

**7th Meeting of the
Cass-Clay Food Systems Advisory Commission
March 9th, 2016
Fargo Commission Chambers**

Members Present:

Arland Rasmussen, Cass County Commission, Interim Chair
Mike Thorstad, West Fargo City Commission
Jim Aasness, Dilworth City Council
Jon Evert, At-Large Member
Janet Paul, At-Large Member
Dana Rieth, At-Large Member

Members Absent:

Heidi Durand, Moorhead City Council
Jenny Mongeau, Clay County Commission
Mike Williams, Fargo City Commission
Jessica Arneson, At-Large Member
Andrea Baumgardner, At-Large Member

Others Present:

Megan Myrdal, Project Coordinator
Kim Lipetzky, Fargo Cass Public Health
Gina Nolte, Clay County Public Health
Noelle Harden, University of Minnesota Extension
Abby Gold, Cass-Clay Food Systems Initiative
Deb Haugen, Cass-Clay Food Systems Initiative
Stephanie Reynolds, Clay County Solid Waste
Adam Altenburg, Fargo-Moorhead Metropolitan Council of Governments

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

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

Chair Rasmussen stated that agenda item 9(a) would be combined with agenda item 4 as both items referred to the one-year recap of Commission activities.

A motion to approve the order and contents of the overall agenda with the removal of agenda item 9(a) was made by Mr. Evert and seconded by Mr. Thorstad. The motion was voted on and unanimously approved.

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

A motion to approve the minutes was made by Mr. Aasness and seconded by Ms. Paul. The motion was voted on and unanimously approved.

2(a). Backyard Composting Education

Ms. Reynolds began by informing the Commission of several definitions which refer to backyard composting: *organics*, which refer to living matter such as yard and food waste; *C:N ratio*, which refers to the ratio of carbon (such as food waste) to nitrogen (such as yard waste); and *leachate*, which is liquid run-off that comes from compost which contains nutrients such as nitrates.

Ms. Reynolds explained that composting is the decomposition of organic material such as yard and food waste through microbial activity and other activities which create a rich, nutrient-rich soil amendment. Ms. Reynolds explained that there are two common methods of backyard composting: *hot composting*, also known as *batch composting*, is a pile up to three feet built all at once and takes from one to three months to break down; and *cold composting*, a more passive method which takes from three to eight months to break down. Ms. Reynolds stated that even though it is called cold composting, piles will still heat up to 140 degrees Fahrenheit compared to 160 degrees for hot composting.

Ms. Reynolds stated that people compost to create their own soil amendment. Ms. Reynolds explained that this soil amendment contains rich organic matter back which helps to reduce fertilizer costs, suppresses soil-borne diseases, and increases the moisture holding capacity. Ms. Reynolds explained that composting aids in reducing solid waste costs, stating that between 30 to 40 percent of all municipal solid waste (MSW), including paper, cardboard, leaves, and food waste, can be composted.

Ms. Reynolds informed the Commission that there are six steps involved in backyard composting common practices. Ms. Reynolds explained that the first step in composting is to select a dry, shady location near a water or moisture source. Ms. Reynolds stated that shade will protect a compost pile from drying out too quickly and that less work will be required to maintain moisture if the pile is near water. Ms. Reynolds added that compost piles are most effective if they are piled three feet tall by three feet wide, which ensures that enough microorganisms are contained within the pile to warm it up and start the decomposition process.

Ms. Reynolds stated that the second step in composting is to add brown and green material in alternate layers, beginning with a brown layer. Ms. Reynolds explained that brown layers include carbon such as leaves, twigs and straw. Ms. Reynolds stated that green layers include nitrogen such as food waste or chicken manure. Ms. Reynolds explained that the recommended C:N ratio for hot composting is 30:1 and cold composting is 50:1. Ms. Reynolds added that the compost pile be covered with a layer of browns.

Ms. Reynolds explained that the third step in backyard compost common practices is to keep the compost moist, but not too wet. Ms. Reynolds stated that a compost pile should maintain moisture similar to a wrung out sponge to create an environment for bacteria, fungi, and other organisms to survive and maintain the rate of decomposition. Ms. Reynolds warned that too much moisture may cause the compost pile to begin leaching.

Ms. Reynolds stated that a fourth practice in composting is to turn compost mixture at least once a week for both hot composting and cold composting. Ms. Reynolds explained that this process provides aeration and that oxygen is required for microbial and organismal life. Ms. Reynolds stated that if a compost pile begins to smell like ammonia, reducing the amount of nitrogen that is added and turning the pile should help.

Ms. Reynolds informed the Commission that in step five, as materials in a compost pile break down, the pile will get warm. Ms. Reynolds stated that a compost pile may even begin to steam but that this process is normal. Ms. Reynolds warned that if microbial activity heats up to above 160 degrees Fahrenheit, the compost pile needs to be turned over to reduce the risk of fire.

Ms. Reynolds explained the final step occurs when material is dark with no remnants of food or waste and the compost is ready to be added to gardens, lawns, or anywhere that would benefit from good soil. Ms. Reynolds reiterated that compost is a nutrient dense soil amendment and that the quality of plants health and the taste of food will be increased.

Ms. Reynolds informed the Commission of several important considerations when composting. Ms. Reynolds stated that residents in Minnesota need a state permit if a compost pile exceed 120 cubic yards per the Minnesota Pollution Control Agency's guidelines. Ms. Reynolds advised to keep compost piles away from rivers or other bodies of water as leachate may pollute water sources during heavy rain events. Ms. Reynolds also warned about throwing animal waste, meat, bones, grease, oils, or fats into a compost pile as that may attract rodents and other pests. Ms. Reynolds stated that compost piles should have an earthy smell and if piles being to smell like ammonia that compost piles should be checked out to ensure a proper C:N ratio. Ms. Reynolds concluded that proper education is key in reducing food waste from going to landfills.

Ms. Reynolds explained that cities and jurisdictions can promote residential composting by enacting policies that do not prohibit compost practices such as containment of compost. Ms. Reynolds stated that containment of compost prohibits the act of turning the compost, which is needed to make the process of decomposition work.

Ms. Reynolds informed the Commission that there are several places where Fargo-Moorhead area residents can learn more about how to compost properly including the Master Gardner Program through NDSU Extension and its online education course H885 on composting practices, and the River Keepers composting tumbler workshops through Moorhead Community Education. Ms. Reynolds explained that the City of Fargo and Clay County Solid Waste have developed a partnership in which residents may buy composting units through the City of Fargo.

Ms. Reynolds concluded with information on the Clay County Commercial Compost Facility. Ms. Reynolds stated that Clay County Solid Waste has been working with Full-Circle Organics, which have five locations in Minnesota and one location in Iowa. Ms. Reynolds explained that a new facility to mitigate yard waste is in the early stages of development at the Clay County Landfill near Hawley, Minnesota. Ms. Reynolds stated that the facility has obtained a permit from the Minnesota Pollution Control Agency as well as conditional use permits from the City of Moorhead and the City of Hawley. Ms. Reynolds explained that it was the hope to compost other materials in the future.

Mr. Evert asked whether chicken manure could be included in compost piles or if it was considered animal waste. Ms. Reynolds clarified that chicken manure may be utilized in compost piles but animal feces from cats or dogs should not be used. Chair Rasmussen stated that he had had a similar question pertaining to chicken manure versus other animal waste.

Mr. Evert asked for clarification on whether turning compost files does in fact reduce the risk of fire. Ms. Reynolds stated that this is correct and that after a compost pile exceeds 165 degrees Fahrenheit, it becomes a fire risk. Ms. Reynolds added if you see a compost steaming, turning the pile and adding moisture will help alleviate any potential fire hazards.

Ms. Paul asked whether there was a timeline on the next stage of the Clay County Commercial Compost Facility to compost other materials. Ms. Reynolds responded that Full-Circle Organics has only recently received conditional use permits for yard waste and is currently in conversations with several engineers to develop a facility to compost yard waste first before moving on to compost other materials.

2(b). Backyard Composting Blueprint

Ms. Myrdal informed the audience that the Commission has developed a series of blueprints to serve as guiding documents for jurisdictions to be able to examine various issues regarding urban agriculture.

Ms. Myrdal provided the Commission with some statistics on backyard composting including: the average United States household generates 650 pounds of compostable materials each year, four pounds of trash is generated by the average person each day, 1.5 tons of solid waste is generated by the average person each year, Americans produce 200 million tons of garbage per year, and 60 percent of organic waste going to landfills can be composted. Ms. Myrdal stated that within the Fargo-Moorhead Metropolitan Area, backyard composting is permitted in the City of Moorhead so long as it is in an enclosed container no more than 250 cubic feet with a 20-foot rear yard setback. Ms. Myrdal explained that, besides the City of Moorhead, backyard composting is not addressed in any of the other local jurisdictions, though yard waste composting is mentioned in Clay County and the City of West Fargo.

Ms. Myrdal explained the framework for evaluating backyard composting including health, environment, social, and economic aspects. Ms. Myrdal explained a health benefit of backyard composting includes the creation of rich fertilizer to improve garden health, while a concern would be the attraction of unwanted pests or vermin. Ms. Myrdal stated that environmental benefits include reducing garbage going into the waste stream, reducing methane gases, enriching the soil and reducing the need for pesticides and herbicides, increasing water retention in soils, promoting beneficial soil microorganisms, suppressing plant diseases and pests, and preventing erosion. Ms. Myrdal stated that social benefits include increasing awareness of the food cycle and waste, as well as reducing the smell of kitchen garbage, while concerns may include odor, appearance, and possible effects on nearby property and property values if a compost pile is not managed correctly. Ms. Myrdal explained that economic benefits include saving landfill space and delaying the need to expand or create new landfill facilities, allowing residents to utilize smaller, cheaper city garbage bins, and alleviating the need to buy store-bought fertilizers and water, while concerns may be cost of administering a composting system or monitoring and addressing issues.

Ms. Myrdal informed the Commission that several regional jurisdictions allow backyard composting including: Bismarck, ND, Duluth, MN, Grand Forks, ND, Lincoln, NE, Rochester, MN, and Sioux Falls, SD. Ms. Myrdal stated that backyard composting is not addressed in Mankato, MN. Ms. Myrdal stated that commonalities between various ordinances regarding backyard composting include: definitions of what the ordinance is discussing, specification regarding container size, height, and location on a property, composting materials which are allowed or prohibited, maintenance requirements, and how violations would be addressed.

2(c). Public Input

Donna Hinton of Fargo asked whether composting available for public use could potentially be contaminated by heavy metals or pesticides and herbicides used for landscaping purposes. Ms. Reynolds explained that each chemical used in herbicides or pesticides has a half-life which determines how fast a chemical will decay and that until that chemical decays, it will still be in the environment. Ms. Reynolds stated that it is possible chemicals would be present in this compost.

Ms. Hinton asked whether any testing was done on public composting materials. Ms. Reynolds answered that this would be a question for Steve Moore, Public Works Director for the City of Moorhead. Ms. Nolte asked whether there would be a contact for the City of Fargo. Ms. Lipetzky answered that Terry Ludlum, Solid Waste Utility Director for Fargo, would be the person to contact.

Kathleen Johnson provided the Commission information on red worm composting, in which a five-gallon container can be set up inside your home utilizing red worms to compost various organics including: fruit and vegetable waste, pet hair, coffee grounds, cardboard, newspaper, grass clippings, dryer lint, and egg shells. Ms. Johnson stated that red worm composting is easy to do and does not produce any odors.

2(d). Commission Discussion

The Commission had no further comments or questions on the Backyard Composting Blueprint.

A motion to approve the Backyard Composting Blueprint was made by Mr. Evert and seconded by Mr. Aasness. The motion was voted on and unanimously approved.

3. Concordia College High Tunnel

Joleen Baker and Tyler Franklin from Concordia College provided the Commission information on the high tunnel located on Concordia's campus near 11th Street South and 12th Avenue South in Moorhead.

Ms. Baker explained that in 2009, several students established a garden on the campus of Concordia College and that a high tunnel was proposed during the 2013-2014 school year to allow for extension of its growing season. Ms. Baker stated that the high tunnel project was completed in the fall of 2015 and it was funded through Concordia's Student Government Special Projects Committee and a private grant.

Ms. Baker explained that five student interns are responsible for the functioning of the garden enclosed within the high tunnel including planting, watering, and other management duties, as well as promoting the high tunnel on campus and within the community. Ms. Baker stated that produce is donated to local area food shelters. Ms. Baker explained that garden interns work to promote campus and community integration by bringing classes out to the garden to show how the growing season can be extended and how people can eat more local foods in the Fargo-Moorhead area.

Mr. Franklin stated that a high tunnel is a simple structure that can be constructed of PVC pipe and acrylic plastic sheets which helps to extend the growing season of a garden by a few weeks to a month on both ends of the season. Mr. Franklin explained that the high tunnel at Concordia incorporated solar thermal subterranean heat storage, where heat is transferred within the soil itself.

Ms. Baker explained that the biggest barrier that students faced in constructing the high tunnel was trying to build an agriculture accessory structure within a residential zoning district on a college campus. Ms. Baker stated that provisions were made within the City of Moorhead's zoning ordinance to allow for its construction. Ms. Baker stated that another concern was fire safety but it was determined that the size of the structure and the thickness of the plastic sheathing mitigated these concerns.

Ms. Baker stated that another hurdle in constructing the high tunnel had to do with there being no legislation on the regulation of the underground heating system. Ms. Baker explained that the City of Moorhead passed a special ordinance allowing for the closed loop underground convection heating system.

Ms. Baker explained that a final concern dealt with the 'not-in-my-backyard' mentality of building a high tunnel in a residential area. Ms. Baker stated that students spoke with neighbors and were able to obtain approval from every adjacent neighbor.

Ms. Baker explained that a helpful aid that the Facilities Manager for Concordia College recommended was to bring a conceptual structural drawing to the city when a person is ready to request permission for a high tunnel.

Chair Rasmussen asked what the size of the high tunnel is at Concordia College. Ms. Baker stated that the high tunnel is 30 feet by 40 feet but explained that high tunnels can be up to twice that size.

Ms. Haugen asked how much food is produced through the season extension of the high tunnel. Ms. Baker stated that this was a difficult question to answer as it depends on what is being grown during a particular season. Ms. Baker stated because of the high tunnel, garden interns would be able to start planting in March as opposed to later in the spring and would provide for an additional cycle of crops. Ms. Baker also stated that the purpose of the high tunnel at Concordia, in addition to growing food, was about education and promoting gardening activities.

Ms. Myrdal informed the Commission that a future blueprint would deal with high tunnels and other types of season extenders and how those are recognized in the Fargo-Moorhead area and throughout the region and the United States.

4. Advisory Commission One-Year Recap

Ms. Myrdal provided the Commission with a one-year recap of its activities and actions, followed by questions on what members' experiences have been on the Commission and what members see their role as being. Ms. Myrdal iterated that the Commission was formed through a joint powers agreement in November 2014, with its first meeting being on March 25, 2015. Ms. Myrdal explained that urban agriculture was identified as a priority issue in the Fargo-Moorhead Metropolitan Area food system by the Steering Committee and that, through an online community survey conducted in June 2015, community gardens was identified as the most important issue within urban agriculture. Ms. Myrdal explained that four blueprints pertaining to urban agriculture have been created, discussed and approved by the Commission including: community gardens, urban bees, urban chickens, and residential composting.

Ms. Myrdal provided a recap on the purpose of the Commission as laid out in the joint powers agreement including: assessing the food system in the Fargo-Moorhead Metropolitan Area, educating policy makers on food systems issues, providing language for policies, supporting community wellness, cultivating partnerships, and overseeing the implementation of the Metropolitan Food Systems Plan.

Ms. Myrdal provided the Commission information on its issue prioritization process for urban agriculture blueprints including: Cass-Clay Food Systems Initiative input, Commission and jurisdiction input, public and online community input, and the Metropolitan Food Systems Plan. Ms. Myrdal explained that future blueprints will include municipal composting, structures such as high tunnels, greenhouses, and hoop houses, farmers markets, and residential gardening.

Ms. Myrdal stated that an indirect response of the Commission has been the creation of Ugly Food of the North – a community organization working to bring awareness to food waste and food sustainability issues through education, networking, and community organizing.

5. Minnesota Food Access Planning Guide Update

Mr. Altenburg informed the Commission of the Minnesota Food Access Planning Guide, a project Metro COG was involved in with approximately 25 diverse stakeholders throughout Minnesota. Mr. Altenburg explained that, when complete, the Food Access Planning Guide will be a companion document to the Minnesota Food Charter with a specific focus on how city and county comprehensive plans can better incorporate food access issues within specific comprehensive plan goals and objectives. Mr. Altenburg stated that several meetings have already been held to discuss and determine some of the guiding elements including: mission, vision, purpose, draft language, communication/engagement plan, planning guide design, content and structure, and promotion.

6. Online Community Input

Ms. Lipetzky explained that community members who may not be able to attend Commission meetings are able to submit public comments through the City of Fargo Let's Eat Local website. Ms. Lipetzky stated that one public comment had been received between January and February 2016. Ms. Lipetzky stated that the commenter had owned both backyard chickens and ducks since 2012 and is strongly in favor of urban chicken keeping opportunities. Ms. Lipetzky stated that the commenter attested that chickens are far less noisy than dogs and that odor control has not been an issue in their 8'x8' shed with attached 10'x10' run. Ms. Lipetzky explained that the commenter noted that few neighbors knew they had urban chickens and most were often interested in seeing them. Ms. Lipetzky stated the commenter felt chicken to be great companion animals for people who cannot tolerate animals in their homes and that the daily care of feeding, watering, and gathering eggs can be very calming.

7. Public Comment Opportunity

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

Caroline McGuire, working on behalf of Ugly Food of the North and the Great Plains Food Bank, stated that North Dakota had recently rolled back an 84-year old law preventing certain types of corporate/factory animal farming practices. Ms. McGuire explained that she felt farm ownership is best left in the hands of family farmers and ranchers. Ms. McGuire stated that large factory farming operations may increase food safety hazards and animal health risks. Ms. McGuire stated that Measure 1 on the June 14, 2016 North Dakota ballot will let North Dakota residents decide whether to roll back these efforts or not.

Jack Wood with Growing Together provided an update of several focuses their group is looking at for the summer. Mr. Wood explained that Growing Together is working with North Dakota State University Extension to provide a Juniors Masters Gardening Program. Mr. Wood noted that their group is also working with the Boys and Girls Club to assist with gardening activities within the community. Mr. Wood explained that their group is looking to expand its community gardening network including First Presbyterian Church in Moorhead, Bridgepointe Community Church in Moorhead, and the Unitarian Universalist Church in Fargo. Mr. Wood stated that their group will be looking to sign up 240 people to assist with 13 to 14 gardens throughout the Fargo-Moorhead area.

Lindsay Breuler provided the Commission an update on the Supplemental Nutrition Assistance Program (SNAP) Double Bucks Program. Ms. Breuler stated that it was her hope to begin the program with the Red River Market in Fargo, where people with SNAP benefits would get a dollar-to-dollar match to buy produce at the farmers market. Ms. Breuler asked the Commission to let her know if Commission members knew of any groups or individuals that may be able to assist with this program.

Verna Kragnes informed the Commission that she is hoping to integrate a farmers training program within Growing Together, which builds upon the work of Growing Together but expanding the training possibilities of people involved with the group. Ms. Kragnes explained that a potential grant from the United States Department of Agriculture (USDA) would fund the farmer/rancher program which will begin in later April or early May. Ms. Kragnes stated that a number of organizations, including Lutheran Social Services, have signed on as supporters of the initiative and an advisory group would assist the program for the first three years. Ms. Kragnes indicated that there will be internship possibilities as part of the training program, similar to the 4-H organization, with year-round activities. Ms. Kragnes stated that special emphasis will be placed on minority farmers including women, new Americans, and individuals with impairments. Ms. Kragnes stated that it was her hope that this would become a model for other farmer training programs throughout the region.

Abby Gold provided an update on Probstfield Farm in north Moorhead. Ms. Gold stated that they are in the process of renting out 100 20'x30' community garden plots, which are \$40 for the season. Ms. Gold explained that water and compost is available, as well as the purchase of mulch. Ms. Gold stated that Cooper Garden on 4th Avenue North in Fargo is also seeking gardeners at this time.

8. Commission and Steering Committee Roundtable

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

Ms. Nolte iterated that, along with Metro COG's involvement with the Minnesota Food Access Planning Guide, she is also involved with a committee for the Minnesota Food Charter and that it is a statewide initiative looking at ways to provide healthy, affordable, and safe food in Minnesota.

Ms. Harden stated that she was excited to see the educational role the Commission has had within the community but felt it would be beneficial to see some of the policies developed by the Commission be implemented within the Fargo-Moorhead Metropolitan area, including best practices related to urban agriculture. Ms. Gold stated that she shared the same feelings.

Ms. Paul stated that she was thankful for the partnerships Ms. Myrdal and the Commission have developed and explained that an individual was currently interested in restarting a program for composting coffee grounds put out by Concordia College dining service operations.

Mr. Thorstad explained that the City of West Fargo would be developing a new Comprehensive Plan and that may be a time to relook at integrating potential food systems issues within its goals, objectives, and policies.

9. Commission Action Steps

Ms. Myrdal stated that the next meeting would be held on May 11, 2016.

Chair Rasmussen adjourned the meeting at 12:02 PM.