



Tier 1 Soil and Groundwater Guidelines in Alberta

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Outline

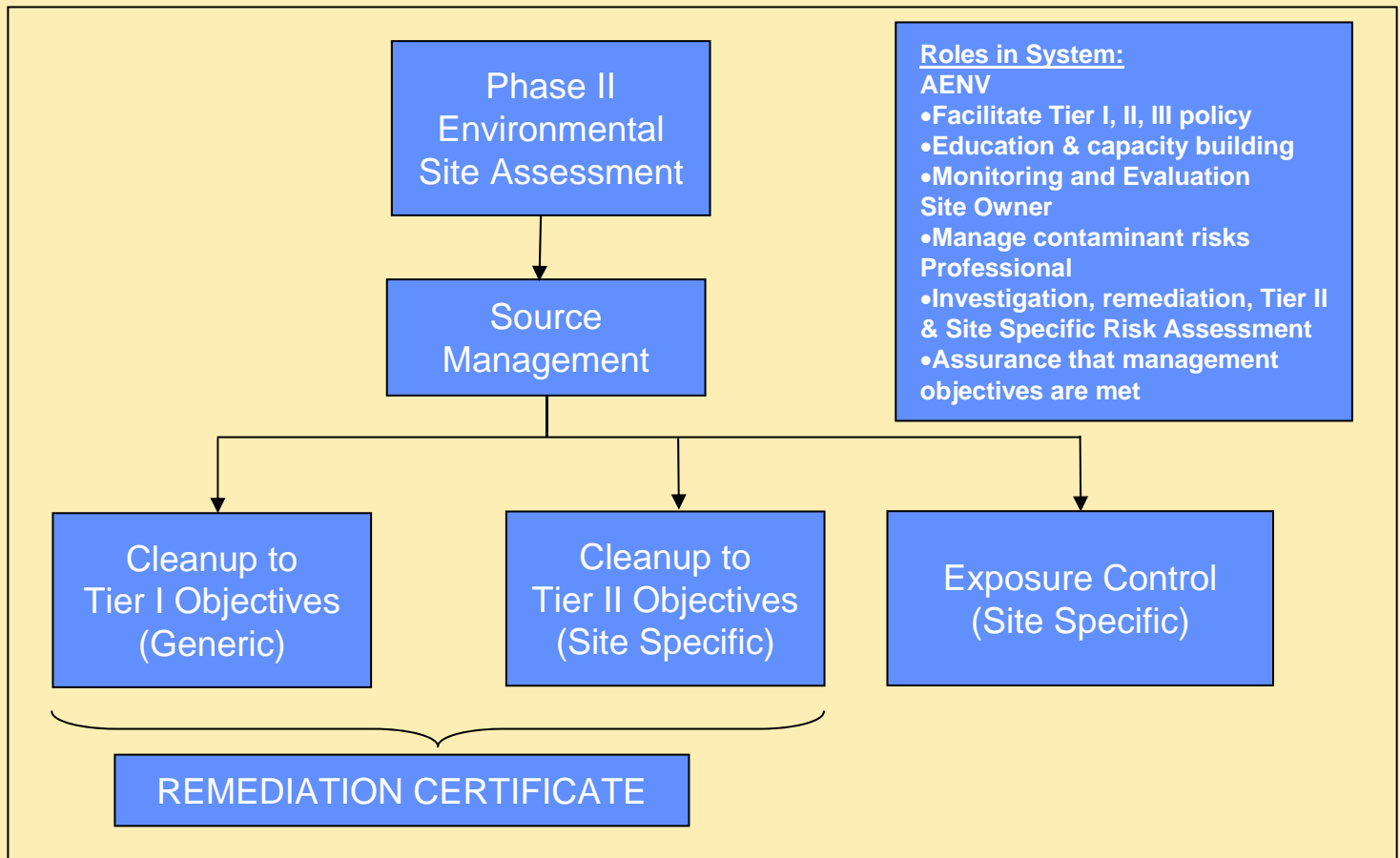
- Contaminated site management policies
- Guideline document overview
- Changes to guidelines
- Next steps



Contaminated Site Management *-Policy*

- Pollution prevention
- Not “pollute-up-to” guidelines
- Source control
- Full delineation
- Protection for cross-media transfer
- Protection of water resources

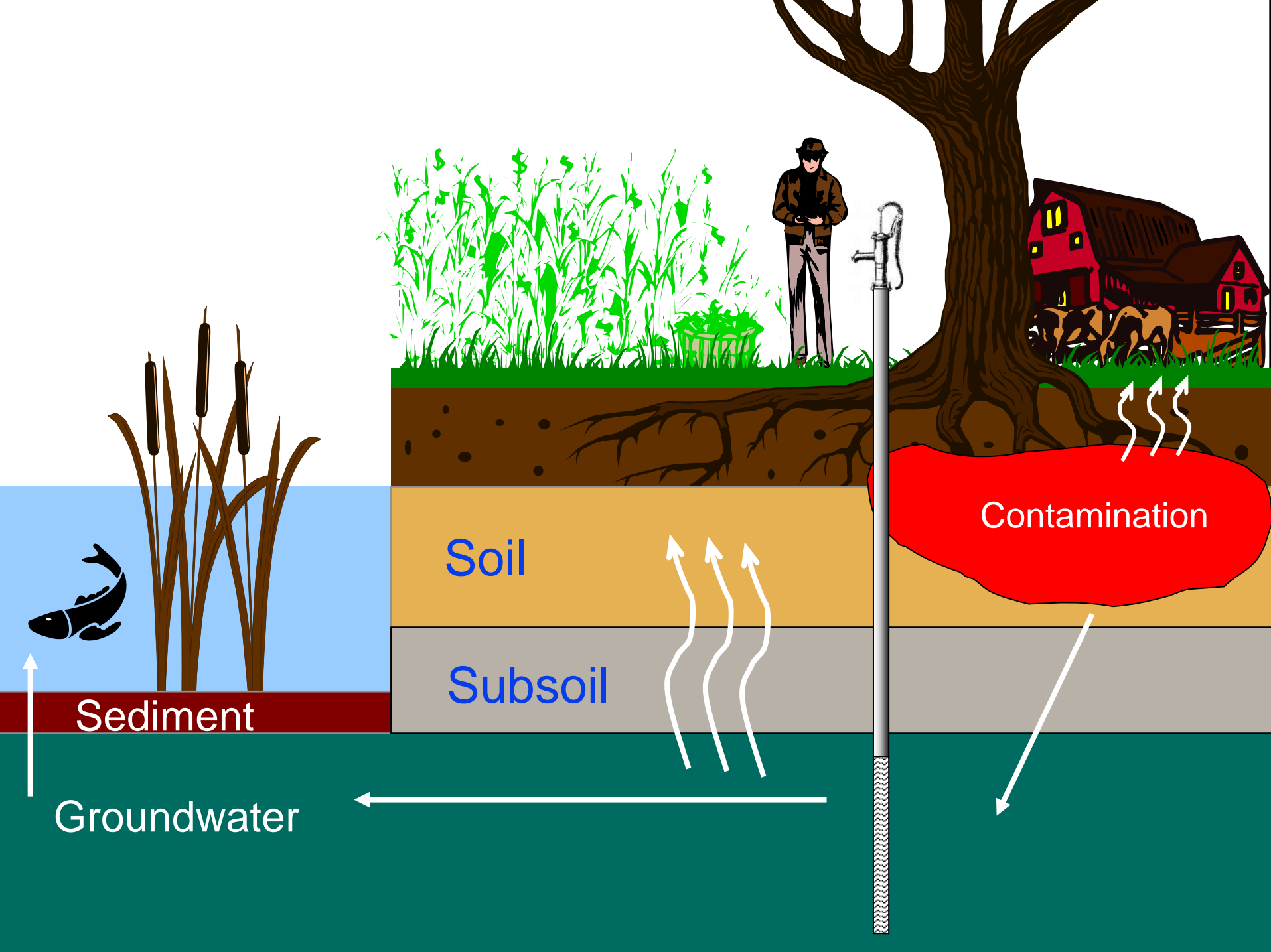
Contaminated Sites Management -Policy



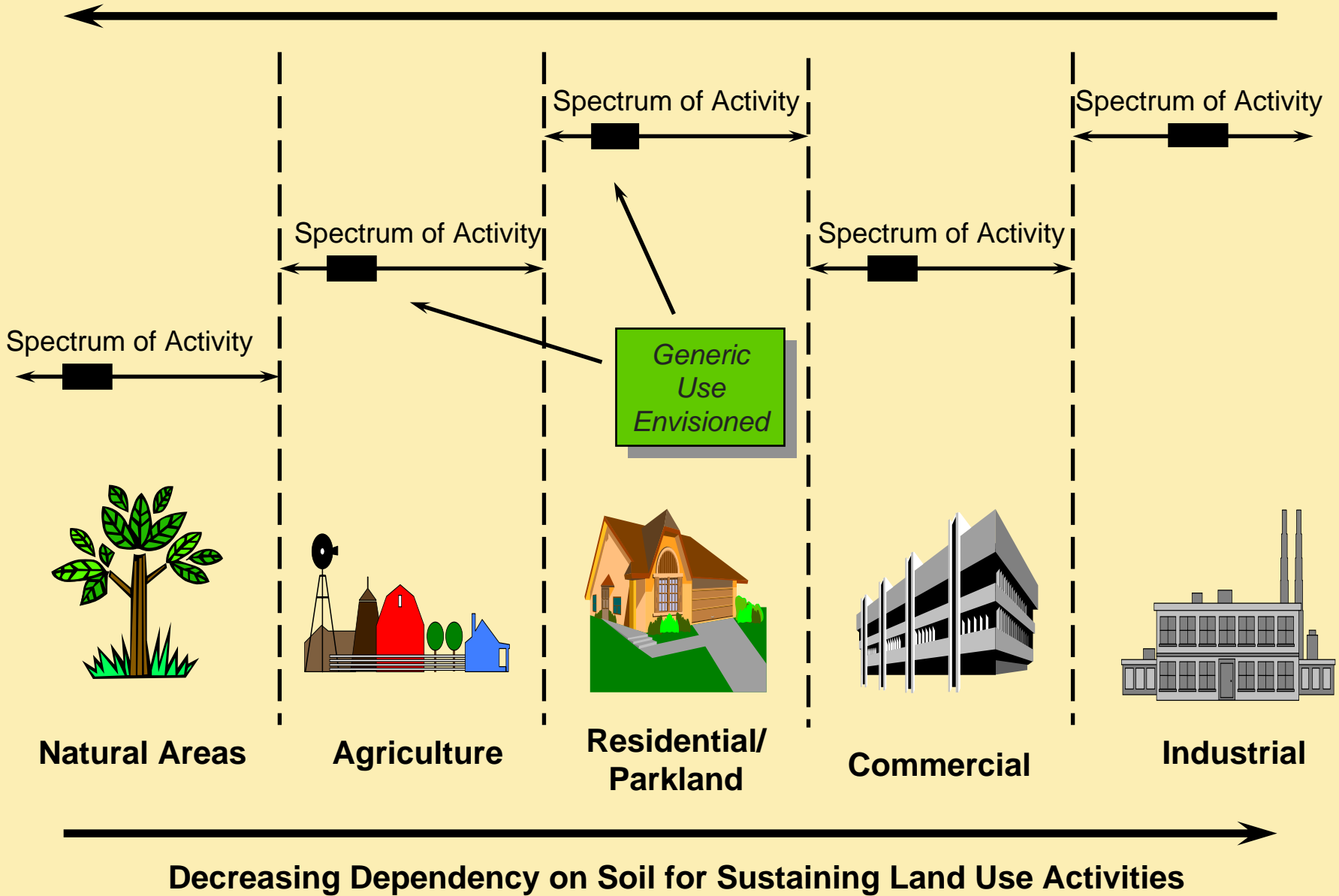


Tier 1 Guidelines - *Contents*

- Scientific basis
 - Full documentation of calculations and data inputs
- User guidance
 - Information requirements
 - Tier 2 triggers
- Guideline values...



Increasing Sensitivity to Contamination





Consolidation of old guideline documents

Supercedes:

- Alberta Soil and Water Quality Guidelines for Hydrocarbons at Upstream Oil and Gas Sites
- Risk Management Guidelines for Petroleum Storage Tank Sites
- Alberta Tier 1 Criteria for Contaminated Soil Assessment and Remediation



Other Guideline Sources for Tier 1

- CCME Canadian Environmental Quality Guidelines
- Salt Contamination Assessment and Remediation Guidelines
- Soil Quality Guidelines for Barite
- Canadian NORM Guidelines



What's New?

- Site specific modifications moved to Tier 2
 - No impact on closure options
- Updated to latest CCME protocols
 - CCME
 - CWS PHC
- Alberta-specific adjustments
 - Cancer risk 10^{-5}
 - Recharge rates
 - Natural areas land use



What's New?

- Human health guidelines for chlorinated organics and pesticides
 - Based on Health Canada and U.S.EPA toxicity reference values
- CCME water quality guidelines



What's next?

- Public review period complete
- Comments received from 33 agencies/individuals
- Comments under review
- Planning to finalize this fall