



AGENDA
CHARTER TOWNSHIP OF MERIDIAN
ENVIRONMENTAL COMMISSION
JOINT COMMISSION MEETING AND
REGULAR MEETING
September 4, 2019 7:00 pm

1. CALL MEETING TO ORDER AT 7:00 PM
2. GREEN THEME PRESENTATION
Aparna Krishnamurthy, Okemos Action, Green Team
3. APPROVAL OF THE AGENDA
4. APPROVAL OF THE MINUTES
5. PUBLIC REMARKS
6. NEW BUSINESS
 - A. Tree Planting Initiative (Phil Deschaine, Treasurer)
 - B. Climate Emergency Resolution (John Sarver, Commissioner)
 - C. Other
7. OLD BUSINESS
 - A. Wetland Bank Next Steps
 - B. Other
8. CHAIR'S REPORT
9. STAFF REPORT
10. COMMISSION/LIASON/WORKGROUP REPORTS
 - A. Planning
 - B. Land Preservation
 - C. Energy
 - D. Brownfield Redevelopment Authority
 - E. Green Team
 - F. Transportation
11. PUBLIC REMARKS
12. ADJOURNMENT

All comments limited to 3 minutes, unless prior approval for additional time for good cause is obtained from the Supervisor.
Appointment of Supervisor Pro Tem and/ or Temporary Clerk if necessary.

Individuals with disabilities requiring auxiliary aids or services should contact the Meridian Township Board by contacting:
Township Manager Frank L. Walsh, 5151 Marsh Road, Okemos, MI 48864 or 517.853.4258 - Ten Day Notice is Required.
Meeting Location: 5151 Marsh Road, Okemos, MI 48864 Township Hall



SUMMARY
CHARTER TOWNSHIP OF MERIDIAN
JOINT MEETING OF ENVIRONMENTAL
COMMISSION AND LAND PRESERVATION
ADVISORY BOARD

MEETING CALLED TO ORDER AT 7PM

ATTENDING: Jon Mayes, Jim Kielbaso, Roland Harmes, Dan Opsommer, Linda Burghardt, Jesse Lewter, Dave Premoe, Ned Jackson, Bill McConnell, John Sarver, Susan Maston, LeRoy Harvey, Jamie Hiller, Kirk Lapham, Kelsey Dillon, Jane Greenway

OVERVIEW: Interest in wetland banking was inspired by recent “Green Theme” presentations, most recently by Mike Pennington from EGLE. A benefit may be to “pool” smaller mitigation projects to restore larger, more ecologically significant wetlands (possibly on Land Pres. properties). In addition, the Environmental Commission has been updating the [Township Wetland Ordinance](#)

Wetland banks are considered (Compensatory Mitigation) and typically used as a last resort which comes after avoiding damage (protecting wetland) and minimizing damage to a wetland. Typically there is a 1.5/1 ratio of new vs. destroyed wetland.

DISCUSSION OF WETLAND MITIGATION: There was discussion about the scope of banking – from larger commercial projects to smaller township projects. It is thought that we might start first with Township projects. There is interest in determining how much mitigation has been done through Township projects. This might reveal the scope of a banking project and whether there is enough demand to justify a project.

There has been a “banking” project completed in the last few years on the Central Meridian Land Preserve (informally known as “Rysberg Land Preserve”) which may serve as a model.

Wetland Use Permits (WUPs) typically require bonding to ensure that mitigation is successful. There are also stipulations about monitoring, survival rates of plants.

Other concerns, challenges, questions, etc.:

GENERAL ISSUES

- Can we identify enough area on land preservation properties?
- How much developable wetlands do we have in the township?
- How much wetland area is privately owned? Can this be estimated based on wetland maps.
- Banks could apply to Township-only projects or for larger commercial projects. We can decide the level of wetland banking to pursue.

ECONOMIC

- What are the costs? (surveying, purchasing land, restoration, etc. and cash flow.) There could be a lot of upfront costs. Where would the \$ come from? Can you build it as you go?
- What would be the value of the wetland bank? They can sell for \$80,000-100,000/acre

Individuals with disabilities requiring auxiliary aids or services should contact the Meridian Township Land Preservation Advisory Board by contacting: Director LuAnn Maisner, 5151 Marsh Road, Okemos, MI 48864 or 517.853.4600 - Ten Day Notice is Required.

Meeting Location: 5151 Marsh Rd., Okemos, MI 48864

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SUMMARY

CHARTER TOWNSHIP OF MERIDIAN JOINT MEETING OF ENVIRONMENTAL COMMISSION AND LAND PRESERVATION ADVISORY BOARD

- Could we use \$ generated to preserve existing wetlands or land preserves?
- Pathway project that includes wetland mitigation through a wetland bank, might require a transfer of fund between the pathway fund to the land preservation fund. Land preservation funds might also be used. Also parks funds and public works \$ could also be used.
- How would payments or credits be structured for the Township vs. private projects.
- How do we preserve funds for other ecological restoration initiative (invasive species, brush clearing, tree planting, etc.)?
- A potential project might be the Tihart Rd. farm – where a wetland might be easily created vs a prairie – and provide more benefit to the Township.

ECOLOGICAL

- How might site drainage/flooding be impacted if we eliminated wetlands on a site? How do we retain or even expand flood storage (green infrastructure)? This is typically part of other permitting (Drain Commissioner's Office).
- How do we encourage more green infrastructure in every new development?
- What type of wetland might be created as a bank? (There are levels of quality) Where would banks be located? (old farm fields, which we're originally wetlands, might be more desirable).
- [Tree banks](#) or swaps could be seen as a model.
- Our environmental consultant (Fishbeck, Thompson, Carr, and Huber) might be approached for their perspectives on these projects.
- There are technologies that can help identify old drain tiles in farm fields (once drained, which might be good candidates for wetland restoration).
- Completing a wetland bank would create an immediate ecological benefit and achieve an economy of scale (less expensive to design, construct, and maintain a larger vs. many smaller projects).

NEXT STEPS

- Check with Engineering/Planning staff on how many wetland mitigation projects have been done, approximate costs, and area mitigated. Also suggested is an [analysis of developable wetlands \(as well as wetlands in land preserves\)](#).
- If we choose to pursue this further, we may wish to make additional amendments to our Township Wetland Ordinance.
- Request was made to investigate the option of a tree banking program

Additional information:

- Green Theme: Wetland Banking Presentation: <http://www.meridian.mi.us/Home/ShowDocument?id=17411>
- Wikipedia: https://en.wikipedia.org/wiki/Mitigation_banking

ADJOURNMENT: 8PM

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CHARTER TOWNSHIP OF MERIDIAN
ENVIRONMENTAL COMMISSION REGULAR MEETING
MUNICIPAL BUILDING, 5151 MARSH RD, OKEMOS
WEDNESDAY, JULY 10 2019 8:05 PM

PRESENT: Chair, Bill McConnell; Vice Chair, Ned Jackson; Commissioner, John Sarver;
Commissioner, Susan Masten; Commissioner, Jim Kielbaso; Commissioner Kirk Lapham;
Commissioner, Linda Burghardt; Commission; Dave Premoe, Planning Commission
ABSENT: Commissioner, Aparna Krishnamurthy
STAFF: LeRoy Harvey, Environmental Programs Coordinator; Jane Greenway, Parks and Land
Mgmt. Coordinator
CITIZENS: Lynne Page; Jesse Lewter, Wolverine Engineering.

Agenda Approved

Minutes Amended and Approved

Public Comments: Dave Premoe expressed a concern that the land preservation program has become a way for some people to get money for worthless parcels of land and that this is a waste of the land preservation funds.

New Business: Wetland Use Permit #19-02: Pedestrian/bicycle Pathway

Jane Greenway provided a background for the project, beginning with a Master Plan Update developed by the Park Commission in 2016. Part of this is enhancing the identity of the Central Park, connecting to the new Farmers Market, and improving the pathways. This WUP relates to the East-West pathway connecting the path off Central Park to the Historic Village.

Several options were considered that were less attractive including a bridge, alternative locations, and others. There is a boardwalk that is planned. Helical piers will be used to minimize impact. There's also a fishing pier which will also impact the wetlands.

This project includes replacing the bridge near the existing Farmers Market with a wider paved path/culvert. The drainage pond on Central Park would be excavated to expand the wetland in that area.

The topic of permeable pavement was discussed. The added cost (including ongoing maintenance) and the rougher surface ruled out this treatment.

Commissioner Burghardt read a draft motion prepared by Peter Menser. This was modified to:

Motion to recommend approval of Wetland Use Permit #19-02 to fill 1,830 square feet of regulated wetland to construct a pedestrian/bicycle pathway on the north side of Central Park Drive, west of Marsh Road subject to the conditions proposed by the Township's wetland consultant, approval of the project by EGLE, provision of appropriate educational signage, and provision further information discussing feasible and prudent alternatives.*

*Jesse Lewter of Wolverine Engineering clarified some of this at the meeting (he described the consideration of a bridge, additional fill, and retaining wall, and alternative pathway locations). Mr. Lewter has been asked to draft a response to the EC's concerns.

Old Business: None

Chair's Report: None

Staff Report: LeRoy Harvey shared a Green Infrastructure Inventory that Ben Holland is helping develop. He distribute and electronic copy for additional comment. Commissioner Masten mentioned that the permeable pavement at the Lodges is not a good example. It was not maintained has been replaced with additional storm drains. Chair McConnell also mentioned a concern that we should not be celebrating or giving credit for green infrastructure that is not working. Harvey mentioned that there seems to be interest (from the Drain Commissioner's office) and others in expanding green infrastructure in future developments (and existing ones). Amending the "Amenity List" for Commercial and Multi-family Planned Unit Developments is one recommendation – as well as how they are monitored. Commissioner Premoe also mentioned a distinction between amenities that benefit the public vs. the developer. Chair McConnell mentioned the possibility of a self-reporting of "amenities" or green infrastructure on a neighborhood or development scale. Commissioner Premoe mentioned that amenities get reviewed during the plan review process. Commissioner Masten also mentioned that we should include definition of green infrastructure. For example, bird houses, parks, solar installations, etc. might not be included. Further discussion of green infrastructure and how we promote it is recommended. Do we provide credit, recognition, etc.? Do consider a "Green Building Ordinance" as E. Lansing is doing.

The landscape plan for the solar installation is under development. There is a bioswale also being designed which might be

A utility bill insert is being developed to describe our "gray" infrastructure – pumps, pipes, meters, etc. – suggestions for consumers, and

Land Preservation: Commissioner Kielbaso mentions that an offer has been made on a new property. This includes support from a federal grant.

Energy Team: Commissioner Sarver reports that 15 people attended Solar Open Houses last month

Brownfield Development Authority: Commissioner Jackson reports that "The Elevation" - the development at Jolly and Okemos is moving forward. Another development (Forsberg) at an old tire store contiguous to this project will be pursued. This includes asbestos removal. Next meeting 7/18

Green Team: Harvey reports that the Fall Recycling Event will be held on September 28. There is also ongoing discussion about the Recycling Center

Transportation: Chair McConnell is mostly concerned with the road millage. They are also discussing bridge replacement and the downtown Okemos development. Chair McConnell reports his interest in restoring the old mill race that runs nearby. He feels that a micro hydro project might be worth exploring – especially with MSU's involvement as world leader in this field.

Meeting Adjourned: 9:20 pm.

Climate Emergency Resolution

Whereas on October 8, 2018, the United Nations released a special report that projected that limiting warming to 1.5 degrees Celsius this century will require an unprecedented transformation of every sector of the global economy over the next 12 years; and

Whereas on November 23, 2018, the U.S. Fourth National Climate Assessment was issued, which detailed the massive threat that climate change poses to the American economy and underscored the need for emergency climate action at all levels of government; and

Whereas the impacts of climate change and ocean acidification include increasingly devastating wildfires, communities overwhelmed by smoke, drinking water compromised by algal blooms, a rise in sea levels resulting in flooding and the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and food sources, extreme weather events, severe harm to this state's agriculture, forestry and tourism industries, and introduction of new vectors for infectious disease, increased asthma and other human health-related problems; and

Whereas climate change has a disproportionate effect on fish and wildlife populations, many of which require specific habitat conditions and are therefore particularly vulnerable to warmer temperatures, modified precipitation patterns, diminished snowpack, ocean acidification and other effects of climate change; and

Whereas climate change and the global economy's overshoot of ecological limits are driving the sixth mass extinction of species, causing a 60 percent decline in global wildlife populations since 1970, could devastate much of life on Earth for the next 10 million years and pose as great a risk to humanity as climate change, according to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services; and

Whereas one million animal and plant species are now threatened with extinction according to [a sweeping new United Nations report](#) (May 6 2019); and

Whereas the death and destruction already wrought by global warming of approximately 1.1 degrees Celsius above late 19th century levels demonstrates that Earth is already too hot for safety and justice; and

Whereas climate change has a disproportionate effect on impacted communities, such as indigenous tribes, rural communities, coastal communities, workers, low-income households and people of color, who typically have fewer resources for adapting to climate change and are therefore the most vulnerable to displacement, adverse health effects, job loss, property damage and other effects of climate change; and

Whereas the world's leading climate scientists, including those in the Great Lakes Integrated Sciences and Assessments Center, predict that these serious impacts of climate change will worsen if prompt action is not taken to curb emissions; and

Whereas Our Children's Trust May 9, 2019 press release, "[Groundbreaking Report Shows the United States Can Lead the Way Toward Climate Recovery Without Economic Hardship – The Report Details the Technically and Economically Feasible Pathways for a U.S. Transition Off of Fossil Fuels](#)... is the first analysis completed in the United States to provide a detailed roadmap for placing all sectors of the U.S. energy system on an emissions path consistent with returning

global atmospheric CO2 to 350 ppm by 2100, which means global heating of 1 degree Celsius, not 2;” and

Whereas restoring a safe and stable climate requires a “climate mobilization” at all levels of government on a scale not seen since World War II to reach net zero greenhouse gas emissions; and

Whereas in the absence of effective federal engagement, it is the responsibility of the individual states, counties and cities deemed to be the laboratories of progress, to take immediate leadership actions to address climate change;

Therefore, be it resolved, we as members of the (local unit of government) will adopt our own climate goals and policies based on the best available climate science to combat this climate emergency.

Background and Recent News:

Two countries declare...

https://www.washingtonpost.com/world/2019/05/10/ireland-britain-declare-climate-emergencies-will-it-make-difference/?utm_term=.44480b5dc526

UN Members call on:

https://unfccc.int/news/un-calls-upon-member-states-to-pursue-ambitious-climate-action?fbclid=IwAR3NeB5X8RTJQslZHY9rTvvrdb5vMlete6qb_y1FOTtXE1rHX6kWEtU4qrM

UN Chief says total disaster if warming is not stopped

<https://apnews.com/5771645c622d4717bffc3e33fbc20df9?fbclid=IwAR1ax1SfdMz9XcZEx0HpYjzkcNoHbo8m-XX50y6Fwxq0dcBtdxuW5JkGLM>

> 528 municipalities > 52 Million people

[**Climate emergency declarations in 528 councils cover 52 million citizens**](#)

<https://climateemergencydeclaration.org/climate-emergency-declarations-cover-15-million-citizens/>

WWF

https://www.wwf.org.uk/fight-climate-change?utm_source=twitter&utm_medium=social&utm_content=wwfuk&utm_campaign=organic&pc=VDB001006

An Assessment of the Impacts of Climate Change on the Great Lakes by the Environmental Law & Policy Center <http://elpc.org/wp-content/uploads/2019/03/Great-Lakes-Climate-Change-Report.pdf>

Climate Change in the Great Lakes Region <http://glisa.umich.edu/media/files/GLISA%202%20Pager%202019.pdf>

Synthesis of the Third National Climate Assessment for the Great Lakes Region http://glisa.umich.edu/media/files/Great_Lakes_NCA_Synthesis.pdf

Climate Change Will Strain Michigan Infrastructure by MLive <https://www.mlive.com/news/2019/04/climate-change-will-strain-michigan-infrastructure-say-experts.html>

What Climate Change Means for Michigan by EPA: <https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-mi.pdf>

Staff Update from LeRoy Harvey (August 30, 2019)

LeRoy is currently working on a variety of environmental projects. Please call him at 517.505.2809 or email with questions or suggestion.

- Discussing a Tree Planting Initiative with Phil Deschaine
- Working on a Green Infrastructure Map and Inventory
- September Green Gazette
- Postings on social media (Green Meridian Page and Group)
- September 28 Recycling Event
- Local First (an initiative to support Locally-owned businesses)
- Energy Team – Solar Home Tour, Solarize Meridian
- Consulting with residents about energy and environmental initiatives
- RFP for Solar landscaping project (in front of Municipal Building)
- RFP for another solar panel project in 2020
- Environmental news stories with HOMTV
- Green Theme coordination
- Presentations to community groups
- Music in the Park at Harris Nature Center
- Regional recycling collaboration – regional flyer and web page www.midmichrecycles.org
- Educational Booth at the Meridian and Eastern Ingham Farmers Markets in September
- Work day in the Hidden River Rain Garden on Sep 6 at 10am
- Michigan Green Communities Challenge (submitted Aug 30)