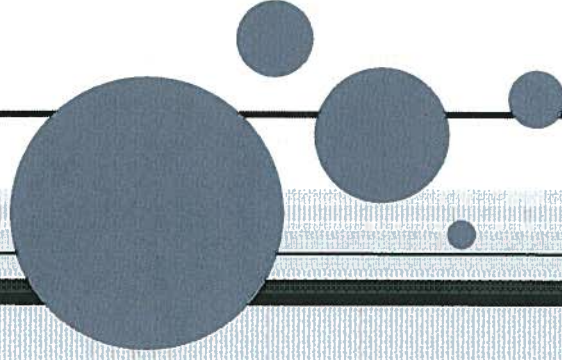

MUNICIPAL COMPOSTING PROGRAM RESEARCH



Presentation to Sustainable Food Policy Board
Monday, October 25, 2010
Katie Mulholland, SFC Intern
kjmulholland@gmail.com



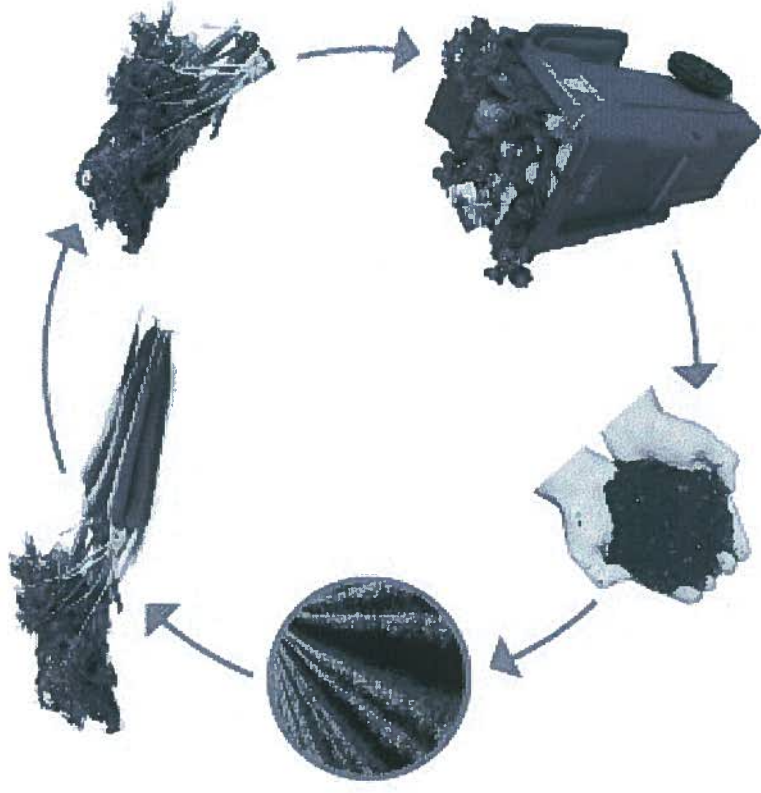
INTRODUCTION

- Katie Mulholland
 - UT Graduate Student
 - Community and Regional Planning
 - IPM Institute
 - University of Wisconsin
- Intern for Sustainable Food Center
 - SFCPB Production & Business Committee

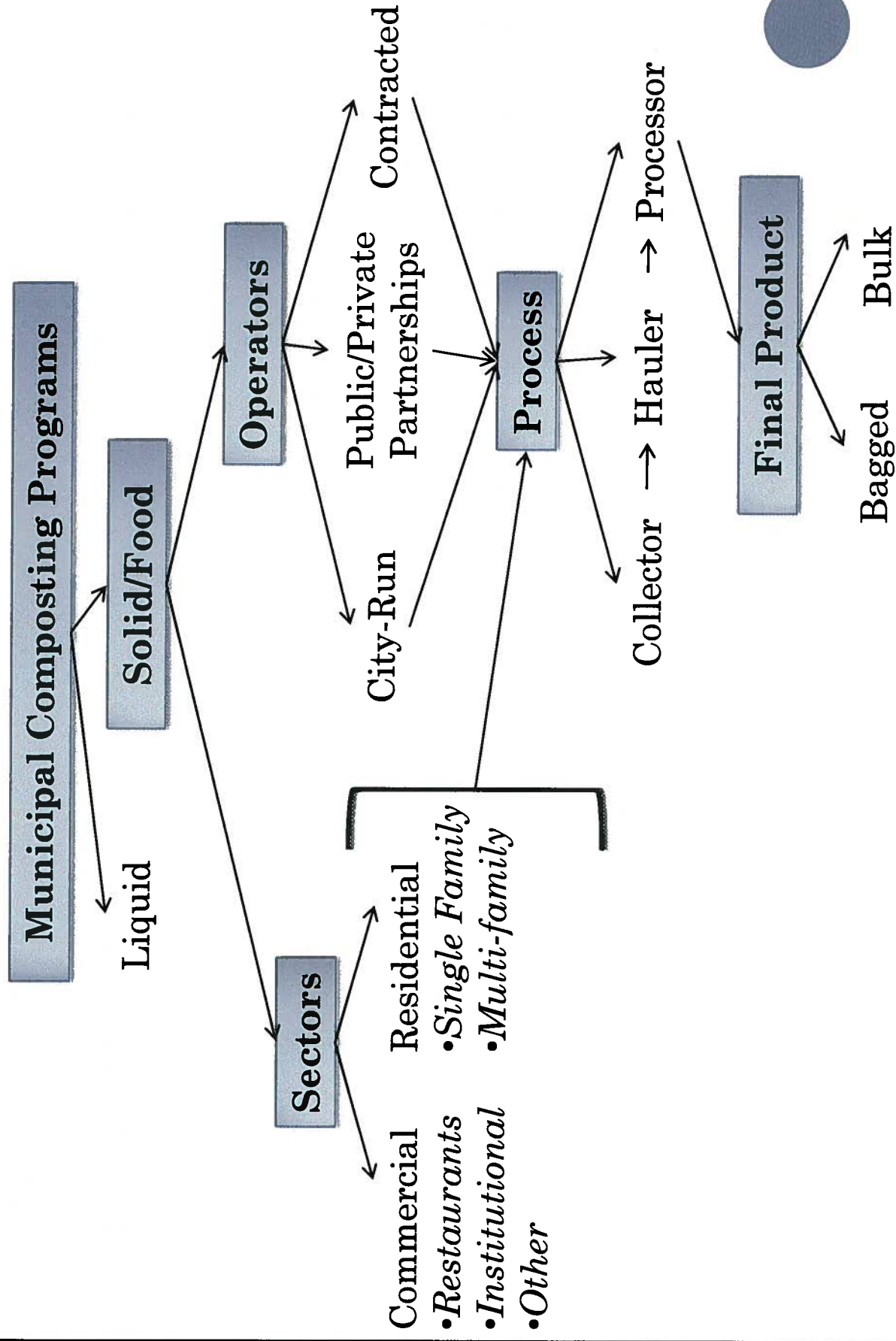


PRESENTATION OUTLINE

- Presentation Outline
- Research Project Outline
- Targeted Cities
- Research Questions
- General Lessons
- City-Specific Approaches
- Next Steps
- Questions?

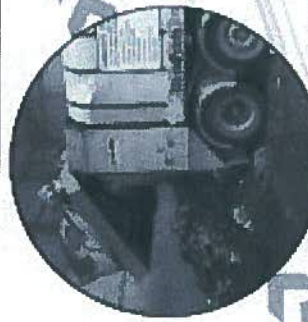


RESEARCH PROJECT OUTLINE

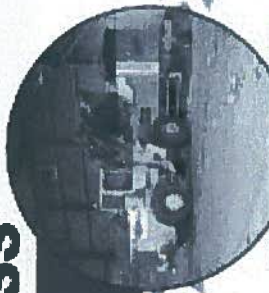


THE COMPOSTING PROCESS

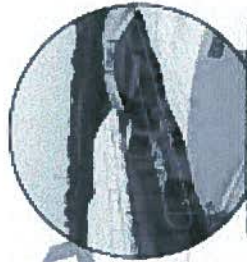
The heart of the composting process is the *Hydrex® In-Vessel System*, which effectively & efficiently turns your kerbside waste into a perfectly nutritious growing & soil improving medium.



2: Unloading at Reception Building



3: Shredding



4: Loading



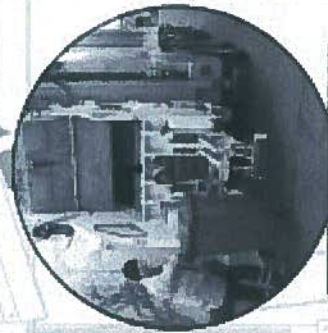
9: Finished Compost



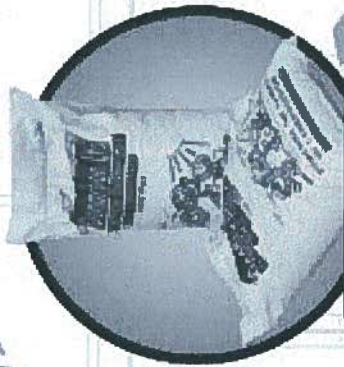
5: Pathogen Kill



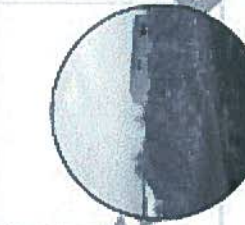
1: Waste Collection



8: Screening



10: Finished Bags



7: Maturation Pad



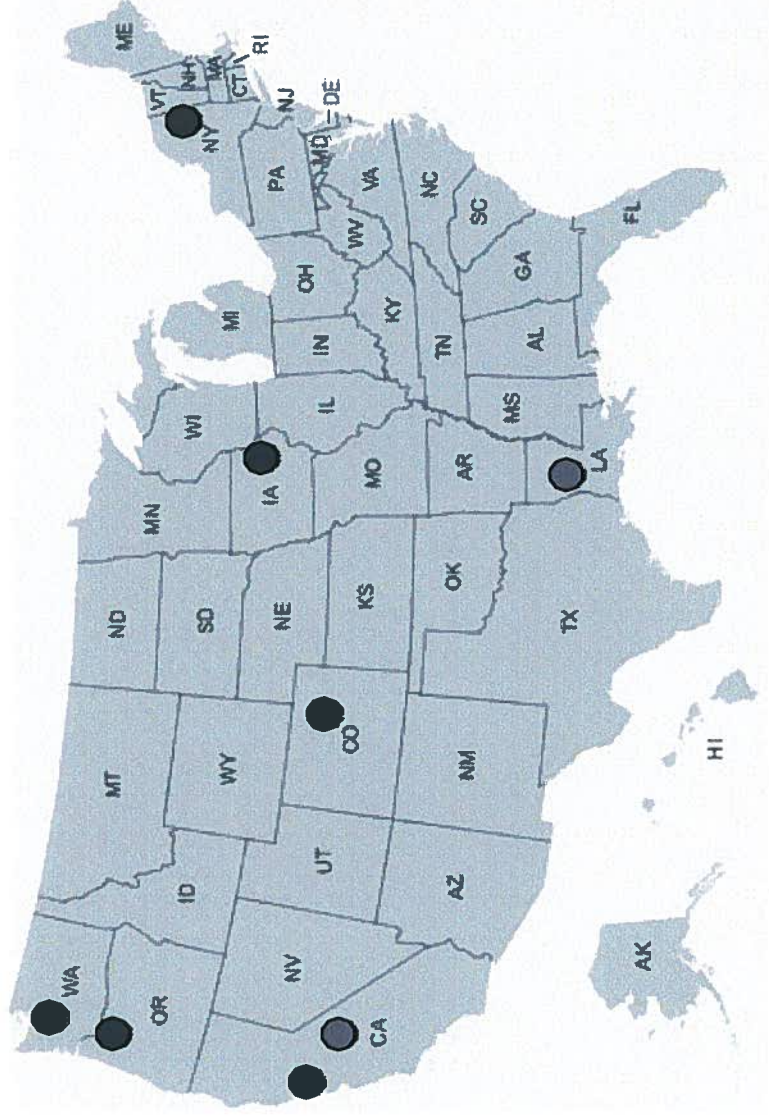
6: Unloading

TARGETED CITIES

- ✓ Burlington, VT
- ✓ Dubuque, IA
- ✓ Denver, CO
- ✓ San Francisco, CA
- ✓ Portland, OR
- ✓ Seattle, WA

- ✓ *Fresno, CA*
- ✓ *Lafayette, LA*

- Vancouver
- King County, WA



LIST OF RESEARCH TOPICS

- City
- Population
- Program name
- Start date
- Type of program (comm., res.)
- Coverage
- Mandatory?
- Players
 - Generators
 - Hauler
 - Processor
 - Customers
- Process
 - Collection
 - Consolidation
 - Process
 - Final product
- Budget
- Volume
- Diversion rate
- Incentives
- Promotion & education
- Political climate
- Support or opposition
- Barriers
- Alternatives considered
- Lessons
- Champion needed?
- Future plans

RESEARCH QUESTIONS:

1. **What is composted?**
 - All organic materials.
 2. **What is the process?
And where does each
step occur?**
 - Commercial &/or residential curb-side collection with yard waste.
 - Consolidate at transfer station before hauling out of city for composting.
 - Covered, aerated windrows.
 3. **Who is part of
process?**
 - Commercial, residential generators. Private and public sectors.
- 

RESEARCH QUESTIONS:

4. How was it started?
 - Typically policy driven.
5. What was city's approach?
 - Used current private & public infrastructure.
 - Pilot before implementation.
 - Provide cart and kitchen collector. Separate trucks.
 - Start off voluntary.
6. Is the program economically stable?
 - Yes, most are profitable.

GENERAL LESSONS

- First impressions are key.
 - Understand legal issues and limitations.
 - Set tiered pricing to incentivize.
 - Site facility as close as possible.
 - Educate and outreach throughout.
 - Focus on benefits.
 - Program will have competition.
 - Single family easier than multifamily.
 - Be prepared to ramp up.
 - Phase-in period from voluntary to mandatory.
- 

SAN FRANCISCO, CA (1999)

- Approach
 - CA passed 50% diversion law in 1990s, city set Zero Waste Goal of 75% by 2020.
 - ~130,000 tons/yr.
 - Mandatory in 2009, w/phasing in period.
 - Variety of cart sizes & services.
 - Reduce waste collection to every other week.
 - Private hauler and processor.
 - Promo items only have images.
 - Diversion incentive account for haulers.
- Future plans
 - Reduce food waste at source.
 - Add detail to bill so customers can see where overspending.



PORTLAND, OR (2005)

- Approach
 - City Council resolution in 2007.
 - ~20,000 ton/yr (max.)
 - Commercial is mandatory but a free market, in 2009. Private haulers must offer; bring to transfer station.
 - City hauls residential pilot to transfer station.
 - Regional authority (Metro) hauls to private processor.
 - Garbage collection is reduced to every other week.
 - Focus on program support for businesses.
- Future Plans
 - Pilot multifamily.
 - Start programs to reduce food waste.
 - Enforce restaurant composting.
 - Site compost facility in city to reduce hauling fees & increase capacity.



SEATTLE, WA (2005)

- Approach
 - Commercial & single family mandatory in 2009, multi-family voluntary in 2010.
 - ~75,000 tons/year.
 - Two, contracted private haulers to bring single family to transfer site, city hauls to private processor.
 - Commercial is free market, although businesses may use residential program.
 - Variety of price/cart options.
 - Ban on non-compostable containers in 2010 Must have front-room composting.
- Future Plans
 - Require multi-family w/5+ units.
 - Recruit assisted living & nursing homes.
 - Weekly compost & recycling, bi-weekly garbage.



SMALLER PROGRAMS

Burlington, VT (1987)

- Leaf & yard waste ban.
- Voluntary, county-run, commercial & residential: ~13,000 wet tons/yr.
- Curbside in city & drop-off outside.
- Was profitable until legal issues.
- Tied to strong, local ag. movement.

Future Plans

- Move to new facility & process to increase volume.
- Add transfers stations to increase services to rest of county.
- Mandate organics recycling.



Denver, CO (2009)

- Voluntary, city run program: ~1,000 tons/yr.
- Started w/department grant.
- Hasn't increased from pilot size b/c funded by General Fund. Can't control budget or fees.
- Garage is free.
- City charges for service & hauls to transfer station where private processor grinds then transports to facility.



Dubuque, IA (2006)

- Goal to reduce volume of landfilled items by 50% in 5 years.
- Voluntary, city-run program: ~1,000 tons/yr.
- State limits to 2 tons/wk, petitioning to increase to 10.
- County collects & processes, no transfer station.

Future Plans

- Considering organics ban.
- Allowing thinner bags to increase participation.
- Using aerobic digestion on for waste water treatment.



NEXT STEPS

Program Look Outs

- All have strong public support & plans to expand.
- Most are profitable.
 - Those that aren't have extenuating circumstances.

Future Research

- Contact new cities:
 - Vancouver
 - King County
 - Toronto?
 - _____?
- More questions:
 - Fee structures?
 - Size of providers?
 - Profitability of city?
 - How does it benefit local food system?
 - Promotional materials?

QUESTION:



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