

2009-02-11 10.04 Waste Prevention 101

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[00:00:07] START AUDIO

[TECHNICAL]

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VICCY SALAZAR

Hello and welcome to this month's session of the Federal Green Challenge Web Academy, and we're happy to have you all participating. This month, we're gonna be talking about waste prevention and how do we use waste prevention to affect our greenhouse gas and climate footprints. Many of you who might be aware, source reduction, recycling can reduce emissions at all stages of the life cycle. And then when you're using...

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those recycled materials back into the manufacturing process, the savings, particularly in terms of greenhouse gas emissions to the energy, are huge. So we're gonna have three great speakers-- four great speakers on today. But before I introduce the speakers, let me turn the line over to Tommie Jean from Tetra Tech to go over some of the call logistics

TOMMIE JEAN DAMREL

Thanks, Vicky. Hi, this is Tommie Jean with Tetra Tech. I just wanna let you know that you are muted and this is a recorded session today. The slides will be moved for you...

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and I'll send out a link where you can download the slides if you'd like to refer to them again later or share them with a colleague. If you have technical questions or questions about the content, we encourage those, please use the control panel and type in your question and send that. We have four people giving three presentations, and at the end of each presentation, we've set aside some time for question and answer. If you type in your question, we'll read it aloud and answer it live on the line. So please type in your question at any time and then...

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we'll answer it at the end of each presentation. You may have a 10-second delay between when we advance the slide and when it actually shows up on your screen depending on how fast your web connection is. Don't worry, you're still connected. It just takes a few seconds. One of the things that helps us most with these webinars is to get your feedback. So at the very end of this webinar, a pop-up window will come up with some survey questions. They're very brief. Most are multiple choice and we'd love to get your feedback. In fact, we love...

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to get your feedback so much that--are you listening? We will be giving a prize. So everyone who fills out the survey, we'll put your names in a hat and you'll be awarded a prize. Okay, that's it for the technical issues. Please remember to type in your questions. And if you're having technical difficulty, you can type those in there as well. Vicky, I'll hand it back to you.

VICCY SALAZAR

Great. Thanks, Tommie Jean. And I wanna start out by saying that this session was put together in partnership with the Seattle Federal Executive...

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Board Associates Program, and Jim Wilson from the Coast Guard was the lead and coordinated this. And so thank you very much, Jim, for all the work you did in putting this together. So let's--let me--I'll give a quick introduction to our speakers and I'll give them all now and then the speakers will move through their sides. And as Tommie Jean said, we will then hear from them and then have time for question and answers. I just wanna echo what Tommie Jean said in terms of the feedback.

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We really do read it and listen to it and we appreciate when you can do that for us. So first up today, we have Michelle Warmuth, and she's a community relations specialist for the City of Tacoma Solid Waste Management. Michelle directs and manages communications, marketing, publications, and outreach for the utility. And through results-driven communication initiatives ranging from internal recycling to statewide resource conservation partnerships, she has developed and implemented several award-winning campaigns.

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Today, Michelle will be speaking about the City of Tacoma's highly successful rollout of its internal recycling campaign, Tacoma Recycles @ Work. Next up, we'll have two speakers who are working together on their presentation, both from the U.S. Fish and Wildlife. We'll have Joanne Stellini, and then we'll also have Mark Hodgkins. So Joanne is a biologist at the U.S. Fish and Wildlife Service, and she is also a member of her office's recycling committee which won...

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an EPA Region 10 2008 Champions for Environmental Leadership and Green Government award for their accomplishments in reducing office waste and implementing a new recycling program.

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Mark is--uh-oh, wrong page, sorry. Mark is a wildlife biologist at the U.S. Fish and Wildlife Service in Lacey, Washington. He's also with that same recycling team. And he's within Forest Resources Branch and works on forest plan issues and consults about endangered species. Both of them are real exciting speakers...

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because they really show how somebody who is working within an organization can work to affect change within that organization. Then last up, we have Patrick Maloy with the U.S. Air Force, and he is the solid waste/recycling program manager for Vandenberg Air Force Base in California. And since 2001, he's had a whole range of recycling waste management positions including solid waste manager, landfill service contract...

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technical quality assurance program, recycling program manager, community outreach manager, environmental exercise evaluation team lead, and qualified recycling program manager. He's really proven that solid waste planning and follow-up and evaluation and partnership with local communities and schools, when combined with a comprehensive outreach program and continued forward thinking really is the secret to maintaining a 90% diversion rate at his base, the highest rate in the Space Command and...

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Air Force. So, we'll now turn it over to our speakers. I'm very much looking forward to hearing from our speakers and learning myself. So, Michelle, you're up first.

MICHELLE WARMUTH

Okay, great. Well, I also welcome you to today's webinar. It's a pleasure to be able to present what the City of Tacoma has done to reduce waste internally. And as mentioned earlier, I'm the communications person for our solid waste utility, so my presentation will focus on the outreach aspects of our program. So I hope that you might find some of our...

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techniques and tools useful to possibly adapt in your work area. So a little background on internal recycling at the City of Tacoma. Prior to 2004, city employees only recycled paper in desk side bins, but the city was continually spending money and time and resources to of course encourage its residents to recycle everything possible, and that was much more than paper. So we finally find time to walk the talk and allow city employees at work the opportunity to recycle the same range of items that residents...

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could, so we launched Tacoma Recycles @ Work. And the next slide offers you an overview of the program. We first rolled out Tacoma Recycles @ Work to about 450 employees who work at city hall. There are about 3300 employees total who work for the city, but we wanted to use city hall as the pilot. The yearlong rollout took place over three phases. For the first phase, we introduced an expanded list of accepted recyclables. So employees can now recycle everything from their...

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yogurt containers and frozen food boxes, pop cans and water bottles. They're all common things that we use at work. And also packing peanuts, batteries, ink cartridges, they're all accepted in a common area in our employee lounge. And while recycling rates continue to rise so does the amount of waste generated. So we wanted to add a waste reduction component and also a recycled content purchasing component and both of those items were relatively new to most employees.

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MICHELLE WARMUTH

That's Tacoma Recycles @ Work in a nutshell, but I'll be expanding more on that later through my other slides. Next, I'll share some components for a successful program. Whether you want to expand your recycling program or simply increase your recycling rate of your current program, these are what I think are the most important components for a successful program. And I'll be spending the rest of my presentation talking about these things in relation to Tacoma Recycles @ Work. First there's research.

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You have to ask yourself where are you now and where do you want to go. Determine your current recycling rate, your current attitudes and behaviors of your target audience, as well as details about your target audience. And innovative communication strategies. Of course you want more than awareness. You want knowledge and participation, so that's important to keep in mind in developing your strategies. And as far as evaluation goes, anyone can roll out a program. The difference is being able to measure your results and being held accountable for ongoing performance because how would you know you're successful...

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if no evaluation component in place? So now I'll expand on these components in relation to Tacoma Recycles @ Work. There's research. We spent a full year on research and planning, and part of our baseline research entailed a focus group. We're about eight

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employees who identified issues and motivations surrounding office recycling, waste reduction, and other environmentally sustainable practices. And from that focus group we were able to create an online survey that we e-mailed to all...

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450 employees. We wanted to find out their current attitudes, what they would want in an expanded program, and what motivates them to recycle and so forth. We had 207 people respond which is about a 45% response rate which I think is great. To do the survey, we used SurveyMonkey, at surveymonkey.com, and it's very cheap, very easy to use. I think it's maybe \$20 for a month's membership for kind of just their basic service, and it's very intuitive. I've used SurveyMonkey for a lot of...

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other surveys as well. So research doesn't have to be expensive. You don't have to hire a firm. We also did waste audit. With those did, we used our solid waste utility employees, a few of them, some volunteers, and the janitorial staff. And they went through every employee's deskside garbage and recycling bins to determine our baseline rate. And what we learned from all of this, we learned more about our audience. We learned that more than half of our city employees were not even residents of the city...

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so that meant they probably weren't too aware of what our residents could recycle. And we also learned that 70% of our employees at city hall spend the majority of their day at their desk and computer, so e-mail was a good way to communicate. The next slide we have our innovative communication. Again, you want more than just awareness of the program; you want participation. So simply putting a sticker on a bin won't do the trick.

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So thinking beyond that, we used what I think are innovative marketing strategies such as games and promotional items. And we used a fun concept that takes away the mandatory feel. We also used eye-catching communication. We created a fun logo with associated awesome colors. And while our baseline survey showed that employees want education about the new program, we stayed away from typical government speak and made things inviting to read and fun. We also incorporated one-on-one education using office stewards...

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or recycling coordinators. The baseline survey showed that the majority of employees would want a coworker who would be available to answer a question. They felt that they wanted

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someone they already knew and someone they felt comfortable with asking questions of. And next it's time to play monopoly or muniopoly. Tacoma had its very own version of monopoly called muniopoly. City hall is nicknamed "muni", and I think you can see an illustration of our city hall building with the Muniopoly...

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logo in the center of the game board there. And to briefly explain the game, muniopoly was basically the theme of our Tacoma Recycles @ Work rollout. There were a variety of tasks associated with each phase, and once completed, departments would earn title deeds such as waste reduction road or recycle contents boulevard. And examples of the tasks included having bin stickers on all the bins, taking out all the Styrofoam out of the office, and using recycled content language...

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and bid specifications. And we did a post-rollout survey as well. So that survey revealed that 92% of employees were aware of the game, and the majority felt the game was a creative way to learn about the new program. And I have to say, I can confess that I don't think the game played that much of a key role in increasing recycling and waste reduction, but it was something new and different. And I really encourage folks to take risks with creative outreach. It's less scary and there's less at stake with an internal audience.

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And next you'll see our giveaways. Our giveaways turned out to be very popular. We had three of them; one associated for each phase. The first phase was recycling, and we gave out recyclable Post-It notes that encouraged people to play muniopoly, and it also had the Tacoma Recycles @ Work logo on there. For our second phase, which was waste reduction, we gave out stainless steel mugs with the Tacoma Recycles @ Work logo on it, and it included coupons for employees to get free...

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coffee but only if they use their reusable mug. It could have been any reusable mug, not really this one, but I did see a lot of employees come down--I'm lucky enough to have a window in my office, and I would see employees walk down the street with their mugs at the coffee shops, so that was really fun. And we were even also able to persuade a few area coffee shops to permanently offer a 10-cent discount for people who use their own mugs. For the third phase, which was recycled content purchasing, we passed out lanyards with the logo.

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And the lanyards were made of 100% recycled material, and this gave employees an example of a somewhat unique item that can be purchased with recycled content. Next we have reminders. I think everyone needs reminding, at least I do. So we used reminder notes throughout the yearlong rollout. They were given randomly at night by the janitorial staff who look in garbage and recycling bins of employees. And you could probably see they played off the muniopoly theme. There was a good note...

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and a bad note. The bad note said "Do Not Pass Go" and it had a list of the kinds of items that they could recycle. And the good note was "Community Best", and so that was just incentive for people to keep up the good work. Reminders also came in the form of clings for copiers and printers, and that reminded employees to double-side their copies right at the source, and that's kind of that triangle to double-side your documents. And again, with our post-survey, we learned that 81%...

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of employees remember receiving a note and those notes motivated 38% to recycle more. And next I'll talk about the general communication. These are some of the communication pieces that were distributed. They all had the same fun look and feel and they were very easily identified with Tacoma Recycles @ Work campaign. Materials included bin stickers, program fact sheets, waste reduction tip sheets. And we also had an Internet site, and one feature on that...

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site included an interactive "What's Recyclable?" game. So the game quizzed employees on their knowledge of what they cannot recycle. And next I'd like to expand on the role of office stewards. I touched on this before. Every office had a steward or recycling coordinator who represented their employees or their coworkers and served as an informational resource and motivator. Most of them volunteered for that position, and they attended regular meetings where we would keep them informed about the next...

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steps of the program rollout. And it was also a way for the stewards to share their ideas on how they motivate their coworkers. And the idea to use stewards stemmed from the social marketing concept where it's documented that people learn better through one-on-one education as opposed to mass dissemination of information like broadcasts, e-mails, or flyers. And our post-survey said that 82% know who their steward is, 81% say their

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steward is a friendly resource and...

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motivator as opposed to a hardcore recycling Nazi, I guess, and 60% say participation went up because of their stewards. So it was a really good to use source in addition to the traditional communication method. Next is the all-important evaluation. To evaluate the rollout, we used a post campaign survey which I've been alluding to, and that was very similar to our baseline survey. We went out to roughly the same employees, but we had a better response rate with more than half responding.

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And that survey said 99% were aware of the new program, 99% recycle at work, and 91% rated the program as excellent or good. We also did waste audits. There were three audits in all, one after each phase. So we had one after the recycling phase, and then one after the waste reduction phase in addition to the baseline. And what we learned from that was that we increased our recycling by 12%, reduced waste by 16%...

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and 13% of office supplies had recycled contents. So overall, Tacoma Recycles @ Work was a tremendous success for our pilot at city hall. And after this pilot was over, we then looked to expand the program to other office locations. The first office we went to was our wastewater treatment plant where there are about 300 employees and about 100 of those are field workers. So because the majority of employees at city hall work at their desk with computers, communicating to field workers...

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or those employees without computer access was something new. So as you could probably guess, we surveyed the field workers to find out the best way to communicate with them. We distributed a hardcopy survey, just one page double-sided with 11 questions so it was really short and sweet. And based on the survey results, we tailored some of our outreach to meet their needs which you'll see on the next slide. We discovered that disseminating information via bulletin board was the most preferred way across the treatment plant.

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So we created signage and flyers that were conducive for bulletin boards or common areas. And the photo on the left there shows some of our waste reduction signs. There's one that gives tips to reduce your waste at lunch; another one that says "Be wise, use both sides," and that is posted above printers and copiers. And there's also a smaller one that says "reusable one-sided paper",

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and that's to be attached to a tray with draft paper that still has a good one side to be used. And also a sign...

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for reusable office supplies that would be posted in the common office supply area. If you don't have a notebook--if you're no longer using your notebook, you can donate it to that area and people can take what they need. And the other photo there--we also asked where people--where employees at the treatment plant would recycle. The majority of the field workers said they'd still recycle at the treatment plant, but a close second was the use of bags in the vehicles. So we created bags for city vehicles...

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and I was pleased to find a bag that was made with 30% recycled plastic and a minimum of 15% post-consumer waste, so I didn't feel guilty with creating a plastic item. Next I'll touch on maintaining your program. The rollout is the fun part, at least for me as a communicator. I like creating logos and the look and feel and researching giveaways and that's the fun part for me. But maintaining a program isn't so sexy, so I have...

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to confess that City of Tacoma doesn't have a perfect maintenance plan. But I do have some key areas that are important to maintain your program. I think continually tracking your garbage and recycling stat is important. If you see a rise or a drop respectively, then you know it's time to assess. For Tacoma Recycles @ Work, our recycling waste rates have remained steadily high since the program's inception in 2004. I also suggest looking for a way...

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to add new components. We looked into adding a food waste component, but at this time, unfortunately, there's no place for us to take that type of waste. But we're always game to explore new options. Also be sure and track your program's success or maybe even recognize an individual or department who is doing exceptionally well with their waste reduction effort. You can even create a competition among departments or divisions to generate renewed interest. I think there are a lot of possibilities out there, and I just encourage everyone to be creative in finding ways to keep enthusiasm high...

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and specifically at least one cheerleader in an office with passion can help drive programs and help them to succeed. So there are a few tips there and that's all I have. So if anyone has any questions.

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TOMMIE JEAN DAMREL

Great. Thanks, Michelle, and here's Michelle's contact information. If you have questions, you can go ahead and type those into the question box. We did have a few come in here. Michelle, you said that part of your survey collected attitudinal information.

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What exactly did you find out about people's attitudes about recycling and how did that affect your efforts?

MICHELLE WARMUTH

Well, the majority of our folks already did recycle. They felt that it was easy to recycle. They wanted to help the environment. I think--so the attitudes--so recycling, they were pretty common. They were already doing a lot of recycling, I guess, and they wanted to recycle more. What they didn't like...

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was if they were being made to recycle or if it was coming down through their supervisor, they didn't want kind of a mandatory feel to it.

TOMMIE JEAN DAMREL

Okay, great. And that's one of the things you talked about with your innovative communication is taking away the mandatory feel. So how did you do that with your communication?

MICHELLE WARMUTH

Well, we just kind of wanted to make it kind of a lighthearted, fun campaign, and it's not mandatory.

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I mean, we don't make employees recycle, but we want them to be able to do it on their own. And so using the stewards was one way to do that. It was just someone friendly, someone that they knew, a coworker who would just encourage recycling and waste reduction. Waste reduction is kind of the bigger thing to change behavior. Recycling, again, most people already did it, but the waste reduction, I think, using a steward was key in getting the information out there. And again not having it come from your supervisor...

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or department director, it's a coworker encouraging you to do that.

TOMMIE JEAN DAMREL

Okay. So it sounds like the janitorial staff were pretty key in

looking in the recycling and leaving the notes. How did you engage them? Were they receptive at first to being part of this?

MICHELLE WARMUTH

Yeah, we did work with the janitorial supervisor and he was very--he's on board with that 100%. And so I think through him and his enthusiasm we just asked the janitors for their support...

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and they did it. And it wasn't--it's not forever. It was just for a couple of phases, so we got good participation from the janitors and that is key.

TOMMIE JEAN DAMREL

Okay. And another person asks, "Did you have any language barriers with your janitorial staff?" Because they have a situation where not all of their janitors are English-speaking. Did you have to deal with that?

MICHELLE WARMUTH

You know, I'm not sure. I didn't directly interact with...

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the janitorial staff. I don't think there is any language barrier or so.

TOMMIE JEAN DAMREL

Okay. So you were saying how key evaluation is in tracking your success, do you know what your waste diversion rate is? Is that something you were able to calculate?

MICHELLE WARMUTH

Well, let's see. I have to look back here. We gave the recycling and the waste reduction. We increased recycling by 12% and reduce waste by 16%.

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And those are the numbers that I have from after the rollout of the pilot. I know that our recycling continues to remain high.

TOMMIE JEAN DAMREL

Okay, great. Yeah. And that information is on Slide 12 that Michelle is talking about. So one person asks, they say that their area currently has a big lot of white paper at the recycling center, which makes it difficult for them to expand because...

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the white paper isn't needed. Have you run in to any roadblocks like that?

MICHELLE WARMUTH

No, not that I'm aware of.

TOMMIE JEAN DAMREL

And then you mentioned, for example, getting rid of things like Styrofoam. Were you able to find a recycler for Styrofoam?

MICHELLE WARMUTH

No. What we have is the packing peanuts that we're able to--we don't recycle them but we reuse them. And I don't think that many offices had a whole lot of Styrofoam...

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to get rid of. What we did--they could use it up, of course, what they had, but then we encourage more of the paper products, the paper cup and that type of thing, and the durable plates, and utensils and whatnot. So I'm not sure the amount Styrofoam that each office had, we just encourage what our practice is regarding that.

TOMMIE JEAN DAMREL

Okay. One more question at the janitorial staff.

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Did you pay any additional cost about their contract price for their participation?

MICHELLE WARMUTH

No. Apparently there were something already in their contract or maybe we are around the contract--around the time to update their contract where we're able to get some language in there. But to my knowledge, there was no additional cost. I can't find out that information. I'll have to work with our janitorial supervisor and I can get back to people with those answers if you want. But to my knowledge, we didn't have to pay them extra to do that.

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TOMMIE JEAN DAMREL

Okay. And just a few more questions. So you did a yearlong rollout, how did you get it started? I mean I know that there were three phases, but how did you get the backing and the funds and everything to start doing that?

MICHELLE WARMUTH

Well, I think with our solid waste facility, the management out there met and decided that an expanded internal recycling was very important. And so we kind of develop the plan with all of these

components in place...

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and the division manager was on board. Our public works department director was on board. We got buy in from the top level, and from all of the planning, my position did all of the survey, kind of the planning that way, the research; and from that then we were able to develop actual roll out and the communication.

TOMMIE JEAN DAMREL

Okay. You said your survey for the field workers was kind of a brief 11-question.

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What was the--the SurveyMonkey, how many questions do you have on there?

MICHELLE WARMUTH

Now, I believe it kinda depends on what level of--it's not membership--but whatever level of service that you apply for. With the basic service, I can't remember how many questions that allows, that our online survey had. It's probably maybe 30 questions.

TOMMIE JEAN DAMREL

Okay.

MICHELLE WARMUTH

Yeah. See, you were able to ask a lot of questions...

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at SurveyMonkey. And there's, again, different levels that allow for different features.

TOMMIE JEAN DAMREL

Okay. So what would be the one piece of advice you would have for somebody that would wanna be kicking off one of these programs?

MICHELLE WARMUTH

Again, I would make it fun, just take risk and do something different like Muniopoly. That's something that no one has ever seen before here. Don't send out a regular memo that they're used with...

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city letterheads. Make something fun, eye-catching that they'll read, something colorful, and involve the employees, make it

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interactive however possible with the stewards or the interactive cycling--the internet sites.

TOMMIE JEAN DAMREL

Okay, great. One other question, Michelle, is all the kinda examples of like your surveys or the Muniopoly, are these also available on the web?

MICHELLE WARMUTH

[00:28:47]

No, they're not. It's all internal. It's an internal program but I can-- if folks want copies of my survey, I could send that out. But the Internet site is not accessible.

TOMMIE JEAN DAMREL

Of those things that could send out, we could post them on the website here for...

MICHELLE WARMUTH

Okay.

TOMMIE JEAN DAMREL

...Federal Green Challenge.

MICHELLE WARMUTH

Sure.

TOMMIE JEAN DAMREL

[00:29:17]

Great, thanks. Okay, great. Well, thanks, Michelle. If you have additional questions for Michelle, go ahead and type...

those in. If we have more time at the end, we'll get them or we can respond to you offline. And then we'll move to our second and third presenters. Our second presentation, Joanne Stellini and Mark Hodgkins. And I will pull your presentation up here, folks.

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TOMMIE JEAN DAMREL

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And here we...

go, Joanne, the floor is yours.

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JOANNE STELLINI

Okay. Thanks, Viccy. Great presentation, Michelle. We certainly saw a lot of similarities and the things that you considered and the things we needed to address in our office waste reduction recycling program. So Mark and I are here today, we're gonna present an overview of our office's waste reduction recycling program. As it was mentioned before, we think this program is notable because last year...

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our implementation of the program actually allowed our office to become a recipient of environmental protection agencies, Federal Green Challenge award for waste reduction in Region 10, and that was a great honor to us. So we hope that by sharing what we did and how we did it and why we think it works that other offices or facilities out there viewing this webinar will feel inspired as well to step up and step...

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their waste reduction efforts as well. Next slide, please. So our waste reduction efforts are taking place in our office. And we're located in Lacey, Washington where the U.S. Fish and Wildlife Service shares an older kind of two-storey building with the National Marines Fisheries Service on St. Martin's campus. There's nearly 120 people in our shared facility and we collectively share the responsibility for the success of our...

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waste reduction and recycling program. Next slide, please. In addition to our normal duties as biologists, Mark is the chair and I'm a member of our office's recycling committee. And our committee is responsible for really stepping up our office to a greatly expanded program that reduces waste, promotes recycling and allows composting. Right now, there are seven folks on the committee and we are from both agencies...

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JOANNE STELLINI

housed within our building. And we are from different branches within those agencies. And we help them both in biological and administrative staff, so a good rounding out of folks. We see ourselves as a highly motivated and dedicated group in part because we all volunteered for the extra work that really goes with being on that committee. Next slide, please. Our program has been in...

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place for nearly a year and a half now, and just during the first year of the program, we were able to realize a 66% reduction in

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the amount of garbage that was being hauled away from our office. This means that we diverted nearly 21 tons of garbage from going to the landfill. We were able to achieve this by recycling more than 15 different types of products rather than throwing them away, and by tossing...

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about 3600 pounds of waste into recycling bins that are hauled off by our waste vendor, send to a composting facility, and composted until they become suitable for use as a soil amendment. So as a result of our recycling and composting program, we're saving at least \$1700 in waste management cost just within one year's time. Next slide, please.

[00:33:17]

So what does this means in terms of numbers is that our office of 120 employees went from filling up 6-cubic yard dumpster each week to only needing a 2-cubic yard dumpster. It means that we created only about 450 pounds of garbage each week rather than 1350 pounds. And that means that we reduced our per week cost by more than \$200.

[00:33:47]

Our goal eventually is to get down to using only 1-cubic yard bins which is the size of the bin shown in the photo on the slide. Next slide, please. So, what do we do? How do we recycle to get us to these greatly reduced numbers? Well, we recycle the usual things that offices typically recycle, glass bottles, aluminum cans, white office papers, corrugated cardboard. Many of you...

[00:34:17]

are probably already recycling these items in your offices or facilities. We were, too, but by working with our waste vendor, we were able to increase the types of items we were recycling. And by taking some initiative on our own within the office, we are able to recycle other products that are waste [INAUDIBLE] currently handle. Next slide, please. So, in addition to the usual...

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that the folks recycle, we also recycle what may be a little more unusual to recycle in a government office setting, although some of you may already be recycling these types of items at home. We recycle many types of food containers including plastic deli and dairy tubs, yoghurt containers, juice boxes, and plastic water or juice bottles. We recycle about 10 pounds of plastic film each month.

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That's plastic like sandwich bags, grocery bags and any plastic that's basically soft enough to stretch or poke your fingers through.

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We are also recycling Tyvek envelopes. Most folks are familiar with these. They're the smooth somewhat Chinese FedEx mailing envelopes, there's a picture on the slide there. These can't be recycled as paper but they can be shipped back to manufacturer. We sent about 250 of these envelopes or nearly 6 pounds of Tyvek...

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back each year. And our office uses a lot of batteries in field instrumentation so we collect and recycle batteries as well. Next slide, please. And best of all and what our coworkers are most jazzed about in the office is that we are able to compost. We can compost food scrap, meat products, bones, dairy products, all fruits and vegetable, all in these...

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charming green bins that are shown in the photo on the slide. We can throw in pizza boxes, paper plates and any other soiled paper food containers that can compost or biodegrade. We can also throw all the paper towels that are used in our kitchens, in our restrooms into this compost bins. And nearly 60% of a typical office's garbage is paper towels so this really helps...

[00:36:47]

reduce our garbage volume. So our green compost bins are well labeled. They have a closing lid. They don't smell. They're not unsightly. They don't support worms or fruit flies, and they are emptied on a daily basis. Next slide, please. In addition to those efforts, we also reduce our office wastes even further by donating our computer equipment to local...

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schools. To date, we've donated 50 computers, 20 monitors, 6 printers for educational uses, as well as over 28 cellphones that go to a local charity that helps victims of domestic violence. And we're attempting to reduce our gas consumption by changing vehicles on our fleet. Right now, we have 3 of our 13 leased vehicles at hybrid. So, that's what we're doing on our program. And...

[00:37:47]

Mark's gonna share with you three major things. How we did it, how we're able to get an office of over 100 folks to accept the new waste management program, learn the details of the program and achieve close to 100% compliance. He'll you what worked about overhauling and greening up our waste reduction recycling and composting program, and also what glitches we've encountered along the way. And he'll talk about how we keep everyone in the office participating in this new approach and continuing...

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to make the program a viable effort. Mark?

MARK HODGKINS

Thank you. Next slide, please. This program took a lot of front-loading. We had to really do our homework. First of all, we had to get management support, and that was rather easy because they wanted to reduce the office's carbon footprint as a federal mandate for federal offices. Next, we developed a committee of dedicated volunteers that Joanne...

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alluded to. And then we had to get all the facts to see if a new program at this office is gonna make any sense, so we had to look at all the numbers. Look at what was already being recycled, how much was being recycled, how much waste is being generated. Then we had to coordinate with our vendor. We had to ask them how we could do better and what other programs were available to us, and does it makes sense to implement these programs in our office.

[00:39:17]

And what was required to get those programs in the place and how we can make it work for this particular facility, and the cost and the savings. And we decided we could be greener and save money and we convinced the management that we could easily upgrade our program without a lot of work. Now, the next step was to plan everything. We developed a plan that we thought would work for our facility, our vendor and our staff. Next slide please. So...

[00:39:47]

MARK HODGKINS

our up-front required that we have to attend to all the details. But then, we couldn't just sprinkle a few barrels around the office and hope that people would use them. We had to figure out a good number, the appropriate size, clear labeling, exactly where would be the best place to put it, and we had to work with our building maintenance and custodial staff. We had to determine who is responsible for emptying...

[00:40:17]

the indoor garbage and recycling bins into the outside collection bins. We had to meet with custodial staff after hours to ensure that they understood the part, what was required of them. And here we had a few--some language barrier issues but we were able to get through those. And we did all this planning because we knew that it wouldn't just happen by itself. Next slide, please.

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So, after all this planning we had--

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I think, we're ahead one slide. Oh, here we go. So we had a rollout. This is where we had a single comprehensive introduction of the program to the entire office and we did this during an hourlong presentation at a mandatory and regularly scheduled all-staff meeting. We had this one big introduction. First, we had management introduced the program that helped highlight and validate our program.

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And we even told them what we wanted them to say about the program. Then we had a PowerPoint presentation to present all the facts and the figures and photos of what people would see in the office right after that meeting. We also brought some props with us. They were bins and the labels that go with the bins and we showed people what went into them, and we had examples as well. Here is--the paper goes here and the bottles go there, and the compost goes...

[00:41:47]

here. And we had every member of the committee contribute to the presentation for interest across the divisions and also the different work units in the office. Then we had the vendor gave a presentation. He had his own PowerPoint and he helped answer questions about the program, also helped get the message out. And then we had, of course, the question and answer period. We knew we were generating a lot of interest because there were quite a few questions we were getting from...

[00:42:17]

the people from the office. Next slide, please. So a lot went on before the rollout behind the scenes. First, we had to create a standard operating procedure that spells out what gets recycled, what bins the different materials go into, who handles it when the bins are picked up by our vendor, how often. And we posted this electronically to a shared drive so that everyone in the office could access...

[00:42:47]

it if they had any questions. And we also had all of the bins in place and labeled and ready to go on the day of the rollout. And most of these were in the kitchen. That's where we generated most of our waste. And also, on the day of the rollout, we stationed volunteers in the kitchens during the lunch hour following the rollout to help guide others and to help them sort their recyclables if necessary. And we did this for...

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about a week and it worked out rather well. Next slide, please. Now, the important aspect to a program like this is maintenance. And because this is not a plug-and-play application, for the first year of this program, we had updates at our monthly all-staff meetings. And we kept them short. We would discuss the progress...

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clarifications, any problems we had come across, any questions people would have. And sometimes we would bring a mystery box where we had filled it with different materials, recyclable materials and then hold it up and say, "Okay, who knows where this goes? And who knows where this goes?" And it sounds corny but there was a lot of interest and participation in that exercise. And we would also have occasional e-mail reminders to address them with the big problems and big questions, but we try to keep this to a minimum as everyone in this office...

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has e-mail overload. We also had to outreach to the different divisions in our office. We had committee members, recycling committee in groups of two, attend individual division meetings to troubleshoot problems, answer questions to make sure they kept it fun and made it interactive. We also had a personalized outreach approach where we had one or two people go around the office and visit individuals in their office to answer questions...

[00:44:47]

and check their garbage cans and sometimes even walking them to a recycling bin in the kitchens so they will know where those particular items would go. Now, of course, this takes a lot of sensitivity and humor but, again, we've done it, it worked out pretty well for us. We also had committee meetings. The first year, twice a month, there were so many issues that we had to figure out, analyze, solve problems and to move...

[00:45:17]

forward with our waste reduction measures. And also at these meetings, notes will to be written and posted on a shared drive so that people could access those. We also stayed in touch with our vendor. We had to contact the vendor on a regular basis for clarification and questions, things that we couldn't answer and there always seemed to be a few odd ones that we couldn't quite come up with. We also used an approach of tag-teaming where we would have an issue...

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that you'd have to take care, we'd assign two people to it so that

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one can help the other remind them to stay on task, get that done. And also we have a volunteer list of recycle rangers where people would sign up for small tasks like keeping track of, for instance...

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a particular compost bin, make sure that no plastic was getting in there or improper items. And people would sign up and just have just one small task that they were responsible for. And that seems to work out pretty well. Next slide.

TOMMIE JEAN DAMREL

They will be answering questions in about five minutes, so you can keep sending your questions in.

MARK HODGKINS

Okay. So lessons learned. Next slide, please.

[00:46:47]

So in spite of all the bins and the signs and the labels and the presentation, there are still some confusion. And we also found that if people didn't know how to recycle it, they wouldn't ask out of pure embarrassment. Some people are taking their recyclables home rather than go and ask that there were so much of this information out. So we had to get people in/out. So in the kitchens, we would have a mystery box where people could put items...

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[INAUDIBLE], and we would then--go to the next slide--put this--we have a carpeted room divider where we would post these labels, you know, the "cups, no, that's garbage" and "this material, no, that's garbage," and "this material, yes, that's compostable," so people could have a place to go to on their own without having to read anything or search in the computer and just go and take a look. I think that was working for us.

[00:47:47]

MARK HODGKINS

So, next slide. We found that this was really harder than we thought it was gonna be. We thought that this would be easy in a conservation-related agency, a bunch of tree huggers. But we found it takes a lot of cooperation and persistence by the recycling committee. And we also had to accommodate people's needs because people have different work schedules and they have different responsibilities. We have it tailored...

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to make sure everybody would be accommodated. And follow up, we have to do a continual follow up where they answer the

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questions, tackle issues quickly, and investigate contamination issues of the bins and what was the problem. And we had to fix missing and unclear bin labels, tackle unforeseen issues and deal with change because this is a recycling business. It is a changing business and we have to make sure we stay on top of it.

[00:48:47]

Next slide, please. To wrap this up, we found that people are more aware of waste generation and recycling and that we are actually changing behavior at the office. And people are also reporting changing their behavior at home and talking with their family and friends about recycling and [INAUDIBLE] good ways to recycle. And people are just taking more responsibility.

[00:49:17]

In this program, we realized no cost and we're actually saving a good amount of money. And we've created a whole new topic of conversation over lunch, in the halls, across division, and people are truly energized about recycling and waste reduction on the program. So the upshot is that in these times people wanna reduce their carbon footprints and they wanna be proactive. Next slide, please. So in conclusion, why it worked for us is that we think--

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is support from the management. And also, many people are involved. People from across the office at all levels are chipping in, and this was to create a buy in for the rest of the office. And the maintenance, we had to stay on top of the program to handle problems. Then we kept the outreach friendly and helpful and interactive and personable. We had to stay upbeat and we tried to make it as fun as we could. We tried to avoid any recycled pollutants.

[00:50:17]

So, thank you. Next slide. That's all I have.

TOMMIE JEAN DAMREL

Okay, great. Well, we did have some questions come in. Compost seems to be a tricky thing in some areas. Did you guys have to seek a separate vendor to handle the compost where there are big fees associated with that in any way?

MARK HODGKINS

No. We got quite lucky because our vendor had recently developed a compost program.

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They did have a curb site program that also involved yard wastes,

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and so they developed their yard waste and then they learned that they could put in regular compostable items and then they offered it not only at the individual family level, but also corporate accounts like this office. So that was the easiest. One of the easier things to do and to go to compost.

TOMMIE JEAN DAMREL

Oh, great. Okay.

[00:51:17]

So, a lot of us do use those Tyvek FedEx envelopes, and we have a couple of questions about that. Maybe you don't know, but what does the manufacturer do with those? Do they actually get recycled or reused somehow?

MARK HODGKINS

We're assuming that they're getting reused. We would find it tough to believe that if they were getting office envelopes sent to them that they would simply put it back into the garbage bins. It is a recycled...

[00:51:47]

type of plastic and many of these Tyvek envelopes do have the chasing arrow recycling insignia on that. So we're hoping that they are recycling those.

TOMMIE JEAN DAMREL

And then do you have some contact information that you could share with people as far as where they might send those Tyvek FedEx envelopes?

MARK HODGKINS

We simply googled Tyvek.

TOMMIE JEAN DAMREL

Okay.

MARK HODGKINS

And on their web site they had an address that you could send it to, and also instructions on how to do it. And it's pretty easy. All you do is...

[00:52:17]

you take one of the envelopes, turn it inside out so it's all white, you stuff it full of 25 other Tyvek envelopes, and you label it and mail it off. It's...

VICCY SALAZAR

Oh, all right.

MARK HODGKINS

... [OVERLAPPING] program where I think you can order larger envelopes and they can stack like a hundred in there. If you have, like 25 at a time is too much work.

TOMMIE JEAN DAMREL

Okay. So...

[00:52:47]

we have still a bunch of more questions coming in. You mentioned some of your electronics that you donate to non-profits, what did they do with the CRTs that are not usable? Do you have any idea?

MARK HODGKINS

I thought that we were still using--that some people are still using the CRTs and they weren't damaged, the ones that we gave away. They're still operable. So we're...

[00:53:17]

assuming that there is still some life left in those CRTs. What the next user does with those, we're not sure. We can't track that but we're hoping they'll do the right thing.

TOMMIE JEAN DAMREL

Okay. You mentioned paper towels and what a large percentage of waste they are in an office. Can you clarify? So are those being recycled or did you say that you're composting all the paper towels? What happens to those?

JOANNE STELLINI

Yeah, those are actually...

[00:53:47]

composted along with all of our other compostable materials. So they're hauled off by the buyer waste vendor and they're sent to Silver Springs Organics composting facility just south of Olympia. And those are composted. We've actually took the recycling committee out to the facility. We wanted to see the operation ourselves and make sure it was bona fide. And it's an operation where they collect wastes that are organic...

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in nature, compostable, biodegradable. And then they have a procedure by which they aerate it, water it, and move it around

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until it actually becomes suitable for sale as a soil amendment. And the bulk of that product actually is we understand goes to a lot of the highway planting efforts that the Department of Transportation is doing in the States.

MARK HODGKINS

I just wanted to add that there's also a process of treating those...

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compostables where they sterilized it so that it's that safe because we have, on our facility, a lab that analyzes fish tissues. So we have a lot of stinky fish parts in our compostable bin. And so there was some concern about pathogens there, but we are assured that the stuff is all sterilized, baked somehow so that there's no...

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issue with pathogens.

TOMMIE JEAN DAMREL

Okay, great. I just wanted to make everyone aware that someone just send out a link on your chat box for where you can find out about the Tyvek envelopes. They googled Tyvek for you so that's there for you. Just a couple of more questions before we go on to our last speaker. You mentioned that even though you're kind of a tree hugger agency, it was still a little difficult. And someone asks, they're in a...

[00:55:47]

non-tree hugger type of agency, do you have any additional tips for them?

MARK HODGKINS

Well, that's a good question. But...

JOANNE STELLINI

Well, you know what? I think what we really presented--I mean what stands out to me in our presentation is that I think it was successful because we may be an environmental type organization, but what we found is that didn't make so much of a difference as what made a difference was really the outreach we did internally, and it was really the one-on-one...

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contact. I think Michelle mentioned this in her presentation as well about the success of her stewards outreaching to people within the office. And I would say I think that's really been our success is that we've involved many people from across the office and those many people can relate to many more people within the office in terms of helping them to understand that it's part of what we do

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and then to help them through the details of exactly how to do it. So I think it's actually been the diversity of the recycling committee...

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and then that personal attention to each individual to try to meet their needs and concerns and questions.

TOMMIE JEAN DAMREL

Okay, great. Well, if you have more questions, please keep sending them in, but for time we need to move on to our last speaker, Pat Maloy. So thank you, Joanne and Mark. And Pat, I'll pull up your presentation.

[00:57:17]

Okay, Pat, the floor is yours.

PATRICK MALOY

Okay, hello. I'm Pat Maloy. I'm the solid waste and recycling manager for Vandenberg Air Force Base. Next slide, please. Our base is approximately 99,000 acres. We're a huge facility. We're located in Central California on the coast, almost equal distance to San Francisco and L.A. We have over 10,000...

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residents on a daily basis. We used to have over 1800 homes, permanent family residents on base alone. We got over 1000 facilities on our base, and we also have our own landfill. Next slide, please. One of the things that we've done in our facility is we tried to create the philosophy that a managed waste stream can produce a viable resource. Nothing is a waste until you call it a waste.

[00:58:17]

It's a resource. Next slide, please. This has helped us out quite a bit. In the last few years, we've won twice, The White House Closing the Circle Award for federal agencies. I had the packages put up on webinar websites so that if anyone is interested in some of the details of the specifics, they can take a look at that and see some of the things that we've done at our facility...

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that they might be able to employ at their own. I believe we also have our pollution prevention guide. One of the things we found out early on was that people, if you put out and the instructions are too complex, people won't follow it. So we came up with a simplified guide to try and cover all the questions that people might have but not be overwhelming so that it intimidates people. Next slide, please.

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One of the things that we found out to be really critical in managing the waste stream is you got to really know what the requirements are. There are a number of federal, state, local, and organizational requirements. For us at Vandenberg, we have an internal auditing process that the commanders come up with a policy or a priority and we got to try and work that into the mix.

[00:59:47]

So what we tried to do is we tried to follow the pyramid scheme of the best way to stop waste is to prevent it. The next way is minimize resources that you're generating or using it and that'll help reduce. Next comes reuse. Basically if we can reuse the material in the same process by which you--the ones like office paper. Everybody uses office paper. You can reuse it. That's the best reuse of it.

[01:00:17]

The farther up the pyramid you are, the more value is recovered from the materials that you're diverting. Once you get down to recycling, you're recovering these basic material components of the materials that you're recycling. It might be the fiber content for paper. It might be the energy content if you're doing waste to energy. And then if you go down to energy recovery...

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that's basically you're just burning the material in order to try and get the energy value that's stored in there back out. And then the disposal is the lowest. None of the other options have worked, and we've had to go in and basically dispose of the material, I mean, either in a locking way or lose the resource at that point. Next slide, please. One of the things that we've done at Vandenberg is we have a very comprehensive tracking program. This slide is--

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this is an example. There is a copy of it up on the website. Basically this is how we track. This is our summary slide. The reports I get each quarter about 80 pages. This is a one-page summary. Basically it tells me who is generating the materials, what they're generating, what we are able to divert from the materials they're generating, what we have to dispose of. And by tracking this, I can keep putting it as on...

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who needs help, and then we can send out people to try and educate them and help them improve their process. For example, in calendar year 2008, Vandenberg processed over 88,000 tons of materials that were gonna be wasted out. Of those, 78,000 tons

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were construction demolition materials, 10,000 tons from municipal solid waste. Since we started the program in '01...

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Vandenberg's actual disposal numbers from municipal solid waste--we used to dispose 14,000 tons a year. We dropped it down to less than 7000. Of the C&D, we used to dispose of over 60,000 tons a year. We now dispose of less than 2000 tons, I believe it is. So we've had a significant reduction in the waste streams.

[01:02:47]

But basically, you have to keep in--it comes down to information. You got to have information, where the materials are coming from and then types, condition, and then you can make the plants. Next one, please. Next slide. What we do is we basically went through the program assessment process. What do we got? Where is it coming from? Is it usable or...

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is it only good for recycling? What do we wanna do with it? Are there federal regulations, a special material that must recycle? Is it a state-priority material? Is it something that the local organizations the commander has identified as he wants something done with this material? And then you take a look at what tools you got in order to try and impact that. Can you impact the contracts?

[01:03:47]

PATRICK MALOY

Can you go in and modify behavior? Can you install some sort of process to help the people that want to divert the material or reuse it? It basically comes down to the three Rs, which is reduce, reuse, recycle, in sort of that order. When you get to disposal, you've got to go back at the start and rethink what you're doing. If you've got the disposal, you're not perfect, so you've got to go back to the beginning process to try it again. And that sort of a plus--

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that's another part of the possible reuse. Next slide, please. This is sort of a summary of the considerations you got to take a look at. Recycling leads to a sustainable program, but you've got to make it so it's economical. If you make it so that your diversion or recycling program is costing your chain of command extra funds...

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time, labor, you're not gonna be very popular with them. What you gotta do is you've got to make it, create it in such a way that it's seen as a benefit to everybody, especially the people that are

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paying the bills. One of the things we found is individuals are the best point of contact. [SOUNDS LIKE] Bringing up individuals on board, they can help sway the organizations...

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your way and help support the process. Always try and consider the materials as a resource, not a waste. As soon as people start thinking of it as a waste, the handling of it, the processing of it, the storage of it, it all starts pushing it towards really becoming a waste. Public awareness is critical. We have a very large public outreach program, which I'll go into some more detail later...

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but basically you got to keep your people aware. You got to provide them education on what opportunities there are, and you got to go out there and spot-check so that you know who needs their help. Next slide, please. What you wanna do is set achievable goals, your day-to-day routine. When you first start up your program, if you're doing that, you wanna start out with...

[01:06:17]

you can't handle everything. Start making your low-hanging fruit first. Keep your eyes open for special interest items. Maybe someone in the chain of command has an eye of interest in recycling car tires. Keep your mind open when those opportunities come by because once you get a process installed and started, it'll keep going a lot of times based on its own momentum.

[01:06:47]

Sometimes you'll have one-time events. At our particular facility, one of the things that helped start up one of the major diversion efforts at our base, which is the material diversion center, was we had seven dormitory units with over 300 rooms full of furniture that were being upgraded. Old furniture was gonna be disposed of. Because of the low recovery value for used furniture...

[01:07:17]

it was gonna be crushed and sent to the local landfill, over 200 tons. What we were able to do is intercept that material, and we checked around with other local bases. We found one that had a need for that material and we sent over 35 trucker payloads of furniture to that base so they could reuse that furniture that we were gonna throw away. That right there, that one-time event...

[01:07:47]

helped us show how big the problem was. And they get the commanders onboard at our facility so that we were able to open up a facility to do this on routine basis. So even if it's just a one-time event, it can sometimes open doors for you. One of the things we try to do is we try in our program to target the biggest

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waste streams first. You wanna make sure that you're not spending all your time on a small waste stream, something that's like a 10th...

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of a percent or something of that nature. Sometimes you'll have some waste stream that composes a large percentage of the materials that you're generating. Focus on those first. Those are the ones that can really help you get your program start moving and getting some success under the belt of the program. Once you get some success, then you can start going after the less common materials. Identifying...

[01:08:47]

where you can impact the materials, and you get to that point of generation. Is there a central collection point? The further up the generation waste stream that you can get, the more likely you'll be able to save the highest value of the product. For us, like for example furniture, once the furniture has been taken out of the office, it's moved to a storage location. If there's not an immediate need, it's moved to a secondary storage...

[01:09:17]

location which is exposed to the weather. If it's not processed very quickly from there, it's moved to basically an open yard where it becomes very quickly degraded and weathered. The further up the waste stream we can get it, especially if it's at the point of generation, the more likely we are to preserve the value of that material. That's one of the things to consider anytime you recycle or divert it. And you also got to look at how can you...

[01:09:47]

impact the process and impact the in-house contracts. And you get your chain of command to authorize procedures to be altered so that you can have a positive impact on this. You have people in the locations, in the offices that are willing to work with you or help you divert the materials. Those are some of the things you've got to take a look at when you're doing your diversion program. Next slide, please.

[01:10:17]

One of the things that we try to do is we've run a pretty integrated program at our facility. We tie in green products. We tried to get into the planning process whenever a new program or project comes on board. We tried to get in early on and helped to make good decisions, the planners, so that they don't overbuy, they don't overdesign...

[01:10:47]

they don't make mistake decisions that we recognize would cause

a great amount of waste to be produced. We also tried to get in and work with our offices so that they don't end up overbuying. A good example is offices will typically, when they have a budget, they'll go in and they'll buy their paper supplies. They may buy a year's supply. But once you have that material stored in an office...

[01:11:17]

it becomes susceptible to damage, loss. They may change out the printer that uses that, something. One of the things we've been working with our organization is to try and keep them order a reasonable amount, not order a lifetime's supply. When we do get materials in, one of the critical things we find in our program is you have to have a place to store it. You have to have the means to keep the materials separated.

[01:11:47]

PATRICK MALLOY

If you mix everything together in your waste stream, it becomes an unmanageable mess. If you can keep it separated, you can store it in a good location that preserves its reuse value or its material value, it becomes a much more desirable commodity that you can then manage to try and find a home for. Right now we have a co-mingled office recycling program, but it goes through a MRF which then sorts out the plastic, glass, metal, and paper.

[01:12:17]

That's not always the best, but just in our particular situation, that's what we have so that's what we deal with. One of the things we find often with our organization is if a material isn't in use, they waste it out because of limited storage space. They'll buy a large quantity of some material. They won't have immediate need for it or it will be more than they had projected they needed...

[01:12:47]

and they'll just waste it out. One of the things that we've done is with our Material Diversion Center, we've set up a warehouse where those excess materials can be brought and we can take those materials and give them out to other organizations that might need them. Careless management of materials. One of the things that we witnessed in our program is like when furniture was being removed from its source location where it was being used and being turned in, the people moving it didn't take care of it. Once it was received as a waste...

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it was a waste and it was handled as such. I'm sure it's dropped out of trucks, handled roughly, the value was greatly diminished. Another problem is, again, once the materials are received as a

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waste, they ended up being handled as a waste. Extra materials being stored where they are exposed to weather, destroying their value. Those are some of the things you got to take a look at. That's why your collection and transportation part of the procedures for the materials have to be looked at.

[01:13:47]

Next slide, please. What we found--okay. One of the things we try to do is try to get a handle on types of waste, the categories. You have several different types. Mainly it comes down to your consumption waste--are those raw materials, building supplies, paper office supplies used almost daily.

[01:14:17]

Your industrial wastes typically are those like the tools, equipment, furniture. Your service wastes are like your food scraps, packaging, cleaning residues. Those things are harder to deal with, but if you can sort of classify what category your waste stream is, then you can see if it's--how easy it is to divert. Your industrial wastes typically are the easiest. Your consumption wastes, raw materials are your next. Service waste is very difficult usually...

[01:14:47]

unless you have some unique opportunities at your area. Encouraging participation in the waste classification at the source really helps. If you can get people to put the materials in the right containers and provide them those containers, they'll often do that. As long as you can keep it segregated, you can keep the waste--the material streams sorted, then you can maximize how much you can recover. And then we do try to...

[01:15:17]

like I said, through community outreach, provide those tools to the people in our facility. Next slide, please. I'm just gonna go quickly through the three Rs. One of the things, like in our facility, for the waste reduction, we encourage contracts to standardize on the types of materials that they were requesting. That was one of the things we were able to do.

[01:15:47]

If everybody is requesting a different type of material, then when that contract is over or that effort is over and those materials are released, they were--for that one use, they weren't interchangeable. So we try to get people to standardize on what they were ordering so that if they did come up with extra materials, they could give them to another contractor, another organization...

[01:16:17]

and that organization or contractor could use them then. A good

example is printers. If you've got a number of printers in your office and they all use different cartridges, then you'll have a supply of those cartridges for each type of printer, and you can't interchange them. But if you standardize on your printers, then you'll only need to stock a lot less replacement cartridges and you can use them on any of your printers.

[01:16:47]

We typically recycle about 12 tons of printer cartridges a year, and most of those are brand-new, but what's happened is the printer, fax machine, whatever the using device was, no longer was needed and somebody now has a closet full of extra cartridges that no one else can use. So by standardization you really do help reduce your waste.

[01:17:17]

On the industrial waste, try to get your people that are planning your projects, your organizations, to not buy huge extra quantities. Try to keep the quantities to what their true needs are plus whatever margin they need to feel comfortable. If you can minimize how much they overbuy, you can really reduce the waste that you generated. From service actions, you can encourage your like your food distribution areas...

[01:17:47]

to use paper products instead of Styrofoam, biobased cutlery that can be composted. If they do that, then you can reduce the amount of materials that are coming out of that waste stream. Just some thoughts. Reducing natural service waste, if you just use ISO 1400 procedures and green products in your cleaning, in your janitorial services, you can really cut down...

[01:18:17]

the amount of waste you're gonna be generating. Also, if you do use green products, you can encourage the user to think more about what they're doing. It's not an automatic robotic thing where I'm just doing a job and I need to use this and I don't care what the result is. If you give them some ownership, they can perform their duties a lot better and minimize the waste...

[01:18:47]

they're gonna be generating. One of the things that we're staring at our particular facility is we're gonna start a phase we don't--in the past, the way the Air Force worked is a single organization provided waste service for everybody. It didn't matter how much you generated. It didn't matter what you generated. You're paying for it. This main organization, an operations organization is paying for it. What we're doing is we're trying to get now so that the generators of...

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the waste--the individual buildings, organizations--will have to cover their own costs. The basic service will be rendered, but anything extra you're gonna have to pay. That way, it puts some incentive back on them to streamline their process, minimize their waste, and to be conscious of what they're doing. That's one of the new procedures we're hoping units institute in this upcoming year. It should help a lot. Next slide, please. Reuse of waste.

[01:19:47]

TOMMIE JEAN DAMREL

I think it's a little bit tight on time there, Pat, so we'll need to take questions in just a couple of minutes.

PATRICK MALOY

Okay. I'll hurry up. Reuse of waste. One of the things, like on our construction, we often found out one contractor would have a need for a material that another contractor is getting rid of. So what we did is, as part of our Material Diversion Center, we instituted an effort where one of our people would keep track with all the...

[01:20:17]

construction and demolition contractors on our facility and try and coordinate their efforts. What they needed, what they were getting rid of so that we could try and make sure that we could get people together so that we could satisfy their needs. And that did help reduce waste considerably. Furniture suffering from wear. One of the things we found is like [INDISCERNIBLE] reception area, a highly, publicly visible area, their furniture is changed out on a routine basis as soon as it shows any sign of wear...

[01:20:47]

and tear. That furniture is still perfectly usable, so what we've been able to do is try to encourage people. If you can't use it in your public area or your high visibility area, you can use it in a back office or you give it to another organization that doesn't have that public visibility. That right there had saved a considerable amount of effort and waste on our facility. Next slide, please.

[01:21:17]

Okay. Recycling, just a quick summary. We've done everything from BioBags to packaging construction wastes. We tried to get to get a higher reuse or the diversion of the materials. What we had done to this, we're just trying to recover basic materials, the core components of whatever it is that we're doing.

[01:21:47]

One of the things we've been trying to do to help encourage the markets is we've been really pushing our offices to buy recycled

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content items whenever possible. That way we can help build the market so that we can--we have some place to go with our recycled products. If no one's buying, no one buying the products that are produced, no one is gonna be buying the raw materials to produce them. Next slide. I'll give you some specific examples. I talked about it...

[01:22:17]

a couple of times. Our Material Diversion Center, what we did is we had--okay. Okay. We identified some specific waste streams at our facility, furniture, [SOUNDS LIKE] cell phone consumers, batteries, these are some of the things that we look on as either be one time...

[01:22:47]

or specialized waste streams in good handling, knock them off one by one. What we tried to do is focus on the largest quantities first then go to the lower quantities. What we did is in 2006, we established our Material Diversion Center. Next slide, please. What our Materials Diversion Center is it's a staff of three. It has a warehouse...

[01:23:17]

so the materials that come in that are new or usable or repairable, they'll take a look at them, move them in the proper category. They're available to anyone on the base that has a military need for them and then after they have been screened for about three months, we check with the Department of Defense Reutilization and Marketing Office. If they can't send it to another regional location, another base in California or in the western United States and they deemed it as scrap, we'll go ahead and...

[01:23:47]

offer it up to local public and allow them to come in and take those materials rather than turning them into a waste acid and/or landfill. And this is all done free of charge at our facility. Next slide, please.

VICCY SALAZAR

So, Patrick?

PATRICK MALOY

Yes.

VICCY SALAZAR

We have about two minutes left and so it seems like about--

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PATRICK MALOY

Okay.

...how much longer do you have? Because we could kind of close out a little bit and allow you to finish and take questions if you had a little bit of extra time because it seems like you...

[01:24:17]

PATRICK MALOY

Okay.

VICCY SALAZAR

Will that work for you?

PATRICK MALOY

Yeah. That'll work great. The only thing I wanted to mention is one of the things that you do get from recycling is the greenhouse gas reductions. In the slides that are remaining, take a look at them after the presentation. The National Recycling Coalition has an excellent model to calculate what the impacts of your recycling program are.

[01:24:47]

And you can use that to try and justify to people why you need to do this recycling effort. I guess we're at questions at this point. I covered a lot of material. I'm happy to answer any one's questions.

VICCY SALAZAR

Great. Before we take questions, Tommie Jean, if we could start closing out and then we'll take questions after that, so in case people need to leave.

TOMMIE JEAN DAMREL

Okay, great. So I just want to mention to everyone that when you are logging off...

[01:25:17]

you are going to get a little pop-up window with the survey. We'd really appreciate you taking the time to fill that out to give us some great feedback so we can continue to improve these. And in fact, there is a prize offered this month. So we'll put the names of everyone who did the survey in a hat and we will offer you a prize. And if we weren't able to answer your questions, we'll try to send you an email with an answer later. Vicky?

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VICCY SALAZAR

Yup. And I just want to say in case some of the other speakers need to get off the line since they had committed by 11:30...

[01:25:47]

thank you very much for presenting at this month's Federal Green Challenge call. And for those of you who can stay on, I just kinda wanna let you know, our next one is on Water Conservation 101, and then we'll also hear about who the prize winner is and the prize they received. So thank you very much for those of you, the speakers. Thanks again to [PH] Jim Wilson and the Seattle Federal Executive Board Associates for all of their work on these sessions. So now what I'll do...

[01:26:17]

is I'll turn it back over to Patrick. And, Tommie Jean, if maybe we could answer whatever those final questions are.

TOMMIE JEAN DAMREL

Okay, great. So, Pat, there's actually one from someone who was stationed at Vandenberg when the recycling had just gotten started in the housing area and they mentioned just how much the program has grown. How do you staff all of this?

PATRICK MALOY

We've actually cut our cost from when we first started. We used to run...

[01:26:47]

approximately a million a year and our cost had been reduced down to about a half million dollars a year. Basically, what we were able to do is the first two years when I took over the program, I started collecting data. Quantities of material, types of material, opportunities for recycling. I was able to justify getting funds in order to start up the recycling program by showing people what we could do, how much material...

[01:27:17]

there was and what the opportunities were. Where you need to get your data, have your card numbers. Last year, our program cost about half a million dollars to run. The economic impact of the base was between \$3 million and \$9 million in savings or cost avoidance.

TOMMIE JEAN DAMREL

Wow. Okay. Great.

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PATRICK MALLOY

So when you can show numbers like that, it's easy to justify that's a smart business decision. People will fund that.

[01:27:47]

TOMMIE JEAN DAMREL

And that's one of the big questions we have is that all of the presenters today were talking about establishing a baseline. Can you--and this is for Pat and for also Michelle, Joanne, and Mark. How did you begin quantifying? Did you actually weigh your garbage or did you go around and look at everything? I mean, certainly, Pat, with a huge area like you have, you certainly didn't go around to every trash can and looked to see what was in there.

PATRICK MALLOY

In our particular case at Vandenberg...

[01:28:17]

what we did is I started gaining contract information, what we were paying for disposal, how many times we're going out, the types of materials, and I just put in modifications to the contracts to tell them--have them tell me, "How much in this is paper? How much in this is plastic? How much in this is wood, prep, industrial wood?" And once I started getting that information of those breakouts, instead of this massive number of 90,000...

[01:28:47]

tons of trash, suddenly I had, "Oh, this is C&D or concrete, or this is industrial wood, or this is municipal." So I always had targets I could then work with.

TOMMIE JEAN DAMREL

Okay. Anyone else want to talk about how you were able to start in? I'm not sure if everyone is still on the phone.

JOANNE SELLINI

This is Joanne and Mark. And we were able to get some baseline information from our waste vendor who...

[01:29:17]

has caused an amount of garbage hold-off.

TOMMIE JEAN DAMREL

Okay. Great, great.

MICHELLE WARMUTH

And this is Michelle. What we did at City Hall, we went in and weighed each division or department's garbage and recycling,

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because each division or department had their own recycling and waste reduction goals based on their baseline. So it wasn't just a blanket goal for all of City Hall. We weighed each division separately just with the regular scale.

[01:29:47]

TOMMIE JEAN DAMREL

Oh, okay. All right. So one person just kind of has a note about biobased plastics, like the biodegradable plastic wares you can get for the kitchen. They were just wondering if you advocate the use of that because sometimes if they don't get into the compost, it begins the recycling stream that can be problematic. Have any of you had any issues with that?

[01:30:17]

PATRICK MALLOY

In our particular facility where we've implemented the bio-plastics, there hasn't really been a problem with those getting into the waste stream. But if you know--if you can get the whole facility where operations changed over to using the bio-plastics, then you can handle that material technically by composting and divert it out of the recycling waste stream into the composting waste stream.

[01:30:47]

TOMMIE JEAN DAMREL

Okay. But it sounds like it's a matter of communicating and letting people know where it goes and to being consistent with what you're using so everyone knows it's biodegradable.

PATRICK MALLOY

That's right.

TOMMIE JEAN DAMREL

Just a couple more quick questions. Earlier, we were talking about Tyvek envelopes. Does anyone know if padded envelopes or the envelopes that are kind of padded plastic on the inside, can those be recycled?

[01:31:17]

MICHELLE WARMUTH

This is a key from EPA. And I think they cannot be recycled because they're a combination of paper and plastic, unless you happen to have a way of pulling that plastic bubble padding out. It's one that's actually completely padded. Sometimes the inner padding is made out of a paper material, and sometimes it's made out of a plastic material. And so if you're not sure--well, first off, try and buy the ones with the paper material that are recyclable. If you're not sure...

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[01:31:47]

then you're better off throwing that into the trash so it doesn't contaminate the recycling stream.

TOMMIE JEAN DAMREL

[OVERLAPPING].

MICHELLE WARMUTH

You can open it up and look. Yeah.

TOMMIE JEAN DAMREL

Okay. One last comment that someone wanted to make about furniture refurbishing since we were talking about that, instead of even just putting it in a non-public work area, someone mentioned that there are many furniture refurbishers. So what they do is they have two sets of reception furniture, so when one...

[01:32:17]

when one gets worn, they send it out to be refurbished and use the other so that they are constantly able to, instead of buying new for the reception area, they're able to just kind of switch it out. So the wanted to share that with everyone. So that's it for the questions that we have today. And I think that's gonna wrap it up. Vicci, do you have any final comments?

VICCY SALAZAR

I just wanna say thank you again to our speakers, to Michelle and Joanne and Mark and Patrick. And thank you to all the participants. Hopefully, this...

[01:32:47]

was useful, as useful to you as it was to me. And we look forward to having all of you on the call on March 11th to talk about water conservation. And thank you, Tommie Jean, and again to the FEB Associate who worked on this, Jim Wilson from the Coast Guard.

MICHELLE WARMUTH

Thank you.

VICCY SALAZAR

Thanks everybody.

PATRICK MALLOY

Thank you.

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VICCY SALAZAR

Bye.

[01:33:10] END AUDIO