



Accurate impact analyses and successful project permitting and certification for rail projects requires an understanding of the intricacies of environmental laws and regulations, the complexities of the resources affected by development, and solid working relationships with regulators. Drawing on our full range of technical specialists — resource scientists, environmental engineers, planners, and regulatory specialists — AECOM's global environmental practice helps clients streamline the approval process and comply with environmental laws and regulations.

AECOM offers:

- Strategic project planning services
- Experienced, multi-disciplinary staff and time-tested industry solutions
- Environmental impact studies, assessments, and regulatory permitting services
- Natural, cultural, and social resources planning, management and restoration





Technical Services to Support the Impact Analysis and Permitting Process

AECOM's scientists, engineers, planners, and GIS/CAD/database specialists provide the full range of field data collection, analyses, and reporting services required for project compliance.

- Natural resource planning and restoration
 - Wetlands delineations, functional value assessments, impact analysis, mitigation design and monitoring
 - Floodplains regulatory mapping
 - Wildlife habitat evaluations and inventories
 - Ecosystem restoration phytoremediation, constructed wetlands and invasive species management
 - Water supply development and protection
 - Marine services sediment sampling/ characterization, benthic and fisheries resource assessments, physical oceanography/hydrography
 - Dredging/dredged material management plans
- Cultural resources identification and preservation
- Social and socioeconomic resources identification and analysis

- Air quality carbon disclosure reporting, screening level modeling, siting studies, mesoscale and microscale analyses, meteorological data evaluations, indoor air quality
- Hydrologic modeling surface or groundwater
 - Stormwater management design, and pre- and post-development calculations, design of treatment and conveyance systems
- Contaminated sites environmental due diligence, property transfer assessments, findings of suitability to transfer, regulatory compliance, remedial investigations and cleanup, ecological and health risk assessment
- GIS applications and modeling data visualization
- Expert witness testimony and peer reviews

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Comprehensive Project Lifetime Services

Planning

- Site selection/critical flaw studies/ environmental due diligence. Identify the most suitable site, uncover fatal flaws, minimize the impacts of a project and reduce environmental review requirements
- Resource delineations. Assist in the siting of a facility to avoid impacts and regulatory review (e.g., wetlands, protected species habitats, historic and cultural resources, migratory bird habitats)
- GIS and database applications. Expedite baseline data collection and streamline the assessment of impacts and mitigation for siting and design alternatives
- Regulatory strategies. Establish creative mitigation solutions and streamline the environmental review process by leveraging long-standing relationships

Design

- Agency consultation and negotiations.
 Identify regulatory concerns and interpretive nuances up front, so the project can be designed in conformance with the applicable regulations
- Critical path scheduling and management of the review process.
 Minimize or avoid costly design changes dictated by the regulatory agencies and the public
- Stakeholder/public involvement. Deliver transparent communications to build public and other stake-holder trust, avoiding deal-breakers and costly delays that can result from public distrust and stakeholder misconceptions

Construction and Post- Construction

- Construction oversight. Prevent delays caused by schedule overruns or noncompliance with permit conditions
- Pre- and post-construction resource characterizations and surveys. Assess recovery of affected resources and success of constructed environments
- Compliance monitoring and reporting.
 Demonstrate to regulators satisfaction of permit conditions
- Operations surveys, monitoring, and reporting. Ensure compliance with longterm requirements and uninterrupted operations







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NEPA Impact Assessment Services

AECOM's global environmental practice has assisted thousands of corporations, developers and agencies with expert environmental impact assessment and permitting services. Our 45 years of experience with local, state and federal laws, rules, regulations and regulators is a direct benefit to our clients in working through the processes successfully, no matter how complex the project elements or site constraints may be.

- National Environmental Policy Act (NEPA)
 Environmental Impact Statements (EISs) and
 Environmental Assessments (EAs)
- State-required environmental assessments and environmental impact statements/ reports
- Facility siting approvals (US Coast Guard Deepwater Port, Bureau of Land Management, US Forest Service, and other federal and state facility siting boards/ commissions)

 NEPA contracts include applicant prepared documents (typically EAs), third-party EA and EIS development, and direct contract arrangements

Permitting

- Wetlands. Clean Water Act, Section 401 and 404, state and local wetlands and waters protection laws
- Stormwater. NPDES stormwater management plans, SPCC plans and SWPP Plans
- Water supply. State and local withdrawal and use permits
- Wastewater. National Pollutant Discharge Elimination System (NPDES) and state industrial, wastewater discharge and thermal discharge permits
- Waterways. Section 10 of the Rivers and Harbors Act, state navigation- based permits

- Coastal and marine. Coastal Zone
 Management consistency, Marine
 Protection, Research and Sanctuaries Act
 for dredged material disposal, state coastal
 zone, tidelands/riparian use laws, local
 coastal wetlands/waterfront approvals
- Endangered and other protected species. Endangered Species Act consultation and compliance, Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act compliance and planning, similar state and local regulatory compliance
- Air quality. Prevention of Significant Deterioration, Clean Air Act Consistency Certification, state permits
- Cultural resources. Natural Historic
 Preservation Act and state laws related to historic/archeological resources, including consultation with Tribes and State Historic Preservation Offices (SHPOs)







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About AECOM

AECOM is built to deliver a better world. We design, build, finance and operate infrastructure assets for governments, businesses and organizations in more than 150 countries. As a fully integrated firm, we connect knowledge and experience across our global network of experts to help clients solve their most complex challenges. From high-performance buildings and infrastructure, to resilient communities and environments to stable and secure nations, our work is transformative, differentiated and vital. A Fortune 500 firm, AECOM had revenue of approximately \$17.4 billion during fiscal year 2016.

See how we deliver what others can only imagine at aecom.com and @AECOM.