

Science in Support of DOE Remediation, Lessons Learned

EMSP Workshop
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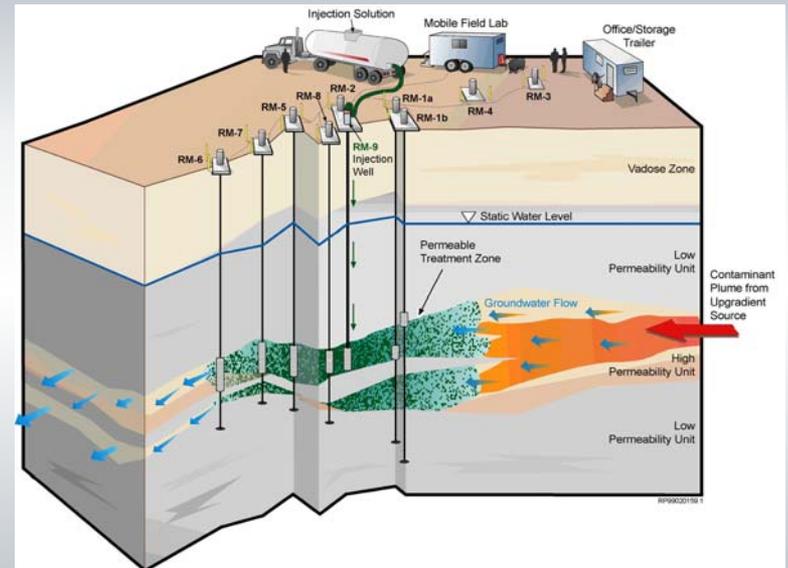


Fluor Hanford

GROUNDWATER
PROTECTION PROGRAM

Groundwater Protection Program

- Focused on cleanup of Hanford legacy wastes
- Emphasis on protecting groundwater resources
- Science and Technology a key program element



*Inform and Influence
Cleanup Decisions*

Science and Technology Project

- S&T Project uses roadmap to plan and manage work
- Hanford community engaged in development of S&T roadmap
- Science community involved through Groundwater Protection Program and EMSP
- EMSP projects have directly contributed to Site milestones



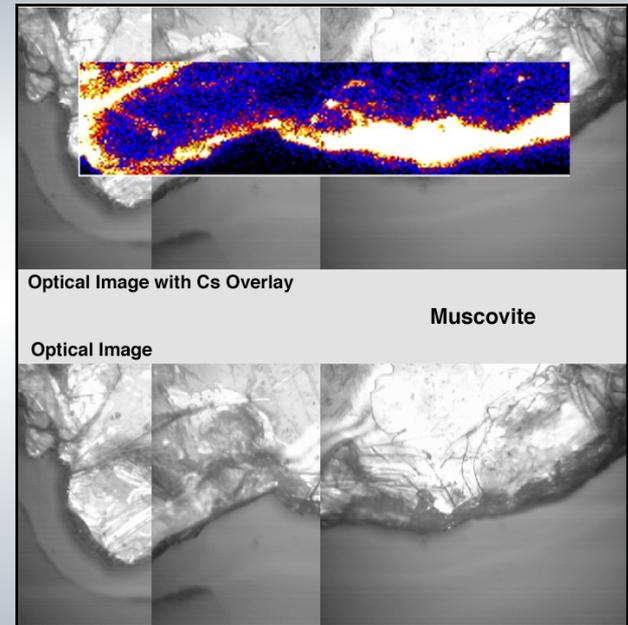
EMSP Linkages



- S&T roadmap used to influence FY99 EMSP call for proposals
- Interactions facilitated through workshops
 - Paired EMSP investigators with Hanford Site remediation contractors
- Provided contaminated and uncontaminated sediments and Site access to EMSP researchers
 - Sediments selected to maximize science/site benefit
- Individual EMSP projects were augmented to perform specific analyses

EMSP Contributions

- EMSP projects performed experiments and developed new models
- Scientific studies have helped resolve long-standing issues and apparent anomalies (e.g. expedited cesium-137 migration)
- EMSP Investigators made direct contribution to Site milestones – Tank Farm Field Investigation Reports



Lessons Learned – Future Direction

- Fundamental research can help cleanup
 - Resolution of key technical uncertainties
 - Selection of best corrective action or remedial option
 - Performance of scientifically credible future projections
- Research must be on target
 - Relevance alone is insufficient
 - Mutual understanding of issues/problems is essential
- Continued dialogue is key
 - Problem solution is evolutionary
 - Positive interactions/results lead to teaming
 - Partnership required for success