

Voluntary Remediation Program



WYOMING

Matt Buchholz WDEQ
Voluntary Remediation Program and Haz Waste



WYOMING DEPARTMENT OF
ENVIRONMENTAL
QUALITY

Voluntary Remediation Program (VRP) Overview:

- ◆ Voluntary cleanup of contaminated sites, including asbestos, lead-based paint, petroleum and solvent spills & releases (there are some sites that are not eligible for the VRP)
- ◆ VRP offers a streamlined Independent Cleanup Program option for excavation and application of clean backfill soils when groundwater is not impacted
- ◆ Application fee of \$550, that also covers the first 10 hours of WDEQ oversight - \$55 an hour for additional oversight
- ◆ Public notice required as part of the eligibility and remedial selection process
- ◆ VRP is the best alternative when groundwater is impacted

VRP Sites

- Pipeline Releases
- Active operating refineries
- Historical refineries
- Former railroad fueling facilities
- Shooting ranges
- Booster stations
- Natural gas plants
- Dry cleaners
- Explosives plants
- Former drum and barrel cleaning operations
- Tank farm/sites
- Fertilizer spills
- Pesticide (DDD DDT) in soils
- Arsenic in soils and groundwater sites
- Former coal and steam power plants
- Numerous buildings with asbestos and lead-based paint

◆ Sulfuric acid seeps at an historic refinery



VRP Incentives

- ◆ Liability assurances after cleanup is complete, attached to the property, that can facilitate property transfers
- ◆ Obtaining a Use Control Area designation that allows use of industrial cleanup levels in certain instances
- ◆ Certain sites may be eligible to utilize low interest, no interest loans through the WDEQ /Wyoming Business Council's Revolving Loan Fund (RLF).



Traditional VRP Process

- ◆ Eligibility Determination
- ◆ PRA/Site Characterization
- ◆ Remedial Alternatives Evaluation
- ◆ Remedy Agreement
- ◆ Remedy Implementation
- ◆ Liability Assurances



VRP Process – Eligibility Determination

- ◆ Step 1 – Eligibility Determination
 - The Volunteer submits an application
 - The VRP ensures your site is eligible, and produces the documents the Volunteer will use for Public Notice activities

Voluntary Remediation Program (VRP) | (307) 777-7752 | <http://deg.wyoming.gov/shwd/voluntary-remediation-program/>

Application for the Voluntary Remediation Program



In its
2000

session, the Wyoming Legislature created new opportunities, procedures, and standards for voluntary remediation of contaminated sites. These provisions, enacted as Articles 16, 17, and 18 of the Wyoming Environmental Quality Act and implemented by the Wyoming Department of Environmental Quality (DEQ), will govern future environmental cleanups in Wyoming.

This Fact Sheet provides information on how to apply to the Voluntary Remediation Program (VRP).

VRP Process - PRA

- ◆ The Volunteer and WDEQ develop the Preliminary Remediation Agreement to ensure proper understanding of current site conditions and historical activities
 - Constituent list and media to sample
 - Determine the vertical and horizontal extent of soil and/or groundwater plumes
 - Indoor air investigation (if necessary)
 - Establish analytical procedures
 - Propose a plan for establishing background concentrations

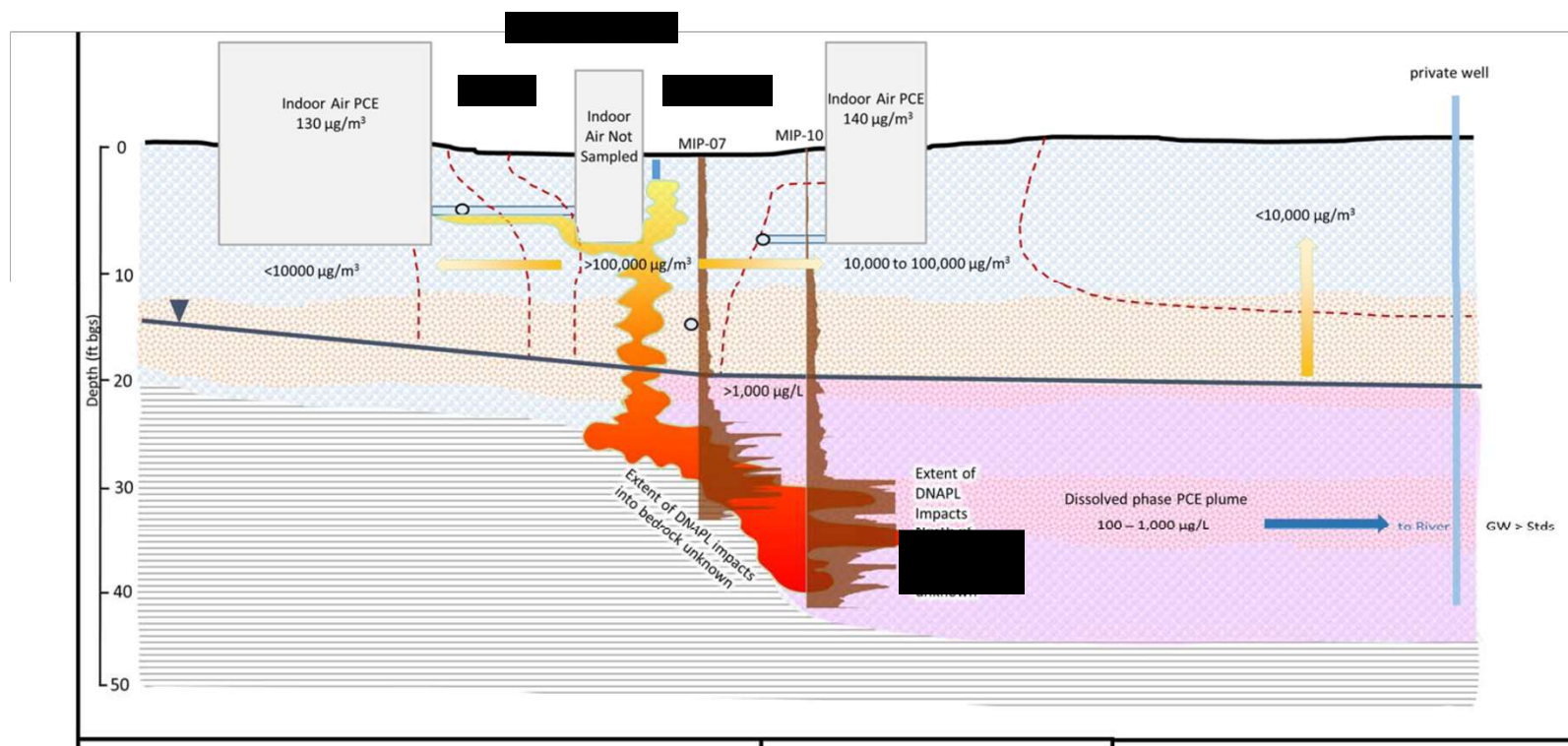


VRP Process – Site Characterization

- ◆ The Volunteer then conducts site characterization and collects data
- ◆ There may be several rounds of site characterization depending on the results of the investigation(s)



Conceptual Site Model



VRP Process - RAER

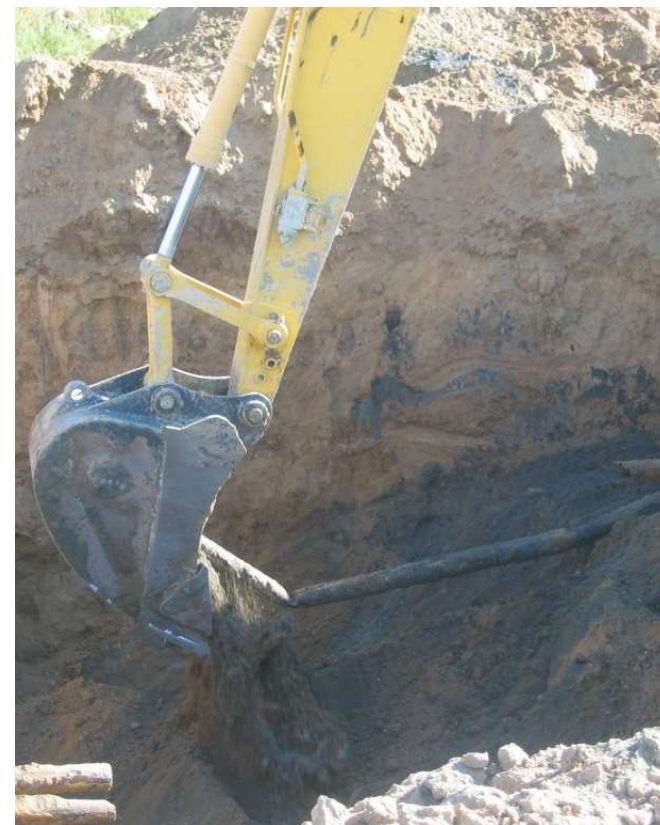
- ◆ Once the site is characterized, remedies are evaluated - Remedial Alternatives Evaluation Report (RAER)
- ◆ Volunteers are required to evaluate the potential remedies through the Threshold and Balancing Criteria for each media

Remedial Alternatives	Threshold Criteria Screening		
	1. Protect human health, safety, and the environment.	2. Remediate contaminated air, soil, and water to attain applicable cleanup levels established under Federal or State law or regulation or to attain site-specific risk-based cleanup levels developed for the site in question.	3. Control any sources of releases eliminate, to the extent technically releases as required to protect human environment.
Groundwater Source Remediation (saturated zone)			

Threshold Criteria

ALL REMEDIES MUST MEET THESE CRITERIA

1. Protect human health, safety, and the environment
2. Remediate contaminated air, soil, and water to attain applicable cleanup levels
3. Control any sources of releases
4. Comply with any applicable standard for management of wastes generated as a consequence of the remedy.



Balancing Criteria

Remedies are then ranked based off of:

- ◆ Long term effectiveness
- ◆ Reduction of toxicity, mobility or volume
- ◆ Short term effectiveness
- ◆ Impacts caused by remedy implementation
- ◆ Remedies capability to achieve cleanup levels
- ◆ Reasonably anticipated future land use
- ◆ Consistency of remedy with the nature and complexities of contaminants
- ◆ Cost
- ◆ Green and sustainable (Not in statute, but is taken into consideration)



VRP Process – Remedy Agreement

- ◆ After the remedy is selected, the Volunteer and WDEQ agree on the parameters of the remedy and its implementation in a Remedy Agreement
 - The remedy agreement is a formal document signed by both parties
 - It goes through a public notice process where the public has an opportunity to comment on the proposed remedy prior to finalization
 - The remedy agreement also discusses the site history, remedial alternatives evaluated, the remedy selected, has agreed upon remedial obligations, monitoring and performance criteria, and also discusses contingency implementation, if necessary
 - The remedy agreement is attached to the deed of the property, so it can transfer ownership/responsibility if the property is sold

VRP Process – Liability Assurances

- ◆ Once the remedy is implemented and/or completed, liability assurances are available upon request to Volunteers:
 - Certificate of completion
 - No further action letters
 - Covenants not to sue



Odds and Ends

- Fact Sheets - <http://deq.wyoming.gov/shwd/voluntary-remediation-program/resources/fact-sheets/>
- Cleanup Levels
- Risk Assessments
- Background Levels
- Financial Assurance



Hydrocarbon Contamination and Remediation



- Soil and groundwater concerns, occasionally indoor air issues

Hydrocarbon Contamination and Remediation



Common
hydrocarbon
contaminants:

- PAH's
- Diesel Range Organics
- Gasoline Range Organics
- BETX

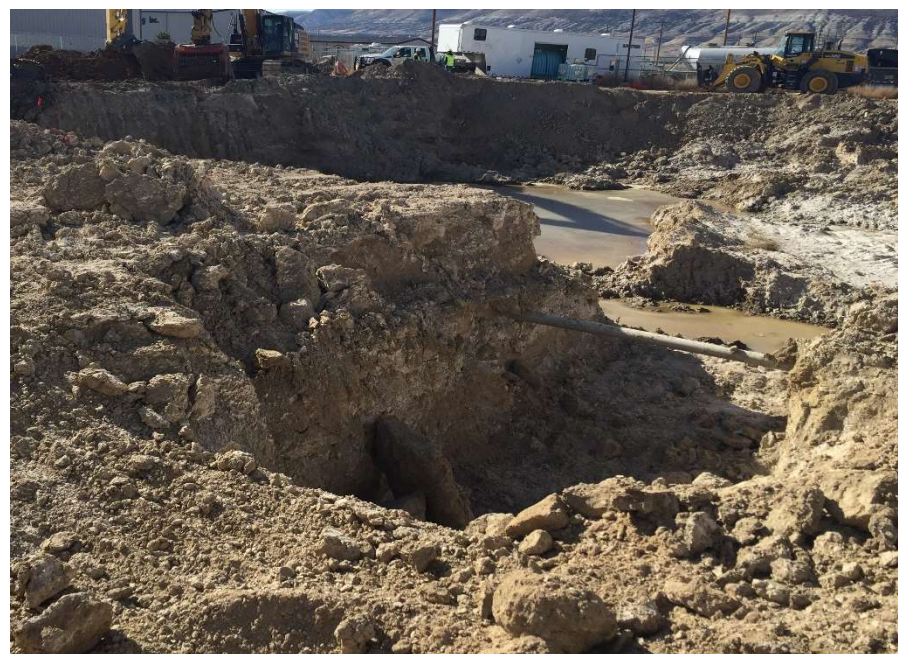
Hydrocarbon Contamination and Remediation



Common remedial actions for soil include:

- Excavation & disposal or treatment
- In-situ chemical oxidation
- Soil Vapor Extraction

Hydrocarbon Contamination and Remediation



Common remedial actions for groundwater include:

- Air Sparge
- In-situ chemical oxidation
- LNAPL extraction

The VRP offers the best incentives and options for cleanup

- ◆ Questions?
- ◆ Contact information, applications, fact sheets and other useful information and links available at:
- ◆ <http://deq.wyoming.gov/shwd/voluntary-remediation-program/>

