

# Attachment 5. DEQ Toxic Chemical Reduction and Assessment Programs

## LAND QUALITY PROGRAMS

Program/Project	Program Type	Description	Targeted Pollutants	External Partners
<b>Toxics Use and Hazardous Waste Reduction Program</b>	Source Reduction	* Requires certain facilities to develop & implement toxics reduction plan or environmental management system, and report data * Provide technical assistance to businesses on reducing toxics and managing hazardous waste	Range of toxics used in industrial, commercial and institutional operations	Local governments and business associations
<b>Drycleaner Program</b>	Source Reduction	Drycleaners must develop waste minimization plans and implement specified management practices	Tetrachloroethylene (PECRC)	DEQ Cleanup Program and Drycleaning business associations
<b>Eco-Logical Business Program</b>	Source Reduction	Certifies and recognize auto repair and landscape contracting businesses for going beyond compliance in reducing waste, toxics, and water and air emissions.	Solvents, oils, paints, refrigerants, detergents, pesticides, fertilizers	Local governments, business associations
<b>Hazardous Waste Compliance Program</b>	Source control	Inspect business and institutional facilities to ensure compliance with requirements for managing, transporting and disposing of hazardous wastes (RCRA)	Range of toxics used in industrial, commercial and institutional operations	N/A
<b>Household Hazardous Waste Program</b>	Source reduction and Source control	* Educate public about less toxic alternatives, promote recycling & reuse * Facilitate and fund the collection and proper management of household hazardous wastes	Range of toxics used in homes: paints, solvents, mercury-containing devices, batteries, pesticides	Metro, other local governments
<b>Conditionally Exempt Generator (CEG) and Agriculture Pesticide Waste Collection</b>	Source control	Organize and conduct hazardous waste collection events for small businesses and farmers; support local collection facilities & special mercury collections	Range of toxics used by small businesses, mercury, legacy and current –use ag pesticides	Local governments, business and agricultural groups, OSU Extension
<b>Electronic Waste Recycling</b>	Source Control/ Producer Responsibility	Requires producers of electronic products to fund or provide free, accessible drop-off locations for electronic wastes that will be recycled.	Lead, cadmium, chromium, mercury.	Electronics manufacturers
<b>Voluntary and Independent Cleanup Program</b>	Assessment and Toxics Cleanup	Oversee assessments and cleanups of soil, groundwater and sediment from sites contaminated with toxic substances	Range of toxic pollutants that pose risks to human health & environment	Responsible parties
<b>Orphan Site Cleanup Program</b>	Assessment and Toxics Cleanup	Conduct assessments and cleanups of contaminated sites for which no responsible party exists (or is able to fund cleanup), including abandoned mercury and gold mines.	Range of toxic pollutants, most notably mercury from abandoned mines	EPA
<b>Portland Harbor Project</b>	Geographic Assessment, Toxics Cleanup and Source Control	* Assess and cleanup in-water and upland sites adjacent to the Willamette River in Portland that are contaminated with toxics substances * Prevent the recontamination of the Portland Harbor through stormwater source control	* PCBs, Organochlorine Pesticides (e.g., DDT), Phthalates, dioxins, PAHs	EPA, Lower Willamette Group (industry), City of Portland, Tribes, other state and federal agencies

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## AIR QUALITY PROGRAMS

Program/Project	Program Type	Description	Targeted Pollutants	External Partners
<b>Clean Diesel Program</b>	Source Reduction	Promote the use of cleaner fuels, diesel engine retrofits and reduced idling	PAHs, aldehydes	Industrial, commercial and institutional entities with diesel fleets.
<b>Portland Air Toxics Solutions</b>	Geographic Source Reduction	Geographic approach to reducing toxic pollutants in the air, development of an area-wide air toxics risk reduction plans. Use air toxics benchmark concentrations as reference point for reduction efforts.	Benzene, Diesel PM2.5 Polycyclic Organic Matter (POM, includes PAH). Acrolein, 1,3-Butadiene Acetaldehyde, Naphthalene Arsenic compounds, Nickel compounds, Lead compounds, Chromium VI, Manganese compounds, Cadmium compounds, Methylene chloride, Para-Dichlorobenzene Trichloroethylene Ethylbenzene, Formaldehyde Perchloroethylene 2,4-toluene diisocyanate	Local governments, community organizations, DHS
<b>Air Toxics Monitoring – DEQ Laboratory &amp; Environmental Assessment Division</b>	Assessment	Collection and analysis of ambient air samples from stations in Portland, Eugene, Medford, LaGrande	VOCs, SVOCs, Polyorganic Matter (including PAHs), metals	N/A
<b>State and Federal Air Quality Permits</b>	Source Control	Requires facilities within specific industrial categories or that exceed emissions thresholds to meet emissions limits for various pollutants (including toxic constituents) or implement specified control technologies	Hazardous air pollutants	N/A
<b>Oregon Utility Mercury Rule</b>	Source Control	Requires coal-fired electric plant to reduce mercury emissions by 90% by 2012	Mercury	Industry
<b>Cement Plant Mercury Controls</b>	Source Control	Air permit for large cement manufacturer amended to require 70% control of mercury emissions	Mercury	Industry
<b>Electric Arc Furnace Rule (in development)</b>	Source Control	Adopting federal rules regulating emissions from facilities with electric arc furnaces	Mercury	Industry
<b>Woodstove Rules and Public Education</b>	Source Reduction	Promote use of cleaner burning woodstoves and set efficiency standards for new stoves sold in Oregon	Polorganic Matter (e.g., PAHs), aldehydes	Local governments
<b>Open Burning Rules and Public Education</b>	Source Reduction	Restricts open burning of solid waste in specified areas and promotes alternatives to burning	Polorganic Matter (e.g., PAHs), aldehydes, VOCs	Local governments
<b>Anti-Idling and “Don’t Top-off” Education and Outreach</b>	Source Reduction	Promotes vehicle driving and fueling actions that reduce toxic emissions	Polorganic Matter (e.g., PAHs), aldehydes, VOCs	Local governments

WATER QUALITY PROGRAMS

Program/Project	Program Type	Description	Targeted Pollutants	External Partners
<b>SB 737 – Priority Persistent Pollutants in Water</b>	Assessment and Source Reduction	By 2010, DEQ must develop a list of priority persistent pollutants. In addition, DEQ must report on point, nonpoint and legacy sources of priority persistent pollutants “from existing data,” and identify source reduction and control methods that can reduce discharges., requires Oregon’s 52 large municipal wastewater treatment plants to develop toxics reduction plans by 2011.	118 Persistent bioaccumulative toxics (“Priority Persistent Pollutant List”) that have a documented effect on human health, wildlife and aquatic life	Persistent Pollutant Science Advisory Committee (academics, technical consultants), local governments, environmental advocacy groups, tribes, other external stakeholders
<b>Fish Consumption Rate Rulemaking</b>	Source Reduction and Control	Revise Oregon’s toxics criteria for human health based on a fish consumption rate of 175 grams per person per day; Propose rule language that will allow DEQ to implement the standards in NPDES permits and other Clean Water Act programs in an environmentally meaningful and cost-effective manner, using a broad toxics reduction approach.	WQ toxics criteria for human health - those pollutants for which human health criteria have been established	EPA, tribal governments, local governments, environmental advocacy groups, industry representatives
<b>Pesticide Stewardship Partnerships</b>	Assessment and Source Reduction	Monitor for pesticides in streams within specific watersheds and identify water quality concerns, and use the results to work collaboratively with local partners and pesticides users to implement voluntary best practices. Conduct follow up monitoring to measure WQ improvements. Watersheds: Hood River and Mill Creek, Pudding, Walla Walla, Clackamas, Yamhill	Current-use pesticides, with focus on organophosphate insecticides and triazine herbicides	OSU Extension Service, watershed councils, tribes, soil and water conservation districts (SWCDs), Oregon Departments of Agriculture and Forestry, grower groups
<b>Oregon Water Quality Pesticide Management Plan</b>	Assessment and Source Reduction	Inter-agency (DEQ, ODF, ODA, and DHS) plan to prioritize pesticides and watersheds for implementing actions that will reduce pesticide occurrence in surface and groundwaters in Oregon.	Current-use pesticides.	ODA, ODF, DHS, OSU Extension, SWCDs, watershed councils, grower groups, tribes
<b>Willamette Toxics Monitoring Program</b>	Assessment	Comprehensive monitoring of water column and fish tissue throughout the Willamette Basin to determine scope and extent of problems for future reduction actions.	VOCs and SVOCs, PAHs, PCBs, flame retardants, heavy metals, current-use and legacy pesticides, pharmaceuticals, personal care products, hormones, plasticizers, (possibly) dioxins and furans	Other state agencies, local stakeholders in watersheds, local governments, environmental groups, industry.
<b>Drinking Water Source Protection</b>	Assessment and Source Reduction	* Evaluate contamination risks for public drinking water sources & recommend strategies for protection * Monitor “raw” source water near 6 surface water & 6 groundwater public drinking water systems.	VOCs and SVOCs, PAHs, PCBs, flame retardants, heavy metals, current-use and legacy pesticides, pharmaceuticals, personal care products, hormones, plasticizers	DHS, public water systems

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<b>Total Maximum Daily Loads for Toxics</b>	Assessment and source control	Establish pollutant load limits in water basins with impaired waters; require development of implementation plans by designated agencies	Mercury and other heavy metals, PCBs, legacy pesticides.	Local governments, Departments of Agriculture and Forestry
<b>Water Quality Assessment - Integrated Reporting for Clean Water Act 305(b)/303(d)</b>	Assessment	Biannual assessment of water quality in Oregon to report on the overall condition of state waters, and identify waters that do not meet water quality standards and need pollutant load control and restoration plans (TMDLs) developed.	Pollutants with water quality criteria.	Federal, state, and local natural resource management agencies; watershed councils; private land managers; environmental groups
<b>Municipal and Industrial Wastewater Discharge Permits (NPDES and WPCF)</b>	Source Control	Requires specific municipal and industrial facilities to meet wastewater effluent concentration limits or technology standards, and also criteria for biosolids. Requires development of plans and programs (e.g., pre-treatment) to assist in meeting limits.	A subset of 156 toxics with Oregon Water Quality Criteria	Local governments, industry
<b>Municipal and Industrial Stormwater Permits (NPDES)</b>	Source reduction and control	Requires municipal and industrial facilities to develop and implement stormwater management plans to reduce pollution impacts of stormwater discharged to surface water.	Heavy metals, oils & greases, pesticides	Local governments, industry
<b>Underground Injection Control (UIC) Program</b>	Source reduction and control	Requires municipalities, as well as industrial and commercial land owners with UICs (e.g., drywells) to monitor for pollutant, meet discharge standards, and/or develop plans as appropriate to reduce discharges.	Heavy metals, legacy & current use pesticides, VOCs, PCBs, PAHs	Local governments, business community
<b>Groundwater Management Areas (GWMAs)</b>	Assessment and source control	Designation of specific aquifers as GWMAs based on existing contamination levels relative to GW standards. On-going monitoring of contaminants to assess trends, and promotion of management strategies that will reduce further impacts from current practices: Current GWMAs: Malheur, Umatilla, South Willamette	Pesticides, perchlorate, nitrates	Agriculture groups, local governments.
<b>Columbia River Toxics Reduction Strategy (EPA Lead)</b>	Assessment and source reduction / control	The main objectives of the working group are to: identify additional monitoring needs; identify sources of toxics; and initiate toxic reduction actions. To share information, coordinate activities, and develop strategies to identify and then reduce toxics. Provides a forum for scientists from different organizations to share their work, coordinate efforts and increase collaboration.	Mercury and other heavy metals, VOCs and SVOCs, PAHs, PCBs, flame retardants, current-use and legacy pesticides, personal care products, hormones, plasticizers, dioxins and furans , pharmaceuticals.	US EPA, federal agencies, tribal governments, Oregon and other state agencies, local governments, environmental advocacy groups, industry representatives