



## SOLID WASTE ENGINEERING

APTIM has extensive solid waste expertise, from permitting and engineering to construction and operations. We have worked on hundreds of programs and facilities throughout the US, including recycling centers, composting facilities, drop-off sites, transfer stations, and landfills. APTIM has hands-on experience implementing projects from concept to execution, ensuring practicality, cost-effectiveness, and compliance.

### SCOPE OF SERVICES

At APTIM, we take pride in providing a full spectrum of solid waste engineering services. Our commitment goes beyond simply meeting standards—we aim to surpass them by delivering exceptional quality on schedule and within budget. Our expertise spans various specialties.

- **Landfill Permitting and Design:** Expertise in stormwater management, landfill gas (LFG) systems, leachate management, geotechnical evaluations, and master planning
- **Regulatory Permitting:** Permit applications, regulatory reports and documents, and regulatory interaction for new and existing solid waste facilities
- **Composite Liner Design and Cell Construction:** Specialized in designing landfill liners and leachate collection systems that meet regulatory requirements
- **Leachate Management Systems:** Design of leachate forcemains, tanks, evaporation and storage impoundments, truck loadout, and other facilities
- **Gas Collection and Control Systems (GCCS):** Comprehensive services for LFG management
- **Landfill Master Planning:** Optimization of landfill design features, including airspace, liner systems, leachate management, phasing plans, and ancillary facilities
- **Final Cover Systems Design:** Extensive expertise in landfill closures, offering comprehensive final cover system designs that address settlement, stormwater management, erosion control, and regulatory compliance



- **Compost Facility Design:** Permitting and design of compost facilities tailored to managing organics and landscape waste
- **Transfer Station Facility Design:** Permitting and design of transfer facilities based on location, waste types to manage, and anticipated volume to be accepted and transferred per day
- **Construction Quality Assurance (CQA):** Services for landfill and waste facility construction projects, conducted in accordance with design standards through field and laboratory testing and observation
- **Solid Waste Management Planning:** Comprehensive plans for municipalities to meet present and future solid waste needs

## LANDFILL PERMITTING AND DESIGN

APTIM's solid waste group includes engineers, geologists, and scientists experienced in landfill design, including a wide range of unique site challenges. Our team members are experts in stormwater analyses and stormwater management system design; LFG system evaluations and design; leachate management evaluations and systems design; geotechnical evaluations and analyses; and facility master planning.

Knowledge and application of environmental regulations are fundamental to the success and cost-effectiveness of solid waste facility projects because they drive the technical strategy and scope of work. APTIM's experience in permitting, facility development, construction, expansion, closure, and site remediation allows us to offer outstanding services to our clients.



## COMPOST FACILITY DESIGN

APTIM has designed and permitted compost facilities across the US, including developing operating plans and design features to facilitate managing organics beyond typical landscape waste materials. Our services include:

- Compost Pad Design
- Contact Water/Wastewater Pond Design
- Stormwater Management
- Deliverables Preparation

## TRANSFER STATION FACILITY DESIGN

APTIM has designed and permitted numerous transfer station facilities across the US, including developing operating plans and design features to facilitate managing municipal solid waste, single stream recyclables, and construction and demolition materials. Our services include:

- Transfer Station Design
- Stormwater Management
- Deliverables Preparation



## CONSTRUCTION QUALITY ASSURANCE SERVICES

During construction activities, APTIM provides services to assist solid waste management facility owners for compliance with facility design documents and material specifications. These CQA services include:

- Earthwork Testing
- Geosynthetics Observation and Testing
- Documentation
- Final Completion Report

## COMPREHENSIVE SOLID WASTE MANAGEMENT PLANNING

APTIM has developed and assisted in implementing comprehensive solid waste management plans for municipal planning agencies. Plans typically include inventories of existing conditions, programs, and facilities; options for meeting present and future requirements; evaluation of options; and recommendations for implementation. APTIM's master planning services are offered by professionals who are experts in the field and able to suggest construction and operational features that maximize revenue and efficiency.

- Procurement Support
- Capital Improvement Plan
- Financial and Economic Analysis
- Diversion Program Analysis and Implementation
- Waste Characterization
- Public Engagement and Outreach

### CONTACT

Connect with our  
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