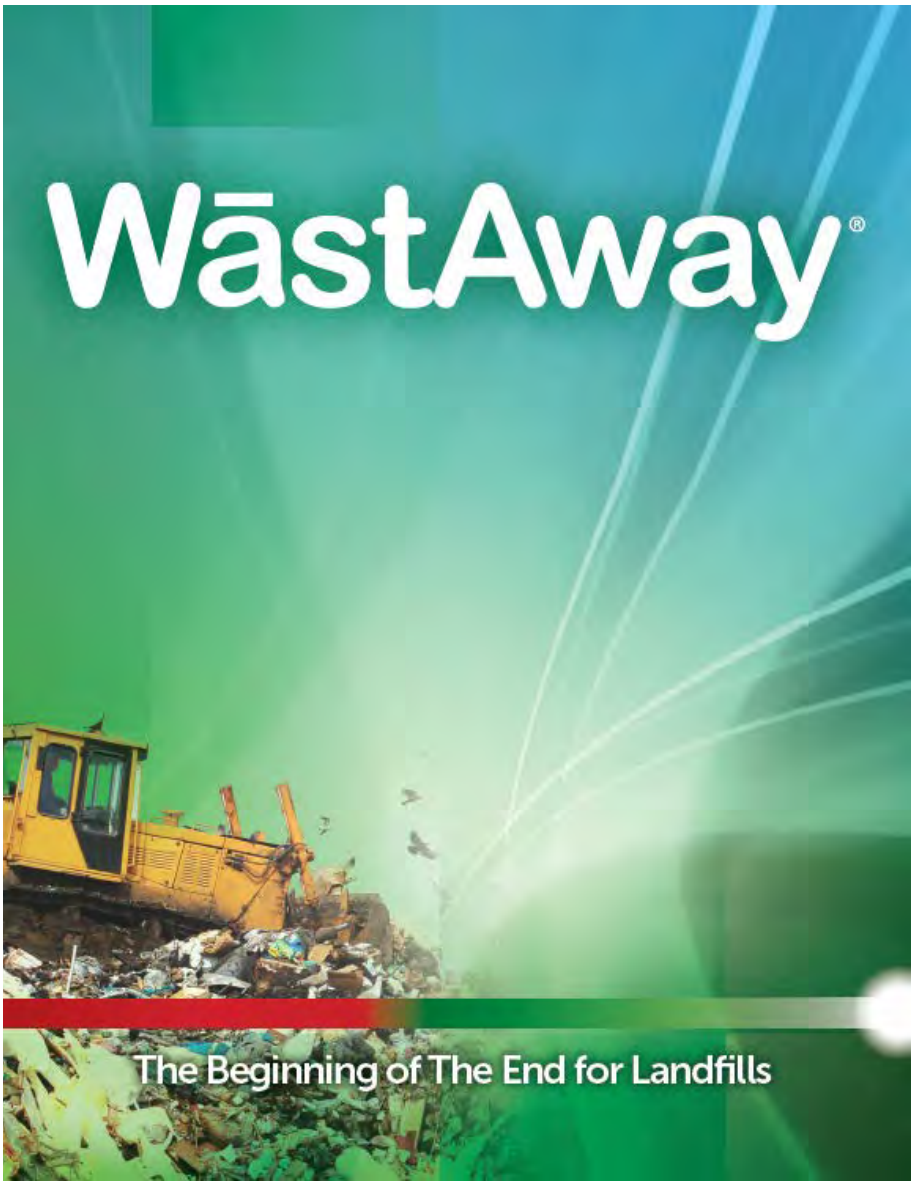


Response to Request for Proposal:

Alachua County, FL

April 27, 2022

WastAway - 195 Mt. View Industrial Drive - Morrison, Tennessee 37357

April 26, 2022

To The Alachua RFP Review Team,

Our purpose in this RFP response is to help you take full control of your MSW future, complete the recycling mission and provide a consistent and reliable source of renewable green energy for the community.

Deploying proven technology and process to achieve these primary goals will mean a concerted effort, and Alachua County will be asked to participate in a strong role. Perhaps that will entail a public-private partnership. It may take the form of providing long-term waste offtake contracts and purchase agreements for green power. Possible answers are proposed in this document.

EXECUTIVE SUMMARY:

WastAway's facilities perform many of the functions of a standard MRF (materials recovery facility) with important differences and benefits:

1. 85% of MSW that enters the facility is diverted away from a landfill
2. Recyclable materials for which there is an economically viable local market are recovered. (At a minimum, iron, aluminum and PET)
3. Glass, rocks and other inerts are removed and can be beneficially used
4. Chlorinated plastics are removed using optical sorters to avoid harmful emissions from fuel use.
5. A clean and sterile, high-BTU fuel is produced through a patented steam explosion process; the fuel has been approved by the Environmental Protection Agency as a drop-in replacement for coal or biomass
6. The system can produce compressed natural gas for use in County vehicles or sale, with important financial benefits attached to that use

Policy 1.2.5 specifies no plastics should be used as a fuel source, and we can provide a system that will get as close to that target as is now possible. In current state-of-the-art MSW processing, there are always de minimis amounts of residual plastics. As technologies improve, we can upgrade our equipment to keep our removal rate at the highest practical levels.

Please understand that we do not merely grind garbage, and we do not create traditional RDF. We manufacture a consistent, clean high energy product that is in demand from industrial plants now transitioning to a more environmentally friendly fuel.

Recycling and Zero Waste Initiatives

The WastAway process does not compete with curbside recycling, zero waste initiatives, composting or other waste reduction programs. We support all of these and recognize that source separation and reduction are top priorities. Our system is designed to process the remainder of material that is always left behind -- the black bin or other waste that is to contaminated to be responsibly processed by other means.

Food and Organic Waste:

The system allows for processing of 100% of food and organic waste. That not only significantly lowers the methane emissions from landfilling, but also solves an ongoing municipal problem of contaminated food waste that cannot be used along with wood waste to produce compost. Separate collection systems for food waste are not necessary.

Renewable Natural Gas, Compressed Natural Gas:

The organic waste will be separated and introduced into a standard anaerobic digester. Biogas generated from this waste will qualify for D3 RINs (renewable incentive numbers). The facility will contain gas clean-up equipment to produce renewable natural gas (RNG).

Since there is no natural gas on the site our proforma assumes that we will construct a 3,000 psi compression station and transport the gas, after clean-up, to an existing compressed natural gas (CNG) station. The CNG must be used for transportation fuel to receive RINs. An on-site CNG station can be developed to fuel county/city vehicles or sell fuel to the community.

Replacing Fossil Fuel:

Using WastAway fuel to replace coal or other fossil fuels currently burned by regional fuel users is a very environmentally positive step. We will share studies from some of the world's top research sources that verify using one ton of our fuel to replace coal saves 1.6 tons of carbon emissions.

Based on a Letter of Intent from Argos in Alachua County, WastAway anticipates selling 98,000 tons per year (TPY) of fuel to their combustion facility. Argos has a target of utilizing 30% alternative fuel in its kiln. The fuel from Alachua County would meet this target. WastAway fuel is approximately 9,000 BTU/lb versus coal at 14,000. 98,000 TPY of WastAway fuel would offset 63,000 TPY of coal burning. The CO2 reduction in Alachua County would be approximately 180,000 TPY based on 2.8 TPY of CO2 emissions per ton of coal combusted.

In Closing:

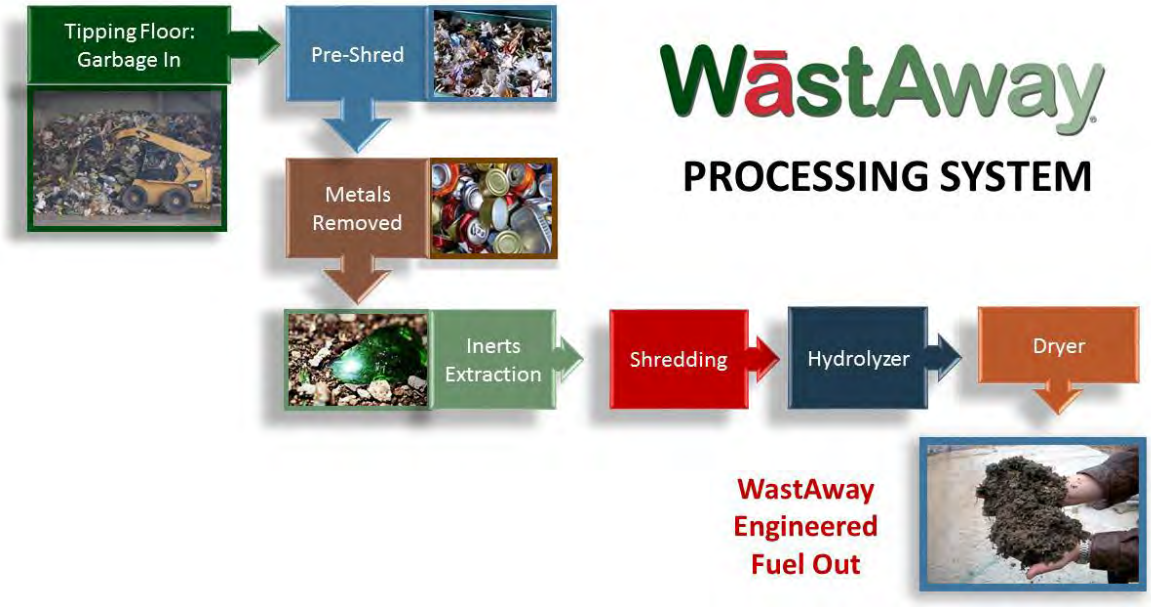
Thank you for taking the time to review this summary. We look forward to an open discussion about what our system can achieve.

Respectfully,

Mark S Brown, CEO
WastAway, LLC

WastAway Process & Technology

WastAway processing systems generally consist of the following major components as depicted in the Processing Diagram. Beneath the diagram is a description of the major components or subsystems of the overall main processing facility.



1. **Infeed-Hopper and Conveyor:** Acceptable waste will be loaded into a single Infeed Hopper which will then drop the waste onto a chain and flight conveyor which will lift the waste to a point of discharge into the Pre-shredder.

2. **Preshredder:** A twin axle shredder is used to size the Acceptable Waste material to 4-inch minus. The equipment is a low velocity device designed to efficiently size and separate the incoming waste to increase the efficiency of the various separation stages. The preshredder is based on industry standard shredding equipment with custom modifications designed by WastAway to increase efficiency and throughput while decreasing maintenance and downtime. The pre-shredder will discharge to a chain & flight conveyor lifting the waste to a reversing conveyor that will be used to split the flow of material evenly between the two process lines.

3. **Ferrous Metal Removal:** The ferrous removal process uses a series of magnets and conveyors to separate the ferrous metals from the Acceptable Waste stream. Ferrous metals removed will be conveyed to 30 cubic yards capacity roll-off containers for transport to steel recycling centers. To decrease the level of impurities in the recycled materials each item is magnetically selected at least twice prior to discharge to the ferrous conveyor.

4. **Non-Ferrous Metal Removal:** Eddy current devices are used to remove non-ferrous metals from the remaining process stream. Once again metals removed are conveyed to roll-off containers for transport to appropriate recycling centers.

5. **Inert Extraction:** This process uses a combination of air classifiers, air knives and conventional screening processes to remove glass, rocks and other inert materials from the 4-inch minus process flow. Inert materials removed will be conveyed to roll-off containers, each with 30 cubic yards capacity, for transport off-site.

6. **Primary Sizing:** This step will utilize a quad shredder to size the 4-inch minus processed waste to ¾-inch minus.

7. **Hydrolyzer:** The continuous-flow hydrolyzer uses a combination of steam and pressure to further decompose the processed waste stream. The hydrolyzer chamber uses live steam injection and a steam heated jacket to generate the required pressure and temperature for adequate processing. Once the processed waste exits the chamber, it is allowed to rapidly expand at atmospheric pressure significantly refining the size and characteristics of the processed waste material. Upon exit from the hydrolyzer, many of the characteristics of the original input have been significantly altered. WEF exiting the hydrolyzer will be homogeneous, non-putrescible and stable. Fuel value and safety is enhanced because the infection hazard common in competing refuse derived fuels is eliminated by the WastAway process.

8. **Dryer:** To optimize the pelletizing process and improve fuel value the material is dried using conventional drying technology. Because the hydrolyzer process has converted much of the interstitial moisture to surface moisture drying occurs much

Sustainable Fuel Produced

WastAway's automated technology can process Class I municipal solid waste and certain fractions of Class III waste. The system separates ferrous metals, aggregate, non-ferrous metals and fines which can be beneficially reused or sold in recycling markets. The remaining materials are converted to an eco-friendly engineered fuel which ***can displace or replace coal and other fossil fuels.***

WastAway's SE3® Fuel offers a number of environmental and economic advantages. First, by displacing coal and other fossil fuels we avoid the introduction of new fossilized carbon into the natural carbon cycle. Second, because engineered fuel is typically consumed near its source of production, we avoid greenhouse gas emissions associated with hauling fuel long distances. Finally, by diverting waste from the landfill we eliminate methane emissions which are 21 times more environmentally harmful than CO_2. According to a research study performed by Blue Source Canada, ULC ***each ton SE3® reduces greenhouse gas emissions by 1.6 tons*** according to Alberta Carbon Protocols.

SE3® Fuel is quite different from traditional refuse derived fuels (RDF) in that it doesn't stink or rot and it can be safely stored for many months prior to use. Independent lab analysis of SE3® has consistently shown that the material is safe and does not exceed EPA regulations for hazardous chemical leachate. Careful removal of inert materials from WastAway's fuel during processing results in much lower ash content for the end user than conventional RDF. Compared to conventional RDF, SE3® allows for a more stable, controlled combustion environment significantly reducing the risk of incomplete combustion and the undesirable by-products that often plague conventional RDF facilities.

The Environmental Protection Agency certified in 2019 that WastAway SE3® Fuel qualifies as a Non Hazardous Secondary Material, per 40 CFR 241 and related Federal air regulations. This means that users of the fuel are not considered to be waste incinerators nor subject to onerous regulations which that entails.

Compressed Renewable Natural Gas

Anaerobic Digestion and RNG Production. Proven Anaerobic Digestion can be used to convert the putrescible fraction of the sorted MSW into renewable natural gas. This gas can then be compressed and used as transportation fuel. Such use of the gas will qualify for D3 RINS under the EPA renewable fuels portfolio standards. This will result in approximately 200,000 SCF of RNG production from the process. In the event the community chooses not to produce any SE3®, all of the material normally destined for fuel can be diverted to anaerobic digestion. Gas conversion outputs could be studied as part of the proposed WastAway Project Study.

Proposed Functions:
MSW Processing and Green Energy Production

A Time for Decisive Action

WastAway understands that Alachua County has seeking a sustainable waste solution for years and the current leadership has decided that now is the time to take decisive action and solve this continuing problem.

Citizens have repeatedly expressed their strong desire to find sustainable alternatives to waste management and to avoid landfills which are literally ticking environmental time bombs that future generations will have to clean up.

We also recognize that the taxpayers of Alachua County want a proven solution that is both environmentally and economically sustainable.

The following proposal lays out a path for Alachua County to take full control of its MSW problem while answering the complaints of citizens who want to "Stop the Stink" and address other environmental consequences of continued landfilling. Our proposal will do so in a way that minimizes the burden on current and future taxpayers.

Landfill Diversion and Green Energy

WastAway's proposal will provide that long-term solution to processing MSW collected in Alachua County, and generate green electric power for use in the community.

Our proven technology will recycle the most valuable and marketable segments of the waste stream, and convert remaining material to a clean, safe high-energy fuel that has been approved by the Environmental Protection Agency for use in direct power production or as a drop-in replacement for coal or biomass generation facilities. The system can also produce renewable natural gas (RNG) to be compressed and used as transportation fuel in the form of compressed renewable natural gas (cRNG.)

This proposal is based on data from our experience in over 16 years of commercial MSW conversion utilizing both standard industrial processing equipment combined our own patented technologies. Our potential power generation partners are nationally recognized companies who bring decades of successful performance in converting solid fuels to a consistent and dependable source of electricity.

It is important to note that WastAway's process is specifically designed to work hand-in-hand with Alachua County's strong recycling effort and will help create a true circular economy in integrated management of the waste stream.

What We Will Offer:

1. Project size and scope

It is impossible to develop an optimal solid waste management plan without consultation with the many vested constituencies of in the County. Later in this document we will discuss the merits of a WastAway Project Study that will accomplish that goal while helping the County right-size a solution for today's and future needs of the County.

For evaluation purposes, we have prepared budgetary numbers for a 600 ton per day facility located in Alachua County, producing green energy products for use by Alachua County, accepting only waste produced in Alachua County.

Green energy outputs of the facility may include SE3® solid fuel for use in cement kilns or power plants, cRNG for use by county/city vehicles or for sale to public, or green electricity. We recognize the innovative opportunities available in collaboration with the university and our facility can also provide sorted waste streams for pilot studies of other innovative technologies.

2. Project Structure

There are three primary modes for financing and operating a facility in Alachua County.

A. Commercial, for-profit. This model represents the highest cost to the taxpayers, but can reduce financial risks to the public.

B. County owned and operated. This approach represents the lowest possible costs to the taxpayers and gives the County complete control over the future of its waste management responsibilities. This model is generally recommended for technologies with proven track records and moderate technological risks.

C. Public private partnership. In the PPP model, localities can share risks, utilize lowest cost financing, and ensure that technology partners have invested their own capital and have "skin in the game."

3. Capital Costs

Using indicative costs from other projects in which our team is currently involved, we can provide capital estimates for:

A turnkey project including buildings, technology, permitting, site development, etc. designed to nominally process 600 tons per day producing nominally 98,000 tons of SE3 fuel per year. (There is a willing party that has already proffered an LOI for the purchase of this volume of fuel which would displace coal currently being consumed in the county.) Additionally 200,000 scf of cRNG can would be produced for transportation fuel. This facility would also capture an estimated 8,000 tons per year of marketable recyclables to be sold into established local markets.

Alternative: During the course of the WastAway Project Study (WPS) described below, we can investigate the economics of converting as much material as possible to cRNG and forgo the economic and carbon benefits of replacing coal use with sustainable SE3®.

The WastAway recycling and green fuel facility would cost $55 to $65 million hard costs with approximately $16 million in engineering, financing and contingency costs. This would result in a **total project budget of approximately $75 million**.

4. Tipping Fee Ranges

Based on indicative pro forma from projects currently under development, a purely for-profit business model employing the WastAway technology would require tip fees in the range of $55 to $65 per ton. In a County owned and operated facility **tip fees in the range of $36 to $42 per ton** are possible. As previously mentioned, the PPP is a hybrid model that can result in numbers somewhere between these two proposals.

5. Investment and Financing Alternatives

While it is clear from the above numbers that the County owned and operated model provides the lowest cost to the taxpayers, sometimes localities are not positioned to provide their own financing or operation.

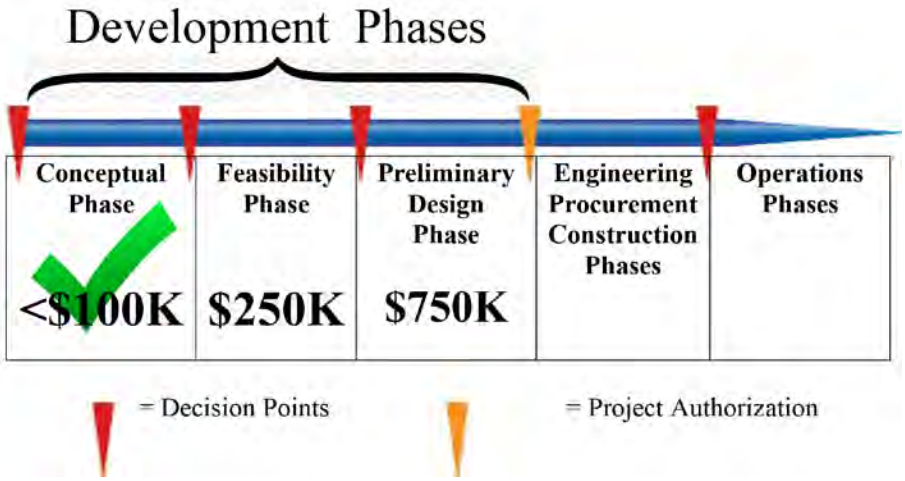
WastAway has investment partners who will provide financing for commercial for-profit options if the County elects to go this route, conditioned that the WastAway Project Study (WPS), as described on the attached proposal, demonstrates that certain investment metrics are met.

These same investment partners may share some or all the costs of the latter phases of the WPS providing the County is prepared to make certain commitments during the WPS.

6. WastAway Project Study (WPS)

When evaluating new projects WastAway uses a staged front-end project development process to minimize both community and investor risk and maximize positive project outcomes.

At the end of each phase there is a decision point where the community or investor can decide to proceed or not without incurring additional costs. The final product of the process is typically a design-basis package of information that may be used to support production of detailed engineering design documents and an economic analysis of suitable accuracy to gain full project authorization.



A full explanation of deliverables and pricing for our Alachua County WPS l is contained in the submitted Cost Proposal documents.

Benefits of the WastAway Solution

A fully implemented WastAway system coupled with dependable power generation will give Alachua County multiple benefits that include:

Control of the MSW Future. Alachua County will become independent of outside landfill availability or pricing. Our proposal will include processing current volumes and allow for increasing capacity. At the same time, WastAway's system can avoid the importation of garbage from outside sources to financially support a waste management program.

Good Neighbor Facility: Many Alachua County public officials and waste professionals have toured our operating plant near McMinnville. There are no emissions, objectionable odors or noise in our operation. We will be a good neighbor in almost any industrial or commercial setting.

Landfill Diversion. Up to 90% of municipal solid waste processed through our plant can be recycled for positive financial benefit or utilized as fuel.

Waste Disposal Cost Containment. Tipping fees comparable with regional market rates are attainable due to the system's income from sale of green energy products.

Food Waste Processing. Expense of separate collection and disposal systems for food waste will be eliminated. Our technology welcomes food waste and its inherent energy value.

Completing Recycling: Aggressive local recycling programs in America result in perhaps 30% of local materials being sorted, with unsorted and contaminated remainders entering the MSW stream. WastAway's technology will substantially increase beneficial use of those materials found in the waste stream, as well as providing options on which materials are captured to maximize financial performance.

Green Electric Power. Beyond use by schools or County facilities, industrial recruitment efforts today often hinge on the availability of green-sourced electric power. Alachua County can use this project as an incentive to lure more high-paying jobs to the community. (*Green electricity is not considered in the capital estimates provided above*.)

Positive Environmental Impact. Measurable reductions in greenhouse gas emissions, as well as shrinking the County's carbon footprint will provide national recognition as a true Green Community. This environmental narrative will ensure support for the project from all stakeholders.

Financial Feasibility: WastAway's final cost/benefit analysis and proposal will detail complete expense/revenue projections and allow Alachua County to clearly evaluate the current and future value of proceeding with the project.

Automated and Safe: There are no low-paid hand picking or sorting lines in our process. Systems are computer controlled and fully automated resulting in a high level of employee safety.

Attractive Jobs: More than 30 new jobs can be created by implementing WastAway's process and generation system. Technicians and supervisors at WastAway facilities are well paid and trained with advancement in mind.

Feedstock for R&D or pilot projects: With a leading research institution located in your community it is possible that feedstock can be provided for research or pilot scale projects using innovative technologies of the future.

Specific Economic Impact Info

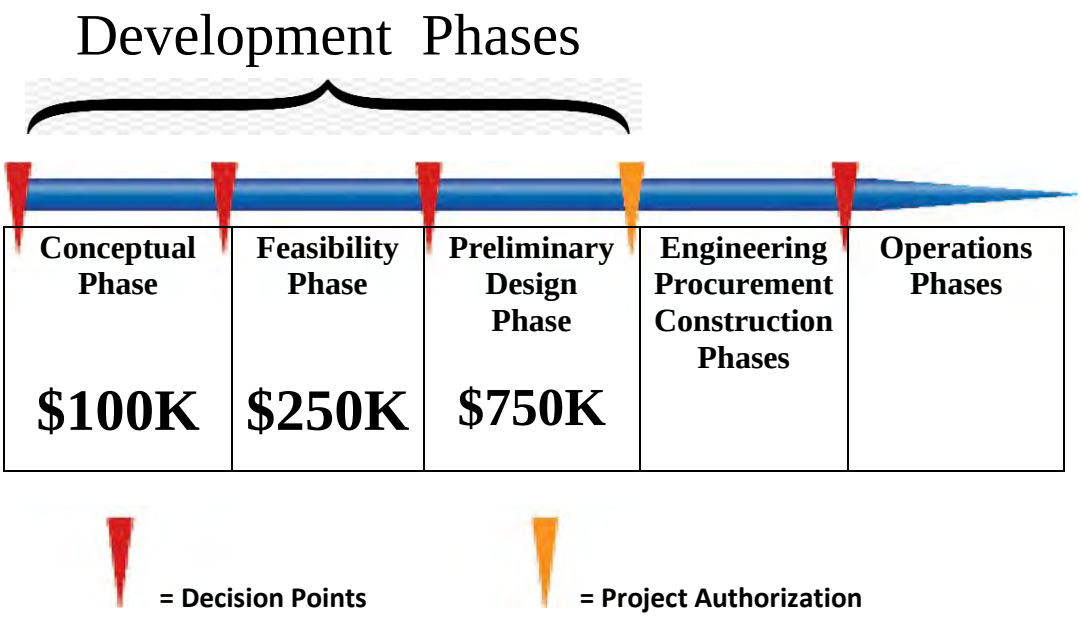
The following narrative addresses the specific questions pertaining to economic impact of the project. As noted in WastAway's Project Study (WPS) proposal attached, some processing, throughput and more general situational aspects cannot yet be determined.

A. At this stage of development it is not possible to completely determine site size, but jobs per acre will most likely be on the low end of the 7.6 jobs per acre as required by community goals and directives.
B. WastAway is committed to fairness to all persons, however situated, in hiring and employment in the facilities it owns and operates. The proposed project is expected to have hiring provisions for communities impacted by inequities such as, but not limited to, low income, women, African Americans, and LGBTQ wherever applicable.
C. WastAway, LLC is not a minority owned company but is federally recognized as a GSA contractor, HubZone Certified Business, and Small Business Enterprise.
D. Any facility operated by WastAway will meet and exceed Alachua county minimum wage requirements. The jobs created in one of our facilities are technical in nature. There are no pickers or other unskilled positions. Job descriptions would include maintenance mechanics, electronic technicians, hydraulic specialists, heavy equipment operators, etc. WastAway has established professional training materials and programs to help provide technical training to local residents to provide opportunities for job advancement and technical careers.
E. To acquire the required talent and professionalism that WastAway requires of its operators the majority of the jobs typically will have to pay above the prevailing median household income.
F. WastAway offers healthcare, retirement, and other benefit plans that support workers affected by inequities.
G. Yes, see D above. The project offers a mix of skilled and technical trade jobs. The project provides explicit opportunities for workers from communities of color and low-income communities that allow for technical training and vocational advancement.

Commitment to Community Relations and Public Education: Bringing a WastAway facility and green power generation plant to Alachua County will be a tremendous step forward in an integrated solid waste management program. Environmental benefits, from landfill diversion and recycling to renewable fuel production and green electricity, will create a system Alachua's citizens will be proud of. WastAway will design the facility with safe visitor tours (schools and other groups) in mind and provide convenient meeting and education space. WastAway will also make every effort to become an active partner in environmental activities and educational programs both in public schools and other venues.

Phase I Professional Services and Cost Proposal
Alachua County

When evaluating new projects WastAway uses a staged front-end project development process to minimize both community and investor risk and maximize positive project outcomes. At the end of each phase there is a decision point where the community or investor can decide to proceed or not without incurring additional costs. The final products of the process is typically a design-basis package of information that may be used to support production of detailed engineering design documents and an economic analysis of suitable accuracy to gain Project Authorization.



Scope of Work

The Phase I Services will be completed to assure Alachua County that the proposed facility will be configured and designed to maximize its benefits. These benefits will include:

- Developing a project that can provide reliable, feasible and acceptable municipal solid waste (MSW) management for 20 years or more
- Diverting as much as 90% of the MSW currently being landfilled
- Supplying a reliable sources of green energy for use in Alachua County

- Providing economic benefits above the cost of the facility
- Assisting Alachua County in its overall solid waste management.

A. Conceptual Phase: $100,000

The emphasis of Conceptual Phase is to determine the basic economic viability of the project before committing to the expense of more definitive engineering and study expenses. Deliverables include:

- **Determine the best inputs and outputs for a local WastAway facility:**

  The WastAway system has been described by some as a Swiss army knife for municipal solid waste. The system can accept waste from multiple sources and produce various outputs depending on the municipality's unique needs and requirements. It is also flexible and adaptable to meet not only current needs but future MSW management requirements. While we have already identified ready and willing users of SE3® produced in Alachua County, the project can be tailored to other outputs if that better fits the goals of the community.

- **Work with County to understand how SE3® works within policy 1.2.5**

  The standard WastAway system is designed to remove both recyclable plastics for which there is an economical local market and chlorinated plastics which are required to meet SE3® quality standards. Even with the best available sorting equipment there will be de minimis amounts of plastic in the solid fuel. As part of the study we will work with County regulatory agencies to determine how SE3® may work with Policy 1.2.5.

- **Optimize project size for current and future needs.**

  Work with Alachua County Public Works to insure a "right-sized" project for both current and future solid waste management requirements.

- **Demonstrate positive economic viability**

  Working with Alachua County Public Works staff, WastAway will produce financial models which demonstrate that the project is economically viable based on tip fees and green energy sales.

B. Feasibility Phase: $250,000

The Feasibility Phase will focus on better defining the physical, regulatory, and financial constraints of the project to ascertain the likelihood of developing an economically sound project. WastAway will work with Alachua County, and additional professional consultants as needed. Specific tasks will include:

- **Define Project Scope and Strategy**
  This task will be primarily to obtain input from Alachua County as to its primary goals of the project and configuration of the WastAway facility to meet these goals.

- **Seek general criteria compliance guidance from FDEP**
  Once the strategy has been established for the proposed implementation, FDEP will be approached for an unofficial opinion of the project's ability to meet the applicable regulatory requirements.

- **Develop Preliminary Plant Design and Capital Budget to achieve stated goals**
  WastAway will prepare a process flow diagram and equipment list to match the final configuration agreed to by Alachua County. This will be used to provide an estimate of capital cost, operating cost, and revenues.

- **Develop Implementation and Procurement Plan**
  Alachua County and WastAway will develop a game plan towards implementation of the project. This will include:
  - Permitting
  - Siting
  - Approval of regulatory agencies
  - Procurement
  - Financing
  - Overall Project Scope

C. Preliminary Design Phase - $750,000

The work in this phase should be of adequate detail to provide design basis information that can be used to support production of detailed engineering design documents if the County elects to proceed with the project. Level of completeness for items in this task will generally be that of 30% design documents.

- **Preliminary Process Design**. WastAway will work with County and specialized consultants as needed to develop an initial process design based on the size, scope and strategy developed in the Feasibility Phase. This will include:
  - Proposed equipment lists
  - Process flow diagrams
  - Process and Instrumentation diagrams
  - Mass Balance information

- **Preliminary Plant Design** WastAway will deliver a completed Preliminary Plant Design from Feasibility Phase to include more detailed information that could be used as the basis of design for the balance of plant. Information provided will include

- Preliminary Site plan
- General arrangement drawings
- Estimated Utility requirements

- **Formal Project Proposal.** Based on the preceding work, the WastAway will provide a final project proposal to include:
  - Scope
  - Pricing
  - Schedule
  - Financial pro forma
  - Statement of projected positive environmental impacts.
  - Additional work to performed by Alachua County or others.

Cost Summary:

WastAway is proposing to perform the above services for $1,100,000 as follows:

Task A: Conceptual Phase	$ 100,000
Task B: Feasibility Phase	$250,000
Task C: Preliminary Design	$750,000

The purpose of this Proposal is for WastAway to assist and work with Alachua County in evaluating and determining viable options for the implementation of the Project. WastAway is offering no services requiring professional certifications or licenses. WastAway does not hold itself out as being a licensed Professional Engineer in the State of Florida. To better inform its opinions, WastAway intends to hire certain experts to aid its efforts in providing the most accurate available information to Alachua County. Such experts shall be paid by WastAway as part of its work under this contract.

Please note that an addendum listing of how WastAway will approach project requirements specifically outlined for processing in the RFP is attached, although some of these will not apply to our systems.

We appreciate the opportunity to assist Alachua County in meeting the goals for solid waste management and your consideration of WastAway as part of the infrastructure to meet these goals.

Experience & Projects

WastAway's History:

WastAway is a part of Bouldin Corporation, one of the nation's largest providers of automated machinery for the nursery industry since 1959. The company's waste disposal technology was designed in conjunction with the U.S. Army Corps of Engineers, which did then and continues to look to Bouldin for specialized munitions disposal equipment.

Please refer to the company brochure in the Supporting Materials section of this document for a quick insight into WastAway's broad experience, or visit www.wastaway.com

WARREN COUNTY, TENNESSEE

Dates of Service: 2003-present

Since June of 2003 WastAway has been processing municipal solid waste (MSW) collected by Warren County, TN at this Morrison facility. The facility is operated by WastAway, LLC and recycles up to 50 tons of MSW per day into SE3© Fuel In addition to the production of fuel the facility also generates other beneficial products including recycled metals.

During its over 17 years of commercial operations the facility has garnered a host of awards, grants and recognitions for both Warren County and WastAway. The facility has been featured in numerous magazine, newspaper and television reports. In addition to commercial operations the facility is used as a proving ground for continuing research and development of the WastAway technology and as a training facility for new operators.

ISLAND OF ARUBA

Dates of Service: 2009 - 2012

In July of 2009 WastAway commissioned the first international WastAway facility in Parkientenbos, Aruba. The facility processed up to 150 tons per day of MSW representing over half of the waste collected on the island. The facility was constructed by the WastAway team and is operated by SERLIMAR a quasi-governmental agency of Aruba. The WastAway technology was selected through a competitive bid process with technical assistance provided by the Pan American Health Association. Capital funding was provided by the Fundo Desaroyo Arubano (FDA) which manages developmental aid provided by the Netherlands.

The Parkientenbos facility was phase one of a three phase plan that calls for the expansion of the facility and construction of a power plant to consume the fuel. Lack of funding and political infighting have indefinitely delayed construction of the power plant. After years of successful, continuous operation, budget cuts forced SERLIMAR to significantly reduce operations and in 2-2013 they paused operations until a suitable power plant can be built or other profitable uses of SE3© Fuel are developed on the island. In 2019 WastAway was commissioned to inspect the plant and develop a budget for reopening. The existing plant was found in very good condition and can be restarted in a short amount of time.

PROJECTS CURRENTLY IN DEVELOPMENT

Kern County, California:

Kern County has completed the phases of the WastAway Project Study and has elected to move forward with a 140,000 tpa county owned and operated facility located at the Bena Landfill. The project is currently in design and permitting and project funding has been allocated. Construction contracts are expected to issue in late summer of 2022. For further information contact Chuck Magee, Waste Management Supervisor, Kern County Public Works Department ChuckM@KernCounty.com or (661) 862-8915/ (661) 203-6574.

Murfreesboro, Tennessee:

The WastAway and the City of Murfreesboro are currently completing a Phase 1 WastAway Project Study. An LOI for purchase of project SE3® has been signed and a site has been acquired by the City. The parties are in negotiations to move directly to full design and permitting for a City owned and operated project. For further information contact Darren Gore, Assistant City Manager - Utility Enterprises, City of Murfreesboro: DGore@MurfreesboroTn.gov or 615-890-0862.

Williamson County, Tennessee:

Contracts are in negotiations for Phase 1 WPS with Williamson County. The envisioned project will provide green electricity for use by county operations and landfill leachate evaporation.

Financial Capability

WastAway's ability to obtain financing for any project is based on the actual pro forma of the project at hand, as well as the financial strength and commitment of its own shareholders.

As a privately-held company, WastAway's response regarding demonstration of sufficient ability to obtain financing or undertake a large project is that at such point Alachua County makes the decision to enter into the proposal (WastAway Project Study) included in this document, we will provide a full-disclosure generalized financing plan identifying sources and amounts of debt and equity, together with letters of support and other documentation attesting to the availability of such financing and guarantees.

If Alachua County elects to make our selection to contract for that project contingent upon quickly and satisfactorily meeting this obligation, we feel that would be reasonable.

Our Management Team

The WastAway team includes a staff of experienced project managers and technical staff with many years of experience working in waste management, technology and allied fields. Short bios of personnel that will be involved in this project are provided below:

Mark Brown
Chief Executive Officer

Mr. Brown has over 15 years of diverse experience in design, management, manufacturing and project development of solid waste conversion technologies. He manages a diverse team of highly skilled individuals in his role as the chief executive officer of both WastAway and its parent company BouldinCorp®. During his tenure at WastAway he led efforts for the finance, design, construction and commissioning of a 150 ton per day WastAway facility for the island of Aruba.

Since 1985, Mark has held executive positions in a variety of construction, automation and manufacturing companies. He has held direct responsibility for financing and development of five multi-million dollar industrial development/ construction projects, and currently serves on six corporate boards. He is a Paul Harris Fellow and recipient of the Free Enterprise Award. Mark was graduated Magna Cum Laude from Tennessee Technological University with a BS in Electrical Engineering.

David Palmer
Vice President Engineering

A civil engineer with more than 40 years of energy and environmental experience, Mr. Palmer has permitted, designed, and constructed nearly $1.8 billion in facilities that have included cogeneration, electric generation, and steam generation. His professional background includes supporting the development of waste to energy plants, alternative energy sources, management of energy production facilities, design of anaerobic digestion systems, gas and solid fuel-fired steam and electric generation, landfill gas recovery systems, gasification systems, and third party energy production facilities. He has been involved in the financial evaluation of many projects including review of technologies for investment companies, development of project financing, performing feasibility analyses for project financing and determining life-cycle cost analyses as go/no-go decision for project implementation.

He began his solid waste career in 1980 when he joined Wegman Engineers, a nationally recognized solid waste consulting firm. While at Wegman, he was Project Manager for the Palm Beach County Solid Waste Authority and Huntsville Alabama comprehensive projects. In addition, he served as technical resource on multiple WTE, recycling and landfill projects of the company. Mr. Palmer has remained involved with the solid waste industry specializing in MRF analysis and design, landfill gas and waste to energy. He recently was Senior Energy Project Manager for Tetra Tech, Inc., responsible for pyrolysis, gasification, WTE and biogas projects. Mr. Palmer has a Bachelor of Civil Engineering from Georgia Tech.

Terry Moore
Chief Business Development Officer

Mr. Moore is very familiar with all aspects of the Waste to Energy industry with over twenty years of experience, including seventeen years at the CEO level. He worked for a Fortune 500 Diversified Natural Resources company for twenty years and was responsible for several technology-based start-up companies that employed transformative technology to produce marketable materials from waste and thereby avoid landfilling. His experience was both domestic and international in scope. As CEO he held full P&L responsibility and led those company's marketing and sales efforts to increase from start up to over $20 million per year in revenue. He has a B.S. in Chemistry and Graduate work in Chemical Engineering from Auburn University and an MBA from the University of Alabama.

Mike Webb
Senior Vice President, Sales & Marketing

For six years before joining WastAway in 2017, Mr. Webb was VP Marketing for a waste-to-energy technology company headquartered in Tennessee, responsible for their complete branding and communications effort. His decades of experience in all phases of the communications industry provide him a unique perspective covering multiple sides of the business equation. After attending Virginia Tech, he was a reporter for several years and became editor of a daily newspaper. Moving to the corporate side, he served over a decade with a multi-billion-dollar bank holding company as VP Marketing. He then worked in account service and management with advertising and public relations agencies in St. Louis and Nashville for several years. In the early 2000's, he was a founding partner in his own firm, ROI Marketing, and planned and executed sales campaigns for local as well as national companies, including HCA and Home Depot

Bill Martin
General Counsel

Vice President and General Counsel of Bouldin Corporation since 2008, Mr. Martin has sixteen years of experience in U.S. domestic and international project development. Before coming to Bouldin Corp, Bill's experience was in the energy industry with emphases in resource exploration and development, commodities trading, and international law. He is a former lecturer at the U.S. National Energy Law and Policy Institute. Bill earned a B.S. in Finance from Oklahoma State University and a Juris Doctor from the University of Tulsa College of Law.

The following links are provided for additional information about WastAway and our process:

Overview Video:

https://www.youtube.com/watch?v=eTPX6xxzSyQ

E-Brochure: 90% Landfill Diversion and More

https://online.flippingbook.com/view/673267/

E-Brochure: Clean, Consistent and Sustainable Fuel

https://online.flippingbook.com/view/1039800/

Primary Website:

www.wastaway.com

Fuel Website:

www.wastawayfuel.com

WāstAway®

The Beginning of The End for Landfills

We Get The Numbers Right.

90%
Landfill Diversion

100%
Food Waste Processing

15 Years
of Commercial Operation

70%
Conversion
of Raw MSW to Fuel

Day 1
Positive
Project Financials

Millions of Tons
Reduction
in GHG and Carbon Emissions

Zero
Pathogens or Odors in High BTU Fuel Product

WāstAway®
www.wastaway.com

WāstAway®

Getting It Right

We believe that to solve our ever-growing garbage disposal problem we must end our dependence on landfills. Our technology aggressively addresses that need by converting something the world doesn't want into something the world can use.

How? Our plants bring in raw garbage and send out recyclables plus a clean, high-value solid fuel for industry and power generators. This is all accomplished in less than 30 minutes, beneficially utilizing up to 90% of the MSW we process.

This can be the beginning of the end for landfills, and deployment of a much-needed renewable and sustainable energy source.

Tennessee Headquarters In Morrison

MSW Processed For Over 15 Years

Proven Commercial Operation

In commercial operation since 2003, WastAway's plant at the company's headquarters in Tennessee has served MSW disposal needs for Warren County and other regional sources, providing a real-time research and development facility for continuous improvements in all phases of the recovery and conversion process.

Solid Markets for Fuel

The clean, consistent, high-BTU fuel produced has been:

- Thoroughly tested, and three publicly-traded power generation companies are actively pursuing fuel purchase opportunities to reduce coal consumption and lower their carbon footprints.
- Tested and approved by most North American cement producers as a proven alternative to coal.
- Approved as an environmentally-friendly alternative boiler and gasification fuel by a leading manufacturer of industrial units.

Patented Technology and Command/Control Systems

The heart of the WastAway system is a continuous-flow autoclave which is covered by multiple patents. During the process, the high-carbon material that enters is transformed into a very homogenous high-BTU solid fuel. It is clean, pathogen and odor free, stable for storage and shipping.

WastAway's command and control system provides the advanced computer technology and constant monitoring/updating controls that allow the entire plant to be operated by only four technicians. Conveyors, shredders, grinders, separators and the Hydrolizer all work in concert with variable speed drives keeping each part of the operation in phase with the others. The controls system received the prestigious Project of The Year Award from Mitsubishi International.

History Highlights:

Bouldin's spent brass deforming equipment remains in use today

- WastAway's parent company, Bouldin Corporation, has been a leader in design and construction of automated nursery equipment for over 50 years, serving agricultural machine needs worldwide from Warren County ("Nursery Capital of the World") in Middle Tennessee.
- Contracts with the U.S. Army to provide demilitarization and waste disposal equipment in the 1990's led to invention of the patented Hydrolizer and what evolved into the WastAway processing system.
- The clean fuel product has undergone extensive national laboratory as well as large industrial use testing.
- WastAway's first plant continues to operate commercially and serves as an R&D site over 15 years after initial construction.
- The larger (150 tons per day) and operationally successful Aruba installation began processing that island's garbage in 2009.
- Moving forward, the technology and process are a leading candidate for deployment as landfill siting becomes even more onerous, waste commodity markets churn unpredictably, and the need for sustainable and renewable energy sources grows each day.

Process Delivers Clean Safe Fuel 30 Minutes after Garbage Arrives

100% Raw Unsorted MSW
(and Food Waste)

Grind, Shred, Separate, Sort
Hydrolize

70% Clean Fuel
Metals for Recycling
Inert Materials

Input:

- MSW is unloaded on our tipping floor.
- Food waste is welcomed.
- We keep the garbage moving to prevent odors and deteriorization.

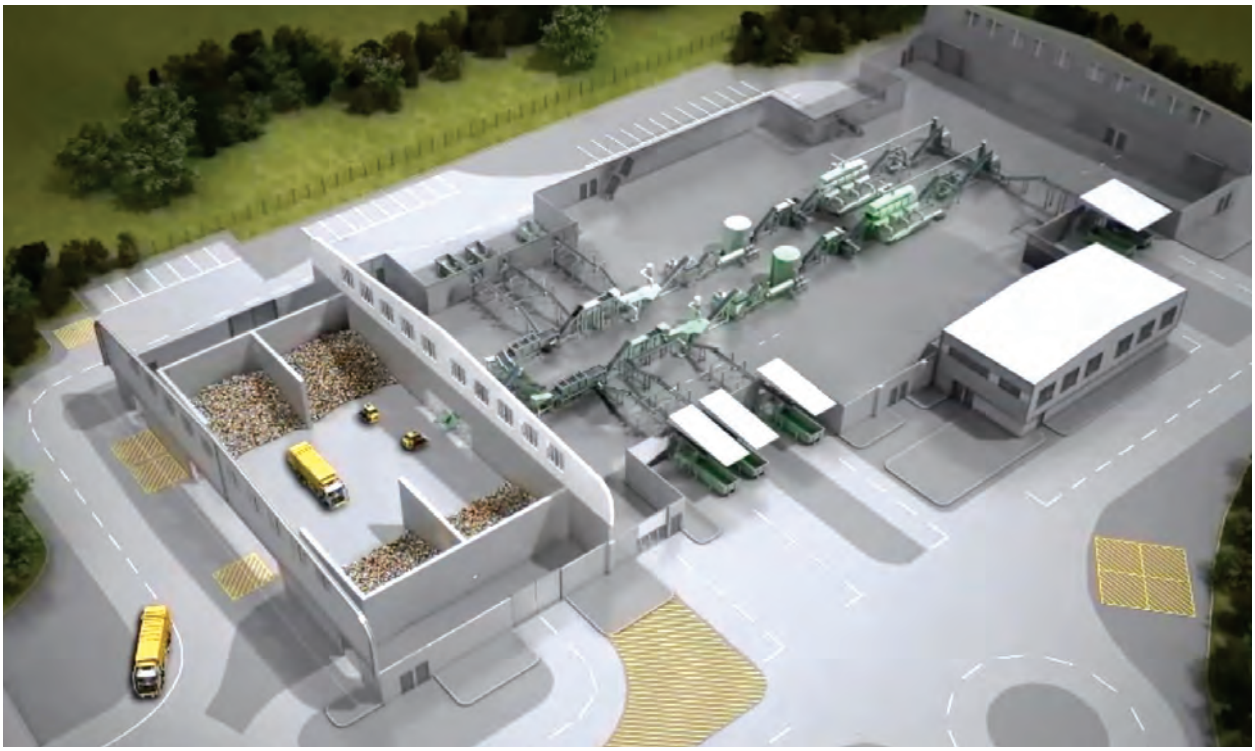
Process:

- No pick lines or sorting trommels.
- All material goes through multiple steps in computer-controlled shredding, grinding, sorting and separation equipment.
- Recyclable metals are removed. Inerts such as rock and glass are removed.
- Remaining plastics, cardboard, paper and other organics are shredded and mixed into a confetti-like material before entering the continuous-feed high pressure steam Hydrolizer.

Outputs:

- High-BTU sustainable solid fuel. Clean, consistent and ready for use.
- Ferrous and non-ferrous metals for recycling.
- Glass, rocks and other inert materials.

A standard WastAway design



Is a WastAway System the Answer for You?

Should a WastAway system become a central element in your MSW handling program? Do the numbers work in your situation?

We will help you find out with a handful of data points. Clearly, the most effective deployment involves evaluating all aspects of the equation from cost of alternative waste disposal, to monetizing a new sustainable fuel source, to placing value on enhanced long-term environmental stewardship.

Contact us. This could be
the beginning of the end for a landfill in your community, too.

WāstAway®

www.WastAway.com

195 Mt. View Industrial Drive
Morrison, TN 37357

P.O. Box 7116
McMinnville, TN 37111

800-431-9571
931-815-8520