

Potential Strategies for Reducing Risks to Drinking Water Sources

The following list provides only a summary of the potential management options available to public water suppliers and communities for protecting their sources of drinking water. Additional details on the methods and implementation for these protection options is available on DEQ's Drinking Water Protection webpage at <http://www.oregon.gov/deq/wq/programs/Pages/dwp.aspx>.

Commercial/Industrial Land Uses

- Employee education and notification using:
 - Local media
 - Letters to land owners/operators
 - Bill stuffers/customer mailings
 - Hold educational meetings/workshops/fairs
 - Post signs including spill response contact
- Distribute fact sheets or newsletters about drinking water protection, include:
 - “Best Management Practices (BMP)” for specific businesses
 - Hazardous waste collection opportunities
 - Information on pollution prevention
 - Information on stormwater risks
 - Information on septic systems use and maintenance
 - Information on drywell/injection well/sump use, maintenance and abandonment
 - Construction/demolition BMPs
- Encourage participation in “Pollution Prevention (P2)” and waste reduction projects
 - Host P2 meetings with DEQ or city staff speakers
 - Offer free web research for P2 projects for specific businesses
 - Open house workshops
 - One-on-one assistance from peer businesses
 - Ensure existing requirements are being met (Toxics Use and Hazardous Waste Reduction law of 1989)
 - Partner with DEQ's Toxic Use Reduction staff
 - Survey owners to assess current practices and provide TA based on results
- Provide financial incentives
 - P2 tax credits
 - Low interest loans
 - Direct subsidies/cost sharing
 - Secure grants or funding to provide incentives
 - Institute a local tax on pollution
 - Provide information on pollution liability and potential costs
- Facilitate employee-training workshops (some taught by agency personnel at no cost)
 - Pollution prevention/waste reduction (use of alternatives)
 - Petroleum/hazardous waste/maintenance chemicals use, storage, disposal
 - Chemical applicators license for pesticides
 - Extension Service training for proper pesticide use
- Facilitate business mentoring program / information sharing among commercial/industrial sites
- Provide recognition for “Environmentally Friendly Businesses” (e.g., EcoLogical program)
 - Green award
 - Plaques, flags, signs, door stickers, buttons for employees



State of Oregon
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Environmental
Quality

Water Quality Drinking Water Protection

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Center for Health Protection Drinking Water Services

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Contact: Tom Pattee
<http://www.healthoregon.org/dwp>

- Provide information at Planning/Permits Dept. on whether the activity they are proposing will impact water quality upon permit application
- Encourage public education by private sector – education at point of sale
 - Pamphlet distribution at home and garden shops
 - Partner with home improvement shops to have them include DWP and P2 at their seminars for projects that could impact water quality
 - Provide lists of “best environmental alternative” next to home and garden products
- Fund a public education/outreach coordinator to focus on specific areas
 - Set up a publicly coordinated resource center or forum for small businesses
 - Set up local materials exchange program (or publicize existing programs)
 - Monitor required BMPs for compliance (questionnaires, reporting, inspections, etc.)
- Disclosure of release data (make pollutant release data more available to public, i.e. TRI data)
- Promote hazardous waste collection
 - Coordinate/facilitate hazardous waste collection (for small businesses)
 - Host an amnesty (free disposal) program for chemicals stored in DWSA
- Stormwater control/pretreatment – encourage BMPs
- Spill response plans
 - Notify responsible parties (i.e. County, ODOT, railroads, businesses) of location within DWSA
 - Encourage and assist with spill response planning for specific groups of businesses
- Stormdrain stenciling program – cost share
- Zoning ordinances (overlay map, special permitting requirements, selected chemical ban, DCLD’s Goal 5 Resource Area designation and protection)
- Land acquisition – acquire grants for purchase of public lands
- Partner with public agencies to become active in state programs (local implementation)
- Examples:
 - Site Assessment – work with DEQ’s Site Assessment program to evaluate sites that may require cleanup
 - Environmental Cleanup sites/ Underground Storage Tanks - review status, permit and monitoring network (data is public record)
 - Dry Cleaners - work with DEQ’s dry cleaner program to get information out on P2 opportunities and cleanup cost reimbursement
 - Waste Minimization/Pollution Prevention – partner with DEQ’s technical assistance team
 - Injection wells/Sumps/Drywells – verify permit status, encourage elimination and/or maintenance
 - Landfills/transfer stations – review status, permit and monitoring network
- Water conservation program
 - Provide technical assistance for reducing water use
 - Develop rate structure that encourages conservation
 - Rebate program for water efficient appliances
 - Partner with Oregon Water Resources Department

Municipal Land Uses (parks, maintenance facilities, sumps, nurseries, etc.)

- Facilitate training workshops
 - Chemical applicators license for pesticides
 - Pollution prevention/waste reduction (use of alternatives)
 - Petroleum/hazardous waste/maintenance chemicals use, storage, disposal

- Spill Response Plans
 - Notify local Emergency Response Planners of DWSA location
 - Ensure public water system notification in spill event
 - Establish / review spill response procedures and plans
 - Notify responsible parties of location within DWSA
 - Construct spill containment/diversion structures
 - Set up regional spill number if necessary
 - Provide fire department and spill responders with good maps of storm and sanitary sewer systems
- Urban Runoff/Stormwater Program
 - Injection wells/sumps/drywells - verify permit status, encourage registration, elimination/proper maintenance
 - Stormwater Control/Pretreatment
 - Encourage use of pre-treatment and BMPs (detention ponds, retention ponds, vegetated swales and filter strips, urban forestry, sand filters), street cleaning, parking lot pretreatment requirements.
- Property Purchase/Donation Program
 - Conservation easement purchase
 - Encourage voluntary deed restrictions
 - Land acquisition
 - Land set-asides in developments (more green space)
 - Land donation/lease program
- Golf courses – educational materials / BMPs
- Landfills / transfer stations – review status, permit and monitoring network
- Maintenance / fueling areas - see management options for commercial/industrial
- Consider community sewage collection and treatment system installation where necessary
- Initiate volunteer monitoring program for municipal lands

Residential Land Uses

- Public Education/Notification using:
 - Local media (TV, radio, newspaper - either paid or Public Service Announcements)
 - Letters to residents
 - Bill stuffers/customer mailings
 - Hold educational meetings/workshops/fairs
 - Distribute fact sheets or a newsletter on DWP, BMPs, and available resources including:
 - Household hazardous waste
 - Septic systems use, maintenance, and abandonment
 - Pollution prevention/waste reduction in the home (use of alternatives)
 - Lawn and garden maintenance
 - Home heating oil tank maintenance and abandonment
 - Proper well construction, maintenance, and abandonment
 - Drywells/sumps use, maintenance and abandonment
- Fund a public education/outreach coordinator
- Provide educational programs and/or speakers in the schools
- Install signs – “Entering DWSA...” include spill response contacts
- Stormdrain stenciling program (i.e. “drains to your drinking water”)
- Facilitate household hazardous waste collection events
- Maintain low density in residential areas (large lot zoning)
- Property purchase/donation program
 - Conservation easement purchase

- Encourage voluntary deed restrictions
- Land acquisition through donation/lease program
- Land set-asides in developments (more green space)
- Cost-share or provide technical assistance for periodic inspection and maintenance of septic systems
- Encourage proper household water well maintenance / abandonment
- Cost-share or provide grants for proper well abandonment
- Provide technical assistance for private well management practices, maintenance, and abandonment procedures
- Host workshops for private well owners – taught by OSU Extension Service
- Encourage water conservation program through rebate program for water efficient appliances, public education, odd/even watering etc.

Agricultural Land Uses (see also ‘Residential’ for Rural homeowners)

- Public education / notification using:
 - Letters to land owners / growers
 - Educational meetings/workshops/fairs for growers
 - Survey owners to assess current practices
- Set up a publicly coordinated resource center or forum
- Facilitate training / workshops staffed by ODA, Extension Service, or DEQ
 - Chemical applicators license for pesticides
 - Fertilizer storage and handling BMPs
 - Livestock waste storage and treatment
 - Pollution prevention/waste reduction (use of alternatives)
 - Petroleum/hazardous waste/maintenance chemicals use, storage, disposal
 - Facilitate mentoring program and information sharing among owners / growers
- Provide financial incentives for BMPs
 - Secure tax credits, grants, or funding to provide incentives
 - Low interest loans
 - Direct subsidies/cost sharing (i.e. for well abandonment, PCAP installation, and hazardous waste roundup)
 - Institute a local tax on pollution
 - Provide information on pollution liability and potential costs
- Provide recognition for “Environmentally Friendly Practices”
 - Green awards; signs for fences adjacent to crops (for public recognition)
- Set up local materials exchange program (or publicize existing programs)
- Conservation easement purchase – coordinate with NRCS

Miscellaneous - Transportation Corridors

- Notify local Emergency Response Planners of DWSA location
- Notify responsible parties (i.e. County, ODOT, railroads, businesses) of location within DWSA
- Establish / review spill response procedures
- Ensure public water system notification in spill event
- Set up regional spill number
- Provide fire department and spill responders with good maps of storm and sanitary sewer systems
- Request conservative practices for right-of-way maintenance
- Regulate hazardous materials transport

For more information

Additional information on drinking water protection can be found at:

<http://www.oregon.gov/deq/wq/programs/Pages/dwp.aspx> . This information includes examples of drinking water protection plans and drinking water protection ordinances.

Alternative formats

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email deqinfo@deq.state.or.us