



This document contains data extracted from the EPA "State Source Water Assessment and Protection Programs Final Guidance," published in August 1997. The reference number is EPA 816-R-97-009. You can find the entire document at <http://www.epa.gov/safewater/sourcewater.cfm?action=Publications>.

State Source Water Assessment and Protection Programs Final Guidance

Appendix E

August 1997

Appendix E

Partial List of Potential Sources of Contamination Found in Wellhead Protection Areas and in Watersheds

Introduction

Appendix E gives specific examples of potential sources of contamination. Under section 1453 states may, but are not required to, inventory all of these potential sources of contamination. Depending on the local situation, the following potential sources may or may not be *significant* potential sources. Appendix E should be used in conjunction with Appendix F. The stars (*) indicate sources of microbial contaminants.

Agriculture

Crop-related sources

- Irrigated crop production

- Non-irrigated crop production

- Specialty crop production (e.g., horticulture, citrus, nuts, fruits)

*Grazing-related sources**

- Pasture grazing - riparian and/or upland*

- Pasture grazing - riparian*

- Pasture grazing - upland*

- Range grazing - riparian and/or upland*

- Range grazing - riparian*

- Range grazing - upland*

*Intensive animal feeding operations**

Concentrated animal feeding operations (CAFOs; permitted; PS)*

Confined animal feeding operations (NPS)*

Aquaculture*

Atmospheric deposition

Collection system failure

Combined sewer overflow*

Construction

Highway/road/bridge construction

Land development

Contaminated sediments

Debris and bottom deposits

Domestic wastewater lagoon*

Erosion from derelict land

Groundwater loadings

Groundwater withdrawal

Habitat modification (other than hydromodification)

Removal of riparian vegetation

Bank or shoreline modification/destabilization

Drainage/filling of wetlands

Highway maintenance and runoff

Hydromodification

Channelization

Dredging

Dam construction

Upstream impoundment

Flow regulations/modification

Industrial Point Sources

Major industrial point sources

Minor industrial point sources

Internal nutrient cycling (primarily lakes)

Land disposal

Sludge*

Wastewater*

Landfills*

Inappropriate waste disposal/wildcat dumping*

Industrial land treatment
Onsite wastewater systems (septic tanks)*
Hazardous waste
Septage disposal*

Leaking underground storage tanks

Marinas and recreational boating

In-water releases*
On-land releases*

Municipal point sources*

Major Municipal Point Sources - dry and/or wet weather discharges*
Major Municipal Point Sources - dry weather discharges*
Major Municipal Point Sources - wet weather discharges*
Minor Municipal Point Sources - dry and/or wet weather discharges*
Minor Municipal Point Sources - dry weather discharges*
Minor Municipal Point Sources - wet weather discharges*
Package plants (small flows)*

Natural sources (e.g., arsenic, radon, wildlife)*

Other

Recreation and tourism activities (other than boating)

Golf courses

Resource extraction

Surface mining
Subsurface mining
Placer mining
Dredge mining
Petroleum activities
Mill tailings
Mine tailings
Acid mine drainage
Abandoned mining
Inactive mining

Salt storage sites

Sediment resuspension

Sewer lines (leaking)*

Silviculture

Harvesting, restoration, residue management

Forest management (e.g., pumped drainage, fertilization, pesticide application)
Logging road construction/maintenance
Silvicultural point sources

Sources outside state jurisdiction or borders*

Spills (accidental)*

Unknown source*

Urban runoff/storm sewers*

Nonindustrial permitted*
Industrial permitted*
Other urban runoff*
Illicit connections/illegal hookups/dry weather flows*
Highway/road/bridge runoff
Erosion and sedimentation

Waste storage/storage tank leaks (above ground)*

NOTE: EPA's 305(b) guidance also asks states to identify major sources of contamination of waters designated for drinking water supply use. States are urged to coordinate their source water and 305(b) information and programs.