



# Background on DEQ Toxics Reduction Strategy

- Mid-2008
  - Developed ‘09 legislative policy package to support work on Strategy
- Early 2009
  - DEQ Director and Executive Team decided to proceed with existing resources
- June 2009
  - First Toxics Stakeholder Group meeting (previously consulted with WQ workgroup)



# Why Develop an Agency-Wide Toxics Reduction Strategy?

- Toxics don't respect regulatory boxes:
  - Pollutants released to air → deposit to land → run off to water
- Enables DEQ to get beyond chemical-by-chemical approach
- Improves efficient use of agency resources
- Allows DEQ to be more proactive rather than reactive on emerging toxics



# Toxics Reduction Strategy

## *Examples of Current DEQ Programs*

### Lab Toxics Monitoring Program

- ❖ Willamette Toxics Monitoring
- ❖ Air Toxics Monitoring

### Air Toxics Program

- ❖ Federal NESHAP
- ❖ State Sector-based Reduction Strategies
- ❖ Community Air Toxics Reduction Projects

### Water Quality Toxics

- ❖ SB 737 / Persistent Pollutants
- ❖ Water Quality Toxics Criteria Review
- ❖ Total Maximum Daily Loads (TMDLs) for Toxic Pollutants

### Land Quality Toxics

- ❖ Toxics Use Reduction Program
- ❖ Cleanup Programs
- ❖ Household Haz Waste
- ❖ Ag Pesticide Waste Collections

### Interagency Efforts

- ❖ Water Quality Pesticide Management Team
  - ❖ Ecological Business (ECO-BIZ) Program
  - ❖ Pesticide Stewardship Partnerships



# Links to Other DEQ Toxics Initiatives

- **Water Quality Toxics Human Health Criteria Rulemaking**
  - EQC directive to look beyond WQ permits to achieve new criteria could rely on Strategy
- **Senate Bill 737 – Priority Persistent Pollutants**
  - Legislative directive to protect surface water
  - Some overlap between 2 chemical priority lists and process → close coordination of efforts
- **Portland Air Toxics Solutions (PATs)**
  - Strategy work will inform PATs and vice versa



# Steps in Developing the Toxics Reduction Strategy

1. Identify High-Priority Toxic Chemicals
2. Identify Sources and Pathways to Environment/Humans
3. Assess Gaps in Current Toxics Reduction Programs
4. Recommend New or Modified Toxics Reduction Opportunities
5. Develop Implementation & Communication Plan (timelines, measurement metrics, etc.)
6. Conduct Public Outreach & Present to EQC
7. Implement Strategy



# What Types of Toxics Reduction Actions Will Be Included in DEQ Strategy?

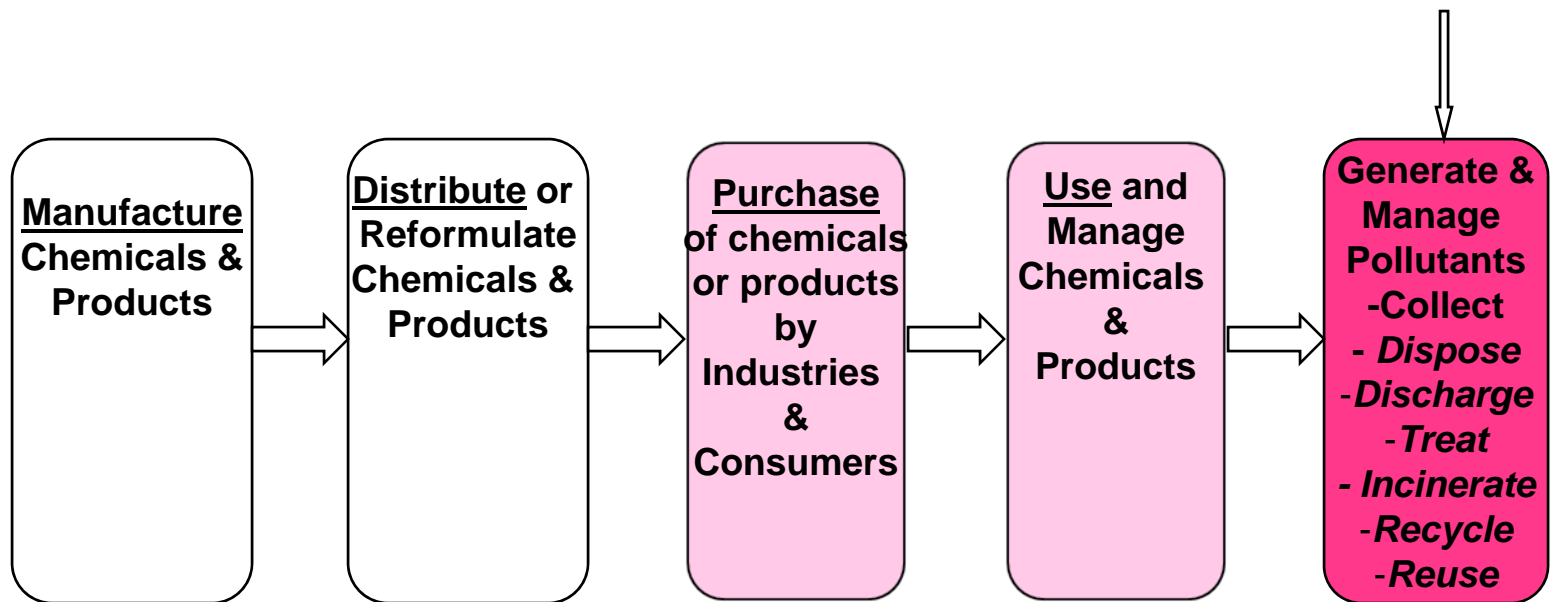
- All options on the table:
  - *Regulatory & Voluntary programs*
  - *Point & Non-Point Source actions*
  - *Source reduction & control*
  - *Monitoring & Data Collection*
- Emphasize actions that:
  - *Address multiple priority chemicals*
  - *Build on existing efforts that work well*
  - *Prevent pollution at the source*





# Emphasis on “Upstream” Prevention Measures When Feasible

*The focus of most environmental regulations is at the end of the life cycle of a toxic chemical...*



*...need to look at opportunities further up the life cycle, although this doesn't apply to “legacy” materials*



# EXAMPLE TOXICS REDUCTION FLOW CHART (not proposed)

## **POSSIBLE REDUCTION STRATEGIES**

### **SOURCES & PATHWAYS**

### **TOXIC CHEMICAL & CLASS**

**DDT/DDE:  
Legacy Pesticides (LPs)**

**Historical Use: Erosion  
& Runoff from **Rural**  
Lands**

**Historical Use: Erosion  
& Runoff From **Urban**  
Lands**

**Spill / Leaks from Old  
Product Containers:  
Runoff or Direct Discharge  
to Water**

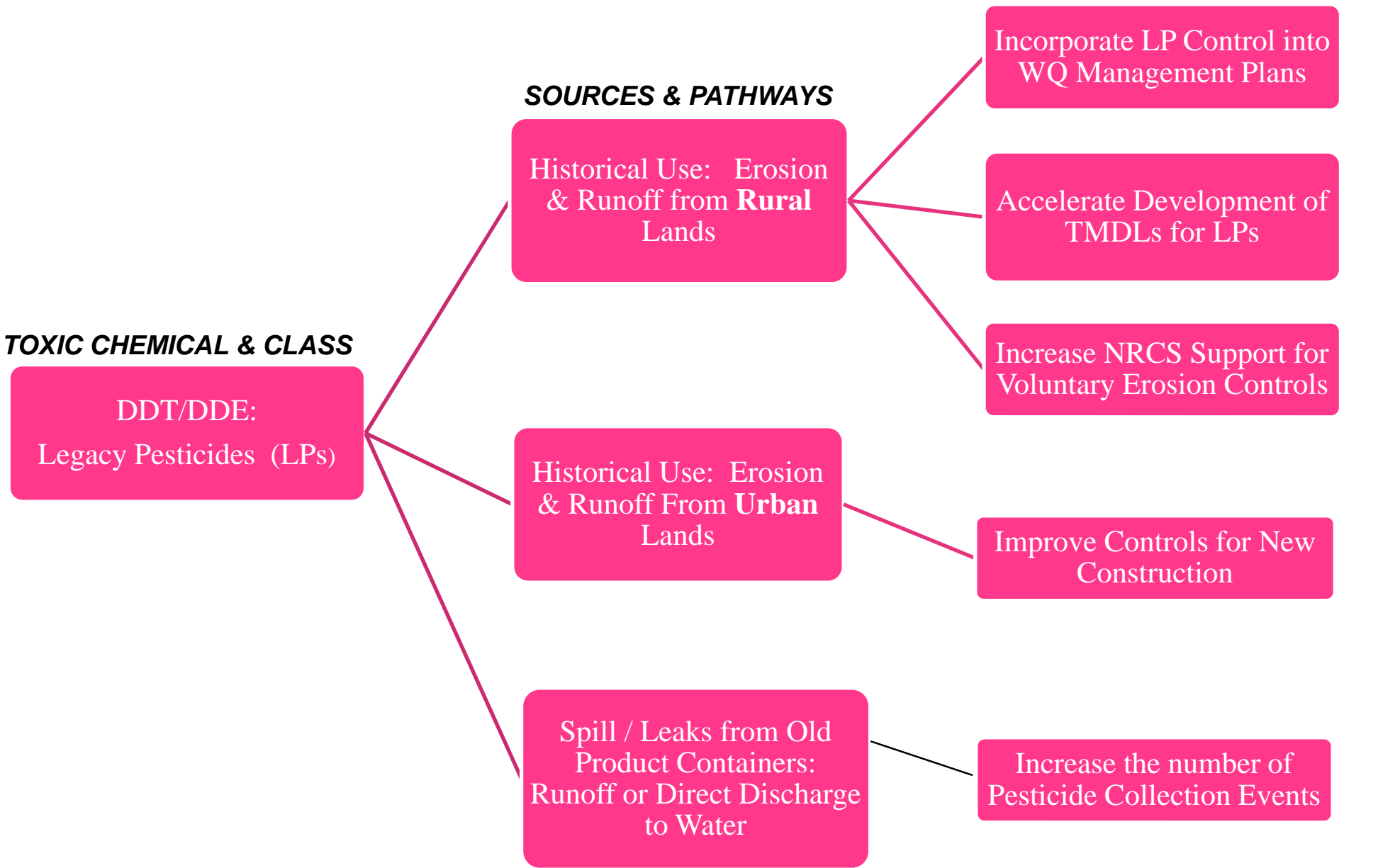
**Incorporate LP Control into  
WQ Management Plans**

**Accelerate Development of  
TMDLs for LPs**

**Increase NRCS Support for  
Voluntary Erosion Controls**

**Improve Controls for New  
Construction**

**Increase the number of  
Pesticide Collection Events**





# Status of Toxics Reduction Strategy

- **Where are we now?**
  - Established initial **Toxics “Focus” List**
  - Researching data on Focus List chemicals (e.g., releases and sources)
  - Conducting existing “Program Review” (e.g., “gaps”) & establishing criteria for evaluating reduction options
  - Compiling list of toxics reduction ideas



# Toxic Chemical “Focus List” for Agency-Wide Strategy

# Development of DEQ's Agency-wide Toxics Priority List

## BASE LIST

(October 2009) ~400 chemicals on state priority lists (320 when grouped)

Priority for 3 of 11 DEQ programs in 2 of 3 divisions

Remaining chemicals not meeting programmatic criteria.

**FOCUS LIST**  
Oct 2009  
~ 135 chemicals  
(54 when grouped)

Detected above environmental standards in Oregon?

Y

N

Draft Toxics Reduction Strategy to EQC  
(Spring 2010)

**EVALUATION LIST**  
Near-term & Ongoing

Data on presence in Oregon?

Y

N

**DATA NEEDS LIST**  
Long-term, Ongoing



# DEQ Initial Toxics “Focus” List

- **How many chemicals are on Initial Focus List?**
  - **135** individual chemical constituents
  - **54** when grouped (e.g., all PCBs)
- **Chemicals on List Divided into 7 Categories**
  - Consumer product constituents (triclosan, etc.)
  - Current Use Pesticides (chlorpyrifos, glyphosate)
  - Legacy Pesticides (DDT)
  - Industrial Chemicals (PCBs, PBDEs)
  - Metals (mercury, lead)
  - Volatile Organic Compounds (trichloroethylene)
  - Combustion By-Products (PAHs)



# DEQ Initial Toxics “Focus” List

Documenting Data on Focus  
List Chemicals





# Documenting Chemical Data

- Relative Toxicity – EPA ECOSAR model
- What do we know about the chemical presence, release, storage & use in Oregon?
  - Toxic Release Inventory (TRI) data
  - Monitoring by DEQ, USGS, others
  - Air Emissions Inventory
  - State Fire Marshal & Haz Waste Generation
  - Pesticide Use Reporting
- What other data from outside Oregon provides useful insights into possible environmental releases or presence?
  - e.g., Human Biomonitoring and environmental studies
- What does data and literature about sources & pathways?



# Draft EQC Directive on Strategy

- What's the purpose of the Directive:
  - Ensure accountability to Commission for developing and implementing Strategy
  - Clearly state objectives of Strategy
  - Direct Department to take specific actions in developing Strategy
  - Direct Department to regularly report to Commission on progress
- In rule or policy statement? To be determined



# Toxics “Program Review” (i.e., gap analysis)

- Evaluate existing toxics programs
- Tools to conduct review:
  - Survey for those implementing programs in DEQ and other agencies
  - Use evaluation criteria for Strategy options
- Pilot testing survey now with DEQ’s Land Quality Programs
  - Adjust survey and review process as necessary
- 4-agency WQ Pesticide Management Team will also begin program review on 2/22



# Evaluation & Selection Process for Reduction Options

1. Effective in Meeting Reduction Goals
2. Implementable
3. Build on existing efforts
4. Address multiple goals
5. Reduction at the source (i.e., “upstream” focus)
6. Efficiency and strong business case
7. Reliability
8. Sustainability
9. Engaging Oregonians
10. Flexibility



# Evaluation & Selection Process for Reduction Options

- Address all 10 considerations in evaluation of options → to the extent applicable
- Qualitative assessment process
- Recommendations based on assessment:  
Internal Cross-Program Team → Stakeholder Group & Other Agencies → DEQ Executive Management Team



# Categorizing Reduction Options

- Direct Regulatory Strategies
- Incentive Strategies
- Toxic Chemical Reduction, Control, and Management Strategies
- Pollution Prevention Strategies
- Monitoring and Measurement
- Land Use Strategies
- Chemical Replacement Strategies
- Market-based Strategies
- Tax and Credit Strategies
- Educational Strategies



# Tentative 2010 Milestones for Toxics Reduction Strategy

- February 18
  - Brief EQC Update
- April
  - Stakeholder Meeting
- June
  - EQC Update
  - Stakeholder Meeting
- August
  - Draft Strategy Completed