Environmental Planning & Permitting



Core Service Overview

- Pre-project Environmental Analyses
- Baseline Environmental Studies
- Environmental Impact Assessments
- Environmental, Social, and Health Impact Assessments
- Innovative, Streamlined Digital Data Services
- Climate Resiliency & Adaptation Services
- Environmental Justice/Social Performance Analyses
- Net-zero Carbon Emissions Services
- Environmental Permitting
- Natural Resources Management Services
- Cultural Resources Management Services
- Noise and Visual Analyses, Modeling, and Simulations
- Project Construction & Post-Construction **Environmental Compliance**
- Stakeholder Engagement Services

Why AECOM?

- **ENVIRONMENTAL LEADERS AND PRACTITIONERS.** AECOM has over 2,500 environmental planning and permitting staff.
- SUBJECT MATTER EXPERTISE (SME). AECOM brings a depth of resources, talent, and experience, tailored to each project and each region in all environmental areas.
- LOCAL SERVICE, GLOBAL REACH. With 162 offices across the Americas, our staff are connected via our Technical Practice Network (TPN).
- SCALABILITY. AECOM's innovative approaches scale across all size projects.
- SECTOR KNOWLEDGE. AECOM employs SMEs who are experienced in each sector we serve - Government, Commercial, Industrial, Energy, and Infrastructure.
- **ONE-STOP SHOPPING.** We are capable of providing a complete compliment of needed resources, minimizing the need for subcontractors, and providing faster, more integrated services.
- FULLY INTEGRATED SERVICES. AECOM is integrated across our business areas, allowing the proper and benefical intersection and collaboration between environmental planning with master planning, design, and construction.
- **AWARD-WINNING PERFORMANCE.** From quality to safety to delivery to client satisfaction, AECOM is a recognized environmental leader. Our Sustainable Legacies (ESG) philosophy is integrated into our corporate DNA, resulting in better triple-bottom-line outcomes.

















Client Support/Markets Served

AECOM services a broad range of client Market Sectors, including government, industrial, commerical, energy, and public infrastructure.

GOVERNMENT. Federal, Tribal, state/provincial and municipal.

provide complete environmental analyses and solutions across the energy sector.





AECOM's Technical Practice Network (TPN)

Our TPN, similar to an internal corporate Linked-In, ensures we provide complete technical excellence in the environmental services we deliver to our clients. Our TPN is a virtual community of dedicated professionals, with separate subject matter area Technical Practice Groups (TPGs), working together to drive continuous improvement of technical capabilities, knowledge sharing, and regional and global integration - bringing the best, most innovative, and current capabilities and knowledge to every project.

- Connects technical staff regionally and globally
- Educates clients through technical webinars
- **Provides** simple electronic forum to answer questions, identify resources, and foster discussion
- Collaborates and connects technical staff across geographies/business units
- Transfers state-of-the-art technologies and capabilities globally
- Builds and resources SME teams guickly to address any project need, anywhere



MORE INFORMATION: AskEnvironment@aecom.com



https://innovating-environment.aecom.io/

- **INDUSTRY/COMMERCIAL.** Manufacturing, agri-business, petrochemicals, pharmaceuticals, technology/communications, airlines, aerospace, and telecommunication, among many others.
- **ENERGY.** Solar, on-shore/off-shore wind, geothermal, tidal, biofuels, nuclear, and hydropower; marine energy terminals; electric transmission; electric vehicles; up-stream, mid-stream, and down-stream. We
- PUBLIC INFRASTRUCTURE Highways, airports, railways, dams, and bridges.

Environmental Planning & Permitting

Innovations

CLIMATE RESILIENCY AND ADAPTATION



DISASTER RESILIENCE SCORECARD. AECOM's climate risk assessment methodology that is applied to individual facilities and asset portfolios. The scorecard assesses historical climate trends to determine potential future impacts.



- GHG EMISSIONS MODELING. AECOM combines data intensive industry-developed models with more streamlined GHG management, allowing our clients to manage their whole GHG inventory and reporting effort in one system.
- FORECASTING LOCAL EXTREMES (FLEX) TOOL. AECOM'S FLEX provides individual communities with key statistical information needed to produce quantitative assessment of changes to future climate.

ENVIRONMENTAL DATA COLLECTION AND MANAGEMENT



TECHNOLOGY TOOLBOX. AECOM's user-driven Technology Toolbox contains an Artificial Intelligence (AI) tool to navigate regulations; a 360-degree camera; UAS data collection; public engagement polling software; and an enterprise-licensed mobile app for field data collection.

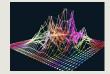


UAS AND OTHER AUTONOMOUS TECHNOLOGIES. AECOM is an industry leader in UAS and other Autonomous Technologies. We use UAS for a wide variety of autonomous data collection.



EMAP. A mobile data collection application that provides standard procedures for the collection, storage, and sharing of field data. The technology allows for real-time collection of photographs, GPS data, and forms that are then populated into a data management platform.

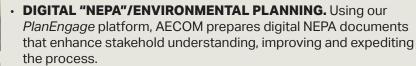
ENVIRONMENTAL DATA ANALYSIS AND PRESENTATION



ADVANCED VISUALIZATION. We create Virtual & Augmented Reality, photorealistic computer-generated imagery, animated sequences, and portable interactive VR apps that allow stakeholders to easily analyze visual impacts of a proposal



DIGITAL DOCUMENTATION AND REPORTING. AECOM's proprietary PlanEngage revolutionizes the world's best stakeholder engagement and visualization tools. The cloudhosted, website-based data visualization, digital collaboration, and report production platform the way we develop and share with stakeholders.





VIRTUAL STAKEHOLDER ENGAGEMENT. Our proprietary virtual engagement tools allow for hosting a 24/7 open house, customized for the unique needs of any project. AECOM has used this tool to engage with a diverse cross-spectrum of community stakeholders on over 300 projects.



REBUILD BY DESIGN: MEADOWLANDS, NEW

JERSEY. As part of HUD's Rebuild by Design (RBD)

projects, AECOM developed the RBD Meadowlands

project, a project that balances social, environmental,

competition to promote development of resilient

and community (EJ) benefits while realizing flood

protection solutions that improve public spaces,

resilience.

and visual renderings.

reduce environmental impacts, and improve future

USACE BALTIMORE: CURRENCY PRODUCTION

for the Treasury's proposed new 1M sqft Currency

Production Facility in the National Capital Region.

completed the NEPA process for this controversial

Using digital, web-based technology, AECOM

project within the CEQ's presumptive page and

time limits; this was the nation's first-ever "Digital

EIS," using a web-based platform that integrated

interactive GIS, concise text, high-quality drone

imagery, animations of proposed site development,

USACE ALASKA: PEBBLE MINE EIS/ROD, ALASKA.

Located in the Bristol Bay region, the proposed mine

would impact approximately 3,084 wetland acres

USACE and nine cooperating agencies, evaluated

involvement program, and maintained the project

and supported USACE consultation with 40 Tribal

website. AECOM conducted 18 public meetings

governments. AECOM analyzed, organized, and

managed over 500,000 public comments, and

completed the Final EIS in 28 months.

over 120 alternatives, supported the project's public

and 110 stream miles. AECOM coordinated with

EIS/ROD, MARYLAND. AECOM prepared an EIS

risk mitigation and increased community resilience.

AECOM is developing multi-benefit, integrated flood





Representative Projects

PENNSYLVANIA DOT, DISTRICT 6-0: I-95/ **GIR INTERCHANGE CULTURAL RESOURCE** INVESTIGATIONS, PENNSYLVANIA. For 15 years, over 40 AECOM cultural resource specialists have conducted Phase IB - Phase III archaeological investigations, guided by a Programmatic Agreement, over a 3-mile segment of I-95 crossing Philadelphia's oldest neighborhoods. AECOM developed an innovative, all-digital, and internet-based report format to share data more broadly: the Digging I-95 Interactive Report (www.diggingi95.com). AECOM hosts frequent public outreach events and displays, and has produced exhibits for two area museums.

CITY OF BALTIMORE, DEPARTMENT OF PUBLIC WORKS (DPW): PROJECT EQUITY LENS POWER

BI DASHBOARD, MARYLAND. AECOM is helping prioritize infrastructure capital investments through an on-line, power BI digital tool that uses equityweighted scoring criteria to determine optimal triplebottom-line projects (DigitalAECOM - Delivering equitable infrastructure: A case study of Baltimore). Each potential infrastructure project receives a scorecard for project performance, equity, and combined performance and equity to help the City make the most equitable infrastructure investment.

EQUINOR BEACON WIND: PERMITTING AND ENGINEERING SERVICES OFFSHORE,

MASSACHUSETTS. AECOM is leading Federal and State environmental permitting and developing the Site Assessment Plans (SAP), Construction Operation Plans (COP), and key Federal, State and local permits, approvals, and consultations. We also developed an Incidental Harassment Application for marine mammal take and the ESIA, supported applications for Power Purchase agreements, performed





environmental and engineering due diligence at possible interconnection points, developed visual impact assessments, and completed fisheries economics studies.

SAN DIEGO GAS & ELECTRIC (SDG&E): SUNRISE **POWERLINK HABITAT RESTORATION & WEED** CONTROL PROGRAM, CALIFORNIA. Since 2011, AECOM has prepared 60+ Site-Specific Restoration Plans, received final approval of the Habitat Restoration Program, and continues to support the Weed Control Program on this 117-mile project. We have provided habitat restoration services for over 300 acres of sensitive upland habitats, 100 jurisdictional drainages, and seven special-status plant species. We supported SDG&E in negotiation of early release of nearly 60% of the restoration areas before the end of the 5-year maintenance and monitoring program, moving to 98% by the end of Year 5.

NAVFAC PACIFIC: PEARL HARBOR NAVAL SHIPYARD AND INTERMEDIATE MAINTENANCE FACILITY DRY DOCK AND WATERFRONT **PRODUCTION FACILITY EIS/ROD, HAWAII.**

AECOM, with our joint venture partner, is preparing an EIS for a proposed dry dock at PHNSY. Constructionrelated actions evaluated in the EIS include dredging and filling within a Superfund remedial action area, demolishing existing historic structures, and constructing new in-water and landside facilities. The EIS is being prepared in coordination with the USACE, USEPA, NMFS, and USFWS; AECOM used our 360-degree Virtual Stakeholder Engagement platform to foster and facilitate public engagement.