GUIDANCE TO LANE CODE SECTION 16.298: DRINKING WATER PROTECTION OVERLAY ZONE

WHAT CONSTITUTES A HAZARDOUS MATERIAL?

Lane County's Drinking Water Protection Overlay Zone (DWP Overlay) regulates the use and management of hazardous materials for the purposes of protecting drinking water for residents of Lane County. The code defines "hazardous materials" according to various state and federal definitions. This guidance document is intended to help land use applicants understand what kind of materials are and are not regulated by this code.

What is a hazardous material?

A hazardous material is any item or agent (biological, chemical, physical) that has the potential to cause harm to humans, animals, or the environment when released into the environment.

What kinds of products are regulated by the DWP Overlay code?

The code regulates those hazardous materials that could pose a risk to water quality if released into the environment. This generally includes materials that are ignitable, corrosive, reactive, or toxic. Signal words on product labels, such as POISON/DANGER, WARNING, CAUTION, or warnings such as "strong sensitizer," "toxic," "carcinogen," "flammable," or "corrosive" can help users identify hazardous materials. Some hazardous substances, such as pesticides, are regulated by the State of Oregon and therefore are not covered in this code. See the exemptions section below for further details.

The table below provides examples of regulated products, though the list is not exhaustive. If you have additional questions about whether or not a particular product is regulated, contact the Lane County Land Management Division at 541-682-3577.

Examples of Chemical Products Regulated by Lane County DWP Overlay

Category	Examples
Oils and fuels	Bulk storage of diesel or gasoline, motor oil, kerosene
Non-pesticide garden chemicals	Fertilizers, nitrates, phosphates
Industrial and commercial cleaning chemicals	Metal parts cleaners, carpet cleaners, drain cleaners, degreasers, ammonia, spotting chemicals, rust removers, peroxides
Paint and paint products	Oil-based paint, some latex paint, thinners, strippers, mineral spirits
Automotive chemicals	Fuel, fuel additives, lubricants, motor oil, antifreeze, transmission fluid

Solvents	1,1,1-Trichloroethane, tetrachloroethene (perc), dichloromethane/methylene chloride
Acids and bases	Acetic acid, sulfuric acid, hydrochloric acid; sodium hydroxide, potassium hydroxide
Alcohols	Methanol, allyl alcohol
Machinery related substances	Hydraulic oil, cutting oil, fuel, solvents, metals, oily metal shavings, degreasers
Printing chemicals	Inks, fixers, developers, replenishers, washes, dyes, oils, silver sludges, cyanides
Wood/furniture products	Preservative and treatment chemicals, stains, cleaners, varnishes, lacquers, creosote, arsenic, heavy metals
Waste products	Septage from boat or RV waste, automotive waste, PCB contaminated wastes, lead
Electrical/electronic manufacturing	Cyanides, metal sludges, chromic acid, solvents, oils, acetone, PCBs
Home manufacturing/construction	Solvents, paints, glues and other adhesives
Miscellaneous industrial and common chemicals	Solvents, oils, phenols, resins, paint wastes, surfactants, formaldehyde, cyanides, peroxides, metals, gluing wastes, methyl ethyl ketone (MEK), toluene, xylene.
Bulk storage of household chemicals	Swimming pool chemicals, bulk fuel/oil storage, waste automotive chemicals, household hazardous waste

Are all quantities of hazardous materials regulated?

NO! The code regulates only aggregate quantities greater than 110 gallons (with the exception of DNAPLs, which are prohibited for new uses. See below). Most households do not keep more than 110 gallons of hazardous materials on site and therefore would not be regulated by the hazardous materials portion of this code.

Quantities greater than 110 gallons will be allowed for residential uses, rural home businesses, or home occupations provided the hazardous materials are not dense non-aqueous phase liquids (DNAPLs) and the applicant submits a signed statement to Lane County asserting that all hazardous materials stored on site in excess of 110 gallons will be stored in secondary containment. New

commercial uses of quantities greater than 110 gallons will be prohibited, except where the exemptions apply (see below), within Zone A and all Surface Water Protection Areas.

Are any hazardous materials prohibited outright?
There is only one class of chemicals that is prohibited for new uses within the Drinking Water Protection Overlay: dense non-aqueous phase liquids (DNAPLs). A DNAPL, also known as a "sinker," is a liquid that is denser than water and does not dissolve or mix easily in water. Because DNAPLs are heavier than water, they tend to sink to the bottom of the aquifer, where relatively small quantities can cause large-scale contaminations. DNAPLs are often chlorinated solvents such as perchlorethylene or methylene chloride and can be found in products such as strippers and solvents. A list of common DNAPL chemicals is attached to this guidance document.

What kinds of materials are exempt from regulation?
Hazardous materials that are exempt from regulation by the DWP Overlay still may be regulated by other enforcement bodies such as the fire department or State of Oregon. The DWP Overlay exempts the following:

- Hazardous materials that do not pose a risk to water quality, as listed and/or approved by Lane County.
  (Examples: Acetylene, carbon dioxide, propane.)
- Hazardous materials offered for sale in their original containers of five gallons or less.
- Hazardous materials in fuel tanks and fluid reservoirs attached to a private or commercial motor vehicle and used directly in the motoring operation of that vehicle.
- Hazardous materials in fuel tanks and fluid reservoirs attached to machinery, including but not limited to fuel, engine oil, and coolant.
- Fuel oil used in existing heating systems.
- Emergency use, storage and handling of hazardous materials by governmental organizations or non-governmental disaster relief organizations in the public interest.
- Hazardous materials used and stored specifically for water treatment processes of public and private water systems
- Hazardous materials contained in properly operating sealed units (transformers, refrigeration units, etc.) that are not opened as part of routine use.
- Natural gas distribution lines.
- Any commonly used office supply, such as toner or cleaning supplies, where supplies are purchased off-site for use onsite.
- Hazardous materials used in association with Farm Practices as defined in ORS 30.930 in an Exclusive Farm Use Zone and Confined Animal Feeding Operations (CAFOs).
- Pesticide use and storage.
- Hazardous material use in association with Forest activities conducted under the Forest Practices Act.

How can I dispose of unwanted hazardous materials?

Lane County Waste Management offers several hazardous waste disposal programs. For more information on hazardous waste alternatives or disposal, call them at (541) 682-4120, or visit the website at http://www.lanecounty.org/Departments/PW/WMD/HazWaste/Pages/default.aspx.

List of Common DNAPL Chemicals

Chemical Name	Alternative Name	CAS Number
1,1,2,2-tetrachloroethane	Acetylene tetrachloride; Symmetrial tetrachloroethane	79-34-5
1,1,2-trichloroethane	Ethane trichloride; B-trichloroethane; Vinyl trichloride	79-00-5
1,1-dichloroethylene	1,1- DCE; 1,1-Dichloroethene; asym-Dichloroethylene; NCI-C54262; RCA waste number U078; Sconatex; VC; VDC; Vinylidene chloride; Vinylidene chloride (II); Vinylidene dichloride; Vinylidene chloride;	75-35-4
1,1-Dichloroethane	Chlorinated hydrochloric ether; 1,1-Dichloroethane; asym-Dichloroethane; Ethylidene chloride; Ethylidenedichloride; 1,1-Ethylidene dichloride; NCI-C04535; RCRA waste number U076; UN 2362; Asymmetrical dichloroethane	75-34-3
1,2-Dichloropropane	Propylene dichloride; Dichloro-1,2-propane	78-87-5
1,1,1-Trichloroethane	1,1,1-TCA; Aerothene; Aerothene TT; Baltana; Chloroethene; Chloroethene NU; Chlorothane NU; Chloroethene; Chloroethene NU; Chloroethene VG; Chlorten; Genklene; Inhibisol; Methyl chloroform; Methyltrichloro-methane; NCI-C04626; RCRA waste number U226; Solvent III; -T; 1,1,1-TCE; Trichloroethane; Tri-ethane; UN 2831	71-55-6
1,2,3-Trichloropropane	Allyl trichloride; Glycerol trichlorohydrin; Glyceryl trichlorohydrin; Trichlorohydrin	96-18-4
1,2,4-trichlorobenzene	Unsym-Trichlorobenzene; 1,2,4-Trichlorobenzol	120-82-1

1,2-dichloroethylene	Acetylene dichloride; cis-Acetylene dichloride; trans-Acetylene dichloride; sym-Dichloroethylene	540-59-0
Carbon tetrachloride	Carbon chloride; Carbon tet; Freon® 10; Halon® 104; Tetrachloromethane	56-23-5
Chlorodiphenyl	Aroclor® 1254; PCB; Polychlorinated biphenyl	11097-69-1
Chloroform	Methane trichloride; Trichloromethane	67-66-3
Dichloroethyl ether	bis (2-Chloroethyl)ether; 2,2-Dichlorodiethyl ether; 2,2-Dichloroethyl ether	111-44-4
Ethylene dibromide	1,2-Dibromoethane; Ethylene bromide; Glycol dibromide; EDB	106-93-4
Ethylene dichloride	1,2-Dichloroethane; Ethylene chloride; Glycol dichloride	107-06-2
Methylene chloride	Aerothene MM; DCM; Dichloromethane; Freon 30; Methane dichloride; Methylene bichloride; Methylene dichloride; Narcotil; NCI-C50102; RCRA waste number U080; Solaesthin; Somethine; UN 1593	75-09-2
o-dichlorobenzene	o-DCB; 1,2-Dichlorobenzene; ortho-Dichlorobenzene; o-Dichlorobenzol	95-50-1
pentachloroethane	Ethane pentachloride; Pentalin	76-01-7
pentachloronapthalene	Halowax® 1013; 1,2,3,4,5-Pentachloronaphthalene	1321-64-8
pentachlorophenol	PCP; Penta; 2,3,4,5,6-Pentachlorophenol	87-86-5
perchloromethyl mercaptan	PCM; PMM; Trichloromethane sulfenyl chloride; Trichloromethyl sulfur chloride	594-42-3
Tetrachloroethylene	PCE; PERC; Perchlorethylene; Ankilostin; Antisol 1; Carbon bichloride; Carbon dichloride; Dee-Solv; Didakene; Dow-per; ENT 1,860; Ethylene tetrachloride; Fedal-UN; NCI-CO4580; Nema; PER; Perawin; Perchlor; Perchloroethylene; Perclene; Perclene D; Percosolv; Perk; Perklone; Persec; RCRA waste number U210; Tetlen; Tetracap; Tetrachlorethylene; Tetrachloroethene; 1,1,2,2-Tetrachloroethylene; Tetraleno; Tetralex; Tetravec; Tetroguer; Tetropil; UN 1897	127-18-4

Trans-1,2-dichloroethylene	Acetylene dicloride; trans-Acetylene dichloride; 1,2-Dichloroethyene; (E)-1,2-Dichloroethene; trans-Dichloroethylene; 1,2- trans-Dichloroethene; 1,2-trans-dichloroethylene; sym-Dichloroethylene; Dioform	540-59-0
Trichloroethylene	TCE; Acetylene trichloride; Algylen; Anamenth; benzinol; Blacosolv; Blancosolv; Cecolene; Chlorilen;1-Chloro-2,2-dichloroethylene; Chlorylea; Chlorylen; Circosolv; Crawhaspol; Densinfluat; 1,1-Dichloro-2-chloroethylene; Dow-tri; Dukeron;Ethinyl trichloride; Ethylene trichoride; Fleck-flip; Flock-flip; Fluate; Gemaglene; Germalgene; Lanadin; Lethurin; Narcogen; Narkogen; Narkosoid; NCI-CO4546; Nialk; Perm-a-chlor; Perm-a-clor; Petzinol; Philex; RCRA waste number U228; Threthylen; Threthylene; Trethylene; Tri; Triad; Trial; Triasol; Trichloran; Trichloroethene; 1,1,2-Trichlororthene; 1,2,2-Trichloroethene; 1,1,2- Trichloroethylene; 1,2,2-Trichloro-ethylene; Tri-clene; Trielene; Trieline; Triklone; Trilen; Trilene; Triline; Trimar; Triol; Tri-plus; Tri-plus M; UN 1710; Vestrol; Vitran; Westersol	79-01-6
trichloronaphthalene	Halowax®; Nibren wax; Seekay wax	1321-65-9
Vinyl chloride	Chlorethene; Chlorethylene; Chloroethene; 1-Chlorethene; Chloroethylene; 1-Chloroetyne; Ethylene monochloride; Monochloroethene; Monochlor-ethylene; MVC; RCRA waste number U043; Trovidur; UN 1086; VC; VCM; Vinyl C monomer; Vinyl chloride monomer	75-01-4
bromodichloromethane		75-27-4
Dibromochloromethane		124-48-1
Bromoform	tribromomethane	75-25-2
Trichlorofluoromethane		75-69-4
Cis-1,2-dichloroethylene		
Trans-1,3-dichloropropylene		

bis (chloro) methylether		
bis (2-chloroethyl) ether		111-44-4
bis (2-chloroisopropyl) ether		39638-32-9
2-chloroethylvinylether	Ethane; 2-chloroethoxy	110-75-8
chlorobenzene		108-90-7
bromomethane	methyl bromide	74-83-9
m-dichlorobenzene	1,3-Dichlorobenzene	541-73-1
dibromomethane		74-95-3
chloroethane		75-00-3
hexachloroethane		67-72-1
tetrachloronapthalene	Halowax®; Nibren wax; Seekay wax	1335-88-2
Dichlorofluoromethane (in compressed form)		75-71-8
1,1,1,2-Tetrafluoroethane	1112-TFE	811-97-2
1,1,1,3,3-Pentafluoropropane	PFP	460-73-1