

Oregon Division of State Lands Wetlands Program. *Wetland and Land Use Change in the Willamette Valley, Oregon: 1982-1994* . Salem, OR: Division of State Lands, 1998. (reviewed by Kyle Walker)

This 1998 report issued by the Oregon Division of State Lands Wetlands Program examines the effectiveness of Oregon programs and policies designed to curb the destruction of Willamette Valley wetlands. These programs and policies include the Removal/Fill Law of 1971, the statewide land use planning program of 1973, and further wetland legislation introduced in 1989. The Wetlands Program aims to give a statistically supported estimate of wetland change from 1982 to 1994, and does so with aerial photo interpretation. The authors remark that the Willamette River has experienced channel shortening and elimination of meander patterns due to damming, channelization, and drainage of the river. This study is designed to elaborate on those findings by examining the effectiveness of wetlands policy around the river.

In order to summarize changes in wetlands, deepwater habitats, and upland areas between 1982 and 1994, the authors offer a plethora of statistical data to support their findings. During the time period that the Wetlands Program studied, the Willamette Valley experienced a net wetland loss of 6,549 acres, a net deepwater habitat loss of 251 acres, and a net upland gain of 6,800 acres. The largest wetland loss can be attributed to upland agriculture, which accounts for 64% of the total wetland loss.

The study's main finding is that wetland losses during the twelve-year period studied continued at a rate of 546 acres per year despite rules and regulations designed to prevent this occurrence. However, the Wetlands Program does remark that several new policies to prevent wetland destruction were enacted at the state and federal level during that time period. They propose a follow-up study covering 1994 to 2004 to reinforce their findings. Furthermore, the authors state that another interesting finding is that agriculture caused the majority of wetland loss during the twelve-year period.

Critique

The Wetlands Program's report provides a comprehensive and detailed look at Willamette Valley wetland and land use change during 1982 and 1994. In addition to aerial photo interpretation, the Program used geographic information systems software and soils databases in order to ensure the data's accuracy. The findings that the Wetlands Program presents in this report are very useful as an assessment of the effectiveness of recent wetlands conservation initiatives. However, as the authors of the report admit, the report has its limitations. The report gives no evaluation of remaining wetland quality, which is an important factor when determining whether wetland conservation efforts have been effective. For example, efforts to create more wetlands could be nullified by a general deterioration of wetland quality caused by agriculture and urbanization. A complementary report to examine this issue would provide a well-rounded assessment of the Willamette Valley's wetlands. Furthermore, because the Wetlands Program conducted this study during the period when certain wetlands conservation measures were enacted, it cannot fully assess whether those measures have been effective. As the Wetlands

Program proposes, a follow-up study for the period between 1994 and 2004 that uses similar methodology to its previous study would be quite interesting.

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