

Portland Vancouver ULTRA-Ex

Social Dimension

Land use and planning effects
Civic ecology/governance
Environmental education

Ecological Dimension

Riparian greenspaces

Water quality

Stormwater management

Project scale

- ✓ Riparian greenspace management
- ✓ Water quality analyses
- ✓ Stormwater and green infrastructure
- ✓ Economic analyses

Ultra wide scale

- ✓ Land use and planning effects
- ✓ Perceptions of residents
- ✓ Decision makers and environmental information
- ✓ Role of K-12 and citizen education



Tryon Creek, Lake Oswego, OR



East Portland bioswales

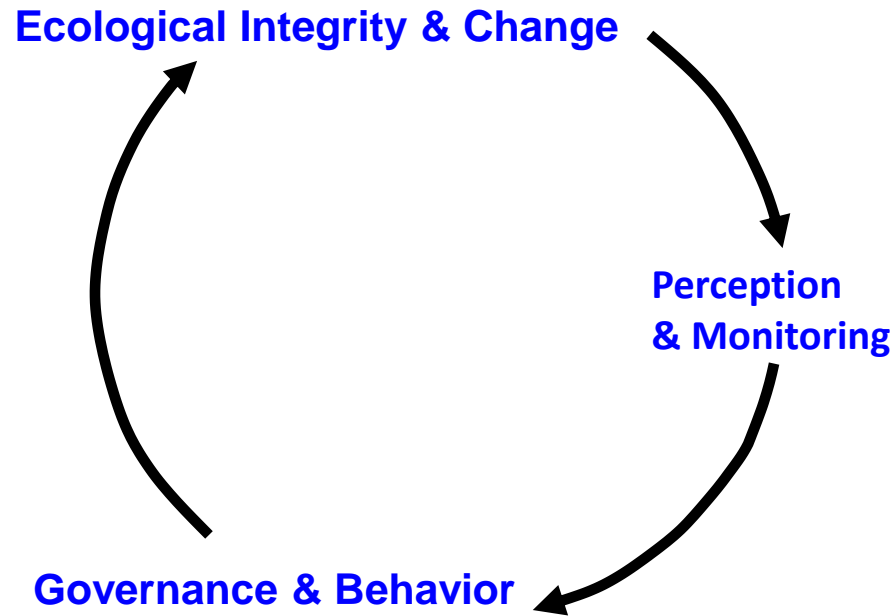
Top Ten Early Observations from the PV ULTRA

- 6. Tributary monitoring stations where surrounding agricultural land were converted into urban areas see significant declines in water quality**
- 7. Bioswales are seen very positively ... but in someone else's front yard, please**
- 8. Bioswales efficiently retain metals from street runoff; bioswale soil in Portland has not yet become toxic**
- 9. However, "the water is browner ... on the other side of the Columbia"**
- 10. Portland residents return surveys better than Vancouver residents**

Top Ten Early Observations from the PV ULTRA

1. Riparian restoration gains have caught up with riparian development losses, in both Portland *and* Vancouver
2. Improved water quality in a nearby stream may increase the value of your home
3. Water provider institutions make decisions based on economics and rate payer concerns ... climate change and effects on water supply or water quality is not yet a significant decision criterion
4. Perhaps you've seen Portlandia? ... but I'm guessing you haven't seen [Vancouveria](#)??
5. The legacy effects of Portland's disappeared streams and pipe networks are worse for water quality than Clark County sprawl

Portland Vancouver ULTRA-Ex questions – Does governance matter?



For riparian ecosystems in urbanizing areas:

Do differences in levels of **governance** affect the **resilience** of urban ecosystems?

A tentative yes, but more analysis is needed

Do alternative **land use planning** strategies affect **urban ecosystem integrity** & **services**?

Yes, but there are multiple pathways available to affect positive change

Does **monitoring** ecosystem services provide a **feedback loop** in urban socio-ecological systems?

Results from the riparian restoration and green infrastructure projects argue yes