



AGENDA
CHARTER TOWNSHIP OF MERIDIAN
ENVIRONMENTAL COMMISSION
JOINT COMMISSION MEETING AND
REGULAR MEETING
November 6, 2019 7:00 pm

1. CALL MEETING TO ORDER AT 7:00 PM
 2. GREEN THEME PRESENTATION: What NOT to Put Down Your Drain
Dr. Susan Masten, Civil and Environmental Engineering, MSU
 3. APPROVAL OF THE AGENDA
 4. APPROVAL OF THE MINUTES
 5. PUBLIC REMARKS
 6. NEW BUSINESS
 - A. Green Infrastructure "Seed" Project (Phil Deschaine, Treasurer)
 - B. Other
 7. OLD BUSINESS
 - A. Wetland Bank Next Steps
 - B. Climate Emergency Resolution (John Sarver, Commissioner)
 - C. Coal Tar-based Pavement Sealant Update
 - D. 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



CHARTER TOWNSHIP OF MERIDIAN
ENVIRONMENTAL COMMISSION REGULAR MEETING
MUNICIPAL BUILDING, 5151 MARSH RD, OKEMOS
WEDNESDAY, OCTOBER 2 2019 7:00 PM

PRESENT: Commissioner, John Sarver; Commissioner, Jim Kielbaso; Commissioner Kirk Lapham;

STAFF: LeRoy Harvey, Environmental Programs Coordinator; HOMTV Interns and Staff

GUESTS: Dave Premoe, Planning Commission, Susan Andrews, Tom Frazier (Michigan Townships Association), Jennifer Eyre (Scouts), Autumn Eyre (Scouts), Wanda Bloomquist (Williamstown Twp), Marka Ekola (Scouts), Reagan Woods (Scouts), Tim Ekola (Scouts)

Green Theme Presentation: Wanda Bloomquist shared Williamstown Twp's green initiatives including:

- Green Zone Planned Development (an approach to maintaining rural character and environmental qualities) including:
 - A balance of land uses and preservation of natural features
 - Planning innovation – designing with natural features and a “viewshed”
 - Adopting and amending policies and regulations
 - A natural resource inventory
 - Environmental regulations
 - LEED Certifiable Projects
 - Open Space Preservation
 - Energy Efficiency Initiatives
 - Non-motorized pedestrian pathways
- Mowing Reduction (50% decrease goal)
- Green Parks: Naturalized Prairie, Composting Toilets, Bottle Wall
- Green Burial
- Solar Panels, Office recycling and waste reduction
- Log jam removal

View her Powerpoint Presentation [here](#) or visit the live broadcast [here](#).

Minutes: Not approved due to lack of quorum.

New Business:

Green Infrastructure Grant: Treasurer Phil Deschaine has led creation of a Green Infrastructure Project in 2020 and is seeking ideas and leadership from the Environmental Commission. There is interest in putting this on the agenda for our next meeting.

Old Business:

Wetland Banking: Lapham provided an overview of the concept and will be discussing this month with the Land Preservation Board.

Climate Emergency Resolution: Sarver submitted a revised draft resolution available [here](#). Tabled until next meeting.

Reports:

Staff Report: Harvey shared a [staff report](#) summarizing:

- the Fall Recycling Event
- regional collaboration on recycling
- comments about green infrastructure (see his report for note from Cliff Wells)
- the solar garden planting
- pavement preservation – sealants to be applied soon
- community garden tour

Planning Commission: Premoe reports that the Planning Commission is now tackling form-based codes and we should see some progress on that in the months to come.

Land Preservation: Kielbaso mentioned discussion of tree banking, the Davis-Foster barn, a Stewardship Day at Towar Woods Land preservation property. The Land Pres. Board meets next week.

Energy Team: Sarver mentioned the recent Climate Change Forum which was well attended. Sarver also mentioned the upcoming Solar Home Tour which will include two homes in the Meridian area including a condominium system as well as an off grid system that charges electric vehicles. A flyer was distributed.

Green Team: Harvey mentioned that the next Green Team Meeting will be held Nov 7 at 4:30pm at Schulers.

Public Remarks:

Reagan Woods with the Scouts is looking for ideas for projects for an environmental badge. Wanda Bloomquist mentioned a milkweed planting project. Lapham mentioned that Krishnamurthy might also have ideas related to the garden at the high school. Forward your suggestions to Harvey who will pass on to Ms. Woods.

Meeting Adjourned: 8:30 pm.

Next Meeting: Nov 6 at 7pm (send agenda items to harvey@meridian.mi.us)

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 Meridian Township Board of Trustees , having adopted our own climate goals and policies, to combat this climate emergency, will make it a priority to implement the township operations and community initiatives outlined in our Climate Sustainability Plan. Elected and appointed officials, boards and commissions, and staff should consider Climate Change impacts and issues as they plan and implement various projects and activities.



CHARTER TOWNSHIP OF MERIDIAN
ENVIRONMENTAL COMMISSION REGULAR MEETING
MUNICIPAL BUILDING, 5151 MARSH RD, OKEMOS
WEDNESDAY, SEPTEMBER 4 2019 7:00 PM

PRESENT: Chair, Bill McConnell; Vice Chair, Ned Jackson; Commissioner, John Sarver; Commissioner, Susan Masten; Commissioner, Jim Kielbaso; Commissioner Kirk Lapham; Commissioner, Aparna Krishnamurthy, Dave Premoe, Planning Commission

STAFF: Justin Quagliata, Assistant Planner; Phil Deschaine, Treasurer

Green Theme Presentation: Aparna Krishnamurthy described her work with Action, National Honor Society, and the Environmental Commission. Ms. Krishnamurthy also described what Okemos High School is doing related to composting, waste reduction, recycling, energy, education, and a greenhouse. She also discussed the possibility of a community garden. A current focus is a table at the Farmers Market and the Fall Recycling Event.

Minutes: Please send corrections to LeRoy (use "track changes" and edit in Word, Acrobat Pro, etc.)

New Business:

Tree Planting Project: Phil Deschaine, Twp Treasurer, discussed tree planting project and provided an update on the Township Budget. There is interest funding more solar panels and a green infrastructure demonstration project. Phil talked about his personal interest in trees and environmental projects. He suggests a significant project... like planting 2020 trees in 2020... or 20,000... to help mitigate climate change. This would be a small but positive step (a trillion may be needed globally) that could involve all segments of our community – youth, service clubs, neighborhood groups, land preservation, etc. He suggests a committee to develop the idea.

Masten mentioned lawn practices and lawn ordinances and how we might encourage more purposeful, ecological landscapes. Deschaine mentioned that as long as we can distinguish between neglect and intentional eco-scaping, there may be support. Commissioner Kielbaso, who has 30 years teaching urban forestry, mentioned issues related to equitable distribution of trees, the importance of street trees (shading, cooling the environment, etc.). Deschaine also mentioned using the Township newsletter to share information about pruning, proper care, tree selection, etc. We could work with neighborhood groups to purchase and distribute. Sarver mentioned that tree selection could be important, given climate change. Deschaine reinforced the notion of diversity to avoid challenges from disease that affect a monoculture (ash, elm, etc.). Lapham also mentioned oak wilt and the importance of proper pruning. Justin Quagliata, Assistant Planner, mentioned tree planting with new developments. McConnell also mentioned that Form-Based Code might also relate to this topic. Kielbaso described the Land Preservation efforts to preserve over 1000 acres in the township. One effort in Towar Woods includes removal of buckhorn and replant with native species. The blue tubes and fencing protect against deer. Lake Lansing North and the Davis Foster Farm are other areas where tree planting and a native prairie restoration are underway. Jackson also mentioned the importance of remaining mindful of broader climate change

initiatives. Deschaine suggests that the Environmental Commission might make recommendations to the Board. McConnell mentioned that the Energy Team might update the Climate Sustainability Plan and move to initiative beyond Township operations. Deschaine mentioned that Green Infrastructure or tree-planting workshops might be offered, similar to the Solar Meridian Workshop Series that were held last year.

Climate Emergency Resolution: Sarver provided an overview of this draft resolution which is being circulated by the League of Women Voters. McConnell suggests we take this resolution a step further, beyond the scope of internal operations. Sarver offered to make edits. Masten mentioned that there may be some ordinance-related changes and education that could be done related to energy and waste reduction beyond just the “feel good” stuff. Sarver mentions that we also invite the other groups and commissions (transportation, land preservation, etc.)

Old Business:

Wetland Banking: Lapham provided an overview of the wetland banking discussion. The thought is creating a more significant larger wetland than a bunch of smaller, less effective mitigation projects. The Land Preservation Board has not met since the joint meeting last month. A question is “How much wetland is left?” McConnell mentions that we could look at the wetland map and overlay developable land.

Reports:

Staff Report: Quagliata mentioned that Harvey’s staff report was included in the packet. Quagliata also commented that the number of wetland permits does not necessarily mean that mitigation occurred. Some permits include draining in to an existing wetland.

Land Preservation: Kielbaso mentions that Land Preservation Board will be meeting in a week. A recent tour of the Davis Farm to discuss the future of the barn and surrounding vegetation. There will be a Stewardship Work Day on Sep 7 at the end of Sylvan Glen. 38 parks will be included in the deer management program (Oct 1 – Jan 1). It is done with bow hunters.

Energy Team: Sep 26 will be a LWV Climate Change Forum from 7-9pm at All Saints Episcopal Church with Jeff Andresen and Christian Smith Gaia and Missy Stults, the Sustainability Manager with the City of Ann Arbor. Oct 5 is the National Home Tour. Three sites will be in Meridian with various ground and roof-mounted systems, including the first condo association. A table at the Meridian Market which will include a “Solar Smart Flower” demo, information on the Tour, and the Recycling Event. Jackson asked about the potential ordinances, homeowners association regulations, etc. which might impact (height and setback). Quagliata mentioned that solar systems are treated as accessory structures and that there is a 15’ height limit, unless a variance is granted.

Brownfield ReDevelopment Authority: Jackson reports that there was discussion about how brownfield claims are validated. McConnell mentioned that there is a lot of complexity in how the regulations enforced. They also discussed the Downtown Okemos project. The 2360 Jolly was approved and the Okemos Point Project Amendment and expansion was approved.

Green Team: Krishnamurthy mentioned that the Green Team discussed the 9/28 event and apartment recycling.

Meeting Adjourned: 8:37 pm.

Next Meeting: Oct 2 at 7pm (send agenda items to harvey@meridian.mi.us)

MINUTES: JOINT MEETING JULY 10, 2019
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 Masten, 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? (surveys, purchase, restoration, etc) 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
- 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

**MINUTES: ENVIRONMENTAL COMMISSION REGULAR MEETING
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 A 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.

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

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 and apartment recycling.

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 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.