



ENVIRONMENTAL RESILIENCY FOR TOMORROW

Air & Waste Management Association's
114th Annual Conference & Exhibition

June 14 - June 17, 2021 • Orlando, FL



ACE 2021

Technical Program Timeline

December 20, 2020

Abstract Deadline for
Professional and Student
Platform Presentations,
Technical Posters, and
Panel Sessions

January 8 – February 12, 2021

Notification of
Acceptance

January 12, 2021

Abstract Deadline for
Student Posters

February 7, 2021

Author Notification of
Presentation Format

March 16 – May 10, 2021

Review Period

• March 16, 2021

Draft Paper/Poster
Due

• April 15, 2021

Draft Panel Synopsis
Due

• May 10, 2021

Final Submissions Due

June 14 – 17, 2021

ACE 2021 in Orlando, FL

The Air & Waste Management Association's 114th Annual Conference & Exhibition

June 14 – 17, 2021 • Hyatt Regency, Orlando, FL www.awma.org/ACE2021

CALL FOR ABSTRACTS

Submit your work and present at the premier conference on
environmental science, technology and regulation

Environmental Resiliency for Tomorrow

A&WMA invites abstracts (200 – 400 word summaries) on a range of topics from air quality to climate change, energy, and waste management, based on economic, social, scientific, political and pandemic factors shaping environmental policy and decision making. Abstracts are invited for individual platform presentations, technical/student posters, and panel sessions, including solicited sessions and presentations. Submission of abstracts on the conference theme, *Environmental Resiliency for Tomorrow*, as well as topics on current and future environmental challenges, with an emphasis on case studies and practical applications are encouraged.

For ACE 2021, abstracts are due **December 20, 2020** for: (1) **Platform Presentations**—individual oral presentations by professionals or students in a platform session; (2) **Technical Posters**—for display/presentation in the poster session; or (3) **Panel Sessions**—these require submitters to propose a panel session topic with likely panelists (3 to 4) and be prepared to organize/conduct the panel. The deadline for **Student Poster** abstracts is January 12, 2021. For accepted abstracts, several options are available for submission of manuscripts for review and acceptance for presentation and inclusion in the online conference proceedings:

1. Platform Papers and Technical Posters: Authors may submit a full-length manuscript or extended abstract for technical review, or PowerPoint presentation slides that will receive only a content review (draft due March 16, 2021; final due May 10, 2021).
2. Technical and Student Posters: Authors must submit a poster board in accordance with A&WMA guidelines for content and format. (draft due March 16; final due May 10, 2021)
3. Panel Sessions: requires panel chair to submit a 250-word Panel Synopsis describing the panel topic/ goals listing panelists and their affiliations (draft due April 15, 2021; final due May 10, 2021).

Categories of interest are outlined on the following pages by major topic areas and subtopics, but other related topics are welcome. **The abstract submission site can be accessed via www.awma.org/ACE2021authors,**

Why you should present

A&WMA's Annual Conference is recognized as the premier international conference of its kind providing the latest information on air, environmental management and risk, climate change, emerging contaminants such as PFAS, energy, sustainability, resource conservation and waste management issues. The conference typically has over 300 platform and poster presentations, 35+ panel sessions, and up to 10 concurrent sessions each day. This is your opportunity to share your work at this technical conference and have it published in the proceedings, share and exchange knowledge, hear panel discussions from experts on current topics, and interact with your peers, including: industry specialists, consultants, regulators, attorneys, students and researchers.

This year's venue for the conference is Orlando, Florida, one of the country's favorite outdoor travel destinations and an ideal place for environmental professionals and students from a wide range of employers, industries and educational institutions to gather from around the world to share new ideas and develop solutions to current and emerging environmental issues. Florida's abundant coastline, diverse ecosystem and weather bring issues of climate change, sea level rise and environmental resiliency to the forefront of environmental concerns. This conference will bring leading environmental experts and practitioners to tackle the strategies and policies needed to develop new and innovative approaches to planning and finding solutions to meet tomorrow's needs.

Mark your calendars for 3 days of professional growth in Florida's fun destination - Orlando. We hope to see you in person to share and present your work and make key connections at the 114th Annual Conference and Exhibition, A&WMA's premier event for environmental professionals.

Find the Complete Call for Abstracts and details online at www.awma.org/ACE2021authors.



2021 ANNUAL CONFERENCE CALL FOR ABSTRACTS

How to Submit an Abstract:

All abstracts must be submitted no later than December 20, 2020, using the abstract submission website. A&WMA cannot assure acceptance of late submittals. Detailed information, further instructions, and a link to the abstract submittal site can be found at the conference website: www.awma.org/ACE2021authors.

All abstracts are initially evaluated on technical quality; relevance and significance to current environmental issues; and absence of commercialism. Accepted abstract submissions will undergo a technical or content only review, depending on the author's choice for manuscript submission, and authors will be allowed to present in poster, platform, or panel sessions. The program will include a dedicated time-slot for a poster-only session, with no competing technical sessions. Panel Session Chairs will have the opportunity to structure the panelist presentations and discussions.

For accepted abstracts, required manuscript submissions include either a full-length paper, extended abstract, or PowerPoint slides. A Panel Synopsis is required for each accepted panel session prior to the conference. Final, reviewed, submissions in accordance with the submittal guidelines (www.awma.org/ACE2021authors) will be included in the online conference proceedings provided they were actually presented in a platform, poster, or panel session at the conference.

PLEASE NOTE: A&WMA policy requires that all speakers, including panelists, who attend the conference register and pay the appropriate registration fee. All travel, housing, and expenses are to be covered by the speaker.

Submission Process

- Step 1:** Link to A&WMA's online submission site via www.awma.org/ACE2021authors which includes information to guide you through the process. The listing of planned session topics along with general topic areas can be found on the online submission site to assist you with abstract submission.
- Step 2:** If you have been invited to submit an abstract in a specific area or for a specific session, check the solicitation box on the form, and be sure to include the name of the individual who asked you to submit your proposed abstract.
- Step 3:** Double check that the contact information for you and your co-authors is current and entered correctly. Note that the e-mail address you provide is our primary means for contacting you regarding your submission.

Special Awards for YP and Student Presentations

Presenters at the Conference will be selected for awards in the following categories:

- Young Professional (YP) Best Paper Award (*primary author must be 35 years of age or less on the last day of the conference, and must submit a full-length paper or extended abstract for technical review to be considered for this award*)
- Student Poster Awards

For more information and details related to eligibility criteria for these awards and requirements, please visit the conference website at www.awma.org/ACE2021. Deadlines for student abstracts are as follows:

- **Student Platform Presentation abstracts must be submitted no later than December 20, 2020.**
- **Student Poster abstracts may be submitted until January 12, 2021.**

Special Instructions

Individual submitters should note that they have several choices of presentation formats. Professionals may choose either Platform or Poster presentation format and can indicate a preference for one format or the other. A&WMA will make every effort to honor the choice, but it may be necessary to reassign some platform presentations to posters in cases where an appropriate session is unavailable. Young Professional (YP) undergraduate, masters and doctoral students have the choice of a Student Platform presentation or a Student Poster (*note the alternate Student Poster abstract deadline, and the YP Best Paper award requirements above*).

When submitting an abstract, please **do not** submit the same abstract more than once under a different presentation format (e.g., one for a Platform Presentation and a duplicate abstract for a Student Platform Presentation). **Note that if you are an individual author (or group of authors) submitting a single work for presentation at the Conference, DO NOT select the Panel Session option.**

Individual presentations will be grouped with other presentations in a similar topic area into a Platform Session by the Technical Program Committee, or included in the main Poster Session, as appropriate. If your abstract was solicited, please be sure to identify the name of the solicitor when submitting your abstract to ensure that it is assigned to the proper session.

Abstracts for Panel Sessions should be submitted (preferably by potential session chairs) by proposing a panel topic of interest and identifying the chair and potential panelists (up to four) for a full panel session, typically about 100 to 120 minutes in duration. Professionals submitting an abstract for a Panel Session will be expected to recruit speakers for the session, organize the session, review and coordinate the presentations from the panelists, and chair the session at the conference. Panel chairs also have the responsibility to submit the Panel Synopsis by the specified deadline.



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2021 Mini-Symposium – Environmental Resiliency

The program will include a Mini-Symposium that follows the conference theme, “Environmental Resiliency for Tomorrow.” With the rapidly increasing threat from global climate change and its potential for sea level rise, human dislocation from extreme weather events, and threats from COVID-19, emerging contaminants, and wildfires; as well as those from criteria pollutants and greenhouse gas (GHG) emissions, multi-disciplinary work and new approaches to planning and adaptation are needed. The strategies and solutions for tackling our energy and transportation needs, decarbonization, as well as current and emerging environmental challenges will be required. This year’s Mini-Symposium will focus on a variety of new ideas and approaches for planning, adaptation and resiliency in mitigating environmental and human health impacts. Mini-Symposium sessions will be formed from submitted abstracts and panels, and scheduled to minimize conflict with other sessions of similar content. The range of topics that touch on the resiliency theme may include presentations on climate change, adaptation and mitigation policies and strategies, transportation planning, energy transitions, sustainable practices, and regulatory policies for air and waste management.

PROPOSED TOPICS

Conference Theme, Local and Hot Topics

- Air Quality Effects of Sugarcane Burning
- Carbon Taxes/Markets
- City/Regional Climate Action Planning
- Clean Technology
- Coastal Adaptation to Climate Change
- Community Based, Mobile, Remote, and Fenceline Monitoring
- Community-Focused Emission Reductions
- Corporate Greenhouse Gas Target-Setting Factors
- COVID-19 Impacts on Land Use, Building Use and Indoor Air
- Emerging Contaminants of Concern
- Environmental Impacts from Maritime and Bulk Ports
- Environmental Issues for Oil Refineries
- Environmental Issues for Airports
- Environmental Issues from Wildfires
- Federal versus State/Local Perspectives on Renewables
- Harmful Algal Blooms
- Health Risk Assessments in Air Permitting Programs
- Organic Waste Diversion
- Site Remediation and Brownfields Redevelopment
- State and Local Government Climate Change Programs
- Zero Waste

Environmental Education

- Challenges Facing Environmental Education
- Environmental Lesson Plans
- How to Liven Up Technical Presentations

Air Quality Issues

Air Measurements, Monitoring and Controls

- Air Quality Measurements in Developing Countries
- Development of Emission Inventories
- E-Enterprise for the Environment: Challenges for Air Emission Reporting
- Emissions for Point and Non-Point Sources
- Impact of COVID-19 on Air Quality
- GHG/CO₂ Control Technologies and Strategies
- Near-Source Measurement and Monitoring
- Next Generation of Air Monitoring Tools for Fugitive, Fenceline and Area Source Applications
- Ozone SIP Implementation Strategies
- Personal Exposure Measurement in Community Settings
- Air Pollution Control Technologies

Atmospheric Processes

- Air Dispersion Modeling: Case Studies, Issues, Applications, Advances and Guidance
- Air Quality Impacts of Wildfires and Prescribed Burning
- How to Present Modeling Results to the Public
- Innovative Air Quality Modeling Techniques
- PAMS and Precursor Data Analysis
- Particulate Methods, Speciation and Analysis
- Photochemistry - New Insights in Our Understanding of the Atmospheric Processes
- PM_{2.5} Long Range Transport
- Regional Haze - Industry, State and Federal Views and Actions
- Secondary Particulate Formation
- Visibility Science, Policy and Related Topics

Environmental Management

Effects and Exposure

- Agricultural Emissions and Impacts on Air Quality
- Air Quality and Health Effects
- Characterization of Odors using FIDOL
- Emerging Contaminant Exposures (PFAS)
- Environmental Management Systems
- Exposure and Health Effects of Regulated and Non-Regulated Air Pollutants
- Indoor/Outdoor Pollution Exposure and Effects
- International Air Pollution Exposure and Effects
- Multi-Pollutant Health Effects
- Odor Measurement, Monitoring and Control Methods
- Odor Mitigation and Ambient Air Assessment
- Risk Assessment, Management and Communication: Issues and Recent Experience
- Safety: Management and Recent Experience

Transportation

- Alternative Fuels and Electric Vehicles
- On-Road Mobile Source Emissions: Vehicle Speed Effects, Near Road Air Quality
- Off Road Mobile Sources: Rail, Ship and Airplane Emissions, Construction Emissions
- Land Use Policies: Environmental Justice, Reducing Transportation Impacts
- Sustainability, Climate Change and Resiliency for Transportation Facilities
- Noise, Acoustics and Vibration Issues at Transportation Facilities and Elsewhere
- Transportation Systems: Health Concerns
- Vehicle Emission Standards: Domestic or World-Wide Trends, Limits and Regulations



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Program Administration

- Air Legislation, Regulation and Policy Developments
- Air Permitting Problems and Solutions
- Air Permitting Requirements for PFAS and Emerging Pollutants
- BACT Development and Implementation
- Citizen Monitoring
- Clean Air Act Regulatory and Policy Developments - Is it Time for Amendments/Revisions?
- EPA Priorities 2021 and Beyond
- Impact of Recent Court Rulings on Clean Air Act Implementation
- Modeling Issues in PSD/Nonattainment/Minor NSR Permitting
- New Source Review (NSR): Issues and Recent Developments
- Recent Court Rulings and Their Impact on Implementation of the Clean Air Act

Industry, Power Generation, Government and Indigenous Sectors

Industry, Power Generation and Nanotechnology

- Environmentally Responsible Power Plant Decommissioning
- Hot Topics in the Chemical and Refining Industries
- International Power Generation (Fossil, Renewable, Nuclear): Status, Policy, Regulations, Technology, etc.
- Mineral Processing and Extraction
- Nanomaterials: Environmental and Occupational Safety and Health and Regulatory Developments
- Nanotechnology: Applications, Research Advances and Safety
- Petroleum, Industry and Mining - Issues and Case Studies
- Power Generation Industry - GHG Reduction Programs and Sustainability
- Power Industry Technology - Innovation, Challenges, and Benefits
- Power Plant Efficiency Improvements and Emissions Reductions through Technological Innovation
- Power Plant Effluent Guideline and Regulation Challenges
- Regulations Impacting the Power Generation Industry
- Regulatory Opportunities and Challenges for the Power Generation Industry
- Renewable Energy Impact to Grid Stability, Resilience & Reliability
- Repowering Coal-Fired Generation
- Unconventional Oil & Gas: Issues, Controls and Emission Calculations

Government Facilities and Indigenous Environmental Affairs

- Environmental Compliance Issues at Federal Facilities and Policy
- Environmental Considerations in Military Procurement
- Evaluation of Duplicative Regulations and Executive Orders 13771 and 13777 - Issues, Opportunities and Potential Efficiencies
- Indigenous Environmental Affairs: Issues, Regulations, Projects and Case Studies
- Meeting Sustainability Goals for Federal Facilities
- National & Global Security Issues Related to Environmental Sustainability and Climate Change
- Planning and Implementing Sustainability and Resiliency at Federal Facilities and the Public Sector
- Regulatory/Compliance Cost Impacts on Modernization of National Security Facilities

Sustainability, Climate Change, Resource Conservation and Waste Management

Climate Change – Science, Policy, Impacts, Regulations, Mitigation and Adaptation

- Climate Change Data Visualization and Management
- Climate Change Science and Impacts
- Climate Change Policy and Regulatory Issues
- Climate Change Resiliency and Adaptation
- Climate Change Risk Management
- Downscaling Climate Change Models
- Environmental Justice and Climate Change
- Financing Mechanisms for Climate Change
- Greenhouse Gas Emissions and Reporting Programs
- Greenhouse Gas Reduction Through Sustainable Materials Management
- Insurance Industry: Accounting for Climate Change
- Integrated Air Pollution and Greenhouse Gas Policy
- Lessons Learned: North American Cap and Trade Programs
- Local Climate Change Planning and Tracking
- Transportation Policies for Climate Change

Sustainability, Resource Conservation, Circular Economy and Energy-Water-Waste Nexus

- Corporate Sustainability: Plans, Programs, Ethics and Performance Tracking
- COVID-19 Impacts on Sustainability, Resources and Material Management
- Energy-Water-Waste Nexus
- Green Production and Consumptions: Initiatives, Life cycle impacts and Opportunities
- Greenhouse Gas Reduction and Decarbonization through Sustainable Materials Management
- Organic Waste Reduction and Reuse: Innovations, Regulations and Programs
- Plastics Waste: Economies, Innovations, and Supply Chain Management
- Sustainability Metrics and Analytics
- Sustainability and Resiliency Planning: Global Perspectives and Case Studies
- Sustainable Waste/Materials Management: International Perspectives and Practices
- State and Local Government Sustainability Initiatives and Programs
- Zero Waste and Circular Economy: Plans, Programs, Metrics, Economics, Innovation and Climatic Benefits

Waste Treatment, Processing, Bioenergy, Landfills, and Site Remediation

- Biomass Energy: Combustion, Gasification, Liquid Biofuels, Torrefaction, and Pelletization
- Conflicts and Gaps in Waste Management Regulations
- Hazardous Waste Characterization, Treatment, and Reuse
- International Perspectives on Waste Management
- Landfills: Management, Remediation, Gas Collection and Utilization Systems
- Processing, Treatment and Reuse of Residuals from Water Supply and Wastewater Treatment
- Residuals Management and Re-Use: Ash, C&D, Industrial, and Waste Tires
- Site Assessment, Site Remediation, and Vapor Intrusion
- Solid Waste Generation, Characterization, and Collection
- Sustainable Site Remediation and Brownfields Development, Emerging Contaminants
- Waste-to-Energy and Waste Conversion Technologies and Systems