# Waste Information Management System with 2013-14 Waste Streams

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## Introduction

The Waste Information Management System is a web-based information management system, designed, developed, deployed and maintained by the Applied Research Center (ARC) at Florida International University (FIU) for the United States Department of Energy (DOE) and site waste managers. This system enables stakeholders to easily visualize, understand, and manage the vast volumes, categories, and problems of forecasted waste streams and their associated forecasted shipments.

This system integrates waste stream and transportation information from various DOE sites and facilities to waste treatment and disposal facilities, including commercial ones. It provides forecasting of waste disposal volumes through the year 2050, filtered by various selection criteria such as waste sites, disposal facilities, year range and material types.
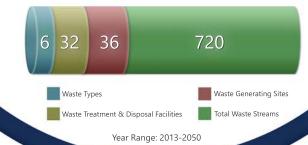
## Objectives

To provide DOE HQ and site waste managers with the tools necessary to easily visualize, understand, and manage the vast volumes, categories, and problems of forecasted waste streams.

• Expediting site waste management decisions.

• Providing DOE complex-wide information.

• Identifying, understanding and resolving existing barriers and choke points.

• Providing a mechanism for achieving the accelerated cleanup objectives.



*Disposition Maps showing waste from all sites to Area 5 MLLW Disposal Cell*

## Results

• Meeting the needs of DOE for the waste forecast information to be available to the public.

• Assisting DOE and local sites in meeting individual site goals and milestones.

• Achieving improved efficiencies of scale when outsourcing treatment and disposal services by providing information regarding complex-wide waste streams.

• Providing information to technology vendors regarding DOE waste needs to plan future technology capacity.

• Sharing site-to-site resources and treatment capabilities to allow the sites to leverage capacity and expertise.



*GIS Map showing waste from all sites to Energy Solutions-Clive facility 2013 to 2050*

*Forecast Data waste to Area 5 MLLW Disposal Cell from all sites*

*Transportation Forecast Report for low level waste from all sites to Area 5 LLW Disposal Unit*

Visit the system on the web at

## www.emwims.org

### Current Year Data



| 6 | 32 | 36 | 720 |

■ Waste Types
■ Waste Treatment & Disposal Facilities
■ Waste Generating Sites
■ Total Waste Streams

Year Range: 2013-2050

## Conclusions

• Developed and deployed a DOE complex-wide, high performance, n-tier web-based system for generating waste forecast information, disposition maps, GIS maps, successor stream relationships, and custom reports.

• WIMS is updated to show the name and locations of the commercial treatment, disposal facilities, and 2013-50 waste streams.

## Path Forward

• Update WIMS with waste stream forecast information for 2014-50, including associated generation sites, treatment and disposal facilities, and waste type, to ensure the long-term viability and value of the system.



*Transporation Data from Energy Solutions-Clive*

## Collaborators & Sponsors



*FIU's Applied Research Center (ARC) is supporting the U.S. Department of Energy Headquarters in its mission to gather, organize, and display waste forecast data from across the DOE complex.*