

Public Meeting

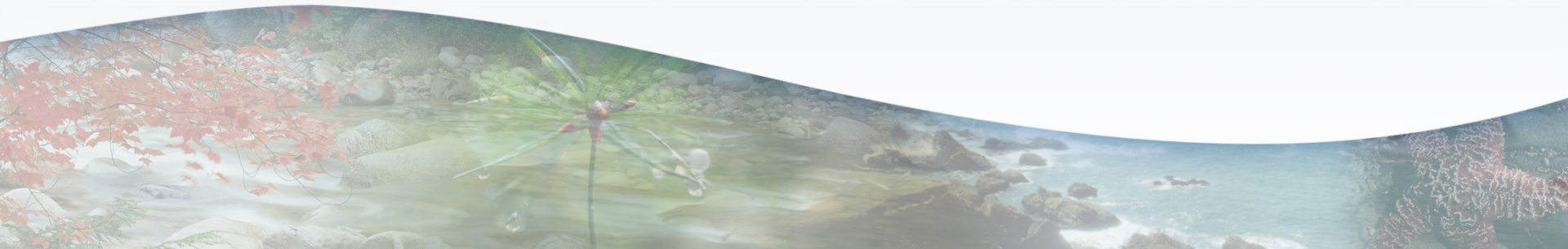
To consider approval of an amendment to the
Water Quality Control Plan for the North Coast Region
to include
the Action Plan for Upper Elk River Sediment TMDL
Item No. 7

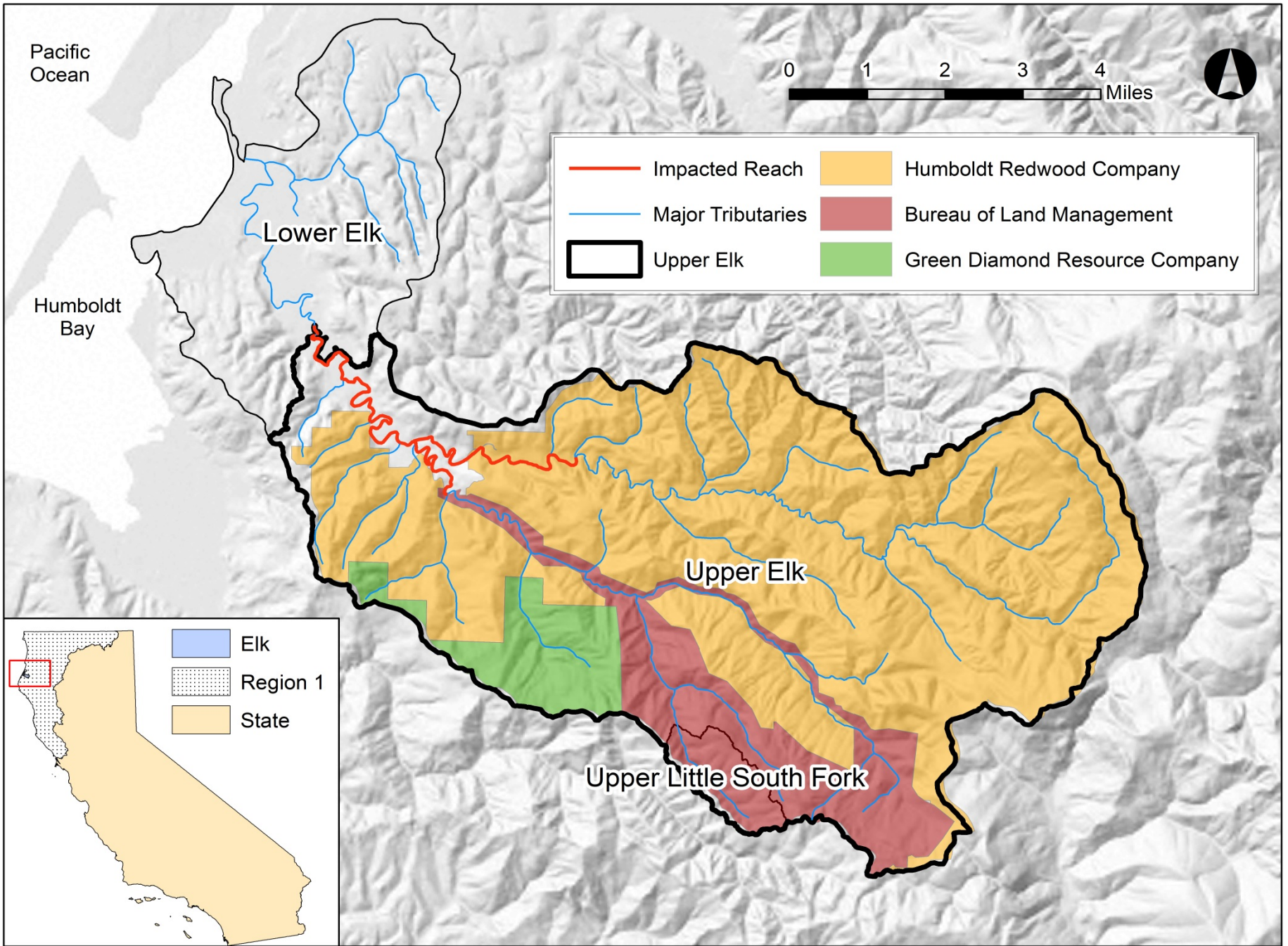
Alydda Mangelsdorf,
Senior Environmental Scientist
August 1, 2017

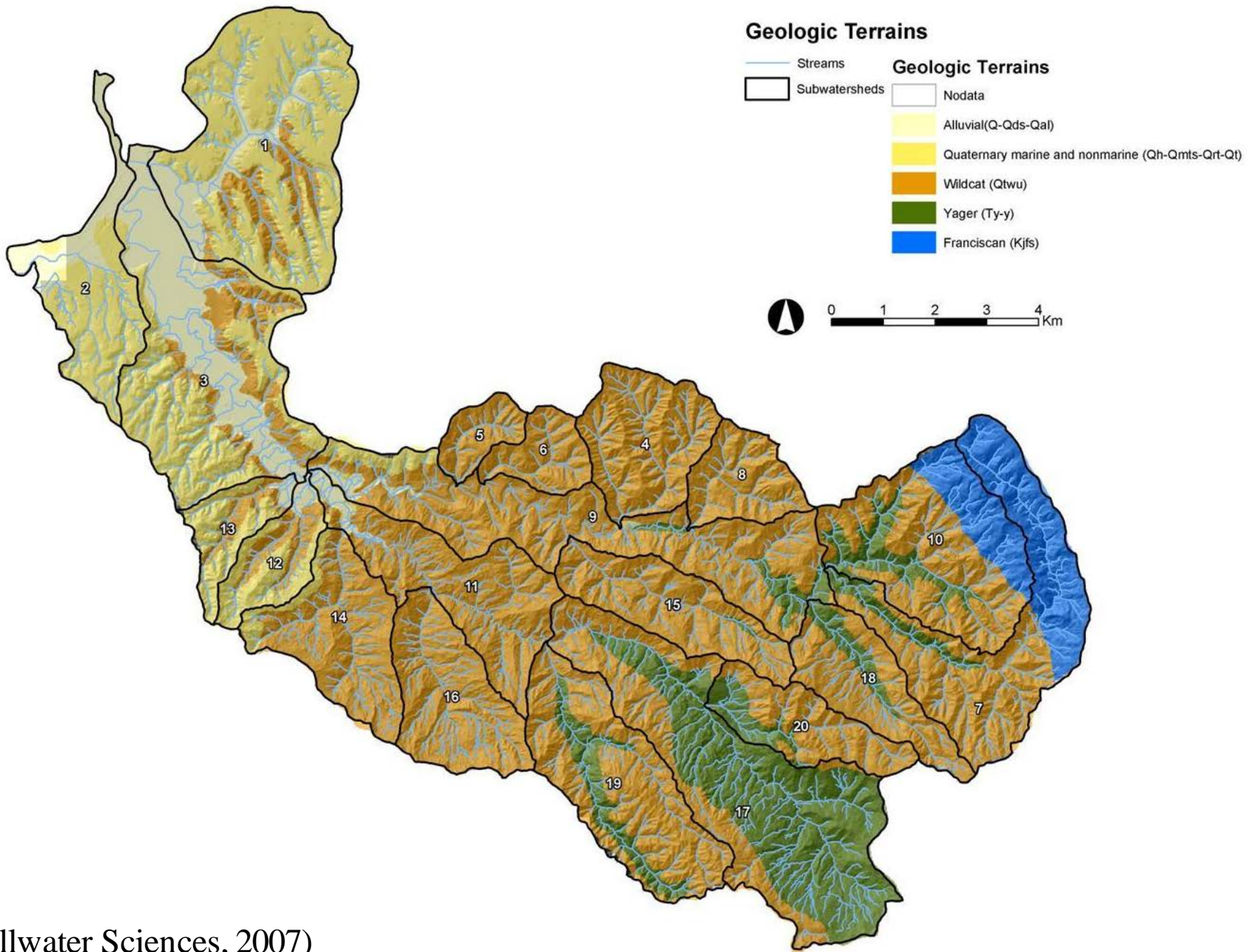


Presentation Topics

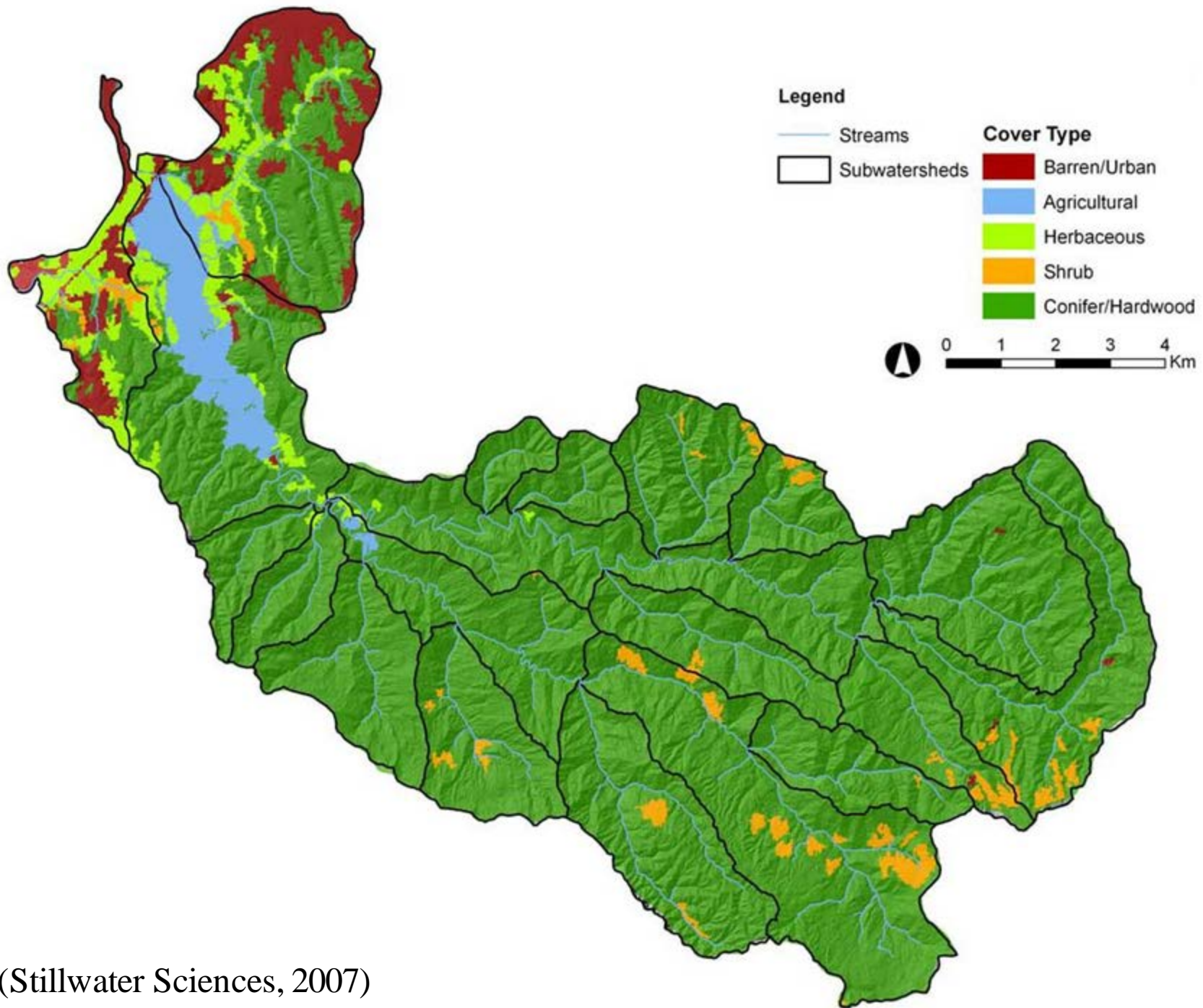
1. Elk River Watershed setting
2. Nature of the sediment/sedimentation impairment
3. Regional Board efforts to address impairment
4. Total Maximum Daily Load
5. Public comments on State Board action
6. Staff recommendation







(Stillwater Sciences, 2007)



(Stillwater Sciences, 2007)

Sediment Impairment

- Elk River listed on the 303(d) list as impaired for sediment in 1998
- Large-scale landscape disturbance in the 1988-1997 period resulted in unprecedented discharges of sediment
- Sediment and sedimentation led to excessive rates of annual flooding of private and public property that constitutes nuisance conditions under Porter Cologne
- Sediment and sedimentation led to impacts to water supplies, cold freshwater aquatic habitat, and recreation

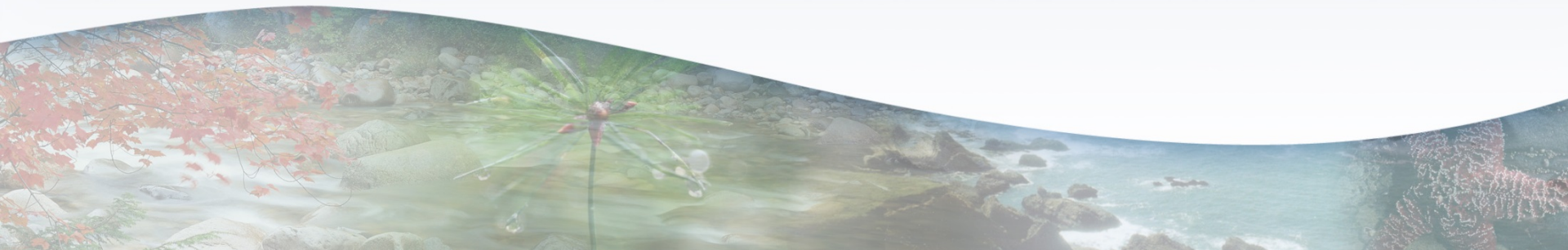




Photo Credit: Jesse Noell
January 17, 2016



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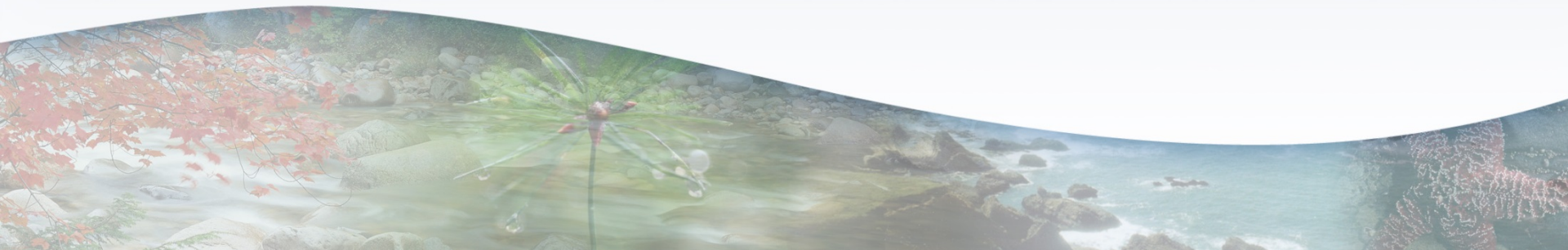


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Photo Credit: Jesse Noell

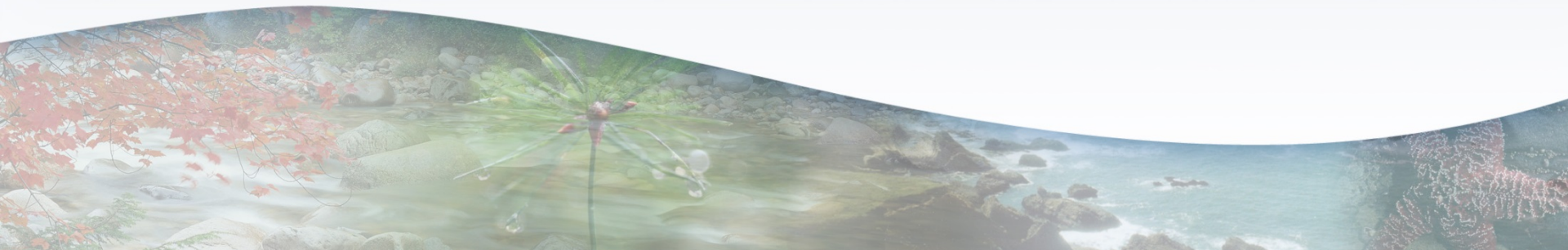
Efforts to Address Impairment

- Water quality monitoring and assessment beginning in 1997
 - Confirmed impairment and nuisance condition
 - Estimated rates of sediment discharge from individual sediment source categories in upper watershed over time
 - Confirmed continued discharge of controllable sources of sediment
- Independent Scientific Review Panel assessed watershed condition and issued reports in 2002 and 2003



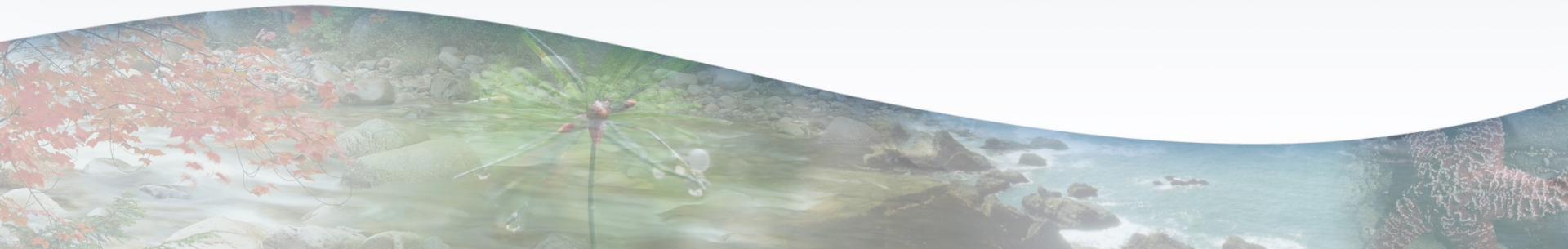
Efforts to Address Impairment

- Regional Board issued several CAOs to PALCo, including 1997 and 1998 CAOs to address drinking water supplies
- Residents petitioned the Regional Board in 2004 to dredge sediment in impacted reach
- Regional Board adopted watershed WDRs for PALCo in 2006
- 2012 Elk River Restoration Summit to vet ideas for supporting remediation and restoration in the lower watershed
 - 2014 State Board funded *Elk River Recovery Assessment*
 - 2015 State Board funded *Elk River Watershed Stewardship Program*



Total Maximum Daily Load

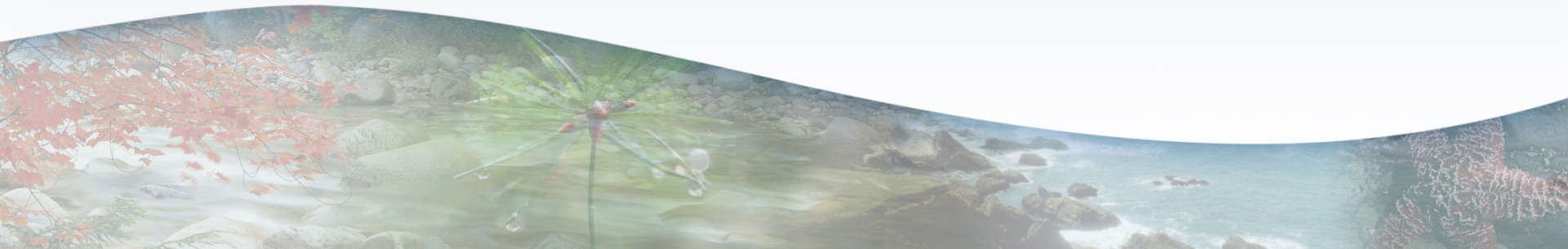
- TMDL development began 2006
- Scientific Peer Review of TMDL analysis 2013
- Tetra Tech synthesis of scientific analyses 2015
- Draft TMDL Action Plan released for public review in December 2015
- Regional Board adoption in May 2016



Total Maximum Daily Load

TMDL

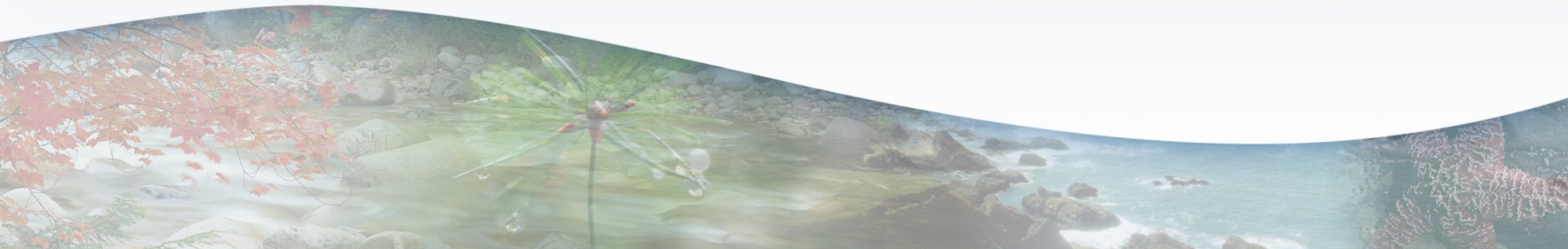
- No current assimilative capacity for additional sediment in the impacted reach
- TMDL = 0
- Load allocation = 0
 - Applies to sources in the Upper Elk River Watershed
 - Implemented through hillslope indicators and targets



Total Maximum Daily Load

Program of Implementation

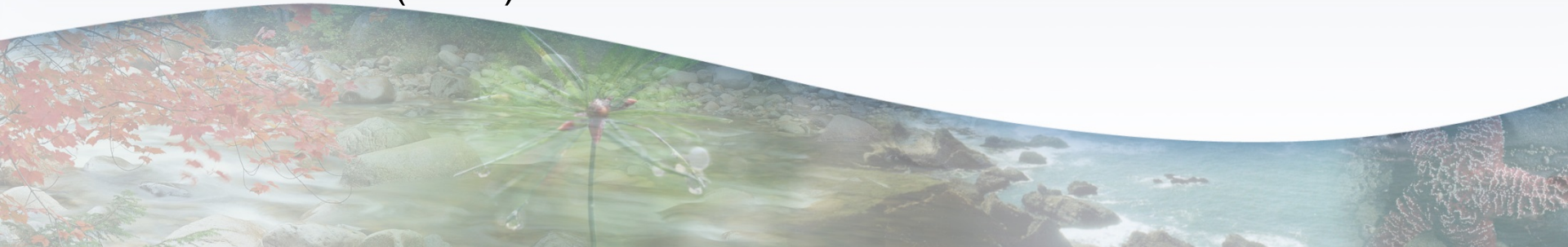
- Adopt WDRs to control all controllable factors influencing sediment discharges from the upper watershed and minimize and eliminate sediment discharges
- Elk River Recovery Assessment to assess existing and future recoverable conditions from the top of the impacted reach to Humboldt Bay, including pilot projects
- Elk River Watershed Stewardship Program as a stakeholder driven process to implement remediation and restoration actions from the top of the impacted reach to Humboldt Bay, as well as other stakeholder goals



Total Maximum Daily Load

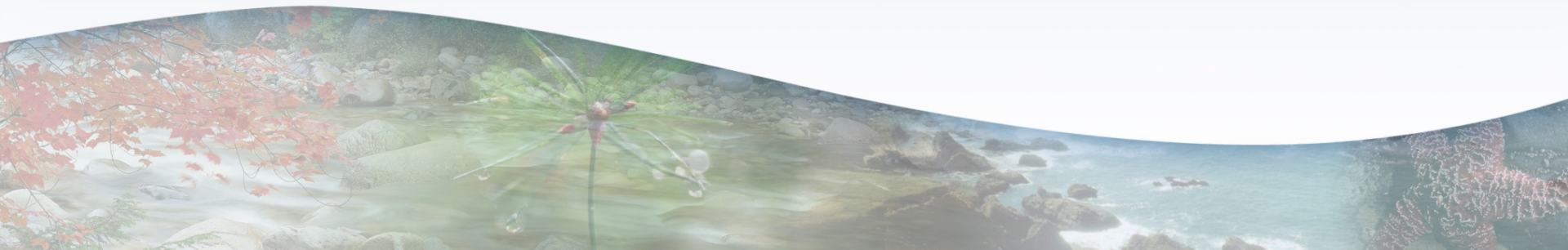
Monitoring and Adaptive Management

- Monitoring
 - WDRs
 - Pilot restoration/remediation projects
 - SWAMP monitoring
 - Science and Monitoring Workgroup
- Adaptive Management
 - Review and Report TMDL actions to Regional Board annually
 - Assess TMDL and WDRs in 2021
 - Recalculate TMDL, as necessary, once assimilative capacity is restored (2031)



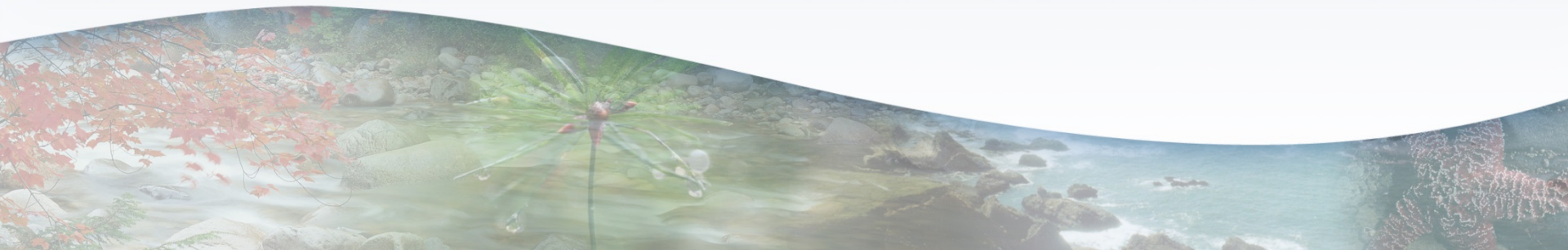
Public Comments on State Board Action

- Most comments were previously submitted and answered
- Comments on the Humboldt Redwood Company (HRC) WDR recognized as separate from those on the TMDL
 - Petitions on HRC WDR are separate pending actions
- Written responses to all major comments



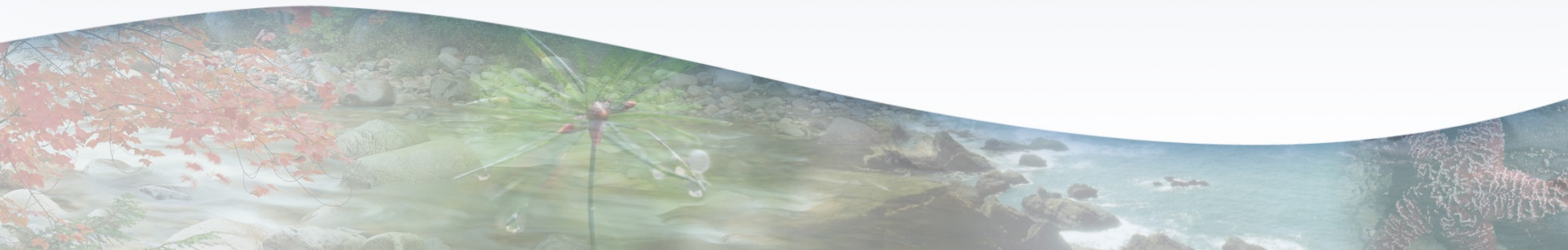
Summary of Key Public Comments

- Watershed delineation
- Source Analysis
- Natural sediment loading
- Zero sediment loading allocation
- Numeric targets
- Program of Implementation
- Legal precedent
- WDRs for HRC



Recommended State Board Action

- Upper Elk River Sediment TMDL Action Plan adopted by Regional Board
- EO corrections made for clarity and consistency
 - Control of controllable factors
 - Minimize and eliminate sediment sources
- Response to Public Comments
- Recommend approval



For Further Information

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Elk River TMDL webpage

http://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/elk_river/

