

PROBLEM DOMAIN

Groundwater Problems U	General, Dominant Problems V
Cleanup Challenges	Environmental (Not GR)
DNAPL	Hydrofracking
Source zone	Climate change
Back diffusion	Historical practices
Diffuse plumes	Sustainability
Vapor intrusion (VI)	(Geology)
Site characterization	Rivers
Defining success criteria (Emerging contaminants)	Sediments
Petroleum	
Soil	Cost/Economic
(Extent of the problem)	economic drivers
	discounting
Groundwater Sites	valuation
Legacy sites	cost/benefit
Nuclear/Radioactive sites (On NPL)	funding
Drycleaners	(efficiency)
Successful sites	willingness to pay
5-yr review sites	property value/sales
"Complex" sites	Valuing natural resources
Exception cases	budget
Site-specific problems	

Total number codes 221
i.e., terms and categories

SOCIO-INSTITUTIONAL CONTEXT

GR Regulatory Context W	Social Context X
Environmental regulators	Community
EPA	
NYDEC	
NYDOH	Organizational
	Policy
	Personal
	Relational
	by Scale
	by Role
	Interpersonal relationships
Regulatory Programs	
Brownfields	
Superfund	
CERCLA	
RCRA	
State programs	
Supporting Entities	
NRC	
ITRC	
SERDP/DOE	
University Consortium	

PROCESSES

Restoration Processes Y	Related Processes Z	Community Processes AA
Groundwater Remediation	Legal/Regulatory	Community Engagement
Investigation	Drinking water standards/ MCLs	Outreach
Cleanup process	Technical Impracticability (TI)	Public participation
Management	Common law	Public meetings
Maintenance	Polluter pays	Advocacy work
Monitoring	Litigation	TAG grants
Modeling	ROD	Citizen science
GR treatment approaches	Corporate economics	Community Action
Excavation	Liability	Activism
Containment	Stockholders	Cooperation
Pump and treat	Tax credits	Grassroots organizing
Source removal	Return on investment (ROI)	Coalition
Thermal methods		Task force
In-situ treatment	Deliberative process	NIMBY
Soil Vapor Extraction (SVE)	Revisiting sites	
	Reevaluation	
Alternative approaches & tech		
Adaptive management		
Combined remedies		
Treatment trains		
Green remediation		
Institutional controls		
Groundwater reclassification		
Risk-based corrective action		
Wellhead treatment		
MNA		
LTM		
Permeable reactive barrier (PRB) (Degradation)		
(Dechlorinization)		

VALUE ENGAGEMENT

Value Engagement Perspective AB
Objects of Concern
Water as a drinking source
People affected
Site affected
Culture
Character
Caring
Social benefits
Health
Modes of Value Engagement
Motivation
Communication
Context
Trust
Apathy
Conflict
Weighing values
Values

FRAMING

by People AC	by Big relevant concepts AD	by Social Issues AE	by Discursive tools AF
The Players	GR Concepts	Social Issues	Framing Tools
Regulators	Feasibiliy	Poverty	Discourse
Responsible party	Adaptabiliy	Racism	Conversational framing
Project managers	Diminishing returns	Social class	Decision making
Consultants	Success	Social structure	Trade-offs
Citizens	Cleanup	Gender	Change
Politicians	Closure	Diversity	
Community	UU/UE	Public health	Risk
Activists		Environmental justice	Risk Analysis
Corporate/Industry	Knowledge/Education		Conceptions of risk
Military	Citizen science		Perception of risk
States	Scientific literacy		Uncertainty
	Causation/Proof		Risk causation
	Stakeholders		Risk Communication
	Research		
	learning from mistakes		
	competency		
	experience		
Attitudes	Political		
Drivers	Regulatory jurisdiction		
Concerns	Federalism		
Long term value	State/federal		
Motivation	State/local		
Pessimism	US/Canada differences		
Community sentiment			
Health perception			
EPA rigidity/flexibility			
Technological optimism			
Administrative rationalism			

ORAL HISTORY

Interview Dynamics Perspective AG
Typical Q/A Segments
NSF/ LTM "Spiel"
Interviewee background
Career history
Exemplary sites
Story domain
Historical context
Site history
Anecdotes
Success stories
Lessons learned
Method/Process Issues
Meta evaluation