

*Hannah Debelius:* As you all know then, if you're not – oh, excellent. Thanks so much, Clifton. Thank you so much for joining us all today. My name's Hannah Debelius, and I thought I would – you have a little bit of video to be up there today while I'm talking. 'Cause as we all know, times are unprecedented, and I think sometimes that face to face is just really nice. So, thanks for joining me in my home today for the second quarterly call for the Waste Reduction Pilot.

Let's see here. So, as we all know, the quarterly calls are really designed for this family of the Waste Pilot, so we can spotlight leadership, present resources, and also provide a forum to share these challenges and opportunities. So, we are very lucky to have on the line two guest speakers today that I'll introduce when I talk about the agenda. But, we just want to keep this in mind that if you have a question or discussion item, please go ahead and throw that in the chat box or write it down so you remember when we open up the line at the end. Because we really do want these quarterly calls to foster that cohort feeling for everyone in the Waste Reduction Pilot. In addition to being a great resource that we can continue to utilize.

So, with that, for today's agenda I'll start with some introductions and some program updates. Then I'll turn it over to our first speaker, who's Samantha Kenny from the World Wildlife Fund and then Lori Drier from Flowers Foods, one of our partners in the Waste Pilot. Then we'll have some time for Q&A and discussion, and we'll wrap it up from there.

So, as I mentioned, my name's Hannah Debelius. I have all my contact information there. And hopefully, at least my name is familiar to some of you all because I've been working with all of our commercial partners in addition to Andrea Doukakis. Then I also am joined on the Waste Pilot team by Bruce, Ethan, and Eli who all work with our industrial partners. But, for you all, just a reminder, you're welcome to reach out to any of us any time. Or you can reach out to your regular Better Buildings account manager or technical account manager. Because they're also up to speed and here to help you any time.

A couple of exciting program updates before we jump into the content for today. First of all, thank you so much for everybody who stepped up and shared some of their waste data with us. We really appreciate that. We had almost a third of our partners at a point where they were comfortable sharing some of that waste data. I know this is a huge ongoing challenge we're also using the pilot to focus on. So, we're hoping that we'll have some early

results and some specifics that we can share with you all by the time we get to the Better Buildings Summit.

Also, last week, we published our first solution with a commercial partner, which is Shorenstein. So, you all can check out the solution at a glance they put together about engagement with their tenants and how they rolled out this waste management. I think you all notice now that the Better Buildings Summit is now a virtual symposium. But, it's over the same dates, which is June 8th to 11th. So, I hope you all join us for a session we have there that's going to release some of the early results from the Waste Pilot and also give a lot of opportunities for you all and a larger cohort of the Better Building family to really talk about waste and get through some of those challenges.

The summit is now completely free and open to anybody. So, this is also a great time if you have a waste manager or someone else on your team that would like to get involved but maybe wasn't able to make it in person, it's a great opportunity for them to join us virtually, especially for that session. And also, you can look forward to our next quarterly call in August. We'll be announcing that date in the next couple of months. And if there is a topic that you'd really like to see covered or you'd really like to cover yourself in one of those, please reach out to one of us because we'd love to hear your ideas on that.

Excellent. Without further ado, in just a moment, I'm going to turn it over to Samantha Kenny. Samantha Kenny is a program officer of the food waste team at World Wildlife Fund where she manages workstream to engage global food service in tourism sectors. The hotel kitchen platform released in 2017 in collaboration with the American Hotel and Lodging Association offers prevention-first food waste guidance for the hotel sector and has been adopted in operations around the globe, including in the US, Latin America, Europe, Africa, and Asia.

The 86th food waste platform released in 2020, in collaboration with the National Restaurant Association offers similar guidance for the US restaurant sector. And she works to coordinate the global WWF network on food loss and waste strategy. It's a really cool tool. I'm so excited that Samantha is on the line today to offer some of her expertise on this. So, without further ado, let's see if I can pass that off to Samantha.

*Samantha Kenny:* Hi, everyone. Can you hear me okay?

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*Hannah Debelius:* Yeah. I can hear you great.

*Samantha Kenny:* Great. So, I'm going to attempt to share my screen correctly. Okay. Can you see my presentation in the correct view?

*Hannah Debelius:* Yep. That looks perfect. Thanks, Samantha.

*Samantha Kenny:* Okay. That's awesome. Okay. Hi, everyone. I'm really glad to be speaking with you today. And thank you so much, Hannah and the DoE team for hosting us. My name is Samantha Kenny, and I work on the World Wildlife Fund food waste team based out of Washington, DC for almost four years. This team is multifunctional working across the global food system from farm to fork. And I spend most of my time focused on preventing and managing food waste in the food service sector, as Hannah mentioned, including in hotels, restaurants, cruises, and commercial food service.

I also spend a lot of time coordinating the WWF global network of offices and staff more broadly on food loss and waste strategy. So, WWF is a conservation organization that works with companies and communities across the globe to address the most pressing environmental needs of people and nature. So, you might be familiar with our panda logo or our work with wildlife and ecosystems. But, sometimes we get questions on how food and food waste fit into that mission.

So, we as a global organization work across these six pillars. We call them goal teams. Some of them are no-brainers, like wildlife, oceans, what WWF has always worked on. Food is among the newer of these goal teams, and it includes bodies of work focused on increasing the sustainability of global food production, eliminating food waste and loss across value chains and promoting sustainable consumption of food. The food program was added to WWF's portfolio once it really became clear how large an impact food and food production and consumption have on people and the landscapes where we do our work.

And as it turns out, food production is one of the biggest threats to life on the planet right now and always. When you consider the habitat conversion and resources that go into producing food, the logistics and processing chain used to move food towards end users and the huge web of distributors and outlets selling and serving food to the public. I know a lot of us are involved in that value chain. The food system is central to all of our lives. More clear than ever that food is one of the economic and societal

keystones.

Producing and consuming food accounts for the single largest sink of resources of any system, and it has had a compounding impact on the world's most fragile places. So, 70 percent of biodiversity loss is due to agriculture. You can see this heartbreaking photo here of this wild orangutan traveling it on the road that was cleared to transport palm harvest. You might think of conversion of the Amazon for ranching. But, an example even closer to home, the Great Plains of North America lose more wild land every year to agriculture than the Brazilian Rainforest. That really floored me when I found out.

To give a few more stats just to put it into some more context within WWF's mission, just showing the outside impact that agriculture has on freshwater stores, our GHG emissions and chemical use and that we're exploiting our fisheries and our topsoil resources really quickly that we need for productive food production into the future. And all of those stats are made even crazier when we understand that even after investing all of that land, energy, chemicals and fresh water into the production of food, one-third of what we grow ends up uneaten. Which is obviously a huge waste, but also a huge opportunity if we can find ways to rescue that food or keep it in the supply chain. Think of the people we can feed and how much more resilient our food system can be, especially in uncertain circumstances like the one we're presented with now by COVID.

So, how do we find all of this waste and how do we begin to mend the food system? So, ReFED is an organization working to address food waste in the US, and right now, they're coordinating a really amazing stakeholder group to support food access programs across the country as the food-insecure population continues to rise. Their 2016 report, which I've shown a photo of here, identified consumer-facing businesses as one of the lead drivers of food waste in the US along with farms with loss on farms and food waste in homes.

This report here was really the genesis of the WWF food loss and waste strategy giving us our North Star to work from farm to fork and make the largest impact on global food systems. So, in the US, WWF is particularly well positioned to work with governments and businesses. There is a really great campaign I'll mention on household level food waste, if you're interested, and that's run by the Natural Resources Defense Council, NRDC. You can find that at savethefood.com. It's really fun to click through those resources

if you'd like.

But, we as WWF US, see ourselves best positioned to address loss and waste across these five sectors I'm showing. I lead our work with hospitality towards restaurants and food service, which I'll spend a few minutes diving deeper into later in the presentation. But, I have colleagues on my team working with grocery retail sector, at farms, and at schools. Our engagement with grocery stores right now focuses really on this Pacific Coast Collaborative, which some of you might've heard of. It's a voluntary agreement among cities along the Pacific Coast to fight food waste.

And through that platform a resource for fighting food waste in grocery stores will be tested. We have a great report series focusing in on post-harvest loss called No Food Left Behind. The most recent report in that series examines how we might leverage gig economy workers to harvest crops. And we have a curriculum and set of resources geared for middle and high school students to learn about food waste and its connection to nature and wildlife.

Those resources include guides on conducting school cafeteria food waste audits and analyzing that collected data through an online program database that holds information from hundreds of cafeteria food waste audits that we've conducted in the last year through partner schools. While I'm not involved in any of that work directly on the day to day though, it's really cool to stay up to date on it. I'm happy to direct any questions you might have to my colleagues that work in those areas. I'll share my e-mail at the end of the presentation for any follow up.

So, each of the programs I mentioned really favor the prevention of food waste over any management strategy. Prevention secures the most benefit for our systems, and it's in line with US EPA guidance that I've shown here. If food waste can't be prevented, it should be recovered whenever possible to feed people. In the US, this is often coordinated through a huge network of food banks operating under Feeding America.

If recovery to feed people isn't possible, there are several examples of successful repurposing of unused food to feed animals. While I've seen some direct feeding examples where a food outlet will donate unused food to a pig farmer, for example, for direct consumption, WWF is currently working with Qantas on a really cool project to better understand value-added processing to turn food waste into animal feed pellets at a commercial scale, which can offer numerous environmental and supply chain benefits

including energy efficiency. I'm by no means an expert in that body of work but would really love to connect anyone interested with the team working on that project.

So, if those prevention or reuse options aren't possible, then we get into disposal strategies. And there's some debate on how industrial uses or composting should be ordered on this list, but either could be more beneficial depending on the context where it's operating. Disposal options include things like recycling cooking oil and biofuel, creating compost or soil amendment to sell or distribute to local ag., or using anaerobic digesters to make energy. The team's also thinking about working with other WWF colleagues who function with the dairy sector and on climate goals to understand the viability of scaling energy producing anaerobic digestion as a productive end of life option for food waste.

There's a lot of really interesting pros and cons when considering that end of life \_\_\_\_\_ that I'd talk about if anyone's interested, and I can connect to some of the people that know much more than me on that. But, the absolute least preferred method of disposing food waste is in a landfill or an incinerator. Food is always food, and it can feed people or animals, or it can be used to grow more food. It takes a lot of energy to burn food in an incinerator; it's such a wet item. And burying food in a landfill is likely worst of all because food in a landfill sealed in without oxygen, it breaks down to methane.

You might've seen pipes sticking up out of landfills. I was that nerdy kid who always stared out the window at landfills. I've been a waste nerd for life. But, there are pipes that are actually used for off-gassing methane from organic material that's decomposing down there. And that's quite a potent greenhouse gas. So, with all of those considerations in mind, my team sought out four years ago to first engage the hotel sector. We saw hotels as employing a critical mass of food service workers and serving a critical mass of the public. We boiled the EPA-inverted pyramid from the last slide into this strategy, prevent whatever you can to secure the maximum benefit for your business, your community and the planet. Donate what you can't prevent and keep anything left over out of landfills.

All of these efforts are underpinned by separation and measurement. As we've found, it's nearly impossible to justify an initiative to fight food waste if it's invisible in your operation. The first step is really to separate all of that food from the other waste streams. Begin measuring it by weight, volume, dollars, anything

that can help you put it into business terms to understand the scope and scale of your food waste problem. We took those principles and with funding from the Rockefeller Foundation, partnered with the American Hotel and Lodging Association about four years ago.

The HLA worked with us to convene a hotel sector working group that included lots of the big players, Hilton, who we were already working with on food waste, Marriott, Hyatt, IHG, Accor, we worked with these stakeholders to develop and launch a platform for hotels to prevent and manage food waste in every aspect of their operation. The guidance, we ordered it chronologically from purchasing food all the way to disposal, as well as by staff function. So, anyone who visits the platform website can find resources that are most relevant to their job.

The website, [hotelkitchen.org](http://hotelkitchen.org), it includes free staff video training series, tips to serve more efficient buffets, strategies to message to get on the top of the food waste, and just about every other resource we can think of including. We launched that back in 2017 and have since been working with the Rockefeller Foundation to scale adoption through our global WWF network to key sectors around the globe. So, I've written out this [hotelkitchen.org](http://hotelkitchen.org) on the last slide in case anyone's interested to take a closer look.

Then starting last year, we began working with the National Restaurant Association to form a similar platform geared to the US restaurant sector. It follows the same principles, prevent, donate, divert, as Hotel Kitchen, but it's specific to restaurants from quick service through to sit down independently dining. New resources for this platform include a really great restaurant-centric training video and an ingredient yield calculator to help operators plan menus. All of those are at [86foodwaste.com](http://86foodwaste.com). I've also written that out on my last slide, and we just launched that a few months ago.

So, as you can imagine, COVID has had a really outsized impact on these sectors that I spend a lot of my time working with. We've seen a huge disruption, almost a full stop, to hotel operations and a drastic impact on the day to day of almost every restaurant. I'll mention now that our primary focus in this moment is finding ways to support our partners through these closures and respecting all of the new responsibilities and shifted priorities that have come up over the last few months.

With that said, we're also considering the role that food waste will play in these businesses into the future. A future that's more aware and sensitive to the system disruptions and one that is more

focused than ever on contributions to help communities. Eliminating waste from our system is more pertinent than ever and the benefits a business can see from this work are more integral now than they've ever been before.

We see these benefits as fourfold. On the personnel side, we've seen this work motivate and energize staff teams. We even see that work on this initiative can improve employee retention and morale. Culinary teams are the physical and creative driver of this type of initiative and wasted food can also be a waste of their time and talent. Those individuals are often members of the surrounding community, and they can have a deep and personal connection to local food insecurity as well. It makes them really fantastic partners for launching and leading this type of initiative.

There are major benefits for the planet. Local and global environment, as we chatted about earlier, so these efforts can help companies achieve certain brand or property environmental or social goals that they've made publicly. And another large opportunity is the PR and marketing benefits happening in sustainability as an increasingly popular trend for travelers and diners.

As far as the impact of food waste initiatives on a hotel or restaurant's bottom line, Champions 12.3, it's a multifunctional group working to achieve UN SDG, sustainable development goal, target 12.3 released two business cases that showed a seven to one return on investment for hotels and restaurants that are working to address food waste. So, these studies were actually conducted separately with two distinct international cohorts. It's a convenient coincidence for me that they both ended up showing the exact same return on investment. For every \$1.00 invested in this type of initiative in hotels or restaurants, they were seeing a \$7.00 return.

So, that's a really quick overview of the WWF's food waste program and a bit of a deeper dive into the workstreams that I coordinate. I hope that if I mentioned a body of work that you're interested in, even if it's not my specialty, that you'll reach out to learn more from my colleagues. And I'm really happy to make any of those connections within WWF or through my network.

To finish us up today, I wanted to share a bit about the territorial reach of these programs in case it lines up well with a priority area for you or your company. And that might spark some follow-up. So, for all of these I can lend more details or local context offline if you just shoot me an e-mail. So, the food waste program I



described, including our work on Hotels Kitchen started here in the US office as WWF US. Early in that program development, we led two regional cohorts to adopt hotel kitchen guidance through consultant leadership in Portland, Oregon and Baltimore, Maryland.

And just last year, we were funded by the American Hotel and Lodging Education Foundation to seed larger engagements on Hotel Kitchen in Denver, Colorado, Texas, and in south Florida, greater Miami area. When we were directed by Rockefeller to scale engagement with hotels on food waste globally about three and a half years ago, we learned that other WWF programs were already working to address food waste in hotels in the countries I've highlighted here in light green.

So, we've spent some time learning from their experiences and leadership, and we are still to this day really tied to them strategically and learning from the different actions that they're taking with their respective program. Then over the last three years with Rockefeller support, we've been working to build capacity and conduct pilots with hotels in all of the countries you see here colored in blue.

In Eastern Europe, our team, operating as WWF Adria, led pilots in both Croatia and Serbia. That's why they're lumped. In some of the countries you see here have hired permanent staff in this function, both specifically on hotels, but some have evolved into larger strategic staff on food systems. And others are just getting started. We are reporting – again this is multi-year scaling effort to Rockefeller later in 2020. So, some of them are still active.

And I see here that I mislabeled Zimbabwe as Kenya twice. Kenya doesn't appear twice. One of them is Zimbabwe. And then earlier this year, the WWF global food practice launched an effort to develop coordinated strategies on food loss and waste across our network. It's been a really cool effort. We've been working with a global cohort of WWF staff. You can see their territories here highlighted in dark green. We've been working with them to develop a strategy that's really specific to their country or region.

And we're in the process of finalizing those later this summer for the purpose of coordinated projects and fundraising. And those strategies definitely transcend food waste in hotels. They call it full farm to fork view that addresses food loss and waste across the global supply chain.

And finally, I wanted to highlight that there are many other regions and organizations doing really great work to address food loss and waste. WRAP, the Waste and Resources Action Programme is of particular note coordinating voluntary agreement efforts in key areas globally. They started in the UK. They led a really awesome voluntary agreement work in the UAE with lots of great partners, and they're working on that elsewhere as well.

And I wanted to mention that WWF has MOUs with WRAP and other organizations or more informal relationships with the groups working on food waste globally, and I'm really happy to make connections and introductions if anyone's interested in a region where we don't have particular reach that you don't see me highlighting here. So, hopefully, you've taken quick notes of any overlap you see between your work and these topics and areas. And I really look forward to connecting with any of you to provide more detail or to direct you to someone else in my network that might offer some opportunities for collaboration. And with that, I'll wrap, and I'll send my thanks and best wishes to everyone on the line today and from the team from DoE for hosting us. Thanks so much for your attention and for all the work that you do here on the waste pilot.

*Hannah Debelius:*

Great. Thank you so much, Samantha. I really appreciate all those \_\_\_\_\_ the slides, and I know that some of the partners you've worked with on the Hotel Kitchens resource are also some of the partners we have in the Better Buildings program. So, it's always great to see the reach beyond that. So, with that, I'm going to share a quick slide again so that I can introduce our next speaker.

So, Samantha was, of course, one of our experts in the industry, and she's talking about this food waste issue overall and some of the wonderful resources and strategies that they've put forward. And next we're going to hear from Lori Driver, who will be able to share this perspective of being a partner in our waste pilot. So, I think that'll be really great. And she's also more on the industrial side of things.

So, Lori Driver is the corporate sustainability manager for Flowers Foods. Over the 15 years of the company, she has worked in production, quality, human resources, environmental, safety, and sustainability. She identifies project initiatives and develops programs across all operations related to energy efficiency, water savings, and waste reduction and recycling. So, with that, I am very excited to turn it over to you, Lori. Looks like you're starting to share content, and that looks great from our perspective. Lori, I

can't hear you yet. Is it possible that you're on mute? Lori, is that you?

*Lori Driver:* Yes. Can you hear me?

*Hannah Debelius:* Yep. Now we can hear you great, and we see your slides. So, go ahead and take it away.

*Lori Driver:* Thank you guys for having me. I'm Lori Driver, I'm the corporate sustainability manager at Flowers Foods. Flowers, to kind of give you a little background, started in 1919. We have 26 factory facilities from east to west coast with over 9700 employees. We produce brands such as Nature's Own; DKB, Dave's Killer Bread; Canyon Bakehouse, Tastykake, Cobblestone, Mrs. Freshley's, and Wonder Bread. We serve 85 percent of the US. So, a lot of what we're going to talk about today is how we reclaim our food waste that we produce in our industry.

In the baking industry, there are several types of food waste. We have our food-grade oil. This is typically used in our fryers at our cake facilities or the panel that is used to help facilitate the bread. We have our bulk ingredients. In most cases when we have bulk ingredient issues, we send those back to the manufacturers. In other cases, we will try to make sure we coordinate it so when the ingredient goes obsolete that we schedule it accordingly to our production runs, so that we don't have much waste.

We have wet food waste, which is like your dough, your uncooked, your unprocessed food that you happen to – we generate that type of waste on the production line over the course of the production run hours. And then there's dry food. This is your finished product that may have been damaged, or there was a quality issue that may have prevented it from going to the market. And stale, stale is the term that we like to use in the industry where the product has made it to the market but did not sell at the store and was returned to us for us to repurpose it or dispose of it in some way.

This is basically just trying to give you a little bit of a picture of the types of waste we produce and the volume. So, in our bakery waste, this is our combination of our wet and dry, some bulk ingredient that might get mixed in for whatever reason. Ninety percent of the waste that we produce is typically in our manufacturing facility. Nine percent is what is coming back from our stores, and we have about one percent that is our food-grade oil.

Now, with that being said, with the bakery waste, sometimes we do blend our systems. So, we may get some of that stale or callbacks back into our bakery waste. But, typically over 200,000 tons we reclaim and repurpose each year. The different ways that we try to reuse and recycle our food waste is we do our food banks. We have discount stores and thrift stores. These are Flowers' own thrift stores where we will bring the product back from the stores and put into our own thrift stores for a discounted price.

And then once we are no longer able to contribute to the food banks and the thrift stores, and typically it's like at what point can we stop sending to the food banks at discount? So, once we reach the expiration date, then we have to pull from the market all together. Then we switch to animal feed conversion. We usually take all of our bulk product, and it goes to recyclers for animal feed conversion. Of course, our food grade oil is its own sector completely. Small amounts can be blended with the bakery waste and stale. But, as far as the bulk oil, it is usually converted into biodiesel with certain key recyclers.

So, at our manufacturing facilities, what we have done is we have partnered with several different recyclers in geographic regions. And we have set up bulk stations at our manufacturing facilities. It's important to make sure we maximize the loads to at least 20 tons per load before going to the recycler. This keeps emissions and trucks off the road and also maximizes cost efficiency, so these programs are sustainable for a more long-term basis.

If bulk systems can't handle additional volume, well, maybe the site is not large enough for more than one bulk system. We will do different types of operations customized to a drop trailer to collect stale haul back materials. At our warehouses and distribution centers, which is typically where we would collect our stale, some of them have higher volume because they may serve the hub for a lot of smaller warehouses or in that different market or geographic region, they may have a higher stale count.

So, at those we try to implement bulk systems directly at those sites, so they don't have to try to move the product through another truck on the road back to the manufacturing facility. In these types of situations, we typically do drop trailers, dry vans, or compactor type systems. These type of systems are a little bit lower cost than a bulk system and are easier to do in smaller operations.

Then, as I mentioned, some warehouses actually haul their stale back to manufacturing facilities if there's an existing route in the

logistic lines for that material to make its way back. So, at our food banks and discount stores, Flowers participates in local food banks and donates within their community. In 2019, Flowers actually donated over \$10 million to food banks. And some of that was fresh product, and a portion of that was also repurposing our food waste back into the system.

To kind of speak to the earlier presentation, I thought it was interesting to see the food pyramid and how it actually kind of falls into the same line to what we try to achieve here at Flowers. A good portion of the product that does not sell on the market, once we do the food banks, then we put it in our own discount stores, so that the local community's aware most of these materials are being produced and generated can be purchased. And once it is no longer viable for discount stores and human consumption, then we move it over to animal feed conversion.

To speak further on the waste oil, some of our cake plants will reclaim oil to be reused as biodiesel. Others with lower volumes may blend their oil in with their bakery waste for the animal feed conversion, and then others may use intermediate bulk containers. These intermediate bulk containers known to us; we usually call them IBCs. They hold up to 330 gallons or 55-gallon drums. Then the recycler can – we can schedule pickups for these materials so they can be converted to biodiesel.

We also have in one of our cake plants where this particular facility has an oil filtration system, so they can completely – not completely but significantly reduce their oil use. And they basically go through a filtration system to eliminate waste. With that being said, we are continuing to do several different things. We recently set our goals to a zero waste to landfill to achieve a target 98 percent divergent.

Part of what we've done to tackle this is we've created an internal waste services team, and we did this in 2019 to provide that additional support. By doing this, we've been able to create some transparency that also allows us to see weaknesses or things that we need to do to improve or identify if there are any more food or any other types of waste going in the landfill that would be better in another avenue.

We also had site visits as part of this program that identify opportunities for improvement. And then we also do dumpster surveys. And the great thing about the dumpster surveys is they can be done remotely. This is typically where we have an inquiry,

a questionnaire and it's usually a seven-day photo op where they take pictures of all their collection containers for seven days. So, we can evaluate the materials, make sure they are being sourced and going to the right place.

And then with that we also continue to partner with other departments. As I mentioned earlier, logistics, marketing, distributors, and then retail and manufacturing to make sure that we are doing everything we possibly can to continue to reclaim all our food waste and divert it from landfills. With that being said, I'll hand it back over to Hannah. If anybody has any more questions or details about specifics, feel free to e-mail me at [lori.driver@flocorp.com](mailto:lori.driver@flocorp.com). I'd be happy to kind of have a one on one with you about more \_\_\_\_\_.

*Hannah Debelius:* Great. Thank you so much, Lori. One moment I'm looking to share my PowerPoint here again. Clifton, my computer seems to be frozen. If you wouldn't mind to share the Q&A slide that would be wonderful, if you have that up Clifton.

*Clifton:* I'll do that in a second.

*Hannah Debelius:* Excellent. Well, thank you so much, Lori and Samantha, both for sharing all of your expertise and your experience here. We have one question already that came in the chat. But, just as a reminder for all of you, you're welcome to either do the chat box, or you can take yourself off mute. The first question is, – perfect. Thank you so much, Clifton, I appreciate that. The first question we have, it looks like it's directed towards Lori. And it says, "What advanced or innovative technologies, such as food packaging or materials, could food manufacturers use in the manufacturing phase to increase the shelf life of food and reduce losses in the end use phase? So, for Flower Foods, for your point of view, can you name one technology that's new or exciting that you've been able to use to eliminate waste downstream?"

*Lori Driver:* That's a really tough question. I think it's all about the science. That's really more of a business industry question. But, there is a science to make sure that you just maximize the shelf life of your product, particularly for bread. But, I can't speak to a specific technology on that.

*Hannah Debelius:* Yeah. Anyone else also, if you're on the line, you're in the pilot, you're welcome to also pipe up if you have an idea for that. And I'll also say, Elizabeth, which is one of our partners from the city of Beaverton, Oregon, reached out to me earlier this week because

they've done a little bit of food waste reduction and composting themselves. So, Elizabeth, are you willing to pop on and unmute yourself and share a little bit of your experience from Beaverton?

*Elizabeth Cole:* Yes. Can you hear me?

*Hannah Debelius:* Excellent. Yeah. I also do have a slide right after this one that has those two resources that you sent over earlier. Clifton, if we wanted to just advance one forward while Elizabeth's speaking, that would be great.

*Elizabeth Cole:* Great. Thank you. I also posted a question for Samantha. I was typing as you were asking me to come on. So, I was like, okay.

*Hannah Debelius:* I'll get to that one next.

*Elizabeth Cole:* Yeah. Thanks so much for everybody's presentations. Those were great. And yeah, I just wanted to say, we did work – so Metro's our regional government in the Portland, Oregon area. I live in the city of Beaverton, it's within that region. And a few years back we had worked with World Wildlife Fund on their Hotel Kitchen. I think on those links there's a couple videos, and there's a webinar from Hotel Kitchen when we worked with them on there. That might be interesting for some of you to look at, and a bunch of resources that we use in our region to work with our local business community that you might find useful as well.

We coordinated with the ORLA, Oregon Restaurant & Lodging Association. And then our state Department of Environmental Quality and then the regional governments to create this campaign, which is called Food Waste Stops with Me. Right? Yeah. Oh my gosh. There's so many names to things. 'Cause we also have a residential one called Eat Smart, Waste Less. So, it's very confusing.

So, I just thought I'd share those resources that are on there. You're welcome to reach out to me if you have any questions about any of the tools or resources on there. And I can either try to answer your questions or link you with the metro people who kind of worked on that campaign. And it's still ongoing. We've been doing it for a couple years now. Yeah. I definitely have some lessons learned and takeaways that we're happy to share.

*Hannah Debelius:* Yeah. Thanks so much, Elizabeth. And I know that you're unique in our pilot in that you're in the public sector. You might be our only partner for the public sector in the pilot. Of course, we use

many other Better Buildings partners. But, I know a lot of our other partners had experience working in conjunction with their cities or regions on that. That came up in fact just in the Foods at a Glance that we worked on with Shorenstein last week. So, interested in those experiences as well.

I'm going to go to the chat box because we have a couple of things there. A question for Samantha is, "Could you expand a little on differences between the Hotel Kitchen resource and 86foodwaste.org?" Samantha, you might be on mute if you're speaking.

*Samantha Kenny:* Can you hear me now?

*Hannah Debelius:* Yeah. Now you're loud and clear.

*Samantha Kenny:* That's great news. Okay. So, thanks so much for the question, Elizabeth. It's really great to hear from you. I'm such a huge fan that Metro and ORLA do, and I'm really glad to be collaborating on that. Absolutely. So, I guess the primary difference between Hotel Kitchen and 86 Food Waste is how they're directed to their audience. So, one is really crafted to a hotel audience, and the other is really crafted to the restaurant sector. And we found that both sectors, even though they overlap and that their culinary functions have kind of different cultures, different language and also real comfort when resources are directed directly for them and are understanding their context.

So, Hotel Kitchen is backed by AHLA as its kind of expert industry base. And 86 Food Waste is backed by NRA. Obviously, those two groups are really well connected. And I'll say where it's really based on the same principle, and you can find the same inspiring underlying foundation for both, you're going to find more information on quick service dining on the 86 Food Waste platform, some of those grab and go. We have some fast food restaurants involved in our pilot process. Also, some independent owner/operator-type guidance.

Where Hotels, really a lot of the meat of it is about buffets, selling to large-scale clients for meetings and events and some of the processes that are more specific there. But, a lot of the big differences are going to be in the language. There's different roles in a hotel, one of them dealing with clients, one of them dealing with clients and guests, one of them dealing with customers. So, it's just about tailoring that to the right audience, and it could be



further tailored forever until we have everyone with their own strategy to move this forward. But, thanks for the question.

*Hannah Debelius:* Yeah. Thank you so much for that clarification, Samantha. And Clifton, if you want to back it up, just the previous slide so that people that want to reach out directly to our presenters are welcome to with that contact information. The next question I have is back over to Flowers Foods. Lori, I'm not sure off the top of my head if you all shared your data with us this year. But, if you're comfortable, the question is, what is your current diversion rate, and are you planning to do the third-party certification to validate your new diversion rate once you achieve it?

*Lori Driver:* Our current rate is at 92 percent, and what we typically do is get to a – we do a validation each year with our entire audit group. It's another division within the company. We have not decided to seek third-party certification at the time. But, we are going to continue to evaluate it. However, with the numbers that we can get we make sure we have backups for working data from all the recyclers to support every bit of data that we bring into that number.

*Hannah Debelius:* Okay. Great. Thank you so much. Again, just a big thank you to everybody who also did submit data with us. We're hoping for some it will have a lot to share and be able to learn from each other on that. Let's see. I've got a quick question here again for Elizabeth, which has said, "Do you have any composting advice?" Actually, I'm going to come – I have a little bit of a question to prompt the other speakers as well is that we are also looking for information about if you've rolled out compost or food waste things to your employees or your direct tenants. So, our other speakers can think about that while Elizabeth, if you have any composting advice, please share it.

*Elizabeth Cole:* Yeah. Am I muted again?

*Hannah Debelius:* We can hear you loud and clear.

*Elizabeth Cole:* Oh, you can hear me. Sorry. Oh my gosh. Yes. We do have some advice. It's challenging. It's still challenging even after doing it for a while. I think one thing that's really helped us regionally is we've created a mandate. So, our regional government created basically a requirement for businesses that produce large volumes of food waste or food scraps to compost. And that it's a phased approach starting with the largest generators, which mainly are grocery stores and then working on down.

It won't cover all businesses, so some really small restaurants won't be covered. But, that has helped leverage, obviously, 'cause it's required. And then eventually that'll lead to a landfill ban on food. The other thing that has really helped in our city is that we, for a long time, have had recycling bundled into our garbage rate. So, you pay one rate for garbage based on your volume, and that includes your recycling service. So, it's not an additional charge.

So, we've created that same structure, fee structure with food. So, basically businesses can add compost. It's included in the garbage rate. Pros and cons to it, it's kind of a hidden cost, but at least it's not an upfront additional. They don't have to pay more money to compost up front, at least on their garbage bill since it's included. So, those are two really important kind of more infrastructure things. Then I'm happy to talk more offline if you want with more kind of direct to business and tools we use.

We provide containers to help restaurants get started. So, actually buckets, like hard items that can kind of overcome a hurdle and signage and training for staff and all sorts of resources like that too. So, great question.

*Hannah Debelius:* Thank you so much. It's interesting to hear it from that perspective. I know we have multiple partners that have brought up either the challenge about the extra fees associated with hauling waste streams that are diverted and then also working within the guidelines of more strict diversion guidelines from different localities. For instance, San Francisco's coming to mind because they also choose a lot of guidelines and resources on a local level.

So, I have a question for either or both of our speakers. But, I will say that this question in particular is really – I think a lot of you on the line might be able to also pipe up. So, if this also speaks to you or you'd like to share, go ahead and in the chat box let me know if you'd be interested to speak on this, and I'll turn it over to you after I give our speakers a chance. I think it could be a great conversation. The question is, "What sorts of food waste initiatives are you working on in your offices for employees?" Samantha, not to put WWF on the spot, what you all are doing in your headquarters, but I'm curious to know the answer to that or if you've been involved in that at all.

*Samantha Kenny:* That's an amazing question and thank you to whoever asked it. Of course, we always rail against in all of our programs that preventing food waste, valuing food is something that is a culture shift. So, it's something to embed in every individual. We fully

agree. So, my team at WWF US doesn't directly deal with any building facilities management. But, we have had lots of conversations, both with our great facilities team, and we have a really great group called the Disruptors Club that does a lot of internal disruption and is the one who set up recycling back in the day and makes them kind of walk the talk.

So, we do have building-wide compost. It's supplied by Veteran's Compost. Anyone's who's a DC local is probably familiar with the great service, the great team they have operating there in –

*Hannah Debelius:* That's who comes to my house. My personal compost.

*Samantha Kenny:* Exactly. And I'll mention, they do relatively small-scale composting, so they have relatively small buckets. They don't handle really large volumes. They're not a provider we often work with on the hotel or restaurant side, but they might be a good fit depending on size. And we also do – we have worked with our development team to make sure our prevention guidance, like our buffet setting guidance and our ordering principles are embedded in our meetings and events that we host both in the building and at other venues.

So, it's definitely something we're always thinking about. Just like the partners we work with, it's something we can always do better at, and there's always more people to engage. But, it's been really fun to watch the pandas double down on food waste too over the last few years while our team has been bugging everyone.

*Hannah Debelius:* That's great. Lori, or anyone else on the call, do you have experiences of rolling out some sort of food waste reduction or diversion? Perhaps within your headquarters or for the direct employees of your organization. We'd love to hear from you on that.

*Lori Driver:* We have a few locations where there is opportunities for collection for food waste from the breakrooms or from the offices. It's typically based off of the geographic region and what's available in those areas. And those are usually collection containers, almost like your residential trash except that it's designated for the food waste. And it usually goes to compost as well. But, it is typically limited to the geographic region and what's available in those areas.

*Hannah Debelius:* Yeah. Absolutely. Great. Well, we have time for a couple more questions if anyone wants to add it in the chat box or pipe up and

take yourself off mute as well. I think \_\_\_\_\_ one of our protocols \_\_\_\_\_, but we haven't heard in this conversation about the overlap of residential properties and food waste. So, if anyone is representing that perspective on the line, I'd love to hear from you about if that's worked and how you've done that with residential properties. I know a couple of our partners are trying that, and I'm curious to see how it's going and what those challenges might be. Great. Otherwise, I'm going to wait a couple of seconds and see if we have any more questions come up on the line. Or anyone who would just like to share their experience dealing with food waste, whether it's through this pilot or something you tried out maybe that didn't work.

*Elizabeth Cole:*

I can – this is Elizabeth again in Oregon. I can chime in a little bit about the residential. We've had a residential campaign for, I don't know, four or five years, and it's really challenging. I think our biggest hurdle is measurement, and it's really expensive to measure and not having great baseline data and then not being able to really measure how much we're capturing, and participation rates is just really hard. It's hard to know how well you're doing. You can really only measure on how many contacts you've made or how many resources you hand out. So, it's really challenging. So, if anybody has ideas on how to do residential measurement on cheap budget, let me know.

*Hannah Debelius:*

Great. Thanks so much, Elizabeth. Well, Clifton, if you wouldn't mind advancing two slides just to go back to the contact information for our – perfect – our leaders here. Was that it? I think we're going to wrap up here. I just want to say thank you so much for all of you for joining us again today. Especially to our speakers, Samantha and Lori, thank you so much for your time. I think it was really interesting to see those perspectives, and I'm excited for this to be a resource for our pilots.

For any of our partners, if you have questions about your data or what's going on or what's new, you can reach out to all of us. As usually we're happy to hear from you, and I hope that we'll see you during our early best practices from the waste pilot session for the virtual leadership symposium, formerly known as the Better Buildings Summit. It's virtual this year, coming up in June. Thank you all so much.

*Female:*

Thanks, Hannah.

*[End of Audio]*