



Fargo-Moorhead Metropolitan Council of Governments

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To: Cass Clay Food Commission
From: Cass Clay Food Systems Initiative (CCFSI)
Fargo-Moorhead Metropolitan Council of Governments (Metro COG)
Date: November 4, 2016
RE: Cass Clay Food Commission Agenda and Correspondence

11th Meeting of the Cass Clay Food Commission

November 9, 2016 10:30 am – 12:00 pm

Location: Fargo City Commission Chambers

*****Parking is available in the parking lot between the Civic Center and the Library. Please enter through the Library entrance along 4th Street.*****

- | | |
|----------|---|
| 10:30 am | 1. Welcome <ul style="list-style-type: none">a. Approve Order & Contents of the Overall Agendab. Review & Action on Minutes from September 14, 2016 (Attachment 1) |
| 10:35 am | 2. Commission Check-In – Chair Durand |
| 10:40 am | 3. Municipal Composting Education – (Attachment 2) – Stephanie Reynolds |
| 10:50 am | 4. Municipal Composting <ul style="list-style-type: none">a. Minneapolis Municipal Composting Program (Attachment 3) – Kellie Kish, Recycling Coordinator – City of Minneapolis, Division of Solid Waste & Recyclingb. Local Input: Red River Market/Zero Waste Initiative – Joe Burgum |
| 11:30 am | 5. Municipal Composting Blueprint – (Attachment 4) – Joleen Baker |
| 11:40 am | 6. Public Comment Opportunity – Chair Durand |
| 11:45 am | 7. Update: Fargo City Commission: Backyard Chickens – Kim Lipetzky |
| 11:50 am | 8. Commission & Steering Committee Roundtable |
| 11:55 am | 9. Commission Action Steps <ul style="list-style-type: none">a. Next Meeting – January 11, 2017 |
| 12:00 pm | 10. Adjournment |

Cass Clay Food Commission meetings are taped and rebroadcast on cable channel TV Fargo 56 each Friday at 11:00 am.

People with disabilities who plan to attend this meeting and need special accommodations should contact Savanna Leach at Metro COG at 701.232.3242. Please contact us at least 48 hours before the meeting to give our staff adequate time to make arrangements.

Meeting minutes are available on the City of Fargo Let's Eat Local website at www.letseatlocal.org and Metro COG's website at www.fmmetrocog.org.

A PLANNING ORGANIZATION SERVING

FARGO, WEST FARGO, CASS COUNTY, NORTH DAKOTA AND MOORHEAD, DILWORTH, CLAY COUNTY, MINNESOTA

Attachment 1

**10th Meeting of the
Cass Clay Food Commission
September 14th, 2016
Fargo Commission Chambers**

Members Present:

Heidi Durand, Moorhead City Council, Chair
Arland Rasmussen, Cass County Commission
Mike Thorstad, West Fargo City Commission
Jenny Mongeau, Clay County Commission
John Strand, Fargo City Commission
Jon Evert, At-Large Member
Mindy Grant, At-Large Member

Members Absent:

Jim Aasness, Dilworth City Council
Jessica Arneson, At-Large Member
Stephanie Reynolds, At-Large Member
Dana Rieth, At-Large Member

Others Present:

Megan Myrdal, Project Coordinator
Kim Lipetzky, Fargo Cass Public Health
Hali Durand, Cass County Planning
Abby Gold, Cass-Clay Food Systems Initiative
Deb Haugen, Cass-Clay Food Systems Initiative
Joleen Baker, Cass-Clay Food Systems Initiative
Michael Dahl, Minnesota Food Charter Network
Adam Altenburg, Fargo-Moorhead Metropolitan Council of Governments

Chair Durand called the meeting to order at 10:30 AM.

1(a). Approve Order and Contents of the Overall Agenda

A motion to approve the order and contents of the overall agenda was made by Mr. Evert and seconded by Mr. Rasmussen. The motion was voted on and unanimously approved.

1(b). Review and Action on Minutes from July 13, 2016

A motion to approve the minutes was made by Mr. Evert and seconded by Mr. Thorstad. The motion was voted on and unanimously approved.

Mr. Strand arrived at 10:32 AM.

1(c). Welcome to Commissioner John Strand

Chair Durand welcomed new Fargo City Commission member John Strand. Mr. Strand stated that he was eager to begin his term with the Food Commission.

1(d). New Name – Cass Clay Food Commission

Ms. Myrdal stated that a decision had been made by the Steering Committee to change the name from the 'Cass Clay Food Systems Advisory Commission' to the 'Cass Clay Food

Commission'. She explained that the reason for this name change was to help make it easier for the public to remember the name. Mr. Evert asked if the name change required Commission approval. Ms. Myrdal answered that the name change did not require Commission approval and that it would not have an effect on any of the prior agreements or contracts.

Mindy Grant arrived at 10:35 AM.

2. Commission Check-In

Chair Durand informed the Commission that at the beginning of each meeting, members would have an opportunity to give an update on any news or events happening within the community.

Deb Haugen arrived at 10:36 AM.

Ms. Harden stated that Extension with U of M would be holding a community garden workshop on September 24. She explained that this workshop was in response to a request by the Clay County Commission.

Ms. Lipetzky stated that the North Dakota Department of Health has extended its Chronic Disease Grant for the upcoming year. She stated that this funding would be for continued support for Ms. Myrdal, Ms. Baker, and Metro COG with future Commission activities and programs.

Ms. Gold informed the Commission of an activity conducted by the Steering Committee on September 9 that traced the activities and progress of the Commission since its inception. She stated that a full report would be given to the Commission at a later date.

3. Farmers Market and Produce Stands Blueprint

Chair Durand asked Ms. Baker if there were any updates or revisions made to the farmers markets and produce stands blueprint. Ms. Baker informed the Commission that no major changes had been made to the blueprint since it was first brought forth to the Commission in July.

Chair Durand asked how many blueprints had now been approved by the Commission. Ms. Myrdal answered that the farmers markets and produce stands blueprint would be the sixth blueprint to be approved. Ms. Baker stated that a blueprint on direct sales would be presented at the meeting in November.

A motion to approve the farmers market and produce stands blueprint was made by Ms. Mongeau and seconded by Mr. Thorstad. The motion was voted on and unanimously approved.

4. Minnesota Food Charter Network

Mr. Dahl, Executive Director of the Minnesota Food Charter Network, provided the Commission an update of its activities happening in Minnesota.

Mr. Dahl explained that the Minnesota Food Charter Network is working to change policies and systems to increase and expand healthy food choices for all Minnesotans. He explained that there are five domains within the Charter which include: food skills, food affordability, food availability, food accessibility, and food infrastructure. He stated that he is hearing from multiple communities about the desire to expand urban agriculture.

Mr. Dahl summarized his tour of the Fargo-Moorhead metropolitan area in the summer which started with an initial meeting with the Cass Clay Food Systems Initiative to understand the

different food systems issues and challenges it was working on. He summarized meetings he had with small area producers about the need for support for small farmers and resources for food incubators, as well as getting technical schools to provide sustainable agriculture education and techniques. He also spoke about a meeting he had with Dana Reith, Food Service Director for West Fargo Public Schools, and the challenge in providing healthy food at low-cost. He touched on additional meetings he had with City of Moorhead Mayor Del Rae Williams about community agriculture, Jon Evert about incentives to small farmers and how counties can play a greater role, and Andrea Baumgardner of BernBaum's in downtown Fargo. He stated that he was hearing similar concerns in other parts of Minnesota, as well as concerns relating to food deserts, issues relating to rural grocery stores, and general access to healthy food.

Mr. Dahl explained that an example of policy systems and environment changes as they relate to food skills include incorporating healthy food skills at early childhood center through credits, incentives, and community gardening programs. He gave an example of food affordability being addressed through 'market bucks' and 'veggie prescription' programs for healthy food purchases at stores and farmers markets. He explained that strategies for food availability include increasing the amount of healthy foods, decreasing the amount of unhealthy foods, and providing a greater variety of healthy foods that are culturally familiar to customers distributed by food banks, food shelves, and other institutions.

Mr. Dahl stated that the domains of food accessibility and food infrastructure are addressed in the newly completed Minnesota Food Access Planning Guide, which provides tools, resources and policy strategies to better design communities that promote access to healthy, safe, and affordable food. He stated that additional examples of food infrastructure strategies include establishing affordable statewide liability, specialty crops, and health insurance programs for small farmers, and creating and offering training with a focus on basic farm ownership, food production, and farm management skills.

Mr. Dahl explained that the Minnesota Food Charter was a multi-month process involving input from thousands of people throughout the state. He explained that the Minnesota Food Charter Network is needed to better address hunger, how it hurts the economy, and address the need for more farmers and farmers markets in the state. He stated that 20 percent of Minnesotans face hunger and food insecurity, with the state incurring over 2.8 billion in obesity-related health care costs, and 900,000 residents (including 200,000 children) having insufficient access to grocery stores in the state.

Mr. Dahl stated that there are 99 strategies identified within the Charter to better enable differing communities to address specific concerns and issues. He stated that many communities are taking advantage of SHIP funding to implement various Charter strategies as they may be applicable, including the support of approximately 70 food policy councils and food commissions across the state.

Mr. Dahl stated that on November 28 and 29, the Minnesota Food Charter Network will host a convening of Minnesota food network leaders in Minneapolis, with the goal of supporting, connecting, and building capacity of food networks to contribute to the implementation of Charter strategies. He also spoke about newly formed action teams to identify strategic goals and build action plans for coordinated efforts over the coming years.

Mr. Strand stated that approximately 24 percent of students in Fargo Public Schools are on free or reduced-cost lunches and that may be a good indicator of hunger. He spoke of his experiences of canning while he was growing up and asked whether canning is included in any of the education measures of the Charter. Mr. Dahl stated that a number of food preparation

skills are included in the Minnesota Food Charter and that canning is just one of many ways of food preservation.

Mr. Evert iterated the points made by Mr. Strand and Mr. Dahl and stated that he would like to see Extension take a greater role in education on canning and other food preservation measures. Ms. Harden stated that the community garden workshop on September 24 will include sessions on food preservation techniques such as canning, freezing, and dehydration of fruits and vegetables.

Mr. Dahl iterated his support of home economics/healthy lifestyles courses in schools, as well as sustainable agriculture courses at higher education institutions. Chair Durand stated that M|State's program on sustainable foods was cut. Mr. Dahl stated that it is unfortunate that many programs like those at M|State are being cut. Mr. Evert stated that a reason some of these programs are cut is due to a lack of student interest. Chair Durand responded that programs with 10 to 12 students are sometimes cut because they are not considered 'efficient' to program directors.

5. Update: Heart-n-Soul Community Café

Leola Daul provided the Commission an update on the Heart-n-Soul Community Café, a pop-up café dedicated to serving local, organic food and offering volunteer opportunities and wellness education.

Ms. Daul explained that the Heart-n-Soul Community Café is open to everyone in the community, regardless of their ability to pay. She said that menus do not list prices for meals, with pay-what-you-can pricing in the form of donations. She stated that the two main goals of the café are to provide healthy, nutritious meals and to help individuals make connections with others in the community. She expressed her appreciation to local area farmers who have provided food used in the meals and to the team of volunteers who prepare and serve the food.

Ms. Daul stated that since its inception in June 2016, the café has provided meals to 376 individuals, with 18 percent paying what they can or receiving a complementary meal, 57 percent paying the suggested amount (\$5 to \$8), and 25 percent paying it forward.

Ms. Daul explained that there have been six pop-up cafés to date, with most utilizing Josie's Corner Café in downtown Fargo. She stated that the café is licensed through Fargo Cass Public Health. She stated that, with pop-ups, the café is able to go to different location throughout the community, with the idea bringing groups from diverse backgrounds together. She stated that she hopes to expand locations to south Fargo near K-Mart and the City of West Fargo. She informed the Commission that the next pop-up would be at Josie's Corner on September 25.

Ms. Daul stated that the café uses locally grown foods and is working to preserve food for the coming months for future pop-ups. She also explained that she would be participating in SNAP education in partnership with Extension and public health at the Red River Market on September 17.

Ms. Mongeau asked if the Heart-n-Soul Community Café had a website or any social media presence. Ms. Daul stated the café has a Facebook page and Instagram account, and has discussed creating a website in the future. She stated that she works with various organizations to help get the word out for upcoming events.

6. Update: FARRMS/Growing Together Future Farmer Training Grant

Verna Kragnes provided the Commission an update on 'Farm Beginnings' and the 'USDA Beginning Farmer Rancher Development Program Grant' in collaboration with FARRMS and Growing Together.

Ms. Kragnes stated that FARRMS stands for Foundation for Agricultural and Rural Resource Management and Sustainability. She explained that FARRMS is a non-profit founded in 2000 to address specific educational needs of organic producers and processors and to promote rural development, with its offices based out of Medina, ND.

Ms. Kragnes stated that the definition of a farm is any place where a \$1,000 of agricultural products are produced and sold during the year. She stated that nearly a quarter of what could be considered farms do not produce any sales in a given year, and that an additional 30 percent have positive sales less than \$1,000. She stated that, had the produce grown by Growing Together community gardens been sold, it would have produced more income than 55 percent of farms in the entire United States. She explained that there is a need for new farmers and that this may require a new picture of what a farm is.

Ms. Kragnes stated that nearly 85 percent of farms have off-farm income. She stated that this may be a continued social impact of farm prices from the 1980's. She explained that many young farmers work second jobs to make it easier to pursue farming as a passion.

Ms. Kragnes explained that, according to the USDA, a beginner farmer is someone in their first ten years of farming. She explained that the FAARMS program would be available to anyone who is in their first ten years of farming. She stated that the first year of farming is considered the exploration phase, followed by a second year of planning or interning, three to seven years of establishing one's own farm, and seven to ten years of a person beginning to manage a farm on their own.

Ms. Kragnes stated that over 50 percent of the people involved in the program will be those with limited resources or those who fit the USDA's definition of 'socially disadvantaged' as farmers, which includes: New Americans, African-Americans, Native Americans, Hispanics, Asian Americans, veterans, and women.

Ms. Kragnes explained that an important component of the FARRMS/Growing Together Future Farmers Training Grant would be a learning circle to help build up the conversation around sustainable agriculture. She stated that the four phases of the learning circle would include: 1) practical experience at Growing Together; 2) FAARMS intern program; 3) Farm Beginnings training; and 4) incubator farming opportunities.

Mr. Evert asked how much money was included in the grant. Ms. Kragnes answered that the grant amount was \$513,000, which required a 25 percent local match. She stated that match came from a number of local partners, including a large contribution from Lutheran Social Services. She further explained that part of the grant is intended to replicate the Growing Together community gardening model to other cities in North Dakota. She stated that the total project amount was nearly \$700,000 over a three-year time period.

Mr. Strand asked whether small farm entities would qualify for disaster relief as part of the program. Ms. Kragnes answered that this is a complicated issue, especially as crop insurance relates to vegetables.

Ms. Baker asked how FARRMS would be choosing people to participate in the program, whether it would be application-based or needs-based. Ms. Kragnes answered that she didn't anticipate turning down anyone who initially applied with Farm Beginnings training or internship opportunities.

Mr. Evert stated that this program was very timely as there is a greater need for supply to accommodate the growing demand for local food production. He congratulated Ms. Kragnes on her efforts to secure funding for the Farm Beginnings program and the Beginning Farmer Rancher Development Program Grant.

7. Update: Buzz Lab 3.0 Teen Internship

Isabetta Herrera, Emma Swenson, and Joslin Forness provided the Commission an update from the Buzz Lab 3.0 Teen Internship held at the Plains Art Museum.

Ms. Herrera explained that Buzz Lab is an internship program which has been held at the Plains Art Museum for the past three years. She stated that this summer, the program has been more active in providing the community information on the importance of pollinators, as well as trying to dispel some of the safety concerns people have with honey bees and other pollinators.

Ms. Swenson stated the pollinators are important in many of the fruits, nuts, and vegetables that people eat. She stated that part of the educational component of Buzz Lab was providing information on the difference between honey bees and yellow jackets and other stinging insects.

Ms. Forness stated that she lives near West Fargo and that she and her family have a farm where they keep several bee hives. She explained that the Buzz Lab helped her to learn the importance of pollinators in the ecosystem and some of the factors which have led to their decline in recent years. She stated that Paul Luthi of Three Bears Honey has provided education on best practices for bee keeping and also keeps additional bee hives near their property.

Ms. Herrera iterated Buzz Lab's concerns about a recent ban on honey bees within the City of West Fargo. She asked the Commission for support in revisiting the issue and working with the City of West Fargo next year when the new internship program starts.

Ms. Mongeau stated she was pleased to hear the information from Ms. Herrera, Ms. Swenson, and Ms. Forness and that they were very inspiring leaders.

Mr. Strand asked about chemical applications for mosquitos and the effect some have had on bee populations while combating the Zika virus. Chair Durand stated that she had reached out to vector control in the City of Moorhead and that they informed her that the chemical nalen is not used in the area. She stated that she did have concerns about other chemicals that are still used and their effects on pollinators. Ms. Forness added that certain crops such as corn and other monocrops are not as healthy for bee populations as a more diverse ecosystem.

Ms. Harden stated the Governor Dayton had recently taken step to protect pollinators by restricting the use of neonicotinoid pesticide applications in Minnesota.

8. Public Comment Opportunity

Chair Durand informed the Commission that time would be allotted for public comments.

Mara Solberg of Solberg Farms expressed her gratitude to the Red River Market in allowing her to bring her products to market. She iterated her appreciation of their support and of the Market's SNAP Double Bucks program and stated she believed it helped more people purchase healthy, affordable foods.

Jack Wood of Growing Together informed the Commission there would be a welcome meal at Rabanus Park on September 17, with all of the food coming from the area's community gardens. He

stated that an additional potluck would be held on September 22 at The Gathering at 3910 25 Street S. He stated that 2,000 pounds of squash and pumpkins are also available at their produce market.

Abby Gold informed the Commission that Probstfield Farm will be open the next four weekends for people to come to their heirloom squash and pumpkin patch, which includes 18 different varieties.

9. Commission and Steering Committee Roundtable

Chair Durand asked for the Commission and the Steering Committee to share any additional updates.

Ms. Myrdal iterated that the new Commission Check-In at the beginning of meetings will be a time for any Commission members to bring forth any food systems issues they may have seen or discussed within the community. She stated that Prairie Roots Co-Op had hired Kurt Kopperud as their new general manager as they prepare for their opening in the spring of 2017. She explained that, with the discussion of the SNAP Double Bucks program at the Red River Market, a total of \$1,500 had been spent to date and that it has grown exponentially.

Ms. Haugen encouraged Commission members and members of the audience to consider volunteering with Growing Together in 2017. She expressed her support for the program and the role it has filled in helping people grow food who may not otherwise have land or space for gardening where they live.

Ms. Grant stated that she appreciated the presentation by Michael Dahl on the Minnesota Food Charter Network and the need to take a closer look at food infrastructure and policies that better enable people to provide food for themselves.

Ms. Harden stated that she is looking forward to working with jurisdictions to move ahead with some of the policies contained within the six blueprints approved by the Commission.

Mr. Evert thanked everyone from Extension and public health for all of their hard work and effort with the Commission.

10. Commission Action Steps

Chair Durand stated that the next meeting would be held on November 9, 2016.

Chair Durand adjourned the meeting at 11:58 AM.

Municipal Composting

Cass Clay Food Systems Advisory Commission

Composting is Important!

- ▶ 30-40% of all Municipal Solid Waste is Organics!
- ▶ Composting diverts food waste and yard waste from the landfill
 - ▶ Reduces Methane Emissions
 - ▶ Reduces Landfill Leachate
- ▶ Soil amendment
 - ▶ Increases organic matter
 - ▶ Improves drainage, moisture infiltration rates, and reduces soil erosion and runoff
 - ▶ Improves moisture holding capacity
 - ▶ Aids in proliferation of beneficial microbes

Types of Municipal Composting

- ▶ **Yard Waste**
 - ▶ Grass clippings, leaves and garden/flowerbed waste are allowed; food waste is not allowed
- ▶ **Source Separated Organics**
 - ▶ Organics are collected separately from other municipal solid waste material
- ▶ **MSW Compost**
 - ▶ Organics are separated from MSW at a Dirty MRF, transfer station or landfill

The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. These shapes are primarily located on the right side of the slide, creating a modern, layered effect. The text is centered on the left side of the slide.

Process of Source-Separated Organics Composting

Collecting Compost Material

- ▶ Food Waste and Yard Waste
 - ▶ Residential drop-off sites or curbside pick-up
 - ▶ Separate services for organics and yard waste collection



Google Images



Google Images

Types of Organics Materials Collected

▶ Yes!

- ▶ Baked Goods
- ▶ Coffee Grounds and Filters
- ▶ Fruit and Vegetable Waste
- ▶ Meat and Meat Products
- ▶ Paper Towels and Napkins
- ▶ Pizza Boxes
- ▶ Tea Bags
- ▶ Popsicle Sticks

▶ No!

- ▶ Ashes
- ▶ Animal Waste, bedding, liter, and droppings
- ▶ Cigarettes, cigars and butts
- ▶ Cartons (soup, broth, milk, juice, or wine)
- ▶ Diapers
- ▶ Microwave Popcorn Bags
- ▶ Gum



Google Images



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www.BPIworld.org

Mixing Ingredients

- ▶ Hard-packed or all-weathered surface
 - ▶ Hoop House and Tar Pad
 - ▶ Mix 2 parts food waste to 1 part yard waste
 - ▶ Place into windrows



Google Images

Moisture, Temperature, and Turning the Windrows

- ▶ 60% moisture content
 - ▶ Support the life of microorganisms and bacteria
- ▶ Temperature Log for Source-Separated Organics Facility Window Method
 - ▶ Daily during Process to Further Reduce Pathogens (PFRP)
 - ▶ Maintain a temperature of 55 degrees Celsius for 15 days
 - ▶ During this period, windrows turned every 3-5 days
 - ▶ Weekly temperature logs after PFRP is achieved
- ▶ Turn compost with compost turner
 - ▶ Turn compost to expose new surface area for bacteria to break down organics and heat windrow
- ▶ Materials composted within 6 to 8 months



Google Images

Screen, Test and Distribute

- ▶ Screen out unwanted materials such as plastics
- ▶ Test for pollutants, nutrient content and Carbon: Nitrogen ratio
 - ▶ Classification of compost depends on test results
- ▶ Distribute
 - ▶ Landscaping
 - ▶ Residential Gardening
 - ▶ Construction Projects
 - ▶ Farm Land



Google Images



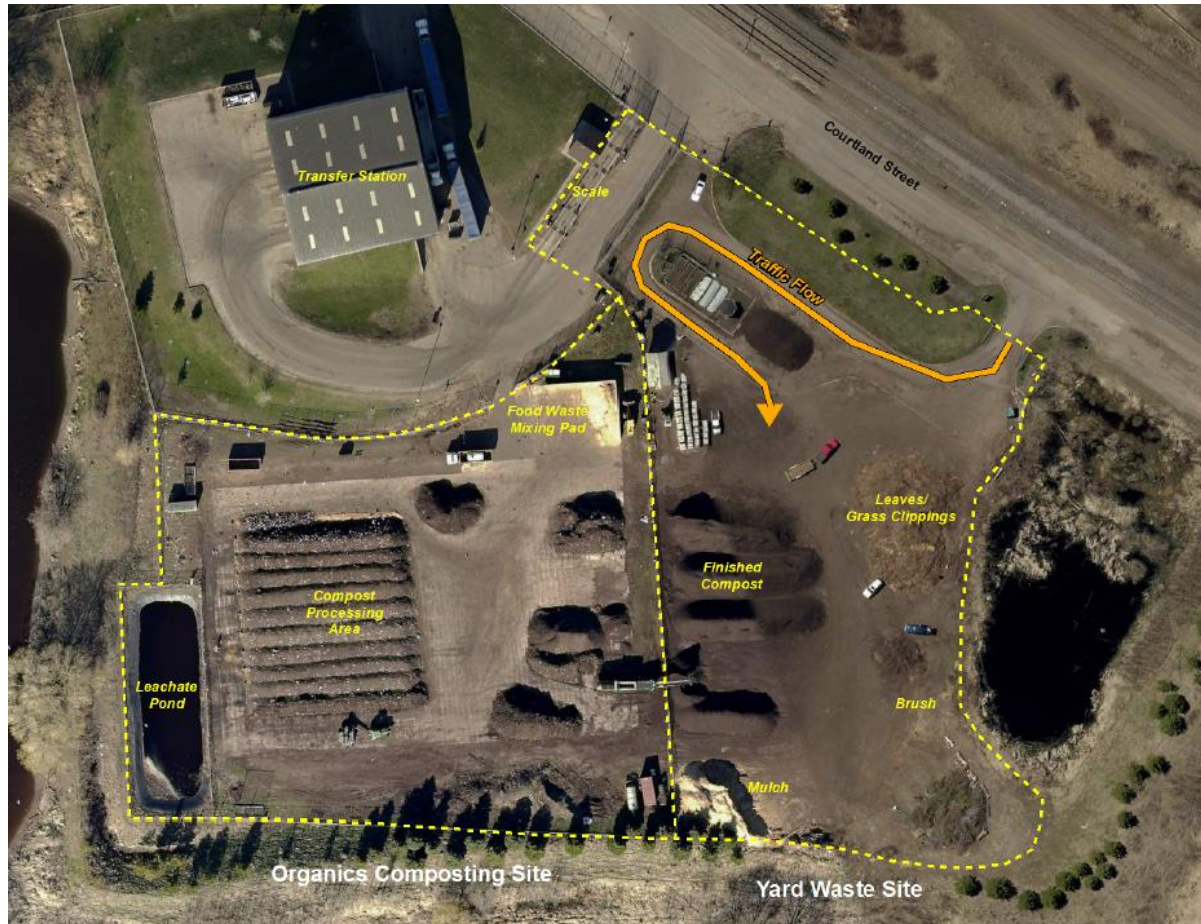
Google Images

Winter Composting

- ▶ WLSSD Source-Separated Compost Facility: Duluth, MN
 - ▶ 25 tons of food waste per year
 - ▶ Compost all year round
 - ▶ Need enough Carbon (leaves, wood chips, hay) compost all year round
 - ▶ Windrows heat up to meet MPCA pathogen regulations
 - ▶ The facility has a static aerated windrow operation which allows them not to turn the windrows which prevents heat loss
 - ▶ They place their windrows close to each other to retain heat
 - ▶ Windrows compost within 6-7 months



WLSSD Source-Separated Compost Facility: Duluth, MN



Fargo/Moorhead Food Waste Diversion Potential

- ▶ Yard Waste
 - ▶ City of Moorhead's average (2011 - 2015) = 2,709 tons
 - ▶ City of Fargo's average (2014 - 2015)= 8,993 tons
 - ▶ Total= 11,702 tons of yard waste
- ▶ 2 parts food waste to 1 yard waste
- ▶ Fargo/Moorhead can divert 23,404 tons of food waste per year

***** The more Carbon material, the more food waste that can be diverted

Questions?

CITY OF MINNEAPOLIS

Organics Recycling pilot, drop-offs and citywide collection programs

Kellie Kish

Recycling Coordinator



Organics collection pilot (2008)



- Neighborhood asked City to collect source-separated organics to gather data to determine feasibility of community anaerobic digester study in 2007.

- Goals of pilot project:
 - Test “opt-in” system
 - No extra charge
 - Determine participation levels (various outreach methods used)
 - Effectiveness of mailings, neighborhood events, and “block captains”
 - Route design and efficiencies



Pilot area comparison



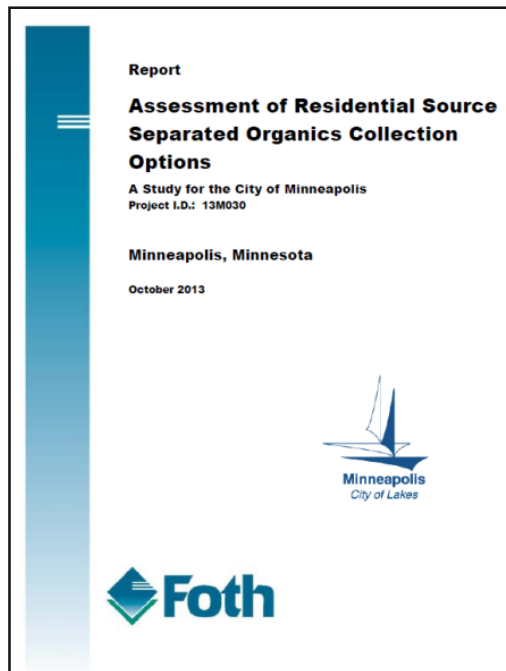
| Participation Data | Linden Hills (2008) | East Calhoun (2009) | 2010 Expansion |
|---|---|--------------------------------|---------------------------|
| Outreach Methods | Mailings, Events, & “Block Captains” | Mailings Only | Mailings Only |
| Option to Participate (# of Dwelling Units) | 2,524 | 566 | 2,280 |
| Neighborhood Subscription | 53.5% | 46.8% | 36.7% |
| Average Weekly Cart Set Out Rates of Subscribers | 60% | 54% | n/a |
| Average pounds of SSO per dwelling unit per week from interim report | 7.71—11.01 | 9.07—12.95 | n/a |

Citywide consultant study



November 2012

City collection of Source Separated Organics (SSO)



Study Evaluated:

- Cost for collection
- Participation rates
- Greenhouse gas emissions
- Obstacles and barriers to going citywide

Report completed October 2013.

* Report is available on our Studies & Reports webpage.

Collection methods studied



Collection Method:

1. No SSO Collection (SSO to HERC)
2. Collect SSO Alone
3. SSO Commingled with Yard Waste
4. SSO Co-collected with Yard Waste (Blue Bag)
5. SSO Co-collected with Garbage (Blue Bag)



Definitions:

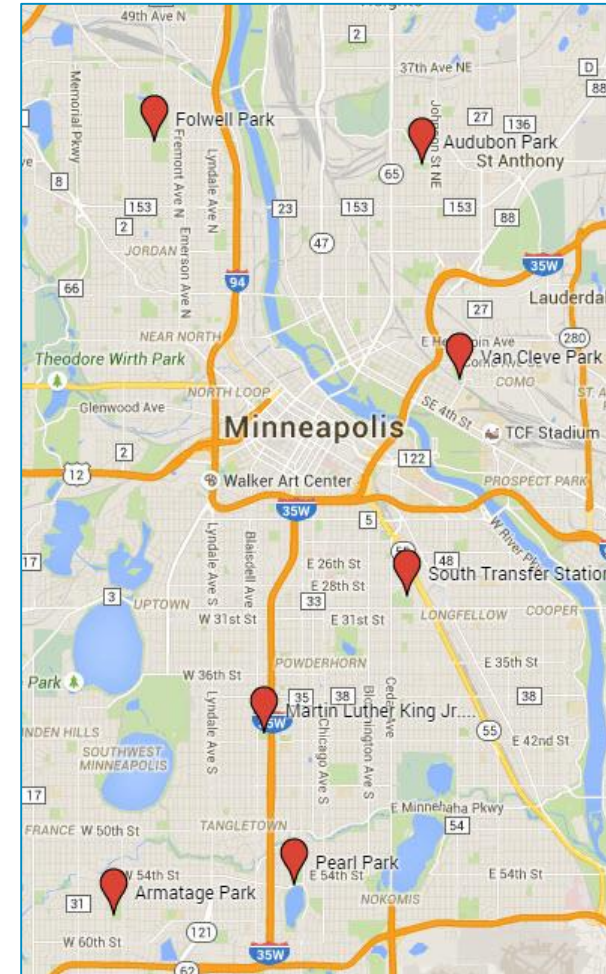
Commingled: SSO and yard waste placed together in one cart.

Co-collected: SSO in Blue Bag placed in same cart as yard waste or garbage with the intention of separating the two materials.

Organics drop-offs



- Allow for convenient drop-off options around the City
- Partnership with Minneapolis Park and Recreation Board
- Carts locked to prevent contamination
 - Designated open hours for first 2 months (2x/week) and then gave lock code to those who signed up to participate
 - Locks removed over winter and only had to be put back on one drop-off location in the spring



Promoting drop-offs



- Promotions by neighborhood, Council Member, and SW&R
- Events – residents asked to sign up at the event to develop email list of participants
- Requested folks sign up to participate
 - GovDelivery List online



Drop-Off Participation Tracking



- Folder kept at Park Building for volunteers to pick up at beginning of their shift:
 - Volunteer Duties
 - Drop-off Brochures
 - Detailed Yes/No Lists
 - Participant Tracking Sheets
 - “This Cart is Full” signs



| Residential Organics Drop-Off Participation Tracking Sheet | | | | |
|---|-----------------------|--------------------------|------------------------|-----------------------|
| Date | | Total Participants | | # Carts Filled: |
| Volunteer Name: | | | Email/Phone: | |
| Directions: Please fill out the information for each resident who utilizes the drop-off site. | | | | |
| Time Visited | Resident Neighborhood | # of people in household | # of units in building | Questions or Comments |
| | | | | |
| | | | | |

Drop-Off Participant Follow up



- Used email list to notify participants of program updates and contamination/issues at the drop-off site.



2015 Drop-off Overview



| Drop-off Location | Collection Days | # of carts on site | Avg. Cts dumped per collection | Open Date | Cts emptied in 2014 | Cts emptied in 2015 | # emails signed up to participate |
|-------------------|-----------------|--------------------|--------------------------------|-----------|---------------------|---------------------|-----------------------------------|
| Pearl | M, W, F | 17 | 17 | 4.29.14 | 630 | 1975 | 579 |
| South Transfer | W, F | 6 | 3 | 8.8.14 | 3343 lbs | 287 cts = 15932 lbs | n/a |
| Van Cleve | Tu, F | 6 | 5 | 9.24.14 | 56 | 434 | 235 |
| Audubon | Tu, F | 7 | 7 | 10.8.14 | 57 | 445 | 189 |
| Armatage | Tues | 8 | 8 | 10.15.14 | 54 | 503 | 175 |
| MLK | Tu, Th | 5 | 5 | 5.12.15 | n/a | 241 | 227 |
| Folwell | W | 4 | 3 | 8.19.15 | n/a | 54 | 62 |

Citywide roll-out milestones



| When | What |
|-----------------|--|
| December 2014 | Program approval through adoption of Mayor's Budget |
| January 2015 | City press release (soft launch) |
| April 2015 | Citywide mailings & Promotions (hard launch) |
| August 2015 | Phase I Welcome Kit mailing & cart deliveries begin. Haven't heard from you (2 nd mailing) |
| September 2015 | Pilot area cart exchange Phase I of roll-out complete |
| July 2016 | We still Haven't heard from you (3 rd attempt) |
| May – June 2016 | Phase II Welcome Kit mailing & cart deliveries begin |
| July 2016 | First full-month of Citywide Organic Collection |

Communications Messaging



- What are organics?
- How do I participate?
- When can I start?
- Why should I participate?
- How is compost beneficial?



Communication Methods '15



- Direct mail
- City website
- Social media
- Billboards (still and digital)
- City TV channels, YouTube
 - Videos (English, Spanish, Hmong, Somali)
- Newsbites (Council Member newsletters)
- On-hold messages
- Neighborhood & Community events, newsletters, websites
- Internal call center

All 2015 methods, except the direct mailings, were at no additional cost to Solid Waste & Recycling.





Direct Mail: April 2015

Give back to nature with **organics recycling**



It's easy to make a difference
More than one-third of our trash is organic material that can be composted. Recycling organics, such as food scraps and non-recyclable paper, is an easy way to reduce your trash and make a difference!

Sign up today
To sign up, email SWRcustomer@minneapolismn.gov or call 612-673-2917.
There is no additional cost to participate.
For more information, visit www.minneapolismn.gov/organics



- Phase I and Phase II:
 - It's easy as 1,2,3 Brochure
 - Personalized Letter: "When do you start"
 - "Sign Up Now" Postage Paid Reply Card (to those who have not signed up yet)

(fold and tear along perforation)


Yes, I want to participate in the organics recycling program

Name: _____

Address: _____

Daytime Phone: _____

Stay updated! Sign up for the organics email list to receive updates on the program roll-out, reminders of what can and cannot go in your organics cart, and helpful tips on how to divert more materials for organics recycling. Sign up now at www.minneapolismn.gov/organics.



Welcome Kit



Resident Letter

City of Minneapolis
Division of Solid Waste & Recycling
City of Lakes Building
309 2nd Ave S, Room 210
Minneapolis, MN 55403
612-673-2917
www.minneapolis.gov/organics

Dear organics recycling participant,
Welcome to the organics recycling program! Your organics recycling cart is scheduled to arrive next week. You may start participating in the program by placing bagged organics into your cart as soon as you receive it. Organics will be picked up weekly on the same day as your garbage. Make sure to have your organics cart at the alley or curb by 6 a.m. on those days.

This welcome kit includes a few items to help you get started:

1. Tips for setting up organics recycling in your home
2. Quick reference magnet for what you can and cannot put in organics recycling for your refrigerator
3. Starter pack of 10 kitchen-pail-sized compostable plastic bags
4. Coupons to purchase compostable bags, kitchen pails, and other compostable products

Remember that organics must be bagged in certified compostable plastic bags or paper bags. Compostable plastic bags must be labeled with the BPI logo. Bags labeled as degradable, biodegradable, oxo-degradable, earth friendly, etc. have not been tested for compostability and therefore are not accepted in the program.

Please do not place yard waste, pet waste, diapers, sanitary products, garbage, non-compostable items, or recyclable items, including milk cartons, into your organics recycling cart. For more information regarding the organics recycling program visit www.minneapolis.gov/organics or call our customer service line Monday through Friday from 8 a.m. to 4:30 p.m. at 612-673-2917.

Thank you for participating and diverting organics from our waste stream.

David A. Herbenick, Director
Division of Solid Waste & Recycling

DISCLAIMER: The information on this Welcome Kit is provided to residents for convenience only. The City does not endorse any manufacturer, brand, or product. Residents are responsible for ensuring that the information provided by retailers or vendors in the organics recycling program is accurate. The City makes no representation or warranty as to the accuracy of any information provided by retailers or vendors. The City makes no representation or warranty as to the accuracy of any information provided by retailers or vendors. The City makes no representation or warranty as to the accuracy of any information provided by retailers or vendors.

Coupons

Get started with **organics recycling**

Use these retailer coupons to get compostable bags and other compostable products that you can use in the organics recycling program.

KOWALSKI'S MARKETS EXCLUSIVE SAVINGS

\$1 OFF Any 2 Ultra Green or Compo Compostable Tree-Free Paper Items

15% OFF COMPOSTABLES PLATES, CUPS, FORTS

moss envy eco home & life
3056 Excelsior Blvd. MN
www.mossenvy.com

Natur-Bag \$1.00 Off

15% Off 13 gallon Compostable Bags Ace Stores

10% Off at a participating composting pail or composting bin

Tips for setting up organics recycling in your home

Organics are a resource, not a waste! By participating in the organics recycling program, your food scraps and non-recyclable paper products will be recycled into compost - a valuable resource used in landscaping and road construction projects.

This guide includes useful tips and answers to frequently asked questions to help you make the most of the organics recycling program.

Minneapolis
City of Lakes

Organics Recycling Guide

All food

- Fruits and vegetables
- Meat, fish and bones
- Dairy products
- Eggs and egg shells
- Pasta, beans and rice
- Bread and cereal
- Nuts and shells

Food-soiled paper

- Pizza boxes
- Napkins and paper towels
- Paper egg cartons
- Parchment paper

Other compostable household items

- Coffee grounds and filters
- Hair and nail clippings
- Cotton balls and swabs with paper stems
- Houseplants and flowers
- Tea bags
- Wooden items such as chopsticks, produce sticks and toothpicks

Certified compostable products

- Compostable paper and plastic cups, plates, bowls, straws and containers
- Look for the BPI or Cedar Grove logos
- Compostable or certified products

Not acceptable

- Yard waste - stumps and limbs
- Animal manure - litter or bedding
- Oil - motor oil, cooking oil, etc.
- Dryer sheets
- Dryer lint
- Paper, plastic, metal, glass, or other non-compostable items
- Paper plates, microwave popcorn bags, or fast food wrappers (unless labeled "biodegradable")

Minneapolis
City of Lakes

Magnet

Get started with organics recycling



Enclosed are 10 certified compostable plastic bags to get you started collecting organics in your home.

Organics must be in compostable bags for collection. Acceptable bags include:

- Paper bags
- Certified compostable bags

Compostable plastic bags must have the BPI logo to be accepted in the organics recycling program.

Certified compostable plastic bags are sold at most grocery, hardware and large retail stores. Look for the BPI logo on the box.

For more information visit www.minneapolis.gov/organics or contact Minneapolis Solid Waste & Recycling at 612-673-2917 or SWRCustomer@minneapolismn.gov

Minneapolis
City of Lakes

Compostable Bag Starter Kit

Home Setup Tips

Communication Methods '16



- All methods from 2015
- Paid Advertising Campaign that included*:
 - Truck signage
 - Bus and Bus shelter
 - Print
 - Digital
 - Social Media (Facebook ads)
 - Radio
 - Direct Mail
 - Events



* Funding for ad campaign from SCORE funds dedicated to organics programs

Ad Messaging



Ad Messaging



Reduce waste and **save money**

Switch to a smaller garbage cart by adding organics recycling



Sign up today:
minneapolismn.gov/organics
or call ^{Minneapolis} **311**



Recycle food scraps with **organics recycling**

It's as easy as 1, 2, 3



Collect organics.



Put bagged organics in your cart.

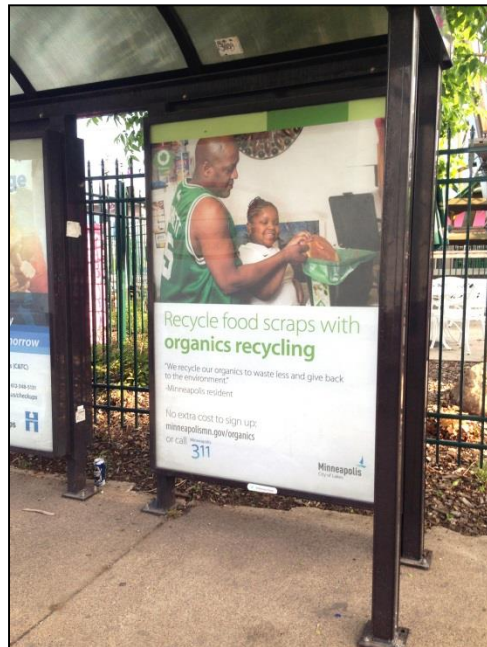
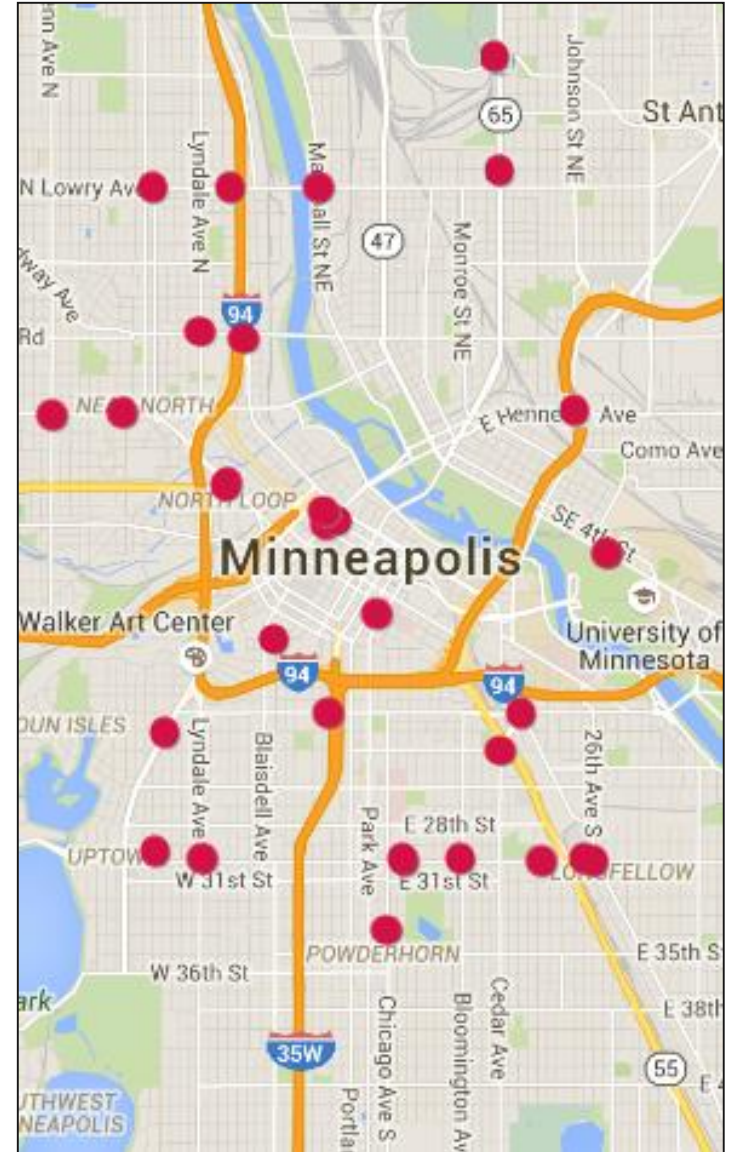
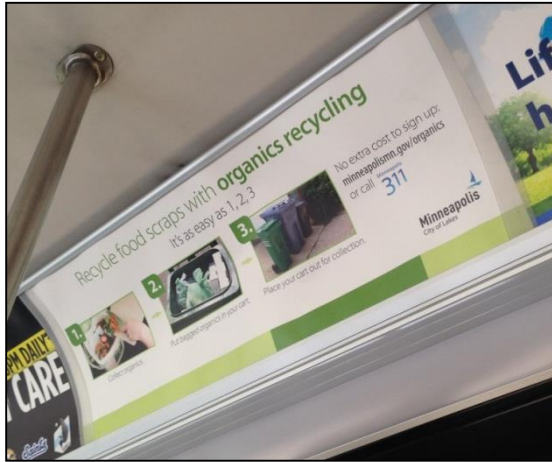


Place your cart out for collection.

Sign up today: minneapolismn.gov/organics or call ^{Minneapolis} **311**



Bus Ads: Interior, Exterior, Shelters



* Impressions from Adults 18+

Print, Digital, Radio, and Social Media Ads

- Efforts focused on areas with lower sign-ups
- Targeted non-English speaking advertising outlets
- Print
 - 10 news publications
- Digital
 - 16 news websites, plus extended reach
 - Geo-targeted ads
 - Combination of still, video, pre-roll, mobile and desktop
- Radio
 - 11 radio stations
 - Very expensive and can't limit message to customers



Direct Mail – August 2016



Recycle your **organics**

Reciclaje organico

Nroog Minneapolis nyoj khoom tsis siv

Dib-U warshadaynta Qashinka dabiicigaa



Sign up now! There is no additional cost to participate.

¡Inscríbete ahora! No hay costo adicional para participar.

Tso npe koom kiag! Tsis kom them ntiv dab tsi yog xav koom.

Hadda is qor! Kharash dheeraada malaha ka qaybqaadashadu.



- Pre-translated into 4 major languages
- “Sign Up Now” Postage Paid Reply Card

____ Yes, I want to participate in the organics recycling program


- Si, quiero participar en el programme de reciclaje de materia orgánica.
- Yog, kuv xav mus koom nyob rau hauv lub organics ub kev pab cuam.
- Haa, waxaan doonayaa in aan ka qayb qaato barnaamijka dib u war shadaynta organics ah.

Name: _____
(nombre, lub bpe, magaca)

Address: _____
(direccion, chaw nyob, cinwaanka)

Phone: _____
(telefono, xov tooj, lambarka taleefanka)

Preferred language: English Spanish Hmong Somali
(idioma preferido, hom lus, af doorbidayso)





"Organics recycling helps us keep our neighborhood clean and healthy." – Minneapolis resident

"Nyoo khoom thamaxaj pab ua rau peb jub zej zog huv thiab muaj kev noj qab nyob zoo."
– Lub Nroog Minneapolis cov Pej Xeem



"After composting and recycling, our family of four has just a small bag of trash per week. It's so easy and it feels good knowing we're contributing to waste reduction and healthier soils."

– Minneapolis resident



"We recycle our organics to protect the environment. The food scraps and non-recyclable paper can be put to a better use through composting."

– Minneapolis resident

"Waxaa dib-u-isticmaalid ku samaynaa qaar kamida haraaga qashinka si loo ilalayo bay'ada, ama deegaanka. Haraaga cuntada iyo waraaqaha aan dib-u-isticmaalid lagu samaynkariin waxaa loo isticmaali karaa bacrimin ahaan."

– Muwaadiniinta Minneapolis



¿Cómo funciona el reciclaje de materiales orgánicos?

Tan fácil como 1, 2, 3



Reúne la materia orgánica en bolsas compostables en toda la casa, incluidos la cocina, el baño y los dormitorios.



Coloque sus materias orgánicas en bolsas en un contenedor de reciclaje de materia orgánica.



Coloque el contenedor de materia orgánica en su callejón o andén al lado de sus botes de basura y de reciclaje en su día regular de recolección de basura.



¡Inscríbese ahora!

No hay costo adicional para participar. El reciclaje de materiales orgánicos está incluido ahora con su servicio de recolección de basura y reciclaje. Cualquier residente con servicio de reciclaje y recolección de basura de Minneapolis, incluso inquilinos, pueden inscribirse.

Para registrarse complete y envíe esta tarjeta por correo.

Comience el reciclaje de materia orgánica una vez que reciba su contenedor verde. Los materiales orgánicos se recogerán semanalmente en su día de recolección de basura.

¿Sabía usted que al cambiar a un recipiente pequeño de basura, puede ahorrar \$3 al mes?

Guía de reciclaje de materiales orgánicos



Toda tipo de comida

- Frutas y verduras
- Carne, pescado y huesos
- Productos lácteos
- Huevos y cáscaras de huevo
- Pasta, arroz y frijoles
- Pan y cereales
- Nueces y cáscaras



Otros artículos para el hogar que son compostables

- Residuos y filtros de café
- Cabello y uñas
- Bolsas de algodón y copitos con palo de papel
- Plantas y flores
- Bolsas de té
- Artículos de madera tales como palillos, palillos de helado y palillos de dientes



Papel manchado de alimentos

- Cajas de pizza de entrega a domicilio
- Servilletas y toallas de papel
- Cajas de huevos



Productos compostables certificados

- Vasos de papel y plástico, platos, tazones, utensilios y recipientes compostables

Busque los logotipos de BPI o Cedar Grove o el término "compostable" en los productos certificados.



No se acepta:

- Desechos de jardín
- Residuos y productos sanitarios
- Desechos, a tena de desechos ni ropa de cama de animales y de mascotas
- Toallitas de bebé o de limpieza
- Grasa o aceite
- Styrofoam™
- Pelusa de la secadora y hojas para la secadora
- Hojas para la secadora
- Artículos reciclables (cartones, vidrio, metal, papel, plástico)
- Cajas de alimentos congelados
- Bolsas de polímeros de mal de mascotas
- Chiclé
- Envoltura de comida rápida
- Productos etiquetados como "biodegradable"

Para obtener más información, llame a Solid Waste & Recycling al 612-673-2917 o vaya a www.minneapolis.gov/organics



Sign up

Español

Hinooob

Somali

Public Education



- Outreach at Neighborhood and Community Events
- Targeted outreach to low sign-up neighborhoods

- Received 1,000 kitchen pails from compostable bag vendor
- Give to residents who have not signed up as additional incentive to participate



- Outreach to Neighborhood & Community Groups

Organics Recycling Events



I recycle organics. **Do you?**

Organics Recycling

Learn more at minneapolismn.gov/organics

Minneapolis
City of Lakes



Outreach through Interns

- Door-to-door in areas with lower than average sign-ups
- Survey & educate residents
- Promote sign-ups
 - **Average of 18 new sign-ups each week (20 hours door knocking per week)**
- Answer questions
- Provide resources
 - Yes/No lists
 - Stickers
- Results will be used to identify barriers to participation



Recycling Block Leader Program

- Participation
 - 150 residents have signed up since April 9, 2016
- Block Leaders Responsibilities
 - Share City recycling updates with neighbors
 - Organize low-waste National Night Out event
- Resources available
 - Regular email updates
 - Brochures, lawn signs, stickers
 - Access to recycling staff
 - Guide for planning low-waste events



Field Driven Education



- Collection Crews
 - Educational tag left on cart when issues with set-out
 - Wrong bags / Unbagged – 182 (<1% of customers)
 - Contamination – 342 (<1% Customers)
 - Follow-up notification mailed to resident
 - Seasonal reminder cart hangers
 - no yard waste in organics cart



Online Sign up Form

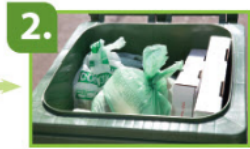


Sign up to recycle food scraps with **organics recycling**

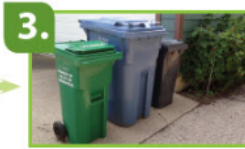
It's as easy as 1, 2, 3



Collect organics.



Put bagged organics in your cart.



Place your cart out for collection.

No extra cost to sign up

To take part, residents must sign up by fully completing the form below, or by contacting Solid Waste and Recycling at 612-673-2917 Monday-Friday 8 a.m.-4:30 p.m. Organics recycling is picked up weekly, on the same day as garbage.

Sign Up Now

Name *

E-mail Address *

Phone Number *

 - Type -

Address *

City

State Zip Code

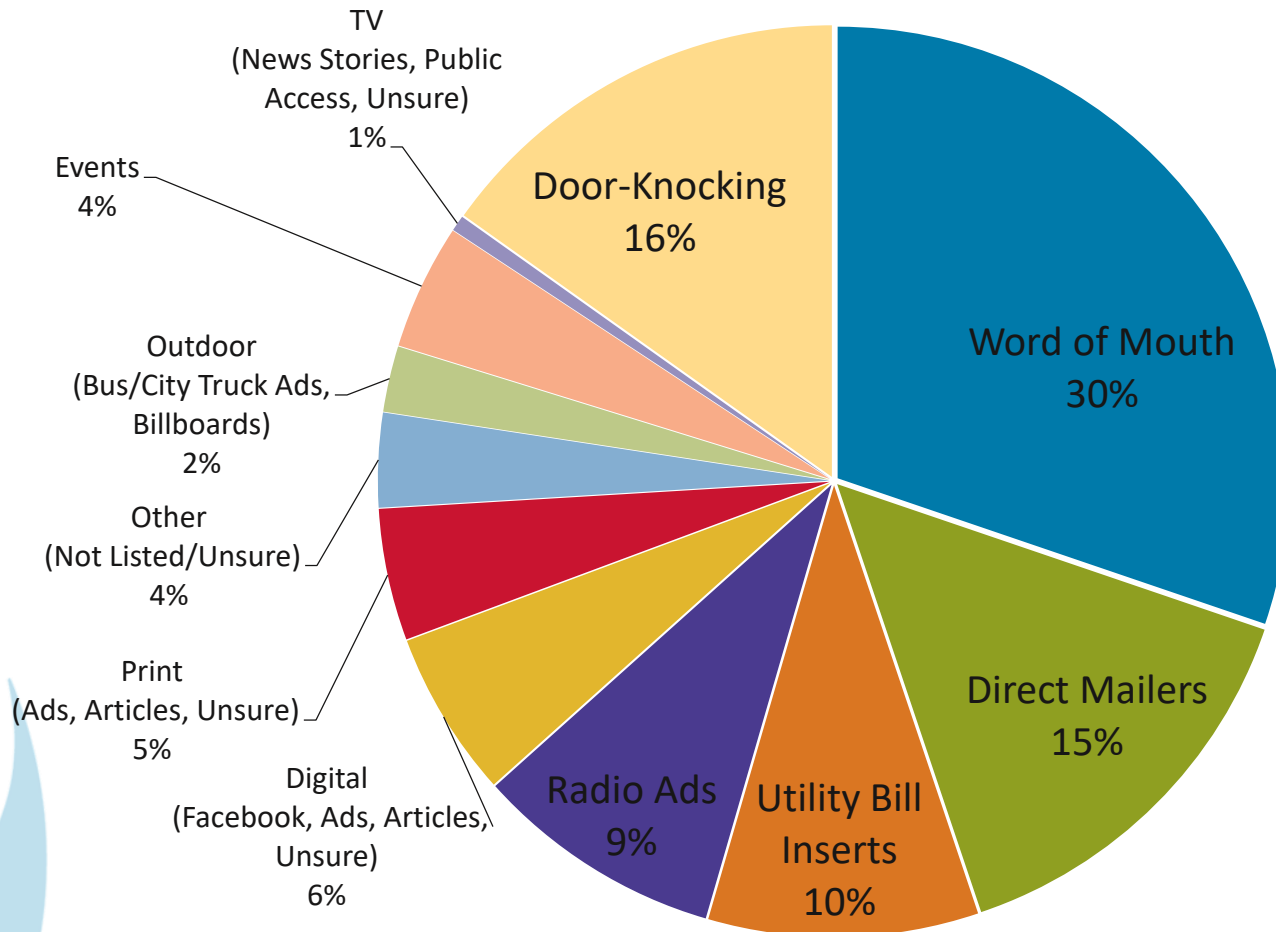
How Did You Hear About Organics Recycling?

Question/Comment

Choose One

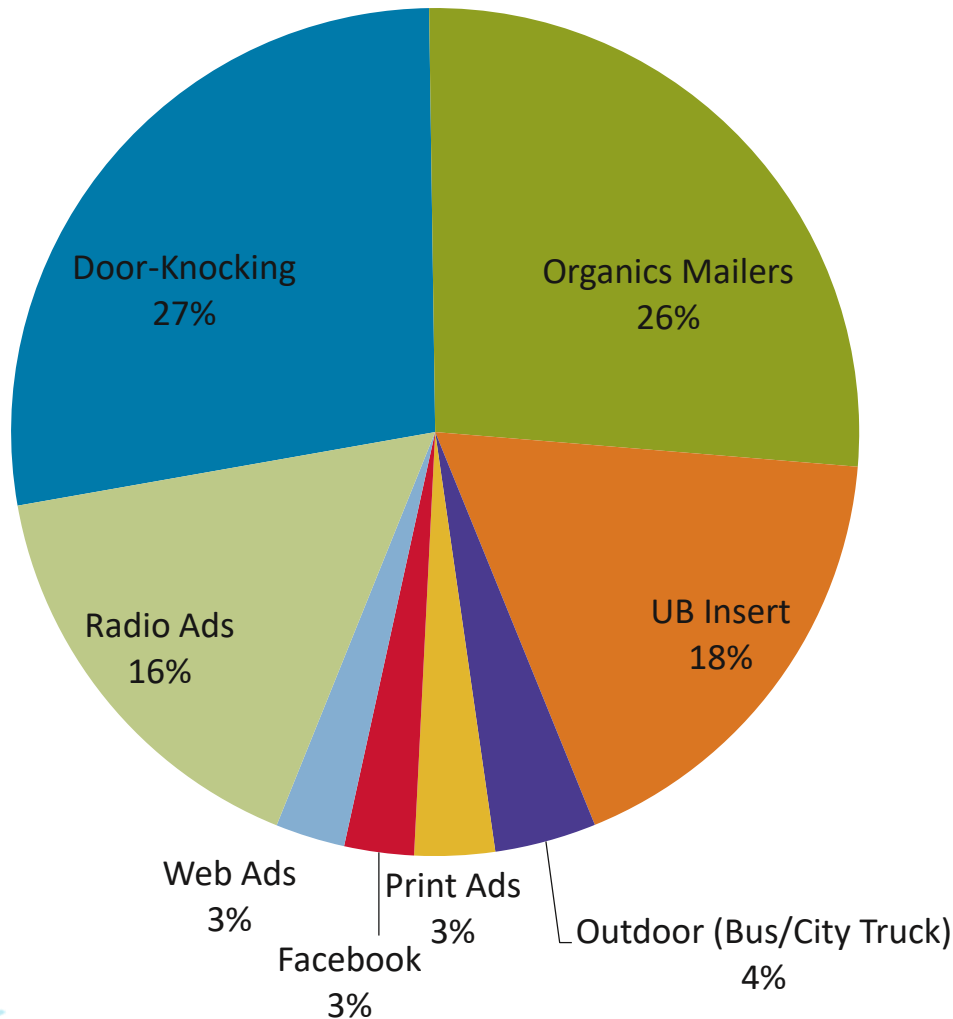
- Radio
 - 93X
 - Cities 97
 - KALY
 - KDWB
 - KFAI
 - KMOJ
 - KOOL 108
 - MRP News
 - The Current
 - WCCO
 - Not Sure / Not Listed Radio
- Print
 - Direct Mail
 - Newspaper or Newsletter Ad
 - Newspaper or Newsletter Article
 - Utility Bill Insert
 - Not Sure / Not Listed Print
- Bus or Truck
- Choose One

Ad Campaign All Methods Summary



Ad Campaign Measurement Period: 5/23/16 - 7/17/16

Ad Campaign Paid Methods Summary



Outdoor Responses

On Bus: 11
Not Sure: 7
City Truck: 1
In Bus: 0
Bus Shelter: 0

Web Responses

Star Tribune Ad: 6
N'hood Site Ad: 3
TV News Site Ad: 4

Radio Responses

Not Sure: 26
News Stations (2): 16
Music Stations (8): 37

Cost per sign-up



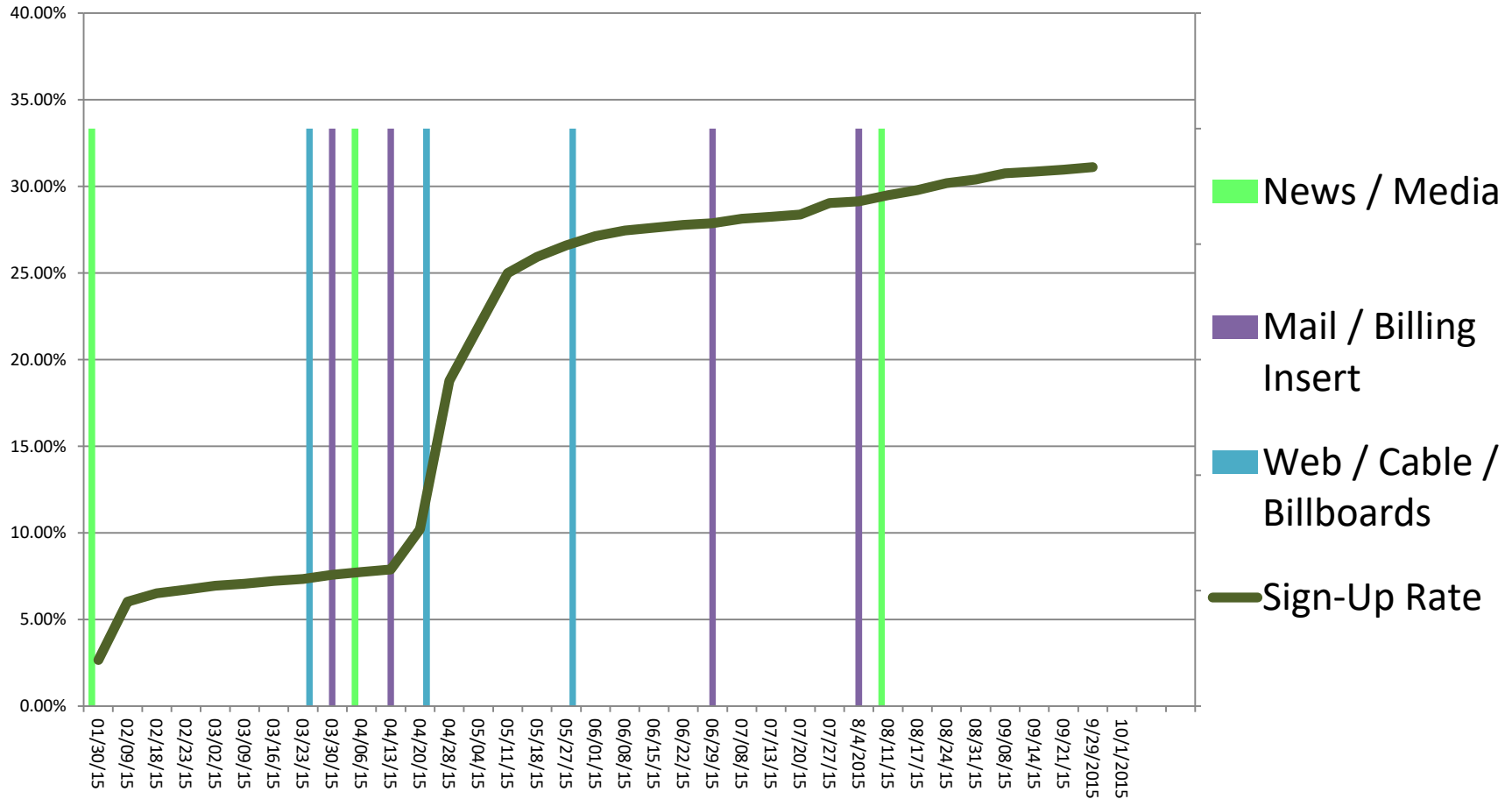
| Paid Advertising Method | Extrapolated Sign Ups* | Total Cost | Estimated Cost Per Sign Up |
|--------------------------------|-------------------------------|-------------------|-----------------------------------|
| Utility Bill Insert (Jun 2016) | 168 | \$1,400 | \$8.32 |
| Radio Ads | 176 | \$84,522 | \$479.95 |
| Door-Knocking (2 Interns)** | 135 (Actual) | \$5,107 | \$37.83 (Actual Cost) |
| Print Ads | 33 | \$19,557 | \$584.88 |
| Outdoor (Bus/City Truck) | 42 | \$47,713 | \$1,126.52 |
| Facebook | 29 | \$578 | \$19.95 |
| Web Ads | 29 | \$54,258 | \$1,872.31 |
| Direct Mailers*** | 259 | \$82,138 | \$316.70 |

*Extrapolated sign ups include 720 residents who completed "how did you hear about organics recycling" form and extrapolated responses from additional 850 residents who signed up during ad campaign but did not complete "how did you hear about organics recycling" form.

**Door-Knocking Sign ups are actual numbers of residents who signed up directly with interns while door-knocking.

***No direct organics mailers were sent during the ad campaign measurement period.

Communication Impact on Sign-ups





Current program statistics

10/24/16 – 40.12%

- 42,861 dwelling units of 106,829

As of 10/24/2016:

- 34,065 stops received small organics cart
- 1025 stops received a medium organics cart
- Over 1,400 residents switched to small garbage carts since organics program roll-out began

Recommendations For Starting Organics Recycling Program



1. Contract with composting facility (permitted) to process organics
 - Small scale (>120 cubic yards) does not need permit
2. Contract with hauler to collect organics
 - Include required metrics in contract
3. Pilot a program to get early adopters on board so they can help promote and expand the program
 - Block leaders or green teams help get higher participation by using community based social media techniques
4. Develop effective educational materials and methods to distribute information to residents
 - Share successes (and failures) with residents
5. Monitor the quality of the materials collected – if they're too contaminated, just like recycling, they'll end up as trash

Recommendations For Starting Organics Recycling Program



When moving to city-wide program, select a program manager and set realistic timelines for necessary tasks:

- Contracting with vendors
- Purchasing trucks, carts
- Hiring and training of collection crews and office staff
- Timing and type of educational material
 - If opt-in program, need to do some early education to order an appropriate number of carts
- Don't be discouraged if not many people sign up at first
 - Brand new concept for many people – Consider incentives (ex: free bags or kitchen collection pails) to get people to try it. Once they realize their perceived barriers ('yuck' factor, smell, takes too much time) are just that – perceptions – they'll be hooked.

CITY OF MINNEAPOLIS

Questions?



Kellie Kish

kellie.kish@minneapolismn.gov

Municipal & Commercial Composting

This issue brief will provide background information related to municipal composting programs and address the common concerns and benefits from a health, environmental, social, and economic standpoint. Appendices have been provided to share how regional jurisdictions are managing their municipal composting programs as well as example policy language from other jurisdictions.

Background

Every year, about 70 billion pounds of food is wasted in the United States. Most of this food ends up in the landfill, where it decomposes and releases methane, a potent greenhouse gas, into the atmosphere.¹ One way to keep that food waste out of the landfill is to compost it. Composting is the process of managing certain waste materials so they decompose, creating a nutrient dense substance that can be recycled into an organic additive to gardens or fields. Creating a municipality that is responsible for the pickup and control of compostable materials makes composting accessible to all people in a community.

Over seven large cities and states nationally, including Vermont, Seattle, and Portland, have commercial food waste disposal bans, meaning restaurants, hotels, hospitals, and other large organizations have to divert their food waste from the landfill into a composting facility. Connecticut was the first state to make a statewide ban, requiring that companies that produce more than two tons of food waste per week send their food waste to a composting facility.²

Concordia College in Moorhead, Minnesota conducted a food waste study in 2014 and found that in just a day, 220-270 pounds of food can be wasted, amounting to about 6,600 pounds (3.3 tons) of food per month.³ This institution sees around 2,700 customers per day. The college invested in a pulper, which will enable them to send their food waste directly to a composting facility when one is available.

Because food waste programs generally do not create profit, private companies like Full Circle Organics Recycling Cooperative can take over municipal composting in a community.⁴ Some communities that Full Circle serves have weekly drop sites in which customers drop off their compost for a small fee or have drop sites at government buildings. In full production, they accept food waste, yard waste, and compostable plastic.⁵ Cities or companies may be able to sell compost to residents or farmers or the methane produced to utility companies for energy.

Over 40% of Americans believe they do not have time to worry about household food waste.⁶ By creating a system that makes it just as easy to compost food as it is to throw it away, households will be able to reduce their waste easily and efficiently. Resident education will need to be administered in order to teach

¹ "Food Waste in America." (2016.) Feeding America. <http://www.feedingamerica.org/about-us/how-we-work/securing-meals/reducing-food-waste.html?referrer=https://www.google.com/>

²Henricks, M. "More States Ban Organic Waste in Landfills." (2014.) <http://www.americanrecycler.com/0114/2428more.shtml>

³Pierson, R., Moyers, H., Gardke, K. "Plate Waste Study Results January 2016." (2016.) Concordia College.

⁴ Max Milinkovich, Personal Communication. (10/28/2015)

⁵ Full Circle Organics (2016.) <http://www.fullcircle-organics.com/>

⁶ "America Wastes \$160 Billion in Food Every Year But Is Too Busy to Stop." (2016). Bloomberg. <http://www.bloomberg.com/news/articles/2016-07-22/america-wastes-160-billion-in-food-every-year-but-is-too-busy-to-stop>

people what sorts of things can and cannot be composted. The list below describes the materials that can and cannot be composted, according to the United States Environmental Protection Agency.⁷

Table 1. What to Compost*

| What to Compost | What Not to Compost and Why |
|--|--|
| Fruits and vegetables Eggshells Coffee grounds and filters Tea bags Nut shells Shredded newspaper Cardboard Paper Yard trimmings Grass clippings Houseplants Hay and straw Leaves Sawdust Wood chips Cotton and Wool Rags Dryer and vacuum cleaner lint Hair and fur Fireplace ashes | Black walnut tree leaves or twigs - Releases substances that might be harmful to plants Coal or charcoal ash - Might contain substances harmful to plants Dairy products (e.g., butter, milk, sour cream, yogurt) and eggs - Create odor problems and attract pests such as rodents and flies Diseased or insect-ridden plants - Diseases or insects might survive and be transferred back to other plants Fats, grease, lard, or oils - Create odor problems and attract pests such as rodents and flies Meat or fish bones and scraps - Create odor problems and attract pests such as rodents and flies Pet wastes (e.g., dog or cat feces, soiled cat litter) - Might contain parasites, bacteria, germs, pathogens, and viruses harmful to humans Yard trimmings treated with chemical pesticides - Might kill beneficial composting organisms |

*Not a complete list; various other materials are accepted by some composting programs, including protein foods.

Table 2. Landfills servicing Cass & Clay Counties

| Site Name, Location | Run by | Jurisdictions served | Tons accepted/ yr | Charge to commercial sanitation companies | Size (acres) | Space Left | Yearly Profit |
|----------------------------------|---------------|--|-------------------|---|--------------|-------------|-------------------|
| Fargo City Landfill, Fargo, ND | City of Fargo | Casselton, Valley City of ND, and Becker County in Minnesota | 220,000 (in 2014) | | | 7.2 years** | approx. \$500,000 |
| Clay County Landfill, Hawley, MN | Clay County | All of Clay, joint project with Perham (Perham incinerator) | 100 tons | \$12 per compacted yd \$42 per ton | 182 | 15-20 years | Not for profit |

⁷ "Composting at Home." (2016.) US Environmental Protection Agency. <https://www.epa.gov/recycle/composting-home>

**City of Fargo- Solid Waste has submitted a design permit modification to the ND Department of Health that would provide an additional 25-30 years of landfill air space.

Table 3. Composting sites in Cass & Clay Counties

| Site Name | Operated by | Jurisdictions served | Tons accepted per year | Material Accepted |
|--------------------|---|---|------------------------|-------------------|
| South Elm | City of Fargo | Fargo, West Fargo, Valley City, Casselton, Becker Co., MN | Approx. 220,000 | Yard waste |
| Composting Site | City of Moorhead | All of Clay County | Approx. 3,000 tons/yr | Yard waste |
| Yard Waste Program | City of Dilworth/ Fuchs Sanitation Maintains | Dilworth | | Yard waste |

Table 4. Sanitation companies servicing Cass & Clay Counties

| Company Name | Contact Information | Jurisdictions served | Cost for trash pickup |
|-------------------------|---------------------|--|---|
| City of Fargo | (701) 241-1449 | Fargo | \$6-14/ month, depending on size of bin |
| City of West Fargo | (701) 433-5400 | West Fargo | \$13/month |
| Ken's Sanitation | (218) 236-7940 | Fargo, Moorhead | |
| Valley Disposal | (701) 277-0760 | West Fargo | |
| Waste Management | (888) 275-1401 | All | |
| Fuch's | (218) 498-2875 | Hawley, Perley, Hendrum, Halstad, Hitteral, Shelly, Twin Valley, Ulen, Dillworth, Glydon | |
| Clay County Sanitations | 218-299-5079 | Moorhead | \$6/cubic yd (non-compacted) \$12/cubic yd (compacted) |

Table 5. Framework for evaluating municipal composting program

| DOMAIN | BENEFIT | CONCERN |
|-------------|---|---|
| Health | <p>Contains macro and micronutrients often absent in synthetic fertilizers⁸</p> <p>Improves the overall air quality</p> | <p>Pathogens can be present in compost that contains manure</p> |
| Environment | <p>Releases nutrients slowly⁹</p> <p>Compost-enriched soil retains nutrients better meaning less runoff to pollute waterways¹⁰</p> <p>Buffers the soil which brings pH levels to the optimum range for nutrient availability to plants</p> <p>Adding compost to soil makes it easier to work</p> <p>Compost-enriched soil contains beneficial insects, worms, and other organisms that burrow through soil keeping it well aerated</p> <p>May suppress diseases and harmful pests that could overrun poor, lifeless soil</p> <p>Encourages healthy root systems</p> <p>Can reduce need for chemical pesticides</p> <p>Preserves higher air quality by reducing the amount of methane gas released by landfills</p> <p>Reduces the amount of waste in landfills</p> <p>Reduces the effects of greenhouse gases by keeping waste out of landfills</p> | <p>Possible regrowth of pathogens in composted material</p> <p>Beneficial microbes in compost and other decomposing organic matter can activate certain disease-resistance systems in plant</p> |
| Social | <p>Offers an opportunity for closer cooperation between urban and rural communities in improving the area's economy</p> <p>Many commercial compost plant operators have found a profitable market among truck gardeners, nurseries, and landscaping operation</p> <p>Helps to raise awareness about the amount of food waste produced at residential, institutional and commercial levels¹¹</p> | <p>Odor</p> <p>Appearance</p> <p>Possible effects on nearby property and property value if compost pile is not managed properly</p> |

⁸ Pathogens and Public Health Concerns with Composting. Vermont State Website. <http://www.anr.state.vt.us/dec/wastediv/compost/00Summerpdf/Pathogens45.pdf>

⁹ LaMeaux, E. "7 Benefits of Composting: How you can help the world with composting." (2014.) <http://life.gaiam.com/article/7-benefits-composting>

¹⁰ Group, Edward. "10 Reasons to Start Composting." (2011.) Global Healing Center. <http://www.globalhealingcenter.com/natural-health/10-reasons-to-start-composting/>

| | | |
|----------|---|---|
| Economic | <p>Reduces amount of material going to landfill, reducing the cost of the landfill to the consumer</p> <p>Compost can be sold by the municipality to homeowners or farmers¹²¹³</p> | <p>Jurisdiction cost of administering the composting system or monitoring and addressing issues</p> |
|----------|---|---|

Types of Composting Programs:

Seattle¹⁴

- Population: 652,405 (as of 2013)
- Curbside pickup and drop-off locations for compost available and required for residents and businesses
- Unlike in other cities, food and yard waste can be placed in the same cart, making it much easier for residents
- Seattle contracts with two companies to haul the material and two other companies to compost the material.
- Residents pay a fee based on the size of the cart. In combination with garbage fees, these fees cover the cost of composting. Prices and sizes are listed below:
 - 13-gallon: \$5.45/month
 - 32-gallon: \$8.20/month
 - 96-gallon: \$10.50/month

Portland¹⁵

- Population: 609,456 (as of 2013)
- Curbside pickup and drop-off locations for compost available to residents and businesses
- Portland's composting program is part of the national Curbside Pickup Programs in which a number of communities throughout the United States have implemented composting programs with a curbside pickup option. Curbside pickup with a single bin is easiest for residents.
- Residents pay a fee based on the size of the container, in combination with garbage and recycling fees. There is no additional cost for the compost container. Prices and sizes are listed below:
 - 20-gallon: \$24.50
 - 35-gallon: \$29.15
 - 60-gallon: \$35.00
 - 90-gallon: \$41.50

¹¹ Ek, Cecilia. Social and Economical Benefits of Mid-Scale On-Site Composting for Residential, Institutional, and Commercial Sectors. http://compostingcouncil.org/admin/wp-content/uploads/2011/11/Cecilia_EK.pdf

¹² Compost Fundamentals: Compost Benefits. Washington State University. http://whatcom.wsu.edu/ag/compost/fundamentals/benefits_benefits.htm

¹³ Compost Fundamentals: Economic Aspects. Washington State University. http://whatcom.wsu.edu/ag/compost/fundamentals/benefits_economic.htm

¹⁴ Rates - Food and Yard Waste Cart. (2016.) Seattle Public Utilities. <http://www.seattle.gov/util/MyServices/FoodYard/HouseResidents/Rates/index.htm>

¹⁵ Standard Rates for Residential Garbage, Recycling, and Composting Service. (2016.) The City of Portland, Oregon. <https://www.portlandoregon.gov/bps/article/492501>

Minneapolis¹⁶

- Population: 400,070 (as of 2013)
- 40% of residents have signed up for the program, the most of any voluntary program nationally
- Curbside pickup and drop-off options for compost
- After one year, the city report a 38% decrease in tons of garbage. The program is extremely popular among residents and businesses
- The initial roll-out of the program cost \$800,000 and involved a switch to biweekly garbage pickup. Implementation of the program was paid for via an enterprise fund. The city owns and operates a transfer station and has contracts in place with two composting sites.
- Compost pickup is included in the garbage and recycling fees for the city.

Resources

Portland Composts! - Portland, Oregon Composting Service:

<https://www.portlandoregon.gov/bps/article/402972>

Minneapolis, Minnesota Composting Service: <http://www.ci.minneapolis.mn.us/solid-waste/organics/index.htm>

Seattle, Washington Public Utilities Compost Service:

<http://www.seattle.gov/util/MyServices/FoodYard/HouseResidents/WhatsAccepted/index.htm>

If you have questions, please contact Kim Lipetzky with the Fargo Cass Public Health Office at 701-241-8195 or klipetzky@cityoffargo.com.

¹⁶ Residential Organics Recycling. (2016.) City of Minneapolis. <http://www.ci.minneapolis.mn.us/solid-waste/organics/index.htm>

Appendix A: Compost Management in Regional Jurisdictions

Bismarck, ND

No municipal food waste program, only yard waste composting.

Duluth, MN

City has a regional center that manages organic waste drop-off site for community members and requires by ordinance that hospitals, grocery stores, restaurants and other institutions to compost their food waste (see Appendix B).

Grand Forks, ND

No municipal food waste program, only yard waste composting.

Lincoln, NE

No municipal food waste program, only yard waste composting.

Mankato, MN

Full Circle Organics has a drop site. Residents can purchase a \$25 yearly permit to drop off food waste and compostable material.

Rochester, MN

The county (Olmsted) runs an outdoor compost site. The site accepts garden waste, grass and leaves, and sells the finished compost product at \$0.50 per five gallon container.

Sioux Falls, SD

The city composts yard waste at their local landfill. The state of South Dakota requires a feasibility study to determine if an additional permit is required to compost food waste.

Appendix B: Municipal Composting Example Ordinances

Duluth, MN

SECTION 4.10 ORGANIC WASTE RECOVERY

4.10.1 Recovery

Every Person identified herein shall recover Organic Waste by removing it from the solid waste stream and segregating it for separate collection by a Recovery Service. All wrapping or packaging on the waste shall be removed prior to recovery of the waste. The Organic Waste shall be placed in a Container. The District may establish requirements for Containers for Organic Waste. Recovery of Organic Waste shall be in accordance with the requirements of this Ordinance.

A. Pre-Consumer Organic Waste. The owners and operators of the following described commercial establishments located within the District shall separate Pre-Consumer Organic Waste for recovery:

1. Grocery Stores or commercial establishments with grocery departments that occupy 5,000 square feet or more of Floor Area.
2. A Restaurant or Catering Business which is issued a medium or large Food Handling License by the Minnesota Department of Health.
3. Post Secondary institutions with enrollment of more than 1,000 full time students which provide meals prepared on-site for students.
4. Hospital or Nursing Home providing prepared meals to employees, patients, guests, or residents.
5. A food manufacturer or processor that occupies 5,000 square feet or more of Floor Area.
6. An Assisted Living Facility.
7. A Correctional Facility.

B. Other Commercial establishments. The District may designate other commercial establishments to separate Pre-Consumer Organic Waste or other Organic Waste for recovery. Such a designation may be established by Board resolution and shall be effective upon publication once in a newspaper having general circulation in the District.

C. Industrial Organic Waste. No Person shall deposit Industrial Organic Waste in the solid waste stream without prior approval of the Executive Director.

D. Effective Date. The effective date(s) for this subsection shall be determined by subsequent board resolution(s), and shall be effective upon publication once in a newspaper having general circulation in the District.

4.10.2 Voluntary Participation

Any Person can voluntarily recover Organic Waste at an earlier date than is required by this Ordinance.

4.10.3 Prohibition

No Person other than the licensed Recovery Service which provides services to the particular structure shall collect or gather Organic Waste at the particular structure.

4.10.4 Limitation on Disposal and Co-Mingling

Source-separated Organic Waste shall not be deposited in the solid waste stream. The Executive Director in his or her sole discretion may waive this prohibition on a case by case basis for good cause. Organic Waste that has been source-separated must not be contaminated or co-mingled by the Collector in a manner which would make the Organic Waste unusable by the Recovery Facility. Restaurants and Catering Businesses required to separate Organic Waste for recovery shall post signage in a visible location in the food preparation areas. The signage will be provided by the District.

4.10.5 Recovery Service

For the health, safety, and welfare of the residents of the District, the following requirements applicable to the removal and disposal of all Organic Waste are established:

A. License required. No Person shall collect or remove Organic Waste within the District without first obtaining a Recovery Service license from the District. The process for obtaining a license is set forth in Sections 6.2.1, 6.2.2, 6.2.4–6.2.8. At a minimum, the Recovery Service must meet the following standards:

1. Transport the Organic Waste in a leak-proof container or vehicle and in a manner that prevents the release of liquids.
2. Provide a letter of certification signed by the applicant verifying that the vehicle(s) to be utilized for collection conform to the requirements of the District.
3. Provide a certificate(s) of an insurance company authorized to do business in the State of Minnesota certifying that the applicant has in full force and effect a policy or policies of insurance insuring the applicant,

its agents and employees, and its vehicle(s) in an amount of not less than One Hundred Thousand Dollars (\$100,000) for bodily injuries to any one person, not less than Two Hundred Fifty Thousand Dollars (\$250,000) for bodily injuries in any one accident, and not less than Fifty Thousand Dollars (\$50,000) for property damage in any one accident. Such insurance shall not be subject to cancellation or modification without fifteen (15) days advance written notice to the licensing authority.

4. The applicant shall maintain such vehicles in good repair and shall comply with all laws, rules and regulations applicable to such vehicles.
5. All such vehicles shall display identification numbers and in a color which contrasts with the color of the vehicle, on the sides and rear thereof.
6. Assure that the Organic Waste is transported to a Recovery Facility.
7. Comply with the all District regulations, ordinances and the Solid Waste Management Plan.
8. In order to minimize contamination of waste streams, a Collector shall on Containers of Organic Waste clearly display the label "food waste only" on the Container. The markings shall be legible from a reasonable distance and be displayed in a manner and location obvious to people using the Container.
9. Organic Waste Containers shall be maintained in a manner to reasonably prevent excessive odor.

A Recovery Service license must contain the limitation that the license may be revoked at any time for violation of District regulations and ordinances.

B. Any licensed solid waste Collector may provide Recovery Service, if the Collector meets all of the Recovery Service requirements. This provision is not intended to limit licenses to collect and transport Organic Waste to solid waste Collectors, or to require all solid waste Collectors to provide Recovery Service.

C. Continuing obligations. All Persons providing Recovery Service, in addition to any other requirements contained in this Ordinance or other District ordinance or regulation, shall assure that Organic Waste separated by the generator shall not be placed in the solid waste stream.

D. Reports. Each Recovery Service shall provide all reports required under Section 4.10.7.

E. Collection Frequency. A Recovery Service must collect recovered Organic Waste on a frequency of not less than once a week, except that during the months of November through March, the frequency can be extended to every other week.

4.10.6 Executive Director Discretion

A. Any person required to recover Organic Waste may petition the Executive Director to suspend the provisions of this Ordinance if the petitioner demonstrates Recovery Service is not available to the petitioner. The Executive Director may impose conditions, such as a limitation of time, on the suspension as the Executive Director determines in his or her sole discretion. At any time during a suspension, the Executive Director may determine that Recovery Service is available to the petitioner and notify the petitioner in writing that the suspension is terminated.

B. The Executive Director may, in his or her sole discretion, determine that a particular load of Organic Waste separated for Recovery, or a particular load of Industrial Organic Waste, be accepted at the Transfer Station for disposal due to contamination, rejection of the waste by all available Recovery Facilities or such other reasons which the Executive Director finds reasonable.

C. The Executive Director may, in his or her sole discretion, may on good cause shown by an applicant vary the terms of this Ordinance as applied to a particular applicant. Any application for a variance must be in writing and set forth in detail the reasons in support of granting the variance.

4.10.7 Reports

Each Collector and Recovery Facility which collects or manages Organic Waste for beneficial reuse shall submit such reports to the District as the Executive Director determines are necessary. Failure to provide timely complete reports is grounds for suspension or termination of a license.

4.10.8 Enforcement and Inspection

A. Inspection and evaluation of Containers and Recovery Service providers shall be made by the District in such frequency as to ensure consistent compliance by owners, occupants, and Recovery Service providers with provisions of this Ordinance. Each owner, occupant or Recovery Service provider shall be required to allow free access to authorized representatives of the District, or to authorize representatives of any other governmental agency at any time for the purpose of making such inspections as may be necessary to determine compliance with the requirements of this Ordinance, or any other applicable statute, ordinance or regulation.

B. The District shall have the right to inspect private property to determine if a Recovery Service provider or Container is in compliance with the provisions of this Ordinance.

C. Suspension and revocation of a license shall follow the same procedure as set forth in Section 3.5.

4.10.9 Exclusion

A. Quick-serve food service establishments that offer as the primary method of service, at all meal times, food and drink orders taken at and served to the customer at a self-service counter are excluded from the requirements in Section 4.10.1. A and B.

B. Nothing in this Ordinance shall preclude a food establishment from donating to a food bank, shelter or Second Harvest left over or unsold food that is safe for human consumption.

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Appendix C: Composting Educational Material

THREE SIMPLE STEPS FOR FOOD SCRAP COLLECTION¹⁷

1. Place your kitchen compost container in a convenient location in your kitchen. You can line your container with approved liners.
2. Include the food! Collect food scraps while preparing meals, scraping plates and cleaning the fridge of leftovers - every little bit counts.
3. Empty your kitchen container, including the liner, into your green Portland Composts! roll cart as frequently as you like. Place your green roll cart out for weekly pickup.

YES — put these items in your green compost roll cart

Food Scraps:

- meat, poultry, fish, shellfish, bones
- eggs and eggshells, cheese, dairy products
- bread, baked goods, pasta, rice, beans, nuts, seeds
- coffee grounds, filters, tea bags
- vegetables and fruit
- paper napkins and paper towels
- pizza delivery boxes
- table scraps, plate scrapings, leftovers, spoiled food

Yard Scraps:

- weeds, leaves, vines, grass
- small branches (less than 4 in thick and 36 in long)
- flowers
- house plants
- plant clippings
- pumpkins

NO – keep these items out of your compost roll cart

- plastic and produce bags
- non-approved compostable plastic bags
- compostable plastic takeout containers and utensils
- paper plates, cups and cartons
- coffee cups

¹⁷ Portland Composts! <https://www.portlandoregon.gov/bps/article/402972>

- fast food wrappers, packaging, takeout containers and waxed paper
- facial tissue
- pet waste
- cat litter
- animal bedding (including straw and chicken manure)
- animal carcasses from hunting and fishing waste
- large amounts of grease, cooking oil and liquid
- fireplace ashes
- dirt, rocks, sod
- lumber, treated wood, sawdust, stumps
- large branches (more than 4 in thick or 36 in long)
- Styrofoam™, metal and glass
- corks
- diapers (including those labelled "compostable" or "biodegradable")
- textiles, clothing, linens, shoes
- household garbage

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