

# Integrated Water Resources Services



**ecology and environment, inc.**  
International Specialists in the Environment

## Integrated Water Resources Services

### Planning

Watershed Management Planning  
Water Supply Planning  
Water Resources Planning  
Conservation Planning  
Flood Control Planning  
TMDL Compliance Strategies  
Stakeholder Involvement  
Land and Water Use Planning  
NEPA/Environmental Studies  
Climate Change Adaptation

### Engineering

Flood Control  
Conveyance/Storage Structures  
Stormwater Management  
Best Management Practices  
Water Intake Design - 316(b)  
Water Reclamation  
Source Water Assessment  
Permitting

### Public Health Sciences

Health Assessments  
Water Quality Assessments

### Water Security

Vulnerability Assessments  
Emergency Planning and Management  
Risk Management Planning  
Business Continuity Planning  
Homeland Security Services

### GIS/ IT

Hydrology and Hydraulic Modeling  
Water Quality Modeling  
Groundwater Modeling  
GIS  
Information Management  
Infrastructure/Assets Management

### Natural Resources

Ecosystem/Watershed Restoration  
Ecological Studies  
Biological Surveys and Assessments  
Monitoring  
Water Quality Evaluation  
Contaminated Sediment Management

### Economics

Policy and Institutional Strengthening  
Water Trading  
Rate Studies  
Conservation Studies

# E & E in the Water Resources Industry

Ecology and Environment, Inc., (E & E) is a global leader in the water resources industry. Unlike much of our competition, E & E does not limit its services to just sizing up your pipes or so-called gray solutions. Instead, E&E takes a multi- disciplinary approach to solving problems. With over 80 disciplines represented on staff, E&E delivers innovative solutions to address emerging issues facing the water resources community, including: drinking water security, water scarcity, water quality, climate change impacts, water conservation, and multi- purpose water resources management. And our extensive experience and recognition as one of the top environmental consulting firms is proof of our capabilities.

E & E has been recognized as one of the top environmental companies by *Engineering News-Record*:

- **Among the Top 75 Engineering Design Firms**
- **Among the Top 50 Environmental Engineering Firms**
- **Among the Top 15 Environmental Science Firms**

## Completed Water Resources Projects Worldwide



### Comprehensive Everglades Restoration Plan, Florida

E & E's multidisciplinary team of professionals is preparing a Project Implementation Report (PIR) focusing on the restoration of natural systems, enhancement of future water supplies, and provision of flood control benefits for the northern Palm Beach and southern Martin Counties area as part of the Comprehensive Everglades Restoration Plan (CERP).

### Biscayne Bay Watershed Management Plan, Florida

For a regional planning agency, E&E prepared a watershed management plan, which included a comprehensive evaluation of water resources, environmental conditions, and land use conditions, for the purpose of providing to the client a scientific basis on which to base future land use planning decisions.

### Hydrologic/Hydraulic Analysis of Flood Event, New Mexico

Using HEC-HMS and HEC-RAS software to simulate a specific flood event, E & E demonstrated that our client's upstream actions did not increase the likelihood or magnitude of flooding in the watershed.

### Water Availability Study for Power-Generating Plant, Colorado

E & E evaluated alternative cooling technologies and alternative sources of water for the expansion of an electrical power plant, resulting in a recommendation to use air-cooled condensers along with reclaimed water sources which enabled our client to acquire the scarce water resources needed for the project and reduce water acquisition costs.



**GIS-Based Water Quality Decision Support System, China**

E & E developed a highly-interactive, GIS-based decision support system to protect water quality through the monitoring of water quality changes and by providing support for response measures for Shanghai, where drinking water supply and industrial water supply needs are often in conflict.

**National Water Quality Plan, Morocco**

For the Kingdom of Morocco, E & E managed the stakeholder input process and developed the technical tools, including an integrated GIS database and surface water quality decision support system, and the legislative and institutional framework to effectively manage water quality and water pollution.

**Wastewater Reuse Study, Florida**

For a large municipal water supplier, E&E prepared a feasibility study that included an evaluation of alternative water supply sources and wastewater reuse options in coordination with other alternatives, such as reverse osmosis, blending, and aquifer storage and recovery, in order to offset water demand from the Biscayne Aquifer.

**GIS/IT Support Services, Buffalo**

For a major public water supplier, E&E provided GIS/IT support services, including application development, data management, ArcGIS training, for the purpose of asset, infrastructure, and staff management.

**Water Treatment Plant and Distribution System Design, New York**

For this four phase project, E&E performed a site investigation to determine the extent and nature of a contaminant plume at a Superfund site, evaluated the alternatives needed to modify the existing groundwater treatment facility, designed a filtration and distribution system to supply drinking water to residents nearby whose water was contaminated, and provided management services during renovation of the existing facility and construction of the new filtration and distribution system.

**Watershed GIS Study, Lake Ontario**

For the Lake Ontario Coastal Initiative(LOCI), E&E designed and built a comprehensive geographic information system (GIS) and produced a series of maps delineating land use, topography, sewer districts, critical habitats, and streambank areas, to support LOCI’s regional strategy for research, pollution control, and remediation of the Lake Ontario nearshore area.

**Water Vulnerability Assessments/ Emergency Operations Plans, various Air Force bases**

For the United States Air Force (USAF), E&E completed water vulnerability assessments and developed corrective action recommendations for 18 Air Force bases and eight Air Force Space Command installations across the U.S. We identified any apparent shortcomings in system connections and developed emergency action procedures to reduce the systems’ vulnerability in the event of a major emergency.

**Contingency Response Plan, New York**

E & E worked with a confidential client to develop a Contingency Response Plan (CRP) for a major water supply system. The objective of the CRP is to enable the client to effectively respond to a water supply emergency and ensure the continued delivery of potable water to its several million customers. The CRP provides a framework for responding to a crisis, instituting the incident command system and providing for continuity of water supply. It is accompanied by decision support tools that will assist the client in taking proper actions at critical trigger points. Supplementing the CRP is an education and training program and a progressive exercise program to ensure that all relevant client staff are well versed in applying the CRP to a wide range of emergency situations.

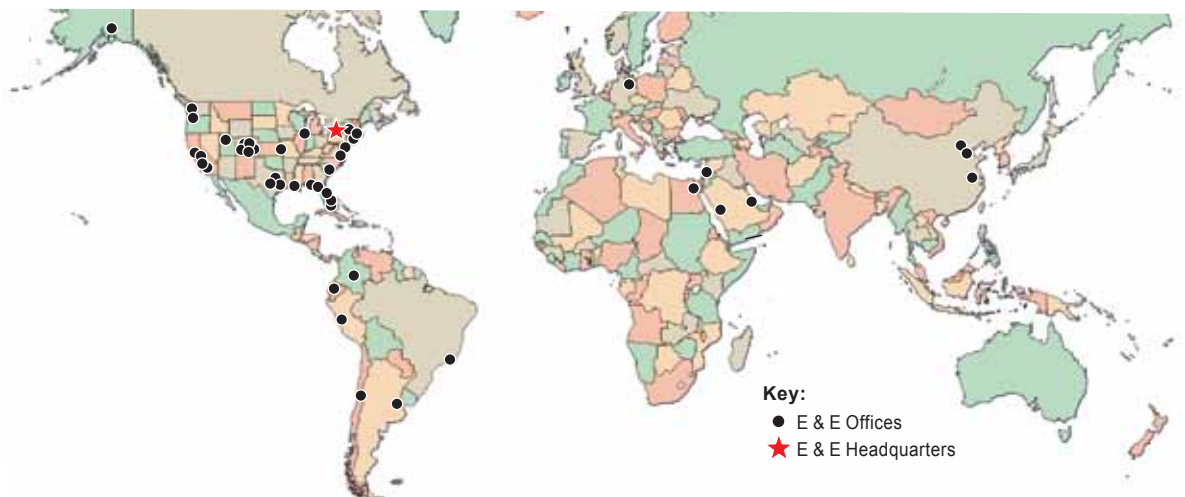


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**E & E's Water Resources experience includes the world's most important waterbodies:**

- Florida Everglades
- Hudson River, New York
- Alaska Coastal Zone
- Ogallala Aquifer
- Great Lakes
- Mississippi River
- Rio Grande
- Chesapeake Bay
- Yangtze River, China
- San Joaquin Delta, California
- Gulf of Mexico
- Amazon River Basin, Brazil

**We're ready to work on yours.**



**Key:**  
 ● E & E Offices  
 ★ E & E Headquarters

**U.S. Locations**

- Buffalo (Headquarters) • Albany • Anchorage • Austin • Baton Rouge • Boulder • Chicago
- Colorado Springs • Dallas • Denver • Fort Collins • Grand Junction • Greenville • Houston
- Kansas City • Long Beach • Miami • New York City • Oakland • Orlando
- Pensacola • Portland • Providence • Salt Lake City • San Diego • San Francisco
- Seattle • Tallahassee • Virginia Beach • Washington, DC • West Palm Beach

**International Locations**

- Bogotá, Colombia • Buenos Aires, Argentina • Lima, Peru • Quito, Ecuador • Rio de Janeiro, Brazil
- Santiago, Chile • Berlin, Germany • Cairo, Egypt • Jeddah, Saudi Arabia • Kuwait City, Kuwait
- Tripoli, Libya • Beijing, China • Tianjin, China • Wuxi, China

**Our Water Resource professionals stand ready to work on your project.**

**For more information, please contact:**

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