

## **“Framework for Integrated Management of Watershed Health: Appendix E-The City's Natural Environment ” (Reviewed by Kate Koehler)**

Appendix E of the “Framework for Integrated Management of Watershed Health,” a public review draft issued by the City of Portland, contains an overview of Portland's natural environment, focusing on watersheds, waterways, and the biological communities of Portland. This overview, entitled “The City's Natural Environment,” was published by River Renaissance, a “citywide partnership to revitalize the Willamette River” (2) sponsored by the City of Portland Bureau of Planning.

Appendix E begins by explaining the general characteristics of Portland, including its climate, location in the Willamette Valley, and watersheds. It focuses on the lower Columbia and Columbia slough watersheds, as well as the lower Willamette watershed and three of its tributaries. The lower Willamette watershed, the report explains, has been “heavily degraded relative to historical conditions” (1, pg. E3). In the Portland area, the watershed once contained an “extensive and interconnected system of active channels, open slack waters, emergent wetlands, riparian forest and adjacent forests.....connectivity of habitat was high” (1, pg. E3). However, much of that habitat has since been destroyed, and remnants of earlier channels of the Willamette, such as oxbow lakes, have been cut off and filled in. Water quality runs from fair to poor in the lower Willamette, and aquatic life has changed and been destroyed over time.

The decrease in water quality and lessening of biodiversity within the waterways is connected to the state of other biological communities in the Portland area. This review also examines these communities, such as the riparian zone along the river. It explains the importance of a healthy riparian zone for both aquatic and land life, as well as the importance of healthy upland habitats. The draft also explains that increased urbanization brings “declining wildlife diversity” (1, pg. E14). It looks at how wildlife utilizes the watershed, and points out that the majority of Portland wildlife uses either the riparian zone or aquatic zone at various points during its life. (1, pg. E21-3). This review outlines the basic natural components of Portland

Appendix E of the draft is connected to the Willamette River because much of what it examines is the Willamette River watershed and its tributaries. As a source on the natural history of the Willamette River, I found it a useful starting point, but lacking depth in many areas. It is written for a layperson, defining basic concepts such as what a watershed is and the significance of a riparian zone. It is difficult to tell the credibility of the source, because there is no author attached. It does say in the introduction, however, that this draft utilizes a “scientifically based approach” to watershed health, and that the approach has been “reviewed and validated by a team of independent scientists” (1, pg. 9).

However, although this report contains some scientific background, it does not go into any depth. For example, it explains that the Willamette watershed used to be an extensive system of interconnected habitats, and that “construction of dams” (1, pg. E3) has destroyed these habitats. It does not go into any detail as to why dams destroyed the habitats, or any other possible reasons for destruction.

This report also contains a lack of information in the biological communities section. It explains the various habitats and wildlife and emphasizes the importance of their health. However, it does not include information on the degradation of these habitats, or the vanishing wildlife population. The report includes information on the importance of habitats, yet mentions nothing about these areas disappearing or why they are disappearing. Although this report serves as a good introduction to the various habitats and factors that create and affect the lower Willamette watershed, it does not present sufficient information on what has changed in the watershed and why it has changed.

#### Bibliography:

1. City of Portland. Dept. of Planning, River Renaissance. *Framework for Integrated Management of Watershed Health*. Portland: Dept. of Planning, March 2004. April 4, 2004 [http://www.river.ci.portland.or.us/conditions/Healthy%20River/framework\\_0304.pdf](http://www.river.ci.portland.or.us/conditions/Healthy%20River/framework_0304.pdf)
2. *River Renaissance Homepage* , City of Portland. April 4, 2004. <http://www.river.ci.portland.or.us/index.htm>

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