



ASRS

AMERICAN SOCIETY OF
RECLAMATION SCIENCES



ASRS/ARRI 2024 Preliminary Conference Program

The 41stth Annual Meeting of the American Society of Reclamation Sciences (ASRS) is June 2-6, 2024, in Knoxville, TN. This conference will focus on the research, technical, and regulatory issues associated with the land and water implications of anthropogenic land disturbances. It will provide a forum for the dissemination of information through presentation of research findings, field tours, and open discussion of public policy relating to the applied science of reclamation, rehabilitation, remediation, and restoration of areas disturbed by mining, oil and gas, conventional and alternative energy production, contaminated sites, agriculture, road construction, large-scale commercial development, and other disturbances to land and water resources.

Schedule at a glance:

Sunday, June 2	Monday, June 3	Tuesday, June 4	Wednesday, June 5	Thursday, June 6
	Haulin'/walking ASRS 6:30-7:15 am	Haulin'/walking ASRS 6:30-7:15 am	Haulin'/walking ASRS 6:30-7:15 am	
	ARRI core/Science team meetings 7:30-9:00 am	Wild Women of Reclamation 7:00 -8:15 am		
	Plenary session 9:00 am-noon Main Ballroom	ARRI Professional tour 8:00 am -4:00 pm Technical sessions 8:30 am - 12:00 pm	Technical sessions 8:30 am - 12:00 pm	Copper Basin Professional Tour 8:00 am - 5:00 pm
	ASRS and ARRI Awards Luncheon and ASRS Business Meeting 12:00 - 2:00 pm Main Ballroom	Lunch buffet 12:00- 1:30 pm Main Ballroom	Student awards luncheon	
Registration and Exhibitor set-up 11:00 pm- 8:00 pm Convention Center Lobby and Ballroom	Technical sessions 2:00 - 5:30 pm ARRI Technical sessions 2:00 - 5:30 pm	Stream Restoration Professional Tour 1:30 - 3:00 pm	Ijams Quarry Professional Tour 2:00 - 5:30 pm	
NEC meeting 4:00-6:00 pm		Technical sessions 1:30- 5:30 pm	NEC meeting 4:15- 5:15 pm	
Welcome Exhibitor/Sponsor Reception 6:00 - 8:00 pm Convention Center Ballroom	Social Event and Dinner 6:30 - 10:00 pm Museum of Appalachia	Poster session 5:30 - 7:15 pm Main Ballroom Film festival 7:30 - 9:00 pm Lower Level Theatre	Early Career Professional Social 6:00 - 9:00 pm	

Early Registration Sponsors / Exhibitors

More space available!

PLATINUM



GOLD



BRONZE



EXHIBITORS



A Special Thanks to Our Conference Planning Committee

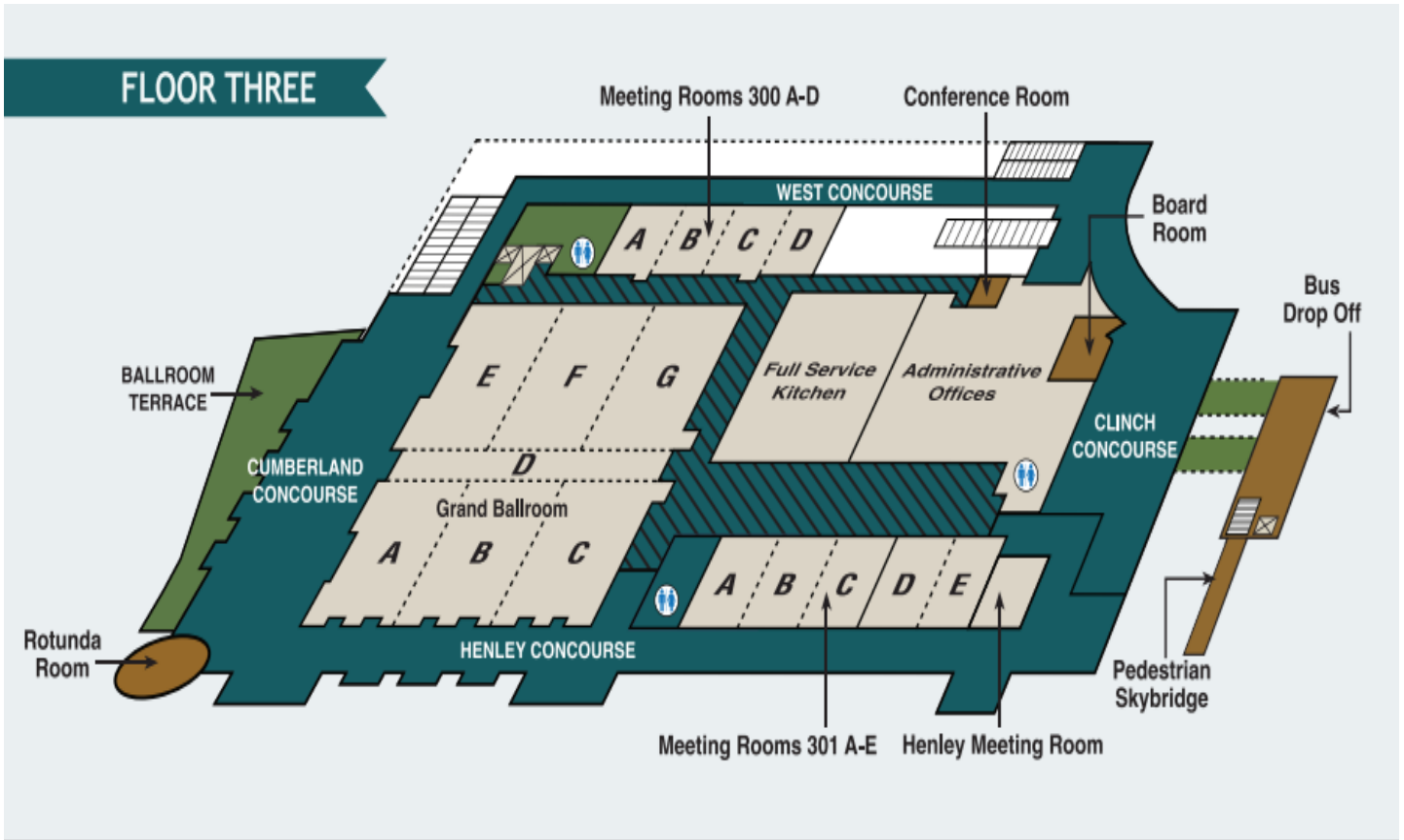
CONFERENCE PLANNING COMMITTEE

Jennifer Franklin, 2024 Conference Chair
 Julie LaBar, ASRS President
 Michele Coleman, ASRS Past President
 Kenton Sena, University of Kentucky
 Gwen Geidel, University of South Carolina
 Will Debord, OSMRE
 Scott Eggerud, OSMRE

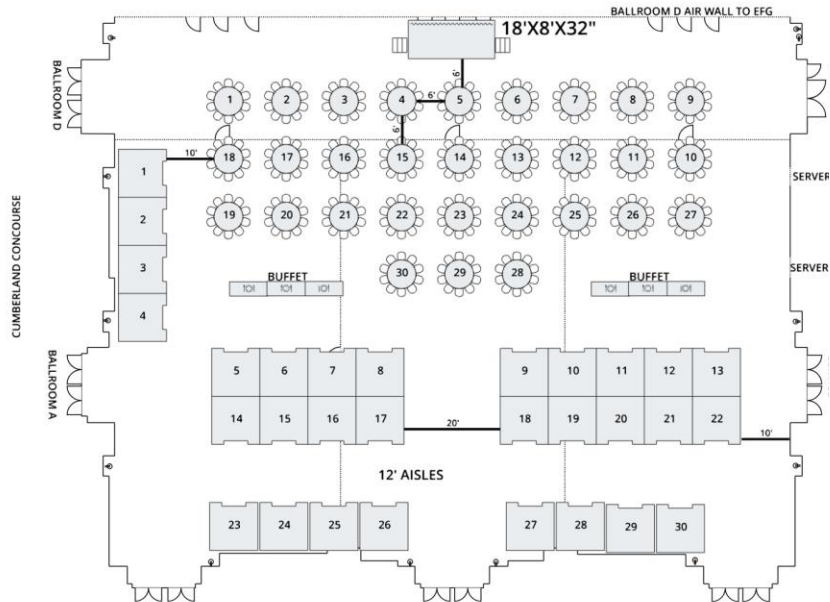
SPECIAL EVENT COORDINATORS

Brenda Schladweiler & Seth Cude- Silent Auction
 Brandon Holzbauer-Schweitzer - Film Festival
 Allen Wellborn - Early Career Professionals
 Michele and Gwen - Wild Women
 Paul Griswold - ASRS Awards
 Scott Eggerud - ARRI Awards
 Michele Coleman & Bill Zeaman - Haulin' ASMR

KNOXVILLE CONVENTION CENTER – 3rd FLOOR



BALLROOM ABCD



PROFESSIONAL FIELD TOUR INFORMATION

Tuesday, June 4 – ARRI Reforestation Tour (Full Day)

8:00 a.m. – 4:00 p.m.

- 8:00 Board vans and travel to The Nature Conservancy Ataya property about 75 miles north of Knoxville
- 9:30 Arrive at TNC for an overview of the property and tour of areas of various ages reclaimed using the Forestry Reclamation Approach
- 11:00 Arrive at a University of Tennessee research site where native trees were planted on a legacy minesite after subsoiling to relieve compaction
- 1:00 Arrive at Indian Mountain State Park in Jellico, TN for lunch and a discussion of reforestation success
- 2:30 Depart for Knoxville (ARRI members in their own vehicles may depart from here)



Tuesday, June 4 - Knoxville Stream Restoration (no registration required)

1:30 - 3:00 p. m. - Professional Tour

Meet in the Convention Center lobby for a 1.5 mile walk along the Second Creek Greenway. The University of Tennessee Stormwater Management team will give an overview of the completed upper section of Second Creek, and plans for restoration of the lower section which will begin in 2024. Students with the Society for Ecological Restoration will give an update on student-led vegetation improvement projects.



Wednesday, June 5 - Quarry Restoration (no advance registration required)

2:00 p.m. - 5:00 p.m. - Professional Tour

- 2:00 Board vans for travel to Ijams Nature Center, about 4 miles from downtown Knoxville
- 2:20 Arrive at The Crag to see the results of restoration efforts at the site of a former agricultural lime packing facility.
- 3:00 Board vans to travel to nearby Mead's Quarry, or walk approximately 1 mile over good, flat trails
- 3:30 Tour Mead's Quarry recreation area.
- 4:00 -5:30 Depart for Convention Center



Thursday, June 6 - Copper Basin Reclamation (Full Day \$60 includes lunch)

8:00 a.m. - 5:00 p.m. - Professional Tour

- 8:00 Board bus for Ducktown, TN, about 90 miles south of Knoxville.
- 10:15 Arrive at the Ducktown Mining Museum.
- 11:00 Depart for Burra Burra Creek to see constructed wetlands for the treatment of acidic drainage
- 12:00 Lunch at the London Mills tailings pond, and tour tailings management areas
- 2:30 Depart for Knoxville



SUNDAY, JUNE 2, 2024 AGENDA

All Day

11:00 a.m. – 5:00 p.m.

4:00 p.m. – 8:00 p.m.

4:00 p.m. – 6:00 p.m.

5:00 p.m. – 8:00 p.m.

6:00 p.m. – 8:00 p.m.

ASRS Office – Henley Meeting Room

Exhibitor Setup – Convention Center Ballroom

Registration – Convention Center Lobby

NEC Meeting – Henley Meeting Room

Exhibitor Show – Convention Center Ballroom

Welcome Reception - Convention Center Ballroom

Monday, JUNE 3, 2024 AGENDA

6:30 a.m. - 7:30 a.m.

7:30 a.m. - 5:00 p.m.

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

7:30 a.m. - 8:15 a.m.

7:30 a.m. - 8:15 a.m.

8:15 a.m. - 9:00 a.m.

9:00 a.m. - 5:30 p.m.

9:00 a.m. - Noon

9:15 a.m. - 10:00 a.m.

10:00 a.m. - 10:30 a.m.

10:30 a.m. - 12:00 noon

12:00 noon - 2:00 p.m.

1:00 p.m. - 6:00 p.m.

2:00 p.m. - 5:30 p.m.

6:30 p.m. - 9:30 p.m.

Haulin' ASRS – Meet at the Knoxville Convention Center main entrance on Henley Street

Registration – Convention Center Lobby

Breakfast - Ballroom

ARRI Core Team Meeting Room C

ARRI Science Team Meeting Room E

ARRI Science and Core Team Joint Meeting Room C

Exhibitor Displays – Ballroom

Plenary Session – Ballroom

Jennifer Franklin – Conference Chair – Welcome

Julie LaBar – ASRS President – President's Welcome

Keynote Speaker: Kathryn Newfont, Univ. of KY

Break

Keynote Speaker: Barry Miller, TN Assistant State Geologist

Keynote Speaker: Bonnie Craighead, TDEC Mining Section

Keynote Speaker: Daniel Lawrence, TDEC Mining Section

ASRS and ARRI AWARDS LUNCHEON / ASRS BUSINESS MEETING

Silent Auction opens - Meeting room B

Technical sessions

Social Dinner at the Museum of Appalachia

MONDAY, JUNE 3, TECHNICAL SESSIONS

*indicates student presenter

Time	SESSION 1: ARRI Room 301A	SESSION 1 Special Session: Bats Room 301C	SESSION 1: AML Room 301E
2:00 p.m. - 2:30 p.m.	"Assessment of American chestnut (<i>Castanea dentata</i>) hybrid stem count, growth, and surrounding vegetation on two reclaimed mines restored using The Forestry Reclamation Approach for soil amendment". Z Griffith, R Homsher, J Chapman, K Gilland, JM Bauman.	"Bat activity on high elevation reforested coal mines in the Monongahela National Forest, WV". B Snyder, C Barton, M Lacki, S Price, Z Hackworth.	"Federally funded coal abandoned mine land (AML) program overview". EE Cavazza.
2:30 p.m. - 3:00 p.m.	"Pond-breeding amphibian response to the Forestry Reclamation Approach and wetland creation on legacy surface coal mines in the Central Appalachians". S Price, L Sherman, J Newman, R Davenport, J Cox, J Larkin, C Barton.	"Is this working? The effectiveness of current mitigation strategies for conserving use of abandoned mines by bats". RE Sherwin, DL Waldien	"Lessons from Ohio's year one of BIL funding". M Lautzenheiser, C Kinney.
3:00 p.m. - 3:30 p.m.	"Reforestation Pennsylvania's Green Heart: The Continental Divide Reforestation Project". E Oliver.	"Assessment of bat boxes as mitigation for the loss of roost trees at a surface mine in South Wales, UK". RN Humphries, D Price, C Abrahams.	"Construction of a subsurface fire wall on the Rock Springs No. 9 mine". HJ Hutson.
3:30 P.M. - 4:00 P.M. - BREAK - Ballroom			
Time	SESSION 2: Forest Restoration Room 301A	SESSION 2: Broader Conversations Room 301C	SESSION 2C: AML Room 301E
4:00 p.m. - 4:30 p.m.	"Red Spruce Restoration and Ash Protection on the Appalachian Trail". M Drury.	"From mining reclamation to reclamation sciences: expanding the scope and influence of ASRS". RW Nairn, JA LaBar.	"The Banning/West Newton Coal Logistics Coal Refuse Pile Reclamation Project Rostraver Township, Westmoreland County, Pennsylvania". EE Cavazza.
4:30 p.m. - 5:00 p.m.	"Only 5% of mining disturbed forest successfully reclaimed in the Amazon for the past three decades". W Xiao, T He, W Chen.	"ASRS-II: reclamation without borders". B Schladweiler, Y Chugh.	"Carissa Gold Mine: Making an Abandoned Mine into a State Park". B Drake, G Robson.
5:00 p.m. - 5:30 p.m.	"Identifying metrics of ecosystem recovery on reclaimed minesites in eastern hardwood forests". I Kennedy*, J Franklin, D Buckley, K Sena.	"Reclaiming Communities through National Service". AE Badtke, P Silva, J Micahel.	"Strategic Planning Tools for Abandoned Mine Void Subsidence Mitigation". M Bautz, D Hibbard
6:00 P.M - 10:00 P.M. Social and dinner			

MONDAY JUNE 3 EVENTS

Social Event and Dinner at the Museum of Appalachia

6:00 p.m. - 10:00 p.m.

Please reserve your spot on the first bus, leaving the Convention Center at 6:00 p.m., or the second bus, leaving the Convention Center at 7:00 p.m. Buses will return at 9:00 or 10:00. A sign-up sheet is located at the registration desk.



Join us for a catered dinner and drinks on the grounds of the Museum of Appalachia. Stroll through the 65 acre grounds and 35 buildings full of pioneer and Native American artifacts in this Smithsonian affiliated museum.

Tuesday, JUNE 4, 2022 AGENDA

6:30 a.m. - 7:30 a.m.	Haulin' ASRS
7:00 a.m. - 8:15 a.m.	Wild Women of Reclamation – Room 301A
7:30 a.m. - 8:30 a.m.	Breakfast - Ballroom
7:30 a.m. - 5:00 p.m.	Registration – Convention Center Lobby
7:45 a.m. – 8:15 a.m.	Reclamation Sciences Editorial Board Meeting, Room 301E
8:00 a.m. - 7:00 p.m.	Exhibitors – Ballroom
8:00 a.m. - 4:00 p.m.	ARRI Reforestation Professional Tour
8:15 a.m. - 6:00 p.m.	Silent Auction - Room 301B
8:30 a.m. - 10:00 a.m.	Technical Presentations
10:00 a.m. - 10:30 a.m.	Break - Ballroom
10:30 a.m. - 12:00 p.m.	Technical Presentations
11:30 a.m. - 12:00 p.m.	Soils Technical Division Meeting – Room 301A
12:00 p.m. - 1:30 p.m.	Buffet Lunch - Ballroom Lunch Speaker: Matt Drury
1:30 p.m. - 3:00 p.m.	Stream Restoration Professional Tour
3:00 p.m. - 3:30 p.m.	Break - Ballroom
3:30 p.m. - 5:30 p.m.	Technical Presentations:
5:00 p.m. - 5:30 p.m.	Wildlife Technical Division meeting – Room 301A
5:00 p.m. - 5:30 p.m.	Engineering and Construction Technical Division meeting – Room 301A
5:30 p.m. - 7:15 p.m.	Poster Presentations - Ballroom
7:30 p.m. - 9:00 p.m.	Film Festival – Second Floor Theater

TUESDAY, JUNE 4, TECHNICAL SESSIONS

Time	SESSION 3: Soil Amendments Room 301A	SESSION 3 Special Session: Mercury Room 301C	SESSION 3: Urban Restoration Room 301E
8:30 a.m. - 9:00 a.m.	"Effects of biochar and microbial soil amendments on post-mined soil: implications for shortleaf pine (<i>Pinus echinata</i>) restoration". C Iwamoto*, CM Seigert, JJ Granger, K Poudel, A Polinko, Z Freedman.	"Mercury mine site remediation using a novel powder product". S McCord.	"Restoring University Drive: An urban campus restoration story." K Sena, C Samuelson, H Dockery.
9:00 a.m. - 9:30 a.m.	"Harnessing biosolids to reclaim mine lands: Case studies from Appalachia". R Cherwinski, S Liebl.	"Use of MercLok™ P-640 to reduce elemental mercury beads and remediate highly contaminated mining wastes". C. Fontenot, J. Miller, K. Pingree.	"Botanical index of the reclamation of an urban limestone barrens". DR Holdridge*, JA Franklin.
9:30 a.m. - 10:00 a.m.	"On The Use of Biochar As Soil Amendment". A Hass, R Cantrell.	"Application of a polymeric equilibrium-based passive sampler for methylmercury to measure a sediment porewater depth profile." J Damond*, U Ghosh, C Gilmour	"Riparian Repairing: Effects of conservation efforts on microbial communities and soil characteristics". CR Samuelson*, H Dockery, K Pham, L Moe, K Sena.
10:00 A.M. - 10:30 A.M. - BREAK - Ballroom			
Time	SESSION 4: Soil Room 301A	SESSION 4 Room 301C	SESSION 4: Water Room 301E
10:30 a.m. - 11:00 a.m.	"Classification and land use potentials of two reclaimed mine soils in Virginia". HZ Angel, WL Daniels, RD Stewart, ZW Orndorff, D Johnson, JM Galbraith.	"Implications on Periphyton as a Relevant Methylation Source in Mercury Contaminated Aquatic Ecosystems and its Potential Use as a Passive Sampler". S Dent	"Investigation of acidic discharges at the Monahan abandoned mine lands site, Kansas". P Behum, M Spence , J Arruda , R Johnson , C Kiser.
11:00 a.m. - 11:30 a.m.	"Soil stockpile age does not impact vegetation establishment in a cold, arid natural gas field". M Curran, J Sorenson, T Robinson.	"Trace Metal Bioaccumulation in Planted Vegetation of a Mine Drainage Passive Treatment System and Potential Ecological Risk". OJ Mitchell*, LH Olson, RW Nairn.	"Management of acid-forming sediments at the Stafford Airport expansion project in Virginia". WL Daniels.
11:30 a.m. - 12:00 p.m.	Soils Technical Division Meeting	"The Use of Terrestrial Laser Scanning to Assess the Mobilization of Contaminated Creekbank Soils in Oak Ridge, Tennessee". T Musante, M Mayes, K Lowe, A Johs.	"Treating mine drainage in batch: greater efficiency and cost savings". T Tasker, B Roman, J Eckenrode, N Himes, H Warner, B Neely, C Denholm, W Strosnider, J LaBar, T Danehy.
12:00 P.M. - 1:30 P.M. - LUNCH - Ballroom			
Time	SESSION 5: Wildlife Room 301A	SESSION 5: Room 301C	SESSION 5: Water treatment Room 301E
2:00 p.m. - 2:30 p.m.	"Reclamation of natural gas well pads and pipeline right-of-ways to create biodiversity hotspots and ecological corridors." M Curran	"Novel approaches to dryland reclamation enhance vegetation and soil stability at a former uranium mine". KD Eckhoff, RK Mann , S Munson, K Walton-Day, JE Hinck, MC Duniway.	"Sandy Creek restoration - the tale of two acid mine drainage treatment systems". B Fancher
2:30 p.m. - 3:00 p.m.	"Mountain rangelands: large-scale, open-range, small ruminant production on reclaimed surface mines in Appalachia". HZ Angel, KM Andries, FW Harrelson, NL Haan, J Lay, PN Ange.	"Shirley Basin Investigative Geotechnical Drilling Design and Construction". C Sloan, M Gentry.	"Self-organizing wetland bioreactors (SOWBs) application to mining Reclamation: direct and indirect bioremediation as a design tool for mine influenced water (MIW)

			benefaction." C Lennox, M McCord
3:00 p.m. - 3:30 p.m.	"Future Restoration Priorities based on 50 Years of Lessons Learned in the NJ Meadowlands". T Doss.	"Enhancing geomorphic reclamation through 3d soil modeling: insights from an abandoned uranium mine in Wyoming". S Cude.	"NPDES Compliance with Passive Treatment for Acid, Iron, Manganese, and Aluminum-bearing AMD - A Four Year Performance Evaluation". T Danehy, D Guy, R Mahony, C Neely, D Clayton.
3:30 P.M. - 4:00 P.M. - BREAK - Ballroom			
Time	SESSION 6A Room 301A	SESSION 6B: Room 301C	SESSION 6C: Water Room 301E
4:00 p.m. - 4:30 p.m.	"From Remediation to Restoration: A Tar Creek Story". S King.	"Use of industrial residuals and earthworks in the reclamation of abandoned aggregate pits". P Beckett, J Lavigne, M Hebert, G Spiers, N Basiliko, O Baudet, R Rochon.	"Use and regeneration of hydrochar as a metal sorbent from acid mine drainage". S Jamshidifard, N Kruse Daniels
4:30 p.m. - 5:00 p.m.	"Nature-based solutions linking reclamation, environmental remediation, ecological restoration, and sustainable resource extraction". RW Nairn, DM Dorman, JI McCann, LH Olson, HN Seago, CM Morgan, NL Shepherd, RC Knox.	"Progress and prospect of coal mined land reclamation in China". Z Hu, Z Mao.	"Sorption Of Metals from Mining Polluted Water using Hydrochar and Potential for Direct Use". P Quarshie.
5:00 p.m. - 5:30 p.m.	Wildlife Technical Division Meeting	Engineering and Construction Technical Division meeting	
5:30 p.m.- 7:15 p.m. – Poster Session - Ballroom			
"Land cover accounting of appalachian surface mines". DJ Putnam, RH Wynne, VA Thomas.			
"Preserving the Past, Nurturing the Future: Inorganic Fertilizers and the Role of Phosphorus and Potassium in Native Prairie Restoration". K Hays, DB Arnall, L Goodman, R Sharry, J Derrick, S Akin.			
"Thin Section Petrographic Optical Analysis of Sandstones from the Central Appalachian Coalfields". D Johnson, W Daniels, K Eriksson.			
"Riparian Repairing: Effects of conservation efforts on microbial communities and soil characteristics". CR Samuelson, H Dockery, K Pham, L Moe, K Seha.			
"Sulfate-reducing bioreactor for acid mine drainage treatment using hydrochar as an amendment". A Marma, B Madden, N Kruse Daniels.			
"A Study of Groundwater Conditions within the Abandoned Underground Coal Mines of Hanna, Wyoming". J James, D Hibbard, A Schlattmann.			
"Effects of forest reclamation on avian occupancy, species richness, and abundance within Appalachian reclaimed surface mines". M Varias, R Davenport, C Barton, J Cox, L Sherman, J Larkin, T Fearer, S Price.			
"Insects in the Sage-grouse Diet and Implications for Reclamation Efforts". B Bott, N Whitford, M Curran.			
7:30 p.m.- 9:00 p.m. – Film Festival – 2 nd Floor Theater			

TUESDAY JUNE 4 EVENTS

Wild Women of Reclamation

7:00 a.m.- 8:15 a.m. – Room A

Every woman is welcome. Previous topics - choosing your own path, mentoring, starting a business, and juggling a career with family and community obligations. Coffee, tea, and pastries will be provided.

Poster Session Networking Event

5:30 p.m.- 7:15 p.m. - Ballroom

Poster presentations will be on display with authors after the technical sessions. Food and cash bar.

Reclamation Film Festival

7:30 p.m. - 9:00 p.m. - Theater

Join us for the Third Annual Reclamation Film Festival. We will bring reclamation-related topics to you via short (~2-10 minute) films highlighting exciting and intriguing reclamation projects. Awards will be presented to the best in show in Pro and Amateur/Student Categories.

Wednesday, JUNE 5, 2022 AGENDA

6:30 a.m. - 7:30 a.m.	Haulin' ASRS
7:30 a.m. - 8:30 a.m.	Breakfast - Ballroom
7:30 a.m. - 5:00 p.m.	Registration - Convention Center Lobby
8:00 a.m. - 7:00 p.m.	Exhibitors - Ballroom
8:00 a.m. - 11:00 a.m.	Silent Auction Last Day - Rm 301B - Winners announced at lunch
8:30 a.m. - 10:00 a.m.	Technical Presentations
9:30 a.m. - 10:00 a.m.	Vegetation Technical Division Meeting - Room 301C
10:00 a.m. - 10:30 a.m.	Break - Ballroom
10:30 a.m. - 12:00 p.m.	Technical Presentations
11:30 a.m. - 12:00 p.m.	Technology Technical Division Meeting - Room 301A
11:30 a.m. - 12:00 p.m.	Water Technical Division Meeting - Room 301E
12:00 p.m. - 1:30 p.m.	Buffet Lunch - Student Awards/Silent Auction - Ballroom
2:00 p.m. - 5:00 p.m.	Quarry Restoration Professional Tour
4:15 p.m. - 5:15 p.m.	NEC Meeting - Henley Meeting Room
6:00 p.m. - 9:00 p.m.	Early Career Professional Event

WEDNESDAY, JUNE 5, TECHNICAL SESSIONS

Time	SESSION 7: Technology Room 301A	SESSION 7: Room 301C	SESSION 7: Water Room 301E
8:30 a.m. - 9:00 a.m.	"Long-term monitoring strategies for ecological reclamation programs using spatially balanced rotating panel designs". M Curran, B Robertson, T Robinson.	"A River Runs Through It; Restoration of a Highly Contaminated Site in Central New Jersey". W Young.	"Metal Loads Accounting at a Legacy Mine Site: The Tar Creek Watershed, Oklahoma, USA". JI McCann*, RW Nairn.
9:00 a.m. - 9:30 a.m.	"Using a construction-grade drone to map stream and wetland restoration sites". L Kijek*, C Mollick, N Kruse Daniels, S Teas, N Sullivan.	"Solar-farm grass establishment on the edge of the Mississippi Delta". W Stark*, BR Stewart, JD McCurdy.	"Treatment and reclamation planning in Rehobeth, Rush Creek, Ohio". N Kruse Daniels, J Bowman, RG Riefler.
9:30 a.m. - 10:00 a.m.	"Employing machine learning and UAS for effective autumn olive treatment on reclaimed surface mines". S Keane*, P Kinder, M Strager, W Veselka.	Vegetation Technical Division meeting	"Fill type and hold time impacts to limestone-only automatic-flushing vertical flow pond performance". CA Neely, TP Danehy, DA Guy, RM Mahony.
10:00 A.M. - 10:30 A.M. - BREAK - Ballroom			
Time	SESSION 8: Technology Room 301A	SESSION 8 Special Session: International Experiences and Perspectives Room 301C	SESSION 8 Room 301E
10:30 a.m. - 11:00 a.m.	"Use of Telemetry at a Passive Treatment System to Monitor Flow, pH, and Water Level". D Guy, T Danehy, C Neely, L Hauck, R Mahony.	"A short history of changes in reclamation of Central Appalachian coal mined lands over the last 45 years". L Daniels	"A Study of Groundwater Conditions within the Abandoned Underground Coal Mines of Hanna, Wyoming". J James, D Hibbard, A Schlattmann.
11:00 a.m. - 11:30 a.m.	"Spatially explicit dashboards as a tool to enhance project management and decision making in reclamation". M Curran.	"Community engagement as a key requirement for integrated mine closure. Coal mines in South Africa a Case Study". J Pryor, L Ratsoenyane.	"Upper He Creek hydraulic and hydrogeologic control solutions in east central Tennessee". TW Schmidt.
11:30 a.m. - 12:00 p.m.	Technology Technical Division meeting	"Coal mine closure practices in China: an overview". J Li, Y Chugh, Z Hu.	Water Technical Division meeting
12:00 P.M. - 1:30 P.M. - LUNCH - Ballroom			

WEDNESDAY JUNE 5 EVENTS

Quarry Restoration Professional Field Tour

2:00 p.m. - 5:00 p.m.

Please sign up at the registration desk for a seat in one of the vans. Vans will leave the Convention Center from 2:00 to 3:00 p.m., and returning vans will run from 3:30 to 5:00.

Early Career Professional Event

6:00 p.m. - 9:00 p.m.

Join us for an evening of networking!