



VILLAGE OF MOUNT HOREB

E. Main Street

Mount Horeb, WI 53572

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SUSTAINABILITY & NATURAL RESOURCES COMMITTEE

Tuesday, February 27, 2024 at 7:00 PM

Municipal Building Board Room

138 E. Main Street

Mount Horeb, WI

- 1) Call to order
- 2) Consent Agenda
 - a. Consideration of January 23, 2024 Meeting Minutes
 - b. Adopt a Municipality Updates:
- 3) Agenda Items
 - a. Discussion on Bee Keeping in Village
 - b. Discussion on ideas to encourage cycling
 - c. Discussion on safe and best practices of medication disposal
 - d. SNR 2024 Strategic Plan
 - e. Discussion: Creation of Mount Horeb Green Team
 - f. Debrief on Solar 101 and Cow and Climate Change Events
 - g. Solsmart Update
 - h. Idling Discussion
 - i. Update on Zoning Code Rewrite Process
 - j. Future Agenda Items
 - k. Reminder: Wastewater Treatment Facility Tour: Saturday, March 23, 9:00 a.m.
- 4) Meeting adjournment.

UPON REASONABLE NOTICE, EFFORTS WILL BE MADE TO ACCOMMODATE THE NEEDS OF DISABLED INDIVIDUALS THROUGH APPROPRIATE AIDS AND SERVICES. FOR INFORMATION OR TO REQUEST THIS SERVICE, CONTACT ALYSSA GAFFNEY, CLERK, AT 138 E MAIN STREET, MOUNT HOREB, WI (608) 437-9404.



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SUSTAINABILITY & NATURAL RESOURCES COMMITTEE

Tuesday, January 23, 2024 at 7:00 PM

DRAFT MEETING MINUTES

- 1) Call to order
Chair White called the meeting to order at 7:00 p.m. Members present: White, Beheler, Grabe, Saltes and Gottwald. Members absent: Gauger, Butusov and Fendrick. Also present: Administrator Owen.
- 2) Agenda Items
 - a. Consideration of November 28, 2023 Meeting Minutes
Motion by Saltes to approve the minutes as presented, second by Gottwald. Motion carried.
 - b. Presentation/Discussion: Solar 101 Program
White updated the group on the February 3rd event held at the Children's Community School (CCS). White announced there would be two additional speakers; Coulier Foundation and Solar for Schools, who both contributed to the CCS project. Sunn Café will be providing cakes and Brix Cider will be providing cookies. Gottwald will bring coffee urns. Beheler will provide plates, cups and napkins. Grabe will print stickers for cups and handouts with a QR code to direct people to the SNR page on the Village website. White is arranging the pick up of chairs for the event. The committee suggested adding an end time to the press release.
 - c. Discussion on Light Pollution
White provided a presentation on light pollution. The committee discussed the village code and ways to improve it. The committee felt the new LED streetlights in the Village were an improvement as they direct light to the street, but the color temperature could be less. The consensus of the committee was to focus on education for the public and businesses on dark sky standards and making sure the village code is consistent with dark sky standards when updated.
 - d. SNR Column Approval/Discussion
Due to the timing of the upcoming event, Beheler submitted a column on Solar 101 prior to the meeting with edits from White.
 - e. Presentation/Discussion Idling Reduction

White provided a presentation on the cost and effect on the environment of idling vehicles. The committee selected the school drop off and pickup line, drive through and car washes as potential low-hanging fruit. The committee will focus on education efforts, including working with the school and businesses on signage regarding idling and a column in the paper. The committee felt it made sense to target the start of school in August to roll out the campaign.

- f. **Update on Energy Audit/Planning Grants**
Administrator Owen stated he is working with Slipstream on an application for a Public Service Commission Rural Energy Startup Program grant. This is a new program through the PSC, so we don't know how competitive the application will be. We are applying for \$75,000 for performing energy audits and will be matched with \$15,000 in staff salary. We lose points in the application for not being an economically disadvantaged community but felt it was worth submitting.
- g. **Adopt A Community Program**
Committee members chose the following communities: Gottwald - Stoughton, White - McFarland, Saltes - Oregon, Beheler - Cross Plains, Grabe - Middleton, Butosov - Sun Prairie and Gauger - Waunakee. Committee members will monitor their communities activity and provide written summaries for the consent agenda.
- h. **Consider Strategic Plan for 2024**
Gottwald reviewed the draft strategic plan with edits based on feedback from the last meeting. Feedback from tonight will be used to amend the document, and it will be brought back for consideration at the next meeting. After discussion, the committee recommended the following additions: to the Village section, adding green space; for businesses, adding sustain Dane membership, partnership with the Chamber of Commerce and connecting with realtors and builders.
- i. **Discussion on Composting Program**
White reviewed information on a partnership program planned with the Library on composting using presenters from Dane County Land and Water Conservation. The event will be April 16th at the library. The committee discussed a follow-up session later with hands-on presentations on composting. Additional details will be discussed next month.
- j. **Solsmart Update**
White reported that the final piece of the SolSmart application has been completed. White will work with Owen and submittal.
- k. **Update/Discussion on keeping bees**
Gottwald reported that resident Phil Levenworth and several other residents are interested in pursuing the ability to keep bees in the Village. Levenworth is working on getting an entomologist to present to the committee. Gottwald highlighted the major question we will be asking:

what are the benefits and potential damage of allowing honey bees on native pollinators and plants. Administrator Owen to research the possibility of allowing the entomologies to participate in the meeting virtually.

I. Future Agenda Items

Items discussed for the next meeting are : the addition of a consent agenda for reports, drug drop off, composting program, report on solar 101 and a potential presentation from Wastewater Utility Superintendent John Klein.

3) Meeting adjournment.

Motion to adjourn by Beheler, second by Grabe. Motion carried at 8:41 p.m.

(The process I used to glean information for this committee report was to pull up last McFarland meeting agenda packet. I then noted the key items which may pertain to Mount Horeb. The process of creating this review took approximately ½ hour. I now will submit it to Nic for inclusion in consent agenda. For discussion purposes, and item in the consent agenda can be removed by any committee member and be discussed.)

This month's adoptee report is as follows:

Recently McFarland reviewed their accomplishments over in 2023 and goals for 2024. Of special interest to me is the ongoing progress on a community hosted solar farm, and the partnership between City/school/ Alliant. It is something Mount Horeb could emulate with our local utility.

McFarland has a population like Mount Horeb, they were able to quantify No Mow May participation, (60). Like Mount Horeb, 2023 was the first year of the program. McFarland addressed No Mow May with an ordinance, rather than a resolution.

Their solar permits for 2023 numbered 31, with 101 installs since 2019. Mount Horeb currently has 110 total installations. McFarland is currently working on SolSmart Gold Status, Mount Horeb is closing in on Bronze designation.

McFarland is a green Tier Community, Achieving GreenTier status is a possible action for our community as well.

Finally, the city was able to score a \$ 350,000 EIG grant for battery and micro-grill technology at the new public safety building.

2023 Accomplishments

- The updated Village's Sustainability Planning page includes helpful resources for solar opportunities and informational links to financing incentives as part of pending SolSmart certification.
- Approved lease agreements with McFarland School District and Alliant Energy for 8-acre Community Hosted Solar Farm project.
- Acceptance of updated Village Native Mounds Policy for Preservation plan.
- Successful submittal of the 2022 Green Tier Annual Report to the Wisconsin Department of Natural Resources.
- 2 successful ordinance recommendations to Village Board.
 - Ordinance 2023-02 related to No Mow May
 - Ordinance 2023-10 related to McFarland Building Code site erosion control and stormwater management
- 60 total registrations for No Mow May in the first year.
- 2 successfully recommended community energy reports to the Village Board.

- Village of McFarland Community Center Net Zero Energy Predesign Report
- Comprehensive Energy Plan Report
- Completed construction of the new Net Zero Public Safety Center
- October 5th - Open house and ribbon cutting

- October 27th - Hosted Sustainability Leaders Collaborative & tours (over 60 attendees!)

- 31 solar building permits approved in 2023, 101 total solar building permits in McFarland since 2019

- Obtained \$350,000 grant from the Office of Energy and Innovation for a battery and micro grid at the Public Safety Center.

Actions from 2023 still in progress and expected to be completed in 2024/25:

- TerraCycle recycling program.
- No Mow May.
- Design and installation of battery storage and microgrid technology at the Public Safety Center.
- Pursuit of SolSmart Gold Designation.
- Use of the Comprehensive Energy Plan to support future energy efficiency improvements.
- Filing for IRA Direct Pay reimbursement through the IRS for the Public Safety Center.
- Construction of the 8-acre Community Hosted Solar Farm

2024 Future Action Plan

- Includes Municipal EV Charging station.
- Development of on and off -road bike trails and improve walkability throughout the community.
- Study municipal fleet and determine those vehicles which are suitable to be transitioned to electric or alternative fuels.
- At Solar PV to Lift station

Middleton SNR notes

February's meeting minutes have not been published as of 2/20/34.

January agenda notes are as follows:

Snags in permitting process for the new Lakeview Villages development wanting to install solar canopies. Lakeview villages is located at 6205-6333 Maywood Avenue Middleton, WI 53562

EV infrastructure: working on installing level 2 chargers on Terrace Ave. parking lots (area near the Mustard Museum,

"There are currently state legislative restrictions that disallow private businesses and municipalities from owning and collecting payment for electricity for charging stations – all charging by these entities is done by time of use or a parking fee in public parking areas. There is legislation moving through the State that would change charging fees from time of use to kwh. This is a good change for utilities and private business, but cities will not be allowed to sell EV charging (electricity). This puts smaller rural municipalities (far away from interstates) at a disadvantage because private companies may decide not to invest in charging infrastructure in small rural towns. The EV Charging legislation moving through the state legislature right now, however imperfect, is absolutely necessary in order for Wisconsin to be eligible for NEVI funding that would install fast chargers along interstates and state highways- helping to ease range anxiety"

Municipal analysis of energy efficiency, etc. using BlocMaps™, a data analytics and mapping platform that can identify locations for instituting energy efficiency measures. BlocMaps™ uses AI and machine learning to compute energy savings and for locating and planning energy efficiency projects. If you're a municipal government, BlocMaps is your one-stop shop to leverage building and environmental justice data to customize a beneficial electrification program for your city. Using data driven insights to create equitable decarbonization.

<https://www.carahsoft.com/blocpower/solutions>

Community outreach projects include Earth Day events scheduled sponsored by the committee, yearly stormwater week, salt awareness week, and leaf free streets initiatives. No Mow May is another opportunity to highlight pollinator habitat and the importance of biodiversity in yards and gardens.

The committee has a Sustainable Purchasing Policy Implementation Plan (SSP) to implement sustainable purchasing practices, address challenges to decarbonization of the local airport, fleet vehicles and equipment.

Middleton High School (MHS) has a Green Team. The Green Team continues to work on their recycling program; collecting money for the Trex competition which has a \$10,000 monetary prize; and fielding a garden committee. The Green Team is also working on grant materials. The environmental education committee went to elementary schools in Middleton recently to talk about sustainability.

The Committee discussed the School District's upcoming decision about how to spend a budget surplus: updates to athletic field versus sustainable facility upgrades such as additions of solar, geothermal, or other HVAC upgrades. Discussions included the pros and cons of astroturf versus grass fields.

Middleton is also working on converting street lights to LED. LED streetlight conversion have been authorized by the State.

Middleton's sustainability Intern begins February 26 – Jun Gesteland will be the new Sustainability Intern from February 26-April 26. He will help organize City energy data, fill out certification documents for Solsmart, research Sustainable Purchasing choices for departments, and provide general office work and help on projects.

Submitted by
Elizabeth Grabe



AGENDA ITEM REPORT

MEETING DATE

February 27, 2024

PREPARED BY

AGENDA ITEM # 3.a

Discussion on Bee Keeping in Village

BACKGROUND

Resident Phil Leavenworth will be present to provide some updates on questions regarding the keeping of bees.

RECOMMENDATION

ATTACHMENTS

1. SNR info on European honeybees and Native pollinators, additional studies Feb 2024

Native pollinators and European honeybees.

Recent scientific peer reviewed published studies, not exhaustive or inclusive, for information only to Mt Horeb Sustainability and Natural Resources Committee. A few popular articles as well, with referenced sources to published studies in the popular article. Recent information.

21 February 2024 from Kerry Beheler, SNR citizen committee member

Background: Local pollinators include European honeybees, native bees, birds, bats, butterflies, moths, flies, beetles, and wasps. Many pollinator populations are imperiled and have been declining in recent years, including in Wisconsin. Wisconsin is an important place for pollinators, as 54 of our 72 counties are within the priority breeding area for monarch butterflies. We are a stronghold for the federally endangered rusty patched bumble bee, which in the past 3 years has been found in Mount Horeb native plant gardens.

More than 80% of the world's flowering plants need a pollinator to reproduce. The food supply systems we depend on would be jeopardized without a thriving pollinator population, as most of our food comes from flowering plants. Pollinators are vital to Wisconsin's agricultural, ecological, and economic health. According to the U.S. Department of Agriculture, Wisconsin's leading pollinator-dependent crops were valued at over \$247 million in 2017. In 2020 it was estimated that 1 of every 3 bites of food you take come from the help of pollinators!
<https://www.farmers.gov/blog/value-birds-and-bees>

Scientific articles 1. https://hal.science/hal-01497637/document?fbclid=IwAR3cX4_tlhYBAU4bU8Q-dbm5A8RA3mBKag8_IPcmAwXft_OLCZySHHsQg9s

June 2018. Abstract: First, we review the impacts of major insect and plant MIMS on natural communities by identifying how they affect other species through competition (direct and apparent competition) or facilitation (attraction, spillover). Second, we show how MIMS can alter the structure of plant–pollinator networks. We specifically analysed the position of *A. mellifera* from 63 published plant–pollinator webs to illustrate that MIMS can occupy a central position in the networks, leading to functional consequences. Finally, we present the features of MIMS in sensitive environments ranging from oceanic islands to protected areas, as a basis to discuss the impacts of MIMS in urban context and agrosystems.

2. Alburaki M, Madella S, Lopez J, Bouga M, Chen Y, vanEngelsdorp D. Honey bee populations of the USA display restrictions in their mtDNA haplotype diversity. *Front Genet.* 2023 Jan 4;13:1092121. doi: 10.3389/fgene.2022.1092121. PMID: 36685818; PMCID: PMC9845583.

January 2023. Abstract. The genetic diversity of the USA honey bee (*Apis mellifera* L.) populations was examined through a molecular approach using two mitochondrial DNA (mtDNA) markers. A total of 1,063 samples were analyzed for the mtDNA intergenic region located between the cytochrome c oxidase I and II (COI-COII) and 401 samples were investigated for the NADH dehydrogenase 2 (ND2) coding gene. The samples represented 45 states, the District of Colombia and two territories of the USA. Nationwide, three maternal

evolutionary lineages were identified: the North Mediterranean lineage C (93.79%), the West Mediterranean lineage M (3.2%) and the African lineage A (3.01%). A total of 27 haplotypes were identified, 13 of them (95.11%) were already reported and 14 others (4.87%) were found to be novel haplotypes exclusive to the USA. The number of haplotypes per state/territory ranged between two and eight and the haplotype diversity H ranged between 0.236-0.763, with a nationwide haplotype diversity of 0.597. Furthermore, the honey bee populations of the USA were shown to rely heavily (76.64%) on two single haplotypes (C1 = 38.76%, C2j = 37.62%) of the same lineage characterizing *A. m. ligustica* and *A. m. carnica* subspecies, respectively. Molecular-variance parsimony in COI-COII and ND2 confirmed this finding and underlined the central and ancestral position of C2d within the C lineage. Moreover, major haplotypes of *A. m. mellifera* (M3a, M7b, M7c) were recorded in six states (AL, AR, HI, MO, NM and WA). Four classic African haplotypes (A1e, A1v, A4, A4p) were also identified in nine states and Puerto Rico, with higher frequencies in southern states like LA, FL and TX. This data suggests the need to evaluate if a restricted mtDNA haplotype diversity in the US honey bee populations could have negative impacts on the beekeeping sustainability of this country.

3. Examining spatial and temporal drivers of pollinator nutritional resources: evidence from five decades of honey bee colony productivity data. Gabriela M Quinlan *et al* 2023 *Environ. Res. Lett.* **18** 114018 DOI 10.1088/1748-9326/acff0c **October 2023. Abstract.** Pollinators are an essential component of terrestrial food webs and agricultural systems but are threatened by insufficient access to floral resources. Managed honey bees, as generalist foragers that hoard nectar as honey, can act as bioindicators of floral resources available to pollinators in a given landscape through their accumulation of honey. Honey yields across the United States have decreased appreciably since the 1990s, concurrent with shifts in climate, land-use, and large-scale pesticide application. While many factors can affect honey accumulation, this suggests that anthropogenic stressors may be having large-scale impacts on the floral resources that pollinators depend on for their nutrition. We used hierarchical partitioning on five decades of state-level data to parse the most important environmental factors and likely mechanisms associated with spatial and temporal variation in honey yields across the US. Climatic conditions and soil productivity were among the most important variables for estimating honey yields, with states in warm or cool regions with productive soils having the highest honey yields per colony. These findings suggest that foundational factors constrain pollinator habitat suitability and define ecoregions of low or high honey production. The most important temporally varying factors were change in herbicide use, land use (i.e. increase in intensive agriculture and reduction in land conservation programs that support pollinators) and annual weather anomalies. This study provides insights into the interplay between broad abiotic conditions and fine temporal variation on habitat suitability for honey bees and other pollinators. Our results also provide a baseline for investigating how these factors influence floral resource availability, which is essential to developing strategies for resilient plant–pollinator communities in the face of global change.

Popular Articles, with sources to published scientific studies in the popular article.

1. https://www.monarchgard.com/thedeepmiddle/honey-bees-compete-with-native-bees?fbclid=IwAR0A_bptOtuQPZpadqg_kjZfFY9VAt2UX4dqBvxn5NaM2GvnzY180n8JGY
2. https://organicconsumers.org/groundbreaking-research-reveals-why-bees-are-increasingly-making-less-honey/?utm_medium=email&utm_source=engagingnetworks&utm_campaign=OB+834+Saturday&utm_content=OB+834+Saturday

Information previously sent to SNR from Kerry Beheler 20 October 2023:

1. <https://royalsocietypublishing.org/doi/abs/10.1098/rspb.2023.0967> June 2023. Honeybees (*Apis mellifera*) decrease the fitness of plants they pollinate. Abstract: Most flowering plants require animal pollination and are visited by multiple pollinator species. Historically, the effects of pollinators on plant fitness have been compared using the number of pollen grains they deposit, and the number of seeds or fruits produced following a visit to a virgin flower. While useful, these methods fail to consider differences in pollen quality and the fitness of zygotes resulting from pollination by different floral visitors. Here we show that, for three common native self-compatible plants in Southern California, super-abundant, non-native honeybees (*Apis mellifera* L.) visit more flowers on an individual before moving to the next plant compared with the suite of native insect visitors. This probably increases the transfer of self-pollen. Offspring produced after honeybee pollination have similar fitness to those resulting from hand self-pollination and both are far less fit than those produced after pollination by native insects or by cross-pollination. Because honeybees often forage methodically, visiting many flowers on each plant, low offspring fitness may commonly result from honeybee pollination of self-compatible plants. To our knowledge, this is the first study to directly compare the fitness of offspring resulting from honeybee pollination to that of other floral visitors.
2. <https://royalsocietypublishing.org/doi/10.1098/rspb.2020.0922> July 2020. Crop production in the USA is frequently limited by a lack of pollinators. Abstract: Most of the world's crops depend on pollinators, so declines in both managed and wild bees raise concerns about food security. However, the degree to which insect pollination is actually limiting current crop production is poorly understood, as is the role of wild species (as opposed to managed honeybees) in pollinating crops, particularly in intensive production areas. We established a nationwide study to assess the extent of pollinator limitation in seven crops at 131 locations situated across major crop-producing areas of the USA. We found that five out of seven crops showed evidence of pollinator limitation. Wild bees and honeybees provided comparable amounts of pollination for most crops, even in agriculturally intensive regions. We estimated the nationwide annual production value of wild pollinators to the seven crops we studied at over \$1.5 billion; the value of wild bee pollination of all pollinator-dependent crops would be

much greater. Our findings show that pollinator declines could translate directly into decreased yields or production for most of the crops studied, and that wild species contribute substantially to pollination of most study crops in major crop-producing regions.

3. <https://www.nature.com/articles/s41598-019-41271-5> March 2019. Honeybees disrupt the structure and functionality of plant-pollinator networks. Abstract: The honeybee is the primary managed species worldwide for both crop pollination and honey production. Owing to beekeeping activity, its high relative abundance potentially affects the structure and functioning of pollination networks in natural ecosystems. Given that evidences about beekeeping impacts are restricted to observational studies of specific species and theoretical simulations, we still lack experimental data to test for their larger-scale impacts on biodiversity. Here we used a three-year field experiment in a natural ecosystem to compare the effects of pre- and post-establishment stages of beehives on the pollination network structure and plant reproductive success. Our results show that beekeeping reduces the diversity of wild pollinators and interaction links in the pollination networks. It disrupts their hierarchical structural organization causing the loss of interactions by generalist species, and also impairs pollination services by wild pollinators through reducing the reproductive success of those plant species highly visited by honeybees. High-density beekeeping in natural areas appears to have lasting, more serious negative impacts on biodiversity than was previously assumed.

4. https://winfreelab.com/wp-content/uploads/2023/01/Genung2022_Ecology.pdf June 2022. Rare and declining bee species are key to consistent pollination of wildflowers and crops across large spatial scales. Abstract: Biodiversity promotes ecosystem function (EF) in experiments, but it remains uncertain how biodiversity loss affects function in larger-scale natural ecosystems. In these natural ecosystems, rare and declining species are more likely to be lost, and function needs to be maintained across space and time. Here, we explore the importance of rare and declining bee species to the pollination of three wildflowers and three crops using large-scale (72 sites across 5000 km²), multi-year datasets. Half of the sampled bee species (82/164) were rare or declining, but these species provided only 15% of overall pollination. To determine the number of species important to EF, we used two methods of “scaling up,” both of which have previously been used for biodiversity-function analysis. First, we summed bee species’ contributions to pollination across space and time and then found the minimum set of species needed to provide a threshold level of function across all sites; according to this method, effectively no rare and declining bee species were important to pollination. Second, we account for the “insurance value” of biodiversity by finding the minimum set of bee species needed to simultaneously provide a threshold level of function at each site in each year. The second method leads to the conclusion that 25 rare and eight declining bee species (36% and 53% of all rare and declining bee species, respectively) are included in the minimum set. Our findings provide some of the strongest evidence yet that rare and declining species are key to meeting threshold levels of EF, thereby providing a more direct link between real-world biodiversity loss and EF.

5. <https://www.science.org/doi/10.1126/science.1230200> February 2013 Wild Pollinators Enhance Fruit Set of Crops Regardless of Honey Bee Abundance. Abstract: The diversity and

abundance of wild insect pollinators have declined in many agricultural landscapes. Whether such declines reduce crop yields, or are mitigated by managed pollinators such as honey bees, is unclear. We found universally positive associations of fruit set with flower visitation by wild insects in 41 crop systems worldwide. In contrast, fruit set increased significantly with flower visitation by honey bees in only 14% of the systems surveyed. Overall, wild insects pollinated crops more effectively; an increase in wild insect visitation enhanced fruit set by twice as much as an equivalent increase in honey bee visitation. Visitation by wild insects and honey bees promoted fruit set independently, so pollination by managed honey bees supplemented, rather than substituted for, pollination by wild insects. Our results suggest that new practices for integrated management of both honey bees and diverse wild insect assemblages will enhance global crop yields.

6. <https://www.annualreviews.org/doi/10.1146/annurev-ento-011118-111847> January 2020. Global trends in Bumblebee Health Abstract Bumble bees (*Bombus*) are unusually important pollinators, with approximately 260 wild species native to all biogeographic regions except sub-Saharan Africa, Australia, and New Zealand. As they are vitally important in natural ecosystems and to agricultural food production globally, the increase in reports of declining distribution and abundance over the past decade has led to an explosion of interest in bumble bee population decline. We summarize data on the threat status of wild bumble bee species across biogeographic regions, underscoring regions lacking assessment data. Focusing on data-rich studies, we also synthesize recent research on potential causes of population declines. There is evidence that habitat loss, changing climate, pathogen transmission, invasion of nonnative species, and pesticides, operating individually and in combination, negatively impact bumble bee health, and that effects may depend on species and locality. We distinguish between correlational and causal results, underscoring the importance of expanding experimental research beyond the study of two commercially available species to identify causal factors affecting the diversity of wild species.

Popular articles: 1. <https://e360.yale.edu/digest/city-green-space-native-plants-insects?fbclid=IwAR0mfSlZ0epJskVFdbOiDdes-pvE8bu24AZDIMYFaMkZ-PhGxkCdIHziOkM>

2. <https://science.thewire.in/environment/the-underappreciated-benefits-of-wild-bees/?fbclid=IwAR0eZ978fB0ZCLA9QS2PKbK5tqN6QYK13zWpT2Kfr4zzWp5g0EhoVrdouaQ>

3. <https://theconversation.com/beyond-honey-bees-wild-bees-are-also-key-pollinators-and-some-species-are-disappearing-89214#:~:text=Research%20has%20shown,bumble%20bee%20queen.>

4. <https://www.smithsonianmag.com/smart-news/pollination-from-honeybees-could-make-plants-less-fit-to-survive-and-reproduce-180982467/?fbclid=IwAR3FhYXmbqsMn0XwscJ540KK7zxBrbVloJPcTEUqXzUIYOQSrjd-pU2BOV0#:~:text=They%20compete%20with%20native%20bees,from%20the%20plants%20they%20visit>

5. THE BEEKEEPERS WHO DON'T WANT YOU TO BUY MORE BEES

NEW YORK TIMES By David Segal Reporting from Ljubljana, Slovenia

• Published Aug. 19, 2023 Updated Aug. 21, 2023

When the B&B Hotel in Ljubljana, Slovenia, decided to reinvent itself as an eco-friendly destination in 2015, it had to meet more than 150 criteria to earn a coveted Travelife certificate of sustainability. But then it went step further: It hired a beekeeper to install four honey bee hives on the roof.

"Keeping wild animals is a great way to show that we have a connection to nature," said the general manager, Adrijana Hauptman Vidergar. "And we've had great feedback from guests who go up there and take a look."

The hives are managed by Gorazd Trusnovec, a 50-year-old with a graying goatee who is the founder and sole employee of an enterprise called Najemi Panj, which translates to "rent-a-hive." For a yearly fee, he will install a honey bee colony on the roof of an office, or in a backyard, and ensure that its bees are healthy and productive. Customers get the honey and the pleasure of doing something that benefits bees and nourishes the environment.

That, at any rate, was Mr. Trusnovec's original sales pitch. In recent years, he and other beekeepers, as well as a broad variety of leading conservationists, have come to a very different conclusion: The craze for honey bees now presents a genuine ecological challenge. Not just in Slovenia, but around the world.

"If you overcrowd any space with honey bees, there is a competition for natural resources, and since bees have the largest numbers, they push out other pollinators, which actually harms biodiversity," he said, after a recent visit to the B&B bees. "I would say that the best thing you could do for honey bees right now is not take up beekeeping."

It's like Johnny Appleseed announcing, "Enough with the apples." That's a jarring message, and not just because honey bees play a crucial role in the food chain, pollinating about one-third of the food consumed by Americans, according to the Food and Drug Administration. It's also because there is a widespread and now deeply rooted belief that the global population of honey bees has been running dangerously low for more than a decade.

The notion has spurred a boom in beekeeping, most notably among corporations eager to demonstrate their green bona fides.

But the urge to acquire a hive comes from the simplification of some complicated facts, says Scott Hoffman Black, executive director of the Xerces Society for Invertebrate Conservation in Portland, Ore.

A malady originally dubbed disappearing disease had been afflicting honey bees for decades. In the fall of 2006, an American beekeeper named Dave Hackenberg checked on his 400 hives and found that in many, most of the worker bees had disappeared. Other beekeepers started to report that they were losing upward of 90 percent of their

colonies. The phenomenon was renamed colony collapse disorder. The cause remains unclear, but experts tend to blame pesticides, an invasive parasite, a reduction in forageable habitat and climate change. An alarm was sounded, and "save the bees" became a rallying cry.

"It was the first time that a large number of people started talking about pollinators, which was great," Mr. Black said. "The downside was that there was no nuance. All anyone heard was that bees were declining, and so I should get a hive."

Honey bees, it turns out, are a commercially managed animal — essentially livestock, like cows — and large beekeeping operations are remarkably adept at replacing colonies that die. In the United States, about one million hives are trucked each year to places like California, where honey bees pollinate almonds and other crops, Mr. Black said. It's a major industry.

While techniques for nurturing hives have improved, honey bees remain vulnerable animals. As of a few years ago, nearly 30 percent of commercial honey bees still did not survive the winter months, says the Environmental Protection Agency. That's a large number and one that puts a financial strain on commercial beekeepers.

"But that's an agriculture story, not a conservation story," Mr. Black said. "There are now more honey bees on the planet than there have ever been in human history."

Figures from the Food and Agriculture Organization of the United Nations underscore the point. The number of beehives around the world has risen by nearly 26 percent in the last decade, to 102 million from 81 million.

Still, the save-the-bees narrative persists. Its longevity stems from confusion about what kind of bees actually need to be rescued. There are more than 20,000 species of wild bees in the world, and many people don't realize they exist. That's because they don't produce honey and live all but invisibly, in ground nests and cavities like hollow tree trunks. But they are indispensable pollinators of plants, flowers and crops.

Researchers have found that many species of wild bees are, in fact, declining. So trying to save them makes eminent sense. But hobbyists and corporations, not to mention luminaries like Beyoncé and Queen Camilla, are drawn only to the seven or so species of honey bees — the one group supported by a multibillion-dollar agribusiness and that doesn't need the help.

New York City has a similar problem, says Andrew Côté, president of the New York City Beekeepers Association. In February, MoMA asked him to install the hives it recently showed off. He declined.

"The population is already overwhelming the finite floral resources," he said. "We don't need more honey bees here."

People like Mr. Côté are in a peculiar spot. They lead a membership of honey bee enthusiasts in a place with too many honey bees. There are no regulatory limits on hives, so the law is no help. With the number of hives rising, pressure is mounting on less charismatic insects, like moths, wasps and wild bees, which are essential to pollinating

wild plants and many crops, and which academic studies have found are in decline. Apparently nobody wants 25,000 moths parked near the C-suites.

Today, hives are so ubiquitous in some places, especially urban areas, that the amount of honey each yields is dropping. Slovenia now produces less honey than it did 15 years ago, according to government figures, even though it has more than doubled the number of hives in the country. That's because there is not enough nectar to go around, said Matjaz Levicar, a Slovenian beekeeping instructor, and honey bees are consuming it to survive rather than turning it into honey.

"It's a tragedy," he said. "In Slovenia, we need to feed honey bee colonies with sugar most of the year."

Asking people to dial down their honey bee enthusiasm isn't easy.

Mr. Trusnovec at home. "I would say that the best thing you could do for honey bees right now is not take up beekeeping," he says.

Mr. Trusnovec plans to reduce the number of hives he keeps to 40 from 50, and perhaps an even lower number soon enough. To reach that goal, he is having delicate conversations with clients about the evolution of his thinking and the realities of the bee population. That it's time to assist thousands of bee species that actually need help and end the love affair with honey bees, which don't.

"It's difficult," he said. "If someone were to call me today, I would advise them to put up a hotel for solitary bees or boxes for bumblebees. Or plant some trees instead."

Basic Information and websites for a few organizations:

1. Wisconsin Department of Natural Resources

<https://dnr.wisconsin.gov/topic/endangeredresources/pollinators.html>

<https://dnr.wisconsin.gov/topic/endangeredresources/nativeplants.html>

2. Wisconsin Department of Agriculture, Trade, and Consumer Protection Pollinator Protection Plan <https://datcp.wi.gov/Documents/PPPComplete.pdf>

3. United States Geological Survey basic information: European honeybees are not native

<https://www.usgs.gov/faqs/are-honey-bees-native-north-america>

<https://www.usgs.gov/faqs/what-role-native-bees-united-states>

4. Minnesota pollinator program "Lawns to Legumes: Your Yard can BEE the Change".

Homeowners are encouraged, and given financial incentives, to change their turf-grass lawns into native plant pollinator habitats. <https://bwsr.state.mn.us/residential-pollinator-habitat>

5. National non-profit organizations who provide information on pollinators and habitat.

Center for Biological Diversity https://biologicaldiversity.org/campaigns/native_pollinators

National Audubon Society <https://www.audubon.org/native-plants>

National Fish and Wildlife Foundation's Monarch Butterfly and Pollinators Conservation Fund

Nontoxic Communities <http://www.nontoxiccommunities.com/>

Pollinator Partnership <https://www.pollinator.org/pollinators>

Pollinator Pathways <https://www.pollinator-pathway.org/>

We Are The ARK <https://wearetheark.org/what-is-an-ark/>

Xerces Society <https://www.xerces.org/pollinator-conservation> Xerces publications
<https://xerces.org/publications> Wild Ones <https://wildones.org/>

Cycling Ideas:

- **Bike to School trains (reduce carbon emissions at drop off)**
https://www.walkbiketoschool.org/wp-content/uploads/2017/01/SRTS_BikeTrain_final.pdf
 - **Some topics to discuss:**
 - What schools?
 - Captains by school and/or neighborhood?
 - How to communicate?
 - What's the incentive?
 -
- **Cycling Wayfinding**
 - The subject of Dane County Grants for bike paths was briefly discussed at a recent committee meeting, however the deadline for submission was too soon to submit anything, so we agreed to revisit the issue next year. The grant, (<https://www.danecountyparks.com/grants/PARC-Ride>), could be used to create connector trails to our parks and neighborhoods. We have a great conduit with the Military Ridge Trail, and furthering connectivity for the Village would be a good goal to improve the health of the community and lower our village's carbon footprint by ditching the car for local trips.
- **Downtown (visible) bike parking (currently very limited and haphazard—not enough to draw the average family)**
<https://www.cityofmadison.com/bikemadison/programs/bikeparking.cfm>
- **Bicycle Benefits at the shops** <https://bicyclebenefits.org/>
- **Event bike valet**
https://static1.squarespace.com/static/5ab34f163c3a53eaa6327595/t/5ae69b01f950b7d2b447cdf6/1525062424220/toolkit_bicyclevalet.pdf
- **New apartment development rules (I'm thinking of the new apartment on its way downtown)** <https://blog.madrax.com/blog/meeting-bike-parking-requirements-for-new-apartment-building>
 - The Apartment building biking requirement you cited, could be baked into Village ordinance. The village will be reviewing all municipal ordinances next year. I will note the link and bring it up.
 -
- **Bike route signage to encourage safe wayfinding**
 - Bike Route signs would be a cheap and useful way to channel bike traffic on less busy streets, or to point of interest.
- **Bike Friendly Status**
- - A marketing tool for the Village could be achieving bike friendly status, <https://bikeleague.org/bfa/>. A couple of other Dane County Communities have this, McFarland and Middleton for sure. It would be a nice status for us to achieve.



AGENDA ITEM REPORT

MEETING DATE

February 27, 2024

PREPARED BY

AGENDA ITEM # 3.c

Discussion on safe and best practices of medication disposal

BACKGROUND

From Lieutenant Josh Jarivs, Mount Horeb police Department:

Thank you for reaching out regarding our drug take back program. In regards to the medication take back, the National Take Back day is going to be held on April 27, 2024. I don't have our time slot locked in yet in terms of what hours we will be open for drop off. We will be posting and advertising for the event on our Facebook page when the event gets closer. Other things you can do to increase awareness is to pass along the message that we also have a medication drop box located in our police department that is available M-F 8:00AM to 4:30PM. We ask that all medications be placed in a Ziploc bag- out of their original containers and no needles. We also have drug lock boxes and medication neutralizer kits to aid in safe disposal. If you have other questions, please reach out.

RECOMMENDATION

ATTACHMENTS

None

The SNR Committee will establish a short-term strategic plan for 2024. It's understood that the SNR Committee will have longer term plans and goals once funding is secured for a village sustainability report and plan. Until then, the committee wishes to focus its efforts.

What is within our purview as a committee?

Municipal committees provide advice and support to the municipal governing body. Actions that they take are either previously authorized or subsequently ratified by the governing body.

The SNR Committee will focus on the follow objectives and actions. The committee will also be open to other objectives, actions, and topics as may arise over the year.

Our objectives and actions are arranges by audience:

- 1) Village (municipal facilities and services) - Make village operations more sustainable
 - a) Learn more about how village facilities are using energy by, for example, an energy usage audit, gathering and comparing information that is already available, talking with village staff, etc.
 - b) Plan how to lower usage, and offset overall use of energy.
 - c) Explore consideration of lower impact vehicles, equipment and HVAC as village purchases such
 - d) With the village review and update of ordinances in 2024, be in regular communication to advise on pertinent topics such as dark skies
 - e) Education around and promotion of idling reduction
 - f) Promotion of adding green parcels to village land for pollinator habitat
 - g) Solsmart certification
 - h) Regularly report out on learnings from other similar municipal committees in Dane County
- 2) Schools – Collaborate with MHASD in sustainable efforts
 - a) Collaborate on native plantings at the Middle School
 - b) Advocating and partnering on renewable energy and energy conservation
 - c) Work and mentor student Green Team and Energy Team for sustainable school facility
- 3) Residents – Assist village residents live more sustainably
 - a) Provide 3 educational events
 - i) Solar 101 (scheduled Feb. 3, 2024)
 - ii) Composting 101 (at library – April)
 - iii) Other topics for consideration – safe drug disposal, idling
 - b) Regular *Mount Horeb Mail* columns

- 4) Businesses – Assist village businesses operate more sustainably
 - a) Partner with Chamber for outreach
 - b) Highlight, recognize, and celebrate sustainable practices.
 - c) Explore single-use plastic reduction guidance
 - d) Consider annual event on sustainable businesses
 - e) Advocating for and providing resources for renewable energy production
 - f) Network with other organizations such as Sustain Dane for ideas on promotion and support of sustainable business practices



AGENDA ITEM REPORT

MEETING DATE

February 27, 2024

PREPARED BY

AGENDA ITEM # 3.e

Discussion: Creation of Mount Horeb Green Team

BACKGROUND

Village President noticed that some other communities that have or had Sustainability Committees also created a Green Team to handle the non-governmental actions of the committee. For example, things such as planning education events and the regular Mount Horeb Mail articles could be planned more efficiently without the need for committee review and approval.

In Shorewood Hills, they started off their SNR committee as an ad hoc committee and once they finished their sustainability plan and some other code related changes, the committee asked to be disbanded, and they formed a Green Team independent of the Village, so they could operate more efficiently. The Green Team makes an annual report to the Village Board to keep them informed on their activities and can also bring forward code related changes as needed.

President Czyzewski thought the SNR may benefit from this type of non-governmental relationship as well and wanted the SNR to start discussion on a potential change.

RECOMMENDATION

ATTACHMENTS

None



AGENDA ITEM REPORT

MEETING DATE

February 27, 2024

PREPARED BY

AGENDA ITEM # 3.i

Update on Zoning Code Rewrite Process

BACKGROUND

The Village Board has approved awarding of the contract to rewrite our zoning code to our current planner, Vandewalle Associates. The process will begin shortly with review of our existing code and determining where updates are needed. The Plan Commission will be the main committee guiding the process, but where the code touches the other committees, including the SNR committee, they will be provided with the information and given the opportunity to provide guidance and input.

RECOMMENDATION

ATTACHMENTS

None



AGENDA ITEM REPORT

MEETING DATE

February 27, 2024

PREPARED BY

AGENDA ITEM # 3.k

Reminder: Wastewater Treatment Facility Tour: Saturday, March 23, 9:00 a.m.

BACKGROUND

I have heard from most of you regarding your availability for the tour of the WWTF on Saturday, March 31. For those that haven't replied, let me know if this will work for you or if we need to reschedule. Thank you.

RECOMMENDATION

ATTACHMENTS

None