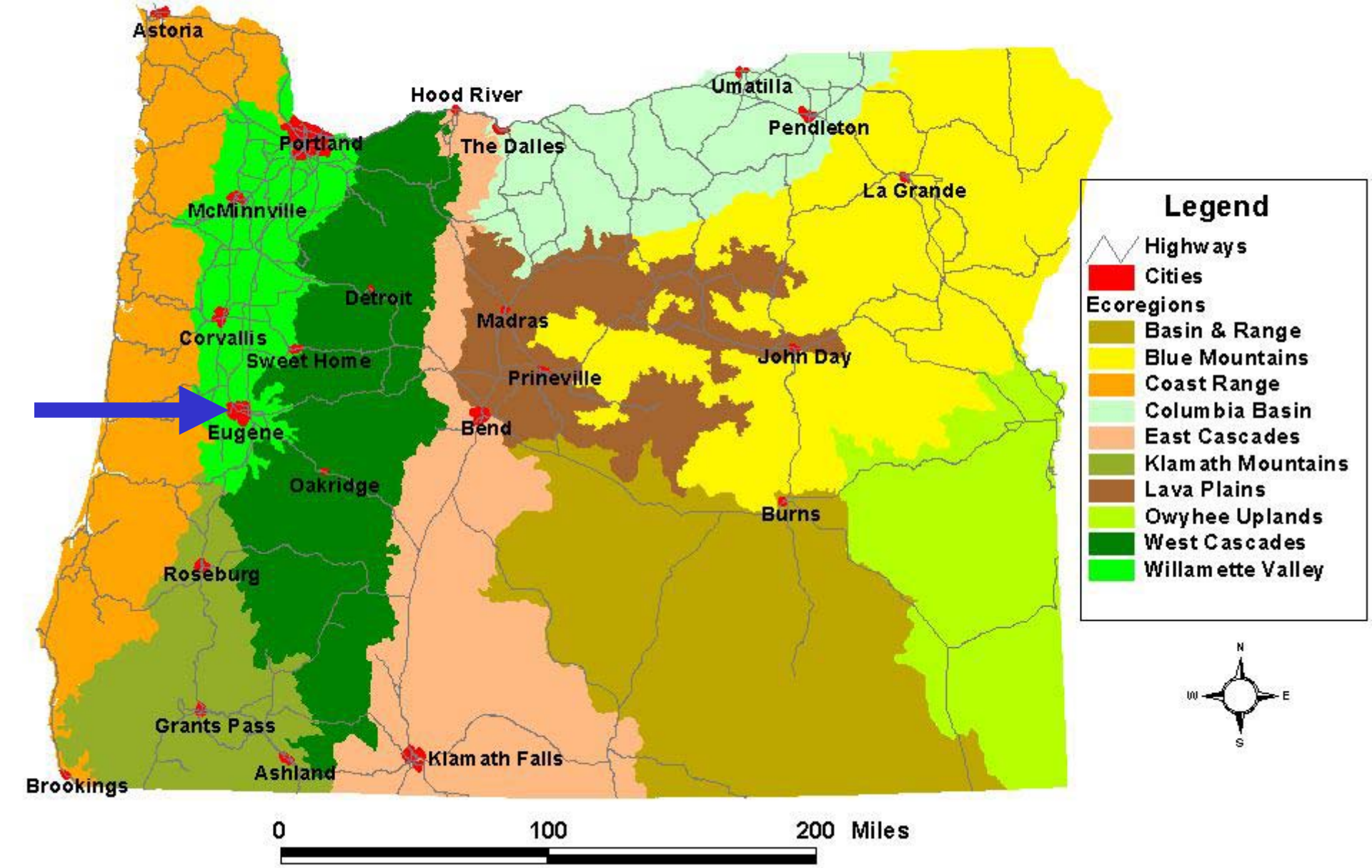
Acquisition, Management, and Education by the West Eugene Wetlands Partnership

Eric Wold
City of Eugene

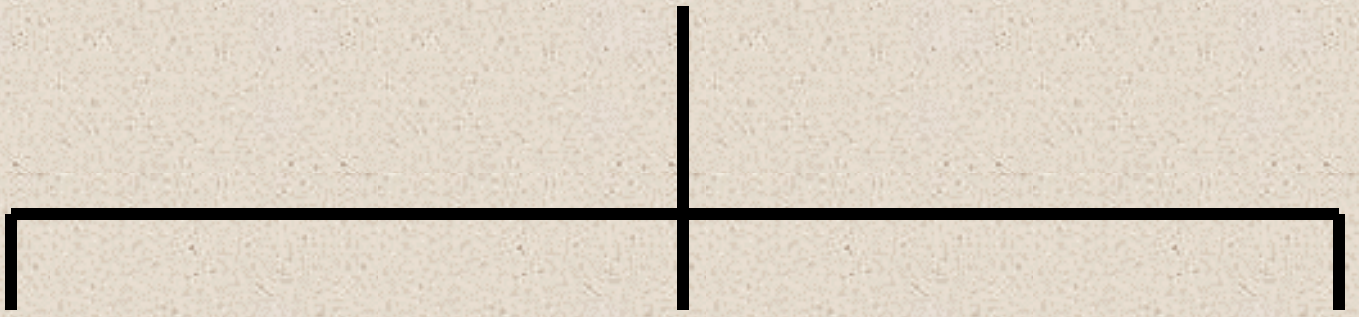
West Eugene Wetlands Partnership

- City of Eugene
- The Nature Conservancy
- U.S. Bureau of Land Management
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- Oregon Youth Conservation Corps
- McKenzie River Trust
- WREN

Ecoregions of Oregon



West Eugene Wetlands Partnership



Land Acquisition

Land Management

Environmental Education

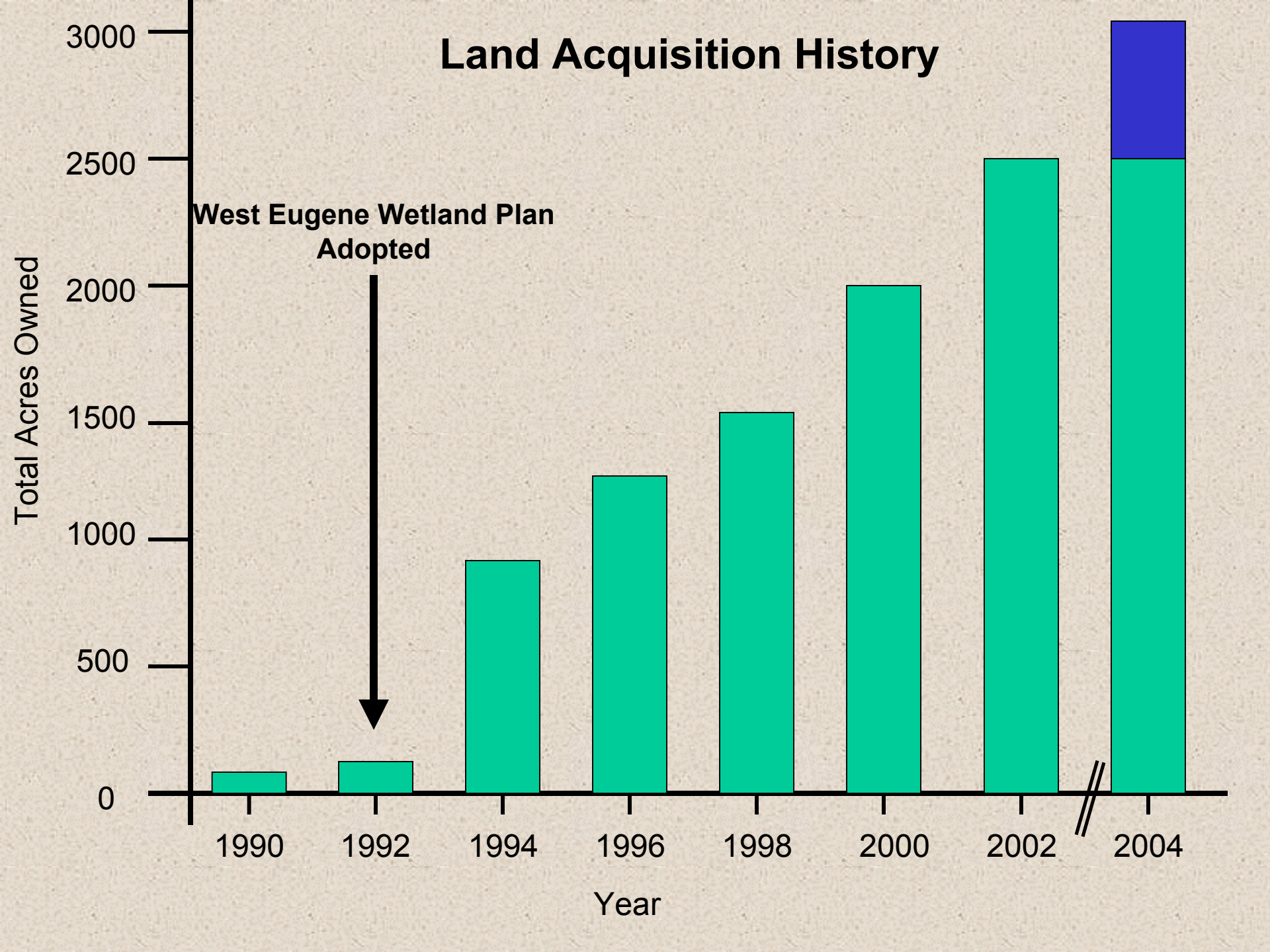
Acquisition Strategy

A. Fixed elements

1. Willing-seller basis
2. Connectivity

B. Variable elements

1. low cost per acre sites (rural) vs. high cost per acre sites (urban)?
2. Condition of habitat?


Land Acquisition History
West Eugene Wetland Plan Adopted
Total Acres Owned
3000
2500
2000
1500
1000
500
0
1990
1992
1994
1996
1998
2000
2002
2004
Year

Funding Sources for Acquisition

(~ $20 million since 1992)

Local

- City of Eugene park bonds
- City of Eugene stormwater funds

State

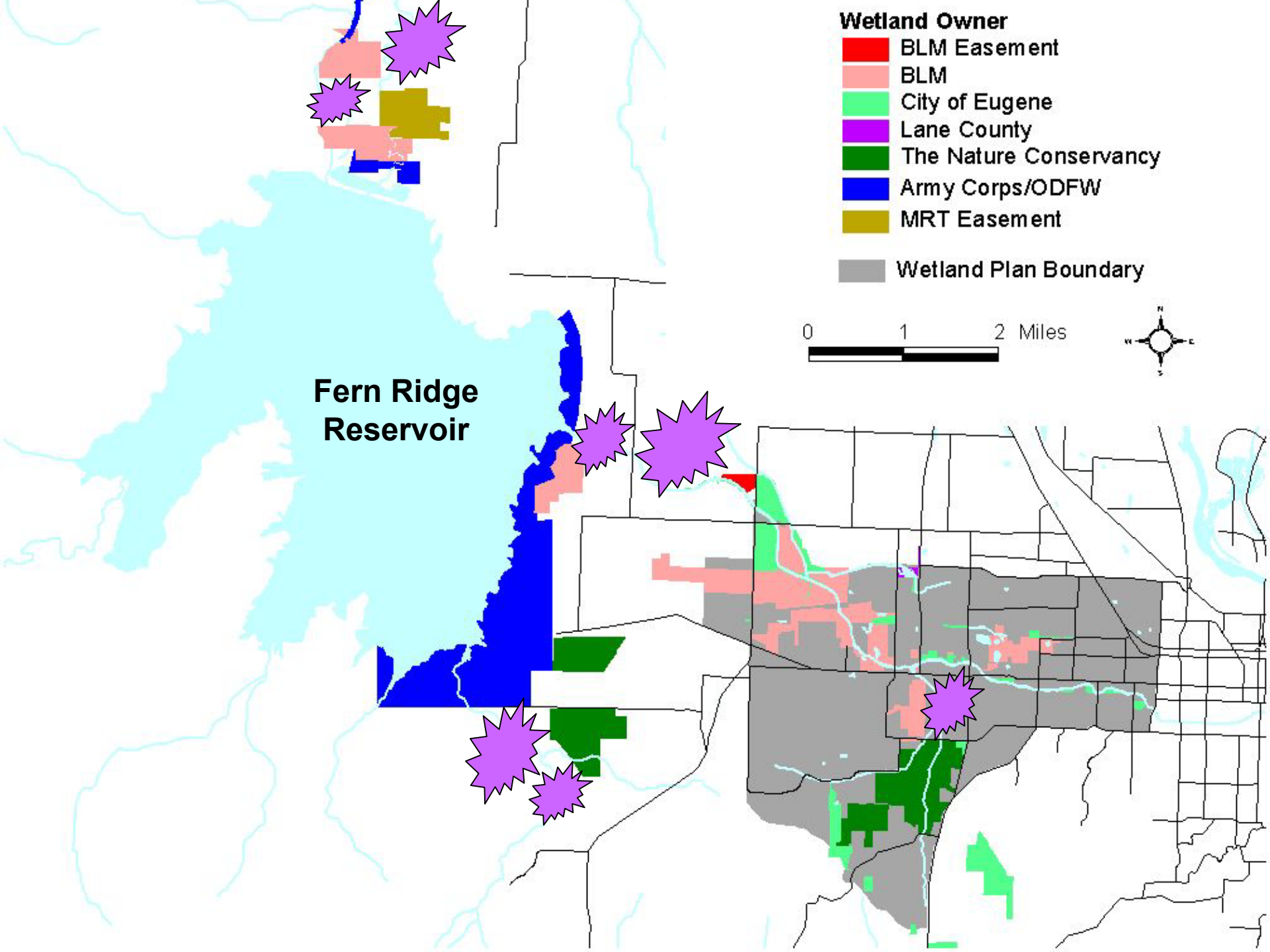
- OWEB grants

Federal

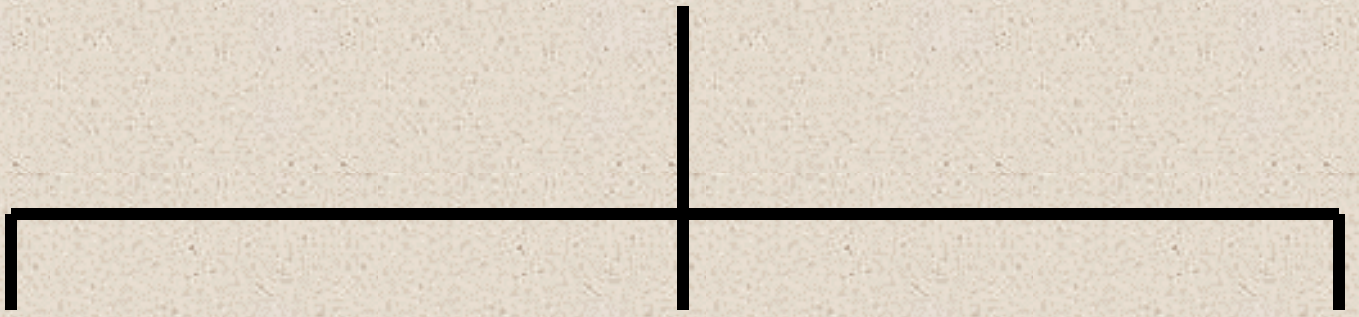
- Land and Water Conservation Funds (LWCF)
- NAWCA grant funds
- Wetland Reserve Program (WRP)

Private

- TNC funds
- Donations


Wetland Owner
BLM Easement
BLM
City of Eugene
Lane County
The Nature Conservancy
Army Corps/ODFW
MRT Easement
Wetland Plan Boundary
0
1
2 Miles
Fern Ridge
Reservoir

West Eugene Wetlands Partnership



Land Acquisition

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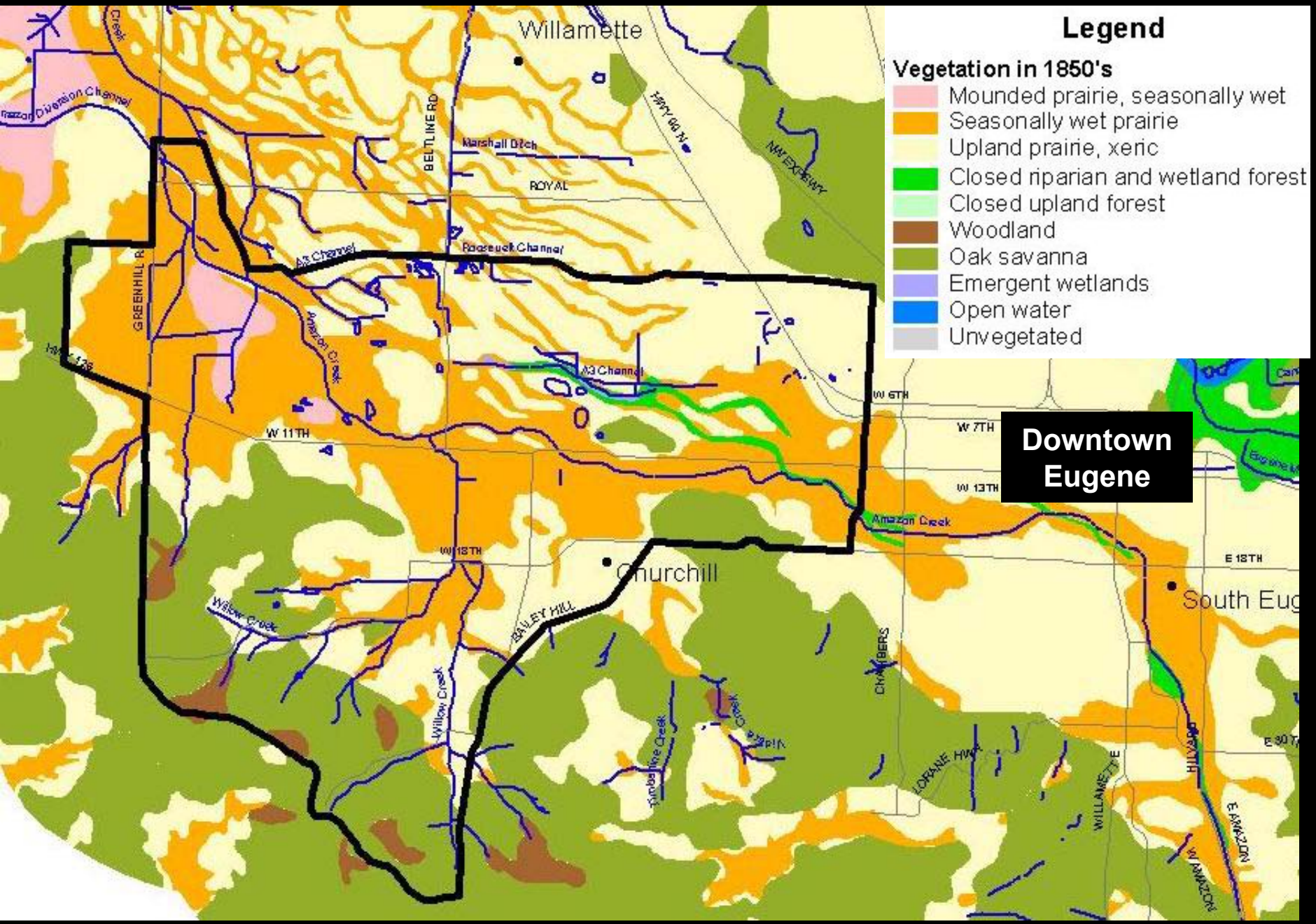
Land Management

A. Mitigation Bank

B. Non-Bank

- TNC lands
- 1135 project lands
- Research projects
- Future bank lands
- Uplands

Historic Vegetation (~1850's)



Management Goals

Within the context of the *West Eugene Wetlands Plan* . . .

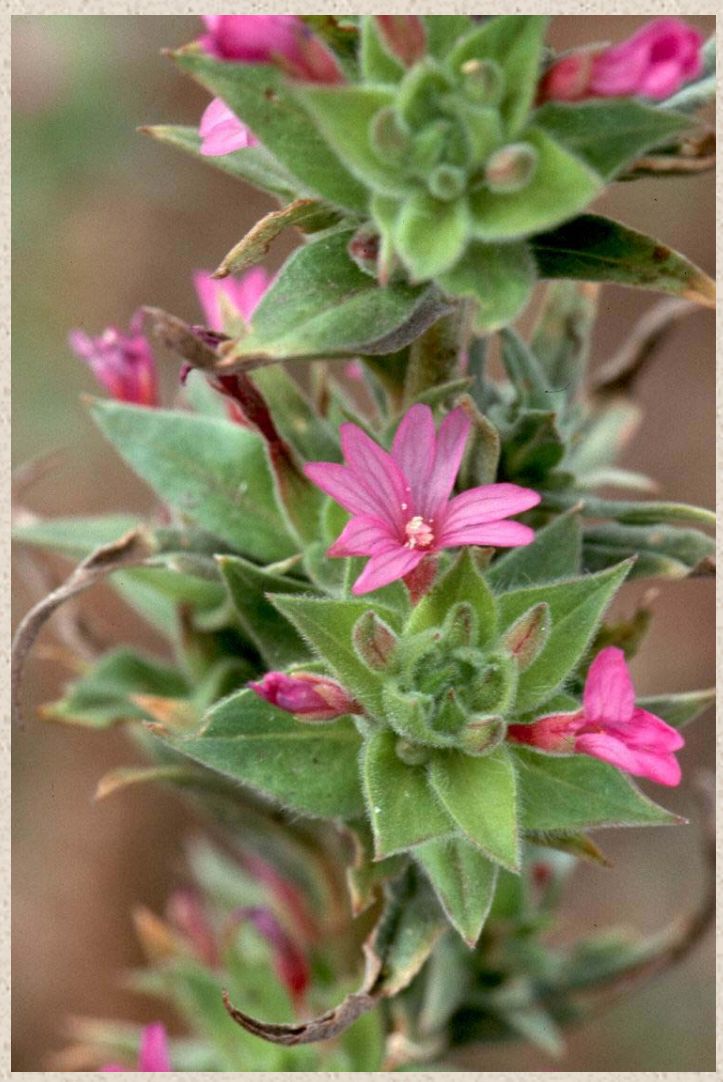
1. **Maintain a hydrologically and ecologically connected system of wetlands over a broad landscape.**

2. **Maintain, enhance, or restore native ecosystems.**

3. **Protect and expand existing populations of rare plants and animals.**

Wet Prairie and Riparian Forest

200 native Willamette Valley plants identified



Epilobium densiflorum

Eleocharis palustris

Allium amplectens

Oak savanna in the upper portions of watershed

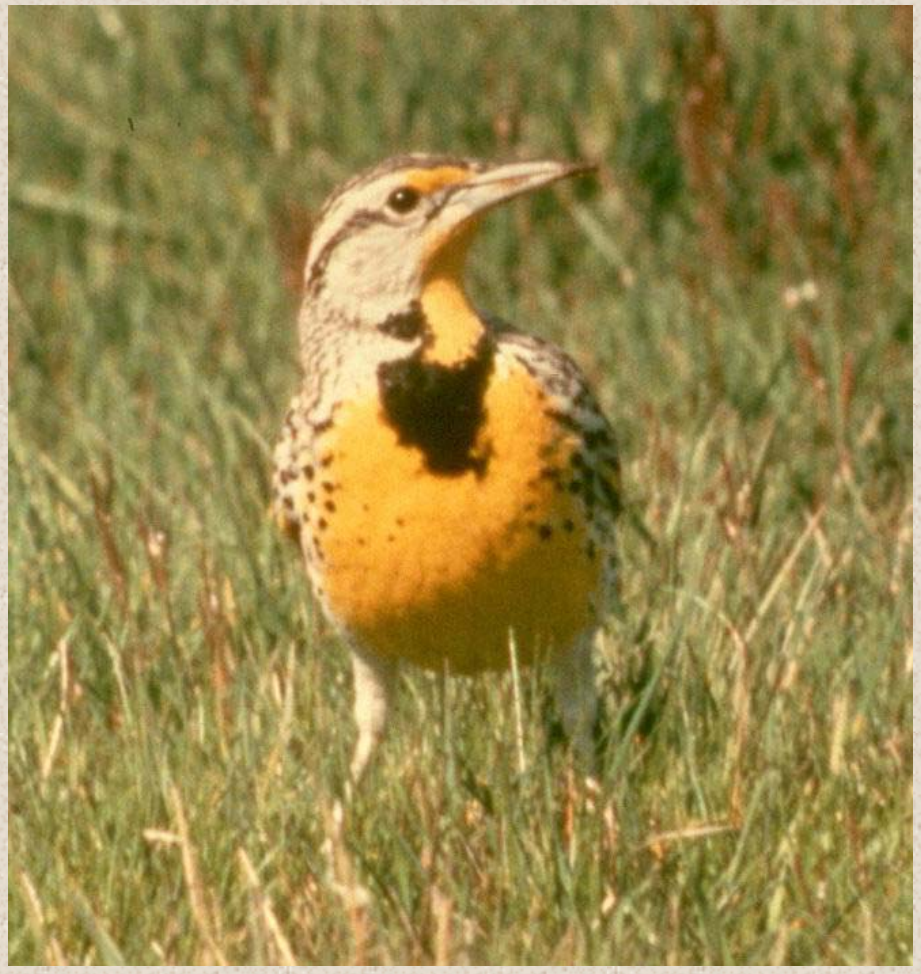
Butterflies

- **~ 45 species of butterflies occur in the West Eugene Wetlands and the associated uplands.**
- **Fender's blue butterfly is listed as *endangered* under the federal ESA.**

Common Wood-nymph

Mylitta Crescent

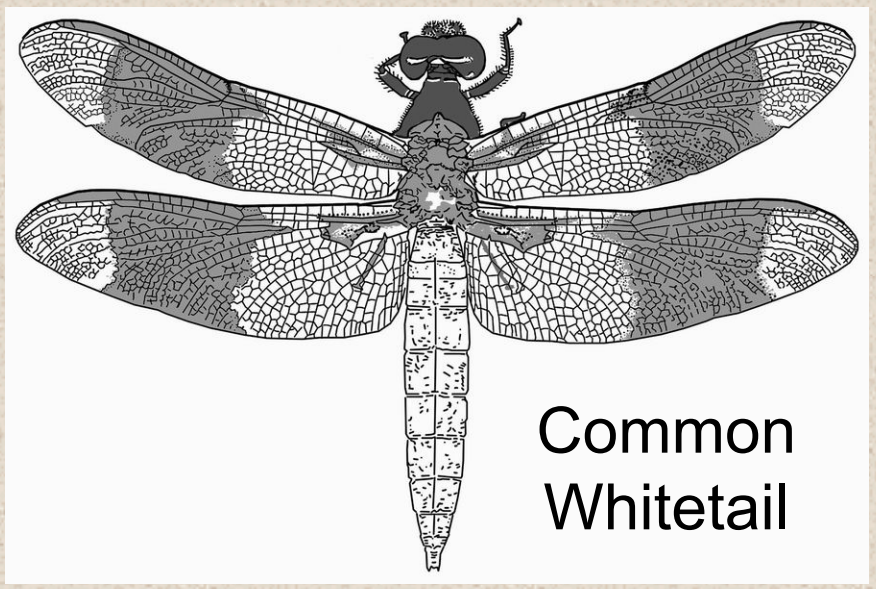
203 Species of Birds

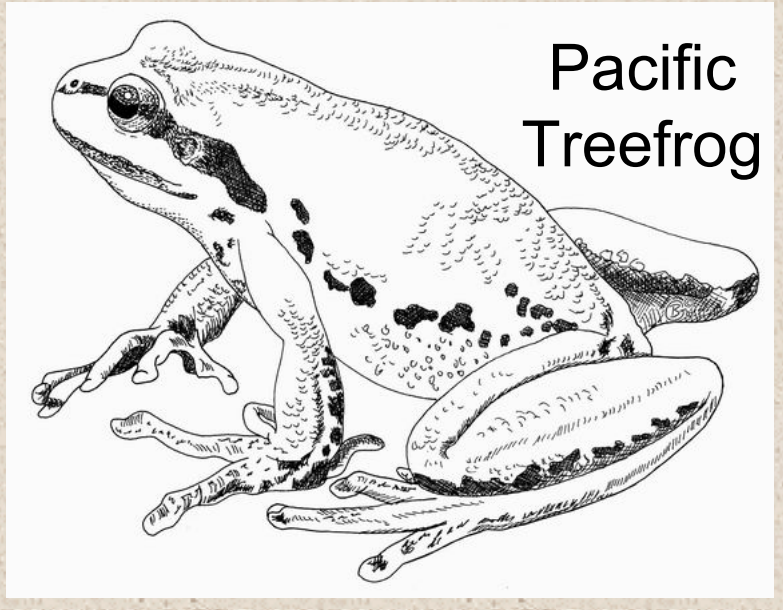


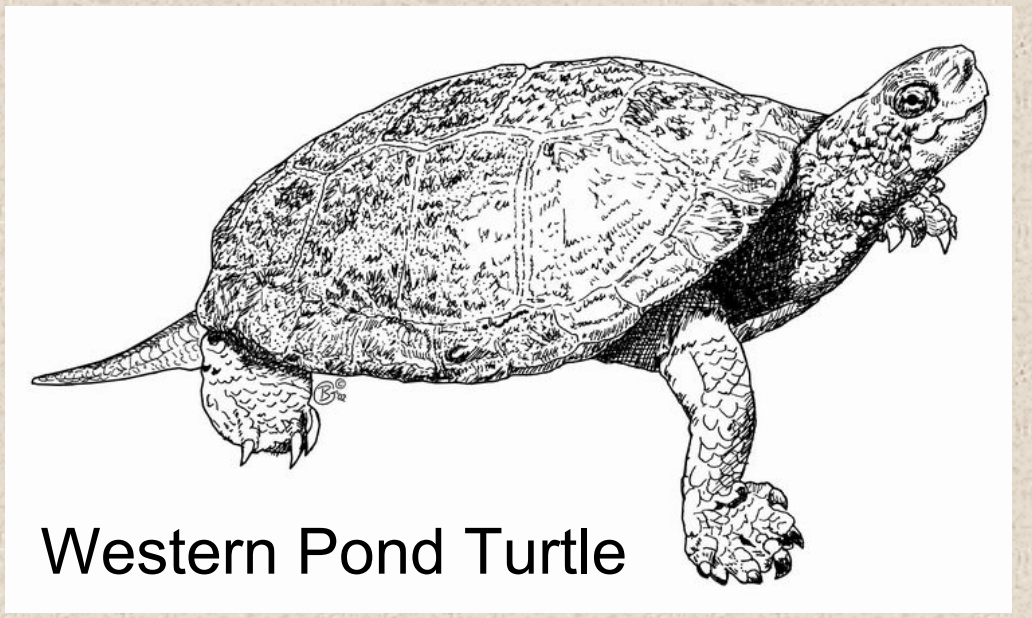
Western Meadowlark

Cinnamon Teal

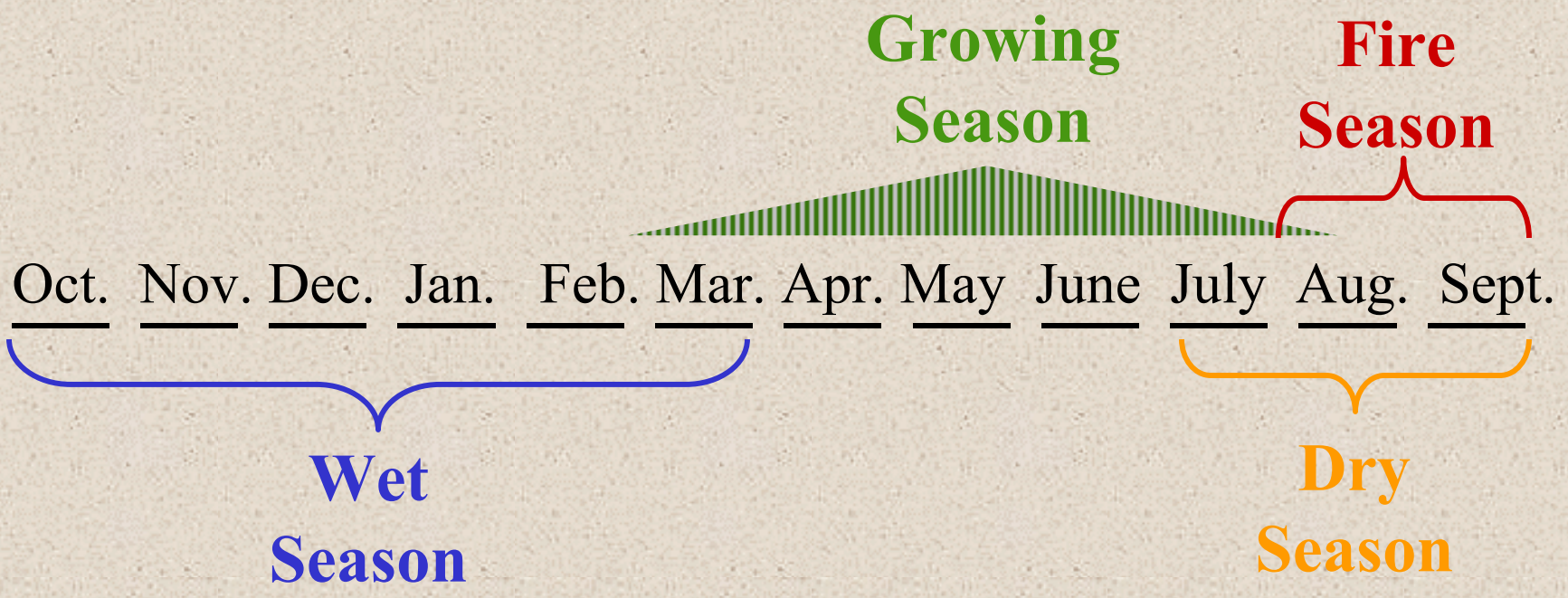
Wilson's Snipe


Common
Whitetail


Pacific
Treefrog


Western Pond Turtle

Seasonality in the West Eugene Wetlands



Seasonality of a Single Site

January 2, 2003

Seasonality of a Single Site

March 7, 2002

Seasonality of a Single Site

May 16, 2002

Seasonality of a Single Site

July 30, 2002

Mitigation Bank Program

Goals

1. Satisfy mitigation requirements in West Eugene.

2. Increase certainty in the development process.

3. Enhance and restore historic wetland system in West Eugene.

Standards for restored wetlands

- meet criteria of jurisdictional wetlands (soils, hydrology, vegetation).

- 70% native plant cover after 5 years.

- Diversity requirements, depending on habitat type.

  -- *Example*: wet prairie must have 10 native species at ≥ 10% frequency

Restoration Process

A. Site planning

1. Mitigation Improvement Plan (MIP)

B. Site preparation

2. Hydrology.
3. Non-native vegetation
    - solarization, till, prescribed fire, thermal, mowing, etc.

C. Planting

4. Seed
5. Propagated plants

D. Maintenance, monitoring, and remedial actions

6. Post planting maintenance
7. Monitoring
8. Remedial actions

Adaptive Management

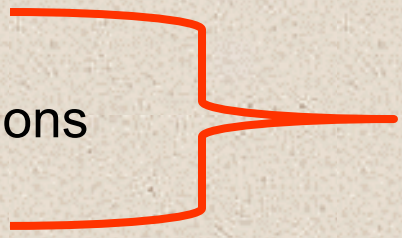
Step 1: Planning

A. Process

- Mitigation Improvement Plan (MIP)
- Interagency, multi-disciplinary staff team
- Approved by Oregon DSL and Army Corps

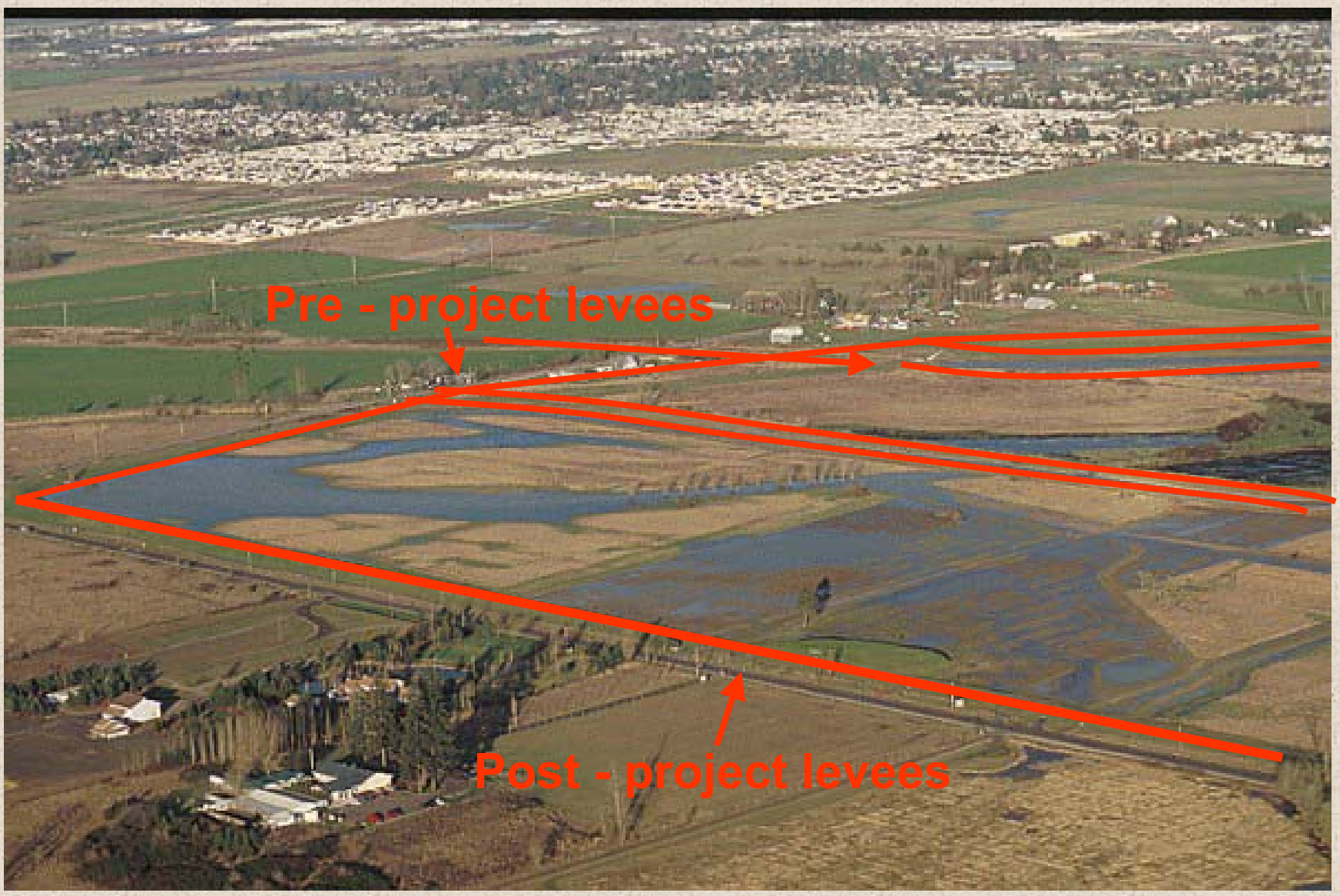
B. Contents

- Site history
- Existing conditions
- Project actions
- Planting list
- Mitigation credit summary



- land use
- soils
- surface hydrology
- connectivity
- plant communities
- rare species
- other species of interest

Step 2: Hydrology



Step 3: Kill or remove existing, non-native vegetation

A. 130 non-native species in our wetland system

B. Constraints on removing non-native vegetation

- **<u>Herbicides</u>: Very limited ability to use.**
- **<u>Fire</u>: Proximity to urban area requires extra care.**

Mentha pulegium

Solarization

Sod Removal

Mowing, Disking, Tilling, Thermal

Important Factors to consider:

- Timing
- Combinations
- Repetitions
- Remaining rhizomes or other vegetative parts
- Releasing the seed bank

Prescribed fire


BURN ORGANIZATION
BURN BOSS
FIRING SPECIALIST
FIRING SPECIALIST
FIRING SPECIALIST
HOLDING SPECIALIST
HOLDING SPECIALIST
HOLDING SPECIALIST
ENGINES

Step 4: Seed Collection, Sowing

- Summer crews collect seeds of over 90 native Willamette Valley wetland plants.
- Collecting occurs within 20 mile radius of west Eugene.
- Commercial grow-out to get large quantities of a few species.

Clean seeds and sort into mixes

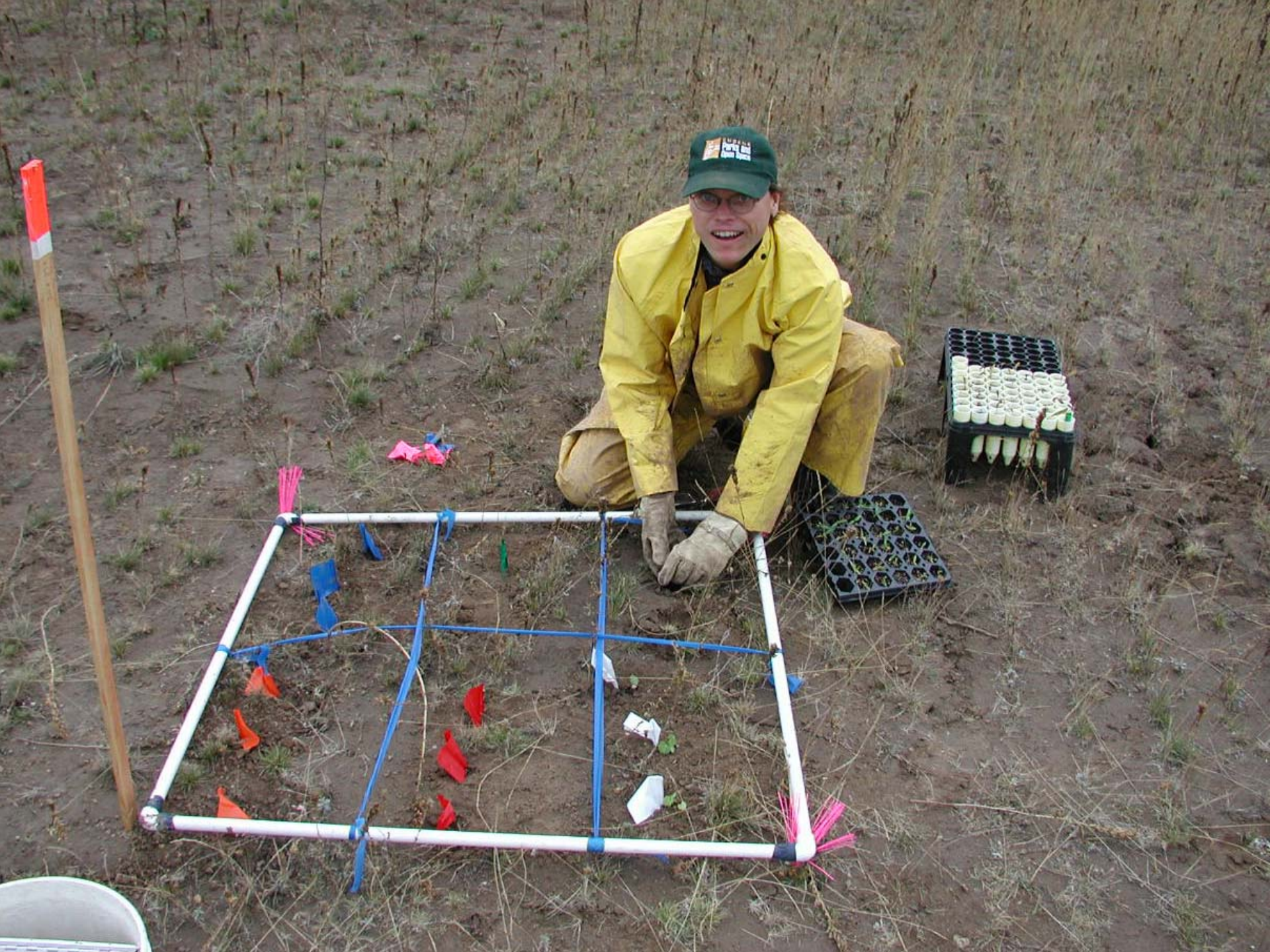
Broadcast seed mixes with backpack blowers

No-till drill

1. **Seed mixes for micro-site conditions.**
2. **Competitive early-successional species.**
3. **Certain species not establishing well from seed.**
4. **No-till drill working better than broadcasting.**

Truax FLEXII
no-till grass drill

Step 5: Out-plant propagated plants



Step 6: Post-planting maintenance

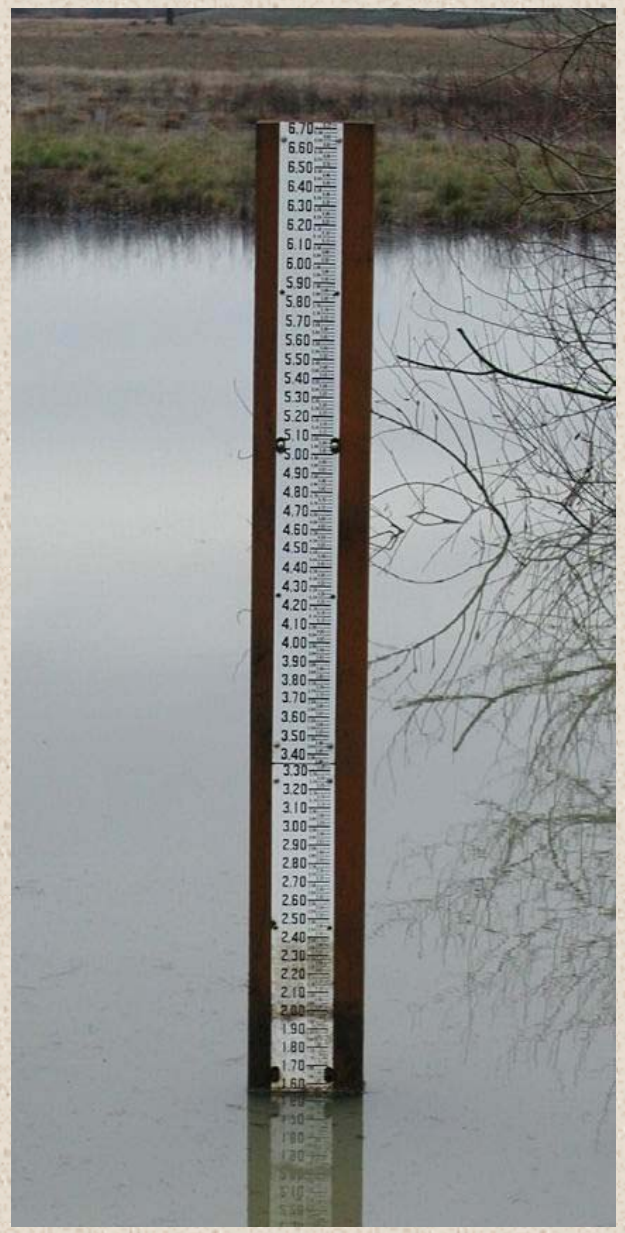
- Intensive weeding 1st and 2nd year after planting.
- Continue for 5-7 years.
- Hand techniques.
- Provide opportunity for natives to out-compete non-natives.
- Continually seeking ways to reduce maintenance needs.


Igloo

Step 7: Monitor vegetation and hydrology

B. Vegetation - *Quantitative*

1. Point-intercept (estimates % cover)
2. Nested frequency (tracks change of less abundant species)
3. Rare species monitoring



C. Hydrology

1. Map surface saturation and inundation
2. Photopoints
3. Staff gauges (monthly, Oct. -June)

D. Annual Winter Site Visits

Step 8: Take remedial actions to improve site

A. **Site planning**

   1. Mitigation Improvement Plan (MIP)

B. **Site preparation**

   2. Hydrology.
   3. Non-native vegetation
      - solarization, till, prescribed fire, thermal, mowing, etc.

C. **Planting**

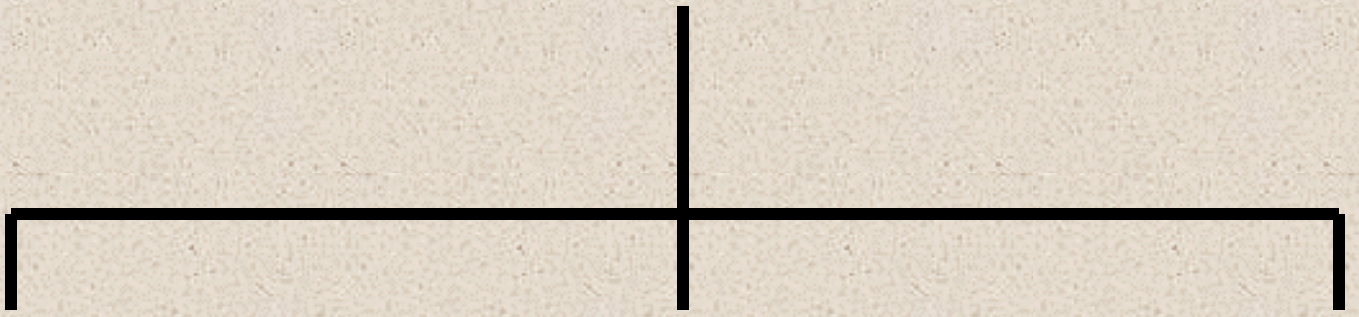
   4. Seed
   5. Propagated plants

D. **Maintenance, monitoring, and remedial actions**

   6. Post planting maintenance
   7. Monitoring
   8. **Remedial actions**

Adaptive Management

West Eugene Wetlands Partnership



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Environmental Education

1. Year-round programs
2. Adults and children
3. Target student population is 3rd - 5th grade
4. Field-based
5. 1100 people served during 2002

Environmental Education

6. Interpretive signs and artwork
7. Recreational facilities (bike path, overlooks)
8. Partnership with school district
9. Campaign for $12 million EE campus

Partnership Accomplishments

A. Policy

- West Eugene Wetlands Plan adopted
- MOU's among partners

B. Ecological

- 2500 acres of land and ↑
- Landscape connectivity
- Protection of rare species and habitats

C. Mitigation Bank

- Meeting developers needs
- Over 64 credits sold between 1994 - 2002
- Financially stable
- Long-term management commitment

Partnership Accomplishments

D. Educational

- Curriculum for 3rd - 5th grade
- Laboratory for learning
- Year-round activities for children and adults
- New $12 million facility in fund-raising stage

E. Community

- Community is involved and vested
- Recreation facilities well used
- Large volunteer program

F. Partnership

- 11 years of successful partnering
- New partners continue to want to join

Some Final Thoughts

1. Have a **BIG vision** and believe it can happen.
2. Adopted **policies** make all the difference.
3. Partnerships take **nurturing**.
4. **Community** support is needed.
5. Support of **elected officials** is critical.
6. **Adapt** to changing circumstances.

U.S. Congressman Peter DeFazio

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