

# **Metro Nashville & Davidson County Solid Waste Master Plan**

## **DRAFT RFP Scope of Services and Evaluation Criteria**

### **Background**

The Metro Public Works Department in collaboration with the Davidson County Solid Waste Region Board is soliciting proposals from qualified firms to develop a long-term (20 year) Solid Waste Master Plan. The purpose of the Master Plan is to evaluate Metro & Davidson County's existing solid waste management system and provide options to improve and enhance the system and increase waste reduction and diversion with the ultimate goal of zero waste.

The Master Plan will need to include recommendations on how Nashville & Davidson County can maintain an integrated solid waste management system and should include:

- Evaluation of the current solid waste management system
- Detailed plan on how the Metro region can meet and exceed the requirements of the State of Tennessee 2025 Material Management Plan
- Recommendations on how to increase waste reduction, reuse and recycling
- Detailed waste reduction and diversion plan with long-term projections on achieving the goal of zero waste.

Metro Nashville & Davidson County intends to use the Solid Waste Master Plan to set the vision for waste reduction, diversion and management for the next 20 to 30 years.

Last calendar year, over 1.3 million tons of waste and recycling were generated in Davidson County and just over 1 million tons went to municipal solid waste or construction and demolition waste landfills from Davidson County. Metro Public Works collection programs comprised less than 20% of that material.

### **Scope of Services**

Developing a long-term solid waste management plan that proactively addresses all aspects of Nashville & Davidson County's waste management system including Urban Services District, General Services District, residential and commercial waste as well as collection and processing options will be important to achieving greater waste reduction and diversion and effectively managing Nashville's waste and recycling programs in the future. The ultimate goal of this long-term solid waste management plan will be detailing a plan with, at a minimum, benchmarks at 10, 20 and 30 years to achieving zero waste.

- 1. Research** - The Solid Waste Master plan should include assessing and evaluating solid waste management options including, but not limited to:
  - Residential (single and multi-family), commercial (including the downtown core area), institutional and industrial recycling in the Urban and General Services District.
  - Construction & demolition diversion and recycling
  - Organic recycling and processing including:
    - Analysis of Metro Water Services co-generator plan
    - Analysis of Resource Capture's proposed anaerobic digester plan
  - Systems with high waste reduction and diversion rates including successful zero waste programs
  - Waste management collection, processing and disposal systems/options:

- Wet/dry systems
- Waste to energy including conversion and emerging technologies
- Waste reduction methods to effectively engage businesses and residents outside Metro Public Works collection programs
- Variable rate systems
- Organic processing systems
- Mixed waste processing
- Landfilling
- Franchise systems
- Waste and recycling infrastructure including recommendations for waste transfer stations or processing facilities
- Legislative or policy options including but not limited to mandatory diversion programs, product or material bans, recycling content procurement requirements, etc. and should include best management practices for enforcement.
- Future funding options
- Source reduction initiatives that could impact the waste stream

**2. Evaluation** - The following factors will be assessed and evaluated for all options:

- The costs and benefits of each option in detail including per capita costs and benefits. Costs would include, but not limited to, infrastructure start-up, operation and maintenance, public education and outreach, and projected end-of-life closure costs, if any.
- Where the facility/ies would be located including permitting, zoning and any other requirements. Consideration should be given to regional partnerships and options where possible.
- The projected types and amount of wastes that would be reduced or diverted from landfills of any and all classes. Gross diversion rates and per capita diversion rates would need to be reported. Waste projections and diversion rates should be for the next 20 to 30 years and clearly state the methodologies used to calculate them.
- Byproducts of the system, if any, and how byproducts can be sold, managed or disposed.
- Specific implementation plans and timelines for each option including any local or state legislation that would be required and a qualitative assessment of regulatory issues. The assessment of any regulatory issues should include a detailed plan on how to secure regulatory approval.
- Compare the environmental benefits and drawbacks of each option's technology in qualitative terms as to the extent they are known or published, including greenhouse gas emissions (with the projected life cycle carbon footprint, including transportation, based on CO<sub>2</sub> equivalents), air emissions, water consumption, energy usage, noise, odor, traffic, effluent and residue.
- Examples, where possible, of each option operating in other municipalities at a scale either comparable to Davidson County or can be demonstrated that it could operate successfully at a Davidson County level.
- Estimate the range of number of direct jobs created both inside Metro Government and in the private sector.

### **3. Public engagement**

1. Organize at least 4 public meetings and listening sessions for resident and business input
2. Interview members of Metro Council, at a minimum, interviews should be conducted of the Metro Council Public Works committee
3. Interviews of key environmental groups to include, but not limited to, the Tennessee Environmental Council, RAM and BURNT
4. Conduct an online survey of Nashville residents and businesses
5. Organize two meetings of TDEC staff and waste management staff in surrounding counties to determine regional needs and options. The first meeting should be conducted at the beginning of the contract period to help inform and guide the research and recommendations as it relates to possible regional needs. The second meeting should be conducted as a follow-up to get input on proposed recommendations.

**4. Recommendations and Goals** - Based on the research conducted and public input develop a list of recommendations and a target timeline towards zero waste. The timeline should include, at a minimum, key target benchmarks at 10, 20 and 30 years. Additionally, the recommendations and goals from the Solid Waste Master Plan must be done in consultation with Mayor Barry's Livable Nashville Committee (including goals and recommendations of the Committee) and the Metro Public Works Department and consistent with NashvilleNext, the Tennessee Department of Environment & Conservation's 2025 Material Management Plan, the State of Tennessee requirements for 10 Year Solid Waste Plans, Mayor Dean's Green Ribbon Committee recommendations and any other related plans. The final report should include details showing how the above mentioned plans and reports, including any other known plans and reports not mentioned, have been considered and integrated in to the final Solid Waste Master Plan.

**5. Cost Studies** – Conduct a triple bottom line (3BL) study on the top three recommendations and on the cost to landfill waste. The 3BL on landfilling should include the social, environmental and economic cost to landfill a typical ton of municipal solid waste in a landfill instead of recovering all reusable, recyclable and compostable materials. Research conducted by Recycling Advocates for Middle Tennessee and their contractors must be reviewed and included in the landfilling portion of the study.

**6. Waste Stream Characterization** - Conduct a comprehensive waste stream analysis of Nashville & Davidson County's waste to include all types of waste generators.

### **Contractor Support**

Metro Public Works will provide the following information and services to support the contractor's work.

- Metro Public Works will provide a project manager to service as a single point of contact for the contractor that will provide general guidance, oversight and coordination. The contractor, however, will be responsible for completing all research, data collection, interviews, public engagement and reports required for this project.
- Statistics on Metro Public Works waste collection and recycling programs
- Electronic copy of the current 10 Year Solid Waste Plan

- Electronic copy previous Annual Progress Reports
- Electronic copy of the Solid Waste Management Diversion Option Evaluation prepared December 2015

## **Project Deliverables**

In addition to conducting all the required items listed in the scope, the following deliverables shall be required in the performance of this contract:

- Monthly progress meeting and reports to the Public Works project manager and Solid Waste Region Board representative. These reports should include the progress on each of Items 1-5 of the Scope of Services.
- Quarterly progress reports and presentations to the Davidson County Solid Waste Region Board
- Formal presentations of Solid Waste Master Plan draft to (Note that any formal presentations must be coordinated with Metro Public Works in advance):
  - Metro Public Works
  - Mayor Megan Barry
  - Metro Council Public Works Committee
- Electronic copy of all draft and final documents in PDF and Microsoft Word. All drafts and final documents must be submitted to the Public Works project manager prior to finalization.
- Electronic copies of all research, interview, raw data, reports, etc. will be supplied to Metro and will be the property of Metro Government.
- The Solid Waste Master Plan must be completed in a manner that meets the requirements of Tennessee Code and the Tennessee Department of Environment and Conservation of a Solid Waste Region Plan. It must also include a detailed plan on how the Metro region can meet or exceed the requirements of the State of Tennessee 2025 Material Management Plan.

## **Project Timeline**

Unless otherwise requested by the contractor and approved by Metro, all items required in this contract should be completed and the final documents submitted to metro Public Works 12 months after the contract is approved, signed and filed with the Metro Clerks Office.

## **Additional Services**

Metro Government, upon completion of the Solid Waste Master Plan, reserves the right to engage the contractor further to develop implementation strategies.

## **Evaluation Criteria**

### **1. Qualifications & Experience**

- a. Provide an organizational chart containing the names of all key personnel and any subcontractors with titles and their specific task assignment for this contract.
- b. Demonstrate at least 5 years' experience in completing projects of similar scope and size.
  - i. Provide a list of 3 similar projects in size and scope
  - ii. List city/county/state, population, project cost, description of the project, link to final report, contact person including name, title, email and phone number.
- c. Identify key individuals of your organization or team, their role on this project and provide their qualifications as it relates to this project. Please show previous experience on projects of similar size and scope for their area of expertise.

- d. Based on past projects you have completed similar in size and scope, describe the project with the largest reduction in waste across an entire jurisdiction. Describe the projected waste reductions and current actual waste reductions achieved. Waste reduction should include waste diverted from landfills and any waste combustion.
- e. Describe how you are best qualified to complete the requirements of this project.

**2. Understanding and Analysis of the Project**

- a. Provide a detailed narrative describing how you would perform the work as described in the Scope of Services and the degree of familiarity your company has with the waste generation and disposal practices used in Nashville & Davidson County. Take each of the items in the Scope of Services and describe your approach to completing that item.
- b. Include a detailed timeline showing how and when work will be performed beginning with the contract award and ending with the submission of the final report/s. Include in the timeline all key dates identifying, on the timeline, all deliverables.
- c. Describe any major constraints, obstacles and assumptions specific to Nashville & Davidson County's waste management situation that impact this project and how you would address them.
- d. Describe how you will work to meet the project deadline and complete all aspects of the scope of this contract in a timely manner.

**3. Cost – Attached a detailed budget showing cost to perform each of the items listed in the scope.**