ASMR

2016 ASMR CONFERENCE
33RD ANNUAL MEETING OF
THE AMERICAN SOCIETY OF
MINING & RECLAMATION

June 4 - 9, 2016
The Davenport Grand Hotel
Spokane, Washington

CONFERENCE PROGRAM

MEETING FINANCIAL SPONSORS/ EXHIBITORS

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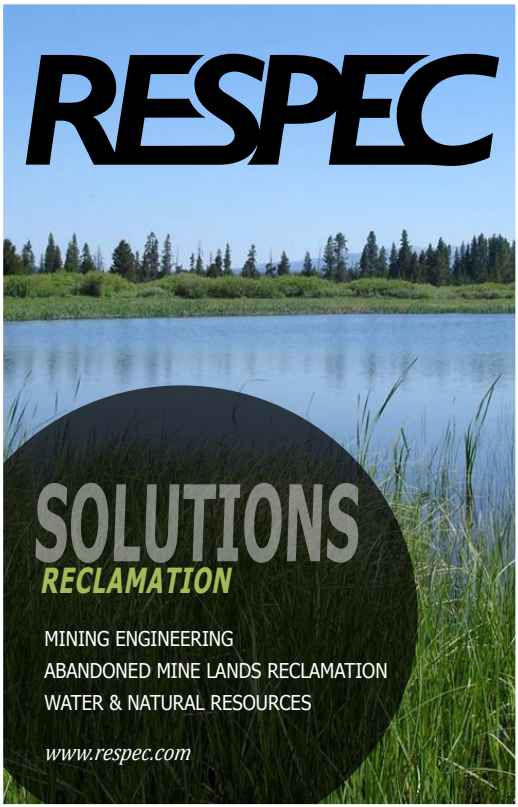

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Sunday, June 5, 2016

8:00 a.m. – 5:00 p.m. ..... Workshop 1 - Natural Process for the Restoration of Drastically Disturbed Sites Meeting Room 1

10:00 a.m. – 4:00 p.m. ..... NEC Meeting - Meeting Room 3

10:00 a.m. – 4:00 p.m..... Exhibitor Setup - Grand Ballroom B

10:00 a.m. – 4:00 p.m..... Poster Setup - Grand Ballroom A

10:00 a.m. – 4:00 p.m. ..... Registration - Grand Ballroom Hallway

1:00 p.m. – 5:00 p.m. ..... Wine Tour - Downtown Spokane (on your own)

6:00 p.m. – 7:30 p.m. ..... Exhibitor and Sponsor Welcome Reception - Grand Ballroom B

Monday, June 6, 2016

6:30 a.m. – 8:30 a.m. . ..... Breakfast - Grand Ballroom A

6:30 a.m. – 7:30 a.m. ..... Haulin' ASMR - Meet in lobby

7:30 a.m. – 5:00 p.m. ..... Registration - Grand Ballroom Hallway

9:00 a.m. – 11:45 a.m. ..... Plenary Session - Grand Ballroom C

9:00 a.m. – 9:15 a.m. ..... Welcome - Conference Chair, Dustin Wasley

9:15 a.m. – 9:30 a.m. ..... Welcome - ASMR 2016 President, Brenda Schladweiler

9:30 a.m. – 9:45 a.m. ..... Welcome - ASMR Executive Secretary, Robert Darmody

9:45 a.m. – 10:30 a.m. ..... Break - Exhibit Hall - Grand Ballroom B

10:30 a.m. – 11:00 a.m. ..... Ann Kennedy, USDA-Ag Research Service

11:00 a.m. – 11:30 a.m. ..... Joe Pizarchik, OSMRE Director

11:30 a.m. – 11:45 a.m. ..... Announcements – Robert Darmody

11:45 a.m. – 2:00 p.m. ..... ASMR Awards Luncheon - Grand Ballroom A

SEE NEXT PAGE FOR SESSION TIMES AND DETAILS

5:30 p.m. – 7:00 p.m. ..... Happy Hour - Exhibit Hall - Grand Ballroom B

6:30 p.m. – 9:00 p.m. ..... Early Careers Event Meet in Lobby beginning at 6:15 pm, will walk to The Onion Downtown

MONDAY, JUNE 6, TECHNICAL SESSIONS			
	WATER QUALITY SESSION 1A MEETING ROOM 1 MODERATOR - KENNET BERTELSEN	LONG TERM RECLAMATION EVALUATION SESSION 1B MEETING ROOM 2 MODERATOR - PIERRE LEMIEUX	RECLAMATION APPROACHES SESSION 1C MEETING ROOM 3 MODERATOR - JOHN HANEY
2:00 p.m. - 2:30 p.m.	Rock Disposal Area Seep Water Treatment At The Jerritt Canyon Mine **by Debbie Johnston**	Reclamation Of The McLaren Tailings Restoring Previously Unusable Area Back To Its Historical Landscape **by Marty Bennett**	Innovative Approach Using GIS to Advance Reclamation and Bond Release **by Rio Franzman**
2:30 p.m. - 3:00 p.m.	A Paired Comparison Study To Evaluate The Effect Of Ionic Strength On Trace Metal Removal Products In A Vertical Flow Bioreactor Substrate **by Julie LaBar (Student)**	Survival And Growth Of Chestnut Backcross Seeds And Seedlings After 8 Years On Surface Mines **by Jeff Skousen**	Bench Scale Hexavalent Chromium Removal With A Biochemical Reactor **by James Gusek and Rado Razafimandrato**
3:00 p.m. - 3:30 p.m.	Got Aluminum? -Removing Suspended Metals With Peat Based Sorption Media **by Paul Eger**	Effects Of Topsoil Substitute Materials, Depth Of Material, And Compaction On The Average Growth Rates Of Hardwood Trees Eleven Years After Reclamation **by Kara Dallaire (Student)**	The Use Of Soil Sampling And Investigations To Improve Reclamation Costs **by James Hartsig**
3:30 P.M. - 4:00 P.M. - BREAK (EXHIBIT HALL)			
	WATER QUALITY SESSION 2A MEETING ROOM 1 MODERATOR - JIM GUSEK	LONG TERM RECLAMATION EVALUATION SESSION 2B MEETING ROOM 2 MODERATOR - MARTY BENNETT	RECLAMATION TECHNOLOGIES SESSION 2C MEETING ROOM 3 MODERATOR - BRENT HARDY
4:00 p.m. - 4:30 p.m.	Acid Mine Drainage Treatment With Dispersed Alkaline Substrate And Limestone Beds **by Paul Eger**	Design Approaches And Lessons Learned For The Durant Canyon Reclamation Project **by Pierre LeMieux**	The Potential Of Biosolids And Other Amendments For Revegetation Of Lead/ Zinc Mine Tailings With Three Biomass Crops: Greenhouse Study **by Mariam Al-Lami (Student)**
4:30 p.m. - 5:00 p.m.	Passive And Active Treatment Of Arsenic And Antimony At A Remote Abandoned Mine Site In Idaho **by Kristina Minchow**	Environmental Control Of Shrub Density Development At The Seneca Ii Mine, 1987-2014, Routt Co. Co **by Vern Pfannenstiel**	Looking At Reclamation In Terms Of Ecological Restoration **by Michael Vice**
5:00 p.m. - 5:30 p.m.	Green Remediation Of Acid Mine Drainage Impacted Water: A Field-Scale Filter Development Using An Industrial Byproduct **by Abhishek RoyChowdhury**	Determination Of Plant Cover In Field Sampling: A Point-Intercept Method For All Strata **by David L. Buckner**	The Holistic Approach To The Design, Monitoring, And Future Performance Assessment Of A Surface Barrier **by Zhuanfang (Fred) Zhang**
5:30 p.m. - 6:00 p.m.	**Water Management TD Business Meeting**	**Forestry and Wildlife TD Business Meeting**	

Tuesday, June 7, 2016

6:30 a.m. – 8:30 a.m. . ..... Breakfast - Grand Ballroom A

6:30 a.m. – 7:30 a.m. ..... Haulin' ASMR - Meet in lobby

7:30 a.m. – 9:00 a.m. ..... Registration - Grand Ballroom Hallway

8:00 a.m. – 4:00 p.m. ..... Technical Tour #1 - Upper Coeur d'Alene Basin Mining Tour (Hosted by CDM Smith). Meet in Lobby

7:30 a.m. – 4:30 p.m. ..... Technical Tour #2 - Land Reclamation in the Inland Empire (Hosted by Rainier Seeds). Meet in Lobby

6:00 p.m. – 10:00 p.m. ..... Social Evening at Chateau Rive

Wednesday, June 8, 2016

6:30 a.m. – 8:30 a.m. . ..... Breakfast - Grand Ballroom A

6:30 a.m. – 7:30 a.m. ..... Haulin' ASMR - Meet in lobby

7:30 a.m. – 8:30 a.m. ..... Living Legends - Meeting Room 5

7:30 a.m. – 8:30 a.m. ..... Wild Women of Reclamation - Meeting Room 6

7:30 a.m. – 5:00 p.m. ..... Registration - Grand Ballroom Hallway

WEDNESDAY, JUNE 8, TECHNICAL SESSIONS			
	WATER QUALITY SESSION 3A MEETING ROOM 1 MODERATOR - STEVE DENT	LONG TERM RECLAMATION EVALUATION SESSION 3B MEETING ROOM 2 MODERATOR - CARL ZIPPER	RECLAMATION TECHNOLOGIES WITH BOMAG SESSION 3C MEETING ROOM 3 MODERATOR - ERNA WATERMAN
8:30 a.m. - 9:00 a.m.	An Appalachian Regional Study To Predict TDS Release From Coal Mine Spoils **by Lee Daniels**	Revegetation Trends And Seeding Lessons At Two Montana Coal Mines Based On 20 Years Of Monitoring **by Richard Prodgers**	Deep Till Method In-Situ Soil Reclamation With A Bomag Recycler **by Erna Waterman**
9:00 a.m. - 9:30 a.m.	Proof Of Concept Bio-Terrace Aluminum Removal At An Abandoned Metal Mine, Idaho **by James Gusek**	Reclamation Practice Influences On The Post-Mining Plant Community At A Virginia Mine Site After Six Years **by Carl E. Zipper**	Composite Sampling - Pre In-Situ Soil Reclamation With A Bomag Recycler **by M. Meadows (Student)**
9:30 a.m. - 10:00 a.m.	Determination Of Hydraulic Retention Time For Passive Treatment System Oxidation Unit Using Rhodamine **by Leah Oxenford (Student)**	Long-Term Study Identifies Avenues For Improving Revegetation Efforts **by Matthew Rinella**	Post In-Situ Soil Reclamation With A Bomag Recycler **by G. Gardner & M. Williams (Students)**
10:00 A.M. - 10:30 A.M. - BREAK (EXHIBIT HALL)			

WEDNESDAY, JUNE 8, TECHNICAL SESSIONS CONTINUED			
	WATER QUALITY SESSION 4A MEETING ROOM 1 MODERATOR - JULIE LABAR	**LONG TERM RECLAMATION EVALUATION SESSION 4B MEETING ROOM 2 MODERATOR - DAVID POLSER**	**MAPPING/GIS SESSION 4C MEETING ROOM 3 MODERATOR - CURT COOVER**
10:30 a.m. - 11:00 a.m.	Treatment System Restoration And Power Generation In The Slippery Rock Creek Watershed **by Ryan Mahony**	Mineral Sands Mine Soils In Southeastern Virginia: Comparison Of Physical And Chemical Properties After Eight Years **by Zenah Orndorff**	Ecological Problems In Kazreti, Georgia, Caused By Copper And Gold Mine And Its Reclamation Using GIS Systems **by Marika Avkopashvili**
11:00 a.m. - 11:30 a.m.	Implementation Of Two Passive Treatment Systems In Northern West Virginia **by Cody Neely**	Switchgrass Bioenergy as Silvopasture on Reclaimed Mine Soil **by David Lang**	Blending Historic Mapping With Lidar At Abandoned Mine Sites **by Curt Coover**
11:30 a.m.- 12:00 p.m.	Validating A Method For Determining Specific Conductivity In Mining Wastewater **by Jeffrey Parks**	Natural Processes For The Restoration Of Drastically Disturbed Sites **by David F. Polster**	**TBD**
12:00 P.M. - 1:30 P.M. - LUNCH WITH LEGENDARY COACH BOB GREEN, MT TECH FOOTBALL COACH (GRAND BALLROOM A)			
	WATER QUALITY SESSION 5A MEETING ROOM 1 MODERATOR - ROBERT NAIRN	**LONG TERM RECLAMATION EVALUATION SESSION 5B MEETING ROOM 2 MODERATOR - RYAN TOBIAS**	**DRONES AND UAV'S SESSION 5C MEETING ROOM 3 MODERATOR - MARK DONNER**
1:30 p.m. - 2:00 p.m.	TDS Accumulation In An Ohio Creek As It Travels Through A Coal Mining Site **by Jonathan Peterson**	Evaluating The Suitability Of A Reforestation Growth-Medium Prepared By Tractor Pulled Scraper Pans At An East Texas Lignite Surface Mine **by Hannah Angel (Student)**	UAs (Drones) De-Mystified, And How They Can Help Your Mining Reclamation Project **by Josh Schane**
2:00 p.m. - 2:30 p.m.	Comprehensive Watershed Restoration Via Ecological Engineering: The Role Of Passive Treatment **by Robert W. Nairn**	Montana Moonscapes: Mitigating Large-Scale Erosion On Steep Slope Uplands In Roadless Areas Of The Anaconda Superfund Site **by Pedro Marques**	Unmanned Aerial Systems (UAS) – What We Learned in our First Year as a Commercial Operator **by Mark Donner**
2:30 p.m. - 3:00 p.m.	A Review Of The Literature Pertaining To Passive And Hybrid Treatment Systems For Removal Of TDS From Mining Impacted Waters **by Zachary E. Kemak(student)**	Underground Mine Subsidence Evaluation, Closure, And Risk Management **by Tyrel Wilson**	**Geotechnical and Soils TD Business Meeting**
3:00 P.M. - 3:30 P.M. - BREAK (EXHIBIT HALL)			

WEDNESDAY, JUNE 8, TECHNICAL SESSIONS CONTINUED			
	WATER QUALITY SESSION 6A MEETING ROOM 1 MODERATOR - TYLER CHATRIAND	RECLAMATION IN CHALLENGING ENVIRONMENTS SESSION 6B MEETING ROOM 2 MODERATOR - STUART JENNINGS	INTERNATIONAL RECLAMATION SESSION 6C MEETING ROOM 3 MODERATOR - DAVE ENOS
3:30 p.m. - 4:00 p.m.	Long-Term Effectiveness Of Three Passive Systems Treating Acidic, High-Metal, Abandoned Coal Mine Discharges Near De Sale, Pennsylvania **by Cliff Denholm**	Rethinking Arsenic Reclamation Of A "Hellafund" Site, Montana **by Scott Robinson (Student)**	Patches: Optimizing The Ecological Benefits Of Different Reclamation Soils Across The Landscape In The Alberta Mineable Oil Sands Region **by Brad Pinno**
4:00 p.m. - 4:30 p.m.	Proof of Concept AMD Passive Bioremediation At An Abandoned Mine, Idaho **by David Jenkins**	The Spenceville Copper Mine Reclamation **by William J. Walker**	Succession Of Algae, Moss, And Herbaceous Flora During 29 Years In Prairie Opencast Coal Mine, Inner Mongolia, China **by Xiang Fan (Student)**
4:30 p.m. - 5:00 p.m.	Biochemical Reactors For Hard Rock Mining-Influenced Water: Overview Of Treatability Studies And Lessons Learned For Implementation **by Nicholas Anton**	Restoration In Challenging Northern Climates **by Alex Zimmerman**	Revegetation of Jharia Coalfield Using Remote Sensing, Based On Thermal Infra-Red Data: A Case Study **by Pradeep Kumar**
5:00 p.m. - 5:30 p.m.	Unexpected Relationships between Methylmercury Enrichment in Fresh Waterbodies and Food-Web Uptake **by Stephen Dent**	Interstate-Callahan Upper and Lower Rock Dumps Remedial Action Construction Project **by Tony Wesche**	**Land Use TD Business Meeting**
5:30 p.m. - 6:00 p.m.		**International Tailings TD Meeting**	
5:30 p.m. - 7:00 p.m.	POSTER SESSION SOCIAL - GRAND BALLROOM A		



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Thursday, June 8, 2016

6:30 a.m. – 7:30 a.m. .....Haulin' ASMR - Meet in lobby

6:30 a.m. – 8:00 a.m. . .....Breakfast - On Your Own

7:30 a.m. – 12:00 p.m. .....Registration - Grand Ballroom Hallway

THURSDAY, JUNE 9, TECHNICAL SESSIONS			
	ECOLOGICAL IMPLICATIONS OF RECLAMATION SESSION 7A MEETING ROOM 1 MODERATOR - ROBERT PAL	AML CASE STUDIES SESSION 7B MEETING ROOM 2 MODERATOR - DEVIN CLARY	INTERNATIONAL RECLAMATION SESSION 7C MEETING ROOM 3 MODERATOR - JOE FRIEDLANDER
8:30 a.m. - 9:00 a.m.	Compaction Impacting Hydrology And Tree Growth On A Demonstration Mine In The Western Gulf **by Cassidy Comer (Student)**	East Fork Ninemile Waste Consolidation Area Site Selection, Design And Initial Construction **by Cody J. Lechleitner**	Effects Of Landscape Transitions Due To Underground Coal Mining On Ecosystem Services In High Groundwater Table And Underground Coal Mining Area: A Case Study Of Yanzhou Coalfield **by Wu Xiao**
9:00 a.m. - 9:30 a.m.	Surface Mine To Biomass Farm: Growing Shrub Willows (Salix Spp.) In Northeastern West Virginia - First Year Results **by Bart Caterino (Student)**	Revegetation Of The Forest Rose Mine In Western Montana **by Leonard Ballek**	Integrated Approaches Of Water And Solid Waste Management In Mining Reclamation Of Coimolache Mining Company-Peru by Alfredo Sagástegui
9:30 a.m.- 10:00 a.m.	The Effectiveness Of Native Seed Dispersal Islands In Reclaimed Mine Lands Dominated By Eurasian Grasses **by Robert W. Pal**	Removal Action At The Monte Cristo Mining Area **by Ryan Tobias**	Innovations Of Land Reclamation And Ecological Restoration In Coal Mining Areas In China **by Zhenqi Hu**
10:00 A.M. - 10:30 A.M. - BREAK (EXHIBIT HALL)			
	REVEGETATION CHALLENGES SESSION 8A MEETING ROOM 1 MODERATOR - JENNIFER FRANKLIN	HEAVY METALS CHARACTERIZATION AND REMEDIATION SESSION 8B MEETING ROOM 2 MODERATOR - KERI PRITCHETT	MINE CLOSURE AND RECLAMATION SESSION 8C MEETING ROOM 3 MODERATOR - JR SUGALSKI
10:30 a.m. - 11:00 a.m.	Improved Methods Of Assessing Plant Species Diversity On Mine Reclamation Sites: A 10-Year Update **by David L. Buckner**	Acid Soil Remediation And Revegetation Of Metal Contaminated Pastures, Deer Lodge, Montana **by Stuart Jennings**	Mining Reclamation Through Service-Learning: Case Studies From Wisconsin **by Yari Johnson**
11:00 a.m. - 11:30 a.m.	Evaluation Of Small Tree And Shrub Plantings On Reclaimed Surface Mines In West Virginia **by Alexis Monteleone (Student)**	Update To Tribal-Led Remedial Action At The Tar Creek Superfund Site **by Craig Kreman**	True North Mine Reclamation Project **by Mark Huffington**

THURSDAY, JUNE 9, TECHNICAL SESSIONS CONTINUED			
11:30 a.m. - 12:00 p.m.	Ripping And Native Seeding Treatments Influence On Vegetation Composition Of Compacted Tailings **by Jennifer Franklin**	Reducing Fresh Water Consumption in Hydraulic Fracturing By Using Acid Mine Drainage As A Make-Up Fluid **by Eric Cavazza**	Cost Effective Plans for Successful Mine Closure – Recent Case Studies **by Marc S. Theisen**
12:00 P.M. - 1:30 P.M. - LUNCH AND PRESENTATION AWARDS			
	RESTORATION AND REVEGETATION SESSION 9A MEETING ROOM 1 MODERATOR - LEAH OXENFORD	RECLAMATION IN CHALLENGING ENVIRONMENTS SESSION 9B MEETING ROOM 2 MODERATOR - PETE STAHL	TREATMENT AND WETLANDS SESSION 9C MEETING ROOM 3 MODERATOR - BERNARD KRONSCHNABEL
1:30 p.m. - 2:00 p.m.	Advanced Planning And Measurable Outcomes: Restoration Success In Southern Colorado **by David Chenoweth**	Developing A Conceptual Site Model In A Watershed With Multiple Mine Waste Dumps, Bunker Hill Superfund Site, East Fork Ninemile Basin **by Erik Naylor**	Trompe Design, Construction And Performance **by Timothy P. Danehy**
2:00 p.m. - 2:30 p.m.	What's So Great About Beavers? **By Susan Firor**	Coal Mine Reclamation Costs And Local Economic Impacts In The Powder River Basin In Wyoming **by Roger Coupal**	Remediation of Acid Mine Drainage using a Sulfate-reducing Bioreactor at the Tab-Simco Passive Treatment System – An Update **by Paul Behum**
2:30 p.m. - 3:00 p.m.	Novel Capping and Revegetation of an Abandoned Mercury Mine, California **by David Jenkins**	Monitoring The Behavior Of Sludge In The Vadose Zone **by Michele Coleman**	Case Study: Baird Wetland Mitigation **by Shaun Busler**
3:00 p.m. - 3:30 p.m.	Passive Biological Treatment Approaches To Reduce Conductivity In Waters Affected By Mine Drainage: Key Challenges & Research Needs **by Bill Strosnider**	Streamlining The Reclamation Monitoring and Reporting Process: A Digital Reclamation Monitoring Tool **by Nathan J. Wojcik**	The Relationship Between Student Service Learning And Technical Assistance In Mine Water Reclamation **by Kelsea Palmer**
3:30 p.m. - 4:00 p.m.	**Ecology TD Business Meeting**	Heavy Metal Characterization And Source Identification For Grove Gulch In Butte, Mt **by Raja Nagisetty**	
NEC WRAP UP MEETING 4:00 PM (MEETING ROOM 5)			

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POSTER SESSION AND MIXER

Wednesday, June 8th, 5:30 to 7:00 PM

The Poster Session will be held in Grand Ballroom A on Wednesday evening June 8th, along with a Social Mixer including refreshments. Posters will be displayed on easels provided. Below is a list of the abstracts that have been accepted for the Poster Session.

POSTER SESSION - GRAND BALLROOM A
Hydraulically Isolating An Existing Repository And Potentially Increasing Capacity by **Kara M. Beaudoin**
Metal Recovery Using Biogenic Sulfide From Acid Mine Drainage **by Sangwoo Ji**
Effect Of Different Forest Age On Soil Enzyme Activities And Microbial Diversity On Surface Mine Reclamation In Antaibao **by Jinchuan Li**
The Physiological Characteristics To Estimate Species Potential As Mine Reclamation Ground Covers **by Eddy Nurtjahya**
Interim Reclamation: The Benefits Of Temporary Reforestation For Meeting Final Reclamation Goals **by Brad Pinno et al.**
Interactive Effects Between Lime, Organic Matter, And Bacteria In The Establishment Of Leymus Cinereus In Mine Tailings **by Deicy Sánchez**
Recovery Rate And Purity Of Some Dissolved Metals In Mine Drainage From Abandoned Coal Mine **by Gil-Jae**
Fluorescent Dye Tracing In Abandoned Mines For Adit Discharge Source Control **by Chapin Storrar**
Salix Spp. As A Biomass Crop: Investigating Its Potential On Mined Lands And The Use Of Biochar As A Soil Amendment **by Heather Nobert (Student)**
Design And Construction Challenges For The Southeast Commerce Passive Treatment System **by Bryan J. Page (Student)**
Open Limestone Channel Performance For Aluminum-Rich Acid Mine Drainage **by Charles Spellman (Student)**
Contaminant And Treatment Dynamics In The Greater Rio Juckucha Watershed **by Hannah Patton (Student)**
Open Limestone Channels For Acid Mine Drainage Treatment: Effects Of Agitation On PH Increase **by Swayer Rensel (Student)**
Hydraulic And Biological Maintenance Challenges And Solutions In An Aging Passive Treatment System **by Nicholas Shepherd (Student)**
Geochemistry And Biota Of Bolivian Hypersaline Lakes **by Rachel Wagner and Stefan Long (student)**
Evaluating The Suitability Of A Reforestation Growth-Medium Prepared By Tractor Pulled Scraper Pans At An East Texas Lignite Surface Mine **by Hannah Angel (Student)**
Lab Scale Batch Weathered Limestone Testing To Determine System Sizing **by Andrew Hollern (Student)**
A Gis Model To Guide Revegetation Efforts On Reclaimed Mine Lands **by Mark Mariano (Student)**
Soil Conditions Promoting Long-Term Reforestation Of Appalachian Forests **by Jenise Bauman (Student)**
The Institutional Context of Reclamation: Changing Landscapes of Energy **by Kathryn Bills-Walsh**
Mechanical Suppression of Grasses to Reduce Competition with Wyoming Big Sagebrush (Artemisia Tridentata) Seedlings in a Fire Disturbed Landscape by **Amy P. Jacobs (Student)**
Insect Response to Reclaimed Well Pads with Different Vegetative Characteristics in a Semi-Arid Natural Gas Field **by Michael F. Curran (Student) and Peter D. Stahl**
Georeferencing of American Society of Mining and Reclamation Proceedings: Preliminary Trend Analysis **by Ashley Rovder, Staci Wolfe, Stefan Long, David Madl, Peter Smyntek, Rachel Wagner, William Strosnider**

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April 24, 2017

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TOUR INFORMATION

Tour #1 - CDA Mining Basin Tour

Tuesday June 7, 2016 (Hosted by CDM Smith)

8:00 a.m..... Depart Spokane for Upper CDA Mining Basin. The tour will focus on reviewing the remedial activities at each site and history of the sites. Box lunches will be provided.

9:30 a.m..... Arrive at Star Mine and Mill Complex

10:30 a.m. ..... Arrive at Tamarack Mine Portal

11:30 a.m. ..... Lower Burke Canyon Repository

12:30 p.m. ..... Success Mine Remedial Action

1:30 p.m. ..... East Fork Ninemile Waste Consolidation Area overlook

2:00 p.m. ..... Depart for Spokane

4:00 p.m. ..... Arrive in Spokane

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TOUR INFORMATION

Tour #2 - Rainier Seeding Tour

Tuesday June 7, 2016 (Hosted by Rainiers Seeds)

7:30 a.m..... Board bus and travel to the Cleveland Mine near Lake Roosevelt about 30 mins east of Hunter WA

9:00 a.m..... Arrive at Cleveland Mine. BLM took control and voluntary reclamation in 2000. Review reclamation success and challenges (recently impacted by a fire)

10:00 a.m. ..... Depart for Rainier Seeds production/processing facility

11:45 a.m ..... Arrive at Rainier Seeds, lunch provided.

12:30 p.m..... Tour the native seed processing facilities (one of the largest in the Western US)

- Plants of the Wild, a native seed nursery, will display native plants and discuss the process of native plant production used in many reclamation projects
- Wildlands, a reclamation company, will display reclamation equipment and discuss the challenges of reclamation on various projects

1:00 p.m. ..... Depart for Swanson Lake Wildlife Area

1:30 p.m. ..... Arrive at Swanson Lakes Wildlife Area, a Bonneville Power Administration wildlife mitigation project, primarily for Columbian sharp-tailed grouse. It also supports a mix of species, including mule deer, upland game birds, raptors, songbirds, and several reptiles and amphibians. Various reclamation projects have taken place and are still on going.

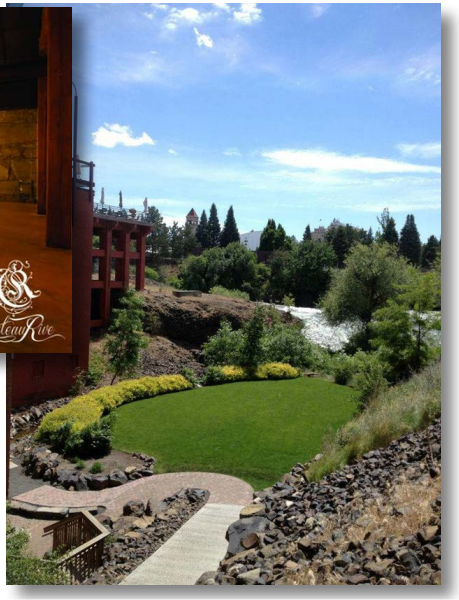
3:00 p.m. ..... Depart for Spokane

TUESDAY NIGHT SOCIAL
CHATEAU RIVE

Tuesday, June 7

6:00 PM to 10:00 PM

An evening social for attendees and accompanying persons is scheduled for Tuesday, June 7th at the Chateau Rive (http://bozzimedia.com/chateau-rive/). The Chateau is located a short walking distance from the Davenport Grand. The evening begins at 6:00 PM and includes musical entertainment, heavy appetizers, and a full bar. The cost is $60 per person (in addition to conference registration). Tickets can be purchased during online conference registration. This will be a fun night, please join in and enjoy a wonderful evening with colleagues and friends. Please meet us in the The Davenport Grand Lobby at 5:45 p.m. and we will walk over as a group.



MONTANA 2016 NAAMLP

National Association of Abandoned Mine Land Programs

Conference

Bozeman, Montana

September 25-28 2016

www.naamlp2016.com

Hosted by the MT-AML Program

ASMR SILENT AUCTION AND RAFFLE
SUPPORT THE STUDENTS!!

ASMR invites you to help us raise money for the ASMR Student Scholarship Fund, helping students attend future mining-related conferences and events. We are hosting a silent auction and raffle and invite you to consider contributing items—such as gift baskets, gift certificates, coveted books, minerals, mining related items, etc.

Higher-priced contributed items will be included in our silent auction and displayed in Grand Ballroom A beginning Sunday, June 5th, afternoon before the Exhibitor Social Event. Silent auction bidding will continue until Thursday at 10:30 am. Successful bidders can pick up their items immediately following the morning sessions. Payment may be made by cash, check, or credit card.

The additional contributed items will be raffled throughout the conference. Tickets will be $5 each or 5 for $20. You can purchase tickets from any ASMR committee member or at the GeoEngineers booth. Hold on to your tickets and listen for your raffle number throughout the conference. The company or individual that donated the items will be recognized.

All proceeds will go to the ASMR Student Scholarship Fund. Please bring any contributions to the registration desk upon arrival, or you can mail them ahead of time. Contact Dustin Wasley at dwasley@geoengineers.com or April Smith at asmith@geoengineers.com with questions or to make arrangements.

We stand behind your efforts to reclaim and restore the land.

For more information about TMRA, please contact Ches Blevins, Executive Director, (512)236-2325.

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TMRA

WORKSHOP INFORMATION

NATURAL PROCESS FOR THE RESTORATION OF DRASTICALLY DISTURBED SITES

Presented by: **David Polster, M.Sc., R.P. Bio. Polster Environmental Services, Ltd.**
When: **Sunday, June 5, 2016**
Where: **The Davenport Grand Hotel, Meeting Room 1**
Cost: **$150/person**

TECHNICAL BACKGROUND

Natural processes have been "restoring" natural disturbances since the advent of terrestrial vegetation over 400 million years ago. This workshop will explore how these natural processes, systems and functions can be used to restore sites that humans have disturbed such as large mines, industrial disturbances, landslides, shorelines and other disturbed sites. We will look at how natural systems address filters to recovery such as erosion and steep, unstable slopes and how we can design restoration treatments that address these filters. We will explore the natural processes that provide nutrients and nutrient cycling capacity to ecosystems and how these can be re-established on drastically disturbed sites. In many cases restoration treatments based on these natural processes can be used to restore anthropogenic disturbances more easily and at a lower cost than traditional reclamation treatments. Examples will be drawn from the experience (over 37 years) of the instructor in the mining and heavy construction industry.

PARTICIPANTS

This course will be of interest to those engaged in the restoration of disturbed sites. Managers or other personnel from large mines or other sites where disturbances must be reclaimed will be interested in this course. Regulators and others looking for effective restoration strategies will find this course useful.

LEARNING OUTCOMES

The course provides a methodology for the restoration of drastically disturbed sites (mines, industrial sites, landslides, etc.) based on the natural recovery processes that operate in ecosystems throughout the world. Natural process based restoration is often less expensive that traditional treatments and provides for the long-term recovery of the site, including soil and vegetation development.

SPECIFIC OUTCOMES

Participants will learn a variety of treatments to control erosion, re-establish vegetation and build soil- forming processes. Specific details are provided to address issues that are commonly found at mines and industrial sites (e.g. compaction, steep slopes, adverse soil texture, toxic materials and lack of organic.

CONTENT AND PROGRAM

The workshop will be a full day (8:30 a.m. to 5:15 p.m. with breaks) and will follow the schedule outlined below.

7:30 a.m. - 8:30 a.m. ..... Registration

8:30 a.m. - 10:30 a.m. ..... Session 1
A brief review of ecosystem formation processes (assembly rules); The use of a successional model to inform restoration design.

10:30a.m. - 11:00a.m. ..... Coffee break

11:00 a.m. - 12:30 p.m. ..... Session 2
The role of nitrogen fixing pioneering species in restoration systems; Erosion processes and solutions.

12:30 p.m. - 1:30 p.m. ..... Lunch

1:30 p.m. - 3:00 p.m..... Session 3
Strategies to address climatic and seasonality constraints; Restoration of difficult sites (introduction to Soil Bioengineering).

3:00 p.m. - 3:30 p.m..... Coffee break

3:30 p.m. - 5:15 p.m..... Session 4
Implementation, maintenance and monitoring of restored sites; Incorporation of social values in the restoration of drastically disturbed sites.

METHODOLOGY

The course is presented as a series of PowerPoint presentations (approximately 1,250 slides) based on the experience of the instructor. These show photographs of a variety of restoration sites over many years so that participants can see how the restoration treatments performed (good and bad) and how the principles that are being taught have been used in a variety of different situations.

COURSE MATERIALS

Participants will receive a course manual (123 pp) that provides referenced details of the materials presented in the course. In addition, the instructor will bring his library of restoration related books for viewing by the participants during breaks.

EQUIPMENT

A room that can be darkened and a PowerPoint projector and screen are the only equipment needed (in a large room with many participants, a microphone may be needed). Participants may want to bring a writing implement to make notes.

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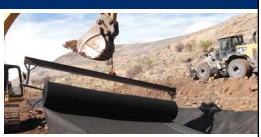

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INSTRUCTOR'S BIO

David F. Polster, R.P. Bio. is a plant ecologist with over 37 years of experience in vegetation studies, reclamation and invasive species management. He graduated from the University of Victoria with an Honours Bachelor of Science degree in 1975 and a Master of Science degree in 1977. He has developed a wide variety of reclamation techniques for mines, industrial developments and steep/unstable slopes as well as techniques for the re-establishment of riparian and aquatic habitats. He is the past- president (third term) of the Canadian Land Reclamation Association. He is the treasurer for the Western Canada Chapter of the Society for Ecological Restoration and is the NW Regional Representative on the board of the international Society for Ecological Restoration (SER). He was recently awarded the prestigious John Rieger Award from SER. He serves as the alternate mining representative on the board of the Invasive Species Council of B.C.

Dave has provided on-site design and direction in the development of reclamation and bioengineering systems for restoration of severely damaged ecosystems. He served as the environmental supervisor for CP Rail's massive Roger's Pass Project. He was responsible for developing the bioengineering systems that have successfully revegetated a portion of the Point Grey cliffs at UBC. Dave has prepared reclamation plans for numerous mines, quarries and gravel pits in Canada. He pioneered the concept of successional reclamation where the aim of the reclamation program is the re-integration of the disturbed site into the natural processes of vegetation succession.

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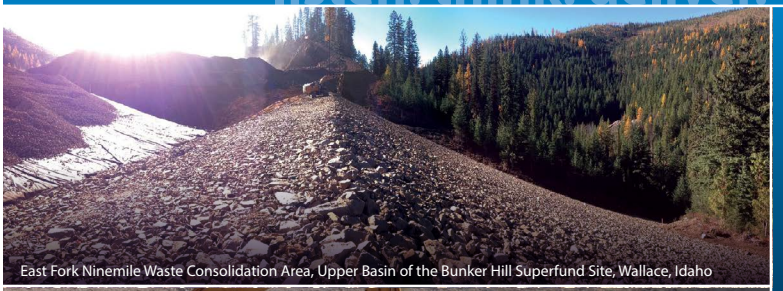
East Fork Ninemile Waste Consolidation Area, Upper Basin of the Bunker Hill Superfund Site, Wallace, Idaho

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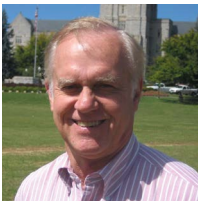

Carl E. Zipper - William T. Plass Award

Nominated by: James Burger

Carl E. Zipper is a Professor and Cooperative Extension Specialist with the Department of Crop and Soil Environmental Sciences at Virginia Tech. He received his Ph.D. in Agronomy from Virginia Tech in 1986. He serves as Director of the Powell River Project, a Virginia Tech program that conducts research and education programs to enhance restoration of coal-mined lands. He teaches undergraduate and graduate courses that concern environmental science at Virginia Tech. He is active in research and outreach concerning mined land reclamation, forest restoration on coal mined areas, and water resource management and protection. Congratulations, Carl!

James R. Truax - ASMR Reclamationist of the Year Award

Nominated by: Brenda Schladweiler

James R. Truax (Jim) worked in the landscaping business during high school and in college. He became a pioneer in seeding native prairie species in the Midwest by being a self-described "tinkerer" and a person who enjoys repairing and experimenting with machines. He started Truax Company, Inc. in 1974 to develop equipment to meet the challenges of seeding native species. His dedication to local causes and to his employees proves he is more than just a businessman looking to make a dollar. He understands that need too, but his focus is people in his community, state, and company. Congratulations, Jim!

Louis M. McDonald - R.I. & L.M. Barnhisel Reclamation Researcher of the Year Award

Nominated by: Jeff Skousen

Louis M. McDonald is a Professor of Soil Science in the Division of Plant and Soil Sciences at West Virginia University. He has degrees from the California Polytechnic State University, San Luis Obispo (B.S.), Louisiana State University (M.S.) and the University of Kentucky (Ph.D.). Since 1997, he has had teaching and research responsibilities in environmental soil chemistry and soil fertility. Louis teaches an undergraduate course in soil fertility, a graduate course in soil chemistry and coordinates graduate seminar. His research interests are the reclamation and remediation of disturbed and metal contaminated soils, especially the role of organic carbon in the mechanisms governing biological availability. He has benefited enormously, professionally and personally, from the generosity of his colleagues and the dedicated efforts of exceptional graduate and undergraduate students. Congratulations, Louis!

Melissa Van Scoyoc - Early Career Award

Nominated by: Cally Driessen

Melissa Van Scoyoc (B.S., Land Rehabilitation Science, Montana State University 2009) has over nine years of experience in wildland restoration in a variety of habitats. Currently, she coordinates the Habitat Restoration Program and is the GIS lead for the Salmon River Restoration Council. She develops/implements anadromous fish habitat restoration in the California Salmon River. At present, she is coordinating the effort to collaboratively analyze and prioritize restoration sites along the river and major tributaries. She is also working on multiple projects including off-channel habitat restoration, large woody debris augmentation and in-stream barrier removal. Congratulations, Melissa!

Dr. Peter Beckett - Pioneer in Reclamation Award

Nominated by: Michele Coleman

Many people do reclamation. Many people do research in reclamation. Many people engage community groups and citizens to educate about reclamation. Dr. Peter Beckett has excelled in all areas. He has been a pioneer in research into restoring healthy habitats and ecosystems (land, water and air) in severely degraded areas. Maybe most importantly as a pioneer, he has taken the extra steps to include the psychological and social restoration of the community through engagement, education and leadership long before social and public impacts became a concern in mining communities. His current research into forest understory development is trying to increase the pace of complete forest restoration. Congratulations, Peter!

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