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Portland-Vancouver ULTRA-Ex: Evaluating Relationships Between Governance and Environmental Quality in Urban Ecosystems

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Portland-Vancouver ULTRA-Ex*: Evaluating relationships between governance and environmental quality in urban ecosystems



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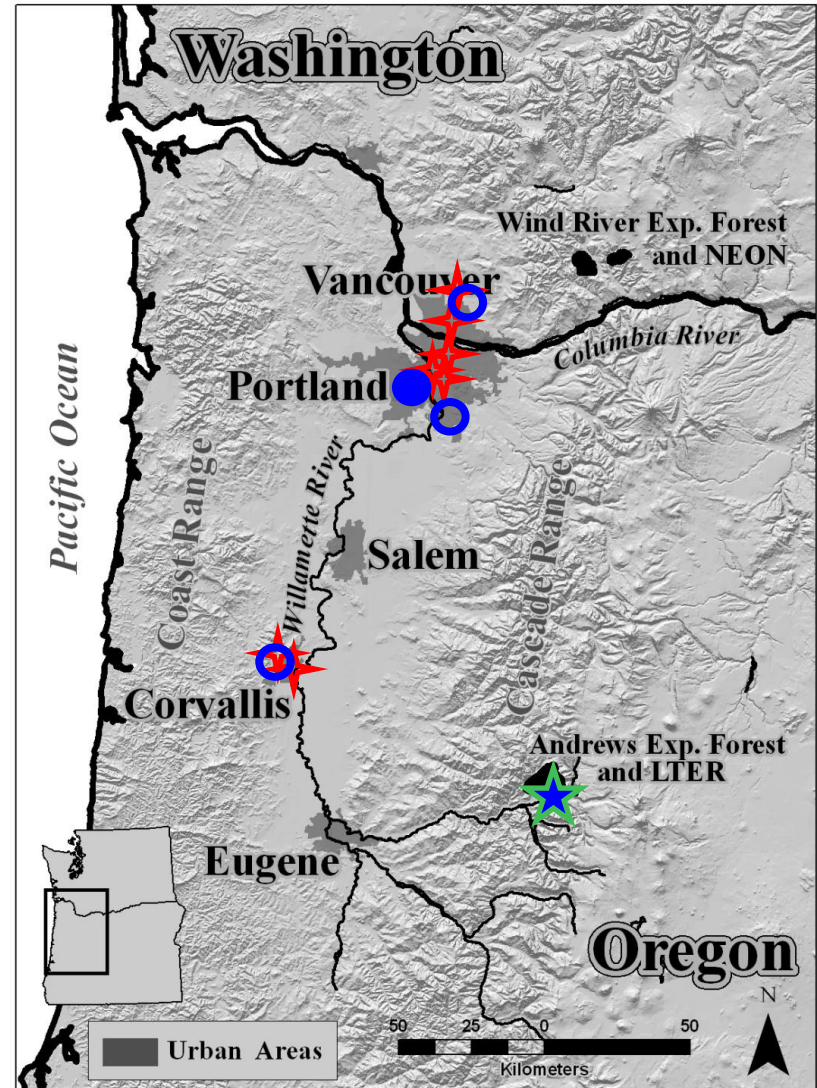
**ULTRA-Ex = Urban Long Term Research Area - Exploratory*

PV ULTRA-Ex

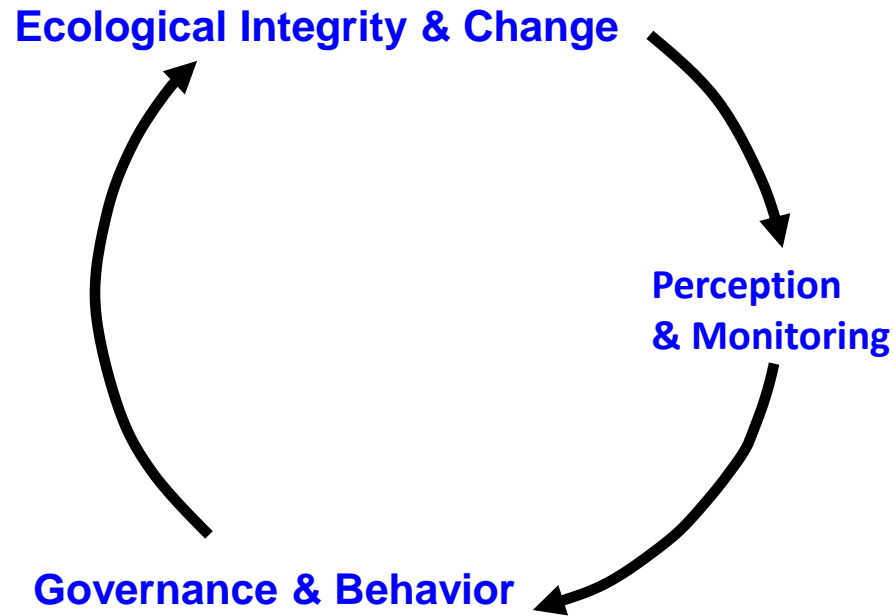
ORGANIZATIONS INVOLVED



PV ULTRA-Ex Information Management is in coordination with the HJ Andrews LTER



OUR QUESTION – Does governance matter?



More specifically:

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

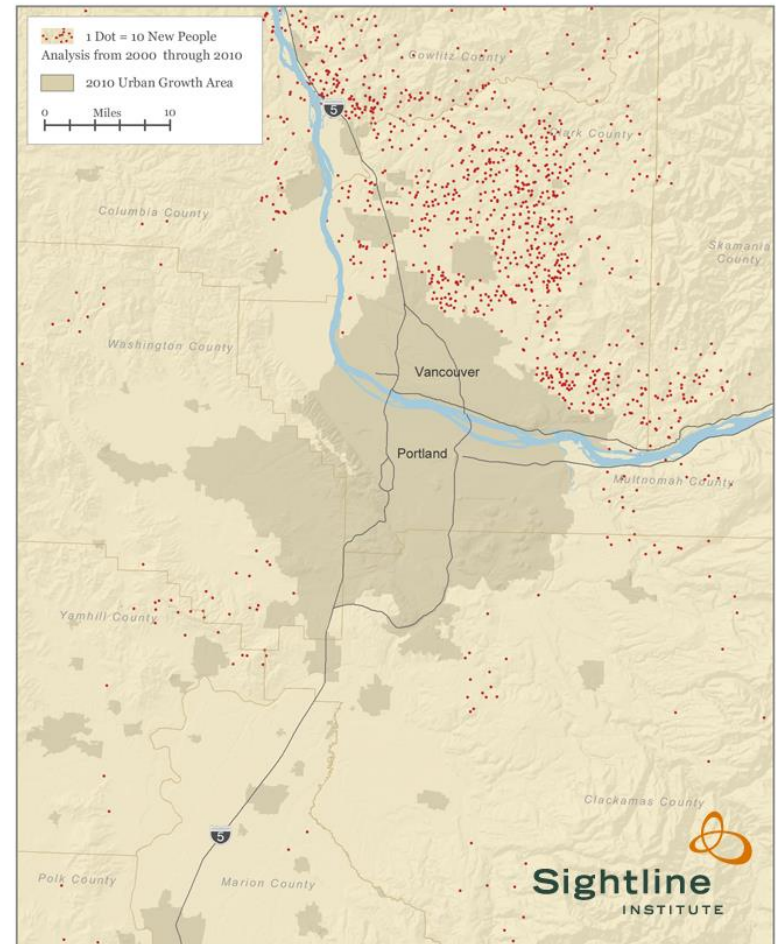
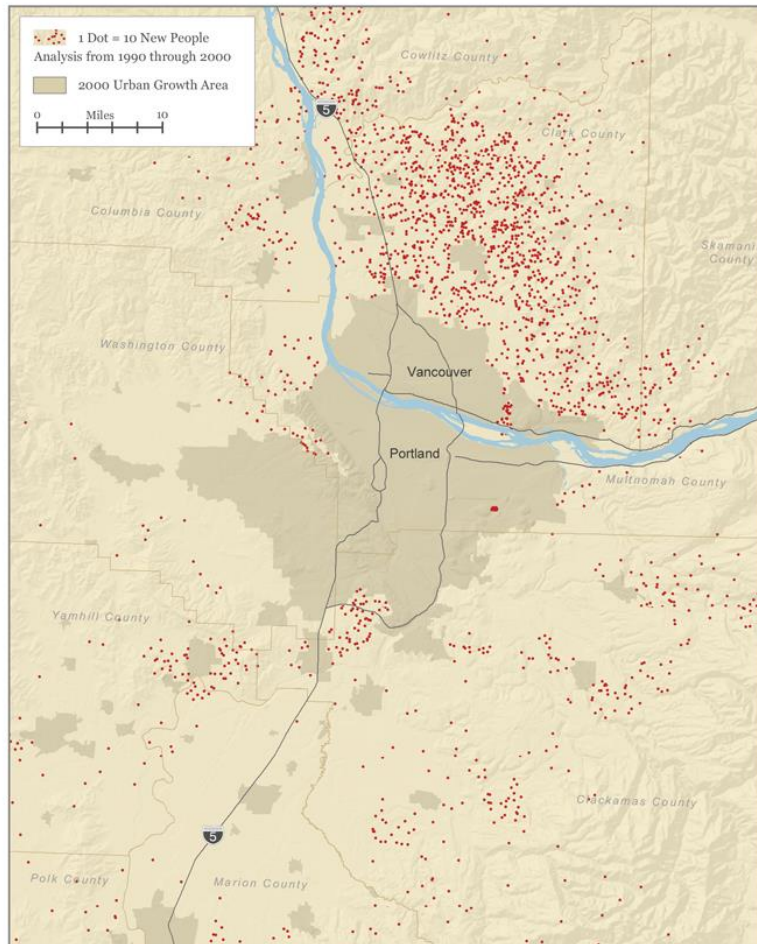
Do alternative **land use planning** strategies affect **urban ecosystem integrity** & **services**?

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

Oregon vs Washington

Exurban Growth in the Portland Metro Region

1990-2000 2000-2010



Each red dot = 10 new people

Source: Sightlines

OUR APPROACH – Two Dimensions & Two Scales

Social Dimension

Land use and planning effects
Civic ecology/governance
Environmental education

Ecological Dimension

Riparian greenspaces

Water quality

Stormwater management



Tryon Creek, Lake Oswego, OR



East Portland bioswales

Project scale

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

Riparian loss rates, evident in the 1990s, **slowed down** in the 2000's for 5 of the 6 urban areas studied

The rate of **riparian vegetation gains increased** in the 2000's

Some cities began to see **net gains in riparian areas**

Natural areas conservation policies in Oregon and Washington, while quite different, **both show promising progress** for maintaining and restoring urban riparian areas

Top Ten Early Observations from the PV ULTRA-Ex

10. Portland residents return surveys better than Vancouver residents
9. The water is browner ... on the other side of the Columbia
8. Bioswales are seen very positively ... but in someone else's front yard, please
7. Bioswale soil in Portland has not yet become toxic
6. Little round bushes are everyone's favorite bioswale plant

Top Ten Early Observations from the PV ULTRA-Ex

5. Portland's disappeared streams and pipe networks are worse for water quality than Clark County sprawl
4. Improved water quality in a nearby stream may increase the value of your home
3. K-12 teachers' enthusiasm & engagement in urban ecology research can transfer to their students
2. I'm sure you've seen Portlandia ... but have you seen [Vancouveria](#)??
1. Riparian restoration gains have caught up with riparian development losses, in both Portland *and* Vancouver