

**AGENDA**  
**TOWN COUNCIL WORKSHOP WITH THE ENERGY COMMITTEE**  
**RE: COMPOSTING REPORT**  
**WEDNESDAY, FEBRUARY 17, 2016 AT 6:00 P.M.**  
**COUNCIL CHAMBERS**

**Item 1.** Call to Order.

**Item 2.** Those Present.

**Item 3.** Discussion on the Composting Report as presented by the Energy Committee.

**Item 4.** Adjournment.

Reducing Municipal Solid Waste  
Report of the Energy Committee  
February 17, 2016

**Summary**

In response to Order No. 15-034, The Energy Committee recommends the following:

Goal: to achieve a material reduction in solid waste.

Recommendations:

1. Ongoing Education and Outreach.
  - Recycling
  - Composting
2. Lead by example.
  - Recycling/compost bins at municipal facilities and events.
  - Establish drop-off sites for household organic waste.
3. Hire part-time Sustainability Coordinator.
4. Evaluate next phase recommendations, including but not limited to:
  - PAYT options.
  - Universal Curbside Composting Options.

**History**

During the spring of 2015, the Scarborough Town Council considered a “Pay-As-You-Throw” (PAYT) proposal from WasteZero. (Both the March 15 WasteZero “PAYT presentation” and the “Considerations for Pay-As-You-Throw” report are available at [scarboroughmaine.org](http://scarboroughmaine.org), search “PAYT”)

WasteZero’s preliminary estimate indicated that by requiring residents to pay for garbage collection by the bag, Scarborough could reduce the Municipal Solid Waste (MSW) stream by 2,371 tons/year, resulting in annual savings of \$167,230 through reduced tipping fees. In addition, they projected annual income to the town of \$480,750 (net program services and supplies) from PAYT bag sales. (WasteZero retains a portion of the bag fees to cover program services and supplies. The Energy Committee estimates this amount at ~\$60,000 annually based on information in the PAYT proposal.)

After intense public opposition, the Town Council removed the WasteZero proposal from the budget and on May 6, 2015 passed Order No. 15-034, which reads:

Move approval on the request to charge the Energy Committee to review the “Pay As You Throw Program” to study and recommend viable methods for achieving and reducing waste and saving money; prepare a Town-wide Plan(s) and develop recommendations for the Town Council; and provide a Report to the Council one year from the date of approval of this Order.

## **Current Data**

Scarborough currently contracts with Pine Tree Waste for curbside collection of MSW and recycling. Materials are hauled to EcoMaine in Portland which currently charges a \$70.50/ton tipping fee for MSW. We do not pay a tipping fee for recycling.

The Energy Committee has reviewed the data on our existing recycling program and finds that there is room for improvement. Data from EcoMaine indicates that we achieved a recycling rate of 36.1% in FY08, the first full year of curbside, single stream recycling. Since that time, the recycling rate has declined with a low of 31.43% in FY12-13, a recent high of 33.55% in FY14-15 and a four-year average of 32.19%. (Data from EcoMaine. <http://www.ecomaine.org/about-ecomaine/ecomaine-communities/scarborough/>)

During the first year of curbside recycling a half-time employee (funded through grant monies) coordinated education and outreach efforts. While EcoMaine has engaged in ongoing educational activities in the Scarborough Schools and through the media, the Town of Scarborough has not conducted ongoing outreach efforts.

The 2011 Maine Residential Waste Characterization Study (<http://umaine.edu/wcs/> and personal communication with the authors) found that 19% of the Scarborough MSW stream is recyclable (12.8% paper, 4.2% plastic, 2.0% metal) and that 41% of the MSW stream is compostable (25.2% food, 10.5% non-recyclable paper, 5.3% leaves/grass).

The Energy Committee has projected the results of the Waste Characterization Study onto the FY15 Scarborough Waste Stream as reported by EcoMaine. Approximately 1000 tons of additional recycling and 2000 tons of compostable materials are targets for increased diversion.

## **Pay-As-You-Throw**

While the initial community response to a Pay-As-You-Throw program was negative, the Energy Committee does recommend an open community process to explore this option further. The experience of many other communities indicates that an initial negative reaction is very common and that a 6-9 month period of community education is necessary to address concerns and misconceptions prior to community acceptance. Surveys of communities with active PAYT programs generally find better than 90% support of the program.

A review of the literature indicates that volume based pricing does reduce the MSW stream, but the magnitude of the effect depends on the recycling and waste patterns in place at the start of the program. While many communities use a bag style PAYT program as presented by WasteZero, other communities allow households to choose the size of their trash cart and then bill based on the size of the cart. The city

of Asheville, NC hired SERA (sera.inc) to compare these options. SERA analysis indicated that a bag program would cost the community more over time than the upfront costs associated with replacing some carts with new sizes. The complete report is available on the Asheville web page ([www.ashevillenc.gov/Portals/0/city-documents/economicdevelopment/ped/Skumatz%20Economic%20Research%20Associates%20\(SERA\)%20Asheville%20PAYT%20Options%20Analysis%20Report.pdf](http://www.ashevillenc.gov/Portals/0/city-documents/economicdevelopment/ped/Skumatz%20Economic%20Research%20Associates%20(SERA)%20Asheville%20PAYT%20Options%20Analysis%20Report.pdf))

The Energy Committee recommends an open community process to evaluate PAYT options (and universal curbside composting options, discussed below). This process would involve additional research, community education and outreach and a series of community forums to address concerns and take community input before developing detailed recommendations.

### **Recycling**

The Energy Committee recommends an ongoing program of education and outreach to ensure that all residents are aware of current recycling guidelines. If these efforts were sufficient to return our recycling rate to 36.1% (the rate achieved during the first year of curbside collection), we estimate an additional 191 tons would have been recycled during FY 14/15 for a savings of \$13,465 in avoided tipping fees.

We also recommend that the Town of Scarborough make increased efforts to lead by example. We recommend providing recycling bins at all municipal facilities and events.

### **Compostable Organics**

Compostable organic materials can be removed from the MSW stream through backyard composting, subscription curbside composting, development of centralized drop-off sites, and/or implementation of a universal curbside composting program.

**Backyard composting:** This is the lowest cost approach. The Energy Committee recommends the inclusion of composting information in all outreach efforts, including the option to purchase compost bins at cost from Public Works. We would also like to highlight a backyard composting workshop hosted by Scarborough Conservation Commission and planned for April 11, 2016.

**Voluntary Subscription Composting:** Two companies are currently offering subscription curbside organics collection in Southern Maine, but with limited activity in Scarborough. Garbage-to-Garden ([garbagetogarden.org](http://garbagetogarden.org)) began operations in Portland in 2012 and currently provides household curbside collection in eight communities. We Compost It! ([www.wecompostit.com](http://www.wecompostit.com)) has five years experience in commercial organics collection (operating as Resurgam) and more recently joined forces with CPRC Group to begin a household organics

collection service. (CPRC operates the Community Recycling Center on Runway Road.) Pricing and other details of each service are available at the company websites. Garbage-to-Garden is collecting food waste from the Scarborough school cafeterias and each company has contracts with several restaurants in town. Both companies are interested in expanding their residential operations into Scarborough once there is sufficient demand for the service to be financially viable. The Energy Committee recommends including information about subscription curbside composting options in all outreach efforts.

Centralized Drop-off: Both We Compost It! and Garbage-to-Garden are available to contract with the town for collection of household organic waste from centralized drop-off locations (perhaps at silver bullet locations, schools or other sites to be determined). The Energy Committee recommends evaluation of proposals from both companies and then contracting with one of them to establish collection points. This program should be included in the public works budget. Costs will be at least partly offset by avoided tipping fees.

Universal curbside collection: Universal curbside collection of organic waste has the highest diversion potential and has been successfully implemented in several US cities (for examples, see <http://www.recologysf.com/index.php/for-homes/> or <https://www.portlandoregon.gov/bps/41461>). In 2013, EcoMaine conducted an Organics Recycling Feasibility Study (full report available at <http://www.ecomaine.org/recycling-and-waste-disposal/organics-recycling-feasibility-study-final-report/>). This report outlines several approaches to universal curbside compost collection with cost estimates for each option. No member communities stepped forward to pilot a curbside organics collection program at that time. The Energy Committee recommends a detailed evaluation of Universal Curbside Compost Collection alongside PAYT strategies, as these approaches have been shown to complement one another.

### **Education and Outreach**

Effective education and outreach needs to be ongoing and designed to reach all residents. The Energy Committee recommends a commitment to regular distribution of materials on recycling, composting and the costs of MSW disposal. If a task force is established to explore PAYT options and/or universal curbside composting, we recommend a comprehensive approach to education and outreach on these topics as well. Communication strategies could include:

- Insert in tax bill (\$1,500)
- Stickers for curbside recycling carts (\$4,200/10,000)
- Information packet for new residents
- Improved web presence
- Information in town newsletter
- Articles in local newspapers
- Postings on Local Channel 3

## **Sustainability Coordinator**

Ongoing education and outreach on recycling and composting will require staff time. The Energy Committee recommends hiring a part-time (10-20 hours/week) Sustainability Coordinator. This individual would be tasked with developing and implementing an education and outreach program, guiding the task force evaluating PAYT and universal curbside composting options as well as monitoring and reporting on progress.

This position could overlap with the Energy Coordinator position recommended in the 2011 Scarborough Energy Plan. This position was requested to provide education and outreach on energy issues and to identify new opportunities and grants for the town.

We anticipate that this position could be funded through avoided tipping fees and reduced energy costs.

# Reducing Municipal Solid Waste (MSW)

Report of the Energy Committee

Feb. 17, 2016

# FY14/15 Curbside Program Costs

Total: \$1,121,725

MSW: \$735,911

Recycling: \$385,814

- Pine Tree Contract - \$378,814
- Ecomaine Tipping Fee - \$350,097
- Annual Cart Purchase and Maintenance - \$7,000

- Pine Tree Contract - \$378,814
- Annual Cart Purchase and Maintenance - \$7,000

# Summary

Goal: to achieve a material reduction in solid waste.

Recommendations:

1. Ongoing Education and Outreach.  
Recycling  
Composting
2. Lead by example.  
Recycling/compost bins at municipal facilities and events.  
Establish drop-off sites for household organic waste.
3. Hire part-time Sustainability Coordinator.
4. Evaluate next phase recommendations, including but not limited to:  
PAYT options.  
Universal Curbside Composting Options.

# History: Waste Zero proposal

WasteZero Proposal – Spring 2015

PAYT (Pay-As-You-Throw) bags

Anticipated recycling rate = 50%

\$167,230 Reduced tipping fees

\$480,750 Income from bag sales

Net program services and supplies

~\$60,000 to from bag sales to WasteZero

Objections:

Too much, too soon

New fee

Concerns about loose bags

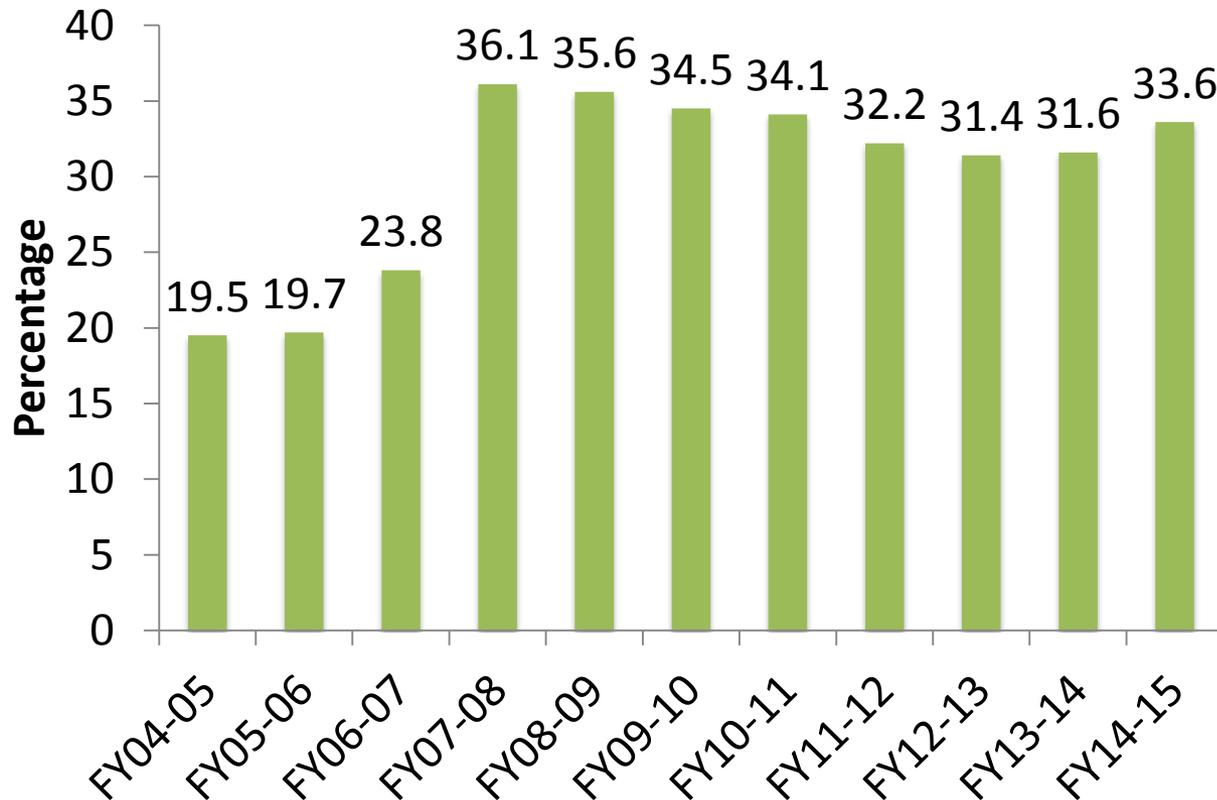
Additional bags in waste stream

Cost of program management

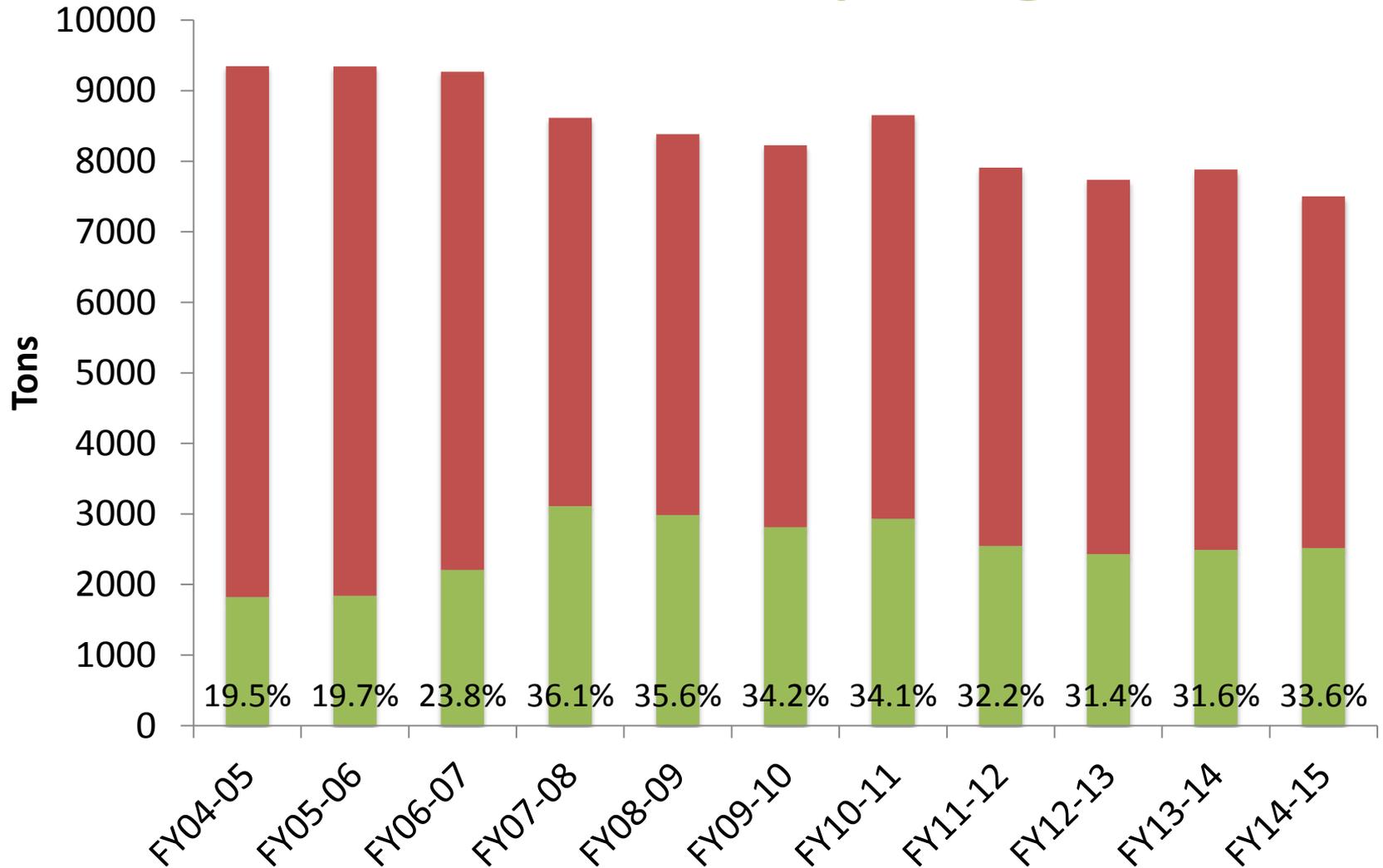
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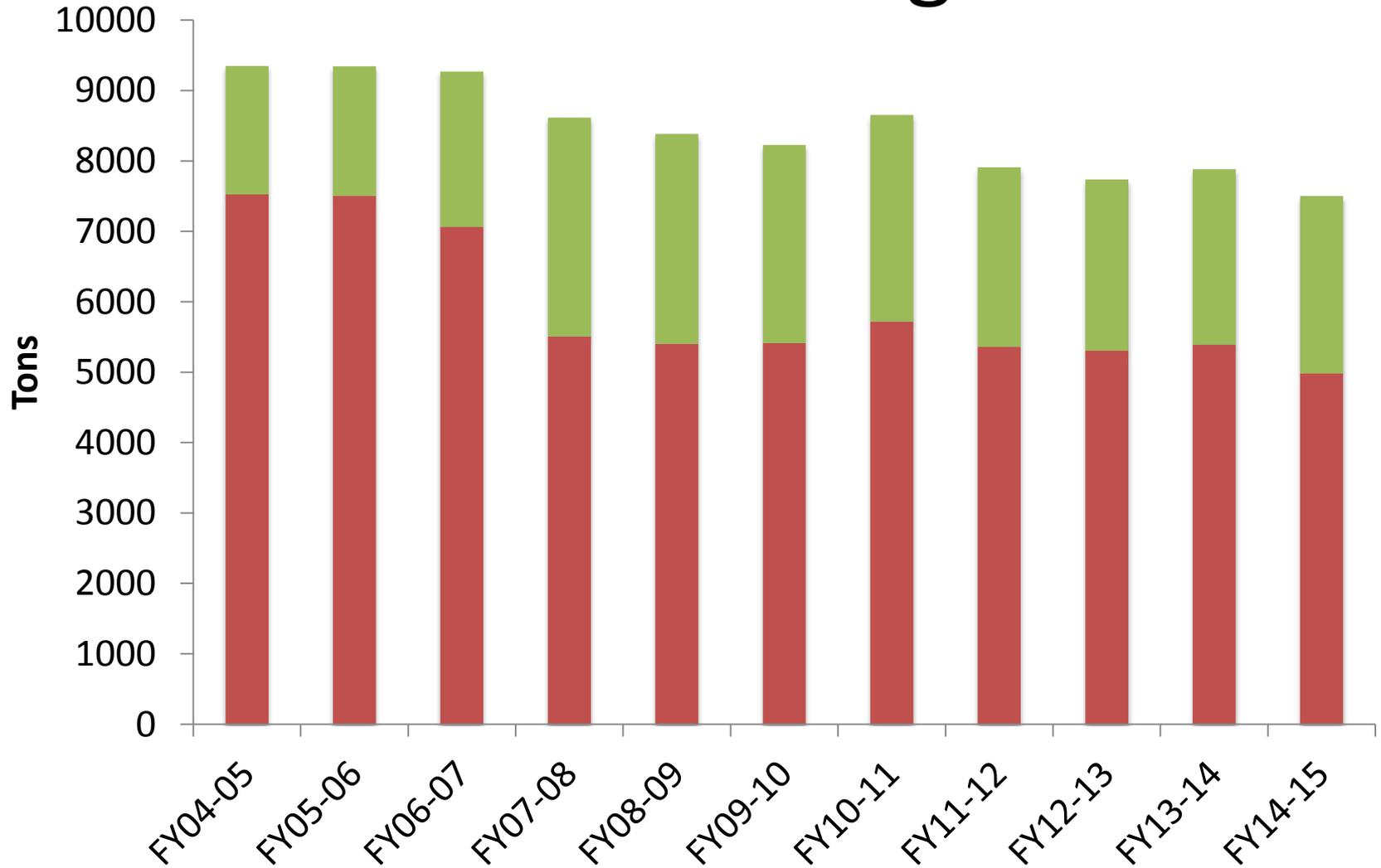
# Scarborough Recycling Rate



# Waste-Recycling



# Goal? Reducing Waste



# 60% of the MSW stream is divertable

Scarborough specific data:

Recyclable portion of MSW stream: 19%

12.8% Paper

4.2% Plastic

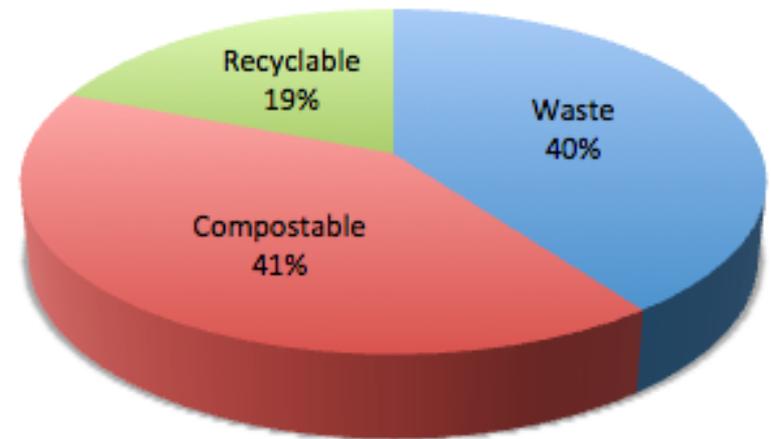
2.0% Metal

Compostable portion of MSW stream: 41%

25.2% Food

10.5% Non-recyclable paper

5.3% Leaves/grass



(by weight)

2011 Maine Residential Waste Characterization Study (U Maine)

# Scarborough Waste stream FY14-15

Captured Recycling:	2,517 tons	33.6%
MSW	4,985 tons	66.4%
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	7,502 tons	100%

# Scarborough Waste Stream FY14-15

Captured Recycling:	2,517 tons	33.6%
Potential Recycling:	947 tons	12.6%
Compostable Organics:	2,044 tons	27.2%
Waste:	1,994 tons	26.6%
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	7,502 tons	100%

Projection of Waste Characterization Study on FY13-14 waste stream.  
Presented here as percentage of Total Waste Stream.

# PAYT effectively changes behavior

- PAYT = Pay as you throw  
or Variable Rate Subscription  
or SMART = Save money and reduce trash
- First programs in the 1930s
- EPA recommendations in the 1990s
- 2011 survey
  - 10,000 communities
  - 40% of US population
  - > 80% of population in 7 states
- Successful launch?
  - 6-9 month educational campaign
- Preferred by > 90% after implementation

# PAYT Options

Option 1: PAYT bags (in current curbside carts)

Option 2: Subscription fees based on cart size

Recommend a community process to evaluate each of these options.

# Scarborough Waste stream FY14-15

Captured Recycling:	2,517 tons	33.6%
<b>Potential Recycling:</b>	<b>947 tons</b>	<b>12.6%</b>
Compostable Organics:	2,044 tons	27.2%
Waste:	1,994 tons	26.6%
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	7,502 tons	100%

**Return recycling rate to 36.1% through Education and Outreach?**

191 additional tons recycled

\$13,465 in avoided tipping fees

# Recycling Recommendations

- Ongoing Education and Outreach.
- Lead by example.

Recycle bins in all municipal facilities and events.

# Scarborough Waste stream FY14-15

Captured Recycling:	2,517 tons	33.6%
Potential Recycling:	947 tons	12.6%
Compostable Organics:	2,044 tons	27.2%
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	7,502 tons	100%

## Organic diversion options:

- Backyard Composting
- Subscription Curbside Composting
- Centralized Drop-off Sites

Universal Curbside Composting

# Backyard Composting

- Plastic composting bins available at Public Works  
Ordered in bulk, sold at cost (\$46)
- Backyard Composting Workshop  
Scarborough Conservation Commission  
Municipal Building, Council Chambers  
April 11, 2016, 7-9 PM
- Diversion potential difficult to predict
- Low costs borne by participants

# Subscription Curbside Composting

- Garbage to Garden and/or We Compost It!  
Trade outreach efforts for data.
- G2G experience in Portland  
1 in 7 households participating  
Averaging 10-12 lbs/household/week
- What might that look like in Scarborough?  
1 in 7 = 1000 households  
10 lbs/household/week = 260 tons/year  
(12% available organics, 3% total waste stream)  
\$18,000 avoided tipping fees  
\$120,000 cost borne by subscribers

# Centralized Drop-off Sites

- Conversations with We Compost It! and Garbage-to-Garden ongoing
- WCI! proposal: \$62.57/site/month, 2 x 35 gallon totes/site.
- G2G proposal: Several stations around town, \$50/ton.

# Universal Curbside Composting?

- 2013 EcoMaine study
- Processing costs estimated at \$40/ton
- Three primary collection options
  - Dedicated Collection
  - “Blue Bag” Collection
  - “Every-Other-Week”
- What might this look like in Scarborough?
  - EcoMaine estimates 700-1400 tons/year
  - (32-64% available organics, 9-18% total waste stream)
  - \$50-100k avoided tipping fees
  - Variable costs. . .

# Organics Recommendations

- Ongoing Education and Outreach.

Include composting information in all outreach efforts.

- Lead by example.

Recycling/compost bins at municipal facilities and events.  
Establish drop-off sites for household organic waste.

- Evaluate next phase recommendations.

Universal Curbside Composting Options.

# Education and Outreach

- Reduce, Reuse, Recycle. . . and Compost
- Must be ongoing
- Communicate costs of MSW disposal
- Communicate benefits of PAYT
- Coordinate with EcoMaine and Schools

# Communication Strategies

- Stickers for curbside recycling carts
- Insert in Tax bill
- Packet for all new residents
- Improved web presence
- Info in Town Newsletter
- Articles in Leader, Current, Forecaster, PPH.
- Postings on Local Channel 3

# Sustainability Coordinator

- 10-20 hours/week
- Waste Reduction Goals
  - Education and Outreach
  - Guide PAYT/compost process
  - Monitor progress
- Energy Committee Goals
  - Education and Outreach
  - New opportunities
  - Grants
- Salary offset by avoided tipping fees and reduced energy costs.

# Summary

Goal: to achieve a material reduction in solid waste.

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