The Million Dollar Plan:

SAVING TAXPAYERS DOLLARS IN AN UNSTABLE MARKET

The City of Largo, FL



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Executive Summary

The City of Largo is nestled in the heart of Pinellas County with over 80,000 residents. The City provides waste collection to all residents and businesses and has offered curbside, single-source recycling since 2014. Using Largo as an example, this paper will guide you through the process of saving critical taxpayer dollars in an unstable market. But it has nothing to do with the market.

Price fluctuations, product availability and the nation's willingness to purchase recycled materials- all affect your bottom line but you can't change the big picture on your own. As educators, municipal employees, managers and advisors it is our duty to look inward, evaluate ourselves and our organizations and develop effective campaigns built on the following three pillars:

-Operations -Education -Communication

Organizations that not only incorporate these pillars but see them as an intrinsic value achieve tremendous successes within their communities and positively impact their financial health. After all, recycling campaigns aren't just about saving the environment, they are about protecting the social and financial well being of the public for generations to come.



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Introduction

The average American produces 130 pounds of waste every month. That's over 2.5 million pounds for the average city! Population increase, a growing reliance on single use products and a need for convenience all compound this problem even further- and the market won't budge. Providing communities with outlets to properly dispose of materials is simply not enough. Markets fluctuate, tipping fees increase, employees leave, and residents turn a blind eye. With countless obstacles to a program's success, a holistic approach to waste reduction isn't just a good idea -it's the bare minimum. Sound operational procedures, comprehensive education plans, and systems that encourage employee feedback to minimize loss, all help maximize savings which is the essential component of a successful recycling program.

Operations start with a goal. Analyzing your community and company strategically can produce a goal that is attainable and measurable for you. If your goal is to recycle the most tonnage, then try to focus on dense collection items. If your goal is to have the highest recycling rate, invest in single-family education and engagement. If you are looking to minimize program expenses, provide efficiency training for personnel to create a streamlined collection process. Whatever the goal, be sure that you are able to provide



the resources necessary to achieve it. Design a goal around your operational strengths and build your weaknesses into program success. Without participation from the whole community, no program is a success. Creating easily understandable marketing material, signage and outreach programs ensures that necessary information is delivered and understood. Confusing language can lead to unanswered questions. Contamination can be created by programs that don't address issues clearly. Lack of access prevents entire demographics from seeing your material. In order to develop effective forms of education, you must research and plan in order understand

where your community is now, how far you need to go, and how much you need to spend.

Drivers deliver your operation to success or failure every day. They are the key to maximizing success. Communicative and efficient personnel can help develop creative collection methods, maximize profits and avoid operational pitfalls. Separating waste streams can be a challenge or a prize. Materials may be abundant in your community and worthless, or rare and worth their weight in gold. Routine communication from personnel can show you the realities of your community.

Develop your recycling program to save your taxpayers 1 million dollars or more. By listening to employees, encouraging communication, relying on operational strengths and educating the community clearly and consistently, the City of Largo, Florida has achieved this in under three years. While many of its initiatives have been a great success, there have also been challenges and pitfalls that have limited its growth. Learn from these experiences, analyze the data and discover the realities of creating a successful recycling program despite ever changing markets and outside challenges.





Operational Success:

The City of Largo began single-stream recycling in February 2014. This, of course, meant a total overhaul of previous operations, from carts and routes to the trucks themselves. Implementing the operational changes necessary to effectively execute single-stream collection involved intensive planning and goal-setting by key stakeholders. While the goal seemed simple- create a successful and financially sound program- it was necessary for the City to thoroughly examine every aspect of the operation.

Planning for single-stream collection began long before a single cart was placed in the community. Supervisors, managers, directors and employees were all asked to participate in SWOT analysis in order to identify potential issues that may have reduced the efficiency of the program (Appendix 1). While the City of Largo clearly identified having a strong team and marketing abilities as its greatest strengths, it was commonly noted that lack of communication and understanding, both internally and externally, would be a challenge moving forward. As with any program it can only be as good as its weakest link, so building on this weakness was critical to the City. Utilizing its strength of marketing in the process enabled the City to turn the community into a knowledgable and engaged citizenship. In fact, after three years of single-stream collection, the City now has a residental participation rate of 52%. Many forms of marketing were produced including video, stickers, bags, mailers and social media awareness campaigns, all as part of the larger marketing plan for the program (Appendix 2).

The City of Largo is surrounded by a patchwork of other communities and has few clean borders to offer easy collection routes (Appendix 3). 80,000 residents were to be serviced weekly within the core of the City as well as outlying areas. While new routes (Appendix 4) equally distributed the number of houses to be serviced on a single day, the City did not give such great consideration to the **RECYCLES**..... distance between locations, particularly in the less dense collection areas.



This results in some drivers spending longer amounts of time to collect the same tonnage in a single day. As the recycling program grows and more routes are added, more consideration is being given to this fact, as well as the distance to the County landfill which can create additional one to two hour drive on any given day.

Analysis of collection data has become nearly effortless with the inclusion of RFID and other technologies, which enable the City to instantly see almost any aspect of the operation. The City is able to track not only when individual carts are tipped, but which truck was used and can see movement in real-time with tracking programs. Drivers were given tablets to follow the most efficient route and are able to communicate with supervisors using simple commands on the screen. These technologies have given the City plenty of data to sort through which has been a great asset, but it has been a liability as well. Though some software produced immediate benefits others were less intuitive. making data analysis lengthy and cumbersome. Massive training was needed to familiarize all employees with the new methods, some of whom still struggle with understanding the use of the technologies and its importance. Moving forward the City plans to address this issue with improved internal courses on how to operate the equipment, how things are being tracked and most importantly, the reasons for using the systems in the first place.

While many of these operational methods are being used by organizations across the country, it is important to note the common challenges that we all see in incorporating them into our daily culture. Keeping your primary users engaged in the process is the key to unlocking their true benefits. When the market begins to devalue your waste stream you must be at full operational efficiency to rebound.

Educational Success:

We all have thousands of micro-moments a day. These are the times right before we make a decision, exhibit a behavior or make a purchase. It is the moment where, usually



without knowing, we leverage all of our past actions with the information right in front of us. Its when we go to throw away another plastic bottle, but see someone else happily throwing theirs into a recycling bin. It gives pause and makes you think "If I recycle, will I be that happy too?" Why are micro-moments important to ensuring your path to a million dollars? These moments offer us an opportunity to influence our communities to take actions in order to support our goals.

If this process seems capitalistic, that's because it is. Companies across the world use this to influence your wallet every moment of every day. It is up to us to utilize this tactic to better our communities and influence behavior towards a more sustainable future. As program administrators and operators we are given the opportunity to shape behaviors to help the world around us, and our wallets. Someone may have a plastic bottle in their hand on the way into a store.

Being present for that micro-moment may enable you to influence whether they toss it or they recycle it.



RECYCLE THIS

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In order to influence micro-moments when we need them, we have to be present at the time when they happen. For recycling this usually happens in the most intimate of places, the home. So how do we get into people's homes and give them to tools they need to being recycling? The City of Largo first purchased nice new carts- for everyone. While this was a large upfront cost, giving them new carts to symbolize the new program represented something exciting that they wanted to be a part of. The City also purchased reusable bags for residents to keep in their homes which clearly outlined what could and couldn't go into the carts. Magnets, posters, emails, and many other types of marketing materials were given to residents for them to keep at home and be present during that critical moment when they decide to throw something away or to recycle it. After years of using these materials, recycling tonnages are at a staggering 4,000 tons, nearly a 78% increase since the introduction of single-stream recycling (Appendix 5).

Another opportunity to engage residents during this micro-moment is by engagement within the community. The City of Largo has many special events throughout the year and continues to be present at these events with branded signage and giveaways. This allows us the opportunity to speak to residents one on one and answer any questions they might have that prevent them from participating during their micromoments at home. The City also actively seeks opportunities to get out and speak to various community groups from elementary schools to HOA's. Understanding what challenges each different community group faces is necessary in order to overcome obstacles to recycling.



Moving forward, most micro-moments will be happening online, either on phones, tablets or computers. Many residents will look to the internet to understand what can and can't be recycled and to learn more about the programs that we offer. The City of Largo is leading that charge by using online advertising and will soon be incorporating widgets and apps that ease residents concerns about recycling. Not only do these clarify residents concerns but they also reduce the number of phone calls and questions received by solid waste staff, making overall operations even more efficient and cost-effective.

Communications Success:

Solid Waste drivers offer a unique viewpoint into our communities that almost no other type of employee can. Drivers are in our neighborhoods more than City Hall, the Fire Department or even the Police. As managers and supervisors, it is our responsibility to understand this perspective and engage in productive dialogue. No one knows your contamination levels like they do. No one sees what road conditions do to trucks like they do. No one can deliver quick service or infuriate residents like they do. As managers we need to listen, and as employees they need to speak up.

The City of Largo has provided its drivers with tools to communicate issues back to supervisors and allows them the chance to speak directly to management. Cart tags were developed drivers for mark homes where contamination, blocked carts or any other issues impeded the ability to collect recycling. Tablets allow drivers to take pictures of issues and deliver back to the office. The City also has monthly meetings to encourage dialogue and provide information to and from drivers as well as morning briefing for route changes. A Safety Team was even created to tackle issues that might not otherwise be discussed. All of these tools help provide decision makers with the knowledge of what happens during the day-to-day of collection.

Even with all of these opportunities for discussion, there can often be so many barriers to communication that it may not be enough. The City of Largo is currently developing additional training tools to mirror what is often found in private industries. This includes training on proper use of technologies, which can be seen as a huge barrier to current operations across the country. Young drivers can pick up a tablet and run, but for many others it can be a constant challenge. Providing drivers with this kind of training can make a world of difference in your contamination rate, and ultimately your bottom line.

Just as drivers need to communicate, it is critical that management remains open to their concerns. Often these concerns can be dismissed as complaints or unnecessary banter, but we need to be able to know when real issues

are being brought to our attention. Management should show concern when listening to drivers and front end staff because they are the only ones dealing directly with the community. Training for drivers goes hand in hand with training for management- and sensitivity classes only go so far. Supervisors should take the opportunity to go out with drivers on daily routes, make time to look into roll-offs and see troublesome neighborhoods. Create relationships with your drivers and put yourself on their level. They deserve it.

Open dialogue creates an atmosphere of inclusion and advances your bottom line. Managers develop successful programs and drivers execute them. Key components of communication include extensive training and real relationships built on an understanding of everyones role in the organization. If you neglect the roles of individuals you begin to dismantle their importance in delivering a successful operation. Develop these individuals and value their contributions to retain employees, reduce turnover and keep the cost of operations down.







Conclusions:

Success in an ever changing market is not due to the market. As individuals we can purchase more recycled products to promote a healthy market, but as operators it is our responsibility to encourage growth in our communities through specific, measured methods. We have to invest in technologies that advance oeprations, create dialogue that educates residents and talk to staff in order to enable them.

Saving a million dollars is easy in this market, you just have to ignore it. If commodity prices drop tomorrow no one will know but a few of us. So have you prepared your residents and your employees to succeed no matter what the market tells you? We are responsible for delivering these successful campaigns and once implemented we cannot turn back just because prices drop. We have to deliver consistent messages and keep listening to the changing needs of the community. Also incorporate the importance of operations, education and communication into the core values of your organization and you can succeed despite the market.

Call to Action:

This one is simple: talk.

From webinars to certain annual meetings, join a conversation and be part of the solution that makes not only your organization better, but creates a cohesive world view for solid waste operations internationally. Evaluate your program, learn from your mistakes and share your experiences.

After all, a million dollars is waiting.



Appendix 1. SWOT analysis done by stakeholders prior to single-stream implementation.

SWOT ANALYSIS

SOLID WASTE DIVISION

2013



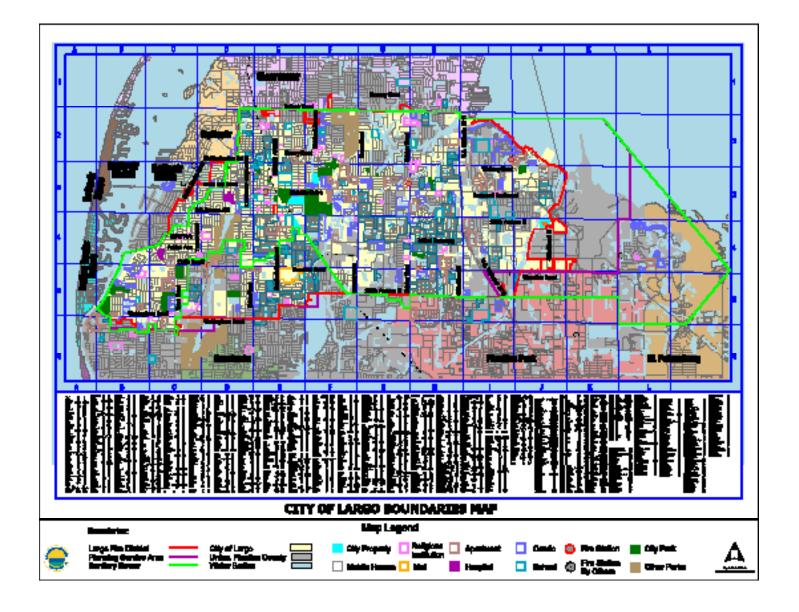
MIXED RECYCLING MARKETING PLAN

Updated: 06/04/2013

| Date | | | Slogans/Messaging | Events/Outreach |
|-------------------|---|--|--------------------------------------|-----------------------|
| 0 Days Prior | Have You Heard (Teasir | ng the prog | gram) | |
| (30 day campaign) | LED | NA | Look for information in your mailbox | Spooktacular |
| | On hold | NA | Theres something new coming to Large | Cloths for Kids Drive |
| | eNews | NA | Did you hear | Billboard Contest |
| | Social Media | NA | | URL |
| | Website | NA | | Old Artwork Stickered |
| | Giveaways | \$6,000.00 | | Shred Fest |
| | Posters | NA | | |
| IOTES: | | | | |
| 0 Days Prior | Its Coming (Announcin | | | |
| | | NA | It's Coming | Holiday Stroll |
| | | NA | It's New | Toys for Tots |
| | | | | |
| | eNews | ΝΔ | It's Retter | Billboard Signing |
| | | NA NA | It's Better | Billboard Signing |
| | Social Media | NA | It's Better It's Exciting | QR Codes |
| | Social Media Website | NA NA | | QR Codes |
| | Social Media Website Posters | NA NA NA | | QR Codes |
| | Social Media Website Posters Promotional Video | NA NA NA NA | It's Exciting | QR Codes |
| | Social Media Website Posters Promotional Video Postcard Announcement | NA NA NA NA \$300.00 | It's Exciting | QR Codes |
| | Social Media Website Posters Promotional Video Postcard Announcement Newspaper Ads | NA NA NA NA \$300.00 \$600.00 | It's Exciting | QR Codes |
| | Social Media Website Posters Promotional Video Postcard Announcement Newspaper Ads Banner Campaign | NA NA NA NA \$300.00 | It's Exciting | QR Codes |
| | Social Media Website Posters Promotional Video Postcard Announcement Newspaper Ads Banner Campaign | NA NA NA \$300.00 \$600.00 \$1,000.00 | It's Exciting | QR Codes |
| | Social Media Website Posters Promotional Video Postcard Announcement Newspaper Ads Banner Campaign vNews Mayors Letter | NA NA NA \$300.00 \$600.00 \$1,000.00 NA | It's Exciting | QR Codes |
| | Social Media Website Posters Promotional Video Postcard Announcement Newspaper Ads Banner Campaign vNews Mayors Letter | NA NA NA \$300.00 \$600.00 \$1,000.00 NA \$3,500.00 | It's Exciting | |
| NOTES: | Social Media Website Posters Promotional Video Postcard Announcement Newspaper Ads Banner Campaign vNews Mayors Letter Press Release | NA NA NA \$300.00 \$600.00 \$1,000.00 NA \$3,500.00 NA | It's Exciting | QR Codes |

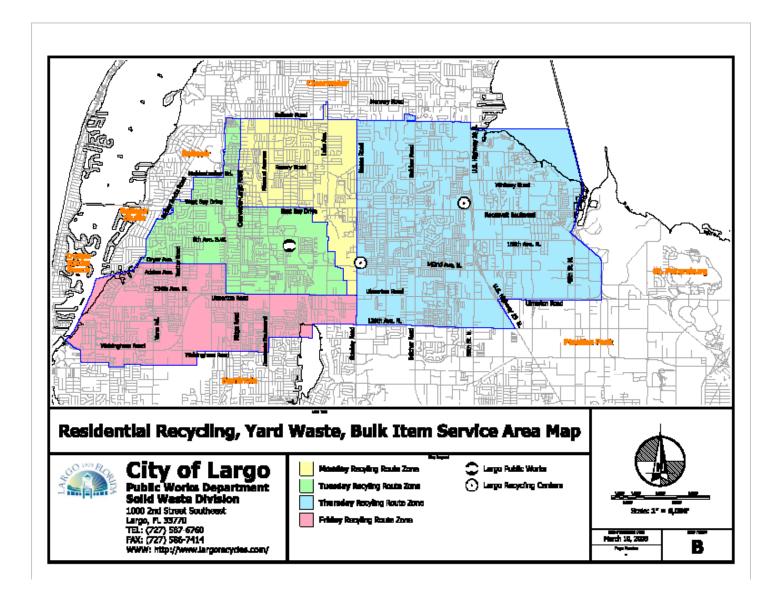


Appendix 3. Map of the City Service Area (yellow) and boundaries (green).





Appendix 4. Map of the recycling routes.





Appendix 5. Increased recycling tonnage since implementation of single-stream in 2014.

