

**Fuhrer, Gregory et al. *The Quality of Our Nation's Waters: Nutrients and Pesticides*. Reston, Va.: U. S. Dept. of the Interior; Denver, CO: USGS Information Services, 1999.** (Reviewed by Alletta Brenner)

This is a comprehensive report on the quality of our nation's waters. In this critique, I am going to focus on the second portion of this report, for while nutrient load is pertinent to questions of water quality I find the section on pesticides to be more applicable to a historical analysis. In this, I find this report to be an excellent source. Including detailed accounts of both past and present usage of a wide range of pesticides, along with past and present levels of contamination, this report offers a significant degree of insight into the build-up of chemical loads in our ecosystems over long periods of time and their impact on life. These analyses include data specific to the Willamette River watershed. Broken up into several sections, it contains detailed information ranging from the chemistry of individual contaminants to nationwide trends, all of which may be useful in an examination of water quality in the Willamette:

- *Pesticides*: Historical use, environmental concerns, patterns of contamination
- *Most frequently detected contaminants*: Urban areas, major rivers, geographic distribution, herbicides in surface water, insecticides in surface water, organochlorines, insecticides seldom found
- *Differences in occurrence*: pesticides as mixtures, breakdown products, concentrations in streams
- *Trends in pesticide concentrations*: decreases in organochlorines, recent changes in herbicide use, changes in streams and ground water

## Critique

This report is very useful for several reasons. First, by combining both historical and present information, it makes it easier to draw conclusions about the long- term impacts of past chemical practices on our water quality. Because many pesticides are extremely slow to break down (organochlorines, for example) present day analysis of levels of contamination are very helpful in understanding past levels of use. Second, the information contained in this report is not only extremely detailed and wide reaching, but is laid out in very comprehensive way, making use of many graphs and charts to clarify trends and comparisons. Third, along with basic water quality data, analyses are made of mitigating factors, such as industrial and farming practices, population levels and dispersal, and specific geography. This is extremely helpful, because it makes it easier to make comparisons between water quality in the NW and that around the rest of the nation. As a part of this, distinctions are made between types of contaminants and where they are found, helping the reader to understand what kinds of pollutants accompany which human activities. Finally, though this report comes from a nationwide perspective, it includes a significant amount of data on the Willamette Valley. Much of these data are surprising, because in some cases, Oregon is just as, if not more polluted than, areas in California and the Midwest. This provides an interesting perspective on things, as many citizens perceive Oregon as

less polluted than other places. Overall, I would say this report is a good mix of general and specific information, and very user friendly.

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