



U.S. EPA Hardrock Mining Conference 2012: *Advancing Solutions for a New Legacy*

*April 3-5, 2012
Denver, CO*



Office of Research and Development

*Douglas Grosse
U.S. EPA/ORD/NRMRL*



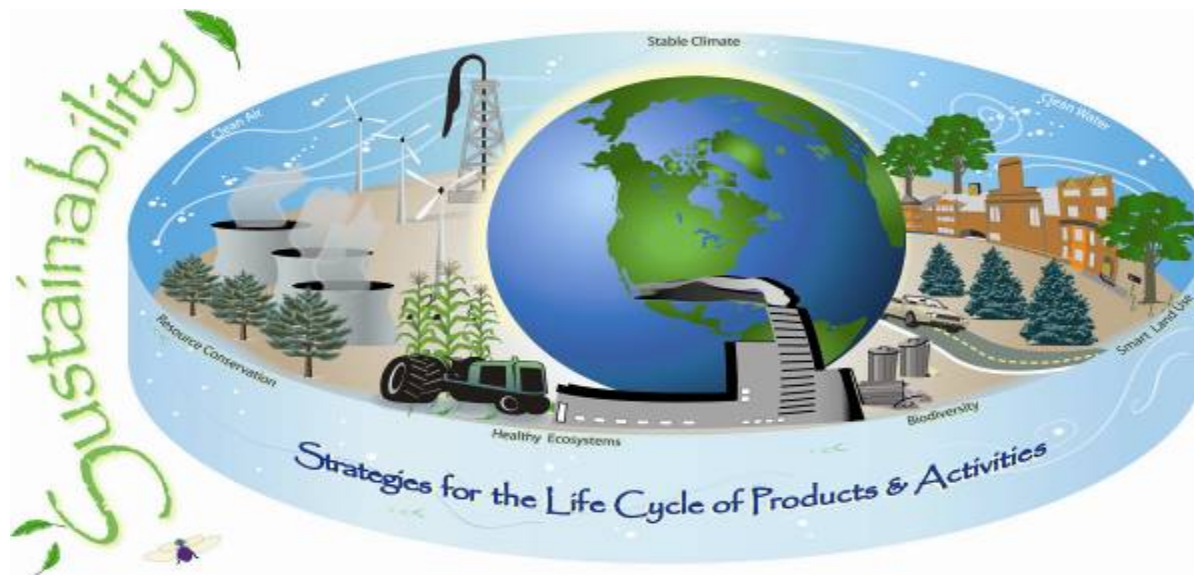
Acknowledgements

- Doug Grosse, ORD
- David Reisman, ORD
- Shahid Mahmud, OSWER
- Barbara Butler, ORD
- Michele Mahoney, OSWER
- Gwen Campbell, Region 8
- Joy Jenkins, Region 8
- Rob Weber, Region 7
- Jim Lazorchak, ORD
- Chris Impelletteri, ORD
- Alina Martin, SAIC
- Susie Warner, SCG
- John McCready, ORD
- Cindy Sundblad, Region 8

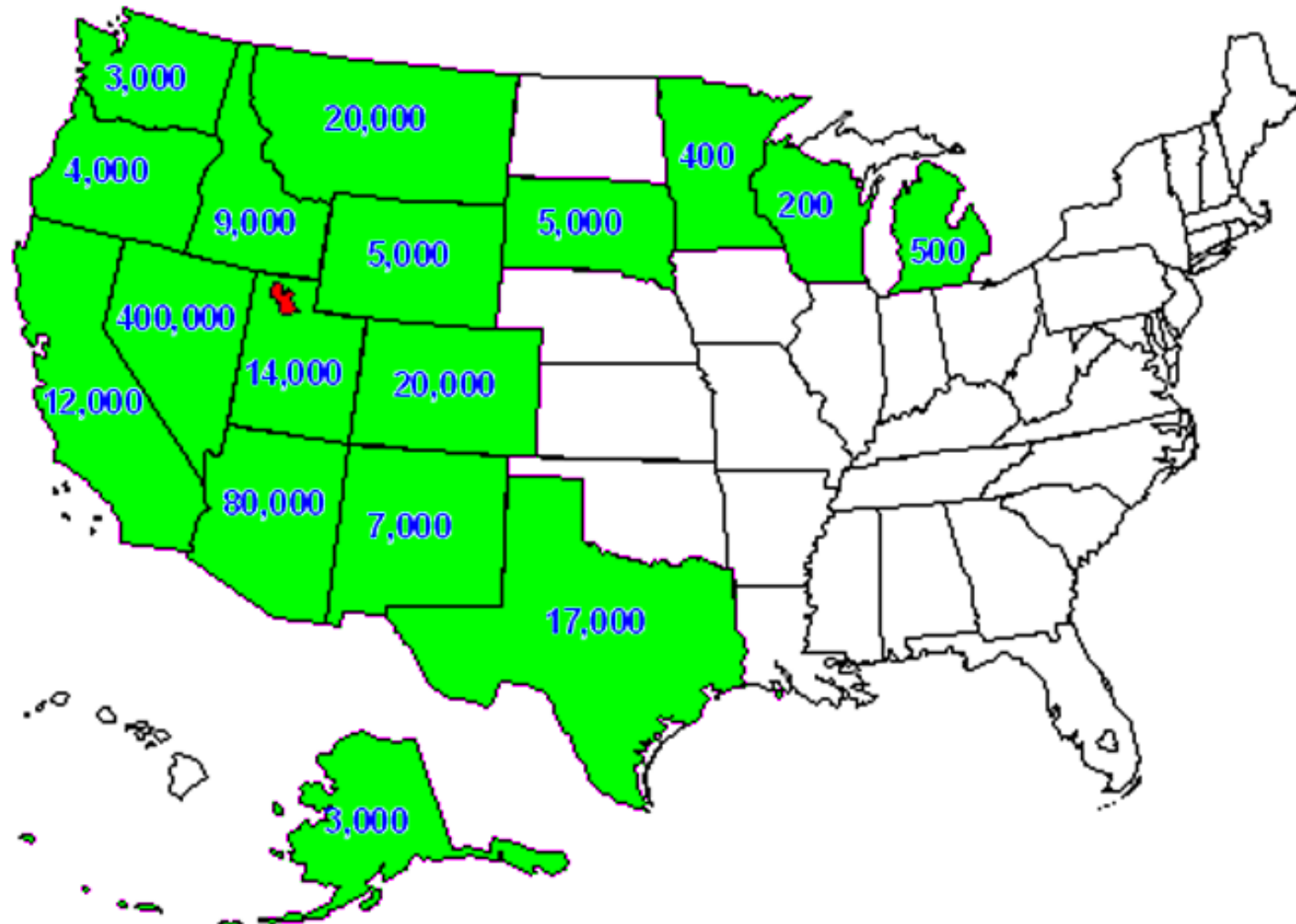


Can We Efficiently

- Extract and utilize resources (including by-products)
- Manage wastes
- Reclamation/restoration
- Produce socio-economic advantages
- Advancing Solutions for a New Legacy



Estimate of Mining Sites in the USA



Collaboration



- EPA Program & Regional Offices
- NRMRL/ORD
- Industry Partners
- States/Tribes
- Western Governors Association
- Academia
- BLM/Forest Service
- DOE/DOD
- USGS

ORD's Mining Programs

- Mine Waste Technology Program
- Engineering Technical Support Center
- Technology Transfer Program



Mine Waste Technology Program

- **EPA-NRMRL**
 - Technical Direction/Oversight
 - Quality Assurance Oversight
- **DOE**
 - Administrative Oversight
- **MSE**
 - Applied Research
 - Field Demonstrations
 - Technology Implementation
- **Montana Tech**
 - Basic Research



NRMRL Engineering Technical Support Center

- Constructed Wetlands
- Bioremediation
- MIW Treatment Processes
- Liquid/Solid Partitioning
- Electrolytic Processes
- Sequestration
- Capping



ORD Technology Transfer and Outreach

1998 Heavy Metals Contamination Workshop – 150 attendees

1998 Mining Workshop – 300 attendees

1999 Heavy Metals Contamination Workshop – 180 attendees

1999 Pit Lakes Workshop – 240 attendees

2000 Mercury Workshop – 275 attendees

2001 Arsenic Workshop – 70 attendees

2002 Hard Rock Mining Conference – 375 attendees

2003 Workshop on Mining Impacted Native American Lands – 275 attendees

2004 Pit Lakes – 250 attendees

2005 Abandoned Mine Lands Workshop – 100 attendees

2006 Hard Rock Mining Conference – 350 attendees

2007 Abandoned Mine Lands Workshop – Coeur d'Alene, Idaho

1993-2006 Mine Operations, Design, and Closure Conferences



2012 Registration by Affiliation

Affiliation Type	No. of Registrations	Percentage
Academia	22	6%
Consultant	120	31%
Federal Agency	116	30%
Local Agency	2	1%
Non-Governmental Organization	2	1%
Non-Profit Association	18	5%
Other	6	2%
Private Sector	64	17%
Regional Agency	1	0%
State Agency	20	5%
Trade Association	0	0%
Tribal	10	3%
Total	381	100%





U.S. EPA HRM 2012 Conference Agenda

Tuesday, April 3rd

Plenary – Doug Grosse and David Reisman, ORD

Case Studies – Joy Jenkins, Region 8

Innovative Technology and Techniques – Rob Weber, Region 7

Evening – Poster Session

Wednesday, April 4th

Remediation and Stabilization: Natural Materials – Michele Mahoney, OSWER

Monitoring and Treatment – Erna Waterman, Region 8

Engineering Covers and Capping – Doug Grosse, ORD

Metals and Metalloids – Barbara Butler, ORD

Rare Earth Elements – Gwen Campbell, Region 8

Sustainability/Life Cycle – Carol Russell, Region 8

Evening – Poster Session

Thursday, April 5th

Case Studies – Joy Jenkins, Region 8

Opportunities for Re-Use and Site Management – Shahid Mahmud, OSWER

Closing Remarks and Q&A



U.S. EPA Websites

EPA's Abandoned Mine Lands Program:

<http://www.epa.gov/superfund/programs/aml>

Mine Waste Technology Program:

<http://www.epa.gov/nrmrl/std/mwt/>

NRMRL:

www.epa.gov/nrmrl

