# #2 Organics & Fibers | Subcommittee Meeting #2 Summary – Organics & Fibers July 28, 2021 9AM-11AM

Subcommittee meeting #2 of the Organics & Fibers Subcommittee (#2-Organics & Fibers) was convened virtually via Zoom on July 28, 2021 from 9AM-11 AM, CST. Attendance for #2-Organics & Fibers is provided in Table 1.

Table 1. #2 Organics & Fibers Subcommittee Membership and Attendance

| Name | Company | Attended 7/28/21 |
|---|---|---|
| Karen Rodekamp | ISU Dining, Iowa State University | Present |
| Michelle Hurd | Iowa Grocery Industry Association | Absent |
| Beth MacKenzie | University of Iowa | Present |
| Rich Stephens | Archer Daniels Midland Company | Present |
| Jennifer Trent | Iowa Waste Reduction Center | Present |
| Aubrey Alvarez | Eat Greater Des Moines | Present |
| Jennifer Jordan | City of Iowa City Landfill and Recycling Center | Present |
| Jon Koch | City of Muscatine | Present |
| Scott Amendt | GreenRU, LLC & Chamness Technology, Inc. | Absent |
| Kathy Morris | Waste Commission of Scott County | Present |
| Doyle Smith | City of Cedar Falls | Absent |
| Alan Schumacher | Quincy Recycle Paper/Iowa Recycling Association | Absent |
| Theresa Stiner | DNR Internal SMM Team | Present |
| Reid Bermel | DNR Internal SMM Team | Present |
| Laurie Rasmus | DNR Internal SMM Team | Present |
| Mike Sullivan | DNR Internal SMM Team | Present |
| Tom Anderson | DNR Internal SMM Team | Present |
| Jennifer Wright | DNR Internal SMM Team | Present |
| Jennifer Reutzel Vaughn | DNR Internal SMM Team | Present |
| Michelle Leonard | Consultant – SCS Engineers | Present |
| Christine Collier | Consultant – SCS Engineers | Present |
| Jeff Phillips | Consultant – SCS Engineers | Present |
| Greg McCarron (Guest Speaker) | Consultant – SCS Engineers | Present |
| Karen Luken | Sub-Consultant – EESI* | Present |
| Ann Zald (Guest Speaker) | FUSE Corps | Present |

* Economic Environmental Solutions International

## A. Subcommittee #2 - Organics & Fibers Summary

The meeting began with the project consulting team reviewing the agenda for this meeting (see Attachment A), the overall objectives of the Sustainable Materials Management (SMM) – Vision for Iowa project, the process and goals of this and the next subcommittee meeting, and the materials that were selected for further review during the Subcommittee #1 meeting held June 9, 2021. The materials identified for further review are listed below:

- Edible food;
- Pre-consumer Spoiled Food; and
- Post-Consumer Food Scraps/Compostable Paper/Yard Trimmings.

The project consulting team then introduced guest presenter Ann Zald with FUSE Corp to provide a presentation pertaining to California Senate Bill (SB) 1383. The goal of this legislation is to achieve a 75% reduction in organic waste disposed in landfills and to recover 20% of the edible food currently being disposed in landfills before 2025. The presentation focused on state legislation that established organic waste disposal reduction goals and schedules for cities and identified business types, planning requirements, and implementation and enforcement responsibilities. A copy of this presentation is included in Attachment B.

Subcommittee members had questions pertaining to if there were financial resources established by SB 1383 to help with implementation efforts (i.e., infrastructure, resources, labor, etc.). Ann stated that CalRecycle will have grant funds available to assist with implementation, but there will likely not be enough funding available to assist or sustain all efforts. Ann further stated that compliance with SB 1383 will likely take longer than anticipated due to funding constraints, coordination between material generators and contracted managers (i.e., haulers, processors, etc.), and that the cities and counties will need to work to communicate and consolidate their efforts in order to establish effective long-term solutions.

There were discussions concerning the potential flaw of typical enforcement methods (i.e., financial fines) for businesses that do not comply with requirements. Fines will need to be set high enough to deter businesses from viewing the fines as “just a cost of doing business”. Communities working to implement SB 1383 are evaluating strategies to not only adequately enforce compliance but also encourage and/or incentivize businesses to comply.

There were also discussions concerning the different methods, resources, and influences the various food rescue programs have within counties, states, and throughout the United States. While different food rescue programs may have similar goals, their policies may be different, be in contradiction, and even believe they are in competition with other organizations for similar food or financial donors. Programs realize it may not be easy to share data or even collaborate, but it was stated that it is extremely important for them to work together. It was also discussed that cities can be the catalyst for establishing a collaborative system by supporting each other and that other organizations could use this model for their shared efforts.

Aubrey Alvarez with Eat Greater Des Moines (EGDM) briefly discussed a project that her organization and Data Science for Public Good have collaborated to develop. The project works to identify potential food donors or food producers (i.e., grocery stores, convenience stores, restaurants, etc.), estimate the amount of food that could potentially be rescued on a regular basis, if the identified potential food donor actively participates in a food rescue program, and also works to identify food need locations. The goal of the program is to provide real data to help consumers and policy makers better understand the potential for food rescue programs. Program data slide examples are available at the following website: https://datastudio.google.com/u/0/reporting/586ea894-8822-4470-b7ec-241dd3878b85/page/RTwUC

Greg McCarron with SCS Engineers presented on a variety of regulations that have banned organic wastes from landfill disposal and presented different composting methods that are used by small community garden organizations to large industrial composting facilities.

Regulations that have banned organic waste from landfill disposal typically require organic collection services to be offered by those collecting other materials such as municipal solid waste (MSW). Currently Vermont, MA, CT, RI, and CA have similar regulations and these could serve as a good model if Iowa is considering strategies to implement similar organic disposal bans.

A copy of Greg's presentation is included in Attachment B.

Jon Koch, City of Muscatine, Iowa discussed the City's anaerobic digestion system that accepts de-packaged food waste. John indicated that their biggest problem was that the system doesn't have the capacity to manage the quantity of organic wastes being generated. Due to high construction costs, the City doesn't plan to upgrade aging infrastructure allowing them to process larger volumes.

John also mentioned that the City is evaluating the possibility of participating in an Electric Renewable Identification Number program that the Environmental Protection Agency (EPA) is currently evaluating. This program may provide financial credits to the City for producing electricity by using organics as a renewable fuel source.

Subcommittee participants were then asked what barriers they see as needing to overcome to improve how the following materials identified during the Subcommittee Meeting #1 are managed in Iowa:

- Edible food
- Pre-consumer Spoiled Food
- Post-Consumer Food Scraps/Compostable Paper/Yard Trimmings

The following are summaries of discussions or statements that were made by Subcommittee members concerning the following main topics:

Edible Food:

- A major barrier is that there isn't funding to support specific operations (i.e., collecting/transporting food). In some cases, there are large food rescue organizations that their operational policies do not allow funding to be used for these types of activities.
- There is confusion concerning the liability of donating food. Event planners and facilities have been told by their caterer that they are not allowed to donate left over food due to liability concerns.
- It would very helpful if integrated solid waste management (ISWM) collection contracts, be it local or regional, could include an additional fee to financially support other collection programs (i.e., collect food from donors and deliver to users) within the same service area.

Edible Food and Pre-Consumer Spoiled Food:

- We do not have data to determine or how much food is being generated by industry, commercial, or institutional generators.

- Extended producer responsibility (EPR), while not a very politically popular option, may present opportunities to establish funding sources to expand food rescue and organic waste management programs.

Pre-Consumer Spoiled Food, and Post-Consumer Food Scraps/Compostable Paper/Yard Trimmings:

- The operational and infrastructure resources necessary to compost organic wastes generated are currently smaller than needed. Significant financial resources would be needed to expand existing facilities to increase processing capacity.
- Understanding the various compost processing technologies, their implementation and operational costs, and potential operational benefits (i.e., less operational space, decreased processing times, etc.) would be important information for processing facilities to have as they consider their options.
- Before organic waste disposal bans are considered, the alternative management systems and infrastructure (i.e., compost, aerobic digestion, etc.) must be in place.
- We do not have a good understanding of the resources and infrastructure we currently have within Iowa to manage organics wastes. Developing method for collecting data on existing programs, services, facilities, and processing volumes (and capacities) would be beneficial.
- An organic waste disposal ban could drive infrastructure and industry change. Landfill disposal fees may be cheaper than other alternative management practices. Thus, generators primarily use landfill disposal to manage their organic wastes.
- Currently Iowa composting regulations require programs that accept more than 2 tons of material per week to obtain a permit from the DNR. This may stifle business development for medium-sized facilities.
- Permitting regulations aren't a barrier to compost operations and in fact, have likely prevented negative environmental impacts.
- Iowa landfills and solid waste agencies do not have control over industrial, commercial, or institutionally generated wastes. It is possible that overly restrictive regulations may cause these generators to take their wastes out of state to be managed.
- Increasing volumes or accepting new waste streams (i.e., food waste) managed at existing facilities may be difficult because the landfill and solid waste agency primarily has influence on residentially generated materials.
- Establishing new or expanding existing facilities to be able to manage larger volumes may be difficult due to the public aversion to these facilities being near residential areas.
- The DNR's solid waste alternatives program (SWAP) has funding to support organic waste diversion programs, but is not setup to support the establishment of large infrastructure projects.
- The DNR is working with NPDES section to develop a list of AD at water treatment plants. They can refine the list to also include information on which ones accept food waste. DNR will share this list with this group.

- The DNR will provide a list of annual reports received from permitted by rule compost facilities. This information is located in Attachment B.
- The United States Department of Agriculture (USDA) has announced a grant program to support the development of AD facilities. The link to that program is: https://www.epa.gov/sustainable-management-food/sustainable-materials-management-2021-anaerobic-digestion-funding)

## B. Research Request List

Through the discussions and in follow up discussions, various topics have been identified for further research. These are provided below.

- Are there EPR programs in the USA or elsewhere for food generators?
- What grant programs in Iowa are available that may be able to include (or even require) green infrastructure programs (i.e., State revolving fund program that has a green infrastructure element)?

## C. Other Notes

Other items of note from the #2-Organics & Fibers meeting are as follows:

- Next Organics & Fibers subcommittee meeting date and time is:
  - September 1, 2021, 9AM – 11 AM CST
- Second Stakeholder Meeting will be held on September 30, 2021. Subcommittee members in addition to other interested parties are invited and encouraged to attend.

**Attachments:**

Attachment A: Agenda

Attachment B: PowerPoint Presentations

Attachment C: Additional Information

# Attachment A
# Agenda

# Subcommittee Meeting #2 – Organics and Fibers

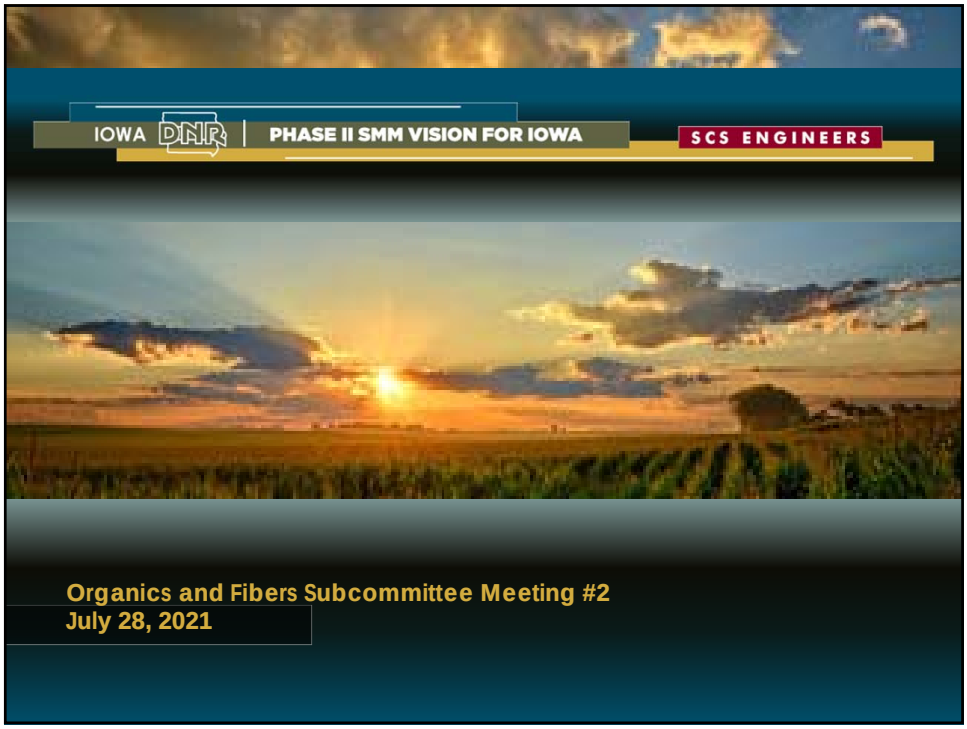
**July 28, 2021**

**9:00AM – 11:00AM (CST)**

**Virtual Meeting**

1. Subcommittee Meeting Purpose and Goals
2. Material Types Discussion
    a. Edible Food
    b. Pre-Consumer Spoiled Food
    c. Post-Consumer Food Scraps, Compostable Paper, and Yard Trimmings
3. Existing Activities in Iowa
4. LCAs, WARM Model, Other Research
5. Strategies From Around the US and Elsewhere
6. Next Steps
    a. Begin Strategy Prioritization
    b. Future Meetings Dates and Logistics

# Attachment B
# PowerPoint Presentations


IOWA DNR | PHASE II SMM VISION FOR IOWA
SCS ENGINEERS
Organics and Fibers Subcommittee Meeting #2
July 28, 2021


WELCOME
IOWA DNR | PHASE II SMM VISION FOR IOWA
SCS ENGINEERS

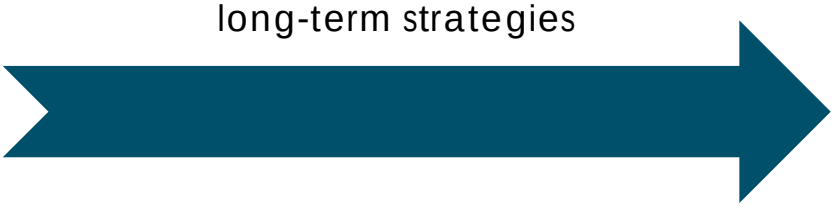
# Agenda

- **Subcommittee Meeting Purpose and Goals**
- **Guest Speakers**
- **Material Types Discussion**
  - **Edible Food**
  - **Spoiled Pre-Consumer Food**
  - **Compostable Paper, Food and Yard Waste**
- Existing Activities in Iowa
- Reuse and Recycling
- LCAs
- End-Of-Life Management Models
- **Next Steps**
  - Begin to prioritize strategies
  - Future meetings dates and logistics



# Goal

Establish a clear direction for implementing an SMM system with immediate, medium and long-term strategies



# Process

Select specific material types within each category

→

Define specific strategies
- Legislation
- Policies
- Programs
- Infrastructure
- Funding mechanism

→

Identify implementation timeline, responsible party, and performance metrics



# Presentations

# FOOD RECOVERY IN CALIFORNIA



# Overview

1. Food Recovery in CA is much like food recovery in the rest of the country.
2. It is predicated on the willingness of commercial businesses (Edible Food Generators) to donate.
3. It is about to scale up because of ground-breaking SB 1383 (Short-Lived Climate Pollutants) legislation: requires reduction in organic waste disposal to landfill by 75% by 2025.
4. Food waste (edible and inedible) accounts for 18.1% of total state landfill disposal = nearly 6 million tons each year.
5. The law also requires the recovery of 20% of the edible food currently being disposed in landfill by 2025.

# Jurisdictional Requirements

1. Provide organic waste collection to all residents and businesses so as to divert waste from landfill.
2. Establish an edible food recovery program.
3. Conduct outreach and education to all affected parties, including generators, haulers, facilities, food recovery organizations, and city/county departments.
4. Evaluate jurisdictions' implementation readiness via Capacity Planning.
5. Procure recycled organic waste products like compost, renewable natural gas, etc. to be used by municipalities.
6. Inspect and enforce compliance.
7. Maintain accurate and timely compliance records and reporting to CalRecycle.



# TIMELINE

- 2020 — 50% Reduction in Organic Waste
- 2022 — Regulations Take Effect = **Jurisdictions Must Have Programs in Place**
- 2024 — Jurisdictions Initiate Enforcement
- 2025 — 75% Reduction in Organic Waste
  20% Increase in Recovery of Disposed Edible Food

**BOTTOM LINE**: There is a lot of new activity taking place on the jurisdictional level to support food waste diversion and edible food recovery.

# Edible Food Recovery Program

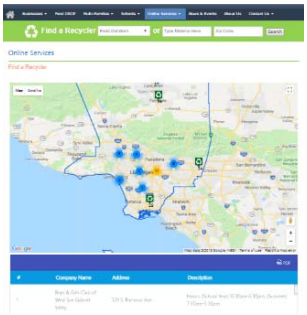
Jurisdictions Must:

1. Study Food Recovery Organizations' (FROs) Capacity and Identify Edible Food Generators (EFGs).
2. Provide outreach & education to EFGs.
3. Increase access to food donation services.
4. Monitor EFGs for compliance & record-keeping and enforce ordinances.
5. Increase edible food recovery capacity & collection by leveraging franchise fees or other funding.
6. Work with non-profit FROs to increase capacity, obtain reporting, etc.



# Study Edible Food Recovery Capacity

1. Identify food donation recipients, i.e. Food Recovery Organizations (FROs).
2. Assess their current capacity to accept donated food.
3. Identify future capacity needed to recover 20% of edible food currently sent to disposal.
4. Identify and determine how to fund additional capacity.




Post and maintain a list of food donation recipients online

# Business Types Required to Donate Food

**Tier 1**

**Comply by: January 1, 2022**

**More fresh & shelf-stable foods**

- Supermarket
- Grocery Store
- Food Distributor
- Food Service Provider
- Wholesale Food Vendor

**Tier 2**

**Comply by: January 1, 2024**

**More prepared foods**

- Large Restaurant
- Hotel
- Health Facility
- Large Venue
- Large Event
- State Agency w/ Cafeteria
- Local Education Agency



# Provide Education and Outreach to Businesses

Include the following in annual outreach to EFGs:

1. Participation requirements
2. Info about food donation options
3. Location of online list of local services and organizations
4. Tips for source reduction


Businesses Document:

Names & contact info of service/ organization

Types of food collected

Quantity & frequency of collection

# Work with Food Rescue Organizations:

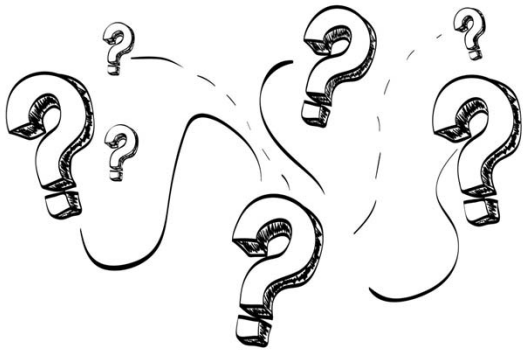
1. FROs are the backbone of the redistribution system and achievement of the SB 1383 edible food diversion goals relies on them.
2. While not specified in SB 1383, there are additional considerations to make this effort successful.
   - FROs are non-profits – the regulations aren't binding on them.
   - Jurisdictions will likely need to dive into organization and coalition-building in a new way!
   - Don't forget the 'last mile' feeding sites and pantries!
3. We need to make sure that we don't take edible food on the "scenic route" back to the landfill.



# Conclusion

- This effort could revolutionize edible food redistribution in CA, with other states are likely to follow.
- There are a lot of unanswered questions about how to obtain buy-in, how to generate a more functional, stable and edible food redistribution system, what programs need to be built at the municipal level, and how to fund all these efforts.
- Implementation will be a monumental effort – jurisdictions are actively grappling with this.

# Questions





# First Recycling Priority – Organics!

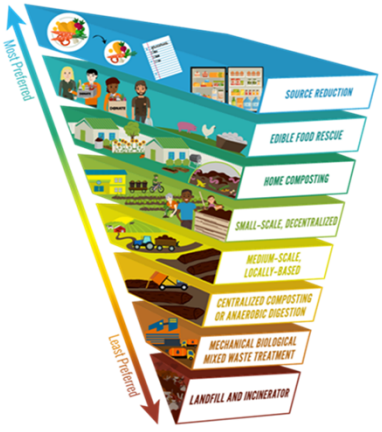
- Why do communities neglect to recycle food scraps?
- I'm for recycling of bottles, cans, paper, but…
  - Food scraps can be recycled locally.
  - Bottles and cans may travel thousands of miles before they are fully recycled.
  - Avoided transport and disposal costs are significant.
  - GHG emission reductions.
- Many possible configurations for organics recycling

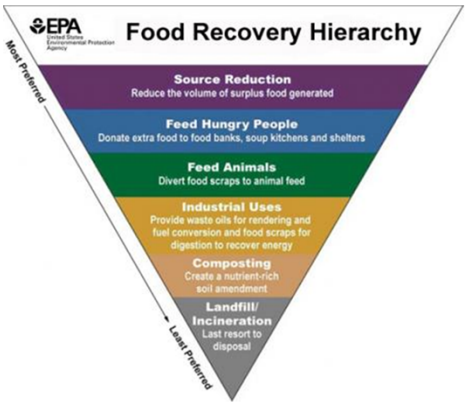
# VT Universal Recycling Law (Act 148)

- Disposal ban for certain items
  - Recyclables
  - Leaf and yard debris
  - Food scraps
- Requires parallel collection
- Phased-in food scrap diversion
  - July 1, 2020: all food scraps
- MA, CT, RI, CA have laws; NY, NJ, MD on the way.

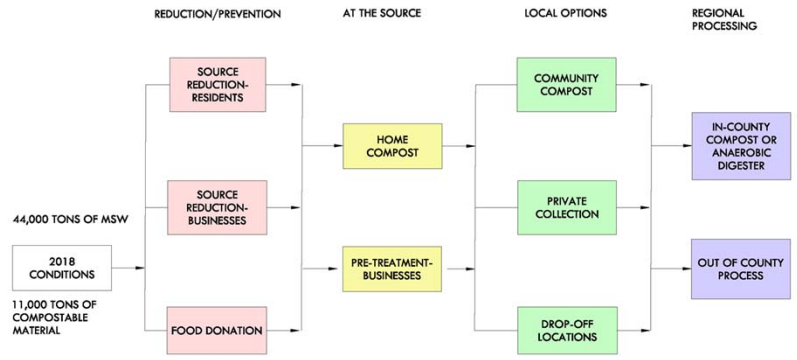


# ILSR Hierarchy vs EPA Hierarchy



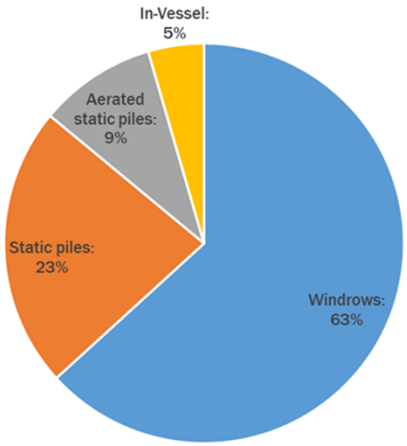



# Organics Options






# US Compost Facilities by Method




| Composting Method | Number of US Facilities |
|---|---|
| Windrows | 1,135 |
| Static Piles | 409 |
| Aerated Static Piles | 170 |
| In-Vessel | 81 |

2017 Biocycle Survey; 34 states; 2019 food waste only report

# AD Facilities accepting Food Scraps

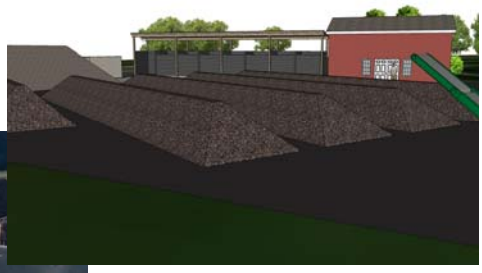
| Digester Type | Confirmed Operational | Iowa |
|---|---|---|
| Stand-alone digesters | 45 | 1 |
| On-farm digesters | 10 | 0 |
| Co-digestion systems at WRRFs | 63 | 4 |
| **Total** | **118** | **5** |

2021 EPA report; 2019 data



# Community

# College/Institution





# SCS Compost Turner: Open Windrow

# Covered ASP

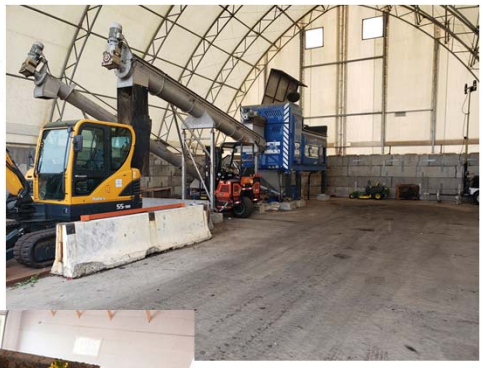


# Burlington, VT: ASP & Windrow Hybrid

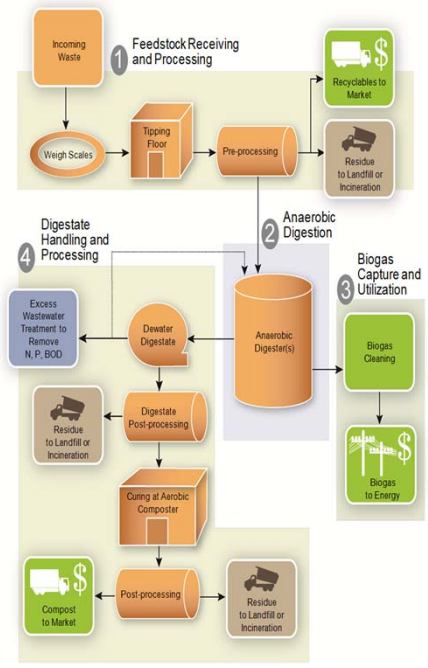
# Calgary: In-vessel Compost, two streams




# Depackaging



# AD Process Overview






# Types of Anaerobic Digestion

# AD in Northeast States

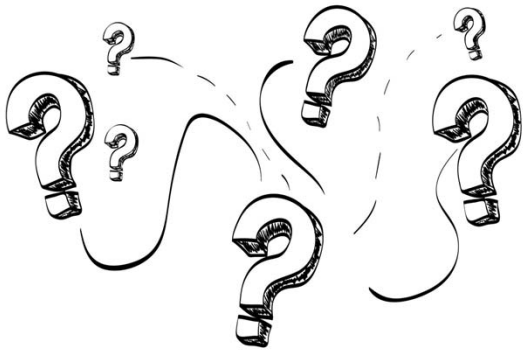
- Operational
  - Boston/GLSD; Northern NJ; NYC WWTP (WM)
  - Vanguard (Elec. & RNG;6 farm-based MA, VT)
  - Stop & Shop (Electric; MA)
  - Quantum (Electric; CT)
  - Trenton (Electric; NJ)
- In Limbo/Cancelled
  - BlueSphere (RI)
  - Anaergia (CT)
  - Harvest (MA)



# AD on West Coast

- Operational
  - CR&R (RNG; CA)
  - San Jose (Electric; CA)
  - LA WWTP (WM)
- In Limbo/Cancelled
  - Harvest (BC)
  - Sacramento (CA)

# Questions





# BREAK (10 Minutes)


## Research

## Material Types Selected

- Edible Food
- Pre-Consumer Spoiled Food
- Compostable/AD Paper, Food and Yard Waste

# Edible Food Recovery

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# Iowa Edible Food Recovery

Both Iowa State University and Drake University; as well as hundreds of other universities in 46 states around the country utilize the Food Recovery Network

The Food Recovery Network is a student led program on campuses that aims to fight food waste and end hunger in America

Once out of the dining halls, FRN has over 300 partners nationwide where they deliver their food waste to be served to the public

# Iowa Edible Food Recovery

Hy-Vee runs multiple annual food donation drives for outdated food as well as collecting from the public

- Donates all the food to the 17 Feeding America affiliated food banks across the Midwest

Hy-Vee partners with over 20 organizations to secure funding which allows for the collection and hauling of food to the food banks



# Iowa Edible Food Recovery

Iowa allows the feeding of animal-derived and vegetable waste to swine

- It has been properly heat treated. Individuals may feed household garbage to their own swine without heat-treating it
- Garbage fed to swine must be heated to at least 212 degrees Fahrenheit for 30 minutes

Feeding garbage to animals

- Heat-treated garbage may be fed to swine and individuals may feed untreated household garbage to their own swine

# National Food Reduction and Recovery

**State of Washington**

- Support national date labeling standards.
- Strengthen Good Samaritan Law
- Increase markets for lower-grade produce
- State grant funding for food waste prevention, rescue, and recovery
- Infrastructure investment in schools
- Mapping food system flows
- Improve donation transportation
- Community food hubs
- Develop an emergency food distribution plan for Washington Schools
- 20-minute seated lunch minimum in Washington schools
- Recess before lunch in Washington schools



# Iowa Composting/AD

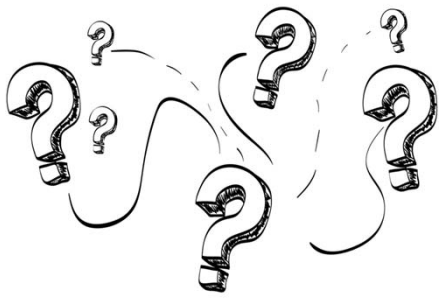
# Iowa Permitted Compost Facilities

- Cedar Rapids/Linn County Solid Waste Agency Composting Facility
- Chamness Technologies Solid Waste Composting Facility
- City of Davenport Sludge Composting Facility
- City of Iowa City Sanitary Landfill
- Clinton County Sanitary Landfill



# Iowa Composting/AD

## Non Permitted/AD Facilities



# GHG Analysis

| Material | Landfill Gas Management Method | Iowa Tons Disposed | Baseline Emissions $MTCO_2E$ | Material Prevention | Material Recycling/ Composted | Adjusted Emissions $MTCO_2E$ | Passenger Vehicle Removal |
|---|---|---|---|---|---|---|---|
| Food Scraps | No System | 97,102 | 135,345 | 25% | 25% | -25,442 | 34,147 |
| | LFG Flare | 150,466 | 84,773 | 25% | 25% | -101,901 | 39,634 |
| | LFGCS | 145,280 | 52,997 | 25% | 25% | -112,816 | 35,205 |
| Compostable Paper, Food, Yard Waste | No System | 222,554 | 281,689 | 25%[1] | 25% | -131,289 | 87,681 |
| | LFG Flare | 344,862 | 141,758 | 25%[1] | 25% | -353,927 | 105,241 |
| | LFGCS | 332,976 | | 25%[1] | 25% | -341,729 | 101,614 |

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# Key Questions

- What are the barriers to recovering edible food in Iowa?
  - What State policies, infrastructure or funding could address these barriers?
- What are the barriers to developing composting/AD facilities in Iowa?
  - What State policies, infrastructure or funding could address these barriers?
- What are the barriers to collecting food scraps, compostable paper and yard waste for composting/AD?
  - What State policies, infrastructure or funding could address these barriers?

# BREAK (10 Minutes)



# Strategy Mapping


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# Attachment C
# Additional Information

**2020 Registered and Permitted Compost Annual Report Submitted to DNR**

| Permit | Company | Yard Waste | Animal Manure/Bedding | Paper Products | Sewage Sludge | MSW | Wood | Animal Mortality | Crop Residue | Industrial Sludge | Food Residuals | Other tonnage | Total Tonnage of Organics | Capacity | Finished compost removed | Tons Sold | Tons given away | Tons used | registered with IDALS? | Method of compost | Class | analyzed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Algona, City of | 490.00 | | | | | 70.00 | | | | | | 560.00 | 800.00 | 425.00 | | 380.00 | 45.00 | no | turned windrows | no | never |
| | All Seasons Contracting Services | | | | | | | | | | | | | | | | | | | | | |
| | Alton, City of processing plant | | | | | | | | | | | 3,548.36 | 3,548.36 | | 3,548.36 | 495.00 | 3,053.36 | | yes | turned piles | no | annually |
| | Black Hawk County Landfill | 1,152.93 | | | | | 375.49 | | | | | | | | - | | | 764.00 | no | turned windrows | no | never |
| | Bloomfield, City of | 60.00 | | | | | | | | | | | 60.00 | 200.00 | 30.00 | - | all | 5.00 | no | turned piles | no | never |
| | Boone County Landfill | 1,001.51 | | | | | | | | | | | 1,001.51 | 2,000.00 | | | | all | no | turned piles | no | no |
| | Boyden, City of | | | | | | | | | | | | | | | | | | | | | |
| | Britt, City of | 50.00 | | | | | | | | | | | 50.00 | 250.00 | 15.00 | | 15.00 | | no | turned piles | no | no |
| | Buffalo Center, City of | leaves LA | | | | | | | | | | | | | | | | | | | | |
| | Carson, City of | | | | | | | | 106.00 | | | | 106.00 | na | | | 50.00 | 25.00 | no | turned piles | no | no |
| | Carroll County Solid Waste Management Commission | not weighed | x | x | x | x | x | x | x | x | x | x | unknown | unlimited | na | na | na | na | no | turned pilds | no | as needed |
| | Cascade, City of | 5.00 | | | | | | | | | | | 5.00 | na | - | | | | no | na | no | never |
| | Castalia, City of | burn waste | | | | | | | | | | | | | | | | | | | | |
| | Cedar Falls, City of | 6,984.00 | | | | | | | | | | | 6,984.00 | 7,400.00 | 4,000.00 | | 2,500.00 | 1,500.00 | no | turned windrows | yes | annually |
| | Central Community School Composting Facility | | | | | | | | | | 3.00 | | 3.00 | 10.00 | - | | | | no | aerated static piles/windrows | no | na |
| 57-SDP-20-95 | Cedar Rapids/Linn Co. Solid Waste Agency Composting Facility | | | | | | | | | | | | | | | | | | | | | |
| 90-SDP-10-97 | Chamness Technologies Solid Waste Composting Facility | 6.48 | 386.32 | 7.68 | | | 1,825.34 | - | 2.42 | 26,824.02 | 11,961.24 | | 41,014.00 | 115,000.00 | 14,935.08 | 9,847.00 | | 5,089.00 | yes | turned piles& windrows, static piles & windrows | yes | annually |
| | Charles City, City of | unknown | x | x | x | x | unknown | x | x | x | x | x | x | x | | | unknown | | na | Grind | no | na |
| 82-SDP-12-93 | City of Davenport Sludge Composting Facility | 25,925.00 | | | 22,588.00 | | | | | | | | 60,000.00 | 100,000.00 | all | 8,092.00 | | | yes | aerated static piles/windrows | yes | monthly |
| 23-SDP-13-96 | Clinton County Sanitary Landfill Compost | 1,952.74 | x | x | x | x | 930.57 | x | x | x | x | x | 2,883.31 | 5,000.00 | 358.68 | 358.68 | x | 2,524.63 | no | turned piles | no | never |
| | Clinton Public Works Department | | | | | | | | | | | | | | | | | | | | | |
| | Corwith, city of | 2.00 | | | | | | | | | | | 2.00 | | | | | | no | turned piles | no | |
| | Cresco, City of | 110.00 | | | | | 70.00 | | | | | | 180.00 | 500.00 | 150.00 | | 150.00 | | no | turned piles (grind) | no | never |
| | De Witt, City of | 250.00 | | | | | 350.00 | | | | | | 600.00 | 1,000.00 | | 60.00 | 25.00 | 150.00 | no | turned piles and windrows | no | never |
| | Decorah, City of | 150.00 | | | | | 200.00 | | | | | | 350.00 | 1,000.00 | | | all | | no | turned piles | no | never |
| | Defiance, City of | 5.00 | | | | | 30.00 | | | | | | 35.00 | 30.00 | | | 10.00 | | no | turned piles | no | monthly |
| | Denver, City of | 75.00 | | | | | 90.00 | | | | | | 165.00 | | 40.00 | | | 40.00 | no | turned piles | no | na |
| | Des Moines County Regional Solid Waste Commission | 1,539.74 | | | | | | | | | | | 1,539.74 | 2,500.00 | 73.60 | | 73.60 | | no | turned windrows | yes | never |
| | Dickinson County Conservation Board | 1,881.00 | | | | | | | | | | | 1,881.00 | 3,000.00 | 147.00 | | 147.00 | | no | turned piles | yes | never |
| | Dow City, City of | 5.00 | | | | | 10.00 | | | | | | 15.00 | 9.00 | 5.00 | | 5.00 | | no | turned piles | no | monthly |
| | Dubuque Arboretum | | | | | | | | | | | | | | | | | | | | | |
| 31-SDP-02-75 | Dubuque Metropolitan Sanitary Landfill | 2,579.11 | | | | | | | | | | | 2,579.11 | | | | | 2,579.11 | no | aerated static piles/windrows | yes | never |
| | Durant Compost | yes | | | | | | | | | | | | 108.00 | 108.00 | | 108.00 | | no | turned piles | na | na |
| | Eagle Grove, City of - Public Works Director | 60.00 | | | | | 158.00 | | | | | | 218.00 | | 158.00 | | 80.00 | 3.00 | no | turned piles | no | never |
| | Edgewood, City of | yes | | | | | yes | | | | yes | | unknown | | 24.00 | | 24.00 | | no | turned piles | no | never |
| | Eldridge, City of | | | | | | | | | | | | | | | | | | | | | |
| | Evansdale, City of | 100.00 | | | | | | | | | | | 100.00 | 200.00 | 100.00 | | 100.00 | | no | turned piles | no | na |
| | Fairfield, City of | 5,850.00 | | | | | | | | | | | 5,850.00 | na | | | yes | | no | na | no | no |
| | Farley, City of | 25.00 | | | | | | | | | | | 25.00 | na | 4.00 | | | 4.00 | no | turned piles | no | no |
| | farm tek | | | | | | | | | | | | | | | | | | | | | |
| | Fort Dodge, City of | 1,750.00 | | | | | | | | | | | 1,750.00 | 1,900.00 | | | 1,500.00 | 200.00 | no | turned windrows (grinder) | yes | never |
| | Fredericksburg, City of | yes | | | | | yes | | | | | | unknown | | | | yes | | no | turned piles | na | never |
| | Fruitland, City of | 120.00 | | | | | 275.00 | | | | | | 395.00 | 500.00 | 100.00 | | 20.00 | 80.00 | no | turned piles | no | na |
| | Granger, City of | yes | | | | | yes | | | | | | 35.00 | | | | yes | | no | turned piles | no | never |
| | Greene, City of | 3.00 | | | | | 2.00 | | | | | | 5.00 | | | | 1.00 | | no | turnedd piles | no | never |
| | Grinnell, City of | 2,496.86 | | | | | 4,688.87 | | | | | 16.00 | 7,201.73 | 10,590.00 | 765.00 | | 465.00 | 300.00 | no | turned piles | no | never |
| | Grundy Center, City of | 30.00 | | | | | 50.00 | | | | | | 80.00 | 30.00 | 20.00 | | 5.00 | 15.00 | no | turned windrows | no | never |
| | Hampton, City of | 300.00 | | | | | 200.00 | | | | | | 500.00 | 700.00 | 300.00 | | 200.00 | 100.00 | yes | na | na | na |
| 11-SDP-08-03 | Harold Rowley Material Recovery Center | | | | | | | | | | | | | | | | | | | | | |
| | Hopkinton, City of | yes | yes | | | | | | | | | | yes | 50.00 | | 5.00 | 5.00 | 5.00 | no | turned piles | no | never |
| | Humboldt, City of | yes | | | | | | | yes | | yes | | 800.00 | 800.00 | 300.00 | | 300.00 | | yes | turned piles | no | never |
| | Hyponex Corporation | 2,691.00 | | | | | | | | | | | 2,691.00 | 3,000.00 | 1,950.00 | | | | no | turned piles | no | yes |

**2020 Registered and Permitted Compost Annual Report Submitted to DNR**

| Permit | Company | Yard Waste | Animal Manure/Bedding | Paper Products | Sewage Sludge | MSW | Wood | Animal Mortality | Crop Residue | Industrial Sludge | Food Residuals | Other tonnage | Total Tonnage of Organics | Capacity | Finished compost removed | Tons Sold | Tons given away | Tons used | registered with IDALS? | Method of compost | Class | analyzed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ida Co. CCC | | | | | | | | | | | | | | | | | | | | | |
| | Independence, City of | 50.00 | 5.00 | | | | 200.00 | | | | | | 250.00 | 500.00 | all | | all | 100.00 | no | turned windrows | na | never |
| 57-SDP-20-72 | City of Iowa City Sanitary landfill | 10,743.00 | | | | | 102.00 | | | | 801.00 | | 11,646.00 | 11,500.00 | 4,636.00 | 3,099.00 | 1,537.00 | yes | yes | turned windrows | yes | annually |
| | Iowa State University Physical Plant | yes | yes | | | | | | yes | | yes | | 9,000.00 | 20,000.00 | 4,500.00 | | | 4,500.00 | yes | turned windrows | yes | na |
| | J. Petticord Inc. | not running yet | | | | | | | | | | | | | | | | | | | | |
| | Kanawha, city of | 5.00 | | | | | 2.00 | | | | | | 7.00 | 20.00 | | | | | | turned piles | na | na |
| | Kensett, City of | - | | | | | | | | | | | | | | | | | | | | |
| | Keota, City of | 12.00 | | | | | 15.00 | | | | | | 27.00 | 30.00 | 15.00 | | 15.00 | | yes | turned piles | na | annually |
| | Kingsley, City of | yes | | | | | | | | | | | na | na | | | | | no | turned piles | no | never |
| | Kirkwood Community College | | | | | | | | | | | | | | | | | | | | | |
| | La Porte City, City of | | | | | | | | | | | | | | | | | | | | | |
| | Landfill of North Iowa | 3,040.49 | | | | | 2,963.01 | | | | | | 3,040.49 | 5,000.00 | 2,850.00 | | 2,800.00 | 50.00 | no | turned windrows | yes | never |
| | Lawler, City of | 40.00 | | | | | 30.00 | | | | | | 70.00 | | 40.00 | | yes | | no | turned piles | no | na |
| | Lewis, City of | yes | | | | | | | | | | | yes | | unknown | | yes | | no | turned piles | no | na |
| | Manchester, City of | yes | | | | | yes | | | | | | 1,500.00 | 2,000.00 | 1,200.00 | | 600.00 | 600.00 | no | turned windrows, enclosed facility | no | never |
| | Maquoketa, City of | | | | | | | | | | | | | | | | | | | | | |
| | Marengo | 500.00 | | | | | 400.00 | | | | | | 900.00 | na | 600.00 | | 600.00 | | no | turned piles | no | never |
| | Marion, City of | | | | | | | | | | | | | | | | | | | | | |
| | Marshalltown, City of | 2,660.00 | | | | | 7,140.00 | | | | | | 10,000.00 | 10,000.00 | | yes | | | na | turned windrows, enclosed facility | no | never |
| | Maynard, City of | 25.00 | | | | | 15.00 | | | | | | 40.00 | | | | yes | | no | turned piles | no | never |
| | Metro Waste Authority Metro Park East Landfill | 36,862.25 | 3,817.34 | | | | | | | | | | 40,679.59 | 50,000.00 | 17,971.70 | 17,900.30 | 15.40 | 2.00 | yes | turned windrows | yes | bi-monthly |
| | Milo, City of | unknown | | | | | unknown | | | | | | unknown | unknown | unknown | | unknown | | no | piled | no | never |
| | Monticello, City of | yes | | | | | | | | | | | unknown | | | | | | no | turned windrows | no | never |
| | Morning Sun, City of | yes | | | | | | | | | | | unknown | 50.00 | 3-Jan | | 3.00 | | no | turned piles | no | never |
| | Mount Pleasant, City of | 105.00 | | | | | 80.00 | | | | | | 185.00 | 170.00 | 55.00 | | 60.00 | | no | turned piles | no | never |
| | Muscatine County Solid Waste Management Agency | 500.00 | | | | | 1,500.00 | | | | | | 2,000.00 | 3,000.00 | 100.00 | | 100.00 | | no | turned windrows | yes | never |
| | Nashua, City of | | | | | | | | | | | | | | | | | | | | | |
| | New Albin, City of | 40.30 | | | | | | | | | | | 40.30 | | 40.30 | | 40.30 | | no | turned piles | no | na |
| | New Sharon, City of | 10.00 | | | | | | | | | | | 10.00 | na | | | all | | no | turned piles | no | never |
| | Newton, City of - Sanitary Landfill | | | | | | | | | | | | | | | | | | | | | |
| | North Liberty, City of | 500.00 | | | | | | | | | | | 500.00 | 1,500.00 | 120.00 | | | 120.00 | no | turned piles | yes | monthly |
| | Northwood, City of | 90.00 | 5.00 | | | | | | | | | | 600.00 | 800.00 | 15.00 | | 15.00 | 5.00 | no | turned piles | no | other |
| | Ossian, City of | yes | | | | | yes | | | | | | unknown | unknown | unknown | | yes | yes | no | unaerated piles | no | never |
| | Otho, City of | | | | | | | | | | | | | | | | | | | | | |
| | Plymouth County Solid Waste Agency | yes | | | | | yes | | | | | | 646.00 | 800.00 | 165.00 | | yes | 50.00 | no | turned windrows | no | never |
| | Postville, City of | 300.00 | 0.50 | | | | 150.00 | | | | | | 450.50 | | 350.00 | | 350.00 | | na | turned windrows | na | never |
| | Red Oak, City of | 20.00 | | | | | | | | | | | 20.00 | 30.00 | 20.00 | | | yes | no | turned windrows | no | never |
| | Reinbeck, City of | 2.00 | | | | | | | | | | 1.00 | 3.00 | 20.00 | | | 2.50 | | no | turned piles | no | never |
| | Rembrandt Enterprises Composting Facility | | | | | | | yes | yes | | | | unknown | 23,410.00 | | 574.94 | | yes | | turned piles | no | na |
| | Rite Environmental, Waterloo (12/18/19) | | | | | | | | | | | | | | | | | | | | | |
| | Sergeant Bluff, City of | | | | | | | | | | | | | | | | | | | | | |
| | Sigourney, City of | 100.00 | | | | | | | | | | | 100.00 | 140.00 | 50.00 | | 50.00 | | no | turned piles | no | never |
| | Sioux City Landfill | 169.62 | x | x | x | x | x | x | x | x | x | x | na | 10,000.00 | | | 115.51 | | no | turned piles | yes | annually |
| | Spencer, City of | 956.00 | | | | | 6,700.00 | | | | | | 7,656.00 | unknown | unknown | | yes | | no | turned piles | no | never |
| | Stanton, City of | yes | | | | | | | | | | | unknown | | 4.00 | | 2.00 | 2.00 | no | turned piles | | no |
| | Story City, City of | | | | | | 120.00 | | | | | | 370.00 | 375.00 | 250.00 | | 250.00 | | no | turned piles | no | na |
| | Tipton, City of | | | | | | | | | | | | | | | | | | | | | |
| | Upper Iowa Organics | yes | yes | | | | yes | | yes | | yes | | 50.00 | 200.00 | 89.00 | 80.00 | 4.00 | 5.00 | yes | turned windrows | yes | na |
| | Villisca, City of | 60.00 | 3.00 | | | | 90.00 | | | | 2.00 | | 155.00 | 200.00 | 120.00 | | 20.00 | 100.00 | no | turned piles | no | never |
| | Washington, City of | 550.00 | | | | | 2,100.00 | | | | | | | 4,500.00 | 800.00 | | 200.00 | 500.00 | no | turned piles and windrows | no | annually |
| | Waterloo, City of | 1,325.00 | | | | | 1,250.00 | 1.75 | | | | | 2,576.75 | 6,000.00 | 2,575.00 | | 2,575.00 | | yes | turned windrows | no | never |
| | Waverly, City of | 470.00 | | | | | 1,759.00 | | | | 1.50 | | 471.50 | unknown | 152.00 | | 92.00 | 60.00 | no | turned windrows | yes | never |
| | Wayland, City of | 5.00 | | | | | | | | | | | 5.00 | | 2.00 | | 2.00 | | no | turned piles | no | na |
| | Webster City, City of | 2,000.00 | | | | | 3,000.00 | 40.00 | | | | | 5,040.00 | unknown | 800.00 | | 800.00 | | yes | turned windrows | no | na |
| | West Okoboji, City of | | | | | | | | | | | | | | | | | | | | | |
| | Wilton, City of | 455.00 | | 155.00 | | | | | | | | | 455.00 | 600.00 | all | | 125.00 | 50.00 | no | enclosed facility | no | never |
| | **Totals** | 119,246.03 | | | | | | | | | | | 241,706.89 | | | | 19,590.67 | 19,572.74 | | | | |