"Altering Oregon's Destiny: Hormone-Disrupting Pesticides in the Willamette River." Northwest Coalition for Alternatives to Pesticides, 1997. (Reviewed by Elizabeth Parsons)

The Northwest Coalition for Alternatives to Pesticides (NCAP) opens its report with a quotation from the book *Our Stolen Future*: "... scientists keep finding significant, often permanent effects at surprisingly low doses ... by disrupting hormones and development, these synthetic chemicals may be changing who we become ..." The report looks at the human health effects of pesticide levels in drinking water from the Willamette River.

The authors cite a study from Cornell University that claims 99% of pesticide used does not reach its intended pest, but instead serves only to contaminate the land, air, and water. The report includes some findings from a 1996 U.S. Geological Survey on the chemical content of the river. Some of the most important findings were that of the 98 different pesticides tested for, 48 were present in various parts of the river. The median number of pesticides present at any given point in the river was eight. The most common pesticides detected were atrazine, metolachlor, simazine, and diuron.

NCAP explains that it's difficult to measure pesticide use because farmers aren't required to register the names, amounts, or frequency of application of pesticides. They cite toxological studies that link hormone-disrupting chemicals to infertility, genital deformities, low sperm counts, hormonally-triggered human cancers, neurological disorders in children, and low reproductive rates in wildlife. A class of chemicals called triazines have been reliably linked to breast cancer, and three triazines are found at high frequencies in the Willamette River.

The report includes a comprehensive list of which chemicals found in the river are linked to hormone disruption, and it's a long list. It goes on to explain why pesticides are not reliably registered; whenever the federal government has passed legislation on new requirements and regulations, either the Environmental Protection Agency doesn't have the resources needed to track so much information, or there are too many new kinds of pesticides to match up with old records, or adequate testing hasn't been done on the existing levels in drinking water to know whether they're meeting standards or not.

The authors conclude the report with three recommendations: 1) increase public education about pesticide use, 2) pesticide users should try non-life-threatening alternatives, and 3) consumers should support farmers who use alternatives to pesticides.

## Critique

This is an extremely well-written report. Since it's not produced by a solely scientific organization, they don't use a lot of specialized vocabulary. It's more of a summary of other organizations' scientific studies, presented in language appropriate for the lay reader. It has interesting and important information on the specific pesticides found, their health effects on humans, and what people can do to solve the problem. At the end of the report they have an exhaustive reference list, most entries of which are

scientific articles or U.S. governmental agency reports, both very reliable sources of information. This report pertains specifically to the Willamette River. The NCAP office is based in Eugene (so it's easy to contact them for more information). I would recommend this report to any person wishing to learn more about the human health risks of the polluted Willamette River water.

(For a copy of the report, write to NCAP, P.O. Box 1393, Eugene, OR 97440-1393.)

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