**NAEP 2016 Conference Workshops and Training – Monday April 11, 2016**

1. **Intermediate/Advanced NEPA Workshop**

National Environmental Policy Act (NEPA) practice is constantly evolving through new federal agency and Council on Environmental Quality (CEQ) guidance and federal court decisions. This workshop is primarily designed for Intermediate to Advanced NEPA practitioners who already have a basic understanding of NEPA. The workshop will be led by leading thought leaders in the areas of NEPA cumulative impact assessment, purpose and need and alternatives analysis, risk assessment, and climate change. The workshop will focus on some of the most frequently-evolving and complex issues facing NEPA practitioners today, and will cover recent policy changes and relevant court decisions. Topics covered include:

Crafting a defensible Purpose and Need statement

Alternatives analysis

Cumulative impacts analysis

Mitigation and monitoring

Climate change analysis

Integrating risk assessment into NEPA analyses

Instructors:

Brent Miyazaki, AECOM

Mr. Miyazaki has over 30 years of professional experience working on major energy infrastructure projects, including over 20 years meeting National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) requirements on a broad range of projects. This includes extensive direct experience interfacing with regulatory agencies during permitting and environmental impact assessment for multiple electrical and energy infrastructure projects. Through these projects, he interacted with multiple resource and regulatory agencies, including BLM, USACE, CPUC, CDFW, RWQCB and others. He has drafted Alternative discussions for multiple complex projects. These analyses involved a phased review, progressing from system alternatives to routing options, and finally site alternatives. He also applied risk-based assessment approaches to evaluating potential environmental impacts on various energy infrastructure projects. These include electrical facilities, oil and gas wells, and natural gas pipelines.

Matt Petersen, AECOM

Matt Petersen has worked as resource specialist and managed or provided NEPA oversight for over 30 large-scale EISs, including projects from Alaska to Vermont. This includes work with most major federal agencies and encompasses mining, oil and gas, pipelines, transmission lines, wind farms, airports, and power plants. He has taught custom NEPA seminars for the Forest Service, BLM, and other federal agencies and industry clients. Matt specializes in managing, providing NEPA oversite to and alternatives facilitation for large-scale, controversial projects. He has managed or led alternatives development efforts for multiple mining, airport, and agency resource management plan EISs. His recent experience (last three years) includes managing the TransWest Express Transmission Line EIS and the Bald Mountain Mine Expansion EIS, and providing alternatives facilitation for the Converse County Oil and Gas EIS, the BLM San Pedro National Riparian Conservation Area Resource Management Plan (RMP) EIS, the BLM Bering Sea Western Interior RMP EIS, and the BLM Central Yukon RMP EIS. Matt has developed several open enrollment NEPA courses which he routinely teaches to industry professionals, lawyers, and agency staffs. He is a regular instructor on NEPA impact analysis and third-party consulting for the BLM National Training Center (NTC).

Dale Sands, AECOM

Mr. Sands is Senior Vice President, Global Director of Climate Adaptation and Metro Services in the Environment Business Line for AECOM, a Los Angeles-based $18 billion global provider of professional technical and management support services serving clients in 150 countries. Based in Chicago, Mr. Sands has over 35 years of environmental experience in 65 countries. A frequently invited speaker to major conferences, Mr. Sands’ numerous publications and presentations, include the 5th International Disaster and Risk Conference (Davos, Switzerland), Plenary Session Chair, 5th Africa Platform for Disaster Reduction (Nigeria), and Keynote speaker at the Glass Performance Days Conference (Finland). Mr. Sands is a contributing author to AECOM’s new guide for the private sector: *Becoming Climate Resilient – An Executive Business case for Climate Resilience*. He just completed a two year term as Vice Chair, UN ECOMPrivate Sector Advisory Group for Disaster Risk Reduction (UNISDR), a membership of 100 companies from over 40 countries. Mr. Sands was a Board member of UNISDR PSAG since 2011. He was actively involved in private sector input to the Sendai Framework for Disaster Risk Reduction, which was approved by 187 member states at the Sendai Conference in March, 2015. Sands leads AECOM’s partnership with IBM in developing the Resilient Cities scorecard which assists cities in assessing preparedness and resilience to natural disasters such as severe storms, sea level rise, floods, droughts, wildfires, earthquakes. The Disaster Resilience Scorecard received the Notre Dame Global Adaptation Index Prize for 2015. Mr. Sands is also leading the AECOM/IBM team to develop a resilience scorecard focused on small- to mid-size businesses which will be released in 2016 after pilot testing in New Orleans.

Michael D. Smith, Enercon

Dr. Michael D. Smith is a nationally-recognized leader in National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) compliance with over 20 years’ experience in project and program management, technical analysis, policy development, and training/education for a wide range of public and private sector clients. He is currently a Principal with Enercon, an architectural engineering, environmental, technical and management services firm providing a broad range of professional services to private, public, and government sector clients throughout the United States and internationally. He has managed and provided compliance review for some of the nation's largest, most complex, and highly controversial projects, including major energy and transportation infrastructure projects, regulation of genetically engineered plants, commercial space transportation operations, and approval of new fuel economy standards for all vehicles operated in the U.S. He frequently provides training and strategic advice for NEPA, CEQA, and related environmental compliance requirements for public and private sector clients as a faculty member at the UC Davis Extension Land Use and Natural Resources Program, the UCLA Extension Sustainability Program, the NEPA Certificate Program at the Quinney College of Natural Resources at Utah State University, and as a Senior Consultant at The Shipley Group. He is a past recipient of a Science & Technology Policy Fellowship with the American Association for the Advancement of Science (AAAS) at EPA’s Office of Water and Office of Federal Activities in Washington, DC. From 1998 to 2007, he was an Associate Professor of Environmental and Natural Resources Sciences at Humboldt State University in northern California.

1. **National Park Service: Natural Sounds and Night Skies**

In recent years, increasing levels of noise and anthropogenic light have emerged as important new areas of natural resouerces management and environmental conservation.  For more than a decade the National Park Service, Natural Sounds and Night Skies Division (NSNSD) has been developing concepts, principles, methodologies and protocols for assessing the condition of acoustic and photic environments and analyzing potential impacts from noise and light to park visitors and the natural and cultural resources we are charged with protecting.  This training will present methodologies for the assessment of impacts from anthropogenic light and noise on natural and cultural resources and national park visitors.

Noise analyses are common in many NEPA analyses.  For decades, environmental impact statements and environmental assessments have addressed potential impacts from noise primarily in residential and urban areas.  Over time accepted methodologies have emerged to measure and predict noise from highways, airport expansions, construction projects, and similar actions.  These analyses are focused on increases in decibel levels and impacts are based on thresholds related to social and health effects of noise, such as the potential for hearing loss, or the percentage of the community that would be highly annoyed.  These approaches and methodologies focus almost exclusively on potential human effects, while the impacts to wildlife, open space, wilderness values, and other natural and cultural resources are largely ignored.

In contrast to this human-centered approach, the National Park Service is charged with protecting the acoustic environments of parks from the adverse effects of noise.  NPS Management Policies require parks to protect and preserve natural soundscapes including sounds that are part of the biological or other physical resource components of the park. Examples of such natural sounds include:

* + sounds produced by birds, frogs, or katydids to define territories or aid in attracting mates
	+ sounds produced by bats or porpoises to locate prey or navigate
	+ sounds received by mice or deer to detect and avoid predators or other danger
	+ sounds produced by physical processes, such as wind in the trees, claps of thunder, or falling water

This policy requires a more comprehensive analysis that examines a broader suite of potential impacts that more common human-based analyses.

For more than a decade the NSNSD has been developing principles, concepts, and methodologies for assessing impacts from noise to national parks, wilderness, and other protected areas.  NSNSD has developed an impact analysis framework that addresses potential effects from noise to park visitors as well as impacts to wildlife, wilderness values, cultural landscapes, and other park resources and values.  The first part of this training will present the NPS methodology that uses various "functional effects" of noise to assess potential impacts to the natural soundscapes of parks.

More recently, there has been a growing awareness of the importance of star-filled night skies and natural light and dark cycles in fields of human health and environmental protection.  Simultaneously, an increase in articles in the popular press has generated increased public appreciation of night skies and efforts to protect lightscapes in protected areas.  As a result federal agencies are increasingly requiring an analysis of impacts from lighting in NEPA documents.  Humans and wildlife have evolved under a regime of natural light and dark cycles and have developed a number of physiological traits and behaviors suited for these conditions. Satellite data has confirmed that the amount of light generated by human activity is increasing at an alarming rate and encroaching into historically dark areas.  Research in medicine, public health, wildlife studies and other fields has identified a number of ways that anthropogenc light can affect humans, wildlife, and cultural landscapes, wilderness, and other environmental conditions. NSNSD has developed methodologies for assessing the condition of the night time photic environment and analyzing impacts to park resources from anthropogenic light.  The second part of this training will present the NPS methodology for assessing potential impacts to park visitors, resources and values from light.

Instructor:

Frank Turina is the program manager for Policy, Planning, and Compliance for the NPS Natural Sounds and Night Skies Division. In this position, he specializes in incorporating science and research on the effects of noise and light on humans and wildlife into policy and guidance for protecting NPS resources and values. Working closely with acoustic specialists, biologists, social scientists, and other professionals, he was instrumental in developing the conceptual approach and methods used by NPS to manage and protect the acoustic and photic environment in parks. Dr. Turina played a key role in the development of the NPS Air Tour Management Program and led the development of the first NPS Soundscape Management Plan, for Zion National Park. Dr. Turina is also responsible for working with lighting specialists and scientists to incorporate sustainable lighting practices into park planning processes and developing and implementing protocols for determining impacts from light and noise on park resources.   Prior to joining the NPS, Dr. Turina was an environmental planner at CH2M Hill, writing and managing the development of environmental analyses for highway, transit, and other public works projects. He earned a BS in park management (1985) from Pennsylvania State University, a master’s degree in environmental policy and management (1993) from the University of Denver, and a PhD in public affairs/environmental policy (2009) from the University of Colorado.

1. **Career Development**

**Interdisciplinary Team Management**

With few exceptions, environmental reviews of land management decisions and major proposed state and federal actions require more than one area of expertise to analyze and document.  The person selected to be the team leader will be responsible for creating a management plan to address the project and assembling an interdisciplinary team with a shared vision. The team must be able to process and analyze the information and provide an outcome that meets the goals of the project. Achieving success requires that the team leader create synergy among the team members and have a well-designed plan for success.  The leader must foster a work environment where collaboration and deliberation can lead to an outcome that results in sound resource management decisions.

While scientists of a similar discipline and similar lexicon can effectively communicate with one another, this does not necessarily carry over to the required dynamic interactions of an interdisciplinary team.  Team leaders need to know how to manage the team members, create an environment where there is effective communication between the disciplines and keep the team working as a unit.  Adding to this challenge are the predispositions and values of team members, external influences, time restraints and budget limitations. This workshop will provide team leaders and members with an overview of how to create a management plan that attains the project goals, forms a collaborative, harmonious team and maintains productive working relationships among team members throughout the project’s duration.

**Effective Community Engagement**In case you have not noticed, the public is watching us and they are no longer passive about decisions related to the environment.  Given this reality, it is important for environmental professionals to learn how to engage the public and make sure they are active participants in the decision-making process.  Social media has created an easily accessible and efficient network for persons interested in a proposed action to monitor the decision-making process.  With citizen interest and an effective means of communication, unilateral actions by regulators seldom go unnoticed. Rather than avoiding public input as some scientists might prefer, engaging the public in the issues and seeking their input and support significantly decreases the chances of a decision challenge and them seeking legal means to delay/stop an action from proceeding. This session will cover the principles of successful community engagement and examine how the public becomes well-informed and effectively involved in the decision-making process.  This session also presents case study/lessons learned examples of successful community engagement by governmental agencies.