

# INNOVATIVE ENVIRONMENTAL SOLUTIONS IN OUR NEW WORLD

AN AECOM ENVIRONMENTAL WEBINAR SERIES **JANUARY WEBINARS** 



# Wednesday, January 13, 2021 (1:00 PM EST) **Selection of a Dredge Material Dewatering Strategy**

#### **OUR SPEAKER: BRIAN J. MASTIN, PHD**



Dr. Brian Mastin is a senior remedial design and construction manager with 25 years of boots-on-the-berm experience in the fields of watershed remediation and rehabilitation, turnkey environmental dredging and dewatering and ecotoxicology. His technical expertise includes evaluation, design and engineering of environmental solutions to assist clients with mitigating and managing risks of saturated and/ or contaminated residuals. Leading and collaborating with multidisciplinary teams, Dr. Mastin has designed and managed 100's of remediation and dredging/dewatering projects using site-specific chemical conditioning programs in combination with passive dewatering technologies (e.g., stacking, CDFs, geotextile tubes) and/or mechanical dewatering techniques (e.g., belt-filter press, centrifuge, and plate-and-frame press). Dr. Mastin has successfully designed and managed remediation for 11 CERCLA sites as well as a variety of projects for industrial/commercial, municipal, federal, ports and harbors and other clients.



Selection of an efficacious dewatering strategy for dredge material (sediment and/or other residuals) can be a daunting task. Dewatering can be conducted by various conventional techniques, mechanical methods (e.g., filter press, centrifuge), gravity methods (e.g., CDFs, geotextile tubes), and/or addition of solidification/ stabilization reagents as well as innovative approaches (e.g., pasting, dewatering boxes, Genesis Water<sup>™</sup> RDS and other hybrid systems). In this presentation, we will discuss dewatering strategy selection and use of cost/benefit analysis to compare the various techniques. Dewatering strategy selection is initially driven by the requirements (physical and chemical) for final disposition of the material as well as the availability of time and space for dewatering to occur.

include:

- requirements for shipping material off-site
- facilities:
- cake(s)

Secondary selection criteria may include but is not limited to:

- rate, utilities, O&M)
- conditioning needs
- discharge needs

#### Full-scale dewatering objectives for a dredge project typically

1. Cost-effective removal of water with the goal of meeting DOT 2. Understanding dewatering efficacy such that the selected process matches the land available for siting the processing

3. Comparing the costs of off-site disposal for the resulting filter

4. Expanding incorporation of sustainable or ESG practices

1. Operational parameters (e.g., chemical conditioning, production

2. Filter cake properties for assessing post-dewatering

3. Filtrate quality and quantity for assessing treatment and



## **Tuesday, January 26, 2021 (1:00 PM EST)** Carbon Neutrality and Net-Zero GHG Emissions: What Does it All Mean?

#### OUR SPEAKER: MICHAEL CONRARDY



Michael Conrardy is the Greenhouse Gas (GHG) and Zero Emissions Technical Practice Group Leader in the Americas at AECOM. AECOM's GHG and Zero Emissions Technical Practice Group is comprised of over 350 technical professionals across the company supporting clients with diverse carbon service needs. Michael's technical and policy expertise is in GHG emissions inventories, climate change mitigation strategies, carbon markets, and integrated sustainable solutions. At AECOM, Michael has guided numerous clients through compliance for GHG related regulations from agencies such as the California Air Resources Board and the United States Environmental Protection Agency. His support has included tangible outcomes with as high as 40% annual reduction of direct GHG emissions from existing operations and establishment of strategies toward zero emissions.





As a response to climate science, the Paris Agreement sets an international goal "to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases". In response to this international goal, the growth in the use of terms such as carbon neutrality, climate neutrality and net-zero have emerged; and this led to confusion amongst stakeholders on how individual entities should respond. This webinar will summarize these issues and discuss paths forward for organizations meet the goals of carbon neutrality.

# **Wednesday, January 27, 2021 (1:00 PM EST)** CEQ NEPA Implementing Regulation Revisions

#### **OUR SPEAKERS:**

**BRIAN BOOSE, CEP; BRIAN KENNEDY, AICP; ERIN LEE; BOB DOVER, PG** 



**BRIAN W. BOOSE, CEP.** Brian is a Vice President and the National US Federal Environmental Planning Leader for AECOM. He has more than 32 years' experience as an expert in NEPA compliance, with strong knowledge and experience in Natural Resources Management, Cultural Resources Management, and Environmental Due Diligence, for a vast array of Federal clients.

Brian has managed and contributed to multiple complex environmental impact analyses (35 EISs and over 500 EAs), led over 50 NEPA training courses and developed NEPA compliance handbooks and tools for Federal agencies.

**BRIAN P. KENNEDY, AICP.** Brian is a Senior Project Manager at AECOM with 38 years' experience in environmental impact assessment and permitting, environmental process management, and public involvement. Brian is AECOM's Technical Practice Group Leader for both the Environmental Impact Assessment and Public Involvement groups. Brian's experience spans the planning, design, construction and operational phases of infrastructure, resource management and land development projects. Brian's client experience includes working with a wide range of public and private sector clients. His diverse Federal Lead Agency experience, wide ranging project experience, and in depth interdisciplinary technical understandings and innovative contributions to public engagement and communications combine to offer clients timely, technically accurate and understandable communications, documentation and compliance processes.

**ERIN LEE.** Erin serves as an Associate Vice-President and Program Manager in the Impact Assessment and Permitting Practice and co-leads the Environmental Impact Assessment Technical Practice Group. Erin is focused on driving sound and efficient environmental documentation under the National Environmental Policy Act (NEPA) for commercial, transportation, and federal markets.

**BOB DOVER, PG.** Bob has 35 years' experience managing Environmental Impact Statements and Environmental Assessments for various U.S. federal agencies. His focus has been on 3rd-party EISs in support of licensing or right-ofway grants for solar power, nuclear power, coal-fired power, pipeline, and liquefied natural gas terminal facilities. He has managed three large-scale solar power plant EISs for the BLM, and served as subject matter expert for multiple nuclear power plants EISs for the TVA and NRC. Bob managed EISs for government-initiated actions, including the West Mojave Travel Management Plan for BLM and the newly-proposed Surgery, Radiology, and Lab Medicine Building at the National Institutes of Health (NIH). Bob is currently assisting the Department of Homeland Security in revising their NEPA Manual to conform to the July, 2020, CEQ NEPA regulations. On July 15, 2020, the President's Council on Environmental Quality (CEQ) published in the Federal Register its final rule modernizing its National Environmental Policy Act (NEPA) implementing regulations (40 CFR 1500-1508 et. seq), which took effect on September 14, 2020 (https://ceq.doe.gov/laws-regulations/regulations.html). For the first time in 42 years, the CEQ fundamentally renovated and modernized these regulations. For those involved in NEPA, this is a big thing - a really big thing. Goaled on streamlining what some consider a complex process in the last 50 years, the regulations themselves shrunk from 30 to 20 pages. Many agree that the regulations are now better organized, more concise, and provide better clarity overall.

During this webinar, AECOM NEPA experts will review the key changes in the revised regulation and what they mean to Federal agencies, stakeholders, and NEPA practitioners. The pending change in U.S. administration and ongoing litigation concerning the revisions, we likely will see further discussion in the days ahead. Ultimately, the spirit and intent of NEPA – to include environmental considerations into each Federal agency's decision-making process, engage the public in that process, and strive to implement projects that minimize environmental damage – remain.





### Thursday, January 28, 2021 (1:00 PM EST) **Connected Communities**

#### **OUR SPEAKERS:**

**BILL ABOLT, PAIGE HUMECKI, KATRINA LEWIS** 



**BILL ABOLT** is a vice president at AECOM where he leads its Smart Energy market sector and focuses on energy, sustainability, and resilient urban infrastructure in the largest metropolitan economies in North America. He has over 30 years' experience managing complex environmental, energy, and public issues and programs. Bill has developed, administered, and implemented comprehensive energy and sustainability programs for utilities, government, and private clients. He has extensive experience with alignment of grants, incentives, and other third-party resources with project and enterprise-wide budgeting, planning, and sustainability goals. Previously, Bill served as environment commissioner, director of the office of budget and management and chief of management, office of the mayor for the City of Chicago, where he was responsible for developing Chicago's energy assurance/critical infrastructure plans and its strategy to become one of the greenest cities in the nation.

**PAIGE HUMECKI** is a business transformation consultant at AECOM and leads energy engineering, data-driven energy management, connected communities, and vehicle electrification programs for

private, utility, and government clients. Her expertise includes project management, energy management, energy systems, technical analysis for smart energy initiatives. She has developed innovative energy solutions to which support clients' financial, environmental, and equity goals, including community decarbonization and climate resilience.

**KATRINA LEWIS** is a senior consultant and project manager for AECOM's Smart Energy team whose work focuses on delivering on client sustainability, resilience, and smart city goals. She leads, researches, and implements strategic planning initiatives across the U.S. Her experience includes visioning for municipal-level resilience, sustainability, and smart city strategies, developing metrics to provide a quantifiable foundation for sustainable development, quantifying the community-level benefits of smart and sustainable initiatives including microgrids, green infrastructure, and electric vehicle fleet conversion; identifying areas of opportunity to engage the communities around resilience planning; and creating Excel-based triple bottom line prioritization and optimization models for municipallevel decision making.

those who live, work, or travel within them. Hear from that improve community livability while addressing economic, environmental, and social issues.



# **Thursday, January 28, 2021 (3:00 PM EST)** Ammonia Risk Management Planning

### OUR SPEAKER: GAYLE NICOLL, PHD, REP, ASP, CSP



Dr. Nicoll has extensive experience in a variety of environmental, health and safety (EHS) endeavors, including industrial facilities, nuclear research facilities, chemical laboratories and machine shops. While at AECOM, Dr. Nicoll has conducted PHAs, lead PSM/RMP compliance audits, designed PSM programs, trained facility personnel including line personnel and facility managers on PSM and mechanical integrity, designed MoC programs, and conducted colocation hazard analyses. Dr. Nicoll is AECOM's Process Safety Services leader for the Americas and designed AECOM's in-house auditing and PHA tools.



Anhydrous ammonia is frequently used in industrial and agricultural applications, both as a fertilizer as well as a chilling agent. In fact, ammonia accounts for the majority of facilities that register with the EPA for the Risk Management Program (RMP). Anhydrous ammonia systems have some inherent risks and challenges due to the chemical properties of ammonia, but many people are not aware of these risks. Often, the anhydrous ammonia system works in the background, and is assumed to be safe – until something bad happens. Proper precautions need to be taken, and the RMP must be safely and correctly implemented. In this webinar, Dr. Gayle Nicoll, PhD, REP, ASP, CSP, will discuss some of the challenges associated with anhydrous ammonia from a chemical standpoint, the common pitfalls that facilities fall into, and ways to avoid these mistakes.

PSM

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RMP

#### About AECOM

AECOM is the world's premier infrastructure consulting firm, delivering professional services throughout the project lifecycle – from planning, design and engineering to program and construction management. We partner with our clients in the public and private sectors to solve their most complex challenges and build legacies for generations to come. On projects spanning transportation, buildings, water, governments, energy and the environment, our teams are driven by a common purpose to deliver a better world. AECOM is a Fortune 500 firm and its Professional Services business had revenue of approximately \$13.6 billion in fiscal year 2019.

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