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United States Environmental Protection Agency

Technology Innovation and Field Services Division

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Mining Sites

Characterization, Cleanup, and Revitalization of Mining Sites

Training and Events

Highlights

- Register now for the March 16 webinar, **Mining Webinar Series: Evaluation of Rotating Cylinder Treatment System™** at Elizabeth Mine, Vermont, which will discuss application of this system to treat iron-contaminated drainage from a tailings pile.
- Register now for the May 12 webinar, **Design and Construction Issues at Hazardous Waste Sites Webinar on Successful Remedial Design**, featuring a presentation on successful high-density sludge treatment plant design for AMD.
- Reclaiming the Sierra, a conference to address historic mining impacts, has made available its webinars for the **Spring 2020 Headwater Mercury Source Reduction Workshop**, which features presentation on biochar applications and mercury in forest management.
- Slides and audio for the latest webinar in our Mining Sites Webinar Series, **Revegetation of Mine Wastes in Arid Environments: Linking Above- and Below-Ground Performance** are available to view or download in the CLU-IN archives.

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Staying Connected










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Mining Webinar Series

- Today's webinar is part of a series
- Visit www.cluin.org/mining/events for updates and links to archived webinars

Archived Internet Seminars, Videos, and Courses

CLU-IN Mining Sites Webinar Series

- Revegetation of Mine Wastes in Arid Environments: Linking Above- and Below-Ground Performance** (August 2020)
- Eagle Mine Superfund Site Case Study** (January 21, 2020)
- Substrate Longevity and Long-Term Performance of Biochemical Reactors for Passive Treatment of Mine-Impacted Water** (November 25, 2019)
- Mine and Mineral Processing Virtual Workshop: **Session 1 Site Characterization; Session 2 Emergency Management; Session 3 Innovative Technologies and Strategies; Session 4 Big Data** (October 2019)
- Considerations for Bulkheading Drainage Mine Tunnels** (October 2019)
- Long-Term Performance of Biochemical Reactors for Passive Treatment of Mine-Impacted Water** (April 23, 2019)
- Successful Implementation of Biologically-Based Passive Remediation Systems** (May 1, 2018)

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Mining Webinar Series

Toward Sustainability of Passive Treatment in Legacy Mining Watersheds: Operational Performance and System Maintenance

Sponsored by: U.S. EPA, Office of Superfund Remediation and Technology Innovation, Technology Innovation and Field Services Division

Live Webinar: Wednesday, February 16, 2022, 1:00PM-3:00PM EST (18:00-20:00 GMT)

Register

Description	Presenters	Webinar Slides	Related Links	Feedback Form	Tips
<p>For 40 years, passive treatment systems (PTS) have been the preferred option at many abandoned mining sites, in part due to presumptions of continuous water quality improvement performance and limited operation and maintenance commitments. However, documentation to support these presumptions is typically lacking. Long-term regular performance evaluation (12 years) was conducted for a large, multi-process unit PTS receiving artesian-flowing lead-zinc mine waters (~1000 m³/day) at the Tar Creek Superfund site, Tri-State Mining District, USA. Since 2008, the Mayer Ranch PTS has consistently retained >95% of targeted metal mass. The webinar will share how PTS life can be extended if the system is properly designed, sized and preserved with regular, periodic and rehabilitative maintenance and monitoring. The webinar will also highlight how the project was managed by Oklahoma Department of Environmental Quality, and how project administration and building partnerships has been essential to the success of the PTS on the site.</p>					

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Today's Presenters

Robert W. Nairn, PhD, University of Oklahoma

Bob Nairn is the David L. Boren Distinguished Professor and Sam K. Viersen Family Presidential Professor in the School of Civil Engineering and Environmental Science at the University of Oklahoma (OU). Director of the Center for Restoration of Ecosystems and Watersheds (CREW), Associate Director of the Water Technologies for Emerging Regions (WaTER) Center and Adjunct Professor of Biology. He holds a BS from Juniata College (1989) and a Ph.D. from The Ohio State University (1996), both in Environmental Science. From 1989 to 1992, he was employed as a Research Biologist with the U.S. Bureau of Mines. His research and teaching focus broadly on natural infrastructure, especially examination of functions and services provided by natural and engineered ecosystems that benefit society and environmental quality, with an emphasis on water quality, watershed biogeochemistry, ecological engineering and ecosystem restoration. For more than 30 years, he has focused on restoration of drastically disturbed watersheds impacted by historic mining activity in the northern Appalachian coal fields of PA, OH, and WV, the Tri-State Lead-Zinc Mining District of OK, KS and MO (including the Tar Creek Superfund Site), the Arkoma Basin coal fields of OK and AR, and the Potosi mining district of the southern Bolivian Andes.



Brian Stanila, Oklahoma Department of Environmental Quality

Brian Stanila is the Site Cleanup Assistance Program Manager in the Land Protection Division at Oklahoma Department of Environmental Quality (DEQ). In this position, Brian manages the Community Revitalization Program, the School Chemical Disposal Program, and oversees cleanup activities at orphaned hazardous waste sites across the State. In addition, he manages and oversees State-lead cleanup activities at the Tar Creek Superfund Site. Previously, he spent 10 years as a Programs Specialist with DEQ, where he managed remediation projects across the State including at Tar Creek and has gained expertise in risk assessment, dig and haul removals, consolidation & containment remedies, and lead-based paint, lead dust, and asbestos abatement. Brian is currently a member of the Association of State and Territorial Management Officials (ASTSWMO) Remedial Action Focus Group and a member of the DEQ Risk Assessment Team. Brian has earned a B.S. in Biology (2004) and a M.S. in Biology (2009) from the University of Central Oklahoma. It is through his work on the Tar Creek Superfund Site, where Brian has gained experience working on passive treatment wetlands and with the University of Oklahoma's Center for Restoration of Ecosystems and Watersheds.



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