

## **Wetlands and Roads**

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In Steve Gordon's dreams, the Willamette Valley is a beautiful mosaic of dense urban development and rural lands. In Eugene, in-fill housing creates a compact city with ample parks and open spaces. Walking and bicycling are popular ways to get around, due to the network of bike paths and trails. Businesses frequently move to Eugene because of the legendary high quality of life. Some of the prime spots for development are next to Eugene's open space jewel, the West Eugene Wetlands. Board rooms overlooking the wetlands have large windows and some provide binoculars on the windowsill for wildlife watching.

Steve Gordon is a planner with the Lane (County) Council of Governments (LCOG). He is proud to have coordinated the West Eugene Wetlands Plan (WEWP), a huge step towards the Eugene he wants to see, and towards a healthy Willamette River watershed. I interviewed two men who have worked on the West Eugene Wetlands from the beginning: Steve Gordon, coordinator of the plan, and Neil Bjorklund, a Natural Resources Planner with the City of Eugene. The wetlands aren't the only land use in the area. A major highway connector, the West Eugene Parkway, is proposed to cut through the wetlands. What are the effects of a major road through a nature preserve? What is the role of open space within a city? First, a brief history.

### **History of the Wetlands**

In 1987, the City of Eugene found it had a wetlands problem. An assessing biologist found widespread wetlands in the open areas of West Eugene. They were inside the city's Urban Growth Boundary (UGB), in an area where the city had spent millions of dollars laying infrastructure for industrial development! (Gordon) Neil Bjorklund says, the lands "were considered to be dry agricultural fields. They didn't recognize seasonal

wetlands as wetlands. Little did we know that the wetlands which looked least like wetlands turned out to be the rarest and most important ones." The West Eugene Wetlands are soggy in winter but hard and dry in the summer. Though they are only seasonally wet, their plants and soils identify them as wetlands. Most seasonal wetlands were converted into agriculture. That's why less than 1% of the Willamette Valley's "wet prairie" wetlands remain. Much of that less than 1% is in West Eugene. The plants and animals of the wet prairie are rare; some are federally endangered. The rare biota include the Bradshaw's Lomatium, white-topped aster, Willamette Valley daisy, butterflies, giant earthworms, frogs, and western pond turtles. (SDEIS 3-10)

The City of Eugene and LCOG created the West Eugene Wetlands Plan (WEWP) to manage these newly important lands. The Plan was adopted in 1992 and revised in 2000. The process is very well-documented as an example to other cities.

The wetlands in West Eugene were evaluated within an 8000 acre study area. Scientists identified wetlands and ranked their importance. Some excellent wetlands were designated "protect." Others were to be restored to good habitat. The most degraded wetlands were designated to be developed. A partnership of government agencies and non-profits began buying up the wetlands. About 80% of the wetlands were to be saved, with almost 3000 acres bought since 1992. (Gordon)

Businesspeople and developers like the WEWP for other reasons: it eliminates uncertainty and makes the wetlands mitigation (replacement) process easy. Developers pay the city to do wetlands mitigation instead of doing it themselves. This "mitigation bank" funds restoration on WEWP wetlands. Best of all, the overarching plan creates a system of connected wetlands along Amazon Creek. (See Wetlands Designations Map)

## **A Challenge to the Plan: Or is it?**

For several decades, there's been an idea about running a highway through west Eugene to connect Highway 99 from the north with Highway 126 to the west. Existing connection roads are increasingly congested and are not highways. In 1986, Eugene voters approved the West Eugene Parkway running through the open land directly south of the railroad tracks. In 1990, the Oregon Department of Transportation (ODOT) created an Environmental Impact Statement (EIS) for the project.

Neil Bjorklund maintains that "the original purpose of the Parkway was not to get from here to there. It was to open up industrial lands in the area." The plans for industry have been altered due to the wetlands, and recent arguments for the parkway have focused on traffic congestion. Steve Gordon agrees that transportation improvements will be needed in west Eugene as the population grows. Moreover, all existing roads have adjacent wetlands that would be impacted by improvements. Gordon states, "Someplace in West Eugene as you make transportation improvements, there will have to be wetland impacts. Whether it'll be the Parkway or not, I don't know at this point."

As the wetlands were evaluated, it became clear that the wetlands in the Parkway route were very valuable. The Parkway would destroy thousands of rare plants, especially the white-topped aster, and habitat for the western pond turtle. (SDEIS ES-3) ODOT went back to the drafting table and in 1997 produced a Supplemental Draft EIS (SDEIS), which detailed a modified route north of the railroad tracks. The north alignment filled as many wetlands as before, but fewer of them were of high value.

The issue of whether to build the Parkway became very political. In Gordon's words, "It's about as convoluted a story about planning and law as I can imagine." Opponents of the parkway claimed effects on the wetlands beyond the indisputable footprint of the road. Parkway supporters said that it would help the economy and was the only possible solution to traffic congestion. To cap it off, ODOT told the city that it had to build the entire 5.8 mile Parkway in one go, which would take \$71 million away from

other city transportation projects. The City Council put the vote to the people of Eugene in 2001. The Parkway measure passed with 51% of the voters giving their approval. Another measure to pursue transportation strategies in west Eugene different from the parkway, on the same ballot, failed.

Steve Gordon, the optimist, says that the close call shows greater awareness about the wetlands' importance, compared to the 1986 vote. He says the vote shows a real split in Eugene. He warns, "Despite the wetlands, west Eugene is still the major industrial area of Eugene and the community is really split about caring for the environment or caring about the economy."

Bjorklund says the Parkway "will certainly make a number of things more difficult for the wetlands partnership to do what it's been doing." More traffic, a new road, weed seeds, and so on, he says.

Both men are cautiously neutral-- to do their job effectively they must bring together environmentalists and developers.

Where is the Parkway now, in 2004, three years after the people voted for it? ODOT is very slowly evaluating whether a new EIS is needed. A new mayor and city council disapprove of the Parkway, but Steve Gordon cautions that the Parkway is still in all regional planning documents and that's difficult to change.

## **Timeline**

1986: Eugene voters agree that the West Eugene Parkway should be built on the City Council's preferred route, on the south side of the railroad tracks. The Parkway is incorporated into Metropolitan Area Plan and Transportation Plan.

1987: A biologist hired by the City finds extensive wetlands in West Eugene. Steve Gordon, Neil Bjorklund, and others begin surveying the wetlands and creating a plan.

1990: ODOT releases Environmental Impact Statement (EIS) for the Parkway.

1992: West Eugene Wetlands Plan adopted by the City of Eugene. The maps include a corridor for the Parkway.

1997: After learning of high value wetlands in the Parkway's route, ODOT releases a Supplemental Draft EIS. It describes a new route north of the railroad tracks, which would destroy fewer high-quality wetlands.

2000: West Eugene Wetlands Plan is revised. More wetlands are included. The Parkway is left off the Plan altogether because of uncertainty.

2001: Eugene City Council puts the Parkway to the voters, with 51% approving of building it. Another measure on the ballot, to pursue other transportation solutions in Eugene without the Parkway, fails.

2004: West Eugene Wetlands Plan revised to include a "Planned Transportation Corridor" for the Parkway north of the railroad tracks.

(Voter's Pamphlet, WEWP, SDEIS, Gordon)

### **Impacts of the Parkway on the Wetlands**

To paraphrase Neil Bjorklund, it's not just whether or not you build it. It's how you build it. The roadway proposed by ODOT is two travel lanes in each direction, separated by a median, with paved shoulders and swales (filtering ditches) on each side. (SDEIS 2-6) The whole project is 5.8 miles long. The right-of-way to be acquired is about 91 meters wide through the wetlands. (SDEIS 5-11) (see Illustration)

## **Filled Wetlands**

Bjorklund says the only indisputable impact is the 50 acres of wetlands filled during the project. According to the SDEIS, 14.4 acres would be high-quality wetlands, including 11.7 acres wet prairie. The other affected wetlands are being restored by the mitigation bank, with some already completed. Bjorklund says it's "the largest single fill of wetlands in this area." It's a reasonable argument, he continues: why destroy habitat that is now or could be wet prairie? It impacts the less than 1% of wet prairie remaining.

The Bureau of Land Management (BLM) owns some of the wetlands in the Parkway route, purchased with federal money. The BLM has a "no disposal policy" regarding lands purchased under the Land and Water Conservation Fund and will need to make an exception for the Parkway. A 2000 letter from the BLM to ODOT expresses concerns about filling in their wetlands, and about threats to the broader ecosystem.

## **Visitor Experience**

The BLM is concerned that "the WEP will become the dominant feature in the West Eugene Wetlands." The WEP's "visual, auditory, and olfactory influences... appear to be inconsistent with the BLM's management objectives for this area."

The Parkway needs to cross over Amazon Creek, the railroad tracks, and a bicycle path, all at the same location. The BLM is especially concerned about that dominant structure. Steve Gordon says it really increases the road's footprint, as well.

A main mission of the WEWP is creating the facilities for education and enjoyment of the wetlands. There are existing bike paths and viewing areas in the large wetland patches near the railroad tracks. The BLM says, "The ability of visitors and school classes to enjoy the wetland's natural features and to communicate with one another at the interpretive overlooks and environmental education sites will be interfered with by traffic noise on the Parkway."

## Impacts on Plants and Animals

### Construction Impacts

During construction of the road, the BLM advises ODOT to wash vehicles and to not use the top layer of fill from the quarries. This minimizes importing invasive plants.

The northern road alignment contains only 1/5 as many plants of concern, as were in the southern alignment. (SDEIS ES-3)

### Lasting Impacts

The railroad doesn't create much roadkill, but the parkway would. Neil Bjorklund says that barriers alongside the road may stop animals from crossing and being killed. The SDEIS proposes some such barriers but doesn't go into details. (SDEIS 4-12) The movement patterns of the western pond turtles living directly south of the railroad tracks will be altered. (SDEIS 4-7) The only possible route for animals will be a few culverts under the road.

The WEWP focuses on restoring native plant communities. This makes a lot of sense; a healthy native plant community indicates healthy wetlands. Steve Gordon says that native seed collection is the limiting factor for restoration, not the land itself. There's a correlating issue: "Invasive plants is probably the major problem the project faces."

Weed seeds will be brought in daily by cars driving on the parkway. Invasives are omnipresent because those species are so suited to disturbed land and development. Native plants have no such abilities. It's unpleasant to introduce even more invasives.

## Water Impacts

### Runoff

Rainwater running off the road will be polluted with heavy metals. Existing roads through the wetlands have drainage ditches to carry this runoff away. Bjorklund is adamant that polluted runoff not flow onto the wet prairie. Wetlands with disturbed soils and non-native plants are appropriate for stormwater treatment, not precious wet prairie. While stormwater cleansing and flood control are functions of wetlands, none of the city's West Eugene Wetlands are being managed for stormwater treatment. (Bjorklund)

The modified Parkway design has bioswales instead of mere drainage ditches. Bioswales are depressions on each side of the parkway designed to filter and trap pollutants. ODOT hopes to fill them with native plants. (SDEIS 4-5)

### Hydrology

Neil Bjorklund says the railroad is already a hydrologic barrier. Currently under the railroad tracks there are only three culverts, two of them for main creek channels. (SDEIS 3-5) There is no surface water flow connecting the wetlands on either side.

## Fragmentation

ODOT states, "Fragmentation of wet prairie wetland is not expected to substantially reduce or eliminate genetic exchange between plant populations, or jeopardize species viability due to avoidance and minimization measures." (SDEIS 4-7)

The BLM's letter states, "The West Eugene Wetland parcels... were acquired to create, protect, and restore a biologically functional and contiguous wetland ecosystem to provide for clean water and flood control... It is the functioning of this broader wetland/upland ecosystem that is at issue here." (underlines original) The BLM



recommends further study of the wetland ecosystem in terms of conservation biology.

In one method of describing landscape ecology, the dominant landscape is a "matrix" which may contain dissimilar "patches" and "corridors." On the city scale, the West Eugene wetlands and streams are patches and corridors within an urban matrix. Within the wetlands matrix, the Parkway is a corridor.

If the Parkway is a corridor, how may it function? (See Corridor Functions Diagram, Hess 201). It is a conduit for cars passing through. It is a source of pollutants and weeds to the wetlands. It is a barrier to many organisms, and a "sink" killing the animals that attempt crossing. The existing culverts will become the only routes between the wetlands. Seeds have a better chance of crossing the Parkway than animals do. Animals might cross over the railroad tracks, but not the parkway-- especially with roadside barriers to prevent roadkill.

Denis Saunders, conservation biologist, describes patches of native vegetation as "remnants." "In small remnants, ecosystem dynamics are probably driven predominantly by external rather than internal forces. Of importance here are 'edge effects,'" says Saunders. "Larger remnants have a bigger core area that is unaffected by the environmental and biotic changes associated with edges." (24) Even the largest patches of the West Eugene Wetlands are small. Putting a major road through will increase the edges of the wetlands and make it lessen the "core area." "Integrated landscape management" is essential, says Saunders. "It will become increasingly difficult to maintain remnants of native vegetation if the management practices in the surrounding matrix have continuous adverse impacts on them." (26) The city matrix is hostile to the wetlands, especially with invasive plants.

Having a connected wetland system is very important in the WEWP. The 2000 WEWP's goal is to purchase "high value wetlands and the adjoining areas along [the creeks] that are essential in providing a continuous wetland corridor." (63) A corridor along Amazon Creek connects two or three larger patches, including the patch to be

bisected by the parkway. Animals and plants may move through the connected wetlands, keeping the whole system vital. While exact movement through corridors is hard to measure, "we need to take the approach that corridors do have value for biotic movement and attempt to retain a good corridor network wherever possible."

(Saunders 24) Further fragmentation of the wetlands is bad.

### **But I thought the Urban Growth Boundary was for Development!**

Most of the West Eugene Wetlands are within the city's Urban Growth Boundary, an area chosen in the 1970s to allow dense development and to protect outlying lands from sprawl.

When I ask Bjorklund about the role of wetlands within the Urban Growth Boundary, he points back to Goal 5, Oregon's land use guideline for open spaces and wetlands. "The land conservation and development actions provided for by such plans should not exceed the carrying capacity of [the air, land, and water resources of the planning area]." (Goal 5) There is a similar statement in the urbanization guideline. The area's ecological systems should not be overwhelmed. Yet, Bjorklund says ruefully, it usually becomes, "How much politically can you protect and still maintain a 20 year supply of buildable land, as required by the state?" This is the crux of the controversy, Bjorklund says: balancing a compact urban form with the need for open space.

Steve Gordon says that Eugene has "never compensated for the loss of those wetlands from the buildable land supply," though they could. Eugene is within its right to expand the Urban Growth Boundary to compensate for the wetlands. It has chosen, so far, not to do so.

Steve Gordon believes state land use planning laws are powerful tools. Private business must be the driving force, guided by wise government rules. He also emphasizes multiple-objective planning. The wetlands are supported by bird and butterfly watchers, bike riders, teachers, businesspeople, and developers.

## **Conclusion: Back to the Watershed**

The West Eugene Parkway would not destroy the whole wetland system. But it would strike a serious blow beyond what the railroad tracks already do, beyond the effects of the existing roads that still have wetlands on both sides. The most serious impacts are:

Filling in approximately 50 acres of restored or high value wetlands. The north side wetlands aren't as valuable as the wetlands to the south, but that is relative.

Seriously lessening movements of native animals and perhaps plants. This could reduce viability of native populations.

Bringing more pollutants and weeds right into the middle of the largest patch of wetlands and increasing the hostile edges of the fragile native ecosystem.

Making the wetlands much less appealing to visit because of noise, sight and smell, as the BLM argued.

The practices of our forefathers have taken away our right to choose, if we desire any wet prairie at all. We've been building roads for 150 years. We have less than 1% of the wet prairie remaining. We are not free to develop in the way we once did. We live in a sickened watershed. The watershed's need for the parkway must be balanced against the need for the wetlands, and in my scales the latter is the most weighty.

Wetlands and riparian areas are the current "fad," Neil Bjorklund alleges. Bjorklund urges "tying the wetlands back to the uplands." Management should take the whole system into account, not merely looking at wetlands in isolation. A whole-watershed approach is essential.

Upland and tributary health is important to the health of the wetlands and of the Willamette River itself. Steve Gordon likens the Willamette River to an arm, and tributaries such as the West Eugene Wetlands to fingers. He says that if Oregon approached the Willamette River's problems like Eugene approached the wetlands, a lot could be accomplished in 20 years.

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