

City of Oxnard

**Zero Waste / Waste Zero Plan
Stakeholders Workshop**

Overview of Diversion Programs

May 22, 2014

**Del Norte Materials Recovery Facility and
Transfer Station**



DEL NORTE REGIONAL RECYCLING AND TRANSFER STATION



Welcome and Introductions

Stakeholders Meeting City of Oxnard Solid Waste Management Plan May 22, 2014

1. Registration
2. Welcome and Introductions
3. Overview of February 22nd and March 22nd Stakeholder Meetings
4. Draft “Zero Waste” Vision
5. Overview of Existing City Programs / Policies
6. Overview of Preliminary Waste Characterization Study Results
7. Potential New and Expanded Programs
8. Discussion / Working Session on Programs and Policies
9. Draft City of Oxnard AB 341 Mandatory Commercial Recycling Policy
10. Additional Question/Answer and What’s Next

City of Oxnard’s Council-Approved Sustainability Goal

Solid Waste Management

**Goal
ICS-14**

Reduced solid waste and increased recycling.

Status Update of Master Planning Effort

Overview of February 22nd and March 22nd Stakeholder Meetings

Legislative Mandates

- California Global Warming Solutions Act
 - (AB 32)
- Mandatory Commercial Recycling Law
 - (AB 341)
- Focus on reducing Greenhouse Gases (GHG) from Landfills

Overview of February 22, 2014 Stakeholders' Meeting City of Oxnard Solid Waste Management Plan

- Existing City Solid Waste Management and Recycling Policies /Programs
- New California State Recycling Requirements for Cities (AB 32 / AB 341)
- Overview of Del Norte Materials Recovery Facility (MRF) and Site Tour
- Goal and Objectives of the Zero Waste / Solid Waste Management Plan
- Elements of a Solid Waste Management Plan / Zero Waste Plan
- Overview of Best Management Practices
- Stakeholder Input on Vision, Goals and Guiding Principles
- Working Session and Assignment to Working Groups

City of Oxnard's Council-Approved Sustainability Goal

Solid Waste Management

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Reduced solid waste and increased recycling.

February 22, 2014, Zero Waste Workshop



Del Norte MRF Tour



1.13 Tons Per Resident Per Year Disposed in Landfill



1.13 TONS

This represents
the average
annual waste
produced every
year by each
City of Oxnard
resident.



Discussion Session on Guiding Principles



Framework for Plan

- **Vision**
- **Goals**
- **Guiding Principles**

Definitions:

- **Vision** paints an inspirational big picture regarding the future of Oxnard's solid waste management infrastructure.
- **Goals** are quantifiable and observable programs and policies that are implemented in order to achieve the vision.

Definitions:

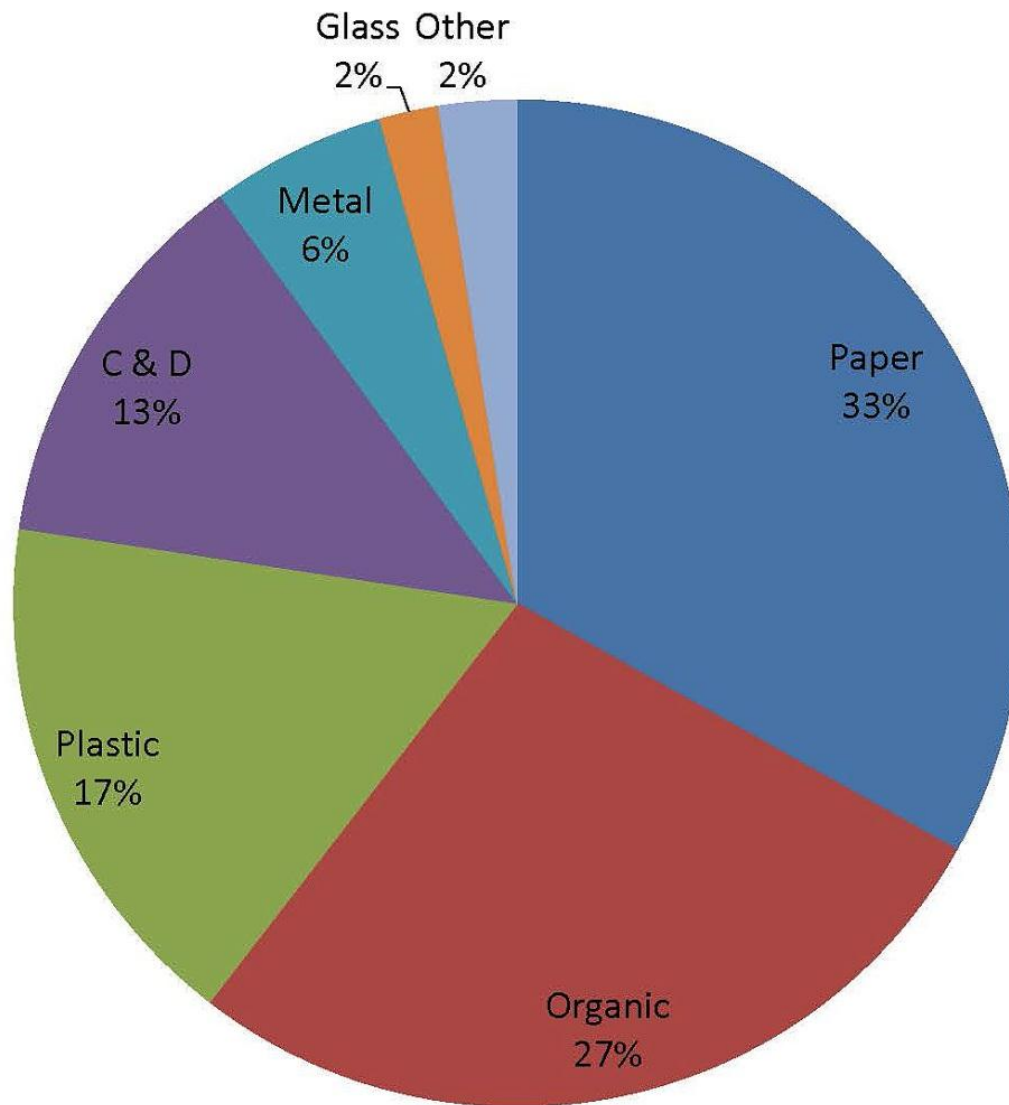
- **Guiding Principles** are fundamental core values that provide overall direction in making decisions to achieve Oxnard's solid waste management goals. They define who you are, what you believe,... and what you want to be,... going forward.

Status in Year 2013 ----- to Future

- Del Norte MRF (Mixed MSW)
 - Approximately 5% Recovery
- Mixed MSW MRF (CA)
 - 19% Average Recovery
- “Integrated MRF”
 - >90% (with CT)

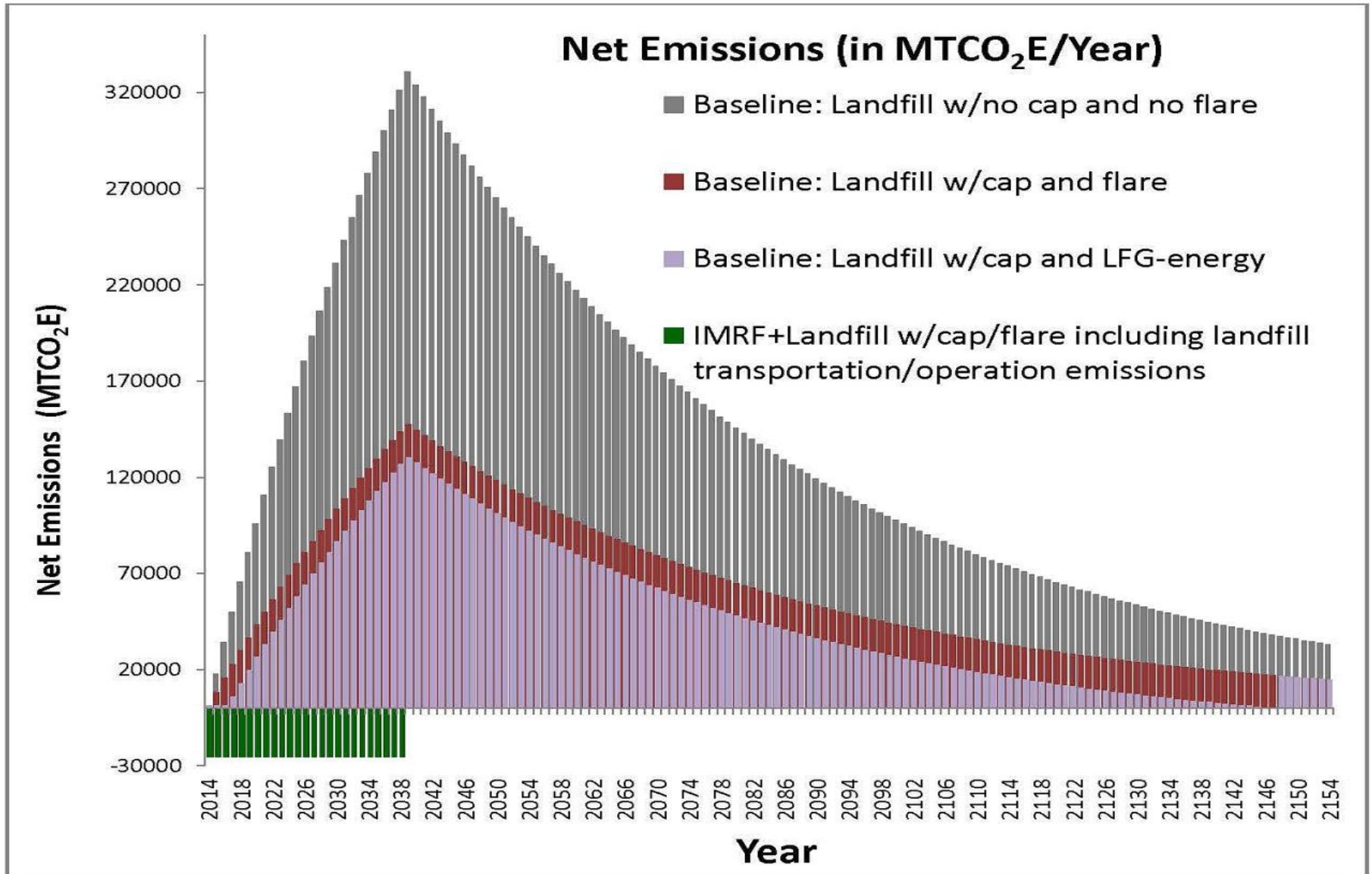


DEL NORTE DISPOSAL TO LANDFILL

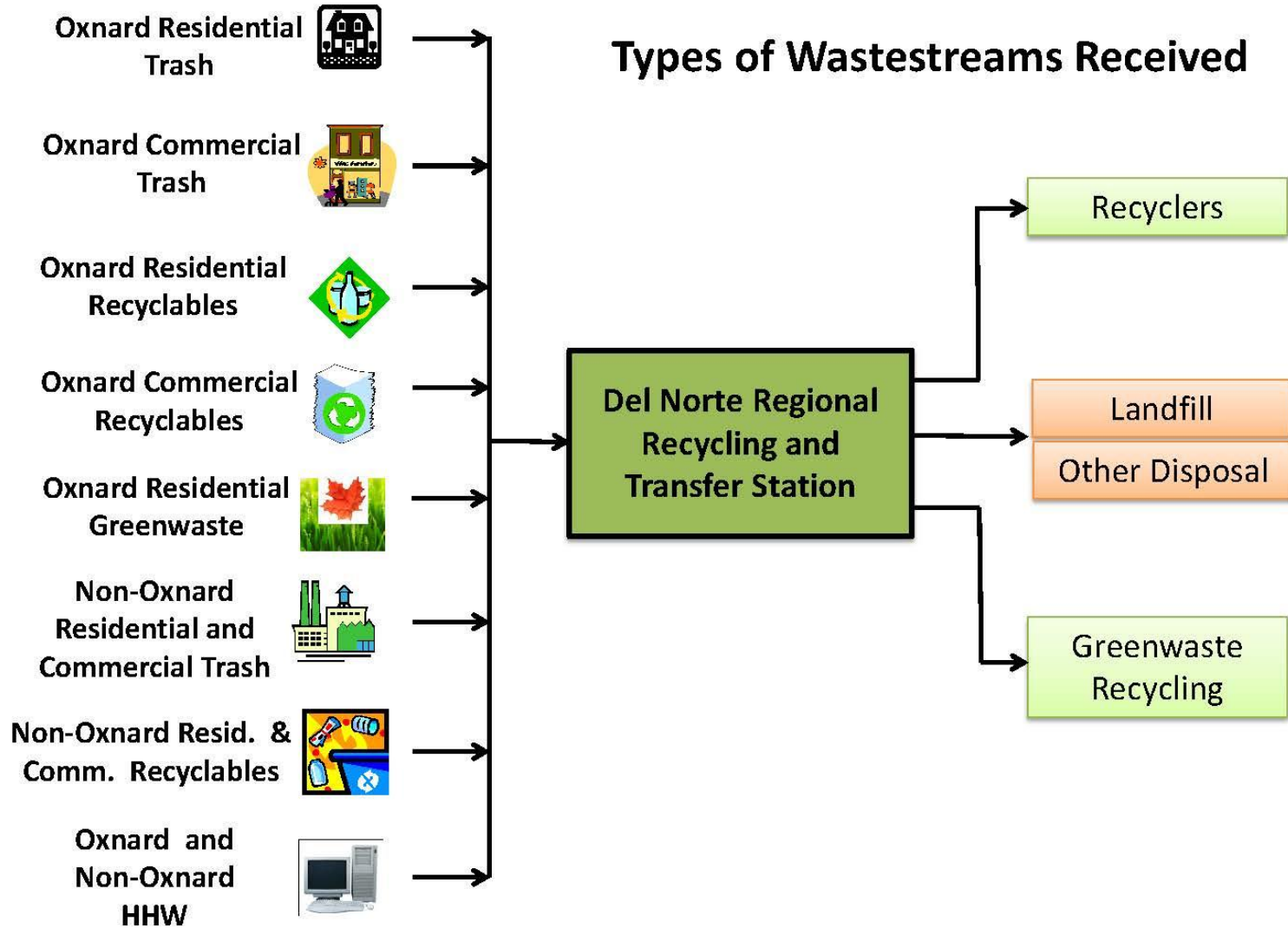


Net Greenhouse Gas Emissions

1000 Tons/Day of Post-Recycled Residual



HUB OF MSW MANAGEMENT INFRASTRUCTURE



DEL NORTE'S ROLES AND FUNCTIONS

- Separation of Curbside Recyclables
- Transfer Station
- Green Waste “Cleanup”
- CRV Buy Back Center
- ABOP (Regional HHW Collection)
- Truck Maintenance
- Community / Education Center
- E-Waste Collection
- Administration / Management

Del Norte Regional
Recycling and
Transfer Station



Steps for Developing the Plan

- **Guiding Principles**
 - Compile / Rank Draft List
- Next Steps:
 - **Develop Vision**
 - Review and select programs and policies (**Goals**) to achieve the “Vision”

Waste Characterization Study

Waste Characterization Training (January 2014)



City of Oxnard Waste Composition Study

March 2014



Physical Sorting into 82 Classifications



Cumulative Sizing Analysis of “Material Types” for MRF Facility Equipment Vendors



Density Measurement



Review of Selected “Guiding Principles”

Guiding Principles Selected by Stakeholders

- Protects the environment and the public's health
- “Leadership by Example” (City is a model for zero waste practices)
- Provides convenience for residents and businesses
- Creates incentives (e.g., financial, and other)
- Promotes new safe technology and infrastructure
- Promotes environmental and social justice
- Creates meaningful jobs / careers
- Expand outreach and marketing efforts (e.g., youths, business, etc.)
- Promotes education of waste reduction, recycling and sustainability
- Cost effectiveness

Goals and Objectives of the Zero Waste / Solid Waste Management Plan

Council-Approved Sustainability Goal

Solid Waste Management

Goal
ICS-14

Reduced solid waste and increased recycling.

Working Session to Define the “Zero Waste” Vision

Phrases for Oxnard Vision



Key Phrases for the Vision Statement

- “Conservation-based” or “recycling-based” economy
- Zero Waste to landfill
- Self-determination regarding the City’s ability to operate its own waste management program
- Cost effectiveness for residents and businesses
- Achieving reduction in Greenhouse Gas emissions
- Consistency of Integrated Waste Management Hierarchy
- Beneficial utilization (e.g., highest and best use) of solid waste as a resource
- Enhance opportunities for local economic development
- Creation of green jobs
- Maximizes opportunities for participation by residents and businesses
- “Continual Improvement”

City of Oxnard's Council-Approved Sustainability Goal

Solid Waste Management

Goal
ICS-14

Reduced solid waste and increased recycling.

Evaluation Factors for Selecting Programs and Policies

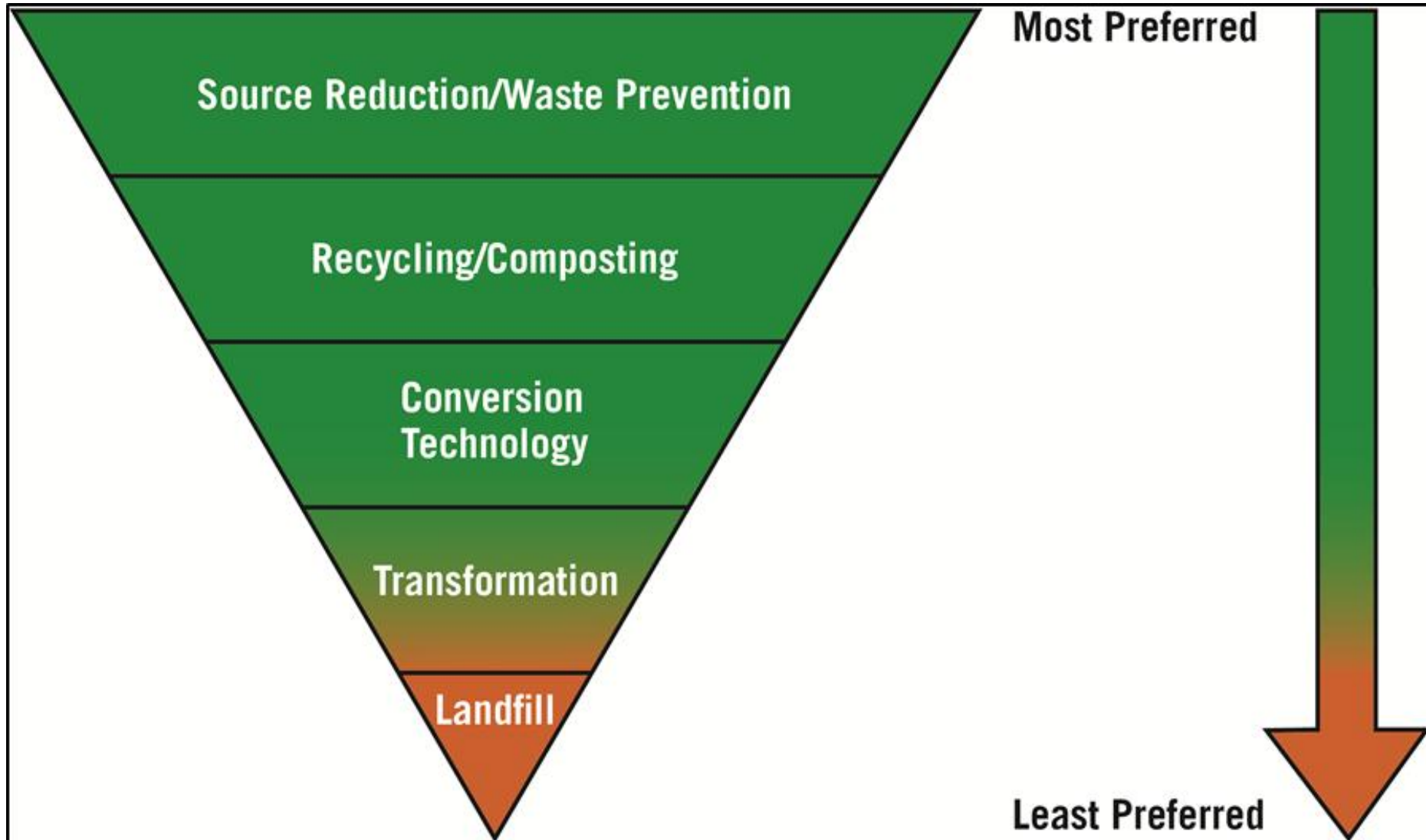
Program / Policy Evaluation Factor Form

Evaluation Factors for Selection of Zero Waste Programs	
Name:	
Address:	
City:	Zip Code: Oxnard Resident: YES NO
Telephone:	E-Mail:
Weighting Scale: 10 = Most Important to 1 = Least Important	
Description of Evaluation Factor	Weighing
Ease of Participation / Convenience for Residents or Businesses	
Ease of Program Implementation	
Resource Requirement for Program Operations/Maintenance	
Cost Effectiveness (Life Cycle Cost, \$ per ton diverted, etc.)	
Potential Diversion Impact (Minimize Disposal at Landfill)	
Local Economic Development Potential (e.g. Job Creation, etc.)	
Potential for Awareness / Education for Community	
Potential for Community Involvement / Participation	
Level of Technical Innovation	
Consistency with the Integrated Waste Management Hierarchy	
Impact on Environment and Public Health	
Other:	

Description of Evaluation Factor

- 1. Ease of Participation / Convenience for Residents or Businesses**
- 2. Ease of Program Implementation**
- 3. Resource Requirement for Program Operations/Maintenance**
- 4. Cost Effectiveness (Life Cycle Cost, \$ per ton diverted, etc.)**
- 5. Potential Diversion Impact (Minimize Disposal at Landfill)**
- 6. Local Economic Development Potential (e.g. Job Creation, etc.)**
- 7. Potential for Awareness / Education for Community**
- 8. Potential for Community Involvement / Participation**
- 9. Level of Technical Innovation**
- 10. Consistency with the Integrated Waste Management Hierarchy**
- 11. Impact on Environment and Public Health**
- 12. Other:**

Integrated Waste Management Hierarchy



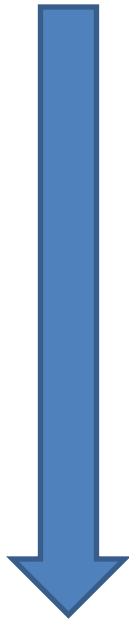
Working Session on Evaluation and Selection of Programs and Policies

Programs, Policies, Infrastructure

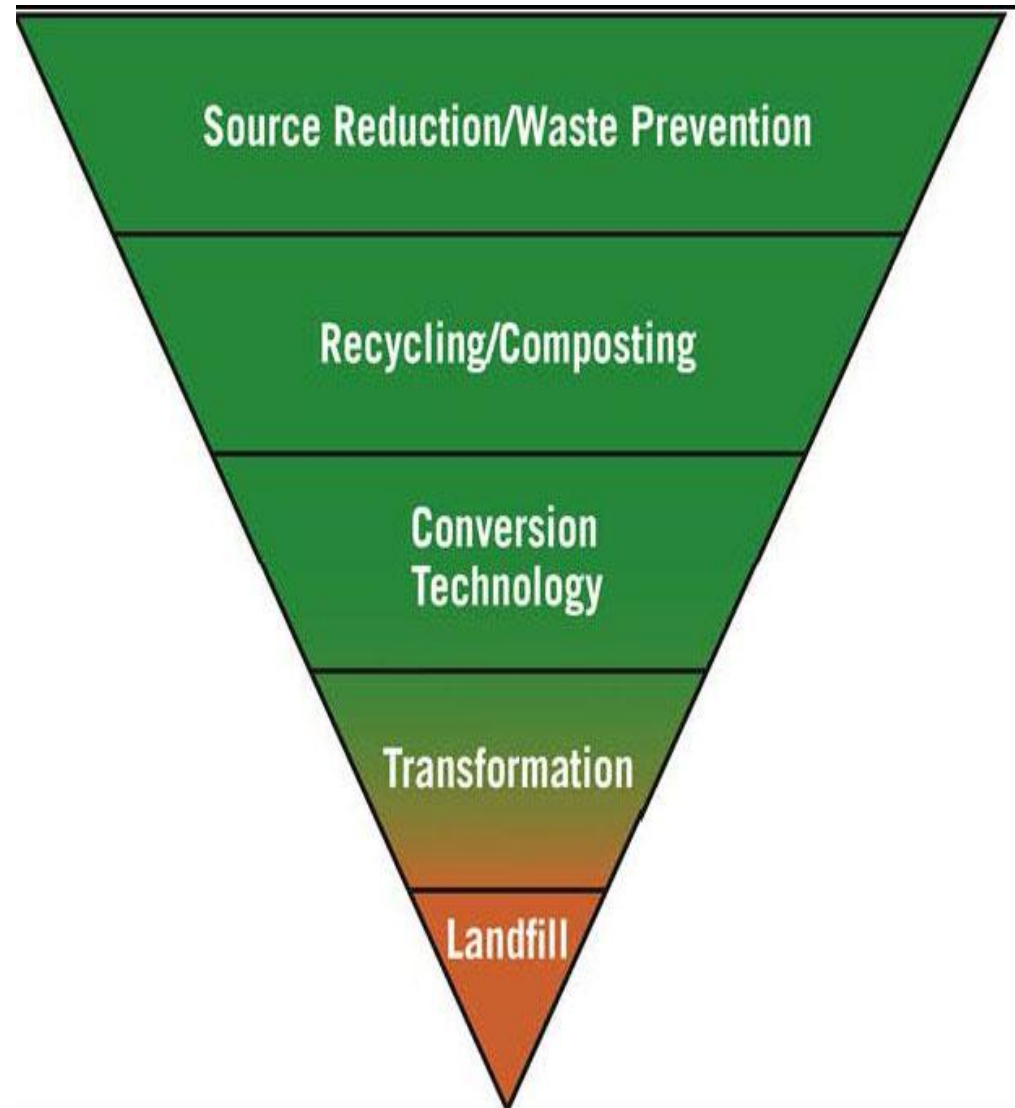
- Programs
 - Curbside Recycling, Composting, etc.
- Policies
 - Environmental Preferred Purchasing, etc.
- Hard Infrastructure
 - Civil Works, Trucks, Equipment, Facilities, etc
- Soft Infrastructure
 - Awareness, Education, Legal, Financial, etc.

Level of Participation Required

- More Participation by Generators of Waste

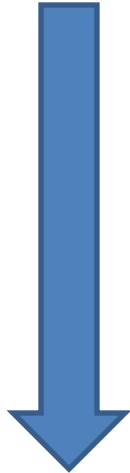


- Less Participation by Generators of Waste

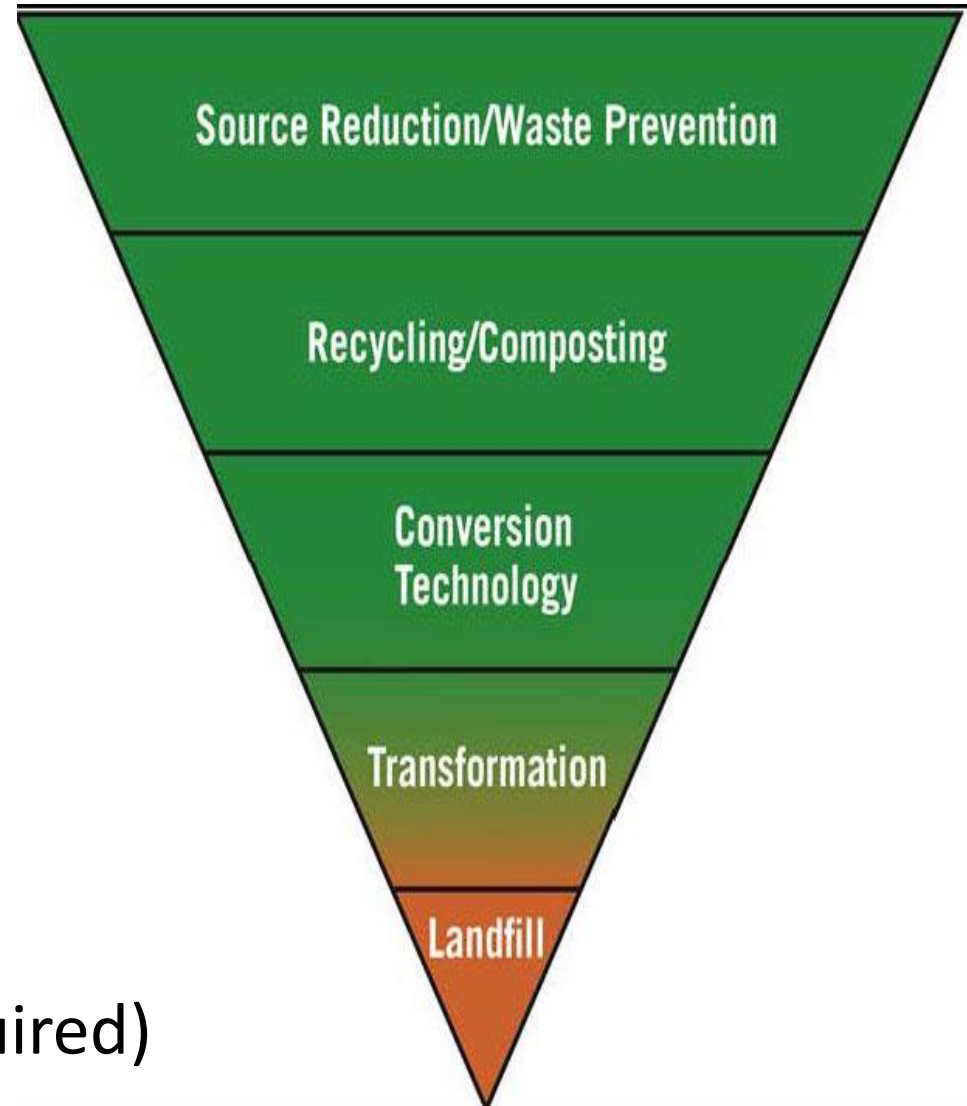


Level of Participation and Volume of Waste

- More Participation by Generators of Waste
 - More Effort by Generators



- Less Effort by Generators
- Less Waste Volume
 - (Smaller Facilities Required)



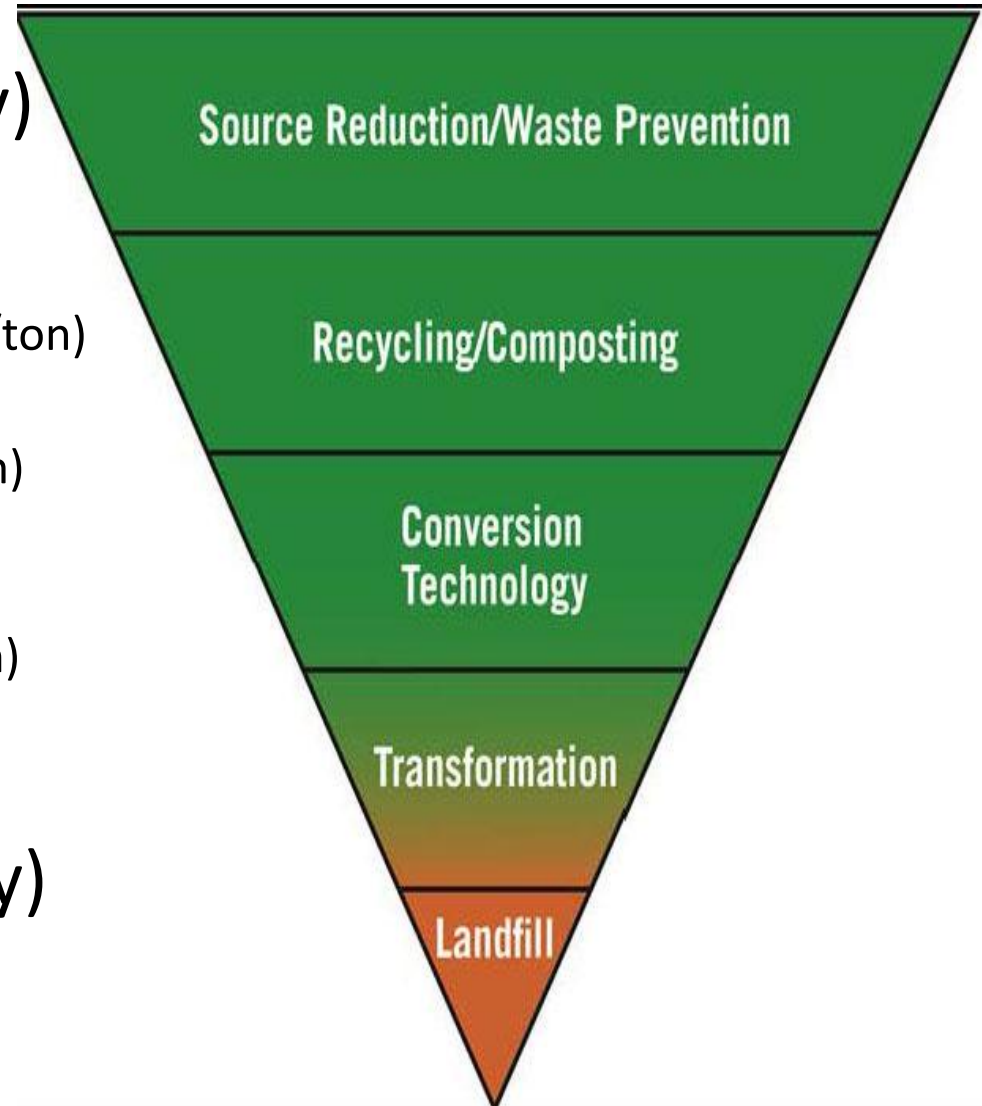
Landfill Diversion Cost per Ton for City

- Lower Cost per Ton (City)

- May be higher for generator
- Recycling / Composting (\$50-\$60/ton)
- Anaerobic Digestion (\$70-\$80/Ton)
- Conversion Technologies and Transformation (\$100 - \$150+/ton)

- May be lower for generator

- Higher Cost Per Ton (City)



Waste Composition and Selection of Processing Technology

- Wet , Readily-Decomposable Waste
 - Composting / Anaerobic Digestion

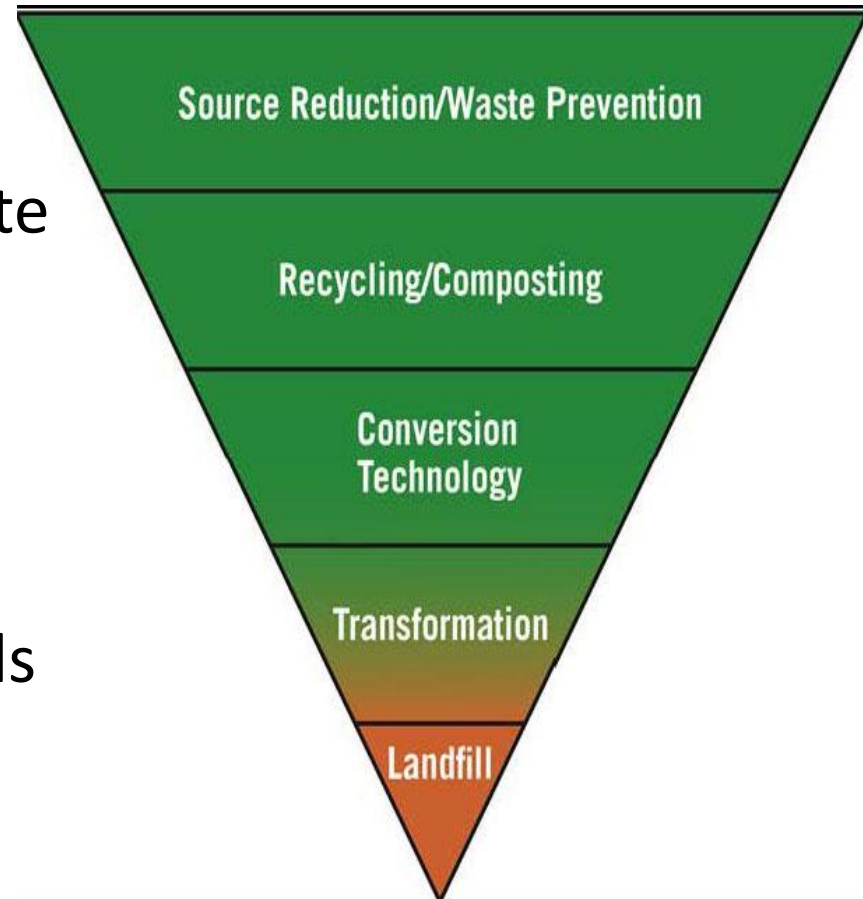


- Conversion Technologies and Transformation

- Dryer, Non-Readily Decomposable Waste

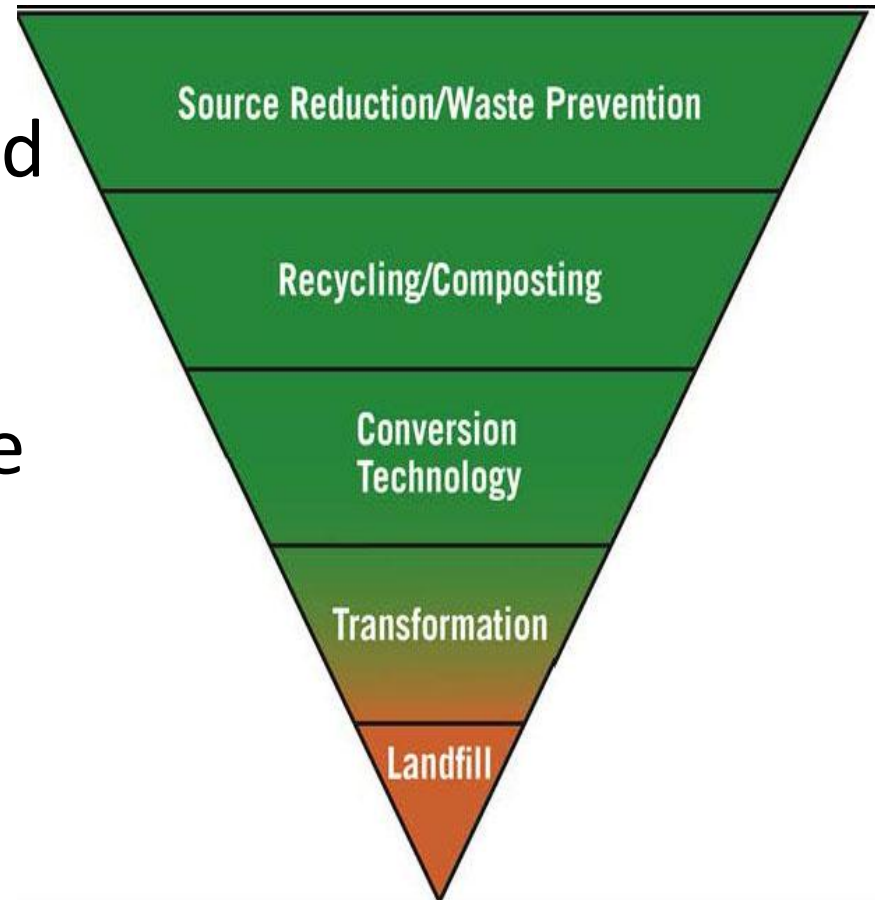
What is the “Best” Approach to Achieve Minimum Disposal at Landfill

- Allows Maximum Choice of Programs for Participants
- Consistent with Integrated Waste Management Hierarchy
- Promotes Consumer Responsibility, Increases Awareness and Education
- Consistent with “Highest and Best Use” of Discarded Materials
- City to Insure Maximum Diversion is Achieved
- Cost Effective (Long-Term)



Combination of Programs / Policies to Achieve Minimum Disposal at Landfills

- Maximize waste prevention, recycling, and composting
- Anaerobically digest remaining decomposable fraction
- Convert residuals to energy or fuels, and recycle/convert ash



City's Role

- **Meet Statutory Requirements**
- Minimum intrusion into homes and businesses
- Cost effective in achieving “Vision”
- City's Del Norte Materials Recovery Facility is the last control point to insure that recyclables are recovered, and that materials are beneficially utilized to the highest and best use.

City of Oxnard's "VISION"



Overview of Potential Zero Waste Programs and Policies (Goals)

PROGRAM DESCRIPTION

POLICIES AND MANDATES

A

Support statewide sustainability policies and bans (e.g., Extended Producer Responsibility, AB 32 ban on organics disposal, etc.)

B

City to adopt Environmental Preferred Purchasing Policy

SOURCE REDUCTION / WASTE PREVENTION PROGRAMS

C

Expand Del Norte ABOP Center to Permanent HHW Collection Facility (include pharmaceuticals and sharps)

D

Increase salvaging to increase reuse/repair (e.g, bicycle parts salvaging/rebuild, refurbishing goods, etc.) at MRF, including pallet, mattress, and including clothes/shoe drop-off

E

Create upcycling micro-manufacturing opportunities via collection of industrial scraps (e.g., reusable bag manufacturing, etc.)

RECYCLING AND COMPOSTING PROGRAMS

F

Expand residential and commercial curbside recycling materials collected (add materials, e.g., cartons, polystyrene, rigid plastics, etc.)

G

Add food waste to existing residential green waste collection program

H

Expand commercial / institutional food waste collection (for AD and/or composting)

I

Research potential of utilization of excess digester capacity at wastewater treatment plant to process "organics feedstock" from MSW

J

Make Large Venue events "Zero Waste" events

K

Implement a Multi-family (Apartment Building) Technical Assistance Program and a Move-In and Move-Out Recycling Program

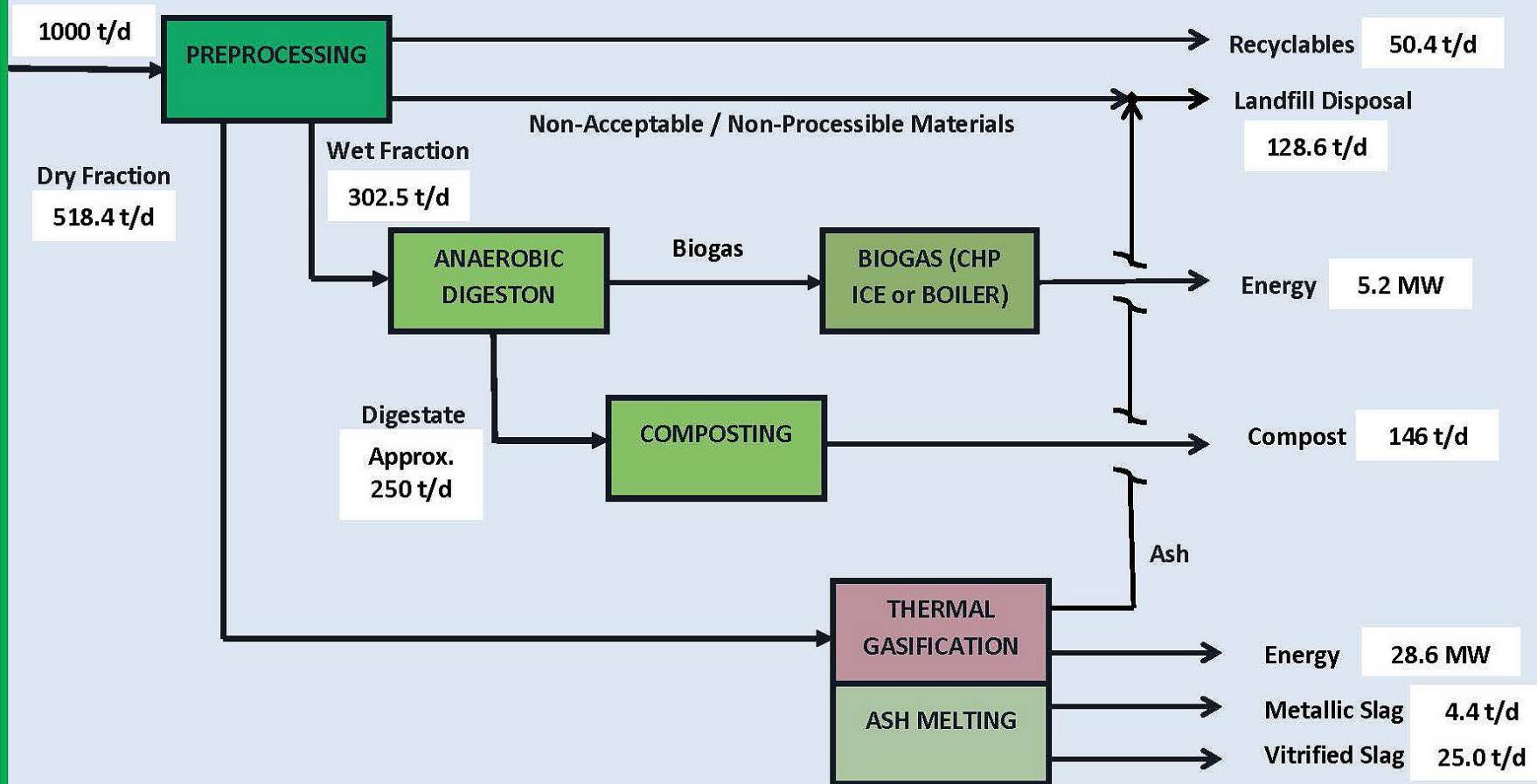
AWARENESS AND EDUCATION PROGRAMS

K	Implement an extensive "Business Waste Reduction and Recycling Technical Assistance Program" (e.g., provide on-site business assessments and prepare specific plans)
L	City "Green Business" Certification Program
M	City to implement an "demonstration facilities" at City park and facilities for micro-composting and micro-digestion technology
N	City to develop and maintain a Zero Waste Resource Web Site

DEL NORTE REGIONAL RECYCLING AND TRANSFER FACILITY IMPROVEMENT PROGRAMS

O	Expand MRF Building and install new equipment to increase recovery from mixed waste stream (to meet proposed State MRF Performance Standards)
P	Transform Del Norte into a model Integrated MRF with Conversion Technologies to minimize diversion from landfill and reduce greenhouse gas emissions
Q	Incorporate "Community" amenities (e.g., recreational facilities, etc.), environmental education learning center, and refurbishing and micro-manufacturing opportunities as part of the Integrated MRF with Conversion Technologies

MASS BALANCE OF INTEGRATED MATERIALS RECOVERY FACILITY WITH CONVERSION TECHNOLOGY



Draft City of Oxnard's AB 341 Mandatory Commercial Recycling Policy

AB 341 Mandatory Commercial Recycling Law

Public Resources Code Section 42649.3

....

(c) The commercial solid waste recycling program shall be directed at a commercial waste generator, as defined in subdivision (b) of Section 42649.1, and may include, but is not limited to, any of the following:

(1) Implementing a mandatory commercial solid waste recycling policy or ordinance.

(2) Requiring a mandatory commercial solid waste recycling program through a franchise contract or agreement.

(3) Requiring all commercial solid waste to go through either a source separated or mixed processing system that diverts material from disposal.

(d) The commercial solid waste recycling program shall include education, outreach to, and monitoring of, businesses. A jurisdiction shall notify a business if the business is not in compliance with Section 42649.2.

(e) The commercial solid waste recycling program may include enforcement provisions that are consistent with a jurisdiction's authority, including a structure for fines and penalties.

Submitted by the Students of the:

Environmental Law and Regulatory Framework
for Municipal Solid Waste Management

UCLA Extension

For Consideration by the City Council:

**Draft Mandatory Commercial Recycling Policy
for the City of Oxnard**

Additional Question / Answer and Next Steps

Adjourn

THANK YOU...!

For more information:

www.CityofOxnard.org