

2023-2024

Environmental Webinar Series

Innovative Environmental Solutions in Our New World



EHS & Air



What are Scope 3 Greenhouse Gas Emissions and Why Are They Important to Organizational Accounting and **Decarbonization Strategy?**

Organizations the world over are grappling with the complexity of defining their impact on greenhouse gas emissions, and how to define measures for decarbonization efforts across their business. While there is continued urgency and importance on defining reduction strategies for direct and indirect emissions associated with energy use, increasingly, attention is turning to greenhouse gas emissions associated with upstream and downstream activities of an organization's direct operations, or scope 3 emissions. In our webinar, we'll cover:



- Activities that are included in this category of accounting
- How an organization can better define where they have opportunity to influence activities to reduce greenhouse gases within supply chain and downstream product use
- Why scope 3 emissions may be important to your organization's decarbonization strategy

Digital ESG - Emerging Best Practices in Data, Reporting and Insight





Elizabeth Logan elizabeth.logan@aecom.com



Greg Stevens greg.stevens@aecom.com



Rashmi Mantha rashmi.mantha@aecom.com



Across the globe, companies are timepressured to develop and implement their ESG and carbon reduction strategies. The lifeblood of measurement and communication of progress toward those strategic goals sits in digital systems. This webinar reveals emerging trends in ESG reporting, software, implementation, data management, and integration strategies that best support a long-term ESG and sustainability program.

Building a Cohesive Digital EHS/ESG Strategy

iew Recording

View Recording

 \bigcirc

Supply Chain Sustainability

and Innovation Services

There is rapidly growing demand for data to support EHS compliance, auditing, internal reporting, sustainability, and now ESG. Larger, multi-national companies must also collect data from different business units across multiple geographies. Is your business prepared to respond to these demands using existing, non-integrated systems? This webinar will provide a roadmap of digital maturity, and show how to take the next step in defining a unified, integrated strategy that fits your people, culture, and business. Real client case studies will be presented to show emerging best practices.

1910 0000011101101100

001111

10000

Greg Stevens greg.stevens@aecom.com

rashmi.mantha@aecom.com



Eveline Chen eveline.chen@aecom.com



Jinting Liu jinting.liu@aecom.com AECOM provides supply chain sustainability and innovative services to a variety of clients globally. As the world continues to change and reflect, our teams have continued focusing on our clients by developing and maintaining reliable supply chain sustainability systems. Understanding and crafting the supply chain is an integral part of a critical Environment, Social and Governance (ESG) strategy. Measuring and tracking supply chain performance to achieve long-term sustainable development is also challenging.

In this informative webinar, we will be sharing examples of how our teams in Asia have brought innovation and tailor-made supply chain solutions to our clients over the past 17 years. With the right approach, teams are able to adapt to challenges, minimize the risks of supply chain stability, and add value to ESG performance.

The Emerging Digital Landscape — A Sea of Change is Coming!

Trends AECOM is seeing to meet the challenges of modern EHS and ESG requirements

AECOM serves many clients supporting increasing needs for digital systems to manage multiple reporting regimes from internal metrics, to regulatory reports, and voluntary disclosures. This presentation shares approaches we are observing clients implement as possible models for your consideration.

From our observations, AECOM is seeing a trend in eroding "brand loyalty" and the mainstreaming of Data Lakes that we believe portends a radical change in Digital management and the selection of software products.



Nigel Watt nigel.watt@aecom.com

View Recording



How to Tackle Your Scope 3 Emissions to Achieve Net Zero



View Recording

Join our hosts Robert Spencer, Global Head of ESG Advisory, and Ryan Burrows, Global Sustainability Manager, to discuss:

- The opportunity: reducing Scope 3 emissions is key to achieving net zero
- The approach: putting a plan together to address Scope 3 emissions based on key learnings from AECOM's experience
- The suppliers: how to engage your suppliers and help them onboard with your emissions reduction programme





Robert Spencer robert.spencer@aecom.com

Ryan Burrows ryan.burrows@aecom.com





Understanding the New Clean Water Act regulations

View Recording





Jennifer Kubicek robert.spencer@aecom.com



Arianna Heilbrunn ryan.burrows@aecom.com

Navigating the Way

The U.S. EPA's new regulation 40 CFR Part 118— Clean Water Act Hazardous Substances Facility Response Plans will require a facility response plan (FRP) for potential worst case discharges of Clean Water Act (CWA) hazardous substances for onshore nontransportation-related facilities. Facilities affected include those that, based on location, could reasonably be expected to cause substantial harm to the environment by discharging one or more of 296 CWA hazardous substances into or on the navigable waters, adjoining shorelines, or exclusive economic zone.

This webinar describes the applicability criteria, regulatory effective date, FRP requirements, and implementation schedule. Estimates are that this new regulation will affect approximately 5,400 facilities across the U.S. Attendees will learn about this new rule and how AECOM can help companies determine applicability and implementation requirements.

Environmental Permitting & Planning



Integration of Climate Change Considerations with Environmental Impact Assessment

HE HER SHE PART IN THE REAL PARTY IN THE



Extreme weather events and longerterm changes in climate are damaging infrastructure and disrupting the services they provide to communities. There is increased awareness and concern among communities of the implications of climate change and the need to reduce greenhouse gas emissions. Combined, these two issues are enhancing the importance of early consideration of the implication of climate change on projects, including at the approvals stage.

> Allan Klindworth allan.klindworth@aecom.com

NEPA in the Digital Age

View Recording

Concerned at the slow pace of technological adoption, Congress recently passed the Fiscal Responsibility Act to direct the White House to study the potential for a digital transformation of the NEPA process.

In this presentation we explored:

- How new/anticipated legislation is paving the way for adoption of digital solutions
- Key factors that pose hurdles to efficient and inclusive NEPA processes and approvals
- Digital solutions that streamline the NEPA process by unifying data, strengthening stakeholder collaboration, and creating more inclusive public engagement
- Digital NEPA best practices and case study examples

Harrison Wadsworth harrison.wadsworth@aecom.com

> **Catherine Clark, AICP** catherine.clark@aecom.com





Remediation



Accelerating US PFAS **Regulations: Do they lead to a PFAS-free Destination?**

(Focus on our Water and Wastewater **Client Challenges)**

View Recording

View Recording

PFAS US Regulations -

(Focus on our Government, Industrial

and Transportation Client Challenges)

The Latest Evolution

The US Environmental Protection Agency first turned its attention on per- and polyfluoroalkyl substances (PFAS) after 2001. In 2009, USEPA released non-enforceable Health Advisories (HAs) for PFOS and PFOA in drinking water. HAs were lowered in 2016, and lowered again and expanded to include PFBS and Gen-X in 2022.

Our clients across public and private sectors and especially water purveyors—have awaited a National Primary Drinking Water Regulation for PFAS since the USEPA set that as a goal its 2021 PFAS Strategic Roadmap.



osa Gwinn, PhD, PG osa.gwinn@aecom.coi



The USEPA is hitting every milestone set in the PFAS Strategic Roadmap 2021. Myriad changes to guidance and directives keep coming, and AECOM will keep you up to speed.

With the latest changes to Federal drinking water, hazardous substance, and wastewater directives, it's clear that regulators are creating ways to get PFAS—or per- and polyfluoroalkyl substances—out of the environment.

There are more milestones ahead, but the latest requirements:

- increase the urgency to mitigate PFAS in water.
- create more certainty in treatment goals.

Potable water suppliers and wastewater managers seek PFAS solutions. AECOM specialists will explain PFAS regulations, existing and innovative solutions for PFAS treatment, and PFAS management in biosolids. Industry is advancing PFAS solutions rapidly, and AECOM can serve as your guide to a PFAS-free destination.

Christopher Curran, PE chris.curran@aecom.com

terry.goss@aecom.com



Rosa Gwinn, PhD, PG

rosa.gwinn@aecom.com



On March 14, 2023, a draft rule setting drinking water limits was released for 6 PFAS, and it diverges from past rules by limiting 4 of the PFAS as a mixture.

We will discuss the proposed rule, explaining its basis, how it applies, and how clients may navigate implementing PFAS solutions in response.

PFAS Forensics Through Applied Statistics

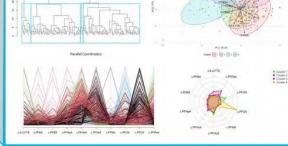


To identify and characterize potential sources, the complex nature of per- and polyfluoroalkyl substance (PFAS) contamination requires a data-rich forensic fingerprinting approach, combining data science applications for pattern recognition with analytical chemistry techniques. We have developed and applied an exploratory, adaptive forensic investigation approach that maximizes the information extracted from PFAS data using various statistical programming techniques from the fields of chemometrics, unsupervised pattern recognition, and machine learning. These powerful tools use the data at hand to reveal emergent patterns that are otherwise hidden by the limitations of our own perception.

Zach Neigh zach.neigh@aecom.com



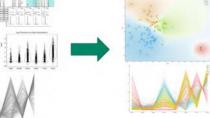
Chater 1 Chater 2 Chater 2



Data Preprocessing

Mean Soil Signature

Aean GW Signature





Forensic Analysis

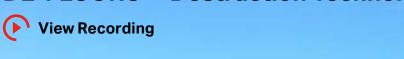
.

5

-

vin.scherer@aecom.con





Increasingly stringent global restrictions on PFAS manufacturing, use, treatment, and disposal have created a significant need for permanent PFAS solutions, specifically, destruction technologies that eliminate PFAS from waste streams.

DE-FLUORO[™] is a scalable technology that destroys PFAS from contaminated liquids, including Aqueous Film Forming Foam (AFFF) and concentrated PFAS-impacted water and liquid waste using electrochemical oxidation to achieve acceptable final liquid discharge requirements. Having completed demonstrations of DE-FLUORO up to field-scale in both coupled and stand-alone configurations, we are ready to share the results of and are poised to deploy DE-FLUORO in commercial applications. Learn more about PFAS restrictions around the globe and the role of DE-FLUORO at our upcoming webinar.

Gavin Scherer

osa Gwinn eom.com

Getting Ahead of the PFAS Dilemma: DE-FLUORO™ Destruction Technology Advances



Exploring the World of Remediation Sustainability Tools

View Recording

To support AECOM's commitment to Green and Sustainable Remediation, our professionals use a number of public, commercial, and in-house tools to identify and mitigate key impacts, facilitate discussions with stakeholders, and provide cost-effective remedies. This webinar will explore a range of remediation sustainability tools for assessing the environmental, social, and economic impacts of remediation projects and shows how we select the best tool for the job.





Brownfield Grants and Navigating Funding Options for Redeveloping Contaminated Sites





Matt Vander Eide matt.vandereide@aecom.com

11.11.

Shannon Flanagan <u>shannon.flanagan@aecom.com</u>

Chance Moore chance.moore@aecom.com

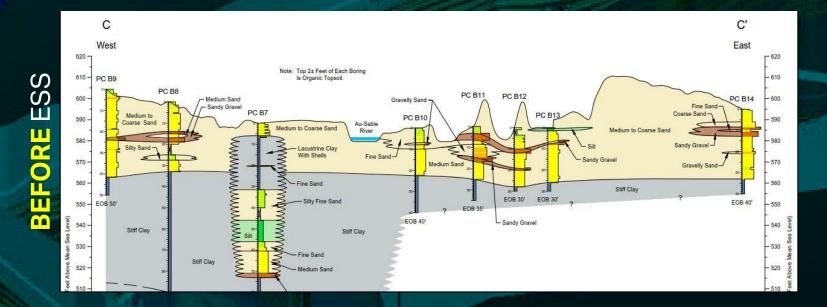
Dr. Tom Stratham tom.stratham@aecom.com This presentation will focus on US EPA Brownfield grant and loan funds that eligible parties can utilize to stimulate economic and community development activities, including information about various grant types and uses, grant application strategies, and potential opportunities for leveraging with other federal grant programs by using AECOM's Fund Navigator. We will also share an overview of a completed Brownfield project that resulted in the redevelopment of a former industrial property into an urban nature preserve and local educational resource.

The Application of PRISM® to the Investigation and Remediation of Contaminated Sites

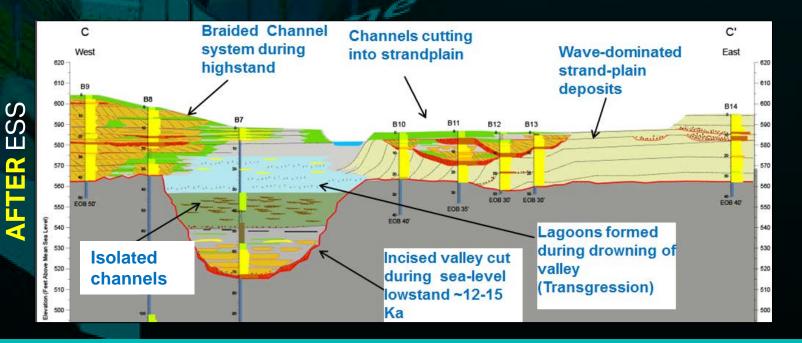
View Recording

Highly heterogenous and complex geologic settings present significant challenges in remediating contamination and quickly achieving cleanup goals. Implementing a correlation approach that addresses subsurface heterogeneity between boreholes is critical for effective remedial decision-making. AECOM's PRISM® methodology provides a realistic subsurface correlation based on predictable distribution of sediments in different depositional environments. The three-dimensional geologic framework derived from PRISM® is used to map the heterogeneity between high and low permeability units across multiple scales and beyond the existing site data set.

AECOM's PRISM® methodology was selected as a peer-reviewed chapter in a book entitled 'Advances in the Characterization and Remediation of Sites Contaminated with Petroleum Hydrocarbons' which is slated for publication by Springer Nature on October 28, 2023. This webinar discusses the methodology and case study elaborated in the book chapter as a preview of the upcoming publication.



Same Data Before & After ESS





Dr. Junaid Sadeque junaid.sadeque@aecom.com



Ryan Samuels ryan.samuels@aecom.com

Everyone Needs a Little Closure

View Recording

Closures are a hot topic in Australia and internationally, given the transition towards renewable energy sources and the growing expectations on the value of remediation and re-use. Take a deep dive into the essential considerations for closure, emphasising the importance of repurposing assets to support future closure goals.

In this presentation, we delved into the complexities of decommissioning, exploring ESG considerations such as social licence and nature-based solutions. Learn how we maximised community benefits while showcasing one of our Canadian projects, Faro Mine, exploring complex stakeholder engagement and delivery challenges. We highlight the importance of repurposing infrastructure, not just the site in isolation but also the surrounding infrastructure to ensure we are linking to cost benefits—less water, less waste. We aim to collaborate with clients end-to-end and deliver diversified, sustainable, and innovative solutions that are both effective and cost-efficient.



Jay Drew jay.drew@aecom.com



PFAS Drinking Water Regulations Compliance and Funding Strategies





Rosa Gwinn rosa.gwinn@aecom.com





Chris Curran chris.curran@aecom.com

<u>Chris Hill</u> christopher.hill@aecom.com

The presentation discussed compliance and funding related to PFAS in drinking water, including the establishment of maximum contaminant levels by the US EPA, different treatment approaches, interim strategies for compliance, installation considerations, operational considerations, residual management, and available funding options such as the IIJA.





Green Hydrogen – Best Practices & Challenges of Implementation

View Recording

Making Offshore Wind a Reality: a Local and Global Perspective

View Recording



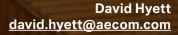
Sam Mackilligin sam.mackilligin@aecom.com

Steve Leach steve.leach@aecom.com What are the barriers to delivering no-carbon hydrogen, and how can we overcome the challenges in securing supplies of the three main ingredients needed - lots of renewable energy, fresh water and electrolysers? In this webinar, energy experts Sam Mackilligin and Steve Leach will explore best practice and implementation challenges for green hydrogen, along with where it will be produced and used. They will also shed light on how we are finding solutions to these challenges in partnership with our clients.

Offshore wind is set to play a major role in the #energytransition across Australia and New Zealand. Want to learn more about innovations and approaches we can leverage from global markets to improve the efficiency and sustainability of offshore wind development here?

This webinar will explore global emerging trends and learnings from industry best practices and offer insights into the challenges and technology advances on the horizon. We will also discuss the importance of a coordinated approach to Commonwealth and State approvals, how using a project design envelope for assessment provides project flexibility and a systematic approach to considering cumulative impacts.









Headwinds and Tailwinds in the Energy Transition: the Outlook for 2024



The energy transition is gathering momentum. Climate change, regulatory policy and energy security are converging to support the transformation of our global energy system. Spend in clean technology is growing and countries are setting new targets to increase renewable energy output.

However, against this backdrop the business environment is becoming more challenging. Cost inflation and high interest rates are raising issues around affordability. Consumers are struggling to switch to EVs and heat pumps. Corporations are finding it harder to decarbonise and a number of clean energy projects are encountering headwinds. Some national governments, while committed to net zero are shifting environmental policy targets further back.

How will the transition evolve across different regions? What are the headwinds and tailwinds? Are we seeing a faltering in commitments just when the response to climate change needs to be escalated? How should companies and governments respond to the decarbonisation challenge? What is AECOM doing to help our clients through this transformation?





rank Sweet veet@aecom.con



drian Del Maestro

drian.delmaestro@aecom.com





Robert Spence robert.spencer@aecom.com



This webinar explores a New York City program to reduce carbon emissions and reach a state of energy neutrality. NYCDEP is committed to being a global leader in carbon reduction and energy neutrality, and has been supporting these goals through its own sustainability initiatives. Goals included:

- Reducing departmental energy usage 20% by 2025
- Eliminating sending WRRF biosolids to landfills by 2030
- Energy neutrality at the 14 in-city Wastewater Resource Recovery Facilities (WRRF) by 2050
- Carbon neutrality and reduction of greenhouse gas emissions 80% agencywide by 2050

Carl Lagasca carl.lagasca@aecom.com





Robert Pape robert.pape@aecom.com

Melina Diaconis melina.diaconis@aecom.com



Adrian Del Maestro adrian.delmaestro@aecom.con



Jennifer Obertino jennifer.obertino@aecom.com



Pat Graves patrick.graves@aecom.com



Marie-Jose (MJ) Croonen marie-jose.croonen@aecom.com



Steven Whyte steven.r.whyte@aecom.com

Grids - the Backbone of the Energy Transition

 \bigcirc

View Recording

Navigating the Way

As we undertake a once in a generation transition toward a more sustainable future, the electricity grid remains a key piece of the puzzle – arguably the most important. As our society decarbonizes, the ability to carry electrons between sources of power generation, via the power transmission and distribution network, and areas of demand will be critical.

The scale, pace and complexity of the energy transition is epitomized by grid modernization, which will require significant investment and innovation to upgrade infrastructure.

AECOM is at the forefront, leading the charge to upgrade electricity grids around the world, helping to make them more efficient and resilient.

In this webinar, we explored the barriers and enablers of delivering a grid across different geographies. Whether you are a company building transmission and distribution infrastructure, a renewable developer dependent on connections, a regulator seeking to upgrade the grid or an investor assessing the risk and rewards of infrastructure build, our panel addressed these themes and many more. If electrification is to be successful, the grid will be the backbone of the energy transition.

We are experiencing a oncein-a-century transformation of generating and consuming electricity as we replace fossil fuel-based assets with zero-carbon renewable energy sources. It has been several decades since largescale transmission projects have been undertaken in Australia, and the expectations of landholders and stakeholders have changed significantly. Transmission projects can cause significant community concern and angst, often amplified by media coverage and negative sentiment. Considerable work is needed to improve performance to achieve a social licence.

Powering the Future

View Recording

 \mathbf{P}

In this webinar, we will discuss why the supply chain matters and delve into how to work ethically and sustainably across the project lifecycle to help ensure local communities are well-considered in the planning and delivery of transmission infrastructure projects.



Craig Bearsley craig.bearsley@aecom.com



George Smyth george.smyth@aecom.com









Kristina Ringwood kristina.ringwood@aecom.com



Marv Diab mary.diab@aecom.com

COP28 and 2024: Outlook and **Implications for the Energy Transition**



Electrifying Transport: Getting Charged Up for a Decarbonised Future



Navigating the Way

COP28 concluded with some significant achievements. These included the historic agreement to transition away from fossil fuels; commitments to triple renewables capacity and double energy efficiency by 2030; funding for the loss and damage fund; and progress on methane reduction efforts. While this is all positive, the urgency to address climate change remains and action needs to be taken.



Adrian Del Maestro adrian.delmaestro@aecom.com



Farah Naz farah.naz@aecom.com



Frank Sweet frank.sweet@aecom.com



Jennifer Obertino jennifer.obertino@aecom.com



Robert Spencer robert.spencer@aecom.com



Yaser Ali yaser.ali@aecom.com

As we confront the urgent challenge of climate change, decarbonisation has become essential across all sectors. Our webinar delved deep into the transformative power of electrification to revolutionise transport infrastructure and services for a greener, more sustainable future.

We explored topics crucial to achieving sustainability goals, dissected the multifaceted aspects of decarbonising transport infrastructure and services including key trends, challenges, innovations, and lessons learned from across the world. The presentation includes strategies to transition to zero emission bus (ZEB) fleets and delivering critical operational infrastructure through depot transitions and new greenfield ZEB depots. Our industry experts share their industry-leading global transport electrification experience supporting ZEB transitions in more than 70 jurisdictions and dozens of facilities globally.



Andrew Bui andrew.bui@aecom.com







The information contained in this document/these recordings is intended for general guidance on matters of interest only. This document is provided with the understanding that AECOM is not herein engaged in rendering professional, legal, or other advice or services. While AECOM has made every attempt to ensure that the information contained in this document has been obtained from reliable sources, AECOM is not responsible for any errors, inaccuracies, omissions, or for any results obtained from the use of or reliance on this information. All information in this document is provided "as is" without any guarantee of completeness, accuracy, timeliness, or the results obtained from the use of or reliance on this information, and without warranty of any kind, whether express or implied, including any warranties of performance, merchantability, or fitness for a particular purpose.

In no event shall AECOM be liable or responsible to you or any other person or entity for any damages of any kind or character arising from or relating to any use of or reliance on the information in this document, including any direct, indirect, consequential, special, incidental, or other damages. The information contained herein is based on publicly available information as of the date of the document and is time dependent. The passage of time may result in changes to the information that would render it inaccurate or incomplete. You should not act or rely upon any information in this document without seeking professional advice. Any use of or reliance on this document shall be at the user's sole risk. This document is for the sole use of the recipient.

The recipient of this document shall not distribute, transmit, disseminate, or otherwise disclose, in any form or by any means, this document or any part thereof to any other person or entity, including without limitation any person or entity who competes with AECOM or provides similar services as AECOM. Do not copy, distribute, or further reproduce the content shared as part of this webinar. The user, not AECOM, is responsible for ensuring the full attendance and completion of the webinar. The user is responsible for complying with their organization's code of conduct, as well as to ensure this webinar is acceptable under your employer's gifts and entertainment policy.

AECOM is the world's trusted infrastructure consulting firm, delivering professional services throughout the project lifecycle – from advisory, planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, new energy, and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivaled technical and digital expertise, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a Fortune 500 firm and its Professional Services business had revenue of \$14.4 billion in fiscal year 2023.



About AECOM

See how we are delivering sustainable legacies for generations to come at aecom.com and @AECOM.

##