

# Zero Waste Discussion

Steve Joplin, Solid Waste Manager  
City of Gainesville

**GENERAL POLICY COMMITTEE      #170386**  
MARCH 22, 2018

# For Discussion Today

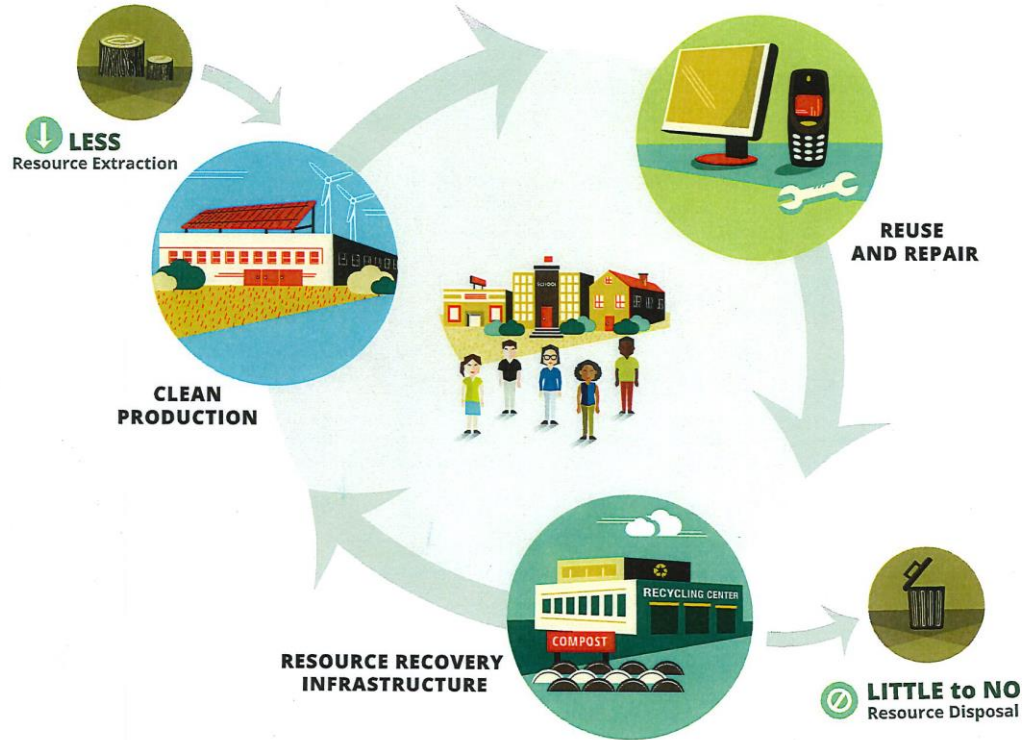
- What is Zero Waste?
- Typical Components of a Zero Waste Plan
- Initial Challenges
- Next Steps

# What is Zero Waste?

According to the Zero Waste International Alliance: “Zero Waste is a goal that is ethical, economical, efficient and visionary, to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use. Zero Waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Implementing Zero waste will eliminate all discharges to land, water or air that are a threat to planetary, human, animal or plant health.”

# A Zero Waste system is cyclical, as in nature, where there is no waste.

THE RESULT IS A THRIVING ZERO WASTE COMMUNITY.



# Typical Components of a Zero Waste Plan

- Goals and Performance Metrics
- Enabling Regulations
- Diversion Programs
  - Waste Reduction
  - Recycling
  - Composting/Food Waste
  - Infrastructure

# Goals and Metrics

A first step in any Zero Waste Program is establishing realistic goals and metrics. At the moment the City of Gainesville does not have sufficient data to establish performance targets or metrics for a Zero Waste Program. The following are some model cities and how they have framed their targets:

- Austin - Divert 75% by 2020, 85% by 2025, 90% by 2030, 95% by 2040, Restorative economy by 2050
- Berkeley - Reduce disposal to 50% by 2013; Zero waste by 2020
- Boulder - Divert 85% of single-family, multi-family and commercial waste by 2025 (per capita)
- New York City - Provide organics recycling by 2018; Single-Stream recycling by 2020; 90% by 2030
- San Francisco - Divert 75% by 2010; Zero Waste by 2020

# Enabling City Commission Action

- Currently Under Consideration:
  - Polystyrene and Single Use Bag Ban
  - Zero Waste Resolution
- Two different models have been provided in your back-up:
  - Boulder (More detailed)
  - US Conference of Mayors (more high-level)

# Polystyrene and Single Use Bag Ban Ordinance

- Tentatively scheduled for first public hearing on April 19, 2018.
- Prohibits food and retail establishments from providing expanded polystyrene containers or single-use carry out plastic bags to customers, with limited exceptions for prepackaging and food safety.
- Prohibition also applies to permittees of special events at City facilities.
- 1-year postponement of enforcement, for education and outreach and for establishments to expend inventories of containers/bags.
- Hardship waiver (City Commission to decide if administration of hardship waiver should be by Commission, or staff).



# Diversion Programs - Waste Diversion

A City of Gainesville Waste Diversion Program would consist of activities such as:

- Start-up costs and enforcement of polystyrene ban
- Reevaluate the city's residential collection program to determine areas of improvement
- Resource Recovery/Surplus operations - maximize re-use, re-sale, recycling of discarded city equipment & materials.
- Implement true-cost accounting for collection & disposal throughout General Government.
- Increase waste reduction/diversion in city operations and facilities.
- Divert street sweepings from landfill by recovering/reusing most of the material.
- Develop a comprehensive system for quantifying all the waste generated in Gainesville.
- Evaluate a Pay-As-You-Throw system for multi-family settings.
- Require recycling of marketable Construction & Demolition materials.

## **Resources Needed for Waste Diversion**

**\$50,000-\$75,000 annually as well as 1 FTE estimated\***

**\*Order of magnitude estimate**

# Diversion Programs - Recycling

An enhanced recycling program would consist of activities such as:

- Establish standards for uniformity of recycling receptacles and signage that must be met by businesses, institutions and haulers.
- Make public recycling receptacles available everywhere trash receptacles are located.
- Reduce the cost of recycling service to small businesses by allowing them to be collected by residential collection vehicles already operating in their vicinity.
- Reduce the De Minimus amount of recyclables that commercial businesses are currently allowed by ordinance to throw away each week. (Currently 15%)
- Consider replacing orange & blue bins with orange & blue wheeled 64 gallon carts that will hold more recycling, and are easier to get to the curb. Orange would be collected one week, blue the next.
- Establish more realistic requirements for multi-family recycling capacity and container placement by ordinance.

## Resources Needed for Recycling

**\$1,980,000 estimated\***

\*Order of magnitude estimate; a large portion of this cost (\$1.62m) stems from upgrading our current recycling containers and could be covered by increased solid waste fees

# **Diversion Programs - Compost and Food Recovery**

Composting and Food Waste are critical meeting any Zero Waste Program goals:

- Establish/Coordinate a Food Recovery System and create incentives/requirements for food service establishments. A food recovery program will triage food as 1) fit for redistribution to those in need, 2) fit for animal/livestock feed, or 3) industrial use and compost.
- Establish Home Compost Incentive Program to reduce yard waste and recover organics.
- Pilot a program to temporarily provide a waste digester or other organics reduction system to one of the downtown restaurants. At the end of the program the digester could be installed at Grace Marketplace, moved to another business, or sold.
- Promote the EPA's Food Recovery Hierarchy.

## **Resources Needed for Compost and Food Recovery**

**\$25,000-\$50,000 and .5 FTE\***

\*Order of magnitude estimate

# Diversion Programs - Infrastructure

To reach any aggressive Zero Waste goals the following infrastructure needs should be considered:

- Work with Alachua County and the private sector to establish or enhance the infrastructure necessary to maximize waste reduction including facilities for recovery of organics, C&D materials, hard-to-recycle materials and reuse and repair facilities.
- Private/Public partnerships for recovery of C&D and reuse of building materials.
- Reduce transportation impacts by establishing local end markets for the consumption of recovered materials collected in the community.

## Resources Needed for Additional Infrastructure

**\$500,000 estimated\***

\*Order of magnitude estimate; Major expense includes creation of a resource recovery center

# Initial Challenges

- Very limited staff capacity to develop substantive strategic plan
- Currently no systems in place to accurately quantify the amount of waste generated in Gainesville per capita each year or to understand the current composition of landfilled waste

# First Steps

- Develop systems to accurately quantify the amount of waste generated in Gainesville per capita each year
- Conduct waste composition study to determine what our landfilled waste is currently made up of
- Establish a group of stakeholders from our community to meet regularly to discuss and agree upon reasonable and effective methods for each aspect of our path toward Zero Waste

# Concluding Thoughts

- Resources will need to be added if the City is going to develop a detailed Zero Waste Plan with all of the components outlined in this presentation.
- Emphasis needs to be on waste reduction rather than recycling.
- Adopting a Zero Waste mindset at an individual level means it becomes a part of our value system and a way of living every day.
- In order to measure progress toward a goal of Zero Waste the city will have to be able to accurately track and quantify all waste generated within the city.