



# **Stream and Wetlands System Protection Policy**

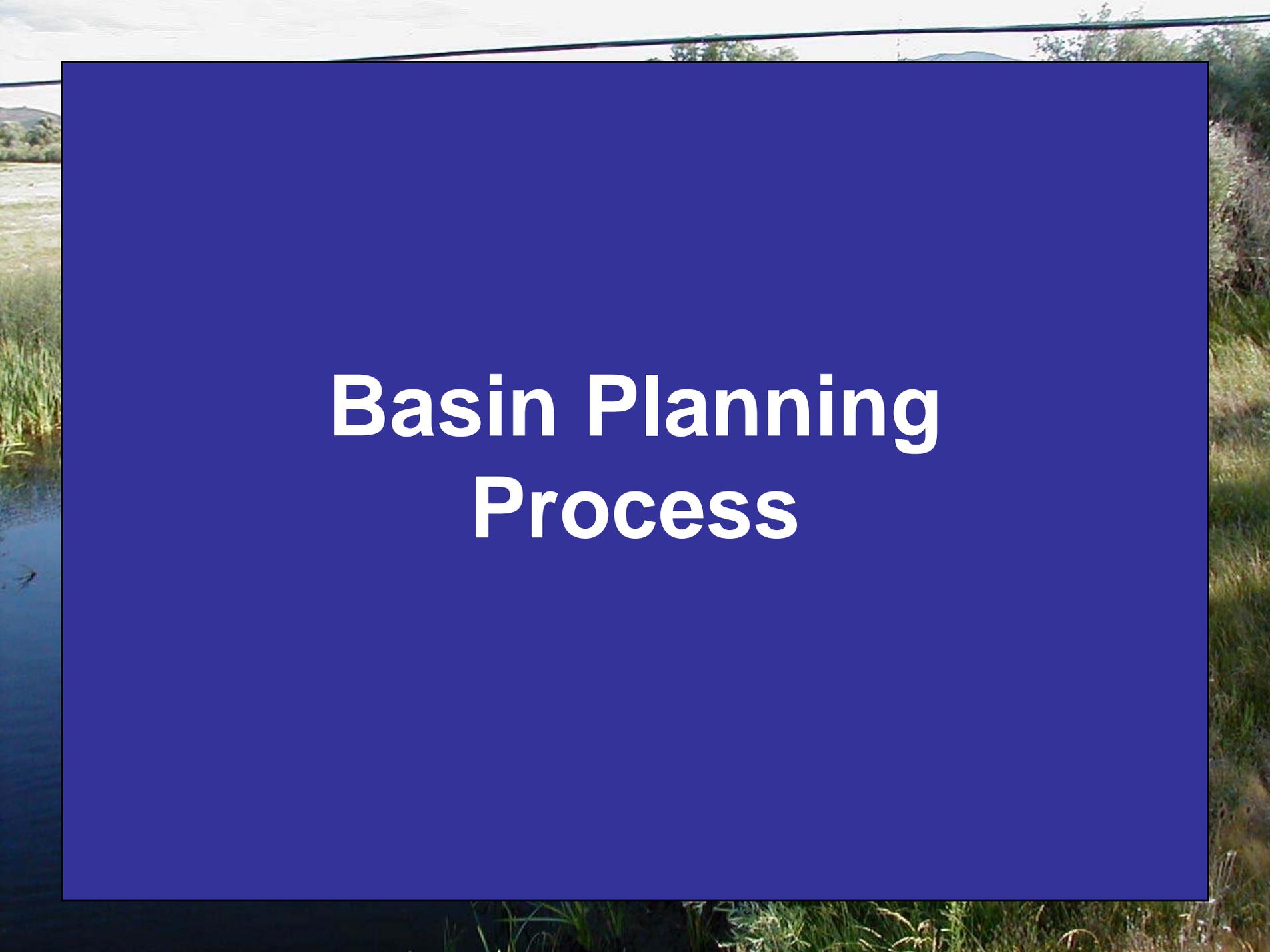
## **Public Workshop and CEQA Scoping Meeting**

*North Coast Regional Water Quality Control Board*

*May 2006*

# Meeting Outline

- I. Basin Planning Process and Purpose of CEQA Scoping
- II. Policy Need, Stream and Wetlands System Science and the Proposed Amendment
- III. Public Comments Regarding Scoping, Planning Process, and the Proposed Amendment



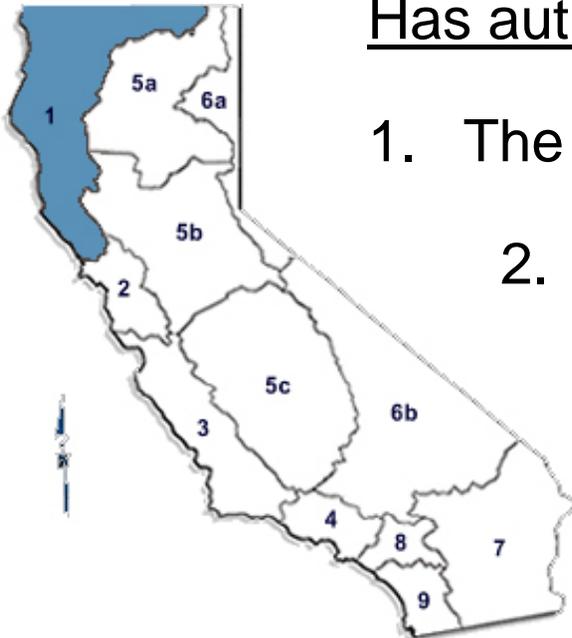
# Basin Planning Process

# North Coast Regional Water Quality Control Board

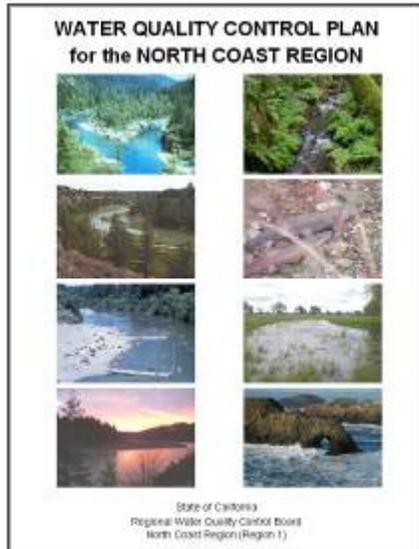
Is the lead state agency that protects water quality in the North Coast Region

Has authorities under:

1. The Federal Clean Water Act
2. California's Porter-Cologne Water Quality Control Act
3. The Water Quality Control Plan for the North Coast Region (Basin Plan)



# Basin Planning Summary



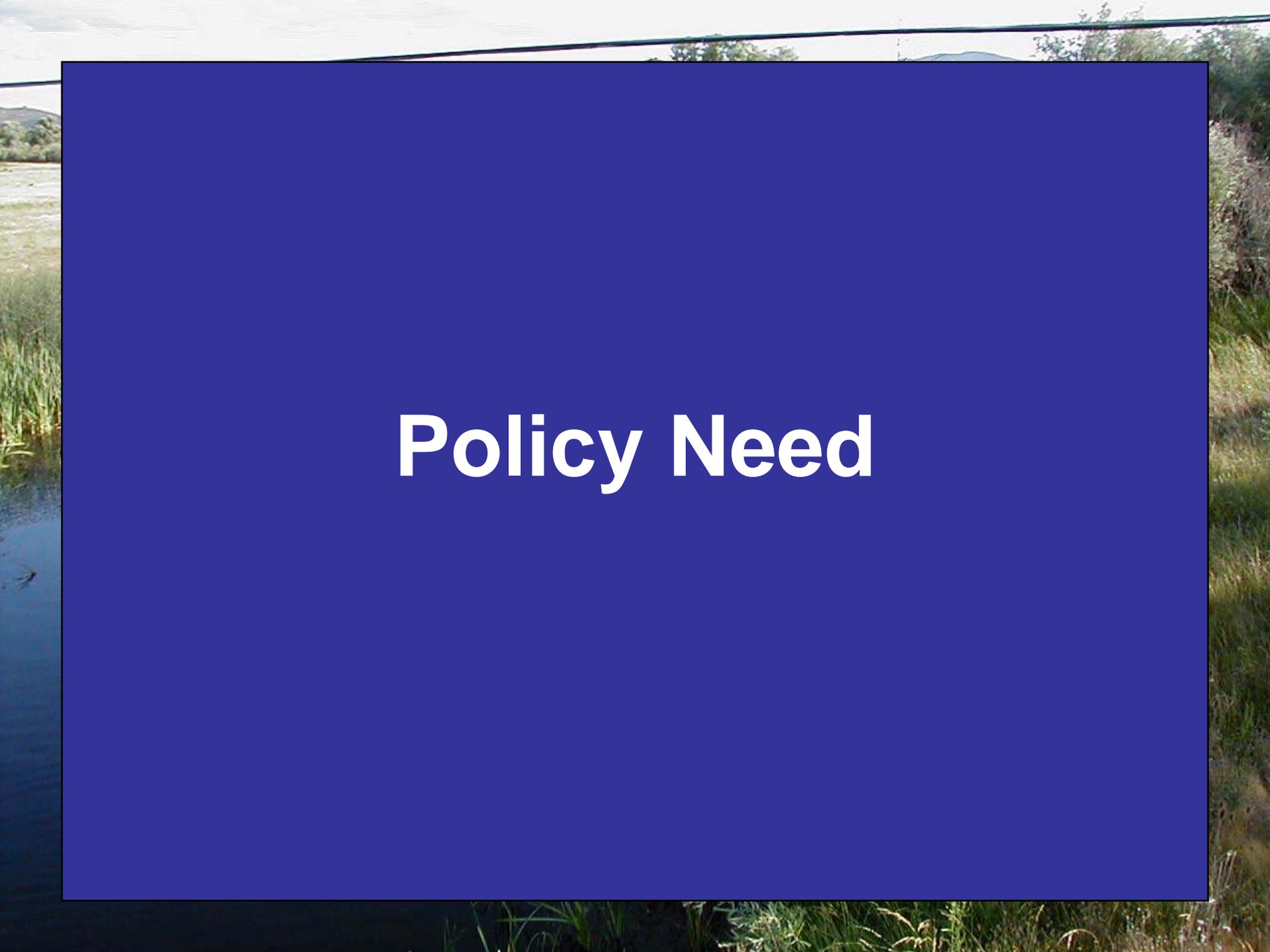
- CEQA Scoping
- Proposed Amendment Language and Staff Report
- Public Review, Workshops, and Comment Period
- Public Hearing
- Regional Water Board Adoption
- State Board, OAL, and U.S. EPA Approval

# Purpose of CEQA Scoping

- Required by the California Environmental Quality Act (CEQA)
- Determine extent, focus, and content of environmental analysis
- Identify issues to eliminate from environmental analysis
- Identify alternatives
- Identify methods of assessment
- Receive public comments

# CEQA Scoping Environmental Factors

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

The image features a landscape background with a blue rectangular overlay. The background shows a body of water on the left, green grass and reeds in the foreground, and a cloudy sky with distant hills. A black power line runs across the top of the image. The text "Policy Need" is centered in the blue overlay in a white, bold, sans-serif font.

# Policy Need

# Policy Gaps and Concerns

- Continuously must defend the connection between physical integrity of the stream and wetlands system and water quality
- Insufficient consideration of cumulative effects
- Limited success of wetland and riparian mitigation
- Inefficiencies in permitting programs
- Policy needs to catch up to practice



# Programmatic Focus

- Basin Planning
- TMDLs
- 401 certifications
- WDRs and WDR waivers
- NPDES permits
- Timber Harvest Plans
- Grants

The background of the slide is a photograph of a natural landscape. On the left, a stream flows through a wetland area with tall grasses and reeds. The right side shows a grassy bank. In the distance, there are rolling hills under a cloudy sky. A large, solid blue rectangular box is superimposed over the center of the image, containing the title text in white.

# **Stream and Wetlands System Science**

# The Stream and Wetlands System



**WETLANDS**



**FLOODPLAINS**



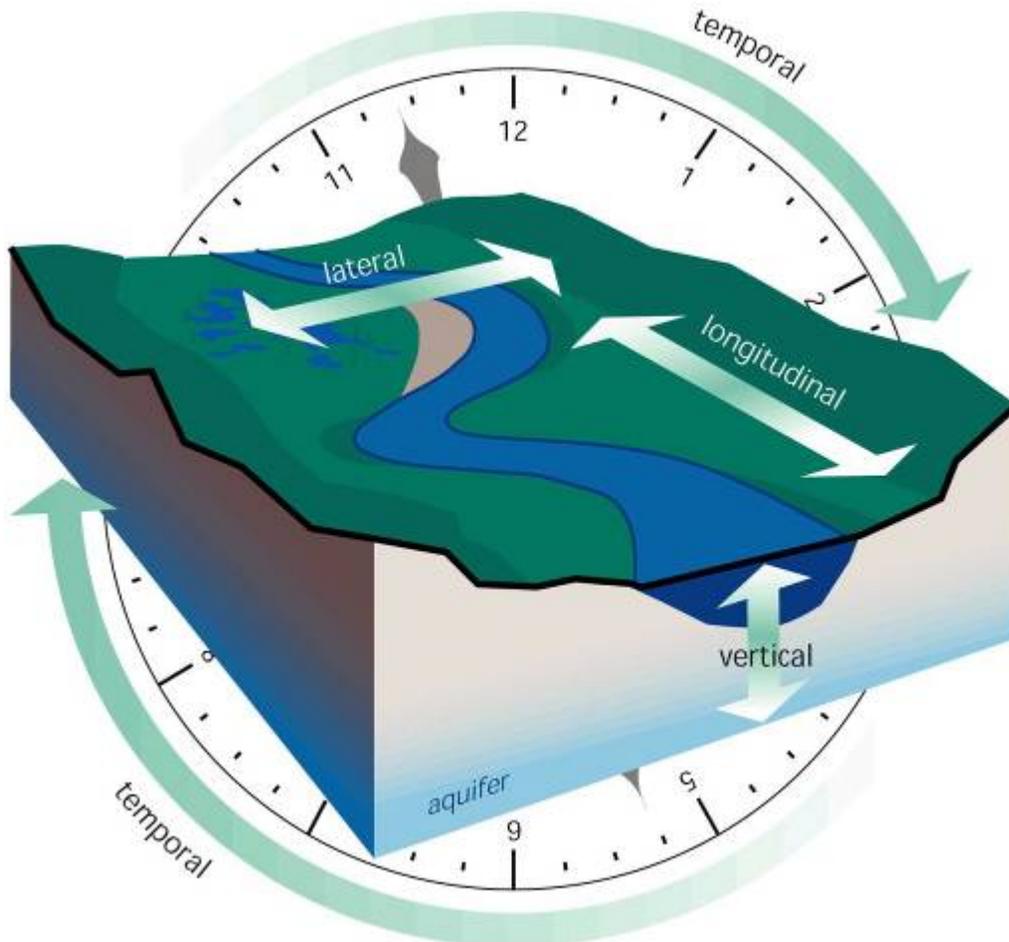
**STREAM CHANNELS**



**RIPARIAN AREAS**



# Stream and Wetlands System Dimensions



Four Dimensional  
Framework

Longitudinal

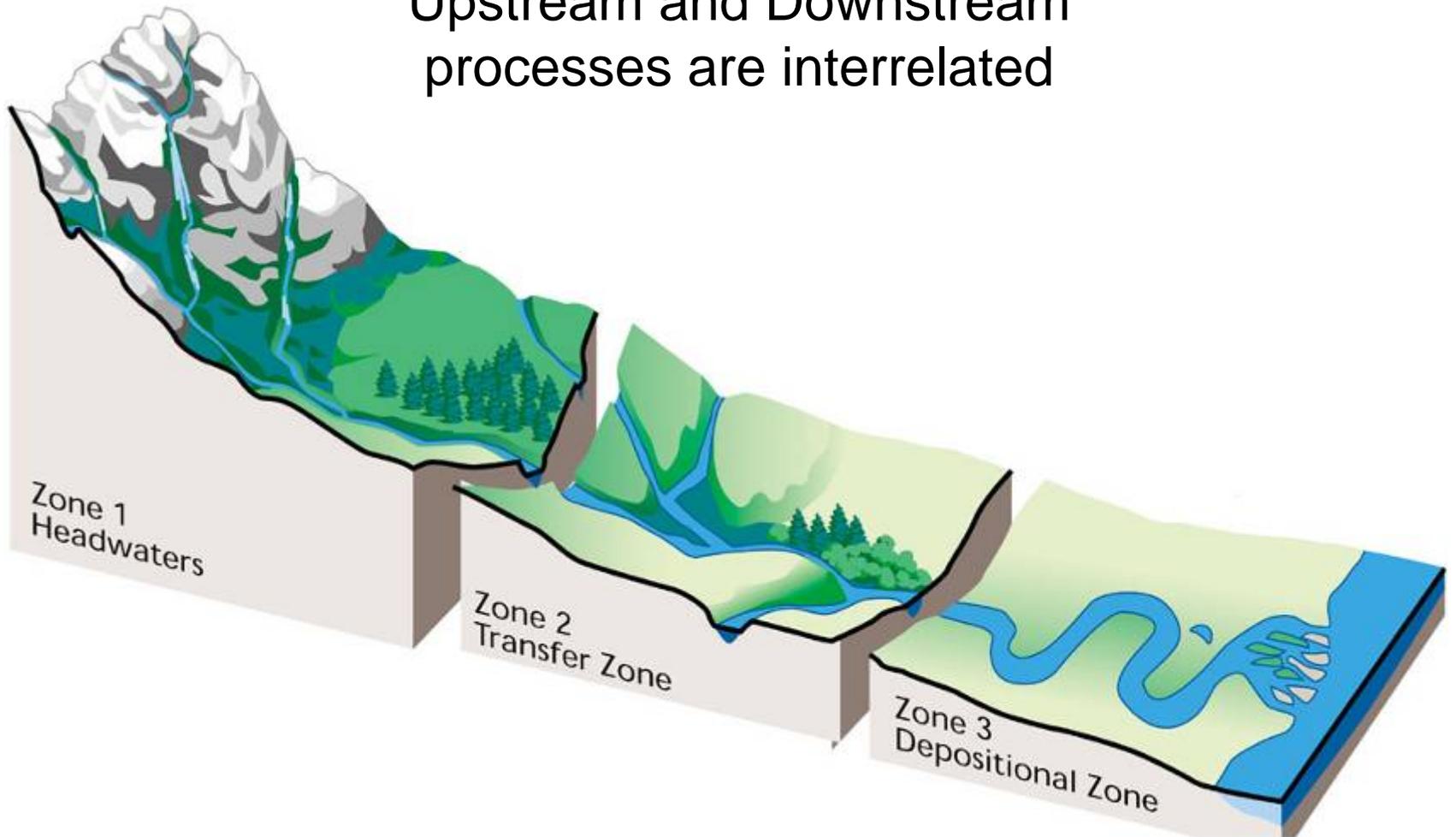
Lateral

Vertical

Temporal

# Longitudinal Dimension

Upstream and Downstream processes are interrelated

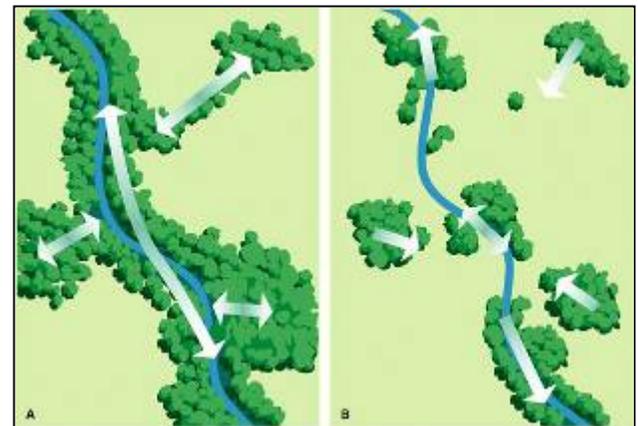


# Longitudinal Corridors

## Riparian / Stream Corridors

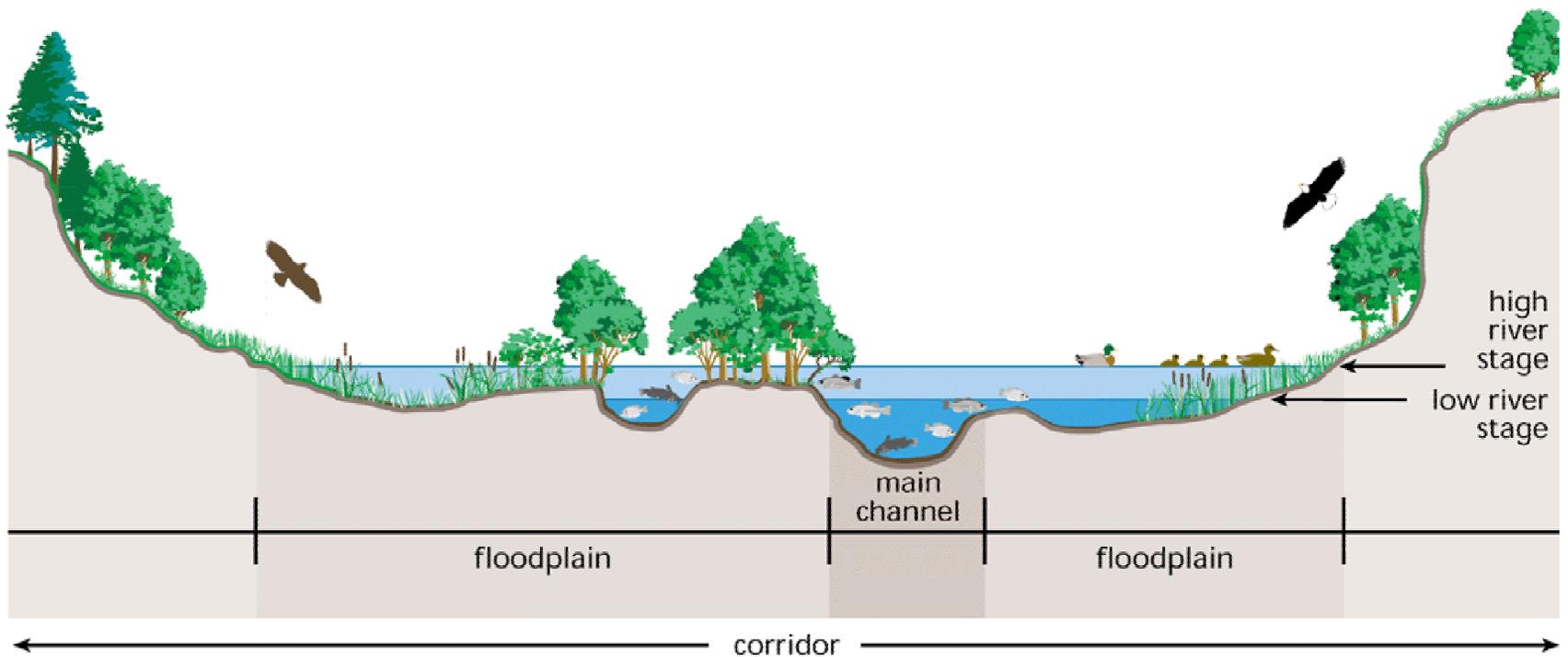
Naturally functioning stream systems can support a continuous corridor of riparian vegetation

A connected riparian corridor can provide more water quality benefits than a disconnected corridor



# Lateral Dimension

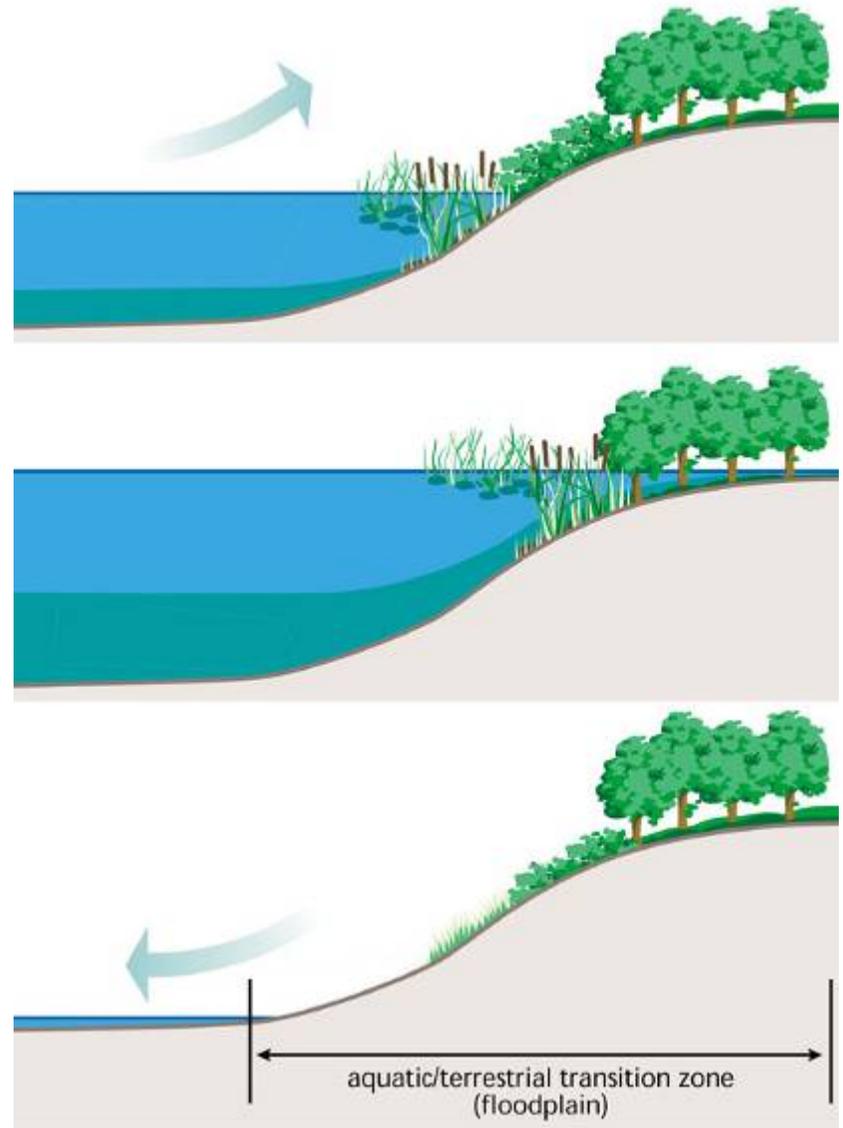
Stream channels, riparian areas, floodplains, and wetlands are connected during ordinary flows and/or flood flows



# Lateral Processes

## The Flood Pulse

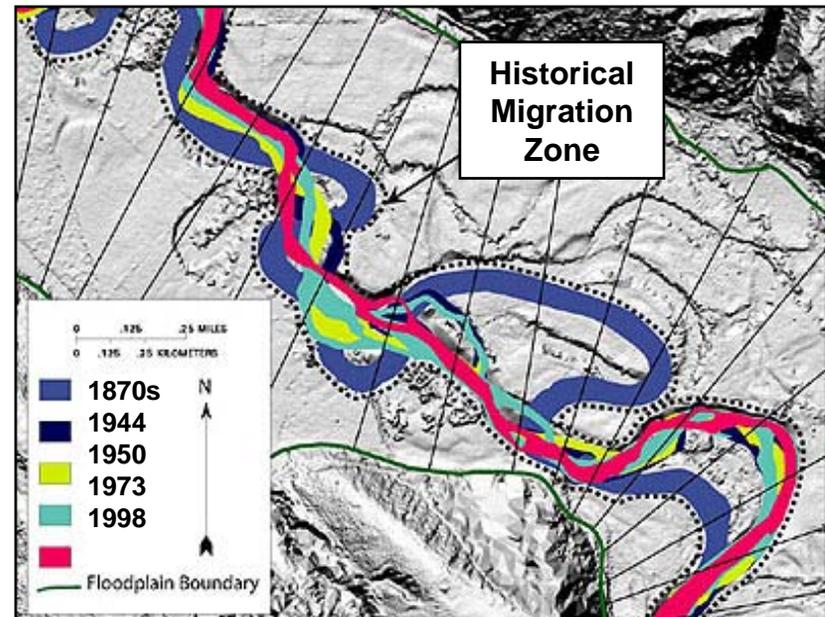
Periodic flooding promotes energy and nutrient exchange between stream and wetlands system elements



# Lateral Movement

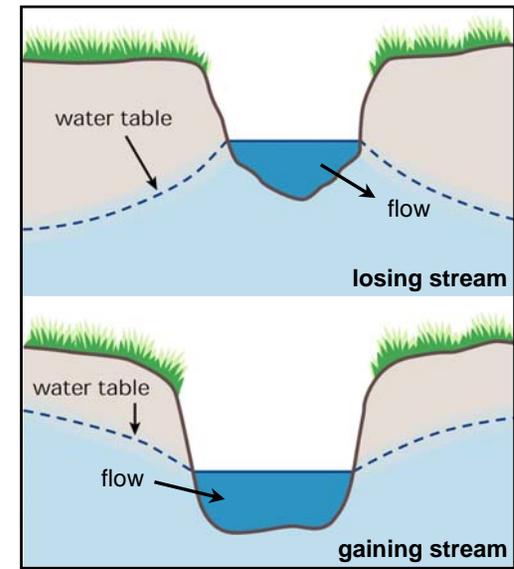
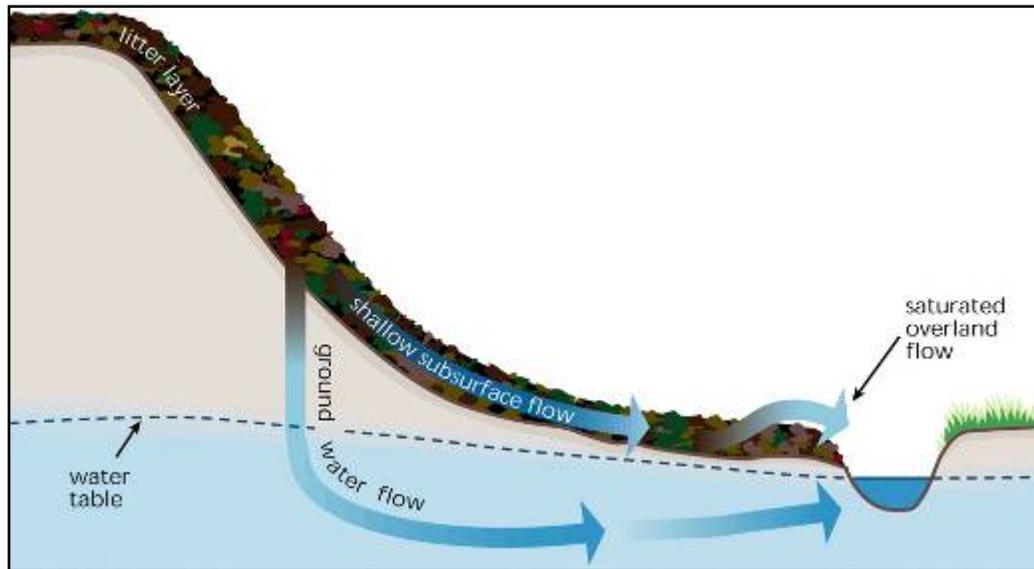
## Flood Water Storage and Channel Migration

Intact riparian areas and floodplains allow streams to widen during high flows and to naturally meander and migrate.



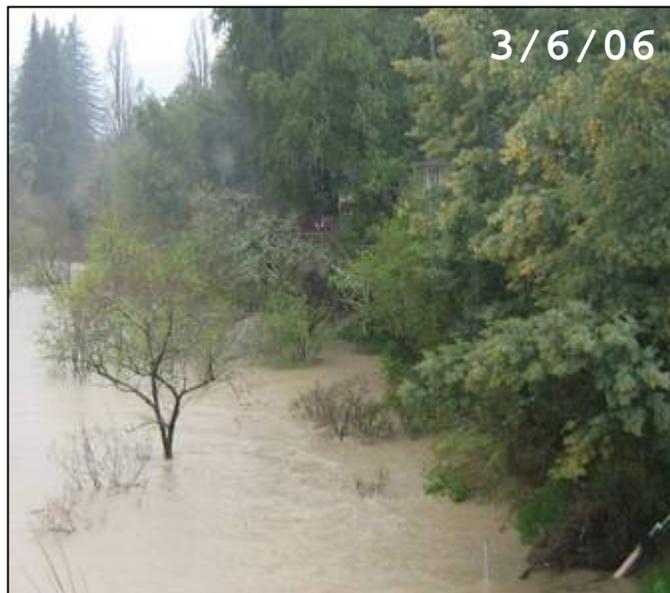
# Vertical Dimension

Subsurface flows connect uplands, wetlands, floodplains, riparian areas, and stream channels



# Temporal Dimension

Stream and wetlands systems are dynamic and undergo seasonal and inter-annual changes



Distance from streambank to tree in channel

# Stream and Wetlands System Science Summary

- Stream and wetlands systems are dynamic in space and time
- Their chemical, physical, and biological processes are connected across the longitudinal, lateral, and vertical dimensions
- Intact systems provide valuable water quality functions

# Water Quality Functions

Stream and wetlands system functions include:

- Water Filtration
- Energy and Nutrient Cycling
- Temperature and Microclimate Control (Shading)
- Species Biodiversity (Habitat)
- Large Woody Debris Input
- Streambank Stability
- Channel Migration
- Sediment Transport and Storage
- Flood Peak Attenuation/ Flood Water Storage
- Groundwater Recharge
- Other Functions

# Community Benefits

Healthy stream and wetlands systems provide many other benefits to the community, such as:

- Open Space
- Recreational Opportunities
- Higher Property Values
- Other Benefits



# Beneficial Uses

Stream and wetlands system functions support a variety of beneficial uses, such as:

- Municipal and Domestic, Agricultural, and Industrial Service and Process Supply (MUN, AGR, IND, PRO)
- Water Contact and Non-Contact Water Recreation (REC-1, REC-2)
- Commercial and Sport Fishing (COMM)
- Subsistence Fishing (FISH)
- Native American Culture (CUL)
- Wetland Habitat (WET)
- Warm and Cold Freshwater Habitat (WARM, COLD)
- Wildlife Habitat (WILD)
- Migration of Aquatic Organisms (MIGR)
- Spawning, Reproduction, and/or Early Development (SPWN)
- Rare, Threatened, and Endangered Species (RARE)
- Others

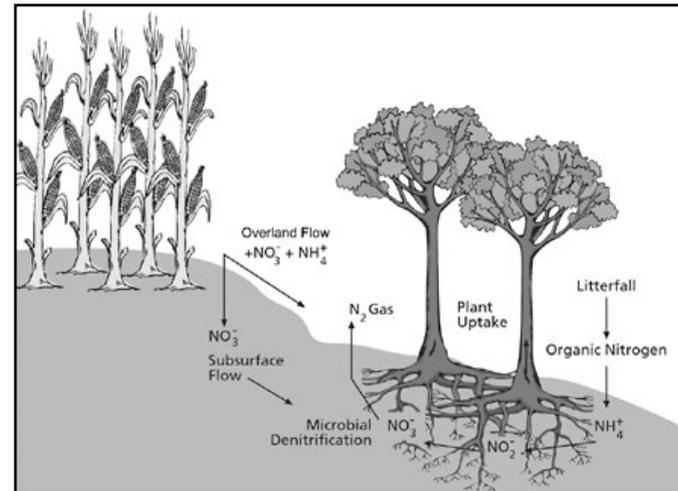
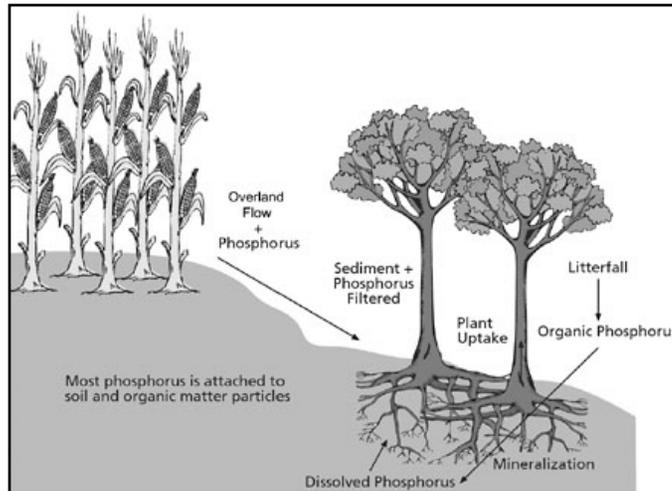
# Function-Based Beneficial Uses

Some stream and wetlands system beneficial uses are identified for the water quality functions themselves, including:

- Groundwater Recharge (GWR)
- Freshwater Replenishment (FRSH)
- Water Quality Enhancement (WQE)
- Flood Peak Attenuation / Flood Water Storage (FLD)

# Water Quality Enhancement

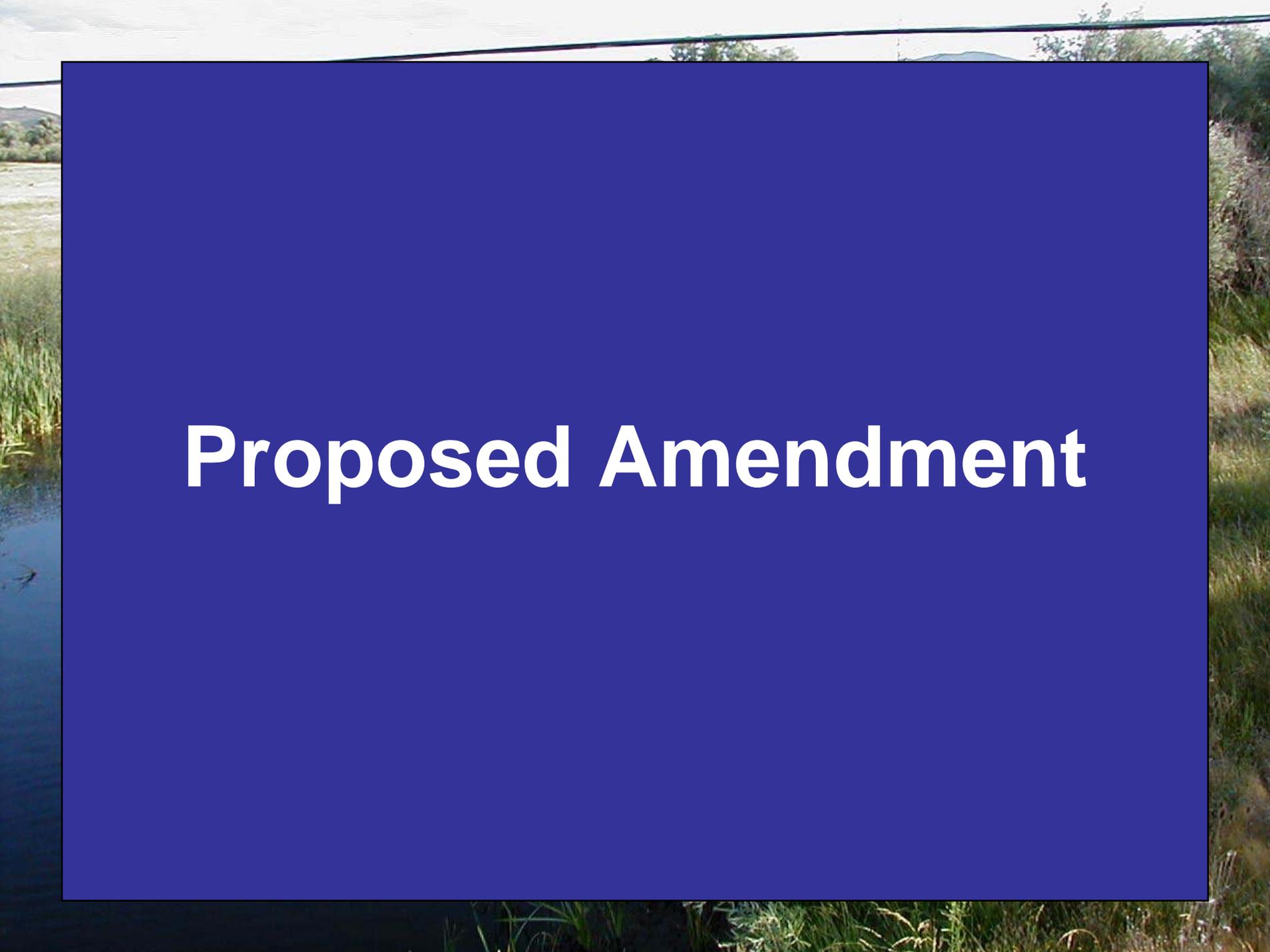
“Uses of waters, including wetlands and other waterbodies, that support natural enhancement or improvement of water quality in or downstream of a waterbody including, but not limited to, erosion control, filtration and purification of naturally occurring water pollutants, streambank stabilization, maintenance of channel integrity, and siltation control”



# Flood Peak Attenuation / Flood Water Storage

“Uses of riparian wetlands in flood plain areas and other wetlands that receive natural surface drainage and buffer its passage to receiving waters”



The background of the slide shows a natural landscape. On the left, there is a body of water, possibly a pond or a slow-moving stream, with some reeds or tall grasses growing along the edge. The water is dark and reflects the sky. In the middle ground, there are green trees and bushes. In the far background, there are rolling hills under a bright, slightly overcast sky. A power line is visible running across the top of the image.

# Proposed Amendment

# Amendment Concept

- Protect and restore the physical characteristics of stream and wetlands systems, including their connectivity and natural hydrologic regimes
- Clarify that stream and wetlands system protection and restoration are viable forms of pollution prevention in all land use settings
- Integrate stream and wetlands system protection into the watershed water quality management strategy

# Potential Policy Framework

## New Beneficial Uses

- Define functional relationships between stream and wetlands system elements and describe scientifically the importance of each in protecting water quality
- Would be designated for wetlands, riparian areas, and/or floodplains

# Policy Framework (continued)

## New Water Quality Objectives

- Link the physical characteristics of stream and wetlands systems with measurable water quality effects
- Protect the dynamic structure and function of stream and wetlands system elements

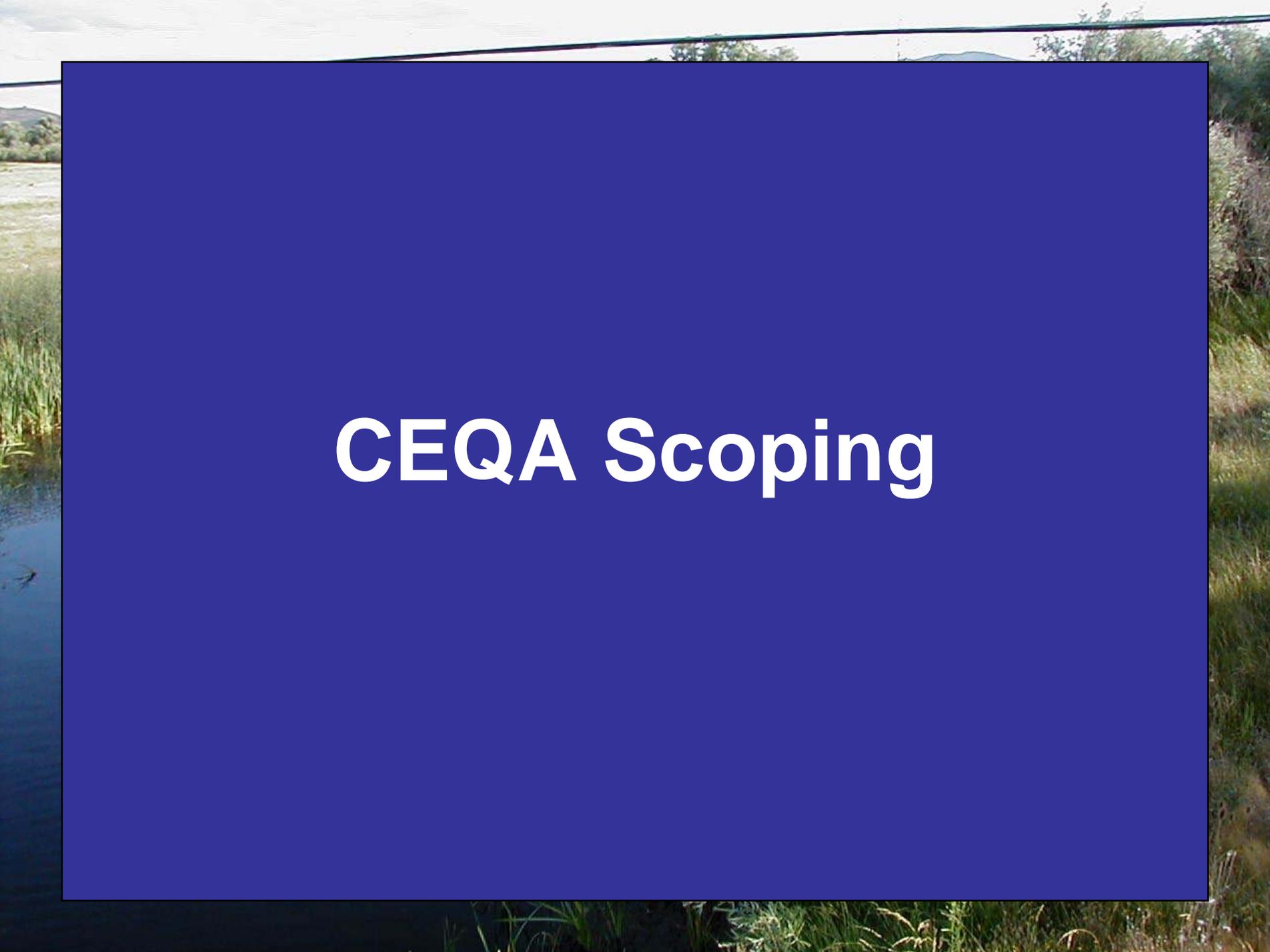
# Policy Framework (continued)

## Implementation Plan

- Describe methodology to *avoid, minimize, and mitigate* impacts to beneficial uses on a watershed or project-specific basis
- Offer prescriptive solutions to protect water quality, as justified
- Promote local jurisdictional development and implementation of watershed management plans

# Next Steps

- Follow-up Meetings
  - Meetings with Interested Stakeholders  
*(as requested)*
  - Staff Report Workshop *(Spring '07)*
- Public Review and Comment Period
- Public Adoption Hearing



# CEQA Scoping

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## Potentially Impacted Programs

- Basin Plan
- TMDLs
- 401 certs
- WDRs
- WDR waivers
- NPDES permits
- THPs
- Grants

# For Further Information

Contact Bruce Ho at (707) 576-2460 or  
[bho@waterboards.ca.gov](mailto:bho@waterboards.ca.gov)

Visit the Policy website at:

[http://www.waterboards.ca.gov/northcoast/programs/  
basinplan/swspp.html](http://www.waterboards.ca.gov/northcoast/programs/basinplan/swspp.html)

Subscribe to the Policy email list at:

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