

Water  
Community Development



gai consultants



Transforming the  
Communities  
Where We Live

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# Water

## Streamlining Solutions

Our nation's aging water and wastewater systems require a substantial investment to achieve long-term stability. This, along with stringent environmental compliance demands, requires smart strategies to modernize existing facilities. GAI understands the challenges inherent to managing water supply systems, stormwater infrastructure, and wastewater treatment facilities.

Our trusted relationships with regulatory agencies help clients expedite regulatory reviews for time-sensitive projects, keeping projects on track and within budget. Moreover, GAI's wealth of knowledge on funding alternatives is an invaluable resource for municipalities weighing financing options to move projects forward.

GAI's skilled environmental, engineering, and financial professionals deliver designs and concepts that embrace sustainable practices. Our comprehensive approach to project planning and program development balances design, cost, constructability, and maintenance. Throughout each stage of every project, we listen to our clients' goals and concerns and build productive and effective project teams to meet ongoing water challenges.





GAI's success is built on trusted relationships and respected professional reputations.

### What Distinguishes GAI

- Full range of technical services with water industry knowledge and experience across the U.S.
- Proven track record for water and wastewater project success through customized and practical solutions that pinpoint the specific needs of each project.
- Solutions-driven leadership with specialized expertise and demonstrated success in sustainable design, planning, and development.
- One-call resource for a full range of financial planning, environmental, design, and construction management services for water resources and infrastructure rehabilitation.
- Client-focused teams recognized for client service and quality performance from concept to completion.

## Water Services

### **Water / Wastewater / Reuse System Planning and Design**

- Water Treatment (Membrane and Conventional)
- Water Storage and Pumping
- Wastewater Treatment and Disposal (Chemical, Physical, Biological)
- Wastewater Collection, Pump Stations, Force / Transmission Mains
- Water/Reuse Transmission and Distribution Systems
- Inflow and Infiltration Evaluations
- Routing Studies / Pilot Studies
- Municipal Master Planning
- Hydraulic Studies and Modeling
- Capacity and Efficiency Evaluations
- Asset Management
- Value Engineering
- Cost Estimating
- Constructability Reviews
- Permitting - Strategy and Compliance
- Consent Order Resolution
- Certification and Permitting
- Construction Phase Services
- Construction Monitoring
- Facility Startup Services
- O&M Training

### **Stormwater**

- Stormwater Management
- Stormwater Utility Development
- Flood Field Reconnaissance
- Damage Surveys
- HEC-1 / HEC-2 Computer Modeling
- SWMM Computer Modeling
- Hydrologic and Hydraulic Analysis
- Stormwater and Reuse Facilities Design
- Channel Improvement
- Dam and Levee Design, Permitting, and Inspection

### **Funding / Utility Management Consulting**

- Utility Acquisition Assistance
- Utility Valuation Studies
- Asset Management Funding Solutions
- Rate Studies

## Water Resources Support

- Environmental Studies and Site Assessments
- Cultural Resources / Historic Buildings
- Survey and GIS
- Right of Way and Utility Surveys
- Land Acquisition and Right of Way Agreements
- Landscape Architecture
- Geotechnical and Structural Engineering
- Mechanical and Electrical Engineering
- Sustainability and LEED® Planning
- Noise Studies and Air Quality Analysis
- Public Outreach and Coordination



Our professional engineers assisted the **Village of Pleasant Prairie** in negotiating a 30 percent water rate reduction from the Kenosha Water Utility. Specific system improvements, including reducing the height of the Ladish tower (pictured), were identified and phased in to reduce operating costs and provide additional water system capacity for future growth.



*Above: Hiawatha Crossings—Stormwater Detention Ponds and Multi-Use Trail, Village of Sturtevant, WI*

### **About GAI Consultants**

Transforming ideas into reality<sup>®</sup> since 1958, GAI is an employee-owned engineering, planning, and environmental consulting firm providing local expertise to worldwide clients in the energy, transportation, development, government, and industrial markets.



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