



U.S. CHAMBER OF COMMERCE FOUNDATION

Best Practices and Solutions for Addressing Food Waste

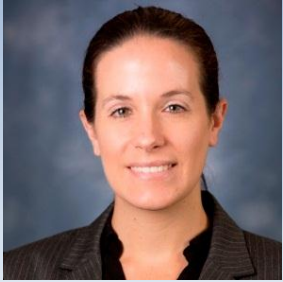
November 4, 2014

Conversation in partnership with:





U.S. CHAMBER OF COMMERCE FOUNDATION



**Jennifer Gerholdt, Director,
Environmental Initiatives,
U.S. Chamber of Commerce
Foundation**



**Carolyn LaFleur, Researcher,
Houston Advanced Research
Center (HARC)**



**Tiffany Kollar, Office of
Conservation and Recovery,
U.S. EPA**



**John Trujillo, Director, Public
Works, City of Phoenix**



**Erica Ocampo, North America
Sustainability Manager,
Packaging & Specialty
Plastics, The Dow Chemical
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U.S. Chamber of Commerce Foundation

- Strengthen America's long-term competitiveness by addressing issues that impact our nation, our economy, the global business environment
- Corporate Citizenship Center
 - Help business leaders maximize their positive contributions to address pressing environmental and social challenges
 - Lend voice to business efforts, deliver insights to inform decision-making and best practices, and provide a platform for partnerships
 - Current programs:
 - Environment & Sustainability
 - Health & Wellness
 - Economic Empowerment
 - Disaster Response & Community Resilience
 - STEM
 - Education



Best Practices and Solutions for Addressing Food Waste

Meeting the Food Waste Challenge



Carolyn LaFleur, P.E.



HARC

*An independent research hub
helping people thrive
and nature flourish.*

One Third of Edible Food Produced Globally Each Year is Lost...

1,300,000,000 Tons



Photo credit: Petrr, Flickr

http://www.wri.org/blog/2014/10/reducing-food-loss-and-waste-overlooked-strategy-creating-sustainable-food-system?utm_campaign=socialmedia&utm_source=twitter.com&utm_medium=worldresources

**36 Million Tons
Wasted Annually
\$162 Billion**

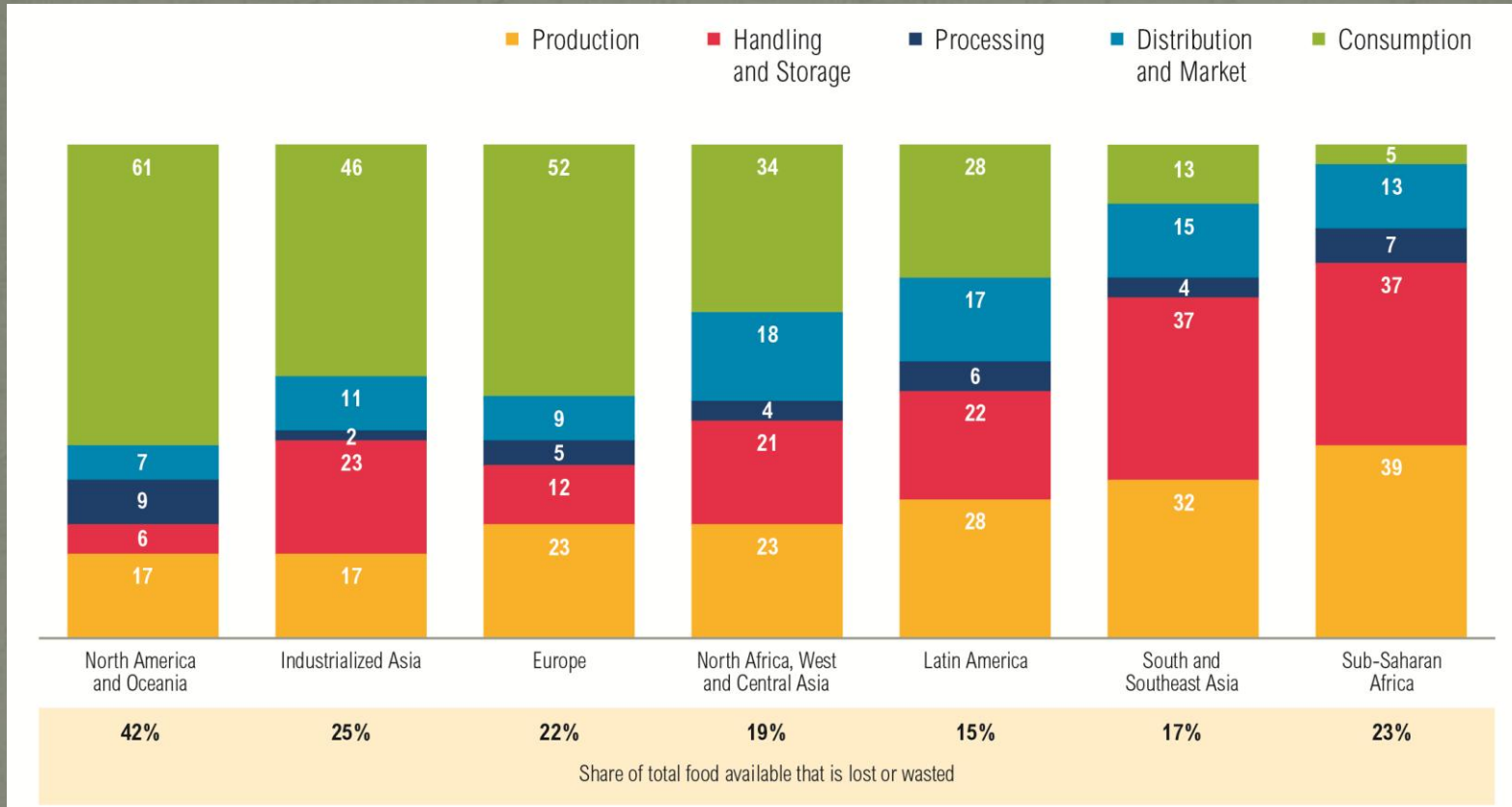
\$2000





The Global Food Waste Picture

Estimates range from 30 to as much as 50 percent of all food grown worldwide may be wasted.



World Resources Institute

Reducing Food Loss and Waste: An Overlooked Strategy for Creating a Sustainable Food System - October 16, 2014

http://www.wri.org/blog/2014/10/reducing-food-loss-and-waste-overlooked-strategy-creating-sustainable-food-system?utm_campaign=socialmedia&utm_source=twitter.com&utm_medium=worldresources
[aste.pdf](#)

Resource Recovery

- Recognizing value in all phases of food production, processing and distribution
- Avoiding waste along the supply chain
- Diverting food waste away from landfilling
 - Composting / Returned to Food Production
 - Anaerobic Digestion / Energy Recovery





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and nature flourish.*

Sustainable Food Management

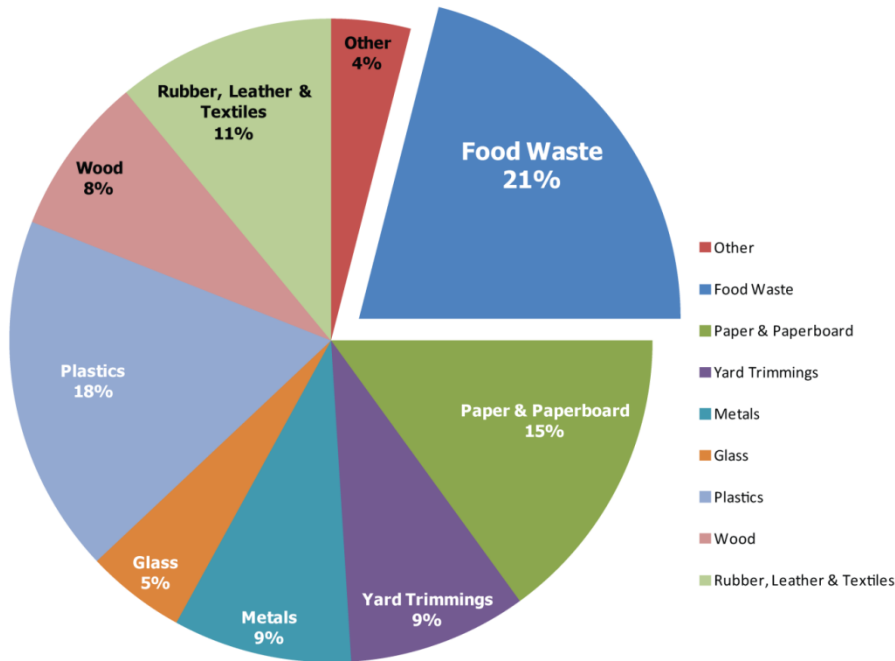


US Chamber of Commerce
November 4, 2014
Tiffany Kollar

Rethink

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Sustainable Food Management



Did you know that just over 20% of all waste going to a landfill is food?

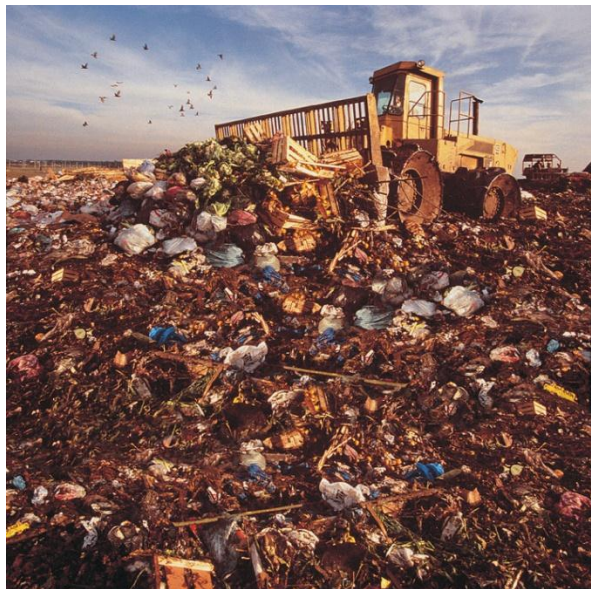
And that Americans throw away 25% of all the food that they purchase?

So, what does that mean?



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

How Much Food Do We Throw Away?



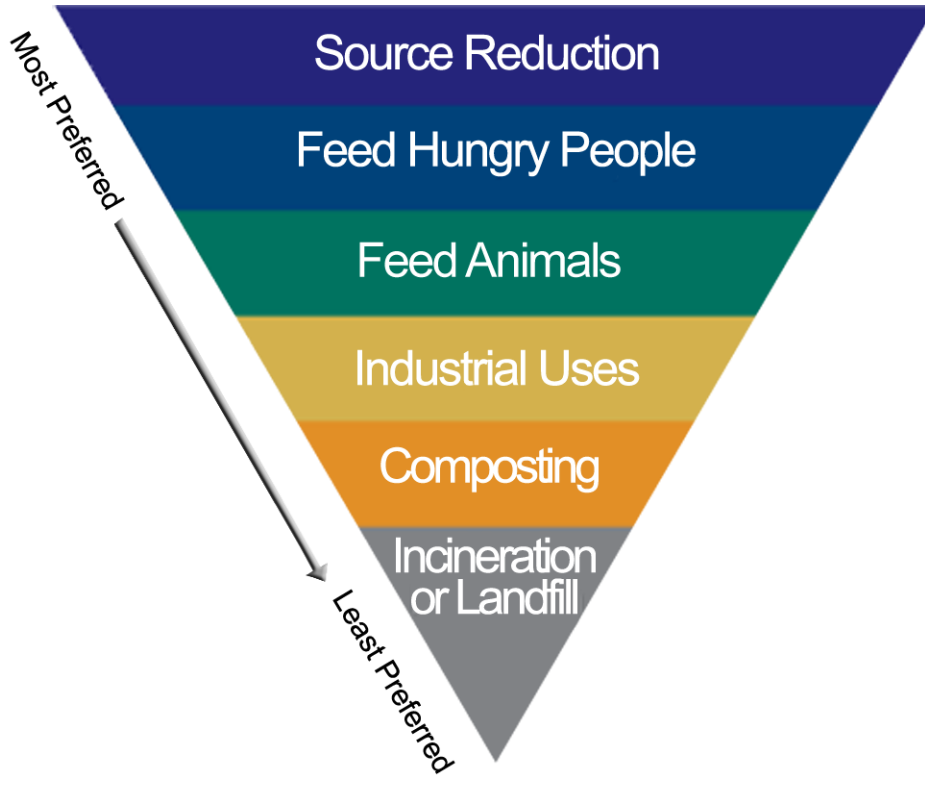
Americans throw away 35 million tons of food waste a year.

When food decomposes in a landfill, it releases methane, and our wasted food contributes to 14% of domestic greenhouse gas emissions.

 **Rethink**

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

How Can We Help?



So what can we do to improve this problem?

How can we prevent good wholesome food from going to a landfill and use it to feed hungry people instead?

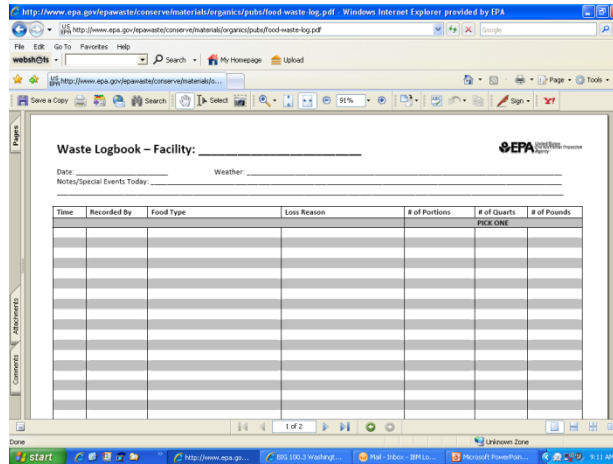
Source Reduce – buy less
Donate – Feed Hungry People
Recycle – Compost whatever food waste you have left



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Source Reduce. Donate. Compost.

Inventory and Buy Less – Even small changes can save thousands



The screenshot shows a web browser displaying the EPA Waste Logbook form. The form is titled "Waste Logbook - Facility:" and includes fields for "Date" and "Weather:". Below these fields is a table with the following columns: "Time", "Recorded By", "Food Type", "Loss Reason", "# of Portions", "# of Quarts PICK-ONE", and "# of Pounds". The table is currently empty.

Using composted food scraps improves soil health by returning valuable resource back to soil



Even a Small Percentage of Food Diverted to Hunger-Relief Organizations Could Feed Millions!



 **Rethink**

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Challenges and Barriers

What were some of the Challenges and Barriers to Reducing Food Waste?

Outreach – get the word out on why you should reduce food waste and how to reduce food waste

Infrastructure – was the capacity available to compost food waste or donate wholesome food?

Measurement – What was the true scope of the problem?
How much food was the average organization wasting?



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Sustainable Materials Management

Sustainable Material Management is the use and reuse of materials in the most productive and sustainable way across their entire life cycle.

The SMM program promotes organizations to make good decisions about

- Conserving Resources
- Managing and Reducing Waste
- Slowing Climate Change and
- Minimizing the environmental impacts of the materials they use



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Take the Challenge – The Food Recovery Challenge

The Challenge encourages organizations to

- Reduce the food waste they generate - change practices to purchase leaner to minimize waste
 - Donate excess food - divert surplus food away from landfills to local hunger relief organizations
 - Compost food scraps.

Benefits to participants

- Improve your bottom line
- Support your community
- Reduce your environmental footprint
 - Get recognized



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Success

The Food Recovery Challenge formally launched in 2011

To date we have close to 800 organizations that have joined the Challenge from the mom and pop corner grocery stores to worldwide hotel chains

In 2013, our participants diverted and donated nearly 400,000 tons of wasted food

In 2013, we saw a significant shift from composting to donation and almost 4,000 tons of source reduction

This year we expanded our program to include Endorsers – organizations that are not producing food waste themselves but who can help recruit participants into the Challenge as well as promote the reduction of food waste.



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

USDA – US Food Waste Challenge

EPA and USDA launched a joint challenge in 2013.

The goal of the *U.S. Food Waste Challenge* is to lead a fundamental shift in how we think about and manage food and food waste in this country.

The joint challenge has allowed EPA and USDA to reach the entire food supply chain from farm to fork to landfill.



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Thank you!

If you would like to learn more about EPA's Food Recovery Challenge- please visit:

<http://www.epa.gov/foodrecoverychallenge>

If you would like to learn more about USDA's Food Waste Challenge – please visit: www.usda.gov/oce/foodwaste

Contact information:

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CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Reimagine Phoenix and RISN: Best Practices and Solutions for Addressing Food Waste

Presentation at U.S. Chamber of Commerce: Meeting the Food Waste Challenge

November 4th, 2014

John A Trujillo



Reimagine Phoenix
Transforming Trash Into Resources



City of Phoenix



6th largest City covering 525 square miles and 1.61 million people

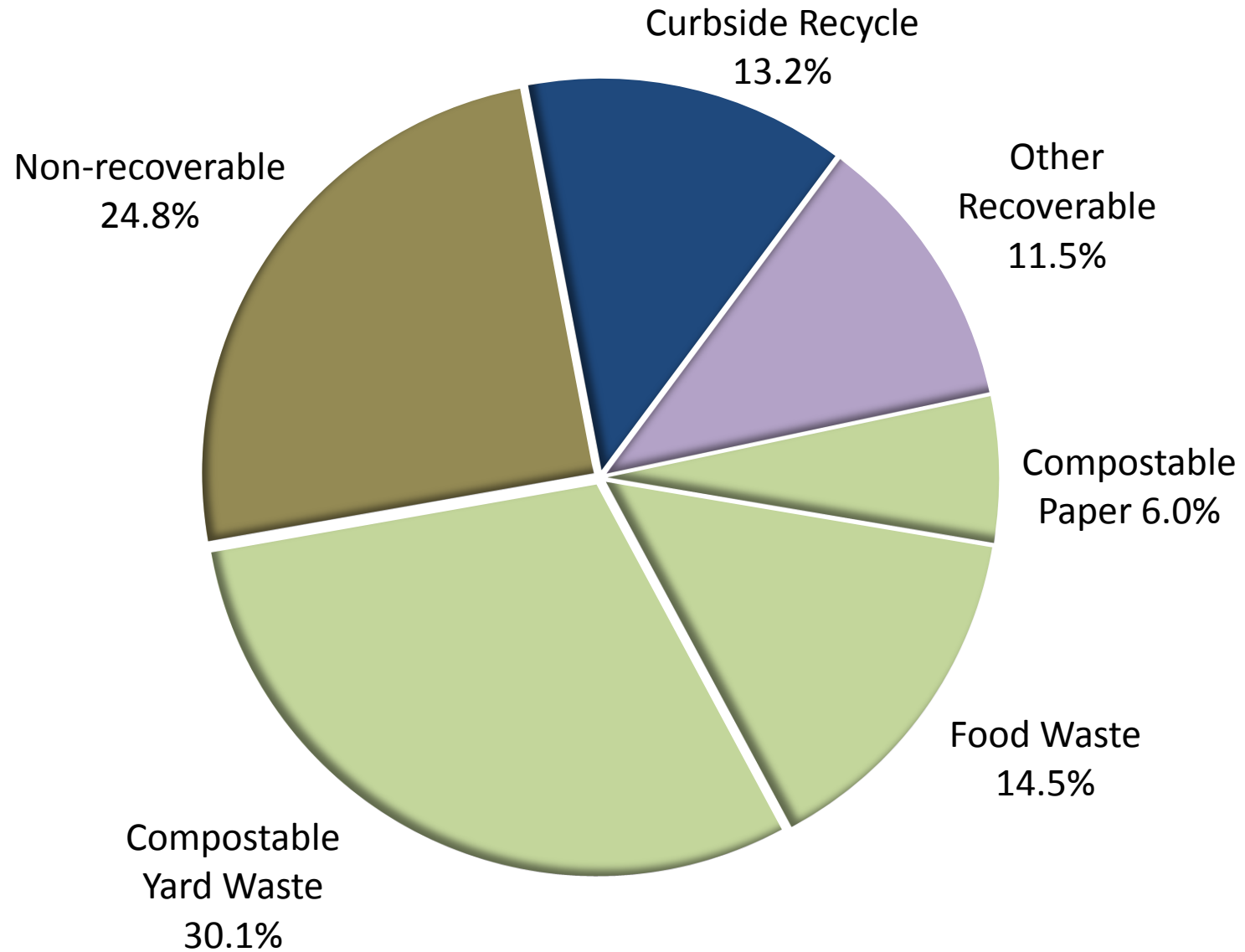


Solid waste employees
travel more than
7 million miles
every year –
equivalent to going to the
moon and back **14**
times.

The amount of
Trash Phoenix sends to
the **landfill** each year
could fill Chase Field
7 times.



Residential Garbage Composition





Reimagine Phoenix

Transforming Trash Into Resources



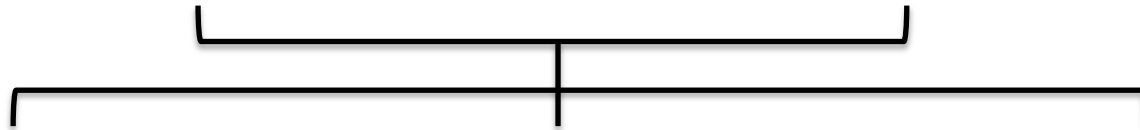
The School of Sustainability is a unit of:

ASU JULIE ANN WRIGLEY
GLOBAL INSTITUTE *of* SUSTAINABILITY

ARIZONA STATE UNIVERSITY



RISN Resource Innovation and Solutions Network



**Become a
partner**



**Create a
global hub**



**Share a
solution**

RISN Resource Innovation and Solutions Network

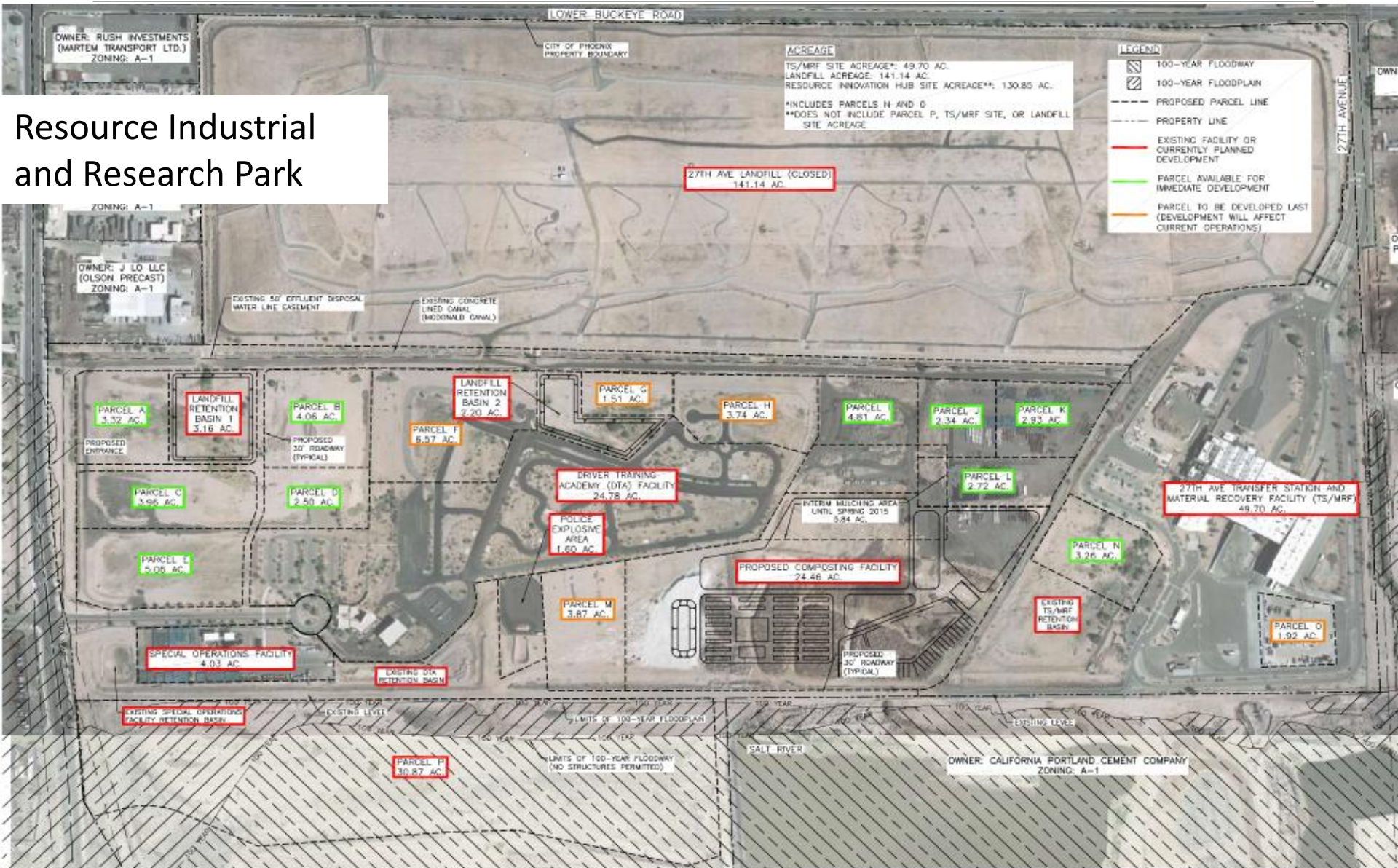


DIVERSION

**Grocery Food
Scrap Program**

RISN Resource Innovation and Solutions Network

Resource Industrial and Research Park



How is Phoenix leveraging partnerships, technology, innovation and other strategies to eliminate food waste?

- Creating programs that minimize impact on our natural resources
- More efficient use of existing infrastructure
- Providing a forum that connects with innovators and organizations to create, implement and/or enhance sustainability solutions

For further information:

**John Trujillo, Director:
john.trujillo@phoenix.gov**



Reimagine Phoenix
Transforming Trash Into Resources





Food Packaging and Consumer Behavior

Helping Create a More Sustainable Food Supply

Erica Ocampo, NA Sustainability Manager
Packaging and Specialty Plastics
The Dow Chemical Company



What the Consumer Sees: A 8oz Steak



The Real Picture



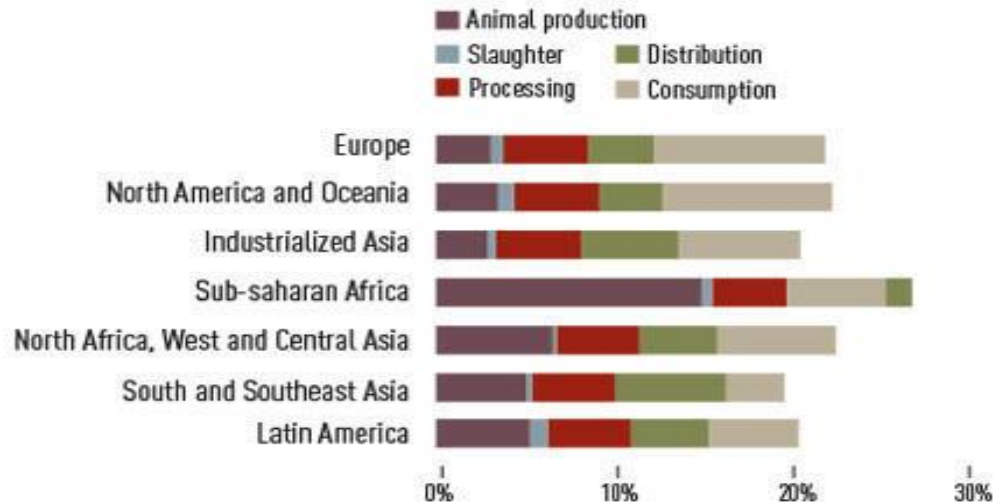


20% MEAT FOOD LOSSES

Of the 263 million tonnes of meat produced globally, over 20% is lost or wasted.



This is equivalent to 75 million cows.

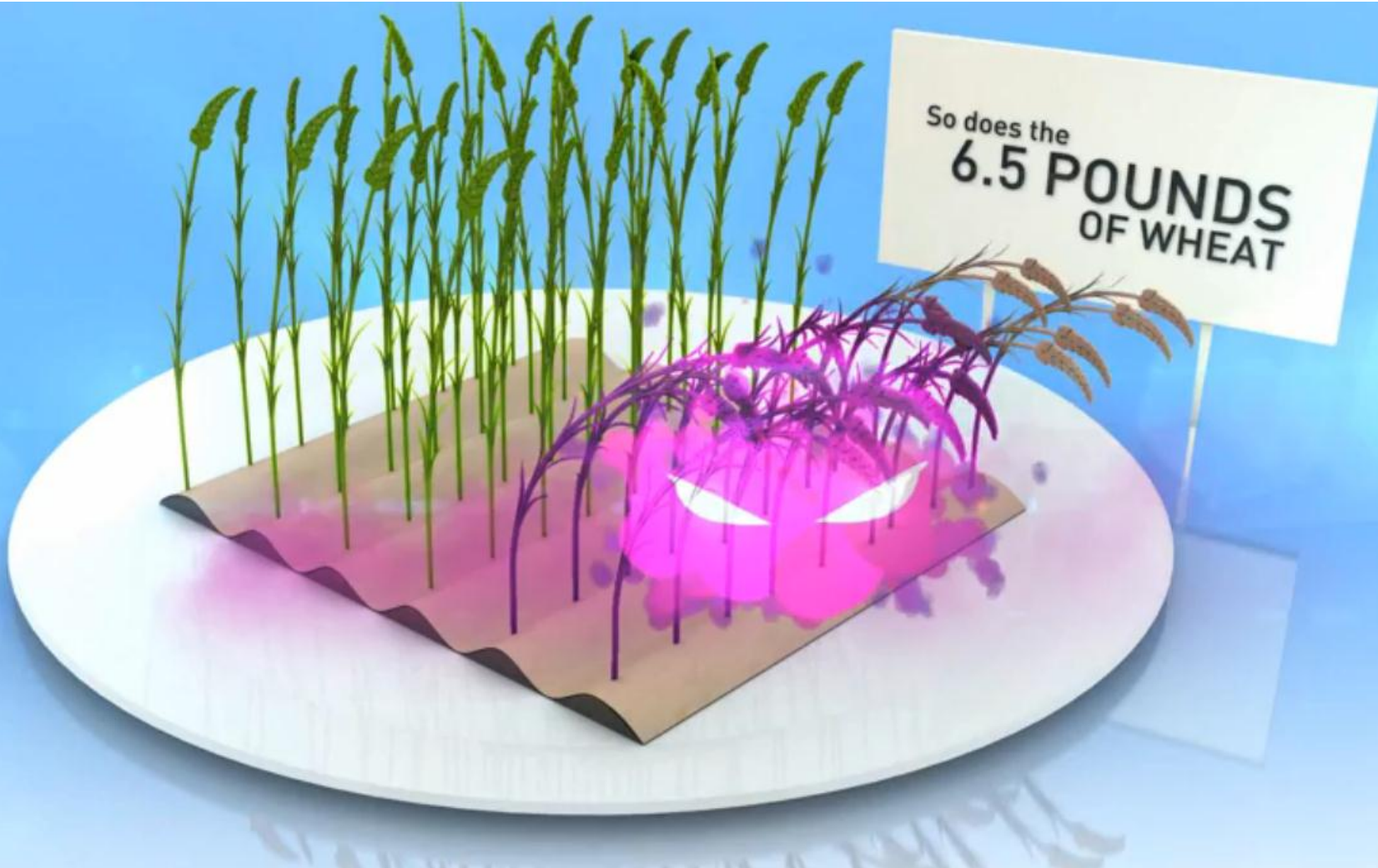


©FAO 2012

Food Waste: More Than Meets The Eye



Valuable Resources



Valuable Resources



The Hidden Value of Food Packaging...

Avoids waste along the supply chain

Represents in average 10% of the material and energy used to deliver food to the consumer (less with flexible packaging)

Properly designed and optimized packaging helps ensure that food safely reaches consumers with maximum appetite appeal & nutritional value

Packaging helps protect public health

Packaging offers safe and effective usage information

Increases shelf life and offers portion control

Helps prevent food from being wasted. For example, keeping a steak from freezer burn increases the odds that all of it will be eaten with no leftover discards



Source: INCPEN Table for one. ULS Report



Make your food
stay fresher longer
by properly storing it
before and after it's prepared

When we say "Make it Last," we mean:

- The resources used to produce food
- The money you spend on food
- The food you purchase at the store
- The food you prepare at home
- The time you save by planning ahead
- The Earth!

FACT:

If food waste was a country, it would be the third top contributor to the world's greenhouse gas emissions.⁸

Contact Information

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Sustainable Growth





U.S. CHAMBER OF COMMERCE FOUNDATION

Upcoming Event: Nexus Roundtable

December 11 2:00-4:30pm ET, Washington DC

In partnership with Lockheed Martin, the second roundtable in the series “The Energy-Water-Food Nexus: Risks and Opportunities for the Private Sector,” will delve into nexus issues in specific U.S. geographies.

Learn more and register at:

<http://www.uschamberfoundation.org/event/nexus-roundtable>