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A Fort Worth Star-Telegram interview with Ms. Rice about the waste characterization study can be viewed at: www.tinyurl.com/RiceWasteSort

An article entitled "City of Fort Worth doing a little dumpster diving" can be read at: www.tinyurl.com/GBBFortWorth

A photo gallery of the waste sort can be seen at: www.tinyurl.com/GBBFortWorthPix

GBB Waste Outlook

GBB Assisting Cleveland with Procurement of Long-Term, Sustainable Solutions to Waste Management

The City of Cleveland Department of Public Works has issued a Request for Proposals from qualified firms interested in proposing to design, build, own and operate a Waste Reduction and Recycling (WR&R) Project. The City will evaluate the proposals and plans to finalize a selection in early September of this year. Legislation required for the project will be subject to review and approval by Cleveland City Council.

"With this RFP, we are seeking to increase our recycling rates, reduce the amount of waste going to the landfill and do so in a way that is sustainable and economically beneficial to the City and our residents," said Mayor Frank G. Jackson. "It is an effort that helps the City move forward towards our Zero Waste goals."

The RFP outlines the scope of services to include design, permitting, financing, operating and maintaining the WR&R project. The service contract in the RFP seeks to require all proposals to agree to a full 30-year term of operation with two, 10-year renewable options at the City's discretion. The successful proposer will:

- Receive waste collection from residents and commercial businesses in the City as part of Municipal Solid Waste Collection (MSW) activities. Additional MSW may be received from other communities in the region;
- Manage and process the waste received from the City's MSW collection to recover recyclables not collected in the City's curbside recycling program and possibly use other processes for organic materials;
- Produce MSW engineered fuel to be sold as a coal substitute to Cleveland Thermal a local company that supplies steam to the City, County and other downtown businesses, as a long term purchaser of the municipal solid-waste engineered fuel produced by the project; and,
- Design and operate in such a manner as to provide for public tours for educational purposes.

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Waste Characterization Study in Fort Worth

In mid-March, a GBB Project Team conducted a waste characterization study of 400 garbage and 400 recycle carts for the City of Fort Worth, TX. The study and projections will be used by the City to evaluate its Pay-as-you-Throw (PAYT) collection system and the effectiveness of its recycling education programs by accurately quantifying and characterizing the composition of the waste and recyclables streams generated by residents.



As the Field Manager, GBB Consultant II Elizabeth Rice planned and managed the study, overseeing a team of 12 temporary workers sorting the content of the carts into 25 categories over a 5-day period at the South East Landfill. The waste was sampled from collection carts randomly selected by the City in a "snapshot" waste sorting approach. The carts were received as pairs, so observations could be made about the

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Conventions & Tradeshows:

GBB will be present at the following industry events. We look forward to seeing you there!

Maryland Recycling Network / SWANA-Mid Atlantic Conference

Linthicum, MD
June 19-20, 2014

Harvey Gershman, Speaker
"The Road to Zero Waste: Alternative Technologies"
marylandrecyclingnetwork.org

Infocast's Waste to Bio: Energy, Fuels & Gas & Chemicals Summit

Chicago, IL
July 8-10, 2014

Harvey Gershman, Speaker
See article on p.4 for details
infocastinc.com

SWANA Old Dominion Chapter Conference

Wintergreen, VA
August 7-8, 2014
www.swanava.org

WASTECON

Dallas, TX
August 26-29, 2014

GBB, Exhibitor
(Booth #1439)

Harvey Gershman / Ljupka Arsova, Speakers
"Mechanical/Biological Treatment for Recovery from MSW"

John Carlton, Speaker
"Understanding Young Professionals"
"One Bin, Two Bin"

Kate Vasquez, Speaker
"Put Your Money Where Your Green Is."
wastecon.org

Visit the conference/tradeshow section of our Website for an updated list!

GBB Assisting Cleveland with Procurement of Long-Term, Sustainable Solutions to Waste Management

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"Our goal is to find a solution to provide the highest quality of services to our city," said Council President Kevin Kelley. "Council looks forward to working with the administration to find a long-term waste management solution that will create a greener city that is not only healthy for the environment, but for our residents."

The RFP is designed to work in concert with the ongoing expansion of automated waste collection and curbside recycling pickup, efforts to improve recycling habits by residents, and the city's Climate Action Plan.

The City of Cleveland entered into a professional services contract with GBB for assistance with this project. The GBB Project Team helped draft the RFP and define the proposed system, which includes: waste stream quantities and characteristics; waste collection system; existing and proposed waste reduction and recycling programs; site(s) available for a proposed system; acceptable technologies and approaches; performance standards; and, ownership options. The team will also assist the City during the procurement process, the evaluation of proposals and contract negotiations. Joining GBB for this assignment is Ohio-based GT Environmental, Inc.

This assignment follows services GBB provided to the City in early 2013, which included an evaluation of the City's previous Request for Information and Qualifications (RFIQ) and Supplemental Request for Information and Qualifications (SRIQ) for a Municipal Solid Waste to Energy Facility. GBB also provided a ranking of responses, identification, and analysis of project development opportunities, a proposed short-listing of companies for each of the project development opportunities, and a proposed public involvement plan.

Prince William County, VA Contracts with LEEP Holdings, LLC to Extend Life of Landfill

In February, the Prince William County, VA Board of Supervisors approved a Phase One Agreement with LEEP Holdings, LLC (LEEP) of Vienna, VA to develop a Waste Conversion Demonstration Project at the Prince William County Landfill. The agreement specifies the necessary detailed planning, engineering, and financing arrangements for the Project. The planning/engineering and financing work is scheduled to be completed in November 2014 at which time a final service agreement for construction and operation will be issued with implementation beginning at that time and lasting approximately 9 months.

This agreement followed a County procurement process. GBB assisted in the procurement, evaluation, and negotiation process for the County's development agreement with LEEP.

LEEP proposed to process up to 400 tons per day of mixed municipal solid waste to produce a number of valuable materials, including Balkrete Aggregate, a patented green building product; refuse-derived fuel pellets; and recovered metals. The County will provide the site and financially support the project by funding a portion of the capital costs to be paid back from project revenues. The County will pay LEEP a fee for each ton of waste processed and diverted from the County's landfill.

The Project is part of an overall goal to develop renewable energy for a future Eco-Park at the County landfill, highlighting the landfill as a resource to the community for production of renewable energy and environmental education. The County, located on the Potomac River and part of the Washington Metro Area, is the second most populous county in Virginia with over 430,000 residents. In 2013, the County's Solid Waste Division earned the Virginia Governor's Environmental Excellence Award for its Sustainability Program.

Spotlight on Camilo Restrepo – Former GBB Intern

In 1982, GBB launched its Internship Program to give participants special career advancement opportunities to acquire hands-on experience in the solid waste management industry, further their knowledge in the environmental field, and work with GBB consultants.

Camilo Restrepo is one of those former GBB interns. In 2007, he was an Environmental Research and Development Analyst at Cementos Argos S.A., in his native Colombia, where he earned a Bachelor's degree in Environmental Engineering. As a Fulbright Scholar, he moved to the U.S. to pursue a Master's Degree in Environmental Engineering at the University of Maryland and joined GBB as part of the Internship Program from May 2008 to July 2009.



Camillo and his wife Claudia with their daughter Victoria.

After completing his Master's Degree, he went back to his hometown as a Technologies and Processes Research & Development Manager at Cementos Argos, where he was promoted to Vice President Innovation in 2012. Cementos Argos S.A. is a multiregional company based in Medellin, and has been the leader in cement, ready mix, and aggregates in Colombia since 1934. It is the fifth largest cement producer in Latin American and the fourth largest concrete producer in the U.S.

On a personal note, Camilo and his wife Claudia had a little girl in the spring of 2012. While Camilo's career at Cementos Argos is progressing nicely, Claudia's jewelry business is thriving too!

Waste Characterization Study in Fort Worth

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decisions residents were making between recycling and disposal. GBB found that the composition and level of diversion varied between neighborhoods, information that the City can use in future outreach planning. A full report on the composition of the waste is being developed by Action Research, a CA-based public information firm.

Fort Worth currently recycles 22% of trash and compost with 40% as the goal. Having a better understanding of the composition of the waste and recycling stream will enable the City to adjust its programs and communication strategy to increase recycling, save money, and extend the life of the landfill.

GBB partnered with Parker Leigh Environmental, LLC, a certified Texas HUB and M/WBE firm based in the Dallas-Fort Worth Metroplex, for the waste sort. GBB has previous experience in Fort Worth that includes the planning, procurement, and negotiation of services for the City, which was one of the largest and most extensive procurements of privatized services ever undertaken by a U. S. community, and yielded substantial savings and lease/royalties for the City since these new services began operating in 2003. More recently, GBB completed a performance evaluation of the City's selected solid waste contractors.



Recent GBB Assignments

In the past few months, GBB has been selected for several new assignments, including:

- **Waste Characterization Study**
City of Fort Worth, TX
- **Ash Recovery Procurement**
Lancaster County Solid Waste Management Authority, PA
- **Solid Waste Collection Franchise Procurement**
Madera County, CA
- **Review of Collection & Recycling**
Salt Lake County, UT
- **Waste Conversion Technology Procurement**
Wicomico County, MD

We very much appreciate the opportunity to assist these clients with their needs.

Speaker's Corner

"The Use of Global Positioning Systems to Improve Landfill Performance"

In March 2014, John Carlton, GBB Sr VP, made this presentation prepared with Jim Stenborg, GBB Senior Engineer, and David Hildreth, Sr Project Manager with Civil & Environmental Consultants Inc., at the SWANA Landfill Symposium in Key West, FL. The state of GPS technologies in the market and real-world data on how GPS systems have improved landfill performance were discussed. In short, it's rocket science!

gbvinc.com/
CarltonSWANALandfill2014

Harvey Gershman Sharing WTE Insight at Infocast's July Summit in Chicago

Infocast's Waste to Bio: Energy, Fuels, Gas & Chemicals Summit, taking place July 8-10 in Chicago, is the gathering place for waste service companies, feedstock suppliers, conversion technology companies and project developers to meet and network with financiers, municipalities, off-takers and Engineering, Procurement and Construction contractors.

The event will bring together key waste conversion players to develop the path towards tackling the complexities of developing and financing the next generation of waste conversion projects.

The Summit will also be the place to learn how the latest federal and state policy incentives are impacting the waste conversion market.

Harvey Gershman will be a key contributor with 3 presentations during the event:

- "Today's Project Finance Markets for Waste to Energy Projects"
- "Counties, Municipalities & Off-Takers Perspectives on Waste Conversion Projects"
- "Waste-to-Energy Tech Update"

Visit the Summit's website to register and for more information about the event:

www.infocastinc.com/events/waste-to-bio



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Renewable Energy from Waste Conference Brings Together Key Industry Players

The inaugural Renewable Energy from Waste Conference was held in November 2013 in West Palm Beach, FL, and the co-organizers – Recycling Today Media Group, Renewable Energy from Waste Magazine, Smithers Apex, and GBB – are hard at work preparing this year's event, which will take place November 17-20 in San Jose.

On November 17, attendees will have the option to register, with a separate fee, for a unique and interesting 4-hour workshop on Mechanical-Biological Treatment (MBT) led by Dr. Matthias Kuehle-Weidemeier, who has directed various MBT projects in Australia, Croatia, Finland, France, Great Britain, Japan, and Germany, and is the organizer of four conferences, including the Waste-to-Resources - International Symposium MBT & MRF, which is the world's largest conference on MBT and MRF with sensor-based sorting technology.



Dr. Kuehle-Weidemeier

The comprehensive and market-driven conference is dedicated to the production of renewable energy and resources from waste materials. The two-day event in 2013 turned out to be an overwhelming success, establishing itself as the premier event for the rapidly developing and dynamic waste conversion industry, with great content in an ideal environment for more than 200 key industry players to learn, network, and exchange ideas.

The 2014 Conference will bring together those operating a wide range of waste conversion technologies, including gasification, anaerobic digestion, refuse-derived fuel, and plastics to oil to discuss everything from the economics of waste conversion, operational advice, and case studies to the legislative climate for conversion technologies. This year's conference and exhibition will also include two full days of plenary sessions and leadership roundtables providing key insights into renewable waste financials, market trends and opportunities, and technology developments, plus multiple B2B networking opportunities and exhibition time. Attendees will also experience highly interactive panel discussions on understanding the economics of waste conversion; preparing feedstock for refuse derived fuel; and the legislative outlook for conversion technologies.



The diverse program will be enhanced by tours of San Jose's world-class waste processing and conversion facilities, The Newby Island Resource Recovery Park and Zero Waste Energy Development Co.

GBB is proud to be associated with this event, and we look forward to seeing you there. Visit www.rewconference.com for registration and more information. The 2013 opening and closing presentations can also be downloaded:

- "Update on Renewable Energy From Waste Technologies" www.gbbinc.com/GershmanREW2013
- "Closing Comments for Renewable Energy from Waste Conference" www.gbbinc.com/GershmanREWClosing2013