

Environmental Training – Topic 3: Hazmat

KYLE ROSLUND, RG

- Region 2 Senior HazMat Geologist
- 3.5 years with ODOT

Kyle came to ODOT with approximately 15 years of consulting experience, focusing on site investigation and project management.

Kyle's background includes working on large Superfund site projects, mine waste assessment and reclamation, hazardous building materials assessment, and health and safety planning.





HazMat Best Practices for Local Agencies

Kyle Roslund, ODOT





Topics:

- Why do you need HazMat assessments?
- Tips on deliverables, typical concerns, problems, and assumptions
- Example – Assessment vs. Assume Contaminated



Why Assess?

- Understand Liability
- Navigate Regulatory Requirements
- Worker Safety
- Waste Management
- Required for Federal Funding



Statement of Work

- Background report – Right-of-Way Acquisition and/or Ground Disturbance
- **Hazardous Materials Corridor Study**
- ASTM Phase 1 Environmental Site Assessment
- Level 1 Initial Site Assessment
- Minimal Assessment Memo





Statement of Work

- Active, Reserved or Contingency?
 - Shoulder Soil Investigation
 - Asbestos Survey/Structure Survey
 - Geophysical Survey
 - Site Specific Investigation





Hazardous Materials Corridor Study

- Initial Background Report
- Needed on almost every project
- Use qualified consultants
- Exceptions



What is Shoulder Soil?

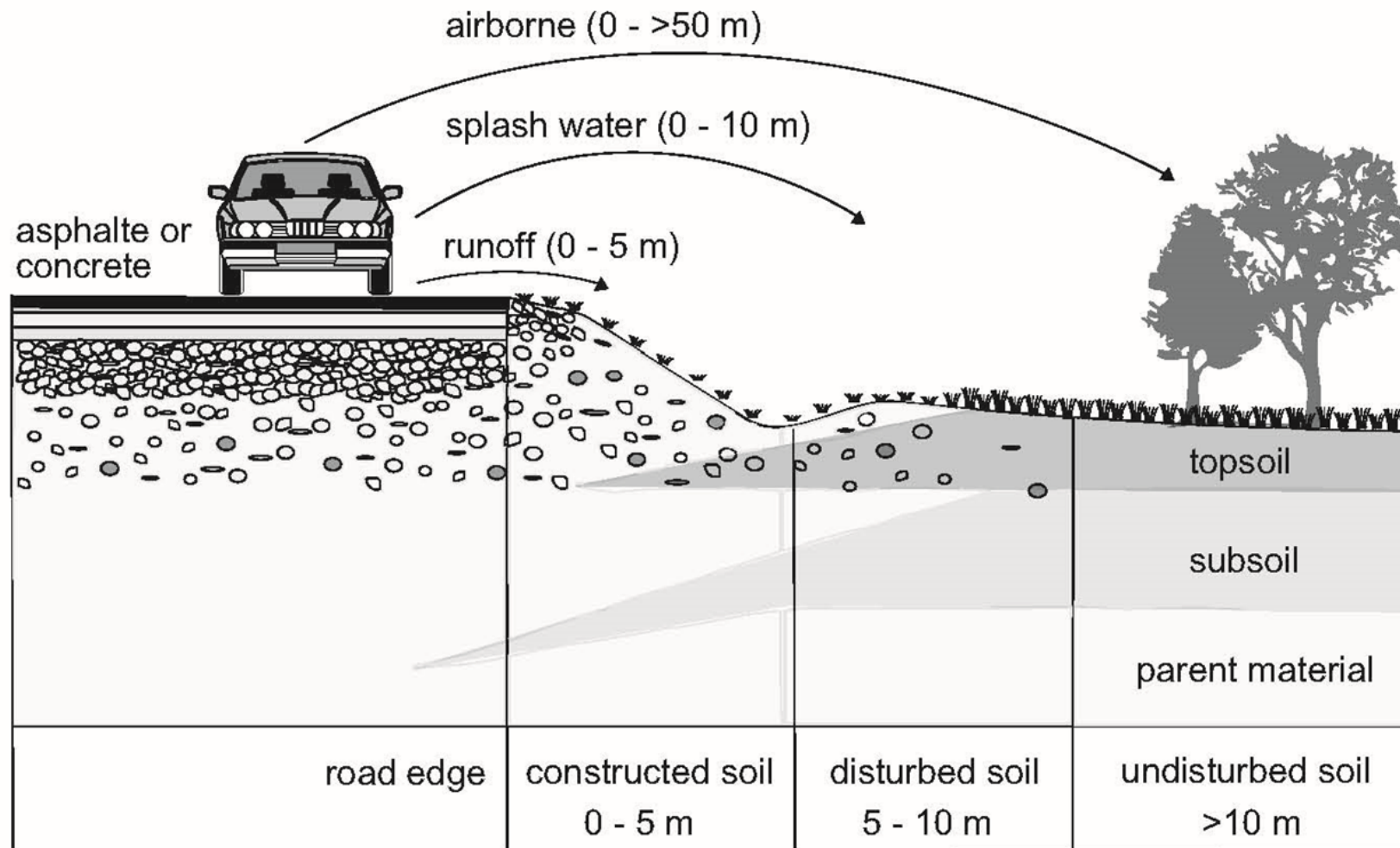


Fig. 1. Schematic sketch of a roadside environment and pathways for pollutant dispersion.



Not Shoulder Soil





Shoulder Soil

- Beneficial Use Determination (BUD)
- Metals and Polycyclic Aromatic Hydrocarbons (PAHs)
- Reuse based on location
- Shoulder soil impacted by a feature, use, or “site” is no longer shoulder soil
- Assume it’s dirty – but someone will have to sample it at some point



Reuse Based on Location

Table 1: Deschutes Columbia

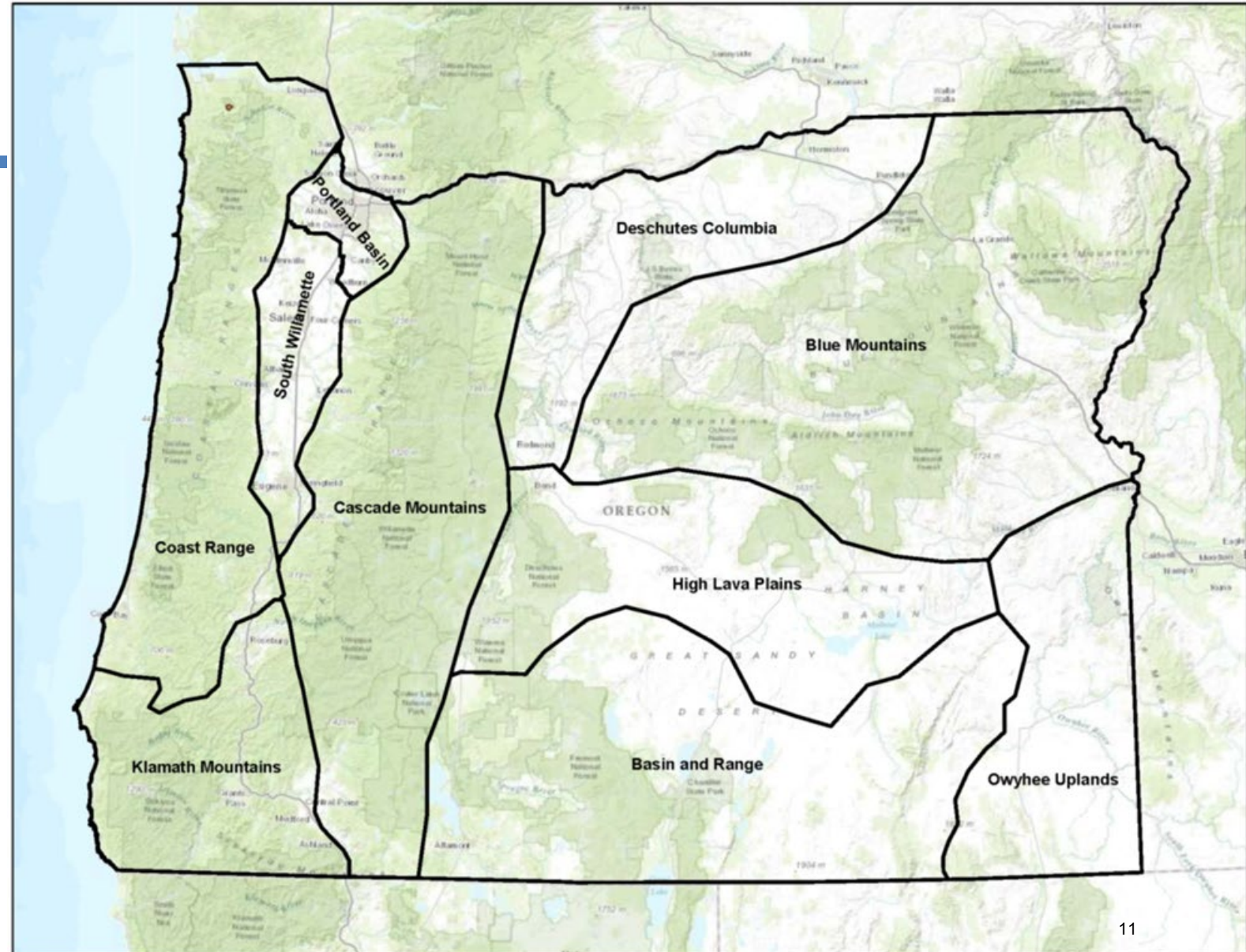
Province: Deschutes Columbia			
Depth (ft bgs)	Distance from edge of pavement (ft) →		
	0-15	15-30	30+
0-0.5	Non-residential construction fill	Non-residential construction fill	CFD
0.5-1.0	Non-residential construction fill	CFD	CFD
1.0-1.5 ↓	Non-residential construction fill	CFD	CFD

Table 2: Coast Range

Province: Coast Range			
Depth (ft bgs)	Distance from edge of pavement (ft) →		
	0-15	15-30	30+
0-0.5	Non-residential construction fill	CFD	CFD
0.5-1.0	Non-residential construction fill	CFD	CFD
1.0-1.5 ↓	Non-residential construction fill	CFD	CFD

Table 3: High Lava Plains

Province: High Lava Plains			
Depth (ft bgs)	Distance from edge of pavement (ft) →		
	0-15	15-30	30+
0-0.5	Non-residential construction fill	CFD	CFD
0.5-1.0	Non-residential construction fill	CFD	CFD
1.0-1.5 ↓	CFD	CFD	CFD



Geophysical Survey

- Underground storage tanks (USTs) or utility conflicts
- Recommend for any soil disturbance next to a listed UST(or Leaking UST) site, or any site that looks suspect







Structure Survey



Example

Assessment

- Hazardous Materials Corridor Study
 - ✓ Identify Concerns/Sites
- Shoulder Soil Assessment/Clean Fill Determination
 - ✓ Sample Waste Streams – shallow soil
- Geophysical Investigation
 - ✓ Identify problematic utilities and USTs
 - ✓ Inform investigations, estimate and contract
- Site-Specific Investigation
 - ✓ Sample Waste Streams – subsurface soil and groundwater
- If you have potential for contaminated groundwater on a project, you should do an investigation

Assume Contaminated

- Hazardous Materials Corridor Study
 - ✓ Identify Concerns/Sites
- Geophysical Investigation
 - ✓ Identify problematic utilities and USTs
 - ✓ Inform investigations, estimate and contract

Example

Assume Contaminated (Cont.)

- No Assessment for Shoulder Soil or Subsurface Soil/Groundwater
 - ☐ Assumptions (Contract and Estimate)
 - ☐ Contaminated Soil Disposal
 - ☐ Lead Compliance Plan
 - ☐ May need Health & Safety Plan
 - ☐ Segregate and Stockpile Soil
 - ☐ Sample Collection and Analytical Testing
 - ☐ Contaminated Groundwater Mobilization
 - ☐ Contaminated Groundwater Removal
 - ☐ Contract needs to be modified to describe sampling needs
 - ☐ Cost/Benefit – 50 cubic yards or less soil it may be reasonable to assume





Questions?

Kyle.roslund@odot.Oregon.gov