

# ENVIRONMENTAL COMMISSION 02-16-22 MEETING

## MINUTES (APPROVED 05-18-22)

### PAGE 1 OF 6

Date: Wednesday, February 16, 2022

Time: 6:00 pm

Place: Conference Room on 10<sup>th</sup> floor of City Hall, 161 W Michigan Avenue, Jackson, Michigan

**I. Call to Order** *Chairperson Kazmier called the meeting to order at 6:04 pm.*

#### **II. Roll Call**

**Present:** *Commissioner Will Forgrave (Sixth Ward Councilmember), Commissioner Kevin Lund, Commissioner Kelsey Heck Wood, Commissioner Bethany Hersha, Commissioner Jacob Inosencio, Commissioner Kelli Kazmier (Chairperson).*

**Absent:** *None.*

**Staff:** *Troy R White, City of Jackson Engineering.*

**Also Present:** *None.*

#### **III. Adoption of the Agenda**

*Motion made by Commissioner Forgrave and seconded by Commissioner Heck Wood to adopt the agenda with the date on the agenda amended to reflect the current month. Motion approved unanimously.*

#### **IV. Approval of 01-19-22 meeting minutes**

*Motion made by Commissioner Forgrave and seconded by Commissioner Inosencio to approve the minutes as presented. Motion approved unanimously.*

#### **V. New Business – Grant and Outreach Opportunities**

Correspondence from Commissioner Hersha attached.

##### Item 1: Grants

*Commissioner Kazmier turned the floor over to Commissioner Hersha.*

*Commissioner Hersha informed the commission that the attached correspondence relates to grant opportunities that align with Chapter 6 (Community Engagement) of the EAP. The Environmental Literacy Program Grant from the Department of Commerce (Funding Opportunity Number NOAA-SEC\_OED\_2022-2006995) may be most applicable. Applications are due on 03-16-22 (the date of the next Environmental Commission meeting).*

*Commissioner Inosencio inquired about the grant amounts.*

*Commissioner Hersha replied that the grant ceiling is 500K and the floor is 250K and the number of anticipated awards is twelve.*

*Commissioner Inosencio stated that grants to build environmental resiliency may most directly relate to water resources.*

*Commissioner Hersha responded that the grants are to be used to inform and educate people and to impact behaviors. She related that she brought this forward as similar grants have been obtained in the past – such as the past lead abatement grant. She inquired about how to grant applications are generated by and for the city.*

*Commissioner Forgrave replied that grant preparation is typically done by city staff and then brought to City Council for approval.*

*Commissioner Kazmier concurred that grant applications are ultimately approved by City Council as Council must approve any matching funds or administrative costs.*

*Commissioner Inosencio inquired about who would do the work for the grant. He then inquired what would be funded with a grant to promote environmental literacy.*

*Commissioner Kazmier suggested that it could fund a campaign similar to what Consumers Energy does to promote energy efficiency. It could be used to promote known environmentally friendly concepts such as insulation, urban farming, etc. – techniques that will help maintain living standards and/or increase access to basic needs in the face of climate change. The grant would fund efforts to educate people and impact behaviors rather than fund environmental capital projects. This could mean advertisements and events to promote existing environmentally friendly opportunities.*

*Commissioner Heck Wood suggested that there may be interesting things that could be done around natural events – super hot days, super cold days – to raise awareness. Perhaps around the need for warming centers and storm damage in parks.*

*Commissioner Lund suggested that rather than apply for a grant for a single initiative, perhaps the application should be made for a group of smaller initiatives.*

*Commissioner Heck Wood replied that micro-grants would have a very big impact on many of our local groups.*

*Commissioner Inosencio concurred – there are local non-profits such as Dahlem and MacCready that could use such grants. Trees could be planted and used as an education tool.*

*Commissioner Kazmier reminded the commissioners that time is short and inquired how to generate a grant application in the time remaining.*

*Commissioner Inosencio inquired if the commission has a Grant Committee and if Commissioner Hersha is on it.*

*Commissioner Hersha responded that she can be on a Grant Committee.*

*Commissioner Inoscencio made a motion to form a Grant Committee that will include himself, Commissioner Hersha and Commissioner Kazmier. Commissioner Kazmier seconded the motion. The motion was approved unanimously.*

*Mr. White stated that the Environmental Commission can not apply for grants on behalf of the City without the approval of City Council. To make an application on March 16, City Council will have to approve the application at the March 8 meeting. To be on the agenda for the March 8 meeting, the application and written report have to be into the Manager's Office by February 24.*

*Commissioner Inoscencio made a motion to authorize the Grant Committee, at it's discretion, to prepare an Environmental Literacy Program Grant application for submittal to City Council for approval. The motion was supported by Commissioner Forgrave. The motion passed unanimously.*

*Commissioner Inoscencio inquired if local agencies are eligible for this grant.*

*Commissioner Hersha replied in the affirmative.*

*Commissioner Kazmier asked Commissioner Inoscencio to generate the initial grant application text. The whole of the Grant Committee will then work together to generate a final document.*

#### Item 2: Grand River Farmers Market

*Commissioner Kazmier inquired if Commissioner Hersha, due to the length of discussion of the previous item, consented to postponing discussion on the Farmer's Market until next meeting. Commissioner Hersha replied in the affirmative.*

#### **VI. Revisions/Updates to the Environmental Action Plan (EAP)**

*Commissioner Kazmier explained that redline edits of the EAP are included in the agenda packet.*

*Motion by Commissioner Heck Wood and seconded by Commissioner Forgrave to approve the revisions as presented approved unanimously.*

*Commissioner Kazmier provided Mr. White with the revised document to provide to City Council and to have posted to the website.*

#### **VII. 2022 Action Items**

##### **a) Refuse and Recycling Committee Report and Discussion**

*Commissioner Kazmier related she and Commissioner Hersha discussed the drafting of a memo to the City Manager but the two of them have differing understandings of the intent of the memo.*

*Commissioner Hersha related that it was her understanding that the Commission's intent is to determine what an ideal refuse pickup program might include and then to cut back from there to a program that is most supportable by our community.*

*Commissioner Kazmier related that it was her understanding that the Commission's intent is to have a dialogue with the City Manager to present him with our previous research and request that he reach out to haulers to try to determine estimated costs and services for a city-wide pickup program.*

*Commissioner Kazmier related that the Commission could use input from City Councilpersons regarding the level of support for a city-wide pickup program. If there is support for a program, the Commission could draft a RFQP for such services.*

*Commissioner Kazmier explained that she and Commissioner Hersha need direction from the Commission.*

*Commissioner Lund suggested that the next step may be a combination of Commissioner Hersha's and Commissioner Kazmier's understandings.*

*Commissioner Inosencio related that he has not heard of much support in the community for a change to the current pickup system.*

*Commissioner Hersha related that she has heard that there are concerns with the current system but there are also concerns about moving to a single hauler system.*

*Commissioner Kazmier stated that the Commission does not have enough information to generate documents such as proposed ordinance changes or RFQPs. That it would be helpful to have info gathered from haulers.*

*Commissioner Kazmier stated that she doesn't think that a change to the current system has to be a single-hauler system. Even through a single hauler system would be most likely to decrease costs, truck trips and complexity, it may not be what happens in the end.*

*Commissioner Hersha inquired of Commissioner Kazmier if cost info is what she is seeking.*

*Commissioner Kazmier replied in the affirmative.*

*Commissioner Inosencio concurred. He state that the commission needs to understand probable costs.*

*Commissioner Kazmier stated that without cost info, the commission has no constituency. That costs need to show a compelling reason to suggest a change to the current system. It would not be appropriate to make a proposal that is not more cost effective.*

*For a proposal to be successful, it must show that the Commission's intent is to expand accessibility to refuse service.*

*Commissioner Forgrave inquired why the gathering of cost info would include the City Manager rather than the commission itself.*

*Commissioner Kazmier replied that the commission has not been successful gathering this info in the past. The idea is that the haulers may be more likely to discuss the matter with the manager due to the weight of his position. He would also have more accurate info regarding the number of households in the city.*

*Commissioner Lund suggested that haulers will have a hard time determining costs until there is a RFQP that defines the required services.*

*Commissioner Forgrave stated that there is no way of know what will happen when put to bid – last time there was a single hauler letting, two haulers formed a new company to put together a bid.*

*Commissioner Hersha stated that the commission is not at the beginning of addressing the issue because of the past bids and discussions.*

*Commissioner Lund related that previous conversations with haulers did not yield anything from them that they do not already do.*

*Commissioner Lund stated that he liked the idea of determining whether there is any support for making a change.*

*Commissioner Heck Wood related that it is important to remember that the city is spending a lot cleaning up trash under the current system.*

*Commissioner Kazmier stated that, at this point, the commission has not shared any of the info that it has gathered to date with City Council. She made a proposal for that info be compiled in a report that is then presented to City Council.*

*Commissioner Heck Wood suggested that the report to City Council be made in April so that efforts can concentrate on the preparation of the grant application.*

*Commissioner Kazmier suggested that she, as chairperson, make the presentation.*

*Commissioner Lund suggested that she be assisted by a second or third.*

*Mr. White suggested that the report and presentation be shared with the City Manager prior to City Council to vet the information and avoid contradiction during the presentation to City Council.*

*Commissioner Inosencio stated that he did not feel there was support for a change from the Mayor's office.*

*Commissioner Forgrave suggested that the report and presentation concentrate on presenting the problems that we are living with under the current system.*

*Commissioner Heck Wood suggested that a report on the current problems would not be complete without addressing possible solutions. She stated that there appears to be a consensus that the current system is not great and the compiled information suggests that it could be improved. She suggested that a case needs to be made that the current system has problems.*

*Commissioner Kazmier suggested that the commission needs to be an advocate for expanding access by lowering costs. She suggested that there are other communities similar to ours that do better.*

*Commissioner Hersha suggested that it is unacceptable that we have an environment that accepts dumping and pileups as part of the system.*

*Commissioner Inosencio stated that he would like to see the numbers that have been discussed. His initial counterpoint to a single hauler system would be that it may hurt low income and people of color. He would like to see the data for himself.*

*Mr. White informed that the information that has been compiled to date is in the minutes for past meetings.*

*Commissioner Kazmier suggested that the Refuse and Recycling Committee will prepare a draft report and presentation. Commissioner Heck Wood will generate a slide deck. Commissioner Kazmier will ask for a meeting with the City Manager to review the compiled info and slide deck. She related that dumping occurs and the costs are high under the current system. If the system does change to reduce dumping and lower costs, there may be some who are negatively impacted – such as those who do the dumping. However, more will be impacted positively than negatively.*

*Commissioner Inosencio stated that lower costs does increase access to service. He inquired if the cleanups are confined to a certain area of the city.*

*Commissioner Lund replied that the map of the cleanups shows otherwise – the dumping and property cleanups are throughout the city.*

*Commissioner Kazmier stated that decreasing the price point makes it possible for more people to participate in the service. She stated that a system that requires universal participation may not be possible but lowering costs is the best argument for serving more people.*

*Commissioner Forgrave suggested that the report needs to show the state of trash collection in Jackson and the state of trash collection in other communities.*

*Motion by Commissioner Kazmier and seconded by Commissioner Forgrave to support the Refuse and Recycling Committee in generating a draft report/presentation and scheduling a meeting with the City Manager approved unanimously.*

**b) Sustainable Procurement Committee Report and Discussion**

*No report or discussion.*

**c) Urban Forestry Committee Report and Discussion**

*No report or discussion.*

**VIII. Citizen Comments**

*None.*

**IX. Commissioner Comments**

*Commissioner Hersha related that she has travelled to Eugene, Oregon where she learned that there are small haulers who pickup refuse but deliver salvageable items to business that can reuse them.*

**X. Next meeting – Wednesday, March 16, 2022 at 6:00 pm.**

**XVI. Adjournment**

*Motion by Commissioner Kazmier and supported by Commissioner Inosencio to adjourn approved unanimously. Meeting ended at 7:38 pm.*

## Troy White

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**From:** Bethany Hersha  
**Sent:** Sunday, February 06, 2022 9:48 AM  
**To:** Kelli Kazmier; Troy White  
**Subject:** Feb 16 items for Env Comm agenda

Good morning!

Please see the items below for your consideration:

### **Item 1: Grants**

If it is within the purview of the environmental commission to recommend City council apply for grants, this is an opportunity available to city government agencies that aligns with our EAP 6, Community Engagement:

<https://www.grants.gov/web/grants/view-opportunity.html?oppld=335699>

The goal of this funding opportunity is for communities to have sufficient collective environmental literacy to take actions that build resilience to extreme weather and climate change in ways that contribute to community health, social cohesion, and socio-economic equity. These communities will be composed of children, youth, and adults who participate in formal and/or informal education experiences that develop their knowledge, skills, and confidence to: 1) reason about the ways that human and natural systems interact globally and locally, including the acknowledgement of disproportionately distributed vulnerabilities; 2) participate in civic processes; and 3) incorporate scientific information, cultural knowledge, and diverse community values. Efforts to build environmental literacy should ultimately aim to reduce risks from current and future environmental hazards through climate-smart and inclusive decision making and long-term stewardship of healthy ecosystems, all the while promoting a low-carbon economy.

The large vehicle grant I mentioned in January:

The 2022-23 Michigan Clean Diesel Program's RFP targets efforts to replace diesel equipment, vehicles, and engines with zero tailpipe emission, hybrid, or alternative fuel vehicles, engines, or equipment. Applicants can be any of the following: cities; townships; villages; county governmental agencies; public school districts; private schools; public transit agencies; port authorities; metropolitan planning organizations; nonprofit organizations; or private businesses.

[https://www.michigan.gov/egle/0,9429,7-135-70153\\_70155\\_3585\\_57765\\_78496---,00.html](https://www.michigan.gov/egle/0,9429,7-135-70153_70155_3585_57765_78496---,00.html)

### **Item 2: Grand River Farmers Market**

If the rest of the commission agrees, I would like to express interest in/apply for a stall at the Grand River Farmers Market to 1) interface with citizens about our priorities, 2) solicit ideas and new members, 3) establish a venue for future projects/efforts with partners (for example those presented by Youth Council Chair, 9/15/21 meeting).

Application: <https://jacksondda.org/wp-content/uploads/2021/05/Grand-River-Farmers-Market-Vendor-Application-website.pdf>

Contact: Jackson Downtown Development Authority  
161 W. Michigan Ave., Jackson, MI 49201  
517.768-6410 | [cmays@cityofjackson.org](mailto:cmays@cityofjackson.org)

Thank you,  
Bethany Hersha

# **City of Jackson Environmental Action Plan Date: 02/16/22**

*Reaffirming Commissioners: Will Forgrave, Bethany Hersha, Kelsey Heck Wood, Jacob Inosensio, Kelli Kazmier, Kevin Lund, Troy White*

## **Executive Summary**

In February of 2018, the Jackson City Council created the Environmental Commission (EC) following the recommendation of Mayor Derek Dobies. The EC was tasked with helping to create a healthier, greener, and more sustainable future for the City of Jackson. The EC will examine policy and make recommendations to the city council for implementation of strategies towards this end. The EC is composed of members with experience in natural resource management, environmental health and safety, sustainable energy use and urban development, the science of climate change, and environmental justice. It is the goal of the EC to engage with community of Jackson to set priorities and address challenges as we move toward improving the quality of life for our citizens.

Since its inception, this commission has sought to identify priorities and actionable recommendations for the city. We have listened to community stakeholders and organizations, brought together ideas based in our own areas of expertise, as well as incorporated best practices from our peer communities. While there is much to be done, we present this document as a summary of our goals for our work and for the future of the city. As a part of our work, we will continue to expand and reevaluate our progress on these goals. Furthermore, we seek to deepen our connections within our community to ensure that environmental issues are addressed and the possibility for productive collaborations are leveraged.

The City of Jackson has made good progress in recent years towards a more sustainable and cleaner future. This Environmental Action Plan is designed to provide a framework for continuing and expanding this legacy. Implementation of this plan will allow the city to:

- Make our community a more sustainable, resilient, affordable, and vibrant place to live
- Improve the health and wellbeing for the community and the environment
- Conduct our local government operations in a more energy and resource efficient manner
- Utilize our public spaces and resources in environmentally friendly ways
- Allow our community to better prepare for the impacts of climate change

This plan suggests many actions related to energy efficiency, renewable energy, recycling and waste reduction, transportation, and water management. This plan includes objectives to:

- Reduce landfill waste by 10% in 5 years by 2025
- Protect public water resources and water infrastructure
- Reduce city wide carbon emissions by 90% by 2050
- Implement a healthy and sustainable food initiative by 2025
- Incorporate public education and communication into all work

It is the hope of the EC that the following recommendations will serve as a catalyst for Jackson to make progress on its environmental challenges and propel Jackson to become a state leader among environmentally friendly cities.

## Introduction and Overview

This Environmental Action Plan is designed to recommend to City Council environmental best practices that simultaneously protect the prosperity and health of our citizens and our natural systems. All of the goals explained within support this overall objective. We have outlined specific areas of interest as our first priorities for the city in the following chapters.

### Chapter 1: Recent Accomplishments

As a community, we can only begin to make progress once an inventory of challenges and current efforts have been compiled. The City of Jackson has been making significant progress in a number of areas. These efforts deserve recognition for the positive effects they have had in our community. These initiatives also serve as the launching point for many of the initial efforts of the commission.

### Chapter 2: Waste Management, Reduction, and Recycling

According to the Environmental Protection Agency, 139 million tons of trash were sent to landfills and only 35.2 percent of municipal solid waste was recycled or composted in 2017.<sup>1</sup> Production of trash and in particular single-use plastics has caused serious environmental damage to ecosystems and wildlife resulting in the Great Pacific Garbage Patch increasing to an estimated surface area of 1.6 million square kilometers as of 2020.<sup>2</sup> Continuously increasing trash waste is unsustainable and developing methods to reduce trash production and remediate current environmental contamination are key goals for communities, like ours, world-wide.

### Chapter 3: Protection of Water Resources

The water crisis in Flint brought into stark relief the importance of protecting local water infrastructure and access for the health of communities<sup>3</sup>. Aging infrastructure and our community's history of industrial production leave our water resources vulnerable to pollution and other health hazards<sup>4</sup>.

While we are currently keeping up with these challenges it will be important to remain vigilant as we move to improve our communities water resources. We must continue to offer clean, affordable water to our citizens while balancing the various demands on our water resources and planning for potential changes in climate.

### Chapter 4: Energy Efficiency, Resource Management, and Transportation

The changing climate affects us all, and is the result of growing greenhouse gas emissions in our atmosphere from a variety of sources. The changing climate will also have a direct impact on our communities and our citizens, such as more extreme rainfall events and flooding, combined with negative impacts on agriculture, infrastructure, and human health. <sup>5</sup>The IPCC 2018 Special Report recommends that to mitigate climate change and to keep the world under 1.5 degrees Celsius, carbon dioxide emissions need to be reduced by 45% by 2030, and should reach net-zero by 2050.<sup>6</sup> To reach this goal, cities, states, and nations will need to make large transformations in energy systems, transportation, land use, urban infrastructure and industrial systems. There is a unique opportunity for cities to take the lead in the mitigation and adaption effort, and this is a key goal of the Environmental Action Plan.

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1 <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials>

2 <https://theoceancleanup.com/great-pacific-garbage-patch/>

3 <https://www.nrdc.org/flint>

4 [www.infrastructurereportcard.org](http://www.infrastructurereportcard.org)

5 [http://glisa.umich.edu/media/files/Great\\_Lakes\\_NCA\\_Synthesis.pdf](http://glisa.umich.edu/media/files/Great_Lakes_NCA_Synthesis.pdf)

6 Section C.1 in IPCC 2018 SR Summary for Policy Makers <https://www.ipcc.ch/sr15/chapter/spm/>

## Chapter 5: Sustainable Land Use

Environmentally-friendly land use and the development of green spaces have well-established benefits in environmental management, energy consumption, property values, and quality of life for city residents<sup>7</sup>. Recent research has suggested cities may contribute to biological diversity, ecological resilience, and agricultural sustainability through targeted urban landscaping ordinances<sup>8</sup>. It has also become increasingly clear that cities have a role to play in ensuring access to healthy and sustainable food for its citizens. Environmental use policy provides ample opportunities for cities to simultaneously decrease their ecological footprint while improving the well-being and connectedness of their citizens to their natural environments.

## Chapter 6: Community Engagement

The strength of our community depends on a clean and healthy environment. While Jacksonians value our natural resources, we have a history of environmental degradation that we must address. As we address this history, we must engage with our community to leverage the talents and expertise already available here to build resources that can improve our lives. Furthermore, it is our role to ensure that our successes are communicated to people of our city to build trust in our ability to address the challenges that we face. Finally, it is critical that we recognize that across our community we do not face environment challenges equally. A key part of our work will be to ensure that environmental ordinances are not discriminatory and address historical inequalities that have resulted from economic, racial, and environmental injustices.

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<sup>7</sup> [Www.epa.gov](http://www.epa.gov)

<sup>8</sup> <https://www.ecologyandsociety.org/vol11/iss1/art34/>

## **Chapter 1 – Recent Accomplishments**

### Dredging Lagoons in Sparks Foundation Park

Jackson City Council requested County Official dredge the lagoons in Sparks Foundation Park. The County has received \$1 million dollars from the State for this purpose. This project is meant to address high water level for nearby residents.

### Community Gardens Planted at King Center

Community gardens have been initiated at the King center through a partnership with Grow Jackson. The goal of this project is to address food insecurity in our community.

### Establishment of People for the Parks and Trails Volunteer Group

A resident-based group has formed toward the goal of maintain City parks and trails. The group has successfully completed its first year in 2021.

### Lead Service Line Replacements

The City of Jackson has plans to replace over 11,000 lead service lines in the City over the next 35 years. In 2021, The City replaced 67 lead service lines and 6100 feet of water main in 2021.

### Urban Farming Ordinance

The City Council passed an Urban Farming Ordinance allowing the keeping of chickens, bees, and miniature pigs within City limits. This ordinance would allow residents to better and more sustainably control their food supply.

### Electric Vehicle Ordinance

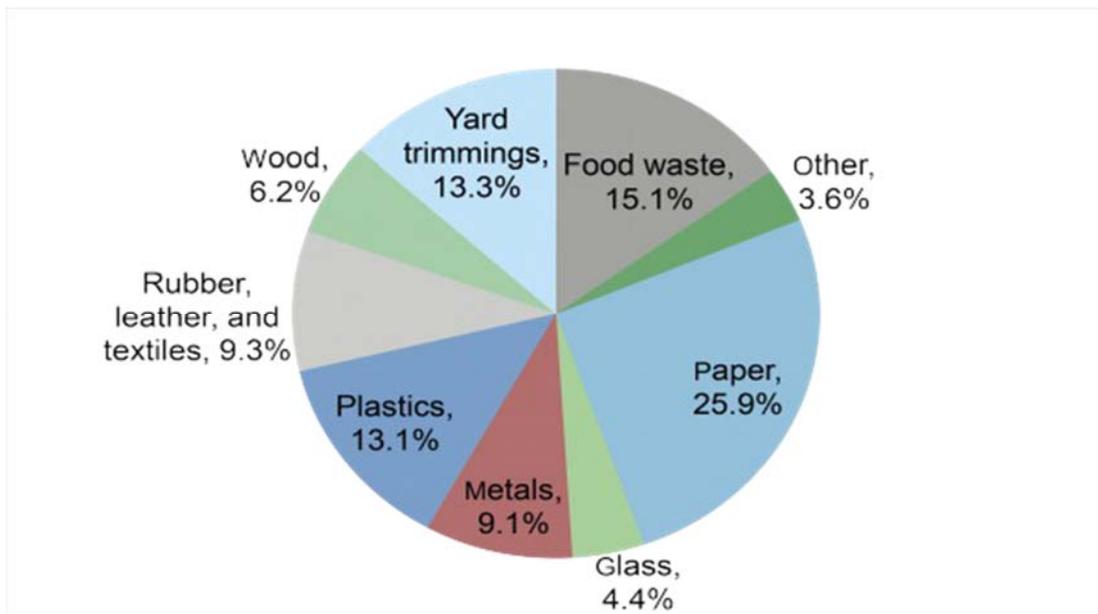
An electric vehicle ordinance is under consideration by City Council. If approved, the ordinance would require developers to make parking ready for conversion to charging station technology.

## Chapter 2 – Waste Management, Reduction, and Recycling

### 2-A Waste Management and Recycling

“If we modernize our waste systems, enhance our recycling operations, and provide weekly, year round yard waste we truly will have greener, cleaner neighborhoods.” - Derek Dobies<sup>14</sup>

Municipal Solid Waste, more commonly known as trash or garbage, is a chronic feature of all cities and towns. It is produced from household, commercial, industrial, and government sources in the form of yard wastes, packaging, food scraps, appliances, and all other matter that is thrown away in the course of daily living.<sup>15</sup>



**Total U.S. MSW Generation by material for 2015. (EPA)**

There are many ideas for the sustainable management of municipal solid waste, including but not limited to: reduction of material at the source, landfills, combustion, composting and recycling. Composting<sup>16</sup> and recycling<sup>17</sup> are widely used across many cities in the United States.

In 2016, Jackson County amended their Solid Waste Management Plan. In this document, the County laid out details for three different scenarios for county-wide waste management, and ultimately selected a “hybrid” scenario for the county. This report could be a useful resource for the City of Jackson, and could provide guidance as to the creation of a city-wide waste management plan.<sup>18</sup>

<sup>13</sup> <https://medium.com/@derekdobies/mayor-dobies-2019-state-of-the-city-address-transcript-ba4aba05bd1b>

<sup>14</sup> <http://css.umich.edu/factsheets/municipal-solid-waste-factsheet>

<sup>15</sup> <https://www.drawdown.org/solutions/food/composting>

<sup>16</sup> <https://www.drawdown.org/solutions/materials/household-recycling>

<https://www.drawdown.org/solutions/materials/industrial-recycling>

<sup>17</sup> <https://www.co.jackson.mi.us/DocumentCenter/View/3086/Jackson-County-Solid-Waste-Management-Plan-Draft-2016-Amendment-of-the-1998-Update?bidId=>

**Tactics & Recommendation**

- 1) Provide City Council with a report that detail best options for city-wide Waste Management.  
Create a waste inventory for the City of Jackson (such as the EPA chart above).
- 2) Recommend to Council to create an ordinance to maintain and manage resident waste including a single hauler and requiring residents to subscribe to a service.
- 3) Provide City Council with recommendation of financially feasible options for recycling receptacles on public property.

## 2-B Reduce City Wide Plastic Use

“Plastic touches all of our lives, from the food packaging we buy to the computers we work with and the cars we drive. But many of the plastics you touch in your daily life are used only once and thrown away.” - Ocean Conservancy<sup>19</sup>

Plastics are all around us in our daily lives, from plastic bottles, to packaging, to medical equipment and cars. Much of this plastic is designed to be only used once and then thrown away. Mismanaged plastic can end up in inland waterways, and then make its way to the ocean. 55% of plastic produced ended up discarded or in landfills in 2015.<sup>20</sup>

At the global level, it is estimated that between 70 – 80% of all plastic waste found in the oceans originate from inland sources.<sup>21</sup>

However, many national, state, and local governments are taking action to reduce plastic waste and much of this action starts at the source. The best way to reduce the amount of plastic in circulation is to use less plastic products from the outset.

### Tactics & Recommendations

Request an emphasis on accessible recycling of plastics Promote use of water bottle refill stations

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18 <https://oceanconservancy.org/trash-free-seas/plastics-in-the-ocean/>

19 <https://ourworldindata.org/plastic-pollution>

20 <https://ourworldindata.org/plastic-pollution>

## **Chapter 3 – Protection of Water Resources**

### **3-A Water Resources Protection**

“No water, no life. No blue, no green.” - Dr. Sylvia Earle

Water resources are one of the most essential for life on this planet, and for life in the City of Jackson. The Grand River as an example, is deeply tied into the history of Jackson, and the identity of our community. The health of the river, and other water sources, is part of the health of the City of Jackson.

The health of our water is interconnected with the health of our communities, and the health of our environment. As the Flint Water Crisis has shown, as well as PFAs contamination throughout various site the state of Michigan, water is not only a vital resource but also a fragile one. Maintaining healthy water resources free of containment such as lead, pollution and other health issues is of great concern. Taking action to protect water resources and for water conservation are crucial to our wellbeing now, and into the future.

A changing climate can also put additional stresses on water supplies. Increased rainfall and precipitation is one likely culprit, and can have a strong impact on water resources. These impacts can range across storm water and drainage, foreign particles, agricultural and chemical runoff, as well as flooding and other issues that impact community as well as environmental wellbeing.

#### **Tactics and Recommendations**

- 1) Plan for protection of our natural source water
- 2) Petition stakeholders to place charges for water usage in rental properties on the tenants/user
- 3) Provide City Council with feasible options to have no water shut-offs (possibly only in winter)

## Chapter 4 – Energy Efficiency, Resource Management, and Transportation

### 4-A Recommend/Implementation of a Reforestation Initiative to increase local tree canopy

“By conducting the city’s first tree canopy survey, I hope we can study where to plant even more trees to not only beautify our neighborhoods and improve physical and mental health, but to clean and reduce stormwater runoff, decrease our cooling bills, and increase property values.” - Derek Dobies <sup>22</sup>

Trees and forests are vitally important for the health and sustainability of our city. Michigan was once completely covered in forests, but centuries of logging, development, and agricultural expansion have left us with far fewer trees and less resilient forests.<sup>23</sup>

Afforestation, creating forests where there are none, is one of the top ways to tackle carbon emissions, and a changing climate.<sup>24</sup> On a smaller and more local scale, trees are vital for sustainability as well as public health. Increasing the tree coverage and canopy of local cities can help to reduce the heat island effect, keep communities cool, retain water, and help reduce energy use.<sup>25</sup>



#### Tactics and Recommendations

- 1) Recommend that Council take necessary steps to receive Tree City USA designation
- 2) Research and recommend local Tree Canopy Survey options and associated costs to implement City-wide Tree Survey
- 3) Research opportunities for planting native trees and present findings to Council on ways that increased tree canopy

21 <https://medium.com/@derekdobies/mayor-dobies-2019-state-of-the-city-address-transcript-ba4aba05bd1b>

22 <https://www.michiganradio.org/post/wilderness-wasteland-how-destruction-michigan-s-forests-shaped-our-state>

23 <https://www.drawdown.org/solutions/tree-plantations-on-degraded-land>, <https://www.drawdown.org/sectors/land-sinks>

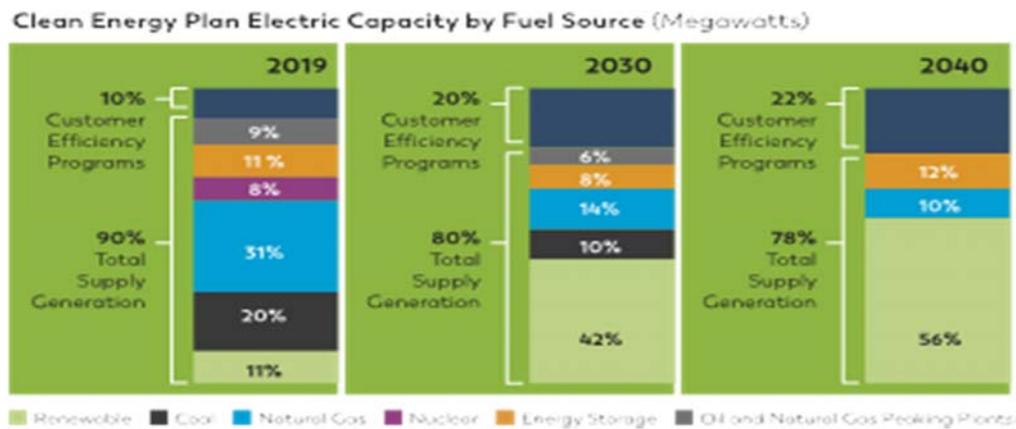
24 <https://www.arboday.org/trees/climatechange/treeshelp.cfm>

## 4-B Support Renewable Energy resources

“I have a simple hope for all of us in Michigan. When we look into the eyes of our grandchildren and they ask about climate change, I want us to be able to say, “that’s something we used to worry about.” - Patti Poppe<sup>26</sup>

Among the one hundred solutions proposed by Project Drawdown, renewable energy occupies three of the top ten most impactful solutions.<sup>27</sup> This includes onshore wind turbines, solar farms, and rooftop solar panels. There are many ways that this can be accomplished, including continued support for city renewable energy projects such as the proposed Smart District.

Consistent with the goals of this Climate Action Plan, much of Jackson's power comes from the Consumer's Energy grid system. Consumer's Energy has released a new Clean Energy Plan<sup>28</sup> in 2019. By meeting Consumer's own stated goals, Jackson has the potential to meet many of the goals of this Action Plan.



The Clean Energy Plan is built around an increase in renewable energy, storage, efficiency, as well as a 90% reduction in carbon emissions. Also of note is the decommissioning of coal based generation sources. In addition, many of Consumer's Energy stated goals are also consistent with the goals listed in the IPCC 2018 Special Report, granting a unique opportunity to simultaneously meet many goals related to renewable energy, as well as energy efficiency. (Section 4-C below.)

### Tactics and Recommendations

- 1) Meet with community stakeholders regarding Jackson Smart Energy District and determine the role the Environmental Commission will play in implementing renewable energy options
- 2) Give recommendations to City Council how current commission can support increase of renewable energy or other carbon offsets
- 3) Recommend that City Council support Consumer's Energy Clean Energy Plan, which incorporates 90% clean energy sources (56% from renewable energy), and 90% reduction in carbon emissions by 2040.

25 <https://www.mlive.com/news/2019/08/clean-energy-plan-is-consumers-energys-commitment-to-people-planet-prosperity.html>

26 <https://www.drawdown.org/solutions>

27 [www.Micleanenergy.com](http://www.Micleanenergy.com)

## 4-C Support city wide energy efficiency projects

“Energy efficiency is the unsung hero when it comes to reducing carbon dioxide emissions, because no matter how great our technological advancements are, the cheapest, cleanest kilowatt-hour will always be the one that is never used,” - US Senator Angus King<sup>29</sup>

Electricity generation accounts for almost 40% of annual global greenhouse gas emissions.<sup>30</sup> As such, one of the quickest routes to a cleaner, and greener city is to use electricity more efficiently. A reduction in the total use of electricity and energy has a measurable reduction in the corresponding emissions. Consumer's Energy, as in Section 4-B, has greater energy efficiency built into their long-term plans, and here too, the City can benefit from the cleaner grid.

In addition, there are many routes the City can take on its own to reduce energy consumption. Among them are more efficient buildings, lighting, and city infrastructure. Synergies could also exist from other places in this Plan, such as trees and green space, which notably reduce the heat island effect, and can lead to less energy needed for heating and cooling.

### Tactics and Recommendations

- 1) Research requirements of Green Building Certification
- 2) Recommend to Council per the requirements, to enroll City of Jackson into the City LEED Certification program
- 3) Recommend Council Support the Consumer's Energy Clean Energy Plan, which includes a 22% reduction in energy use by 2040

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28 <https://www.smith.senate.gov/us-sens-tina-smith-angus-king-jeff-merkley-press-enhance-nations-energy-efficiency-capabilities>

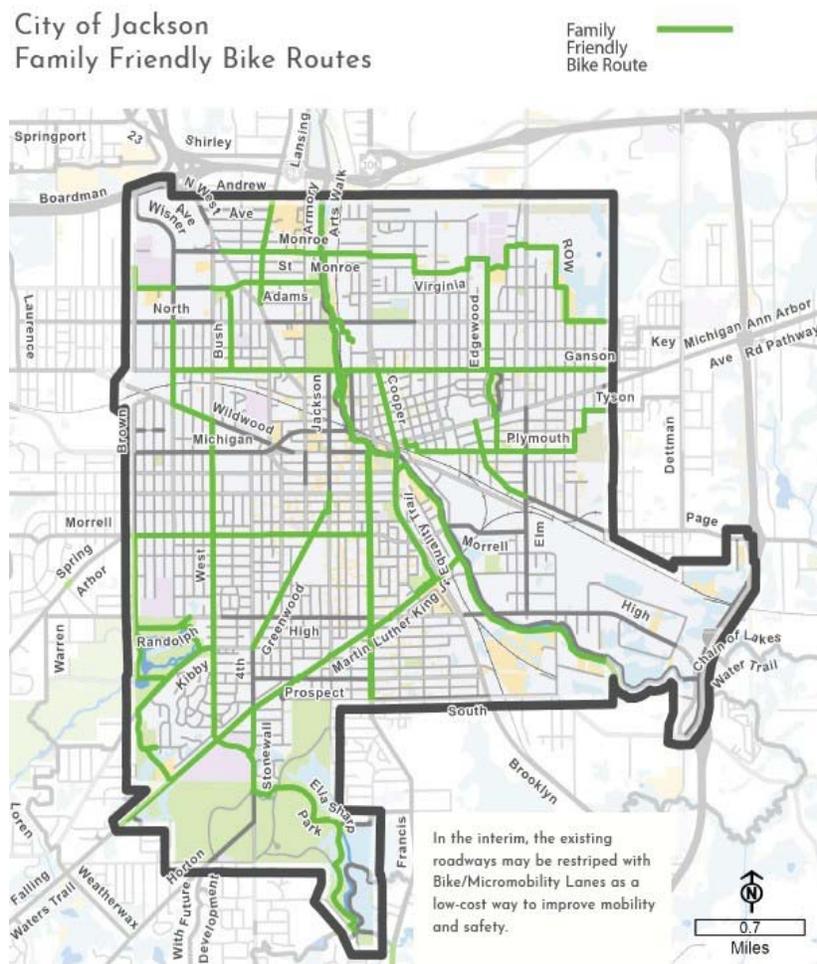
29 <https://www.drawdown.org/solutions/electricity-generation>

## 4-D Support city wide efforts to increase walkability and non-motorized transportation

“A virtuous cycle is clear: With more infrastructure come more riders. Perhaps counterintuitively, with more infrastructure and more riders, safety improves. And the more bicycles there are traversing a city, the more it reaps numerous returns on investment, including the health benefits of cleaner air and greater physical activity.” - Drawdown “Bicycle Infrastructure”

With the goal in mind to reduce carbon emissions, low and zero-carbon transportation become an important consideration. Walkable cities<sup>31</sup> and bicycle infrastructure<sup>32</sup> are good ways to reduce the carbon impact of moving people around and supporting these efforts can have other effects on environmental impact as well as community health.

There is a draft called the Jackson City+ County Non-Motorized Plan<sup>33</sup> that proposes multiple bicycle and other use trails that connects the City of Jackson with other areas around the county, as well as multiple State Parks and other important areas of recreation including water trails and county parks.



30 <https://www.drawdown.org/solutions/buildings-and-cities/walkable-cities>

31 <https://www.drawdown.org/solutions/buildings-and-cities/bike-infrastructure>

32 <https://walkbike.info/jackson/>

(From Jackson City + County Non-Motorized Plan)

**Tactics and Recommendations**

- 1) ) Recommend to Council to complete building family friendly network as defined in the Jackson City + County Non-Motorized Plan
- 2) Research urban options to encourage more pedestrians in City of Jackson.

## Chapter 5 – Sustainable Land Use

### 5-A Sustainable options for vacant city owned lots

The creation of a sustainable plan for land-use has a huge number of benefits for environmental and human wellbeing. The proper management of land can sequester carbon, cool local areas, protect and conserve natural spaces, and enhance biodiversity. Similar in many ways to water resources, the sustainable management of land-based systems can support human and natural wellbeing.

In this section, there are huge number of possible routes and impactful solutions:<sup>34</sup>

- Urban gardens
- Farm to Table
- Forestry (Afforestation, restoration, preservation, etc)
- Parks/Green spaces
- Cultivated habitats

In context of public spaces, the City of Jackson has the potential to develop a comprehensive plan that enhances city beauty, environmental sustainability, and community health and wellbeing. Many ideas can enhance and support existing policies and ordinances such as:<sup>35</sup>

- To aid stabilizing the environment's ecological balance
- To provide visual buffering and enhance beautification of the city
- To encourage the preservation of existing trees and vegetation
- To conserve energy, and to protect the public health, safety, and general welfare

#### **Tactics and Recommendations**

- 1) Research options for re-purposing vacant lots (urban gardens, farm to table, forestry, etc)
- 2) Research Urban pollination efforts and options for lots and process for certification under Bee City USA program
- 3) Recommend to Council to create pilot plan/implementation for possible re-purpose of vacant lots as suggested by the Commission

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<sup>33</sup> <https://www.drawdown.org/sectors/land-sinks>

<sup>34</sup> Landscape Standards Ordinance Sec 28-105

## **5-B Sustainable options for privately owned lots**

Cities are more than just buildings and public lots. Cities are made up of people, every day private citizens. It is impossible to create a viable climate plan without including residents, and especially privately owned lots. Community support is crucial for success, and so input and feedback is necessary. The City can work in conjunction with private citizens to help create sustainable neighborhoods and landscaping regulations that allow for the growth of private gardens, cultivated spaces, and a whole host of other ideas that boost community as well as environmental wellbeing.

Many of the ideas of Action Item 5-A can come into play here as well, with education and outreach that encourage citizens to create private and community gardens, grow natives trees and plants, and cultivate their own spaces in ways that serve environmental function, increase land value, as well as make the city more pleasing and beautiful.

### **Tactics and Recommendations**

- 1) Encourage planting of beneficial native plant species on private lots
- 2) Investigate status of current ordinances for urban farming (Keeping bees & chickens)
- 3) Review landscape ordinance to encourage natural landscaping

## Chapter 6 – Community Engagement

The success of this action plan depends on interaction with the public. Education and outreach are the keys to this success. Through these effort citizens can remain informed and engaged with the environmental efforts of the city. There are a lot of forms this education and outreach can take:

- Environmental Commission booths/tables at city events (Earth Day, etc)
- Pamphlets, articles, printed education material for distribution, education and feedback
- The City of Jackson and Jackson County is home to numerous organizations and non-profits, and coordination and networking with these organizations can promote existing work and feedback into efforts of the Environmental Commission. Such organizations include those such as the Grand River Environmental Action Team (GREAT), the Jackson District Library, Ella Sharp Museum, Dahlem Center, Active Jackson, and Jackson County Conservation District.
- Each month throughout the year provides numerous options to highlight different efforts, such as National Pollution Prevention Day (September), Earth Day and Arbor Day (April)
- Education and outreach are two way streets. Engaging with the public is an essential part of the work, but so is feedback from citizens. Surveys, citizen feedback and input are all vital components.
- Coordination with state level agencies such as EGLE to create informational and awareness efforts for public education.