



The State of New Hampshire  
**Department of Environmental Services**

Robert R. Scott, Commissioner



105

December 29, 2023

His Excellency, Governor Christopher T. Sununu  
and the Honorable Council  
State House  
Concord, New Hampshire 03301

**REQUESTED ACTION**

Authorize the Department of Environmental Services (NHDES) to enter into a contract with MidAtlantic Solid Waste Consultants, LLC (MSW Consultants) (VC # 479322), Orlando, FL, in the amount of \$295,500 for the purpose of conducting a statewide waste characterization study, effective upon approval by Governor and Council through March 31, 2025. 100% Federal Funds.

Funding is available in the following account:

	<u>FY 2024</u>
03-44-44-444010-7062-102-500731	\$295,500
Department of Environmental Services, SWIFR Grant Management, Contracts for Program Services	

**EXPLANATION**

NHDES requests approval to enter into a contract with MSW Consultants to conduct a comprehensive statewide waste characterization study to analyze the types and quantities of solid waste disposed in New Hampshire. This is an allowable use of Solid Waste Infrastructure for Recycling (SWIFR) funds disbursed to States & Territories under the Bipartisan Infrastructure Law to improve post-consumer materials management through planning and data collection.

Following the requirements of RSA 21-I:22, NHDES issued a Request for Proposals (RFP) and sent the RFP via e-mail to two consulting firms that specialize in waste characterization studies. The RFP was also posted to the Department of Administrative Services' website. NHDES received proposals from three respondents to this solicitation. NHDES reviewed and scored the written submittals and selected MSW Consultants for this work due to the firm's demonstrated expertise in the field of waste characterizations and clear understanding of the project objectives. MSW Consultants is highly qualified to perform the work having conducted over 20 statewide waste characterization studies since 2007, and numerous similar studies for cities, counties and private clients across the United States. MSW Consultants has indicated they have the staff, qualifications, and experience suitable to conduct the work as identified in the negotiated scope of services (Exhibit B).

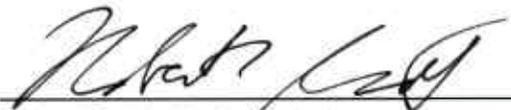
This contract will assist New Hampshire to advance its waste reduction goals. The General Court recently adopted a goal to reduce disposal of municipal solid waste (MSW) and construction and demolition (C&D) debris by 25% by 2030 and 45% by 2050 (see [RSA 149-M:2](#)). In support of this goal, the [2022 New](#)

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[Hampshire Solid Waste Management Plan](#) identifies the need for a statewide waste characterization study to better understand the composition of New Hampshire's waste stream and help identify priorities for increased waste reduction and diversion. Data generated by this study will be used by NHDES to inform regulatory decision-making and implementation of the State's Solid Waste Management Plan.

Current Certificates of Insurance, Good Standing, and Corporate Resolution are attached to this request. This agreement has been approved as to form, substance, and execution by the Office of the Attorney General. If federal funds are no longer available, general funds will not be requested to support this contract.

We respectfully request your approval.



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Robert R. Scott, Commissioner

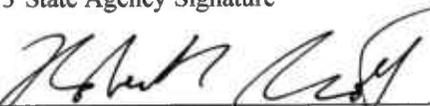
**Notice:** This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

**AGREEMENT**

The State of New Hampshire and the Contractor hereby mutually agree as follows:

**GENERAL PROVISIONS**

**1. IDENTIFICATION.**

1.1 State Agency Name  New Hampshire Department of Environmental Services		1.2 State Agency Address  29 Hazen Drive, PO Box 95, Concord, NH 03302-0095	
1.3 Contractor Name  MidAtlantic Solid Waste Consultants, LLC (dba MSW Consultants)		1.4 Contractor Address  11875 High Tech Avenue, Suite 150, Orlando FL 32817	
1.5 Contractor Phone Number  (800) 679-9220	1.6 Account Unit and Class  03-44-44-444010-7062-102-500731	1.7 Completion Date  3/31/2025	1.8 Price Limitation  \$295,500
1.9 Contracting Officer for State Agency  Michael Nork Supervisor Materials Management, Education, Planning		1.10 State Agency Telephone Number  (603) 271-2906	
1.11 Contractor Signature   Date: 12/08/2023		1.12 Name and Title of Contractor Signatory  John Culbertson, Principal	
1.13 State Agency Signature   Date: 11/9/24		1.14 Name and Title of State Agency Signatory  Robert Scott, Commissioner	
1.15 Approval by the N.H. Department of Administration, Division of Personnel (if applicable)  By: _____ Director, On: _____			
1.16 Approval by the Attorney General (Form, Substance and Execution) (if applicable)  By:  On: 11/12/2024			
1.17 Approval by the Governor and Executive Council (if applicable)  G&C Item number: _____ G&C Meeting Date: _____			

**2. SERVICES TO BE PERFORMED.** The State of New Hampshire, acting through the agency identified in block 1.1 (“State”), engages contractor identified in block 1.3 (“Contractor”) to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT B which is incorporated herein by reference (“Services”).

**3. EFFECTIVE DATE/COMPLETION OF SERVICES.**

3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, if applicable, this Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Executive Council approve this Agreement, unless no such approval is required, in which case the Agreement shall become effective on the date the Agreement is signed by the State Agency as shown in block 1.13 (“Effective Date”).

3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed.

3.3 Contractor must complete all Services by the Completion Date specified in block 1.7.

**4. CONDITIONAL NATURE OF AGREEMENT.**

Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds. In no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds by any state or federal legislative or executive action that reduces, eliminates or otherwise modifies the appropriation or availability of funding for this Agreement and the Scope for Services provided in EXHIBIT B, in whole or in part, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to reduce or terminate the Services under this Agreement immediately upon giving the Contractor notice of such reduction or termination. The State shall not be required to transfer funds from any other account or source to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

**5. CONTRACT PRICE/PRICE LIMITATION/ PAYMENT.**

5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT C which is incorporated herein by reference.

5.2 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8. The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance

hereof, and shall be the only and the complete compensation to the Contractor for the Services.

5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

5.4 The State’s liability under this Agreement shall be limited to monetary damages not to exceed the total fees paid. The Contractor agrees that it has an adequate remedy at law for any breach of this Agreement by the State and hereby waives any right to specific performance or other equitable remedies against the State.

**6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/EQUAL EMPLOYMENT OPPORTUNITY.**

6.1 In connection with the performance of the Services, the Contractor shall comply with all applicable statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal employment opportunity laws and the Governor’s order on Respect and Civility in the Workplace, Executive order 2020-01. In addition, if this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all federal executive orders, rules, regulations and statutes, and with any rules, regulations and guidelines as the State or the United States issue to implement these regulations. The Contractor shall also comply with all applicable intellectual property laws.

6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of age, sex, sexual orientation, race, color, marital status, physical or mental disability, religious creed, national origin, gender identity, or gender expression, and will take affirmative action to prevent such discrimination, unless exempt by state or federal law. The Contractor shall ensure any subcontractors comply with these nondiscrimination requirements.

6.3 No payments or transfers of value by Contractor or its representatives in connection with this Agreement have or shall be made which have the purpose or effect of public or commercial bribery, or acceptance of or acquiescence in extortion, kickbacks, or other unlawful or improper means of obtaining business.

6.4. The Contractor agrees to permit the State or United States access to any of the Contractor’s books, records and accounts for the purpose of ascertaining compliance with this Agreement and all rules, regulations and orders pertaining to the covenants, terms and conditions of this Agreement.

**7. PERSONNEL.**

7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.

7.2 The Contracting Officer specified in block 1.9, or any successor, shall be the State’s point of contact pertaining to this Agreement.

## 8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):

8.1.1 failure to perform the Services satisfactorily or on schedule;

8.1.2 failure to submit any report required hereunder; and/or

8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) calendar days from the date of the notice; and if the Event of Default is not timely cured, terminate this Agreement, effective two (2) calendar days after giving the Contractor notice of termination;

8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;

8.2.3 give the Contractor a written notice specifying the Event of Default and set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or

8.2.4 give the Contractor a written notice specifying the Event of Default, treat the Agreement as breached, terminate the Agreement and pursue any of its remedies at law or in equity, or both.

## 9. TERMINATION.

9.1 Notwithstanding paragraph 8, the State may, at its sole discretion, terminate the Agreement for any reason, in whole or in part, by thirty (30) calendar days written notice to the Contractor that the State is exercising its option to terminate the Agreement.

9.2 In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall, at the State's discretion, deliver to the Contracting Officer, not later than fifteen (15) calendar days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. In addition, at the State's discretion, the Contractor shall, within fifteen (15) calendar days of notice of early termination, develop and submit to the State a transition plan for Services under the Agreement.

## 10. PROPERTY OWNERSHIP/DISCLOSURE.

10.1 As used in this Agreement, the word "Property" shall mean all data, information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

10.2 All data and any Property which has been received from the State, or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

10.3 Disclosure of data, information and other records shall be governed by N.H. RSA chapter 91-A and/or other applicable law. Disclosure requires prior written approval of the State.

**11. CONTRACTOR'S RELATION TO THE STATE.** In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

## 12. ASSIGNMENT/DELEGATION/SUBCONTRACTS.

12.1 Contractor shall provide the State written notice at least fifteen (15) calendar days before any proposed assignment, delegation, or other transfer of any interest in this Agreement. No such assignment, delegation, or other transfer shall be effective without the written consent of the State.

12.2 For purposes of paragraph 12, a Change of Control shall constitute assignment. "Change of Control" means (a) merger, consolidation, or a transaction or series of related transactions in which a third party, together with its affiliates, becomes the direct or indirect owner of fifty percent (50%) or more of the voting shares or similar equity interests, or combined voting power of the Contractor, or (b) the sale of all or substantially all of the assets of the Contractor.

12.3 None of the Services shall be subcontracted by the Contractor without prior written notice and consent of the State.

12.4 The State is entitled to copies of all subcontracts and assignment agreements and shall not be bound by any provisions contained in a subcontract or an assignment agreement to which it is not a party.

**13. INDEMNIFICATION.** The Contractor shall indemnify, defend, and hold harmless the State, its officers, and employees from and against all actions, claims, damages, demands, judgments, fines, liabilities, losses, and other expenses, including, without limitation, reasonable attorneys' fees, arising out of or relating to this Agreement directly or indirectly arising from death, personal injury, property damage, intellectual property infringement, or other claims asserted against the State, its officers, or employees caused by the acts or omissions of negligence, reckless or willful misconduct, or fraud by the Contractor, its employees, agents, or subcontractors. The State shall not be liable for any costs incurred by the Contractor arising under this paragraph 13. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the State's sovereign immunity, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

**14. INSURANCE.**

14.1 The Contractor shall, at its sole expense, obtain and continuously maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 commercial general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate or excess; and

14.1.2 special cause of loss coverage form covering all Property subject to subparagraph 10.2 herein, in an amount not less than 80% of the whole replacement value of the Property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or any successor, a certificate(s) of insurance for all insurance required under this Agreement. At the request of the Contracting Officer, or any successor, the Contractor shall provide certificate(s) of insurance for all renewal(s) of insurance required under this Agreement. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference.

**15. WORKERS' COMPENSATION.**

15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A ("*Workers' Compensation*").

15.2 To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. The Contractor shall furnish the Contracting Officer identified in block 1.9, or any successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

**16. WAIVER OF BREACH.** A State's failure to enforce its rights with respect to any single or continuing breach of this Agreement shall not act as a waiver of the right of the State to later enforce any such rights or to enforce any other or any subsequent breach.

**17. NOTICE.** Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

**18. AMENDMENT.** This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire unless no such approval is required under the circumstances pursuant to State law, rule or policy.

**19. CHOICE OF LAW AND FORUM.**

19.1 This Agreement shall be governed, interpreted and construed in accordance with the laws of the State of New Hampshire except where the Federal supremacy clause requires otherwise. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

19.2 Any actions arising out of this Agreement, including the breach or alleged breach thereof, may not be submitted to binding arbitration, but must, instead, be brought and maintained in the Merrimack County Superior Court of New Hampshire which shall have exclusive jurisdiction thereof.

**20. CONFLICTING TERMS.** In the event of a conflict between the terms of this P-37 form (as modified in EXHIBIT A) and any other portion of this Agreement including any attachments thereto, the terms of the P-37 (as modified in EXHIBIT A) shall control.

**21. THIRD PARTIES.** This Agreement is being entered into for the sole benefit of the parties hereto, and nothing herein, express or implied, is intended to or will confer any legal or equitable right, benefit, or remedy of any nature upon any other person.

**22. HEADINGS.** The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

**23. SPECIAL PROVISIONS.** Additional or modifying provisions set forth in the attached EXHIBIT A are incorporated herein by reference.

**24. FURTHER ASSURANCES.** The Contractor, along with its agents and affiliates, shall, at its own cost and expense, execute any additional documents and take such further actions as may be reasonably required to carry out the provisions of this Agreement and give effect to the transactions contemplated hereby.

**25. SEVERABILITY.** In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

**26. ENTIRE AGREEMENT.** This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire agreement and understanding between the parties, and supersedes all prior agreements and understandings with respect to the subject matter hereof.

## Exhibit A Special Provisions

Modifications to Form Number P-37

Amend Section 13 to read as follows:

### 13. INDEMNIFICATION.

The Contractor shall indemnify and hold harmless the State, its officers, and employees from and against all actions, claims, damages, demands, judgments, fines, liabilities, losses, and other expenses, including, without limitation, reasonable attorneys' fees, arising out of or relating to this Agreement directly or indirectly arising from death, personal injury, property damage, intellectual property infringement, or other claims asserted against the State, its officers, or employees caused by the acts or omissions of negligence, reckless or willful misconduct, or fraud by the Contractor, its employees, agents, or subcontractors. The State shall not be liable for any costs incurred by the Contractor arising under this paragraph 13. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the State's sovereign immunity, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

## Exhibit B Scope of Services

The main objective of this waste characterization study is to use statistically reliable methods to characterize the composition (types and quantities) of materials destined for disposal in New Hampshire landfills and waste-to-energy facilities, and also construction and demolition materials managed at C&D processing facilities. This study will be conducted at the facilities as listed in Table 1 of the Contractor's proposal, dated October 10, 2023. Other facilities may be included, provided mutual agreement between the Contractor and NHDES. Exhibit D (List of MSW and C&D Material Categories) and Exhibit E (Definitions of MSW and C&D Material Types) are incorporated herein by reference.

The key tasks involved in this study include:

**Gate Surveys** – to provide a basis for estimation of residential vs. industrial/commercial/institutional (ICI) waste generation.

**MSW Characterization** – to characterize the composition of generated municipal solid waste destined for landfill or waste-to-energy facilities.

**C&D/Bulky Characterization** – to characterize the material stream of construction, demolition, and bulky loads not typically captured by the MSW sorts.

The general approach that will be undertaken to accomplish this data collection will be:

### Task 1 – Project Initiation & Study Design

#### Task 1.1 – Participate in a Kick-Off Meeting & Review State Data

The Contractor will conduct a kick-off conference call with NHDES staff to initiate the project. Contractor will review available data provided by NHDES to understand the volumes and delivery schedule of materials generated throughout the state and delivered to the facilities. This research will confirm the sampling targets and distribution of samples across inbound generator types.

#### Task 1.2 – Prepare a QAPP

The Contractor will follow the Quality Assurance Project Plan (QAPP) guidelines provided in the RFP and deliver a draft and final QAPP. The QAPP must be approved by the US EPA as a condition of funding waste characterization work.

#### Task 1.3 – Material Composition Study Design

The following information will be determined and compiled along with health and safety procedures, and statistical methods, in a finalized Study Design document to be submitted to NHDES prior to initiating field data collection.

**Sampling Plan:** The Contractor will adhere as closely as practical to the sampling targets outlined in the October 10, 2023 proposal, with a total of 26 gate survey days, 260 MSW manual sorts over two seasons, and 620 C&D visual surveys over two seasons. The actual allocation of MSW and C&D samples may be adjusted based on the results of gate surveys.

**Validate/Refine Material Categories:** NHDES has provided a list of both MSW manual sort categories and

final list of categories during the study design.

**Define Recoverability Classes:** As a supplement to the material category definitions, the Contractor will collaborate with NHDES to develop recoverability classes. Such classifications may include recyclable fiber, recyclable containers, compostable organics, HHW program waste, and materials divertible through third parties (e.g., scrap metal to scrap dealers; clean wood to mulching operations). In the final report, the composition results by material group (paper, plastic, metal, glass, etc.) will be recast to reflect the recoverability of the disposed waste stream to inform potential future recycling goals.

**MSW Generator Sectors:** Consistent with the RFP, the Contractor will classify all samples based on their generator sector:

- **Residential** – single-family and/or multi-unit residential housing, condos, or apartment sources constituting at least 80 percent of the load; or
- **Institutional/Commercial/Industrial (ICI)** – businesses, hospitals, schools, manufacturing facilities, and allocated to industry groups organized according to NAICS codes, constituting at least 80 percent of the load.
- **Mixed Loads** – Especially at the commercial landfills, which are presumed to receive a significant portion of transfer trailer loads, the Contractor will categorize mixed loads but does not recommend or intend to sample and sort/survey these mixed loads. This is because transfer trailer waste and other mixed loads combine both residential and ICI wastes, as well as C&D debris and even other wastes.

**Seasonality:** Field data collection will be performed over two seasons, “Spring” anticipated to be late April to early June and “Fall” anticipated to occur late August to early October, both seasons to be coordinated and confirmed with the facilities and NHDES.

**Sample Weights:** Consistent with industry standards (ASTM D 5231-92 (2016)), 200-to-250-pound samples will be the targeted sample weight for the MSW hand sorts. Conversely, entire loads of C&D and bulky wastes will be volumetrically surveyed.

**Logistical Coordination:** The Contractor will make appropriate arrangements for the personnel and equipment needed to execute the field data collection portion of this project and will communicate with each facility to discuss logistics, such as:

- Confirming procedures requiring coordination between the host facility personnel and the Project Team.
- Information about available space for sampling and sort crews and the availability of operational resources, such as a loader.
- Information on vehicle traffic (by time of day) including delivery patterns, and numbers of vehicles arriving, by vehicle type and/or by waste subsector.
- Finalizing locations for setting up the work area, taking samples, queuing samples, discarding sorted samples, and other in-process activities.
- Answering any questions and addressing the concerns of host facility personnel.

The Contractor will provide experienced staff as well as all sorting equipment needed for the project (table, bins, carry cans, scales, small tools, and personal protective equipment).

**Health and Safety Plan:** The Contractor will maintain a customized Health and Safety Plan for this waste characterization study. A copy of this plan will be included in the finalized Study Design document, and will be provided to host facilities as requested.

## Task 2 – Gate Surveys

The purpose of the gate survey is to obtain representative data identifying the breakdown of waste by type and by generator sector. The generator sector for some inbound wastes can likely be determined based on the hauler and on the truck type. However, many frontload and rearload packer trucks carry both commercial and multi-family wastes, and self-haul loads may be delivered by residential or commercial generators or may contain C&D and/or bulky debris. Finally, commercial landfills likely receive a high volume of transfer trailers, which contain predominantly mixed waste including residential and commercial MSW as well as C&D debris.

Survey results will be paired with scale weight data to calculate the precise contribution of single family, multi-family, institutional/commercial/industrial, and C&D/bulky waste for both compacting and non-compacting route trucks.

The Contractor will take the following steps to complete gate surveys that will inform the study with respect to the overall breakdown of load types and generators.

### Task 2.1 – Gate Survey Plan

**Prepare Survey Instrument:** The Contractor will develop a gate survey form to capture truck number and type, hauler, generator sector, state of origin for load, and other information that may be needed to develop waste disposal estimates by generator sector.

**Site data review:** The Contractor will review recent annual tons by facility as provided by NHDES.

**Verify gate survey schedule:** The Contractor will establish a schedule with NHDES and all host facilities for performing the gate surveys.

### Task 2.2 – Gate Surveying

Inbound vehicles will be surveyed to determine what type of waste is being delivered, state of origin, and the generator sector. To the extent possible, the Contractor will work with host facility scalehouse personnel and ask drivers concise questions to determine the material type and generating sector, recording truck type, size, and weight. Gate surveys will be completed prior to the manual sorting and visual surveying so results can be used to inform and refine the final sample allocation and study design.

### Task 2.3 – Gate Surveying Summary

Following completion of the gate surveys, a brief written summary of activities (dates, sites, loads and tons by generator, etc.) and survey results will be provided to NHDES along with an Excel file of raw data.

## Task 3 – MSW Manual Sorts

The following subtasks summarize the critical elements that will be undertaken for completion of the MSW study.

### Task 3.1 – Staffing

The Contractor will use a two-person professional staff to manage and supervise all sampling and sorting activities, supported by a combination of professional sorters and local light industrial laborers to conduct actual sorting. The Contractor's field data collection team will include the following individuals:

- **Field Supervisor:** The Field Supervisor will be the lead professional staff person responsible for planning each sampling and sorting event, and for interacting with the facility personnel whose cooperation will be needed throughout the field data collection. The Field Supervisor will generally lead the sampling selection process and will oversee the physical taking of samples.

- **Crew Chief:** The Crew Chief will be the second professional staff person. The Crew Chief is responsible for managing the manual sorting area, including crew management, sorting productivity and accuracy, data recording, work site health and safety, and cleaning up at the end of the day.
- **Sorting Labor:** The Contractor's professional traveling team of sorters will be deployed if available. If the traveling team is not available, the Contractor may supplement sorting crew with locally recruited personnel. Training and oversight will be provided by the Contractor's professional field operations management staff above.

### Task 3.2 – Sampling

**Sample Selection:** The Contractor will use the results of the gate survey to allocate MSW samples at host facilities – targeting approximately 130 samples in Season 1 and 130 in Season 2. The Field Supervisor will ask incoming drivers for basic information which is noted to identify the load. Information from the weight ticket for each vehicle will be obtained for every incoming truck either from the driver, or through communication with the scale house.

**Taking Samples from Selected Loads:** Selected loads of waste designated for sorting will be tipped in the designated area at the host facility. From each selected load, one sample of waste will be selected based on systematic “grabs” from the perimeter of the load. Grab samples will be loaded into 35-gallon barrels, pre-weighed to achieve target weight for each sample, and for storage prior to sorting. Each sample will be labeled by its unique identifying number and digitally photographed.

### Task 3.3 – Sorting

The Contractor will sort waste into the categories listed in Exhibit D, or as otherwise specified in the Study Design document with approval by NHDES. The Contractor will provide the sorting equipment, which includes a sorting table, 5-gallon buckets, 18-gallon bins, and 35-gallon barrels for the most prevalent materials. The Crew Chief will monitor the bins as each sample is sorted, resorting materials that may be improperly classified.

### Task 3.4 – Data Recording

Each sample will be cross-referenced against the Field Supervisor's sample input to assure accurate tracking of the samples each day.

### Task 3.5 – Data Management and Interim Summary

Following Season 1, a brief written summary of characterization activities (dates, sites, samples, etc.) will be provided to NHDES along with an Excel file of raw data. Information from Season 2 will be incorporated into the Draft Report and the Excel raw data files delivered.

### Task 4 –C&D/Bulky Waste Visual Surveying

C&D/Bulky characterization project planning and preparation will be completed in conjunction with the planning for the MSW manual sorts. The following subtasks summarize the critical elements that will be undertaken for completion of the C&D/Bulky study.

#### Task 4.1 – Staffing

The Contractor's professional staff with prior visual characterization experience will conduct the field data collection.

#### Task 4.2 – Sample Surveying

Contractor's staff will coordinate with the scale house, tip area spotter, and inbound deliveries to select loads for surveying. Loads will be tipped in the designated area and spread as necessary to facilitate visual characterization. Materials will be characterized using the categories listed in Exhibit D, or as otherwise specified in the Study Design document with approval by NHDES.

#### Task 4.3 – Number of Samples

The Contractor will use the results of the gate survey to allocate C&D/Bulky sampling at host facilities – targeting approximately 320 samples in Season 1 and 300 in Season 2. The Contractor will visually characterize from 15 to 25 loads per day, assuming there is sufficient inbound traffic at the host facility.

#### Task 4.4 – Distribution of Samples

Samples will be allocated in proportion to preferred generating sectors (residential, commercial, etc.) and truck types (dump trucks, roll-offs, truck/trailer, etc.) delivering to the facility, based on results of the gate survey.

#### Task 4.5 – Sample Selection

Contractor will select the Nth vehicle based on estimated daily arrivals of C&D/Bulky loads.

#### Task 4.6 – Data Collection

The following methodology will be used:

- Measure and record the dimensions of the incoming load prior to tipping and (if possible) estimate the percent full of the vehicle/container.
- Tip the load. If it is a large load of non-homogeneous materials, have a loader spread out the material so that it is possible to discern dense materials such as block, brick, and dirt that tend to sink to the bottom of the pile.
- Make a first pass around the load marking the major material categories that are present in the load— Wood Waste, Organics, Fiber, etc. Estimate the percentage of the load made up of these major materials.
- Make a second pass around the load, noting the secondary material categories contained in the load— Wooden Pallets, Sawn Lumber, OCC, etc. Estimate the percentage of the load made up of these materials.
- Validate that the estimated percentages sum to 100 percent, and that the sum of estimated weight is within an acceptable range and realistic given the overall truck dimensions and volume.
- Compare the calculated weight of the load to the actual scale weight of the load, identify possible sources of discrepancy, and make adjustments to volumetric estimates and/or density factors to reduce the degree of difference.

#### Task 4.7 – Data Management

Following Season 1, a brief written summary of characterization activities (dates, sites, samples, etc.) will be provided to NHDES along with an Excel file of raw data. Information from Season 2 will be incorporated into the Draft Report and Excel data files delivered.

## Task 5 – Data Analysis

### Task 5.1 – Gate Survey Analysis

Gate survey results will be analyzed in Task 2 and provided to NHDES to inform the final sampling targets and allocations.

### Task 5.2 – Waste Generation

The Contractor will collaborate with NHDES to finalize a snapshot of statewide waste generation based on facility reports and other data sources and apply the results of the gate survey to estimate the total tons generated by sector and by waste type (MSW, C&D). Imported tons will be segregated based on gate survey results. The resulting generation calculations will be used as the basis for applying waste composition results.

### Task 5.3 – Waste Composition

Residential, ICI and aggregate MSW composition, as well as C&D/bulky waste composition, will be calculated through the following statistical measures.

- **Sample Mean:** The sample mean, or average, composition is considered the “most likely” fraction for each material category in the waste stream.
- **Standard Deviation:** The standard deviation measures how widely values within the data set are dispersed from the sample mean. A higher standard deviation denotes higher variation in the underlying samples for each material, while a lower standard deviation reflects lower variation among the individual samples.
- **Confidence Intervals:** A confidence interval is a statistical concept that attempts to indicate the likely range within which the true value lies. The confidence intervals reflect the upper and lower range within which the population mean can be expected to fall.

## Task 6 – Reporting and Presentations

### Task 6.1 – Report Outline

The Contractor will develop an outline of the full study report to be approved by NHDES prior to proceeding with the Draft Report.

### Task 6.2 – Draft Report

The Contractor will prepare a draft report that describes the purpose, study methodology, sampling, and surveying details, and that summarizes the essential composition findings for each waste sector and each survey conducted. Specifically, the report will include:

- An executive summary providing key findings in standard solid waste industry terminology.
- Introduction and background for the study, including objectives.
- A summary of the gate survey methodology and results.
- A description of the methodology used in the study of MSW and C&D/Bulky wastes, including a sampling and sorting plan.
- Data sources for all calculations.
- Results of the types and quantities of materials in the waste stream,
- A summary of findings, conclusions, and supporting documentation (charts, tables, forms,

questionnaires, etc.)

- Raw data in an Excel format, as well as photographs of samples and field work.

The Contractor will provide a draft report for review and comment by the NHDES and will meet with NHDES staff to discuss the report.

#### Task 6.3 – Final Report

The Contractor will integrate one round of official comments into the final report. Electronic copies of the report will be provided in Adobe Acrobat, and source files in Microsoft Word can be provided to NHDES upon request. All results tables, raw data, and sample photos will also be provided to NHDES.

#### Task 6.4 – Presentation

The Contractor will prepare a PowerPoint summary of the study and present it at a location designated by NHDES. An electronic copy of the PowerPoint will be delivered to NHDES staff.

## Exhibit C Method of Payment

All services shall be performed to the satisfaction of the Department before payment is made. Payments shall be made by the Department within 45 days of invoice receipt and approval. Invoices shall be submitted to the Department for payment no more than once per month, shall specify the period of work being invoiced, and shall itemize tasks performed/completed during the invoice period. The budget for this project is not to exceed \$295,500. In the event that Federal funds are no longer available, general funds will not be requested to perform this work.

The Department may make partial payment where invoiced rates, mark-ups or work tasks are not in accordance with the contract rates terms and conditions, or where the approved budget has been exceeded without the Department's written approval. Copies of marked-up invoices may be provided to the contractor.

Changes to the Scope of Services require Department approval in advance. All work must be completed, and all invoices must be submitted to NHDES by the completion date listed on the contract agreement (Form number P-37, Section 1.7).

The billing address shall be as follows:

Attn: Michael Nork  
New Hampshire Department of Environmental Services  
Solid Waste Management Bureau  
29 Hazen Drive, PO Box 95  
Concord, NH 03302-0095

Invoices shall be approved by the Department's Contract Officer before payment is processed.

Price breakdown proposed by Contractor (excerpt from proposal dated October 10, 2023)

Appendix B - Price Proposal

Item #	Performance Measure	Deliverable	Timeframe for Completion	Price	
1	Prepare and submit for agency review and approval a final study plan and design	Finalize list of facilities and dates for sort events; finalized list of waste sort categories; finalized study design document including QAPP, planned staffing, waste sort protocols, and health and safety plan	March 15, 2024	\$18,400	Base Price
2	Conduct and complete the MSW sorting events	A brief written summary of the sorting events with dates, locations, and staff used; an electronic copy of the raw data from the sorting events in Excel	Season 1: Field work complete by June 29, 2024. Summary and Excel data by July 31, 2024.	\$113,400	Base Price
			Season 2: Field work complete by October 25, 2024. Summary included in Report Task 7. Excel data by November 27, 2024.	\$34,000	NCF
				\$147,400	Total Price
3	Conduct gate surveys to determine generator sectors	Include summary and analysis of gate survey results	Field work complete by May 10, 2024. Summary with analysis & final res./ICI sampling plan for manual sorts by May 24, 2024.	\$20,760	Base Price
				\$10,400	NCF
				\$31,160	Total Price
4	Conduct gate surveys to determine state of origin	Include summary and analysis of gate survey results		Included in line item 3	
5	Conduct C&D visual study at disposal facilities	Submit Excel data file of results of C&D visual study	Season 1: Field work complete by June 29, 2024. Summary and Excel data by July 31, 2024.	\$46,300	Base Price
			Season 2: Field work complete by October 25, 2024. Summary included in Report Task 7. Excel data by November 27, 2024.	\$11,500	NCF
				\$57,800	Total Price
6	Conduct C&D visual study at C&D processing facilities	Submit Excel data file of results of C&D visual study	See line item 5 timeframe for completion	\$13,840	Base Price
7	Prepare and submit a draft final report to agency for review and approval; schedule and meet with agency staff to discuss draft final report	Draft final reeport including all parts in 2.a of the scope above	January 15, 2025	\$18,400	Base Price
8	Prepare and submit to agency a final report; prepare and present the findings to agency staff, NH Solid Waste Working Group, and other stakeholders	Final report - two bound copies and one electronic copy, in-person presentation, materials used in presentation in electronic file format (e.g., PowerPoint slides, etc.)	March 15, 2025	\$8,500	Base Price
				<b>Base Price for Commercial Facilities</b>	<b>\$239,600</b>
				<b>Incremental Cost of Non-Commercial Facilities</b>	<b>\$55,900</b>
				<b>Total Price</b>	<b>\$295,500</b>

\*NCF signifies the additional cost to perform the work for the non-commercial facilities.

\*\*"NCF" denotes incremental price to include three non-commercial landfill facilities in study

## Exhibit D List of MSW and C&D Material Categories

### MSW Material Categories and Subtypes

Category	Subtypes	Category	Subtypes	
Paper	1 Books	Organics	38 Yard waste	
	2 Boxboard (chipboard)		39 Pet waste	
	3 Compostable paper		40 Other organics	
	4 High grade office paper		Electronics	41 CRTs
	5 Magazines/catalogs			42 TV's/monitors (non-CRT)
	6 Mixed recyclable paper	43 Desktop computers		
	7 Newsprint	44 Laptops/tablets		
	8 Old Corrugated Containers (OCC)/Kraft	45 Printers		
	9 Polycoated / Aseptic / Multi-material containers	46 Computer peripherals		
	10 Other/composite paper	47 Small appliances		
Plastic	11 #1 PET bottles	48 White goods		
	12 #1 PET food, dairy, other	49 Products with embedded batteries		
	13 #2 HDPE containers	50 Other Electronics		
	14 #5 PP containers	Batteries	51 Primary batteries (non-rechargeable)	
	15 #6 PS containers		52 Wet-cell	
	16 #6 EPS foam containers		53 Rechargeable - lithium ion	
	17 #3-7 containers (other)		54 Rechargeable - other	
	18 Bulky rigids - containers ≥5 gallons	Haz Waste	55 Mercury-containing products - lamps	
	19 Bulky rigids - toys		56 Mercury-containing products - thermostats	
	20 Bulky rigids - furniture		57 Mercury-containing products - other	
	21 Bulky rigids - other		58 Paint	
	22 Film - agricultural/marine shrink		59 Other hazardous waste	
	23 Film - bags	C&D(in MSW)	60 Asphalt, brick, concrete (ABC)	
	24 Film - other		61 Asphalt shingles	
	25 Thermoforms		62 C&D metal	
	26 Other plastic		63 Gypsum wallboard	
	Metal		27 Aluminum beverage cans	64 Oriented strand board (OSB)
			28 Aluminum foil, pans, containers	65 Plywood
29 Ferrous containers			66 Clean wood	
30 Other ferrous			67 Painted/treated wood	
31 Other non-ferrous		68 Other C&D		
Glass	32 Glass bottles	Special/Other	69 Carpet/padding	
	33 Glass food, dairy, other		70 Mattresses	
	34 Other glass		71 Furniture/Other bulky items	

- Organics 35 Food waste - unpackaged
- 36 Food waste - packaged
- 37 Stumps & large brush

- 72 Rubber
- 73 Textiles/leather
- 74 Tires
- 75 Diapers/sanitary products
- 76 Fines/soil/mixed residue
- 77 All other waste

### C&D Material Categories and Subtypes

Category	Subtypes
Paper	1 Old corrugated containers (OCC)/Kraft
	2 Other/composite paper
Plastic	3 Clean film
	4 HDPE buckets
	5 Other plastic
Metal	6 Ferrous
	7 Non-ferrous
Glass	8 Glass
C&D	9 Asphalt paving
	10 Asphalt shingles
	11 Concrete/brick/masonry
	12 Insulation
	13 Carpet/padding
	14 Ceiling tiles
	15 Gypsum wall board
	16 Pallets & crates
	17 Oriented strand board (OSB)
	18 Plywood
	19 Other engineered wood
	20 Clean wood
	21 Painted/treated wood
	22 Other C&D
Organics	23 Yard Waste
	24 Stumps & large brush
	25 Other organics
Haz Waste	26 Mercury-containing products
	27 Paint
	28 Other hazardous waste
Special/Other	29 CRTs
	30 Electronics
	31 White goods
	32 Primary batteries (non-rechargeable)
	33 Wet-cell batteries

Category	Subtypes
Special/Other	34 Rechargeable batteries - lithium ion
	35 Rechargeable batteries - other
	36 Products with embedded batteries
	37 Mattresses
	38 Furniture/Other bulky items
	39 Tires
	40 Soil/sand/gravel
	41 Fines/mixed residue
	42 All other waste

## Exhibit E

# Definitions of MSW and C&D Material Types

### Definitions of Material Types for MSW Sorts

#### PAPER

**Books** means softcover and hardcover books.

**Boxboard** means chipboard and uncoated paperboard. Examples include cereal boxes and other dry food boxes.

**Compostable Paper** means low grade paper that is not capable of being recycled, as well as food contaminated paper. Examples include paper towels, paper plates, waxed papers and waxed cardboard, and tissues.

**High Grade Office Paper** means the type of paper that is free of ground wood fibers; usually sulfite or sulphate paper; includes office printing and writing papers such as white ledger, color ledger, envelopes, and computer printout paper, bond, rag, or stationary grade paper. This subtype does not include fluorescent dyed paper or deep-tone dyed paper such as a goldenrod colored paper.

**Magazines/Catalogs** means items made of glossy coated paper. This paper is usually slick, smooth to the touch, and reflects light. Examples include glossy magazines, catalogs, brochures, and pamphlets.

**Mixed Recyclable Paper** means paper, other than the paper mentioned above, which can be recycled. Examples include manila folders, manila envelopes, index cards, white envelopes, white window envelopes, notebook paper, phone books carbonless forms, junk mail, groundwood paper, and deep-toned or fluorescent dyed paper.

**Newsprint** means the class or kind of paper chiefly used for printing newspapers – i.e. uncoated ground wood paper, including inserts.

**Old Corrugated Containers (OCC)/Kraft Paper** means uncoated corrugated cardboard boxes or paper bags made from Kraft paper. Corrugated Cardboard has a wavy center layer and is sandwiched between the two outer layers and does not have any wax coating on the inside or outside. Examples include entire cardboard containers, such as shipping and moving boxes, consumer product packaging cartons, and sheets and pieces of boxes and cartons. This subtype does not include chipboard (boxboard). Examples of Kraft paper include paper grocery bags, un-soiled fast food bags, department store bags, and heavyweight sheets of Kraft packing paper.

**Polycoated/Aseptic and other Multi-Material Containers** means laminated high quality paper cartons such as those used to store drinks without refrigeration. Examples include juice, teas, rice milk, soy milk, and dairy products. AND other multi-material containers such as foil or plastic-lined canisters and cartons. Examples include chip or nut cans, “pop ‘n bake” canisters for bread/cookies/frozen juice, ice cream cartons, etc.

**Other/Composite Paper** means items other types of paper not typically recycled such as wrapping paper, carbon paper/receipts, photographs, blueprints, etc. Also includes items made mostly of paper but combined with large amounts of other materials such as plastic, metal, glues, foil which do not fit into another category. Examples include plastic-coated corrugated cardboard, foil-lined fast food wrappers, etc.

#### PLASTIC

**#1 PET Bottles** means clear or colored PET beverage bottles. When marked for identification, it bears the number “1” in the center of the triangular recycling symbol and may also bear the letters “PETE” or “PET”. The color is usually transparent green or clear.

**#1 PET Food, Dairy, Other** means food and rice milk, soy milk, milk and dairy bottles and jars (e.g., peanut butter, mayonnaise) but excluding PET thermoforms – see below.

**#2 HDPE Containers** means natural (no pigment, translucent) and colored HDPE bottles, jugs and containers for foods, beverages, cleaning products, and other consumer goods. When marked for identification, it bears the number “2” in the triangular recycling symbol and may also bear the letters “HDPE.”

**#5 PP Containers** means plastic containers and packaging made from PP. Examples include some margarine, yogurt, and takeout containers.

**#6 PS Containers** means plastic food and beverage containers made from non-extruded PS. Examples include beverage cups, lids and takeout containers.

**#6 EPS Foam Containers** means food and beverage containers made of extruded PS foam. Examples include produce/meat trays, cups, plates, bowls, egg cartons, and takeout containers. This category does not include other foam items such as packing peanuts, foam coolers, and foam packaging materials.

**#3-#7 Plastic Containers (Other)** means plastic containers made of types of plastic other than HDPE, PET, PP, or PS. Items may be made of PVC, LDPE, or other resins. When marked for identification, these items may bear the number 3, 4, or 7 in the triangular recycling symbol. This subtype includes unmarked plastic bottles.

**Bulky Rigid, Containers ≥5 Gallons** means plastic containers with a volume of 5 gallons or greater, including 5-gallon pails, plastic barrels, mixing tubs, etc.

**Bulky Rigid, Toys** means durable plastic children's toys including toy vehicles, play houses, outdoor play structures such as slides, sand boxes, sports equipment, etc.

**Bulky Rigid, Furniture** means plastic chairs, tables, shelving units, cabinets, etc. intended for indoor or outdoor use.

**Bulky Rigid, Other** means any other durable goods that are not disposable package items. May include plastic landscaping elements, plastic railroad ties, plastic storage bins, etc.

**Film, Agricultural and Marine Shrink Wrap** means film plastic used for hay bales and other agricultural activities, and shrink wrap used to protect boats over the winter.

**Film, Bags** means retail plastic bags used to carry groceries and other items purchased at retail stores, garbage bags, and other plastic bags used for packaging of consumer products such as bread bags, produce bags, bags used in cereal boxes, non-metalized chip and snack bags, sandwich bags, dry-cleaning bags, wood-pellet bags, animal feed bags, etc.

**Film, Other** means plastic film that does not fit into another subtype. Examples include painting tarps, food wrappers such as candy-bar wrappers, mailing pouches, bubble-wrap, bank bags, X-ray film, metalized film including metalized chip and snack bags, and plastic food wrap.

**Thermoforms** means typically clear plastic packaging, containers, boxes, clamshells such as that used for lettuce, berries, and deli foods, no matter which resin it is. Excludes extruded polystyrene foam (EPS).

**Other Plastic** means plastic that cannot be put in any other subtype. Includes items made mostly of plastic but combined with other materials. Examples include auto parts made of plastic attached to metal, plastic drinking straws, foam packing materials and coolers, plastic strapping, plastic laminate (e.g., Formica), vinyl siding, linoleum, plastic lumber, imitation ceramics, handles and knobs, plant pots, some kitchen ware, plastic string (as used for hay bales), compact discs, etc.

## **METAL**

**Aluminum Beverage Cans** means beverage containers made from aluminum.

**Aluminum Foil, Pans, and Containers** means foil made from 100 percent aluminum (not aluminum laminated plastics) that is used to contain or protect food. Examples include foil, yogurt lids, single-use cooking pans like pie tins, and food cans like some tuna fish and cat food cans.

**Ferrous Containers** means rigid food and beverage containers made mainly of steel. These items will stick to a magnet and may be tin coated.

**Other Ferrous** means any iron or steel items that are magnetic. This subtype does not include "ferrous containers" (see above), appliances (see below), or metals that would otherwise be categorized as C&D metal (see below). Examples include empty/dry paint cans, metal clothes hangers, boilers, metal drums, metal cookware, steel automotive parts, tools, and other scrap ferrous items.

**Other Non-Ferrous** means any metal item that is not magnetic. These items may be made of aluminum, copper, brass, bronze, lead, zinc, or other metals but does not include aluminum cans or containers (see above), or non-ferrous metals that would otherwise be categorized as C&D metal (see below). Examples include certain stainless steel items, aluminum pots, shell casings, keys, tools, fishing tackle, coins, non-steel automotive parts, and other scrap non-ferrous items.

## GLASS

**Glass Bottles** means all glass beverage bottles for carbonated drinks, juice, wine, and alcohol, but excluding bottles for rice milk, soy milk, milk, dairy or food items like oils, condiments, etc.

**Glass Food, Dairy, Other** means all other glass containers containing food, dairy products, or non-food products. Examples include bottles/jars/jugs for milk, condiments, salsa, peanut butter, mayonnaise, pickles, etc.

**Other Glass** means all non-container glass. Examples include glass baking dishes (e.g., pyrex), crystal and other glass tableware, mirrors, non-fluorescent light bulbs, auto windshields, laminated glass, or glass panes not integrated into a window, door, cabinet, etc.

## ORGANICS

**Food Waste, unpackaged** means food scraps and organic residues generated by the handling, preparation, storage, sale, and serving of foods and beverages. This type includes pre- and post-consumer material from industrial, commercial, or residential sources. Examples include discarded meat scraps, dairy products, eggshells, fruit or vegetable peels, grains, baked goods, and other food items from homes, stores, distributors, restaurants, etc.

**Food Waste, packaged** means discarded food still in its retail packaging. Examples include packaged bakery items, prepared frozen food in its freezer box, full cans/jars/containers of food, and individually wrapped snacks.

**Stumps & Large Brush (>1" diameter)** means stumps, tree branches and vegetative brush larger than 1 inch in diameter.

**Yard Waste** means leaves, grass, garden debris and small brush 1 inch or less in diameter.

**Pet Waste** means pet feces and accompanying material such as bags of dog feces and soiled cat litter.

**Other Organics** means organic material that cannot be put in any other type or subtype. May include items made mostly of organic materials but combined with other materials. Examples include cork, hemp rope, hair, cigarette butts, full vacuum bags, and sawdust. Does not include compostable paper as defined above.

## ELECTRONICS

**CRTs** means televisions, computer monitors and other display devices that contain a Cathode Ray Tube.

**TV's and Monitors (Non-CRT)** means rear-projection or flat-panel televisions and computer monitors.

**Desktop Computers** means desktop computer central processing units (CPUs).

**Laptops and Tablets** means laptop computers, 2-in-1 tablets, and tablet computers such as iPads.

**Printers** means table-top printers for home and small office use.

**Computer Peripherals** means peripherals such as keyboards, mice, webcams, etc.

**Small Appliances** means small household appliances that need to be plugged into an electrical socket to function. Examples include microwaves, coffee makers, vacuums, fans, dehumidifiers, etc.

**White Goods** means large household appliances and appliances containing refrigerants. Examples include washing machines, clothes dryers, dishwashers, refrigerators, dehumidifiers, air conditioners, etc.

**Products with Embedded Batteries** means items that contain non-removable batteries. Examples include electric toothbrushes, electric razors, water filters, light-up sneakers, key chain flashlights, smoke alarms or CO detectors, robotic vacuums, toys, etc.

**Other Electronics** means all other electronic devices. Examples include VCRs, DVD players, stereos, telephones (mobile or otherwise), music players, game systems, chargers and power cords, etc.

## BATTERIES

**Primary Batteries (non-rechargeable)** means single-use everyday batteries such as AAA, AA, C, D-cells and 9-volts.

**Wet-Cell Batteries** means rechargeable batteries containing a liquid electrolyte such as 12v lead-acid batteries used in automotive and marine applications.

**Rechargeable, Lithium Ion (Li-ion)** means dry-cell rechargeable batteries that use a lithium-based chemistry.

**Rechargeable, Other** means other dry-cell rechargeable batteries such as nickel-cadmium (NiCd), nickel-metal-hydride (NiMH).

## **HAZARDOUS WASTE**

**Mercury-Containing Products - Lamps** means mercury-containing fluorescent and compact fluorescent lamps bulbs and ballasts.

**Mercury-Containing Products - Thermostats** means thermostats that contains mercury.

**Mercury-Containing Products - Other** means any mercury-containing products other than lamps and thermostats. Examples include thermometers, older light switches, and automotive switches.

**Paint** means architectural paint and primers, stains, sealers, and clear coatings (e.g. shellac and varnish) but excludes aerosols (spray cans), solvents, and products intended for industrial or non-architectural use.

**Other Hazardous Waste** means all materials typically accepted at a household hazardous waste collection event and not included in other categories. Examples include vehicle automotive fluids, medicines, poisons, corrosives, flammables, solvents and sharps.

## **CONSTRUCTION AND DEMOLITION materials (in the MSW stream)**

**Asphalt, Brick and Concrete (ABC)** means asphalt paving, bricks and concrete from the construction or demolition of structures or roadways.

**Asphalt Shingles** means asphalt roofing shingles.

**C&D Metal** means metal from the construction or demolition of buildings or structures. Examples include structural steel beams, gutters, metal roofing, metal siding, metal doors, electrical wires, metal conduit, metal ducts, copper/iron/brass pipes, metal plumbing fixtures, nails and fasteners, flashing, etc.

**Gypsum Wallboard** means drywall or gypsum board such as that used for constructing walls and ceilings.

**Oriented Strand Board (OSB)** means a type of engineered wood, made by compressing layers of wood strands/particles with adhesives that are formed into large sheets. This category can also include high-density fiberboard or "hardboard."

**Plywood** means a type of engineered wood, made by compressing 2 or more thin layers of wood, or plies, with adhesives that are formed into large sheets

**Clean Wood** means milled or dimensional lumber that has not been glued, painted, stained, or otherwise treated for moisture resistance. This category excludes plywoods and OSB.

**Painted/Treated Wood** means any wood derived from the construction or demolition of buildings or structures that is not "clean wood." Examples included painted trim boards, stained decking, urethane-coated flooring, pressure-treated lumber, etc.

**Other C&D** means all materials derived from the construction or demolition of buildings or structures that does not fit into another subtype. Examples include bathroom and kitchen fixtures (cabinets, sinks, etc.), foam and fiberglass insulation, ceiling tiles, ceramic tiles, window units, doors, etc. Does not include carpet and padding (see below).

## **SPECIAL/OTHER WASTES**

**Carpet/Padding** means floor coverings consisting of various natural or synthetic fibers bonded to some type of backing material. Padding means plastic, foam, felt, or other material used under carpet to provide insulation and padding.

**Mattresses** means all sizes and types of mattresses, box springs, etc. Includes innerspring, foam, and other types of mattresses.

**Furniture/Other Bulky Items** means household and commercial furniture that is not intended to be permanently affixed to a structure, or other large, hard to handle items that are not otherwise categorized. Examples include all

sizes and types of wooden and upholstered furniture, bookcases, bed frames, tables, display cases, filing cabinets, etc. Does not include furniture items that are mostly metal and would otherwise be categorized under metal.

**Rubber** means any material made of rubber excluding tires.

**Textiles and Leather** (other than carpet) includes clothing, fabrics, curtains, linens, blankets, stuffed animals, and other cloth material.

**Tires** means vehicle or equipment tires.

**Diapers/Sanitary Products** means both baby diapers and adult diapers (cloth and paper/plastic) and sanitary pads and tampons.

**Fines/Soil/Mixed residue** includes material with a ½" particle size or smaller that is otherwise uncategorized.

**All Other Waste** means any other type of waste material not listed in any other sort category.

## Definitions of Material Types for C&D Sorts

### PAPER

**Old Corrugated Containers (OCC)/Kraft Paper** means uncoated corrugated boxes or paper bags made from Kraft paper. Corrugated Cardboard has a wavy center layer and is sandwiched between the two outer layers and does not have any wax coating on the inside or outside. Examples include entire cardboard containers, such as shipping and moving boxes, consumer product packaging cartons, and sheets and pieces of boxes and cartons. This subtype does not include chipboard (boxboard). Examples of Kraft paper include paper grocery bags, un-soiled fast food bags, department store bags, and heavyweight sheets of Kraft packing paper.

**Other/Composite Paper** means any other paper items, or items made mostly of paper but combined or coated with materials such as plastic, metal, glues, foil, and moisture, and that do not fit into another category. Examples include plastic coated corrugated cardboard, cellulose insulation, coated backing paper used for self-adhesive materials, etc.

### PLASTIC

**Clean Film** means plastic film packaging not significantly contaminated or soiled with adhesives, caulking, etc. that could be recovered for recycling. Typically marked as #2 HDPE or #4 LDPE.

**HDPE Buckets** means 5-gallon pails or similar made from HDPE.

**Other plastic** means any other plastic items, including items made mostly of plastic but combined with other materials. Examples include auto parts made of plastic attached to metal, plastic drinking straws, foam packing materials and coolers, plastic strapping, plastic laminate (e.g., Formica), vinyl siding, linoleum, plastic lumber, imitation ceramics, handles and knobs, plant pots, some kitchen ware, plastic string (as used for hay bales), compact discs, etc.

### METAL

**Ferrous** means any iron or steel items that are magnetic. This subtype does not include appliances (see below). Examples include structural steel beams, metal roofing, metal doors, nails and fasteners, metal ducts, empty/dry paint cans, metal clothes hangers, boilers, metal drums, metal cookware, steel automotive parts, tools, and other scrap ferrous items.

**Non-Ferrous** means any metal item that is not magnetic. These items may be made of copper, brass, bronze, lead, zinc, or other metals. Examples include gutters, aluminum siding, screen doors, electrical wires, metal conduit, copper/iron/brass pipes, metal plumbing fixtures, flashing, certain stainless steel items, aluminum pots, shell casings, keys, tools, fishing tackle, coins, non-steel automotive parts, and other scrap non-ferrous items.

### GLASS

**Glass** means all glass including mirrors, non-fluorescent light bulbs, auto windshields, laminated glass, or glass panes not integrated into a window, door, cabinet, etc. Also includes incidental glass bottles, containers, etc.

## C&D

**Asphalt Paving** means bituminous concrete used in roads, driveways, parking lots, sidewalks, etc.

**Asphalt Shingles** means asphalt roofing shingles.

**Concrete/Brick/Masonry** means inert, cured concrete, cement, brick, or other form of masonry used in buildings and structures. This subtype includes ceramic tiles. Materials may be crushed or whole.

**Soil/Sand/Gravel** means soils, sand or gravel largely free of other materials.

**Insulation** means fiberglass, cellulose, plastic foam, or other similar thermal insulating materials used in buildings.

**Carpet/Padding** means floor coverings consisting of various natural or synthetic fibers bonded to some type of backing material. Padding means plastic, foam, felt, or other material used under carpet to provide insulation and padding.

**Ceiling Tiles** means ceiling panels commonly used in drop ceiling applications.

**Gypsum Wall Board** means drywall or gypsum board such as that used for constructing walls and ceilings.

**Pallets & Crates** means untreated wood assembled into pallets/skids or crates used in the transport of goods.

**Oriented Strand Board (OSB)** means a type of engineered wood, made by compressing layers of wood strands/particles with adhesives that are formed into large sheets. This category can also include high-density fiberboard or "hardboard."

**Plywood** means a type of engineered wood, made by compressing 2 or more thin layers of wood, or plies, with adhesives that are formed into large sheets.

**Other Engineered Wood** means other types of engineered wood that is not OSB or plywood, including laminate flooring, laminated support beams (laminated veneer lumber), etc.

**Clean Wood** means milled or dimensional lumber that has not been glued, painted, stained, or otherwise treated for moisture resistance. This category excludes plywoods and OSB as defined above.

**Painted/Treated Wood** means any wood derived from the construction or demolition of buildings or structures that is not "clean wood." Examples included painted trim boards, stained decking, urethane-coated flooring, pressure-treated lumber, etc.

**Other C&D** means all materials derived from the construction or demolition of buildings or structures that does not fit into another subtype. Examples include bathroom and kitchen fixtures (cabinets, sinks, etc.), window units, doors, etc.

## ORGANICS

**Yard Waste** means leaves, grass, garden debris and small brush 1 inch or less in diameter.

**Stumps & Large Brush (>1" diameter)** means stumps, tree branches and vegetative brush larger than 1 inch in diameter.

**Other organics** means organic material that cannot be put in any other type or subtype. May includes items made mostly of organic materials but combined with other materials. Examples include cork, hemp rope, hair, cigarette butts, full vacuum bags, and sawdust.

## HAZARDOUS WASTE

**Mercury-Containing Products** means mercury-containing fluorescent and compact fluorescent lamps bulbs and ballasts, thermostats that contain mercury, and any other mercury-containing products such as thermometers, and some older light and automotive switches.

**Paint** means architectural paint and primers, stains, sealers, and clear coatings (e.g. shellac and varnish) but excludes aerosols (spray cans), solvents, and products intended for industrial or non-architectural use.

**Other Hazardous Waste** means all materials typically accepted at a household hazardous waste collection event and not included in other categories. Examples include vehicle automotive fluids, medicines, poisons, corrosives, flammables, solvents and sharps.

## SPECIAL/OTHER

**CRTs** means televisions, computer monitors and other display devices that contain a Cathode Ray Tube.

**Electronics** means all types of electronic devices including non-CRT televisions or monitors, computers, computer peripherals, printers, telephones, game systems, audio-visual equipment, small kitchen or household appliances that have a power cord. Does not include white goods as defined below.

**White Goods** means large household appliances and appliances containing refrigerants. Examples include washing machines, clothes dryers, dishwashers, refrigerators, dehumidifiers, air conditioners, etc.

**Primary Batteries (non-rechargeable)** means single-use everyday batteries such as AAA, AA, C, D-cells and 9-volts.

**Wet-Cell Batteries** means rechargeable batteries containing a liquid electrolyte such as 12v lead-acid batteries used in automotive and marine applications.

**Rechargeable, Lithium Ion (Li-ion)** means dry-cell rechargeable batteries that use a lithium-based chemistry.

**Rechargeable, Other** means other dry-cell rechargeable batteries such as nickel-cadmium (NiCd), nickel-metal-hydride (NiMH).

**Products with Embedded Batteries** means items that contain non-removable batteries. Examples include electric toothbrushes, electric razors, water filters, light-up sneakers, key chain flashlights, smoke alarms or CO detectors, robotic vacuums, toys, etc.

**Mattresses** means all sizes and types of mattresses, box springs, etc. Includes innerspring, foam, and other types of mattresses.

**Furniture/Other Bulky Items** means household and commercial furniture that is not intended to be permanently affixed to a structure, or other large, hard to handle items that are not otherwise categorized. Examples include all sizes and types of wooden and upholstered furniture, bookcases, bed frames, tables, display cases, filing cabinets, etc. Does not include furniture items that are mostly metal and would otherwise be categorized under metal.

**Tires** means vehicle and equipment tires.

**Fines/Mixed Residue** includes material with a ½" particle size or smaller that is otherwise uncategorized.

**All Other Waste** means mixed MSW, general refuse that is not typically construction-related, and items that do not otherwise fit into another category.

## CERTIFICATE OF AUTHORITY

I, Walt Davenport, hereby certify that:

1. I am the Founder, President, and Member-Manager (50% owner) of MidAtlantic Solid Waste Consultants, LLC (dba MSW Consultants).

2. I participated in a formal meeting with the other Member-Manager, comprising 100% of the ownership of the company, on December 4, 2023, and it was determined that John Culbertson, Principal and Member-Manager (50% owner) is duly authorized on behalf of MidAtlantic Solid Waste Consultants, LLC to enter into contracts or agreements with the State of New Hampshire and any of its agencies or departments and further is authorized to execute any and all documents, agreements and other instruments, and any amendments, revisions, or modifications thereto, which may in his/her judgment be desirable or necessary to affect the purpose of this designation.

3. I hereby certify that said designation has not been amended or repealed and remains in full force and effect as of the date of the contract/contract amendment to which this certificate is attached. This authority **remains valid for the duration of this contract, or until such time as there is a change in the current ownership structure of the firm, whichever comes first.** I further certify that it is understood that the State of New Hampshire will rely on this certificate as evidence that the person(s) listed above currently occupy the position(s) indicated and that they have full authority to bind the limited liability company. To the extent that there are any limits on the authority of any listed individual to bind the company in contracts with the State of New Hampshire, all such limitations are expressly stated herein.

Dated: 12/4/2023

  
\_\_\_\_\_  
Signature of Officer  
Printed: Walt Davenport  
Title: President

# State of New Hampshire

## Department of State

### CERTIFICATE

I, David M. Scanlan, Secretary of State of the State of New Hampshire, do hereby certify that MIDATLANTIC SOLID WASTE CONSULTANTS, LLC is a Florida Limited Liability Company registered to transact business in New Hampshire on December 20, 2023. I further certify that all fees and documents required by the Secretary of State's office have been received and is in good standing as far as this office is concerned.

Business ID: **949728**

Certificate Number : **0006364085**



IN TESTIMONY WHEREOF,

I hereto set my hand and cause to be affixed  
the Seal of the State of New Hampshire,  
this 20th day of **December** A.D. 2023.

A handwritten signature in black ink, appearing to read "David M. Scanlan".

David M. Scanlan  
Secretary of State



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
12/05/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Alliance Insurance Group of Texas, LLC 3838 Oak Lawn Ave., Suite 1000  Dallas TX 75219		<b>CONTACT NAME:</b> Eric Eustace <b>PHONE (A/C, No, Ext):</b> (972) 452-6631 <b>E-MAIL ADDRESS:</b> eric@alliance-insgrp.com <b>FAX (A/C, No):</b>
<b>INSURED</b> Mid Atlantic Solid Waste Consultants, LLC, DBA: MSW Consulta 11875 High Tech Ave Suite 150 Orlando 32817		<b>INSURER(S) AFFORDING COVERAGE</b> <b>INSURER A:</b> StarStone Specialty Insurance Company NAIC # 44776 <b>INSURER B:</b> Accident Fund General Insurance Company 12304 <b>INSURER C:</b> StarStone National Insurance Company 25496 <b>INSURER D:</b> <b>INSURER E:</b> <b>INSURER F:</b>

**COVERAGES**                      **CERTIFICATE NUMBER:**                      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> <b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			K75208232AEM	12/04/2023	12/04/2024	EACH OCCURRENCE \$ 5,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 5,000,000 GENERAL AGGREGATE \$ 5,000,000 PRODUCTS - COMP/OP AGG \$ 5,000,000 Contractors Pollution L \$ 5,000,000
A	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY			K75208232AEM	12/04/2023	12/04/2024	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
C	<input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED      RETENTION \$ 0			80378R231ALI	12/4/0223	12/04/2024	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000
B	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	WCP 100086284 02	12/04/2023	12/04/2024	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
A	Professional Liability Coverage			K75208232AEM	12/04/2023	12/04/2024	Each Claim \$5,000,000 Policy Aggregate \$5,000,000

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**  
The Certificate Holder is an Automatic Additional Insured on the Commercial General Liability and Commercial Auto Liability when required by written contract or agreement.

This insurance is primary insurance and any other insurance maintained by the Additional Insured shall be excess only and non-contributing with this insurance.

A waiver of subrogation applies to the Commercial General Liability in favor of the Additional Insured. 30 days' notice of cancellation is included except for 10

<b>CERTIFICATE HOLDER</b> New Hampshire Department Environmental Services 29 Hazen Drive PO Box 95 Concord NH 03302-0095	<b>CANCELLATION</b> SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE <i>Eric Eustace</i>
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**NH Waste Characterization Study  
Attachment A**

**Rankings for Firms Responding to Request for Proposals**

**Written Submittal Ranking**

<b>RFP Respondent Firm</b>	<b>Selection Criteria #1 (100 Points)</b>	<b>Selection Criteria #2 (250 points)</b>	<b>Selection Criteria #3 (100 Points)</b>	<b>Selection Criteria #4 (50 Points)</b>	<b>Max Total (500 Points)</b>	<b>Rank</b>
MSW Consultants	100	240	98	37	475	1
Geosyntec	80	191	88	36	395	2
TRC	29	139	92	50	310	3

Interviews were not conducted for this solicitation

**Review Team Members**

<b>Name</b>	<b>Title</b>	<b>Bureau</b>	<b>Years of Service</b>
Michael Nork	Supervisor - MMEPS	Solid Waste Management Bureau	6
Sarah Yuhas-Kirn	Assistant Director	Waste Management Division	24
Leah McKenna	Bureau Administrator	Solid Waste Management Bureau	23
Paige Wilson	Principal Planner	Solid Waste Management Bureau	1.5