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The Newsletter of the SWANA Florida Sunshine Chapter Summer 2019

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Letter from the President

August 2019

First of all, thank you for selecting me for the current term for SWANA Florida Chapter President. I look forward to the upcoming term and the challenges and opportunities ahead. The Florida Chapter is the largest single chapter in SWANA and it is my hope that we can lead by example for the rest of the association.

Speaking of leading, or should I say leading off…the recent Summer Conference event was one of, if not the biggest single event we have presented as a chapter. Many of the comments I and others on the Board received was that the location and venue were excellent but more importantly that the agenda had a little something for everyone and that the presentations met expectations. The Programs Committee is scouring over the surveys and feedback to create new ways to keep this momentum.

Part of what drives the organization is our committees and the information they bring to the organization through articles and conference presentations. Do you want to get more involved in SWANA and be one of the Florida's thought leaders? Is there a certain part of the industry with which you can best contribute? Joining a committee is a simple as that, raise your hand. Our committees are always looking for new energy and ideas. Contact me for more information on how to get involved.

If you've picked up on anything, is a focus on value. Value from collaborating with colleagues, value from trainings (we still have webinars available), and value from information. The industry evolves, some change happens quickly which is certainly true during the legislative session (we have a legislative committee as well, just saying…). My goal over the next two years is to maintain and improve the value that members receive from their membership but I need your help to get there. Join a committee, write an article, share your good news, but most of all, stay involved as we can't achieve these goals without you the members.

I hope everyone stays safe through the remainder of the hurricane season and I look forward to meeting those I don't' know and reconnecting with those I do over the next two years. If you have any comments, suggestions or questions, feel free to reach out to me at keith.howard@hdrinc.com.

Sincerely,

Keith Howard
SWANA FL Chapter President

In This Issue

Landfill Leachate Removal Pumps – Submersible vs. Self-Priming Pumps

Ali Khatami, Ph.D., P.E.,
SCS Engineers

Self-priming pumps can provide excellent performance in the design of a landfill leachate removal system. Landfill owners and operators prefer them to help control construction and maintenance costs too.

A typical system for removing leachate from landfill disposal cells is to have a collection point (sump) inside the lined area of the disposal cell at the toe of the landfill perimeter berm slope with large riser pipes extended from the top of the berm to the bottom of the sump. Removal of leachate from the sump takes place by placing specialized submersible pumps inside the large riser pipes with electric controls for ON-OFF switches inside the control panel of the pumps located at the top of the landfill perimeter berm. The pumps are equipped with wheels that roll down the riser pipe and are positioned in the horizontal portion of the riser pipe at the bottom of the sump. The discharge line from the pump extends up through the riser pipe, and after exiting the riser pipe at the top of the berm, connects to a leachate force main in the perimeter berm. Leachate in the sump flows into the riser pipe through perforations in the riser pipe and reaches the intake of the submersible pump for removal from the sump.

Maintenance of such submersible pumps is not easy; the entire pump assembly including the power cable connected to the pump, level control leads, discharge line, and the pump is taken out of the riser pipe to have access to the pump. Normally, the entire pump assembly is soiled with leachate and slime sticking to the pipes, lines, and the pump while submerged in leachate. The discharge line could be a 2-inch diameter solid HDPE pipe long enough to reach the sump bottom from the top of the perimeter berm. Depending on the depth of the landfill from the top of the perimeter berm, the discharge lines could be long; which means the technician has to handle extraction of a long and heavy pipe connected to a heavy pump at the lower end of the pipe, out of the rise pipe.

Figure 1 - Leachate removal station with risers and submersible pumps inside risers.

Technicians handling maintenance of the submersible leachate pumps must be well trained about safety aspects of the activities involved in the maintenance of such pumps. The structure located at the top of the berm, where the riser pipes and leachate piping are located, should be water tight to prevent liquids generated during maintenance activities from escaping into the berm structure and entering the environment. It is a safe practice to have more than one technician attempting to remove a submersible pump for maintenance purposes.

For landfills with depth to the bottom of the disposal cell less than the water column vacuum pressure (for practical purposes less than 15 ft.), self-priming pumps may be a feasible replacement for specialized submersible pumps. Self-priming pumps are not specialized pumps, come in all sizes, are much less expensive than the submersible pumps, and can easily be installed inside the structure at the top of the perimeter berm with a 2-inch line extended to the bottom of the riser pipe for leachate removal. Maintenance of such pumps is significantly less cumbersome than submersible pumps, with one technician able to handle replacement or maintenance of the pump in a much shorter period than that of a submersible pump. The work is not necessarily a dirty job where the technician has to handle a significant amount of leachate and slime. For maintenance of the pump, the 2-inch diameter pipe inside the riser pipe for removal of leachate does not need to be extracted.

The self-priming pumps are normally designed to prime easily after each maintenance session. A check valve on the intake of the pump and a check valve near the bottom of the leachate removal pipe prevent liquid inside the pump and the removal pipe from flowing back down to the sump when the pump goes OFF, which prevents

Figure 2 - Leachate removal station with self-priming pumps at the top of the perimeter berm.

the need for priming the pump on the next ON cycle. The leachate level control can be a bubbler system installed inside the pump control panel with the air hosing extended to the bottom of the riser pipe. The initial setting of the bubbler system allows to control ON and OFF levels of the pump.

Self-priming pumps could also be used for double lining systems equipped with a secondary sump and a primary sump. A secondary pump removes liquids from the secondary sump and a primary pump removes leachate from the primary sump. In areas where freezing conditions during wintertime are expected, self-priming pumps can also be used as long as the pumps and exposed piping are located inside an enclosed housing to prevent frost.

Figure 1 shows the setup of the riser pipes inside a concrete structure at the top of the perimeter berm with submersible pumps located inside the risers. Figure 2 shows self-priming pumps located inside the concrete structure at the top of the perimeter berm.

The author has used self-priming pumps in his designs, where applicable, for over the past 20 years and has experienced very satisfactory performance results from the pumps, even those included in very large pumping networks. Testimonials from his clients regarding ease of maintenance and lesser capital cost for construction of the system is a good track record for a sound system to be used in the future.

Ali Khatami, Ph.D., P.E. is Vice President of SCS Engineers and a National Expert for Landfill Design and Construction Quality Assurance. He can be reached at akhatami@scsengineers.com.

What's the Use of Doing Solid Waste Rate Analysis?

Marc J. Rogoff, Ph.D. and Laurel C. Ureña, M.S.

Solid waste agencies are under more pressure these days to provide high-quality waste collection, facility enhancements and landfill operation services. Those pressures, coupled with the pressures from ratepayers and local government "lean and mean" initiatives to keep rates and expenses low, have many solid waste agencies struggling to balance the budget. Balancing real cost escalation factors such as rising fuel, material and labor costs against the push for keeping static rates is challenging. Further, full cost accounting is difficult because agencies oftentimes support activities not directly related to normal operations or provide "free services" such as street sweeping or free collection and disposal for community events (i.e. fairs, farmers markets, runs for charity, art shows). Allocating shared costs across agencies is complicated and many times inaccurate adding to the agency's overhead.

Benchmarking

A useful screening tool to quickly assess where an agency's fees stand relative to other comparable solid waste agencies is benchmarking. Benchmarking, or the establishment of a representative standard operational metric such as cost of service, establishes an industry "comparable," much similar to the comparables used in real estate appraisals. Similar solid waste agencies are identified, reviewed and organized in order to compare among one another for a particular metric of concern, whether operational costs, levels of service or costs of service. While useful, the scarcity of reliable data available to benchmark solid waste management operations can inhibit timely comparisons among solid waste systems. Benchmarking rates or service fees for collection and disposal is challenging, but not impossible using financial tools now considered critical to focus on an agency's primary policy and management issues. These tools are the basis for budgeting, cost accounting, financial monitoring and evaluation aiming at recovering sufficient money to cover recurrent operational expenditures of the agency's services, accounting for rising consumer price index, as well as stocking up capital for new investments or large maintenance. We will use illustrations from recent case studies to introduce some of these tools.

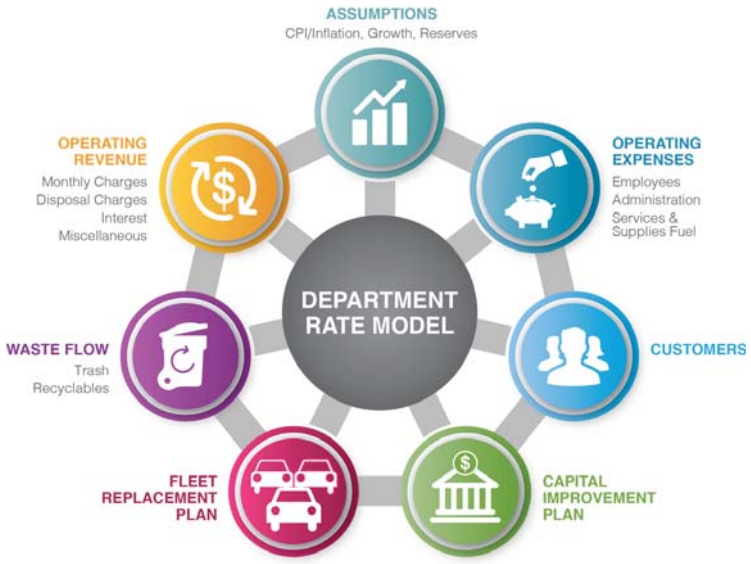

Figure 1 - Example of a Pro Forma Model used to project cash flow.

Pro Forma Model

A Pro Forma Model is a financial tool crafted from the market dynamics that influence the lifecycle of a specific project, cost center or program (see Figure 1). In the solid waste business, every project is unique, and the design of the pro forma financial model should reflect these differences. To accommodate the various types of business models needed to analyze the feasibility of recycling projects, we have developed different types of pro forma models that allow the client to tailor the financial statements to the particular project. Thus, each agency receives models that are specifically tailored to their unique solid waste operations and that have the maximum flexibility to model multiple scenarios of facility size, energy production/co-generation, site locations, and changes in operations.

For example, we have had clients desiring to evaluate the feasibility of a single-stream recycling program with multiple cart sizes, evaluate alternative landfill cover systems, and collection equipment, and whether a change from manual to automated collection made long-term economic sense. Another client, a private waste hauler, wanted to evaluate the business case for implementation of a leachate evaporator. Cost of leachate disposal was increasing, and the client needed to make a business case for the project. In each of these cases, a pro forma model was developed to help quantify the capital and operating costs for the proposed facilities or programs and then compare these long-term costs against current programs. The results from these modeling efforts enabled the clients

to quantify the payback, or return, to their agency. The use of financial tools to evaluate the agency's cost of service is another important area where pro forma modeling is used. Such cost of service studies evaluates the financial aspects of solid waste management programs and remain critical for ensuring sustainability of the agency. In short, these studies show how an agency determines the means to fill the gap between cost and revenues, alert authorities to options of how financial sustainability can be improved, recommend if a rate increase is necessary, and determine if privatizing some services is a reasonable option.

A Full Understanding of Costs

The lack of specific financial monitoring and analysis of data is one of the major barriers for not being able to sustain any envisioned improvement of an agency system. This concerns budgeting, cost accounting, financial monitoring and evaluation aiming at recovering sufficient money to cover recurrent operational expenditures of the collection service as well as to stock up capital for new investments or large maintenance. Without accounting for these factors, many agencies do not know the actual cost of providing specific services. Before strategic decisions are made, an important step is to establish a full understanding of the historical or current costs for provision of the services and the respective revenues. The studies serve to project financial sustainability in the short-term as well as long-term.

The growing national trend toward privatization of government-provided services demonstrates that the public sector solid waste agencies must operate efficiently and cost-effectively if they wish to continue providing these services to their citizens and stakeholders. Municipal governmental agencies must optimize the performance of their service utilities to ensure that costs are contained, while at the same time, service levels and customer satisfaction remain high. In fact, it is necessary for public agencies to think and act like the private sector service providers and spearhead efficiency gains and identify cost reduction measures to reduce operating costs while improving customer satisfaction.

Case Study: City of Wauchula, Florida

An example of the benefit of a solid waste rate study is illustrated by one of our recent projects. Earlier this year, our team was selected by the City of Wauchula (City), FL to conduct a solid waste rate study. At the outset of the work effort, Geosyntec developed a Microsoft Excel™ spreadsheet-based, pro forma model (Model) to assist in the completion of the rate analysis. This model includes the following facets:

- An analysis of operational expenditures (personnel, contract and purchased services, materials and supplies, transfers).
- Analysis of capital outlays (equipment replacement and capital projects).
- Revenue sufficiency analysis (annual revenue projections and rate plan to provide sufficient revenues).
- Funds analysis (reserve requirements, transfers to general fund, administrative costs, beginning and ending fund balances).

Based on data and information provided by the City, these individual spreadsheets were linked to develop an overall model to conduct the rate and assessment analysis. The City currently offers municipal solid waste collection and disposal services to its stakeholders. In order to account for increasing costs, the City currently increases its fee by 3% each year. At the end of 2018, the City upgraded its solid waste collection system to automated collection, but it currently has no fleet replacement reserves in place.

After considering the City's unique solid waste operational circumstances, five different model scenarios for fiscal years (FY) 2019 to 2023 were developed for analysis of possible customer rate impacts and revenue/expense shortfalls over the five-year planning horizon:

1. *Scenario 1*—Discontinuing Annual 3% Customer Rate Adjustment
2. *Scenario 2*—Continuing Annual 3% Customer Rate Adjustment
3. *Scenario 3*—Fund Needed Fleet Replacement Reserve with No Annual Customer Rate Adjustment
4. *Scenario 4*—Fund Needed Fleet Replacement Reserve with Annual 3% Customer Rate Adjustment
5. *Scenario 5*—Fund Needed Fleet Replacement Reserve with Annual 4% Customer Rate Adjustment

In addition to the multiple scenarios examined in the pro forma model, rate benchmarking was performed by comparing solid waste collection rates for selected similar-sized cities in Florida. Our findings and recommendations are currently under consideration by the City Council.

Lessons Learned

Financial analysis is an increasingly important issue in solid waste decision making. In an era where the mantra of "doing more with less" is on the lips of most political decision-makers, it is critical to assess the financial performance of operating and proposed solid waste programs. We have found that rate modeling is a useful analytical item in a solid waste manager's tool box.

Marc J. Rogoff, Ph.D. is a Senior Consultant with Geosyntec Consultants and is a member of the firm's solid waste advisory practice. He can be reached at (813) 810-5547 or e-mail mrogoff@geosyntec.com.

Laurel C. Ureña, M.S. is an environmental consultant active in the solid waste industry and is founder and CEO of Montani Semper Liberi, LLC, providing support on projects located through the nation. She can be reached at (813) 459-5510.

Geosyntec consultants

Uncertain Times… Tough Decisions for Solid Waste Agencies

There Are Opportunities for Smart Technologies, Cost Optimization, and Improved Customer Service

Issues

- Significant new and ongoing regulatory issues
- Higher labor, energy, fuel, equipment, and insurance costs
- Uncertain and changing market for recyclables
- Political pressure to do more with less
- Perception that private sector can provide better service at reduced cost and with less governmental risk
- Increasingly-engaged public calling for more recycling and implementation of zero waste goals

Challenges

- Numerous competing priorities
- Effective change requires comprehensive evaluation of current organizational, financial, and operational activities
- Public and elected officials may lack knowledge of costs, risks, or sustainability of implementing new programs
- Well-intentioned new activities can have unintended consequences upon existing systems and finances

No matter what pressures your organization is facing, becoming more efficient in every facet of your operation - from collection routing, solid waste and recyclables collection, manpower allocation, vehicle maintenance, billing, to better use of municipal resources - improves operational and financial performance.

How Can Geosyntec Help?

Our team of solid waste advisors includes seasoned experts that can help with:

- Rates Structure and Level of Service Analysis
- Long-Term Planning and Optimization
- Annual Budgeting and Financial Modeling
- Closure/Post-Closure Accounting (GASB #18) and Financial Assurance
- Review of Franchise Agreements and Fee Reimbursements
- Leasing or Purchasing Equipment
- Bidding Out Municipal Operations
- Collection Routing Assessment Studies
- Recycling Markets
- Emerging Waste Conversion Technologies such as Composting, Anaerobic Digestion, and Gasification
- Grant Application Assistance
- Public Outreach, Engagement, and Education Programs
- Communications Materials and Infographics

We offer unrivaled expertise in objectively reviewing, analyzing, and measuring operational outcomes and key performance indicators and comparing them to industry benchmarks using custom models.

For More Information, Contact:

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Successful SWANA FL Summer Conference Sailed into Tampa Bay

By Marissa Segundo, RRS and SWANA Communications Committee Chair

SWANA Florida saw record-breaking attendance at this year's SWANA FL Summer Conference. More than 260 attendees *Connected 4 Success* at the Grand Hyatt in Tampa on July 28 – 30. The event kicked off with the annual business meeting honoring outgoing and incoming board members. The largest SWANA chapter touted past success and future initiatives.

A packed first-day agenda featured best practices in safety with real-life 'what not to do' videos, master planning and hurricane recovery. Groups split up for a Technical Tour of Coca-Cola Beverages in Tampa and a standing-room-only session on Waste-to-Energy challenges and beneficial reuse of ash. The day was rounded off with a fun-filled reception complete with over-sized Jenga™ and Connect Four™, music and dancing sponsored by AutoCar.

The second day focused on technology with solutions for landfill operating, GIS applications and Asset Management for operation. This was followed by a panel discussion on curbside recycling in Florida and a communications session focused on measurable recycling campaigns. After lunch, The Hinkley Center enlightened attendees about phytoremediation for landfill leachate and solid/hazardous waste management courtesy of Florida Atlantic University. The event wrapped up with equipment issues and Florida's Legislative look at the past and future on recycling and solid waste regulations.

Conferences provide a unique opportunity to meet with fellow SWANA FL members face-to-face. If you missed it, presentations are posted on SWANFL.org and a video wrap-up is posted on Facebook @SWANAFL.

Curbing the Flow of Plastic Waste Across the Planet

Ramon Rivera

Following concerns that poor villages in developing countries such as Thailand, Indonesia and Malaysia are rapidly turning into dumpsites, the United Nations recently announced that almost all countries across the world have agreed to restrict the shipment of non-recyclable plastic waste to poorer nations. The U.S., which reportedly opposed the deal, was a glaring exception.

Currently, countries can ship low-quality plastic waste to private companies in developing nations without seeking approval from the governments of these countries. With the new rules, which come into force in a year's time, all countries—including the U.S.—that export their plastic waste will first have to get permission from the governments of countries receiving plastic waste that is difficult or not possible to recycle (including mixed, contaminated and/or unrecyclable plastics).

Previously, most of this plastic waste ended up in China. However, since China has recently stopped accepting plastic waste from the U.S., environmental activists have seen a surge in plastic waste accumulating in developing countries. According to the Global Alliance for Incinerator Alternatives (Gaia), that backed the deal, villages in Asian countries such as Thailand, Indonesia, and Malaysia have literally "turned into dumpsites over the course of a year."

"We were finding that there was waste from the US that was just piled up in villages throughout these countries that had once been primarily agricultural communities," Claire Arkin, a spokeswoman for Gaia, told *The Guardian*.

187 countries unite to stop the flow of non-recyclable plastic waste into developing nations.

The legally binding framework signed by 187 countries in Geneva, Switzerland, was formulated after a two-week meeting of several UN-backed conventions held to discuss issues surrounding plastic waste and toxic chemicals that are threatening the health of our oceans and its creatures, as well as human health. The agreement serves as an amendment to the Basel convention, which has set out rules for first-world countries exporting hazardous waste to poorer nations. However, because the U.S. is not party to the Basel convention, it was not able to vote. But delegates attending the meeting reported that the U.S. (the largest exporter of plastic waste globally), together with the American Chemistry Council (a lobby group representing the petrochemical industry) and the Institute of Scrap Recycling Industries (a business association consisting largely of waste brokers), opposed the change, arguing that officials failed to recognize the repercussions this would have on the plastic waste trading market.

Plastic Waste Threatens Environmental and Human Health

Plastic debris is a huge problem both on land and in our oceans. It litters pristine land environments and floats en-masse across the world's oceans, entangling and endangering all forms of wildlife from minute plankton to the largest whales, which are increasingly washing up dead on shores all around the world with stomachs full of plastic. Thankfully, due to public awareness campaigns and educational documentaries produced by David Attenborough and others, public awareness has grown substantially, and with it, a increasing call to end the surge of plastic waste entering our oceans. Delegates who supported the amendment believe that the new changes "will make the global trade in plastic waste more transparent and better regulated," protecting people and the planet.

Plastic that is difficult to recycle, and therefore has less value, will more than likely end up being discarded

rather than recycled or repurposed. The new deal will affect plastic products used in a wide range of industries from the healthcare, fashion, and food and beverage industries, to technology and even the aerospace industry.

According to Rolph Payet from the United Nations Environment Program, the agreement, which saw 1,400 delegates negotiating over the course of 11 days, is "historic" and has gone much further than anticipated, as countries will now have to monitor where their plastic waste goes once it leaves their borders. Payet said plastic pollution had grown to "epidemic" proportions, with "an estimated 100m tonnes of plastic [110m US tons] now found in the oceans, 80 to 90% of which comes from land-based sources."

According to the Plastic Pollution Coalition, as the U.S. is not a party to the Basel Convention, it will be banned from trading plastic waste with developing countries that are Basel Parties but not part of the Organization for Economic Cooperation and Development. "We have taken a major first step to stem the tide of plastic waste now flowing from the rich developed countries to developing countries in Africa and Asia, all in the name of "recycling," but causing massive and harmful pollution, both on land and in the sea," said Jim Puckett, Executive Director, Basel Action Network (BAN). "A true circular economy was never meant to circulate pollution around the globe. It can only be achieved by eliminating negative externalities and not just pushing them off to developing countries."

According to Marco Lambertini, director general of WWF International, the new deal is a welcome step as wealthy nations have been abdicating their responsibility for the huge quantities of plastic waste they generate for too long. "However, it only goes part of the way, said Lambertini. "What we—and the planet—need is a comprehensive treaty to tackle the global plastic crisis."

Ramon (Ray) Rivera is CEO of Diamond Scientific (Cocoa, FL). He can be reached at (321) 223-7500 or e-mail info@diamondsci.com.

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SWANA Technical Divisions

If you have an interest in the national solid waste scene, SWANA has Technical Divisions that are active and are the source of much of the information we receive about national programs, regulations and innovations. Go to www.SWANA.org for more information.

Field Experiences: My Day on a Bulky Trash Route

Michael Fernandez

I was recently promoted to Director of the Miami-Dade County Department of Solid Waste Management (DSWM), with more than 1,000 employees, a budget of approximately $500 million, a customer base of 353,000 households and a collection and disposal system that includes multiple landfills, transfer stations and the largest publicly held waste-to-energy facility in the country. DSWM manages approximately 1.8 million tons per year.

The collections operation picks up residential garbage twice per week, using more than 150 residential routes.

Loving my job! Getting it Done!

Not only do we collect curbside garbage, but we also collect bulky waste. The Bulky Waste operation collects more than 80,000 piles a year, with approximately 35 crews, using anywhere from 70 to 105 grapple and trash trucks on the road each day. Crews use a combination of self-loading grapple trucks or cranes with trash trucks. After recently hitting the road with an automated side loader garbage route, I thought it was time to jump on a self-loading grapple truck.

Hitting the Road

It was Thursday morning, about 7 a.m. I entered the office and found my crew that was made up of a Trash Crane Operator, Trash Truck Driver and a Waste Attendant. Jerry Thomas, who had driven a tractor trailer for me in the Transfer Division, was the Trash Crane Operator. Ulysses Johnson was the Trash Truck Driver and Colson Ladouceur was the Waste Attendant. After conducting their pre-trip inspection, the crew and I headed out from the yard. We arrived at our first stop where we collected about 25 cubic yards. Jerry began using his new tablet to document a few buckets of paint that were underneath the pile. He raved about the tablet where scheduled and route work orders can be accessed in the field. Once Jerry closed the work order in real time using the tablet, the customer received notification that the pile had been collected. We are currently working on expanding customer notifications. For instance, it would be great to notify our customers about items that cannot be collected, such as those buckets of paint.

Getting Involved

A few piles later, it was time for me to take over the controls. I drove to the next pile and began collecting the trash. At first, I was a little rusty using the hydraulic levers, but thanks to Jerry, I started getting the hang of it. We cleaned up the pile and left the site looking as though the trash pile never existed. I was really proud of my Bulky Crew. They worked as a team! Ulysses and Colson were directing traffic and raking loose debris, while Jerry was guiding me on the pile. Soon after picking up 70 cubic yards, we headed to dump our load. I drove up to the scale house at our Northeast Transfer Station where the scale operator waved at me. We proceeded to the tipping floor. After dumping our load, we stopped for lunch. We enjoyed lunch together and had a great discussion that included many great ideas from the crew.

Bulky waste crew delivering excellence!

After lunch, we headed back on the route to collect another 70 cubic yards. After our second load, we began wrapping things up around 4:30 pm. I proceeded back to the yard and received the same greeting from everyone just like the time I drove on the garbage route. Everyone was happy to see me driving in a grapple truck and accompanying the trash crew.

I was very appreciative of everyone's hard work. One tends to forget how difficult it is to collect bulky piles. You are exposed to the outdoor environment and have to master the hydraulic controls to pick up those hard to reach piles that are underneath electrical and utility lines, near mailboxes and in those hard to reach places. DSWM employees are extraordinary professionals and display such courteous customer service.

Mike Fernandez is Director of the Miami-Dade County Department of Solid Waste Management. He can be reached at (305) 514-6626 or e-mail mfern@miamidade.gov.

Florida Chapter Webinar Program

New Code & Registration Instructions

SWANA has switched over to a new system for its online store and the **Chapter Webinar Program** process has changed. The Florida Sunshine Chapter purchased credits that allow members to participate in webinars with no out-of-pocket cost. Instructions on how to register using the new promo code are below.

The Florida Sunshine Chapter's promo code is: **FLORIDA**

How Do I Register?

1. For a live webinar, go to the webinar event page you would like to attend and click "Register." For recorded webinars, skip to Step 2.
2. Click "Add to Cart".
3. Click "View Cart".
4. Enter Debit Card Code in the box labelled "Promo Code" and click "Apply"

5. Cost for the webinar will now be $0.00.
6. Click "Pay Now" and complete order process.
7. An email containing the login link will be sent to your email automatically at time of purchase.

Member News

Cutting Waste at Work: Pinellas County Solid Waste Creates Green Team

Sarah Herzig

Pinellas County Solid Waste (PCSW) works hard to promote recycling and waste reduction in our community. We have a Recycling Outreach and Programs (ROP) section dedicated to providing education to our residents through tours, presentations, events, an annual "Recycle Guide" publication, an online A to Z Guide for proper recycling and disposal, and more. However, we noticed a place close to home that needed more recycling education … our offices!

PCSW consists of more than 70 employees with offices spread across four different buildings, with different working hours and a wide variety of staff functions. ROP saw this as an opportunity to test our recycling education skills, collect data, and improve proper waste reduction and recycling in our department. In order to do this, we created the Green Team.

The Green Team is led by a ROP team member and consists of one representative and an alternate from each building. Some of our members have long been passionate recyclers and some are just learning, but everyone is committed to this initiative.

Before the Green Team began, one of the sections in our department took on the task of updating all of PCSW's recycling containers with matching colors and labels. Before our first Green Team meeting, the organizers conducted surprise inspections of each building's recycling and trash bins.

PCSW Maintenance staff with their reusable cups!

We wanted to get an idea of where we needed to focus education efforts and what the challenges might be. We saw great recycling efforts, but ran into common culprits, such as paper towels, plastic wrap and an item specific to our Scalehouse operation—thermal receipts.

With a starting point, we jumped right in with our education efforts. Not only has this been an excellent opportunity to improve the recycling at our facility, but we have also seen improvement in overall waste reduction efforts. Our Household Hazardous Waste Green Team member was able to get our chemical and electronics contractors on board with recycling drinking water bottles and cardboard boxes during collection events. Our Maintenance section also made the switch to reusable water bottles and 85% of staff are using them.

Not only is this a great win for PCSW, but we are using this program as a case study for other programs. We offer a "Cutting Waste at Work" program in which we assist businesses with implementing waste reduction and recycling efforts. We are also looking to standardize recycling labels and containers across county buildings. We are compiling the data from our Green Team initiative to share our challenges and strategies.

This has been a great learning opportunity for our department, and it has been rewarding to see the positive changes being made every day!

Sarah Herzig is a Solid Waste Technician for the Recycling Outreach and Programs of the Pinellas County Solid Waste Department. She can be reached at (727) 464-7551 or e-mail sherzig@pinellascounty.org.

"Recycling, A Steady Path Forward" by Mitch Kessler, Principal, and Peter Engel, Project Manager, Kessler Consulting, Inc.

The cover page and feature article for *SIERRA Magazine*'s July/August Issue is "Trash Talks – Recycling is Broken. Time To Reinvent It." The fact that SIERRA put garbage on the cover, shows how the subject is at the forefront nationally. The article does a good job focusing on the issues the industry faced with China and the "National Sword." The article does not offer insights into what the industry is doing to overcome these issues, such as addressing contamination, using new technology to obtain cleaner materials, improving outdated facilities output and efficiencies, and finding alternative markets, both domestically and overseas, for materials.

Mitch Kessler and Peter Engel's *Resource Recycling* article titled "A Steady Path Forward", in the April issue of that magazine brings us back to what the industry can do to address these issues and start the turnaround in recycling across America. It offers solutions for reinventing recycling and fixing, or reconciling, the realities of policy-driven and value-driven recycling. Over the last five years, market unrest and contamination have recently caused turmoil in the partnerships between private sector material processing facilities and the local governments they serve. The article focuses on public-private partnerships and how to reconcile these relationships.

A STEADY PATH FORWARD

Market unrest has recently caused turmoil in the partnerships between private-sector materials processors and the municipalities they serve. Two experts on recycling contracts offer insight that can help ensure risks and rewards are shared, even as commodity prices fluctuate.

By Mitch Kessler and Peter Engel

We have all heard plenty about China's Green Fence and National Sword. The policies have led to tight quality standards, limited import licenses, strict inspections – and major market disruptions.

The shake-up is causing such concern in the North America recycling market because, over many years, we all got comfortable with strong demand for mixed paper and plastics and high tolerance for contamination across the board. Collection programs expanded and converted to carted single-stream systems, and the private sector developed materials recovery facilities (MRFs) in line with those trends. To win recycling service contracts, some companies chose not to bid the actual expense of collection and processing, anticipating that their portion of the revenue share would be sufficient to cover costs.

Now, as materials like mixed paper are at historic price lows, the two sides in recycling public-private partnerships (PPPs) – private MRF operators/haulers and the communities they serve – are encountering problems as they attempt to adjust. Simply put, our recycling PPPs are out of sync and need a reset.

If history can be our guide, markets will go up … and markets will go down. And this phenomenon will play out again and again and again. How do we stay the course regardless of the challenges encountered along the trail?

MATERIAL VALUES COLLIDE WITH RECYCLING POLICY

To put this question in context, let's consider the concepts of "value-driven" and "policy-driven" recycling. Recycling was originally sparked by the intrinsic value of materials – for example, scrap metals and cardboard – that could economically be recovered from large-volume generators. Value-driven recycling shapes much of the structure, supply, demand, price dynamics and recovery rates of "traditional" recycling.

Since the 1970s, however, recycling in the U.S. and worldwide has grown in response to environmental and resource-management factors. We refer to this as policy-driven recycling, where the materials recovery programs undertaken by municipalities and businesses are driven primarily by goals, mandates, bans and other mechanisms in addition to avoided disposal costs. Supply does not readily ramp up or dwindle down in response to changing markets. Looking forward, we can only imagine where and how policy will evolve. Examples might include more packaging bans, zero waste goals, material innovations, material scarcities and producer responsibility.

How do we reconcile the realities of policy-driven and value-driven recycling? We recommend keeping four points in mind:

1. Recovered materials are commodities, meaning their values fluctuate.

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Mitch and Peter offer four specific insights that can help ensure risks and rewards are shared, even as commodity markets fluctuate:

1. Recovered materials are commodities with fluctuating values.
2. Recycling has costs for collection, processing, transport and marketing.
3. Every program is unique and the material composition it takes in is unique.
4. Not all MRFs are created equal in age, type, equipment and operations.

These insights are useful tools to help get the public and private sector back in sync and reset relationships for successful recycling programs. To read the full article, visit https://resource-\recycling.com/recycling/author/guestauthors/

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Lake Buena Vista, FL

2020 SWANA FL Summer Conference
July 26-28, 2020
Naples Grande Beach Resort
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