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Emerging Water Quality Markets

A Matter of Rules & Roles

An aerial photograph of a river or lake. The water is heavily discolored with a thick, green, swirling mass of algae or sediment, likely a harmful algal bloom. The green areas are interspersed with lighter, greyish-brown patches of water. In the lower-left quadrant, a small blue inflatable boat with several people inside is moving across the water, leaving a dark, narrow wake behind it. The overall scene illustrates the impact of nonpoint source pollution on water quality.

Water Quality Impairment due to Nonpoint Source Pollution

Water Quality: a Common Pool Resource



1. Difficult to Exclude
2. Use is Rival

Water Quality Trading

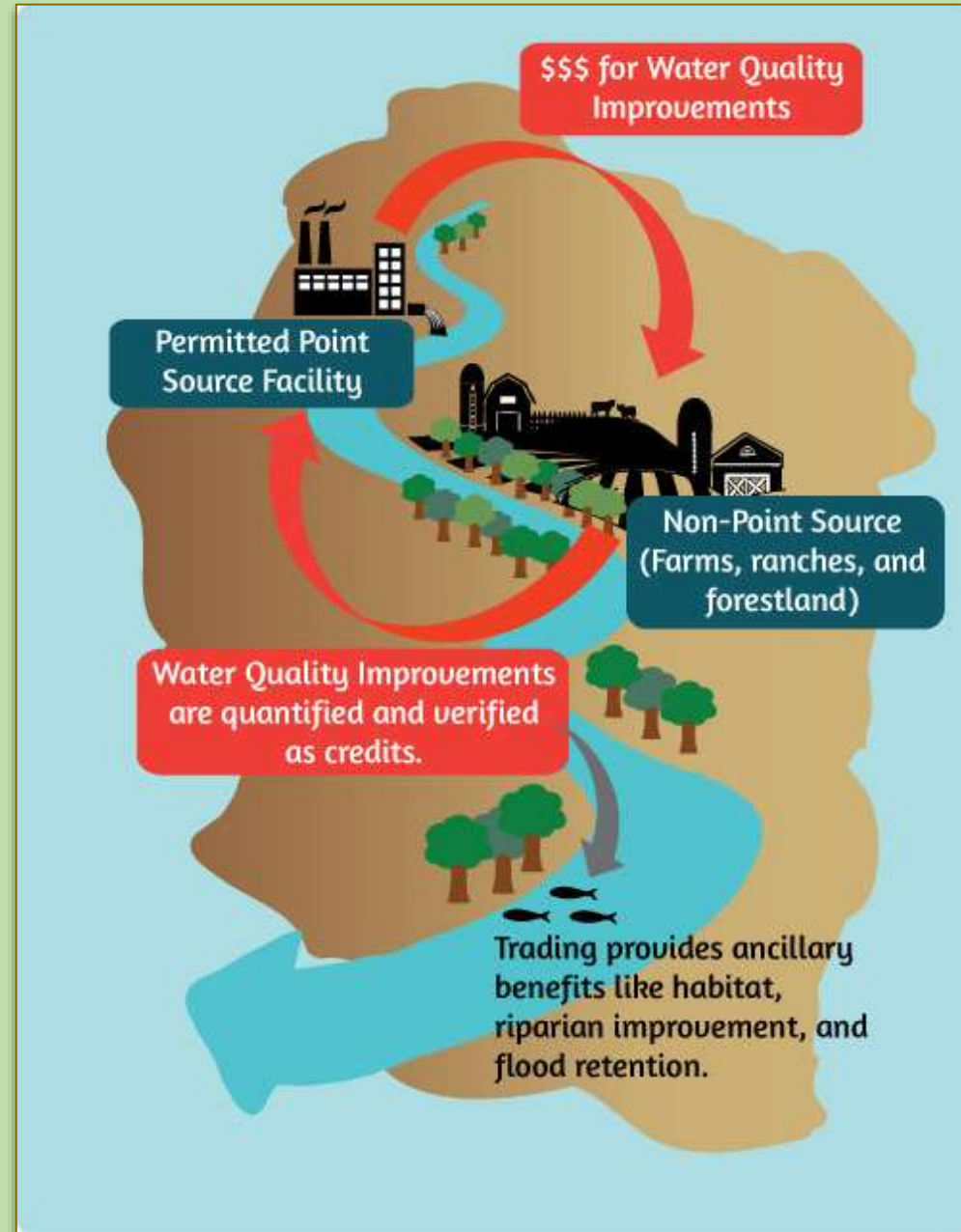
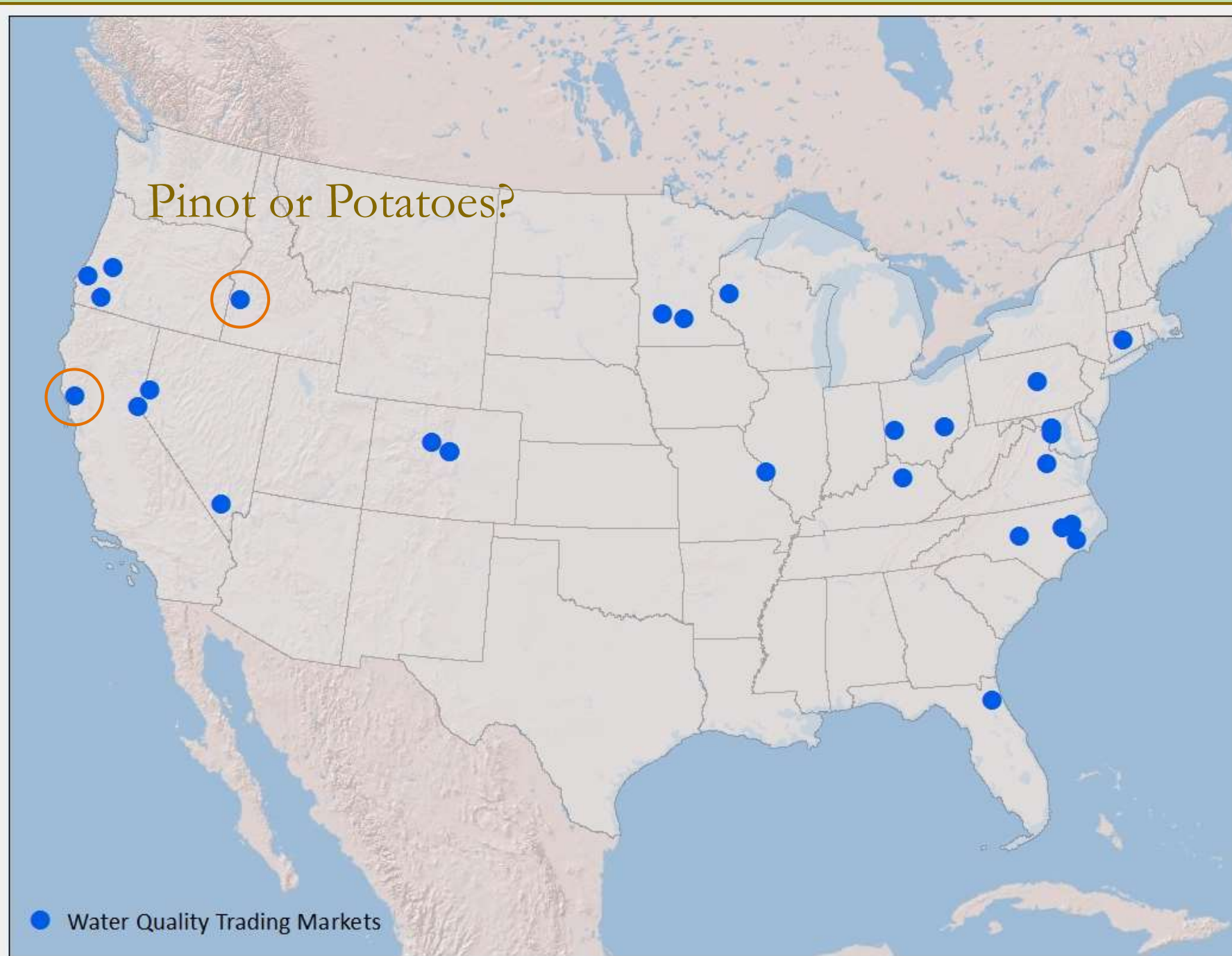


Diagram: Willamette Partnership

Adapted from EPA EnviroAtlas



Elements for CPR Emergence

- Clear roles
- Clear rules





Institutions

Roles,
Rules &
Incentives

Behavior



Institutions

Roles,
Rules &
Incentives


Behavior?



Institutions

Roles,
Rules &
Incentives

Behavior?



"The biggest
problem here is
all the history."
- Study participant

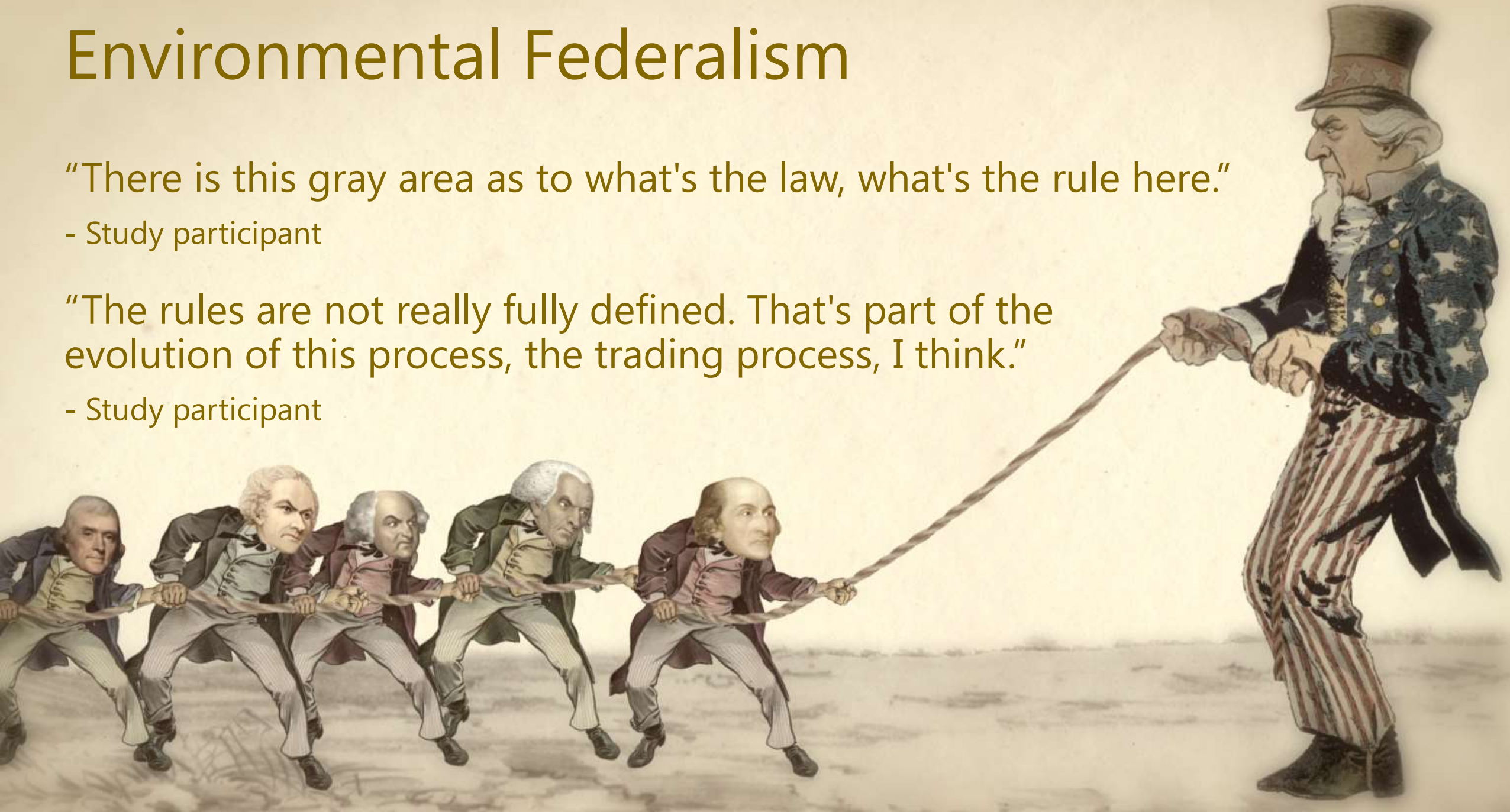
Environmental Federalism

"There is this gray area as to what's the law, what's the rule here."

- Study participant

"The rules are not really fully defined. That's part of the evolution of this process, the trading process, I think."

- Study participant



Institutions

The diagram is set against a background of multi-colored pebbles. A central yellow star-shaped box contains the text 'Roles, Rules & Incentives'. Four blue arrows point towards this central box: one from the top-left 'Institutions' box, one from the top-right 'Federalism' box, one from the bottom-right 'Behavior?' box, and one from the bottom-left 'History' box. A white, hand-drawn line connects the four outer boxes in a clockwise cycle, passing through the central box. The 'Institutions' box is a white arrow pointing right. The 'Federalism' box is a blue arrow pointing down-left. The 'History' box is a blue arrow pointing up-right. The 'Behavior?' box is a white arrow pointing left.

Federalism

Roles,
Rules &
Incentives

History

Behavior?



Innovation
& Adaptation
Carrying Ideas to Action



Case: Laguna de Santa Rosa WQT
Adaptation: Instream Restoration

Case: Lower Boise River WQT
Adaptation: Developed Wetlands

Modified Markets

How do individuals influence the rules that structure their lives?



Photo: Willamette Partnership