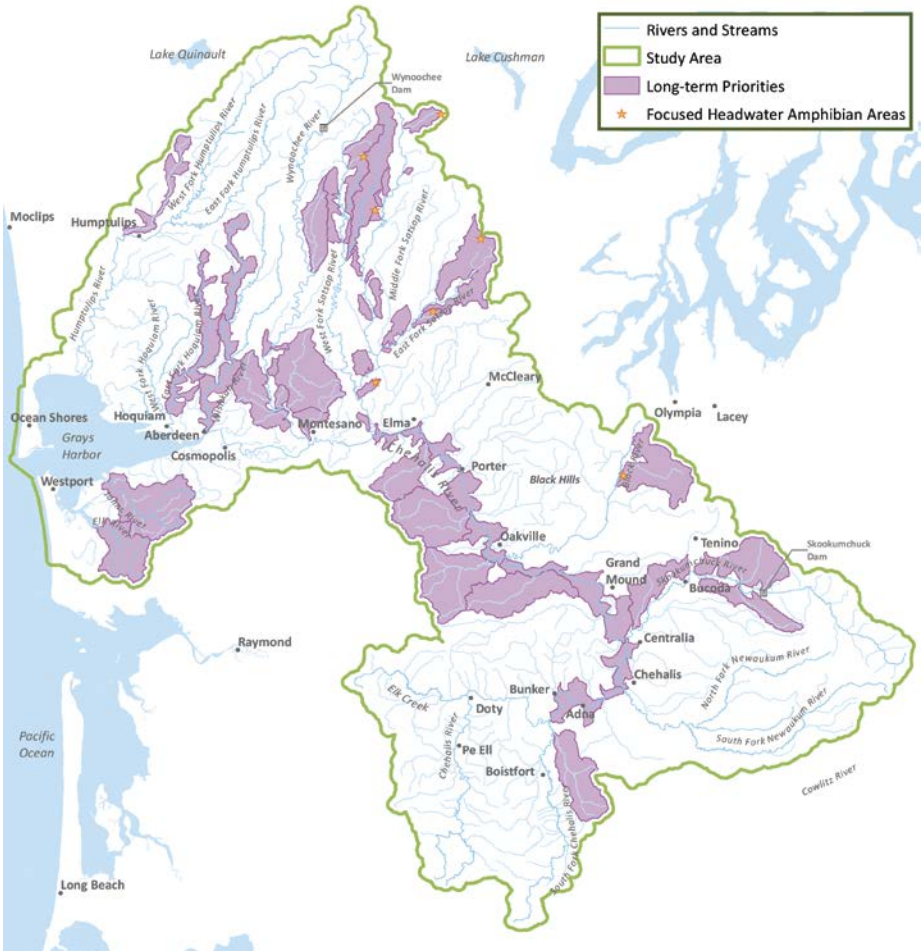
Mid and Long-term Strategies

- Mid and long-term strategies are focused on:
  - Extending restoration across basin to benefit other focal aquatic species
  - Maintaining and restoring physical and biological processes
  - Promoting spatial and life history diversities that create a resilient ecosystem

Mid and Long-term Strategies

Mid-Term

Long-Term



Years 1-10 Implementation Costs

- Capital cost estimate for protection and restoration for years 1-10 mileage (235 miles)
  - Range of potential costs from $330 million to $630 million
  - Average potential costs approximately $470 million
  - This averages to a potential cost of $94 million per biennium, if evenly distributed
    - The Steering Committee acknowledges there will be a ramp up period during the next biennium to fully shift into implementation
    - More in-depth budget discussion at December Board meeting

Summary

- Aggressive pace of implementation needed for ASRP to be successful
- Sequencing recommendations created to focus implementation across three 10-year periods

- Near term focus:
  - Protecting and restoring unique and at-risk habitats that support specific species
  - Focus on actions that will reduce effects of climate change
  - Initiate actions with long ramp-up periods
  - Employ targeted learning
  - Concentrate efforts to produce demonstrable change

- Near term goal is lofty; but a necessary level of action to strive for to realize the benefits

Questions & Steering Committee Discussion

- Dave Bingaman, Quinault Indian Nation to further discuss sequencing work