

## EPA's Incident Waste Assessment & Tonnage Estimator (I-WASTE)

**Version 6.1 adds additional functionality to the I-WASTE Tool**

### Background

Handling, transporting, treating, and disposing of large volumes of waste generated by natural disasters, chemical, biological, or radiological incidents, and animal disease outbreaks present unique challenges. Effective and timely management of these potentially contaminated materials is critical for protecting and restoring communities and the environment. Characterization of contamination in waste and debris and access to reliable information on treatment and disposal can reduce cleanup costs and shorten remediation timelines.

EPA, with the Department of Homeland Security, is supporting the National Response Framework, which guides response to domestic incidents. The I-WASTE tool has been developed by EPA's Homeland Security Research Program to address waste management information gaps. I-WASTE provides information on types and volumes of waste materials and potential contaminants generated during an incident, location and contact information for potential treatment/disposal facilities, as well as health and safety information to ensure public and worker safety during the removal, transport, treatment, and disposal of contaminated waste and debris.

*EPA's Homeland Security Research Program (HSRP) develops products based on scientific research and technology evaluations. Our products and expertise are widely used in preventing, preparing for, and recovering from public health and environmental emergencies that arise from terrorist attacks. Our research and products address biological, radiological, or chemical contaminants that could affect indoor areas, outdoor areas, or water infrastructure. HSRP provides these products, technical assistance, and expertise to support EPA's roles and responsibilities under the National Response Framework, statutory requirements, and Homeland Security Presidential Directives.*

### Managing Incident-Generated Waste and Debris

I-WASTE provides information for planning how to handle, transport, treat, and dispose of contaminated waste and debris. By using a web-based platform, large amounts of information are condensed and presented in a user-friendly format, and I-WASTE is easily updated as new information becomes available. The tool is not intended to override regulatory or legal requirements, but to provide information that can facilitate disposal decisions.

I-WASTE includes:

- Information on characteristics of waste, debris and potential contaminants, as well as characteristics of decontamination agents that could be used and may be present as residuals in the waste;
- Databases of treatment, disposal, and recycling facilities (e.g., hazardous waste incinerators, landfills, medical waste autoclaves), including locations, contact information, permits, and capacities for the different types of waste;
- A waste quantity estimator that allows end-users to generate order-of-magnitude estimates of volumes and masses of waste and debris from events involving a variety of types of single buildings or several structures over a wide area;



- A water systems module with information from different geographical areas to support the unique considerations involved in the management of waste (e.g. filter media, piping) generated as a result of decontaminating water treatment and distribution systems;
- Agricultural biomass disposal guidelines including training modules developed by the U.S. Department of Agriculture;
- Natural disaster debris disposal guidelines including case studies organized by disaster type (e.g., hurricanes, tornadoes, earthquakes, floods);
- Debris transportation, packaging, and staging information;
- Radiological waste management information and guidelines;
- Worker protection information.

### **Recently Added Features**

The updated version includes a wide-area waste quantity estimator, which allows users to calculate disposal waste amounts for events involving several structures, with added functionality to include building structural materials in case the building itself is demolished.

Also, the following facility databases have been updated:

- Medical/ Biohazardous Waste Incinerators
- Resource Conservation and Recovery Act (RCRA) Subtitle C Hazardous Waste Landfills
- Electric Arc Furnaces
- Aluminum and/or Copper Recyclers
- Commercial Radioactive Waste Disposal Facilities
- Federal Radioactive Waste Disposal Facilities
- Rendering Facilities
- Federally Owned Treatment Works (FOTWs)
- Publicly Owned Treatment Works (POTWs)
- Links to other sources of information on recycling facilities.

Version 6.1 includes interface changes made in response to focus group feedback that make using the tool more intuitive. Additions were also made to the Radiological Incident Waste module in response to stakeholder feedback received during a July 2009 focus group meeting. This version includes three new “special considerations” waste fact sheets and wildfire guidance in the Natural Disaster Debris Disposal DST. The Agricultural Biomass Disposal DST contains access to USDA disposal training modules, pathogen fact sheets and disposal hierarchies for poultry and large animal mortality events.

For more information, visit the [EPA Website](http://www2.epa.gov/homeland-security-research) (http://www2.epa.gov/homeland-security-research).

[EPA's I-WASTE Tool](http://www2.epa.gov/bdrtool/login.asp) (www2.epa.gov/bdrtool/login.asp) is available online. You will need to request a user identification name and password in order to log on.

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