RESILIENCE AND ADMINISTRATIVE LAW IN TRANSBOUNDARY RIVER GOVERNANCE

Professor Barbara Cosens



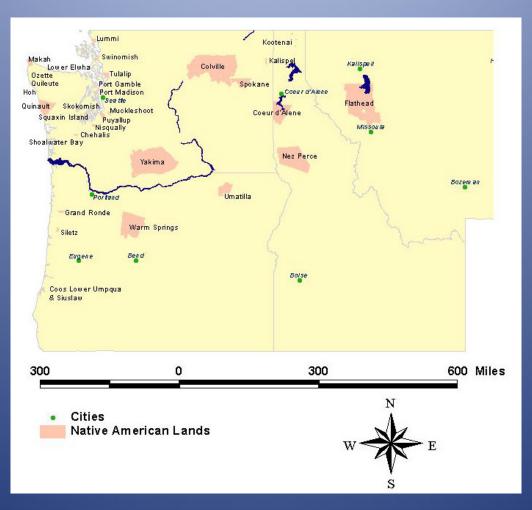




Columbia River Basin



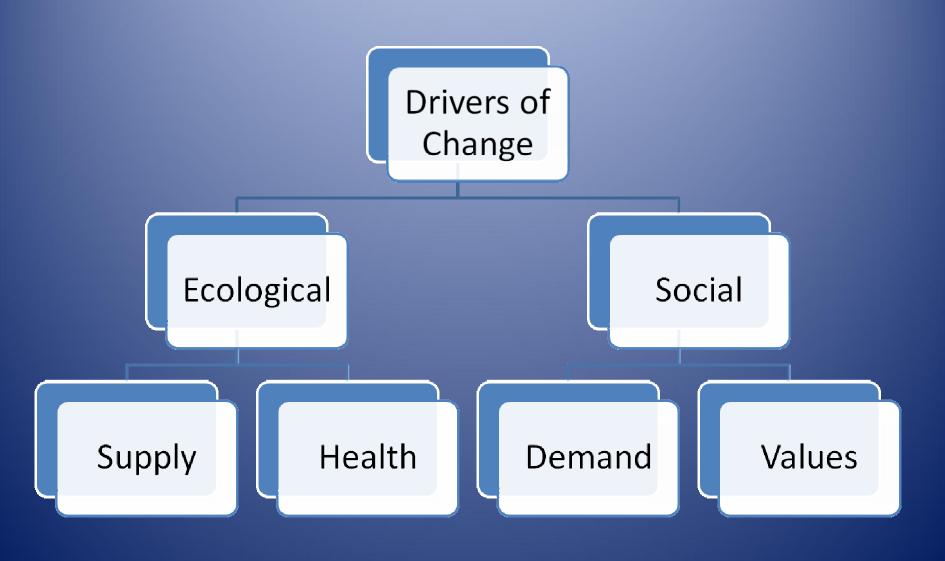
Indigenous Lands



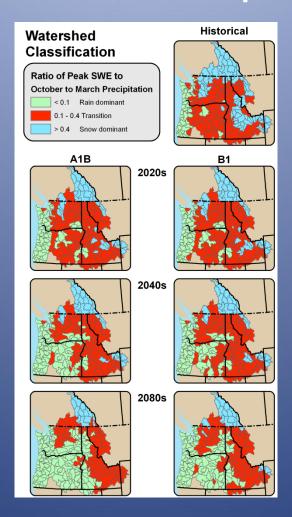
Digital Collections, University of Washington

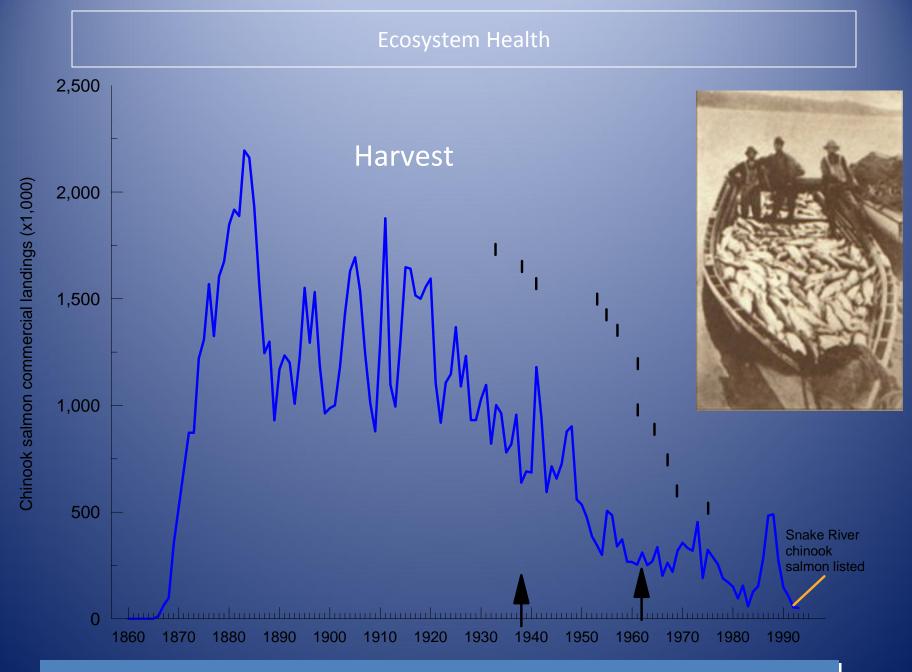
http://content.lib.washington.edu/aipnw/maps.html

Transboundary Rivers



Supply: Peak Snow-Water Equivalent/Precipitation





Columbia River Chinook Salmon Harvest Records [C.Peery]

Drivers of Change

Social

Demand

Values

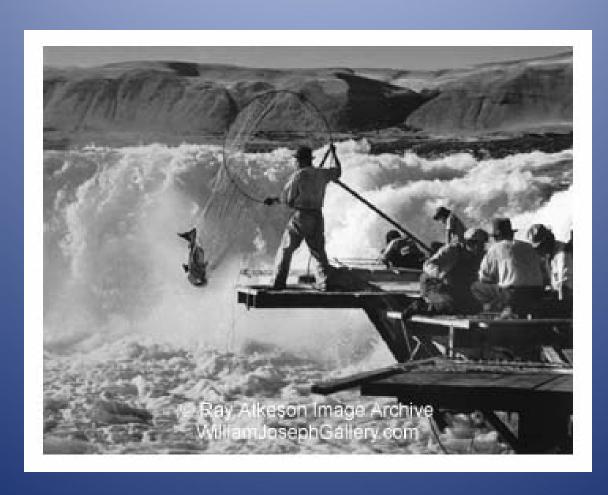
Demand

- The daily drinking water requirement per person is 2-4 liters, but it takes 2 000 to 5 000 liters of water to produce one person's daily food.
- Over the period to 2050 the world's water will have to support the agricultural systems that will feed and create livelihoods for an additional 2.7 billion people.
- Source: Food and Agriculture Organization of the United Nations (FAO)

Values

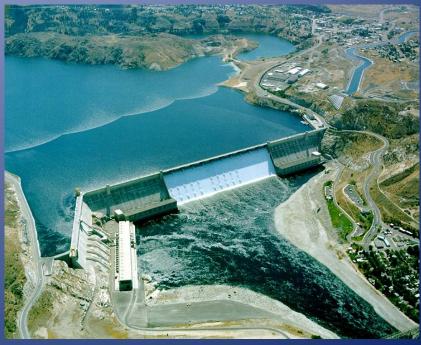


Indigenous Fishery



Hydropower and Storage





Ecological Health



Complexity and Emergence

• Water is H2O, hydrogen two parts, oxygen one. But there is a third thing that makes it water, and nobody knows what that is. D.H. Lawrence, The Third Thing

Why Resilience?

Why Law?

Resilience

• the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks . . . [Walker et al., 2004]



Administrative Law

 Used in this context as any law addressing the process of resource management, even if buried in substantive law.

- Goals of process in achieving resilience:
 - Legitimacy
 - Multi-scale response

Legitimacy

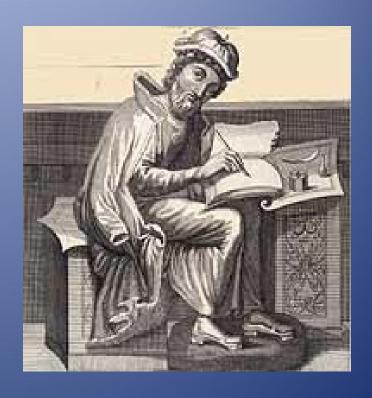
- Assumption: loss of legitimacy is a key barrier to flexible, adaptive, collaborative governance.
- Administrative law sources of legitimacy [from Esty 2006]
 - Results-based
 - Order-based
 - Deliberative
 - Systemic
 - Procedural

Results-based Legitimacy



Order-based Legitimacy





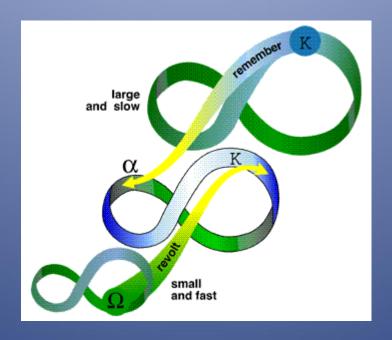
Deliberative Legitimacy



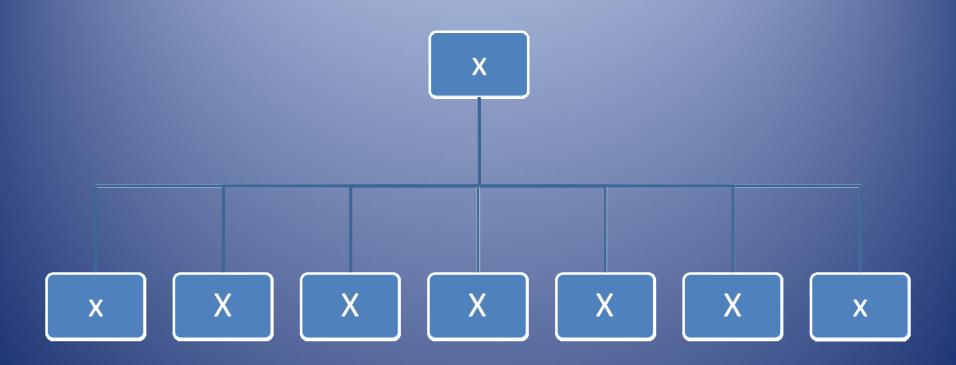
Multi-scale

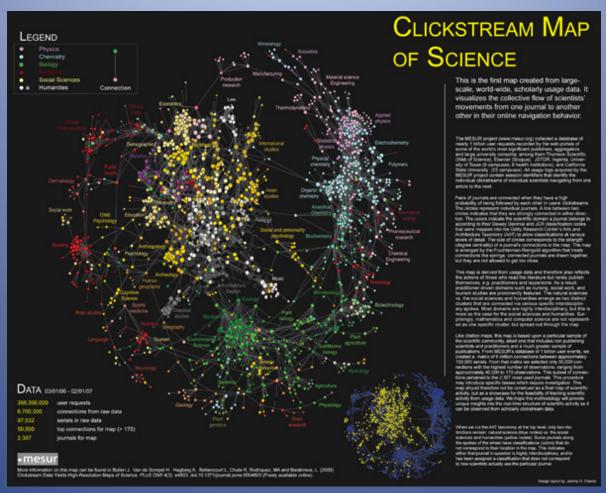


Panarchy



Emergency Response





Bollen, Johan, Herbert Van de Sompel, Aric Hagberg, Luis M.A. Bettencourt, Ryan Chute, Marko A. Rodriquez and Lyudmila Balakireva. 2008. A Clickstream Map of Science. Courtesy of the Authors. In Katy Börner & Elisha F. Hardy (Eds.), 5th Iteration (2009): Science Maps for Science Policy Makers, *Places and Spaces: Mapping Science*. http://scimaps.org (accessed 5/21/2010).



To come to terms with the Columbia, we need to come to terms with it as a whole, as an organic machine, not only as a reflection of our own social divisions but as the site in which these divisions play out. If the conversation is not about fish and justice, about electricity and ways of life, about production and nature, about beauty as well as efficiency, and about how these things are inseparable in our own tangled lives, then we have not come to terms with our history on this river.

Richard White, The Organic Machine