

Upper Willamette River Basin: Industrial Wastes Study. United States Environmental Protection Agency. Upper Willamette River Basin: Industrial Wastes Study. Eugene, Oregon, 1978.

(Reviewed by Aimee Furber)

As of 1978 the majority of Lane County industry was related to wood products. The process of making these products required the use of glues, resins, and adhesives. The industry uses and discharged water for machine cooling and log storage. Waste discharges unrelated to cooling tended to contain “biodegradable and organic compounds with relatively low concentrations of metals, minerals, and toxic chemicals” (I-1)

The other industrial activity of the time was food processing, electroplating, chemical production, industrial and commercial cleaning, and manufacturing related to automobiles. Food processing waste tended to be easily biodegradable, but the plating and automotive industries' waste contains chemicals difficult to treat with a conventional biodegradable treatment.

The study focuses on Eugene-Westside, Springfield (including Weyerhaeuser), Irving/Santa Clara, and Lane County—other areas. It focuses on point discharges, non-point runoff, and sanitary system disposal. The point source locations were scattered on many tributary streams (only the Mowhawk was without), which helped to distribute the amount of waste reaching the Willamette. However, the location of point sources on smaller streams caused more damage to the surrounding areas.

Eugene-Westside:

- Industry: mix, veneer to battery manufacturers
- Discharge Types: log pond overflow, sawmill yard runoff, cooling water, cooling water (hydraulic and compressor)

Springfield: (including Weyerhaeuser)

- Industry: veneer plants, sawmills, glue manufacturers
- Discharge Types: cooling water, boiler blow-down, roof drainage, glue production process waste, resin tower well (emergency only), surface runoff, condenser cooling water, truck wash, log pond overflow, treated process water (sawmill), rearing water (salmon hatchery), bearing cooling water

Irving/Santa Clara:

- Industry: sawmill, veneer, meat packing
- Discharge Types: log pond including sanitary wastes, compressor cooling, boiler blow-down, process waste water (resin/glue manufacturing), truck wash water (oil co.), yard and wash water (railroad yard)

Lane County—other areas:

- Industry: remaining industries motioned above
- Discharge Types: log pond flushing, log pond overflow, cooling water, treated wash water (tire manufacturers), log storage and cooling water, log deck runoff, steam vat condensate (sawmill/veneer), rearing water (salmon/trout hatchery), treated drainage and skimmer pond waters (sawmill/particle board)

Critique

The study was conducted by a credible source: the Lane County Water Pollution Control Division, through funding by the Environmental Protection Agency. In terms of pollution history of the Willamette in the Eugene area the information presented in the study is quite useful. I have listed the main pollution sources in each area, but the study goes on to give recommendations on how to remedy the problem of pollution. Thus, one can look at both pollution source at the time and what types of efforts were made to correct the problem.

The information is limited in that it only concerns Lane County. To get a complete idea of the pollution in the Willamette at this time similar studies from all counties along the Willamette would be needed.

The other limitation in the study is in the accuracy of the date collected. The most accurate data comes from the point source permits that have been filed. However, the water pollution is generated by more than point source discharge. Pollution from runoff, which contains sediments, dissolved organics, oil, and grease, cannot be accurately measured and tends to vary from year to year with rainfall. The study ignored sanitary human wastes. This might be from lack of accurate date or a way to measure pollution of this type.

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