

Washtenaw County Environmental Council

Tuesday, January 23, 2023

5:00PM - 6:30PM

Remote Meeting via Zoom

Join Zoom Meeting: <https://zoom.us/join>

Join by Phone: 1-470-250-9358

Meeting ID: 891 2705 8352

Passcode: 591312

AGENDA

- I. Call to Order
- II. Attendance
- III. Approval of the Agenda
- IV. Citizen Participation: (up to 4 minutes per speaker)
 - a. Council Responses to Citizen Participation
 - b. Acknowledgement of written Citizen Participation
- V. Presentation: Light Pollution, Biodiversity and Emissions.
Presenters: Dr. Sally Oey and John Mirsky, [*Michigan Dark Skies*](#)
- VI. Regular Business
 - a. Washtenaw County Climate Action Plan & Sustainability/Resilience Office- *Andrew DeLeeuw, Deputy County Administrator*
 - i. Budget and Staffing Status & Next Steps
 - 1. Council Discussion
 - b. SEMCOG regional climate action planning – *Staff*
 - c. Council Members
 - i. Updates on appointments to the WCEC - *Andrew DeLeeuw, Deputy County Administrator*
 - 1. Returning Members
 - 2. Openings: Water Protection, Renewable Energy Provider
 - d. Facilities Updates - *Jason Fee, Director, Facilities Management*

VII. New Business

- a. Updates: Communications and Reports
 - i. Councilmembers
 - 1. Chair's Report
 - a. Bylaws Updates Proposal: An introduction
 - b. Meeting Schedule and topics
 - 2. Other Reports
 - b. Staff
- c. Committees and Committee Reports
 - i. Outreach Committee- *Chair Avni Rao*
 - ii. Other Committees

VIII. Adjourn

Next Meetings

Tuesday, February 27

Tuesday, March 26

AGENDA PACKET

1. Bylaws Updates Draft Proposal

Prepared by Chair Michelle Deatruck with review by the Planning Committee

- **Background.**
Last update of the Bylaws was approved by the BOC 09/15/21.
See pp. 141-147, [BOC 9/15/21 Minutes](#)
- **Process. The Chair plans to call for a vote on the proposed changes at the February Council meeting.**
- This Draft is being shared now to allow for ample time to read and review. At the February meeting, there will be time to discuss and opportunity to propose amendments.
- The proposed changes must also be reviewed by County legal staff.
- After the Environmental Council approves any changes, the changes go into effect only *after* the BOC in turn approves them.
- **This proposal contains two versions of the Bylaws.**
- The first, redlined version, contains proposed changes.
- The current version follows the redlined version and is for your convenience for reference (the only place it exists online is inside a BOC 2021 Agenda packet).
- **Summary of significant proposed changes:**
- Many changes are simple updates or deletions of material no longer relevant, for example text related to the establishment of the Council and first terms on the Council. More significant proposed changes are noted here:
- Article 3: Addition of "just transition" as part of mission and update reflecting approved BOC priorities
- Article 4: Addition of more recent history/background.
- Article 5: Updates based on approval by the BOC of Resilient Washtenaw and removal of mention of a working group that no longer exists.
- Article 6:
- Removes historical text no longer relevant to terms of Council members.
- Adds an Expectation for Council Members to belong to or contribute to a Committee (the Food Policy Council has a more rigorous committee requirement, for context).
- Article 7:
- Adds an additional officer to help share leadership tasks as the Council's work expands:
"The Second Vice Chairperson presides over meetings in the absence of both the

Chairperson and the Vice Chairperson, and carries out other tasks as agreed upon with the Chair.”

- Clarifies officer election timing and specifies that in the event of an unexpected officer vacancy, an election is for the remainder of the term so that all officer terms will end simultaneously in the first quarter of each year.
 - Article 8:
 - Increases quorum from 5 to 7. This will allow larger committee sizes and reflects our actual attendance this year. Our membership is 15, though occasionally we have vacant positions. To the Chair’s recollection, attendance this year has not dipped below 7.
 - Deletes text stating that we meet in person. Replaces it with text stating that we can meet in person or virtually, and sets an expectation of at least one in-person meeting annually.
 - Article 10: Addition of Land Acknowledgement to the regular order of business at meetings
 - Article 11: Requires current Council Bylaws to be posted on Council’s webpage.
-

DRAFT OF REVISED BYLAWS OF

The Washtenaw County Environmental Council

Adopted by the Environmental Council On May 28, 2019

Approved by the Board of Commissioners On June 5, 2019

Amended by the Board of Commissioners On September 15, 2021

Amendments Adopted by the Environmental Council On _____

Amendments Approved by the Board of Commissioners On _____

Article 1

NAME

The name of this council is the Washtenaw County Environmental Council (“Council” or “WCEC”).)

Article 2 ENABLING AUTHORITY

The Council was established by Resolution 18-191 on November 28th, 2018.

Article 3 VISION AND MISSION

Vision

A vibrant, sustainable, equitable and net-zero Washtenaw County.

Mission:

To develop environmental policy and organizational recommendations for Washtenaw County government in order to:

- Achieve net-zero emissions for County operations by 2030~~5~~ and Countywide by 2035.
- Reduce overall county contributions to climate change.
- Protect and improve the County's air, land, water, food network, and both mental and public health as related to the environment.
- Prioritize environmental justice, a just transition, and intergenerational justice related to the environment.

Article 4 BACKGROUND

The Board of Commissioners voted to strengthen and ramp up County sustainability efforts in its July 2017 Resolution upholding the Paris Climate Accord and committing the County to form an "Environmental Stewardship Committee" – a commitment now fulfilled in the establishment of the Washtenaw County Environmental Council, the approval of the County's climate plan, *Resilient Washtenaw*, and the approval of a funded Resilience Office. In 2017 and 2018, other environmental measures approved by the Board of Commissioners included: a ban on County purchases of Nestle brand bottled water, a ban on County purchases of certain single use plastics including plastic straws; resolutions opposing the Nexus and Rover fracked gas pipelines, which cross the County; and the first financial commitment to support the Washtenaw County Food Policy Council.

The 2018 Board of Commissioners passed a 2019-2022 Quadrennial Budget [2019-2022 Budget] which establishes the County's internal environmental task force – the Environmental Infrastructure Workgroup (EIW). According to the 2019-2022 Budget, the EIW will 1) provide support, information and advice to the Environmental Council, and 2) provide input to the Office

of Infrastructure Management as the OIM develops its 2019 Energy and Environmental Infrastructure Policy, which is an updated comprehensive strategy addressing the County's energy use and environmental impact as they relate to infrastructure.

On November 28, 2018, the County Board of Commissioners unanimously passed the "Resolution Upholding the Washtenaw County Board of Commissioners' Commitment to Environmental Justice and Establishing the Board of Commissioners' Environmental Council," which established this Council.

On December 7, 2022, following a unanimous recommendation by the WCEC, the County Board of Commissioners unanimously passed a Resolution approving the County's climate action plan, Resilient Washtenaw.

On December 15, 2023, the County Board of Commissioners passed a 2024-2027 Quadrennial Budget which includes funding to staff a County Resilience Office with two full-time permanent staff members.

Article 5 DUTIES

The Council is responsible to the Board of Commissioners. The Council does not have regulatory authority. The Council is charged with the following duties:

2. Develop comprehensive, integrated environmental policies to recommend to the County Board of Commissioners.
3. Develop a proposal and timetable for the County's development of a plan to reach net-zero (neutral) emissions by 2035.
4. ~~If the proposal and timetable are approved by the BOC, the Council may, if tasked by the BOC, w~~Work with County Administration, consultants, and/or other appropriate County departments to develop and implement Resilient Washtenaw ~~the detailed plan~~ for the County to achieve net-zero emissions.
5. Act in an advisory capacity, without regulatory or legislative authority, to County departments, committees, and the Board of Commissioners on environmental issues.
6. ~~Act in an advisory capacity, with the County's Office of Infrastructure Managements' Environmental Working Group, in the development and review of the "DRAFT Energy and Environmental Infrastructure Policy 2020-2023," which is being drafted by OIM as part of its comprehensive restructuring.~~

7. 5) Work collaboratively with other commissions, boards, councils and committees on environmental issues.
8. 6) Create committees, including standing committees, to help conduct the work of the Environmental Council.
9. 7) Work to develop and maintain input and dialogue with the wider Washtenaw County community and to uphold the mission of the Council and of environmental policies approved by the Board of Commissioners.

Article 6

MEMBERSHIP

10. The Council will be comprised of up to 15 members, appointed by the Board of Commissioners. No more than one (1) member may reside outside the County. Members are to represent the following perspectives and/or groups:
 - i. County Commissioners (1-3 members)
11. 1 of these Commissioners may be appointed to act as WCEC Liaison to the Board of Commissioners
 - ii. Community Groups (2 members)
 - iii. Sustainable Energy Producers, private or non-profit sector (1 member)
 - iv. Land Use and Preservation (1 member)
 - v. Sustainable Agriculture (1 member)
 - vi. Racial Equity and Environmental Issues (1 member)
 - vii. Water Protection (1 member)
 - viii. Vehicle Emission Reduction Issues (1 member)
 - ix. Public Health Issues (1 member)
 - x. Infrastructure Energy Reduction Issues (1 member)
 - xi. If approved by the BOC, up to two more members, not to include elected officials, may be appointed by the Board of Commissioners; the Environmental Council suggests that these members might represent youth and labor.
12. The Council is responsible for recommending member appointments to the County Board of Commissioners, which will appoint WCEC members.
13. ~~Initial appointments to the WCEC end on March 31st, 2020, when the WCEC will sunset unless extended by the Board of Commissioners. If the Council is approved to extend beyond March 31, 2020, new terms will be staggered as follows. Thereafter, c~~ Council members will be appointed for staggered two-year terms as follows:

Even years: ~~One-year initial terms:~~

- Sustainable Agriculture
- Water Protection
- Vehicle Emission Reduction Issues
- Infrastructure Energy Reduction issues
- Commissioners (1-3 members)

Odd years: ~~Two-year initial terms:~~

- Community Groups (2 members)
- Sustainable Energy Producers (private or non-profit sector)
- Land Use and Preservation
- Racial Equity and Environmental Issues
- Public Health Issues

~~6)~~ 4) Any vacancy on the Council occurring in the middle of a term shall be filled for the remainder of that term in the same manner as for full-term appointments.

~~7)~~ 5) Council members are expected to attend meetings to ensure full community representation on the Council. ~~Excused absences-~~ Absences excused by the Chair (for illness, death in the family, vacation, business trip or emergency) will not affect a member's status. However, missing three consecutive meetings and/or more than three absences without reasonable excuse in a 12-month period shall constitute cause to recommend resignation to the Washtenaw County Board of Commissioners and replacement of the appointee.

~~8)~~ 6) Council members are expected to commit to membership on one Council committee, or else to commit to assist in the work of one of those committees.

Article 7

OFFICERS

14. Duties of Officers

- a. Chairperson: The Chairperson ("Chair") shall preside at meetings, plan and organize the Council's work and perform other duties as described by these Bylaws.

The Chair may authorize expenditures up to \$100, which will be reported to the Council at the next meeting by the Treasurer. Expenditures exceeding \$100 are approved by a vote of the Council.

- b. Vice Chairperson: The Vice-Chairperson presides over meetings in the absence of the Chairperson- and carries out other tasks as agreed upon with the Chair.
- c. Second Vice Chairperson: The Second Vice Chairperson presides over meetings in the absence of both the Chairperson and the Vice Chairperson, and carries out other tasks as agreed upon with the Chair.

15. Officer Elections

Officers will be elected by the Council in the first quarter of each year, and ~~will serve until at least March 31, 2020, or until their successor(s) have been elected. Thereafter, they~~ will serve one-year terms or until their successors are elected if no successor(s) have been elected at the one-year point. Officer vacancies between usual elections will be filled by election for the remainder of the term.

Article 8

MEETINGS

- 16. The Council will hold regularly scheduled meetings, publicly announced in advance, in accordance with the Open Meetings Act. All regularly scheduled meetings will include at least 10 days notice. The Chair, or any five Council members may call special meetings, in accordance with the Open Meetings Act. At least 18 hours public notice shall be given for special meetings.
- 17. Support for meeting organization; minute taking and distribution; website and social media; press and other communications; and publicizing meetings per the Open Meetings Act is provided by County Administration.
- 18. Meetings are open to all community members. The public has the right to speak during one public comment period at each meeting, limited to four (4) minutes per speaker.

19. The Chair may cancel a meeting if there is no business on the agenda, if it is clear that a quorum will not be present, or if weather, emergency, or other circumstances warrant. The Chair shall give notice of cancellation to members of the Council and any staff at least 18 hours prior to the scheduled meeting time, when practicable. The Chair shall cause public notice of the cancellation to be posted as soon as practicable. Canceled regular meetings may be rescheduled in the same manner as special meetings.
20. A quorum of Council members, which shall consist of the lesser of 7 5 members or no less than 51% of current members, must be present for decisions to occur.
21. The Council will make decisions by voting. Passage of a motion requires a simple majority of those present and voting who serve as voting members of the Council.
22. Council meetings may be held in person or virtually, and are generally expected to be held in person at least once per year. Virtual as well as in-person meetings must be accessible to the public and provide a public comment opportunity. ~~Members are expected to participate in person however, participating or voting by phone is permitted if an exceptional circumstance arises preventing in-person attendance..~~
23. Staff will report expenditures to the board as part of the agenda for the regular meetings.

Article 9

ETHICS AND CONFLICTS OF INTEREST

24. Members of the Council must abstain from discussion or voting on any matter in which that member has a real or apparent conflict of interest. Decisions regarding conflicts of interest shall be evaluated on a case-by-case basis with reasonable application to the principles in this Article. A conflict of interest shall at a minimum include, but is not necessarily limited to, discussing, voting on, or otherwise acting on a matter in which a member, or any person in the member's immediate family, the member's partner, or an entity with which the member has family or business ties has a direct financial or beneficial interest.
25. A member of the Council shall neither solicit nor accept gratuities, favors, or anything of monetary value from persons or entities in a position to receive financial benefit from a decision of the Council.

26. A member of the Council shall not obtain, for the member or for any person with whom the member has family or business ties, any financial or beneficial interest in a matter which may be affected by a decision of the Council. This restriction shall apply during the member's tenure and for one year thereafter.
27. With regard to Council decisions or potential decisions, Council members shall disclose the general nature of any potential conflict, real or apparent, unless such disclosure violates a confidence. These disclosures shall be made prior to discussion and voting when possible and shall be recorded in the minutes of the proceedings. If a member believes that a potential conflict warrants abstention, the member may choose to abstain from discussion and voting on a matter. A member who has a conflict and cannot vote shall leave the meeting or the area of the meeting until action on the matter is concluded, whether that conflict has been disclosed or not.
28. When a question has arisen as to whether a member is ineligible to participate in discussion or vote on a matter because of a potential conflict of interest, and the member has not chosen to abstain of his or her own volition, the Council may determine that the member is ineligible due to a conflict of interest by a vote of a majority of other members present. After such determination, the ineligible member shall not participate in discussion of, or vote on, the matter.
29. Members shall not act, hold themselves out, or permit themselves to be perceived as official representatives or spokespersons for the Council without authorization from the Council or the Chair. When communicating for personal purposes on matters that may be related to the Council's business, members shall clearly indicate that their statements are made in a personal capacity and do not necessarily reflect the views of the Council. Whenever a member is asked to speak on behalf of the Council, the member will ask approval of the Council or Chair in advance.
30. To maintain public confidence in the objectivity of the Council and to avoid the appearance of bias or prejudice, a member shall not speak or appear before the Council on behalf of or as a representative of a potential or actual petitioner. A member should avoid speaking or appearing before another entity on behalf of or as a representative of a potential or actual petitioner.

Article 10

AGENDA AND ORDER OF BUSINESS

31. An agenda for each meeting of the Council shall be developed by the Chair in consultation with the members of the Council. To the extent practicable, agenda, resolutions, and materials for regular meetings shall be made available to the public and members of the Council at least 48 hours before the meeting's scheduled start time. Members wishing to add an agenda item or a speaker to the agenda should contact the Chair with the request. **Approved meeting minutes and resolutions shall also be made available to the public.**
32. The order of business at regular meetings shall generally be as follows.

- d. Call to Order
- xii. Roll Call
- xiii. Land Acknowledgement
- xiv. ~~ii)~~ Approval of the Agenda
- xv. ~~iii)~~ Approval of Minutes of Past Meetings
- xvi. ~~iv)~~ Public Comment
- xvii. ~~v)~~ Special Presentations
- xviii. ~~vi)~~ Regular Business
- xix. ~~vii)~~ New Business
- xx. ~~viii)~~ Communications and Reports
- 33. Council
- 34. Staff
- e. Finance Report
- 35. Committees
- xxi. ~~ix)~~ Adjournment

Article 11

AMENDMENT OF BYLAWS

- 36. Amendments to these Bylaws may be approved at any regular meeting by vote of two-thirds of the voting members currently serving on the Council. Proposed amendments must have been submitted in writing at the previous regular meeting to be considered.
- 37. Prior to submission of amendments to the Bylaws at the regular meeting, proposed amendments must be submitted to the Chair who will submit them to the Office of the County Corporation Counsel. Reasonable time must be allowed for Corporation Counsel's response.
- 38. After adoption by the Council, the amended bylaws are not effective until approved by the Board of Commissioners.
- 39. After approval by the Board of Commissioners, the Bylaws will be made accessible to the public including via posting or a link on the WCEC's webpage on the County website.

CURRENT BYLAWS OF

The Washtenaw County Environmental Council

Adopted by the Environmental Council On May 28, 2019

Approved by the Board of Commissioners On June 5, 2019

Amended by the Board of Commissioners On September 15, 2021

Article 1 NAME

The name of this council is the Washtenaw County Environmental Council (“Council” or “WCEC”).

Article 2 ENABLING AUTHORITY

The Council was established by Resolution 18-191 on November 28th, 2018.

Article 3 VISION AND MISSION

Vision

A vibrant, sustainable, equitable and net-zero Washtenaw County.

Mission:

To develop environmental policy and organizational recommendations for Washtenaw County government in order to:

- Achieve net-zero emissions for County operations by 2035.
- Reduce overall county contributions to climate change.
- Protect and improve the County’s air, land, water, food network, and both mental and public health as related to the environment.
- Prioritize environmental justice, and intergenerational justice related to the environment.

Article 4 BACKGROUND

The Board of Commissioners voted to strengthen and ramp up County sustainability efforts in its July 2017 Resolution upholding the Paris Climate Accord and committing the County to form an “Environmental Stewardship Committee” – a commitment now fulfilled in the establishment of the Washtenaw County Environmental Council. In 2017 and 2018, other environmental measures approved by the Board of Commissioners included: a ban on County purchases of

Nestle brand bottled water, a ban on County purchases of certain single use plastics including plastic straws; resolutions opposing the Nexus and Rover fracked gas pipelines, which cross the County; and the first financial commitment to support the Washtenaw County Food Policy Council.

The 2018 Board of Commissioners passed a 2019-2022 Quadrennial Budget [2019-2022 Budget] which establishes the County's internal environmental task force – the Environmental Infrastructure Workgroup (EIW). According to the 2019-2022 Budget, the EIW will 1) provide support, information and advice to the Environmental Council, and 2) provide input to the Office of Infrastructure Management as the OIM develops its 2019 Energy and Environmental Infrastructure Policy, which is an updated comprehensive strategy addressing the County's energy use and environmental impact as they relate to infrastructure.

On November 28, 2018, the County Board of Commissioners unanimously passed the "Resolution Upholding the Washtenaw County Board of Commissioners' Commitment to Environmental Justice and Establishing the Board of Commissioners' Environmental Council," which established this Council.

Article 5 DUTIES

The Council is responsible to the Board of Commissioners. The Council does not have regulatory authority. The Council is charged with the following duties:

40. Develop comprehensive, integrated environmental policies to recommend to the County Board of Commissioners.
41. Develop a proposal and timetable for the County's development of a plan to reach net-zero (neutral) emissions by 2035.
42. If the proposal and timetable are approved by the BOC, the Council may, if tasked by the BOC, work with County Administration, consultants, and/or other appropriate County departments to develop the detailed plan for the County to achieve net-zero emissions.
43. Act in an advisory capacity, without regulatory or legislative authority, to County departments, committees, and the Board of Commissioners on environmental issues.
44. Act in an advisory capacity, with the County's Office of Infrastructure Managements' Environmental Working Group, in the development and review of the "DRAFT Energy and Environmental Infrastructure Policy 2020-2023," which is being drafted by OIM as part of its comprehensive restructuring.
45. Work collaboratively with other commissions, boards, councils and committees on environmental issues.

46. Create committees, including standing committees, to help conduct the work of the Environmental Council.
47. Work to develop and maintain input and dialogue with the wider Washtenaw County community and to uphold the mission of the Council and of environmental policies approved by the Board of Commissioners.

Article 6

MEMBERSHIP

48. The Council will be comprised of up to 15 members, appointed by the Board of Commissioners. No more than one (1) member may reside outside the County. Members are to represent the following perspectives and/or groups:

xxii. County Commissioners (1-3 members)

49. 1 of these Commissioners may be appointed to act as WCEC Liaison to the Board of Commissioners

xxiii. Community Groups (2 members)

xxiv. Sustainable Energy Producers, private or non-profit sector (1 member)

xxv. Land Use and Preservation (1 member)

xxvi. Sustainable Agriculture (1 member)

xxvii. Racial Equity and Environmental Issues (1 member)

xxviii. Water Protection (1 member)

xxix. Vehicle Emission Reduction Issues (1 member)

xxx. Public Health Issues (1 member)

xxxi. Infrastructure Energy Reduction Issues (1 member)

xxxii. If approved by the BOC, up to two more members, not to include elected officials, may be appointed by the Board of Commissioners; the Environmental Council suggests that these members might represent youth and labor.

- 2) The Council is responsible for recommending member appointments to the County Board of Commissioners, which will appoint WCEC members.

- 3) Initial appointments to the WCEC end on March 31st, 2020, when the WCEC will sunset unless extended by the Board of Commissioners. If the Council is approved to extend beyond March 31, 2020, new terms will be staggered as follows. Thereafter, council members will be appointed for two-year terms.

- 4) One-year initial terms:

- Sustainable Agriculture
- Water Protection
- Vehicle Emission Reduction Issues
- Infrastructure Energy Reduction issues

- Commissioners (1-3 members)

5) Two-year initial terms:

- Community Groups (2 members)
- Sustainable Energy Producers (private or non-profit sector)
- Land Use and Preservation
- Racial Equity and Environmental Issues
- Public Health Issues

6) Any vacancy on the Council occurring in the middle of a term shall be filled for the remainder of that term in the same manner as for full-term appointments.

7) Council members are expected to attend meetings to ensure full community representation on the Council. Excused absences (illness, death in the family, vacation, business trip or emergency) will not affect a member's status. However, missing three consecutive meetings and/or more than three absences without reasonable excuse in a 12-month period shall constitute cause to recommend resignation to the Washtenaw County Board of Commissioners and replacement of the appointee.

Article 7

OFFICERS

50. Duties of Officers

- f. Chairperson: The Chairperson ("Chair") shall preside at meetings, plan and organize the Council's work and perform other duties as described by these Bylaws.

The Chair may authorize expenditures up to \$100, which will be reported to the Council at the next meeting by the Treasurer. Expenditures exceeding \$100 are approved by a vote of the Council.

- g. Vice Chairperson: The Vice-Chairperson presides over meetings in the absence of the Chairperson.

2) Officer Elections

Officers will be elected by the Council and will serve until at least March 31, 2020, or until their successor(s) have been elected. Thereafter, they will serve one-year terms or until their successors are elected if no successor(s) have been elected at the one-year point.

Article 8

MEETINGS

51. The Council will hold regularly scheduled meetings, publicly announced in advance, in accordance with the Open Meetings Act. All regularly scheduled meetings will include at least 10 days notice. The Chair, or any five Council members may call special meetings, in accordance with the Open Meetings Act. At least 18 hours public notice shall be given for special meetings.
52. Support for meeting organization; minute taking and distribution; website and social media; press and other communications; and publicizing meetings per the Open Meetings Act is provided by County Administration.
53. Meetings are open to all community members. The public has the right to speak during one public comment period at each meeting, limited to four (4) minutes per speaker.
54. The Chair may cancel a meeting if there is no business on the agenda, if it is clear that a quorum will not be present, or if weather, emergency, or other circumstances warrant. The Chair shall give notice of cancellation to members of the Council and any staff at least 18 hours prior to the scheduled meeting time, when practicable. The Chair shall cause public notice of the cancellation to be posted as soon as practicable. Canceled regular meetings may be rescheduled in the same manner as special meetings.
55. A quorum of Council members, which shall consist of the lesser of 5 members or no less than 51% of current members, must be present for decisions to occur.
56. The Council will make decisions by voting. Passage of a motion requires a simple majority of those present who serve as voting members of the Council.

57. Members are expected to participate in person however, participating or voting by phone is permitted if an exceptional circumstance arises preventing in-person attendance.

58. Staff will report expenditures to the board as part of the agenda for the regular meetings.

Article 9

ETHICS AND CONFLICTS OF INTEREST

59. Members of the Council must abstain from discussion or voting on any matter in which that member has a real or apparent conflict of interest. Decisions regarding conflicts of interest shall be evaluated on a case-by-case basis with reasonable application to the principles in this Article. A conflict of interest shall at a minimum include, but is not necessarily limited to, discussing, voting on, or otherwise acting on a matter in which a member, or any person in the member's immediate family, the member's partner, or an entity with which the member has family or business ties has a direct financial or beneficial interest.

60. A member of the Council shall neither solicit nor accept gratuities, favors, or anything of monetary value from persons or entities in a position to receive financial benefit from a decision of the Council.

61. A member of the Council shall not obtain, for the member or for any person with whom the member has family or business ties, any financial or beneficial interest in a matter which may be affected by a decision of the Council. This restriction shall apply during the member's tenure and for one year thereafter.

62. With regard to Council decisions or potential decisions, Council members shall disclose the general nature of any potential conflict, real or apparent, unless such disclosure violates a confidence. These disclosures shall be made prior to discussion and voting when possible and shall be recorded in the minutes of the proceedings. If a member believes that a potential conflict warrants abstention, the member may choose to abstain from discussion and voting on a matter. A member who has a conflict and cannot vote shall leave the meeting or the area of the meeting until action on the matter is concluded, whether that conflict has been disclosed or not.

63. When a question has arisen as to whether a member is ineligible to participate in discussion or vote on a matter because of a potential conflict of interest, and the member has not chosen to abstain of his or her own volition, the Council may determine

that the member is ineligible due to a conflict of interest by a vote of a majority of other members present. After such determination, the ineligible member shall not participate in discussion of, or vote on, the matter.

64. Members shall not act, hold themselves out, or permit themselves to be perceived as official representatives or spokespersons for the Council without authorization from the Council or the Chair. When communicating for personal purposes on matters that may be related to the Council's business, members shall clearly indicate that their statements are made in a personal capacity and do not necessarily reflect the views of the Council. Whenever a member is asked to speak on behalf of the Council, the member will ask approval of the Council or Chair in advance.
65. To maintain public confidence in the objectivity of the Council and to avoid the appearance of bias or prejudice, a member shall not speak or appear before the Council on behalf of or as a representative of a potential or actual petitioner. A member should avoid speaking or appearing before another entity on behalf of or as a representative of a potential or actual petitioner.

Article 10

AGENDA AND ORDER OF BUSINESS

66. An agenda for each meeting of the Council shall be developed by the Chair in consultation with the members of the Council. To the extent practicable, agenda, resolutions, and materials for regular meetings shall be made available to the public and members of the Council at least 48 hours before the meeting's scheduled start time. Members wishing to add an agenda item or a speaker to the agenda should contact the Chair with the request.
67. The order of business at regular meetings shall generally be as follows.
- h. Call to Order
 - xxxiii. Roll Call
 - xxxiv. Approval of the Agenda
 - xxxv. Approval of Minutes of Past Meetings
 - xxxvi. Public Comment
 - xxxvii. Special Presentations
 - xxxviii. Regular Business
 - xxxix. New Business
 - xl. Communications and Reports
68. Council
69. Staff

- i. Finance Report
- 70. Committees
- xli. Adjournment

Article 11

AMENDMENT OF BYLAWS

- 71. Amendments to these Bylaws may be approved at any regular meeting by vote of two-thirds of the voting members currently serving on the Council. Proposed amendments must have been submitted in writing at the previous regular meeting to be considered.
- 72. Prior to submission of amendments to the Bylaws at the regular meeting, proposed amendments must be submitted to the Chair who will submit them to the Office of the County Corporation Counsel. Reasonable time must be allowed for Corporation Counsel's response.
- 73. After adoption by the Council, the amended bylaws are not effective until approved by the Board of Commissioners.

Washtenaw County Environmental Council

Tuesday, November 28, 2023

5:00PM - 6:30PM

Remote Meeting via Zoom

DRAFT MINUTES

Approved by the Environmental Council on _____

- I. Call to Order by Chair Michelle Deatruck
- II. Attendance
Present: Anne Brown, Michelle Deatruck, Gay MacGregor, Kris Olsson, Yousef Rabhi, Avni Rao, Elizabeth Ratzloff, Katie Scott, Annie Somerville, Benjamin VanGessel, Husdon Villeneuve
Absent: Andrew Comai, Ruby Horton, Theresa Tupacz, Tim Redmond
- III. Approval of the Agenda
Moved by: Liz Ratzloff
Seconded by: Avni Rao
Approved unanimously by voice vote.
- IV. Approval of Meeting Minutes
October Meeting Minutes were tabled for approval until the next meeting.
- V. Citizen Participation:
 - A. No Citizen Participation
- VI. Presentation: Stormwater Resources & Additional Topics
Presenter: County Water Resources Commissioner Evan Pratt
 - A. Commissioner Pratt presented a slide presentation, *Washtenaw County Water Resources: Resilience Strategy*, to the Council.
 1. The slide presentation emphasized climate change and resilience, and national and local risks related to water management, including the historic climate-fueled flooding of parts of Washtenaw County in August, 2023, as well as county mitigation achievements and plans by Commissioner Pratt's office.

- a) Commissioner Pratt's presentation slides are in the November 28, 2023 Agenda Packet.

B. Questions by Council Members

- Can you explain the difference between retention and detention?
- Does stormwater management fall on the County or Developers when building new construction?
- More people need to understand how forward thinking we are in terms of water management.
- Watershed Council has done green infrastructure trainings, do you think that this green infrastructure takes the place of wetlands/forestlands?
- Commissioner Pratt made a recommendation regarding the need for a Vulnerability Assessment as well as an Opportunity Index Assessment with regard to *Resilient Washtenaw*.
- Commissioner Pratt shared a Rain Garden Training Link <https://secure.qgiv.com/for/friothrou/event/880821/>

VII. Regular Business

A. Washtenaw County Climate Action Plan & Sustainability/Resilience Office

1. Budget and Staffing Status & Next Steps.

- a) Deputy Administrator Andrew DeLeeuw gave an overview of the budget that now includes two structurally funded positions for the Resiliency Office.
- a. Commissioner Rabhi thanked for all of the advocacy and support for the office, and suggested to continue their advocacy throughout the final budget vote which is December 6th.

B. Council Membership:

1. Updates on upcoming five appointments to the WCEC. *Staff*

- a) The Clerk's office has received 5 applications for the 4 open seats, 3 of which are current appointees, and two are new applicants.
- b) The open seats are representing sustainable energy producers, racial equity and environmental issues, land use and preservation, and community groups.
- c) The Chair intends to make these appointments at the last meeting of the year, which is next Wednesday December 6th.

VIII. New Business

A. Proposed 2024 Meeting Calendar

- 1. Move to approve the Meeting calendar by Commissioner Yousef Rabhi

2. Seconded by: Liz Ratloff
3. Approved by Unanimous Voice Vote

B. Appointments to Advisory and Recommendations Committee

1. Chair Deatrick noted she intends to make these appointments in 2024 and asked for Council members to email her to indicate interest.

C. Updates: Regional climate action planning by SEMCOG. *Staff.*

1. State of Michigan is receiving comment on MI healthy climate plan and Governor signed Clean Energy bill today in Detroit
2. SEMCOG through inflation reduction act, lots of money has been made available to enact regional climate action plans.

IX. Communications and Reports

A. Councilmembers

1. Chair is requesting feedback regarding presentations and the proposed First & Second Quarter 2024 Meeting Topics listed in the Meeting Packet.

B. Staff - None

C. Committees and Committee Reports - None

X. Adjourn

- A. Moved by: Yousef Rabhi
- B. Seconded by: Liz Ratzloff
- C. Approved unanimously by voice vote.

Minutes prepared by Ashley Hall, Staff Support to the Council

###

Washtenaw County Environmental Council

Tuesday, October 24, 2023

5:00 PM – 6:30 PM

Remote Meeting via Zoom

DRAFT MINUTES

Approved by the Environmental Council on _____

I. Call to Order by Vice Chair Anne Brown

II. Attendance

Present: Anne Brown, Andrew Comai, Ruby Horton, Gay MacGregor, Kris Olsson, Avni Rao, Elizabeth Ratzloff, Tim Redmond, Annie Somerville, Benjamin VanGessel, Hudson Villeneuve

Absent: Michelle Deatrick, Yousef Rabhi, Katie Scott, Theresa Tupacz

III. Approval of the Agenda

- A. Amendment to the Agenda, adding a “Resolution Urging the Board of Commissioners To Establish and Staff a County Office of Sustainability and Resilience In Order to Implement the County’s Climate Action Plan, *Resilient Washtenaw*” under “e” in New Business.
- B. Moved by Liz Ratzloff
- C. Seconded by Gay McGregor
- D. Amendment and Agenda approved unanimously by voice vote

IV. Approval of the Minutes

- A. Approval of Meeting Minutes from September 26, 2023
- B. Moved by: Avni Rao
- C. Seconded by: Kris Olsson
- D. Approved unanimously by voice vote

V. Citizen Participation:

- A. Lauren Sargent – Ann Arbor resident. Advocate for full staffing and budget support for the Resilient Washtenaw climate plan, urged the Council and Board of Commissioners to move forward.
- B. Council Responses to Citizen Participation
 - i. Vice Chair Brown thanked Ms. Sargent for joining the meeting and suggested she reach out to her Commissioner.

VI. Special Presentations - None

VII. Regular Business - None

VIII. New Business

- A. Budget Recommendations Update – Andrew DeLeeuw, Staff
 - i. Has made a series of presentations from DFO to the BOC.
 - 1. The resiliency officer is being recommended to the BOC as a 1 year grant status position.
 - ii. Questions from Council members
 - 1. Gay McGregor: At what point in the budget process were the positions taken out?
 - a. Andrew: The situation is more nuanced, essentially the 3 positions were never in the budget to begin with, only the 1 position was.
 - 2. Council Member: Is this position contingent on grant funding coming in?
 - a. Andrew: No. Nonstructural positions receive this designation.
 - 3. Kris Olsson: Is this a budget for the next 4 years, and will the next time a budget gets recommended be in 2027?
 - a. Andrew: This budget is essentially the same for the next 4 years, but Commissioners can change it yearly.
 - 4. Liz Ratzloff: Asked about how the emissions calculations were accounted for in the budget recommendations.
- B. Resolution Establishing the Advisory and Recommendations Committee of the Washtenaw County Environmental Council, a standing committee
 - i. Moved by: Liz
 - ii. Seconded by: Gay
 - iii. Approved unanimously by voice vote.
- C. Climate Action Plan Update
 - i. Jason Fee, Facilities Management Director
 - 1. Ongoing Countywide Space Plan
 - 2. Resilient Washtenaw Plan Website Updates
 - 3. Watching & applying for grants
 - a. Reminder about grant spreadsheet:
https://docs.google.com/spreadsheets/d/13EVCMSlW1zAVMH8svvxv_e_8V-b0iGY3vT9h8ZFGYh0/edit?usp=sharing
 - 4. Expanding solar panel
 - 5. Fleet system RFP
 - a. Question about safety required of RFP submissions
 - i. We require contractors to follow all OSHA & MIOSHA rules
 - 6. AB: How much did you request to put towards resilient Washtenaw?
 - 7. BVG: Is the county actively involved with the WATS long range plan?
- D. Meeting Calendar

- i. Discussion: Chair Deatrick recommends canceling the December 26th, 2023 Meeting
 - 1. Moved by Liz Ratzloff
 - 2. Seconded by Avni Rao
 - 3. Approved unanimously by voice vote
 - ii. Written communication from Chair Deatrick regarding November Meeting Agenda
 - 1. We will consider a proposed Meeting Schedule for 2024
 - 2. We have requested a presentation on stormwater management and more by Water Resource Commissioner Evan Pratt
- E. Resolution Urging the Board of Commissioners to Establish and Staff a County Office of Sustainability and Resilience In Order to Implement the County's Climate Action Plan, *Resilient Washtenaw*
 - i. Moved by: Kris Olsson
 - ii. Seconded by: Gay MacGregor
 - iii. This amendment was suggested and accepted by Kris:
 - 1. Third paragraph last sentence after "...with Black Brown Indigenous and low -income communities and people disproportionately harmed and increased occupational health and safety threats to workers and first responders from climate change including increased chemical exposures, heat stress and physical hazards such as falls from height, trench collapse and other construction hazards; and"
 - 2. Fourth paragraph last line add a definite article : "...of the formula into the review process for new housing and development "
 - iv. Resolution was approved unanimously by voice vote.

IX. Communications and Reports

- A. Councilmembers - None
- B. Staff – None
- C. Committees and Committee Reports
 - a. Funding Committee - Kris Olsson, Chair
 - b. Outreach Committee – Avni Rao, Chair

X. Adjourn

Meeting adjourned

- A. Moved by Tim Redmond
- B. Seconded by: Avni Rao
- C. Approved unanimously by voice vote

Minutes prepared by Ashley Hall, Staff Support to the Council

###

10/24/23 APPROVED RESOLUTIONS

Full text of approved Resolutions below.

- 1) Resolution Establishing the Advisory and Recommendations Committee of the Washtenaw County Environmental Council
- 2) Resolution Urging the Board of Commissioners To Establish and Staff a County Office of Sustainability and Resilience In Order to Implement the County's Climate Action Plan, *Resilient Washtenaw*

Resolution Establishing the Advisory and Recommendations Committee of The Washtenaw County Environmental Council

Approved October 24, 2023

Washtenaw County Environmental Council

Prepared by Michelle Deatrack

WHEREAS, on November 18, 2018, the Washtenaw County Board of Commissioners ("BOC") established the Washtenaw County Environmental Council ("WCEC" or "Council"); and

WHEREAS, the Council was tasked with "developing recommendations for environmental policy and organizational recommendations for Washtenaw County government in order to: achieve net-zero emissions for County operations, reduce county contributions to climate change; protect the County's air, land, water, food network, and both mental and public health as related to the environment; and prioritize environmental justice, and intergenerational justice related to the environment"; and

WHEREAS, the WCEC's Bylaws specify that the Council is charged to "Act in an advisory capacity, without regulatory or legislative authority, to County departments, committees, and the Board of Commissioners on environmental issues" as well as to work "collaboratively with other commissions, boards, councils and committees"; and

WHEREAS, the WCEC's Bylaws also specify that the Council is charged with creating Council committees to help conduct the work of the Council;

THEREFORE, the Council confirms the creation of a standing subcommittee, to be called the "Advisory and Recommendations Committee" ("Committee"), which will act in a solely advisory capacity to the Chair of the WCEC and the WCEC; and

THEREFORE, the Advisory and Recommendations Committee is comprised of at least two (2) members and no more than four (4) members of the WCEC, to be appointed by the Chairperson, those members to serve until the election of new Council Chair and until appointment of their replacements; and the WCEC Chair serves as an ex-officio member; and

THEREFORE, the Chair may remove Committee members who miss two or more consecutive meetings of the Committee without reasonable excuse; and

THEREFORE, the Advisory and Recommendations Committee is tasked with following up on

Council meetings and communications at the direction of the Council Chair, including but not limited to public comment, written comment, and presentations, in order to create draft recommendations to the Council and to County government including departments, committees and the BOC on environmental matters; and

THEREFORE, the Advisory and Recommendations Committee will submit all draft advisories and recommendations to the full Council for discussion, amendment, and consideration of approval by the Council, and will not communicate those draft advisories and recommendations externally, which is the purview of the full Council alone.

###

**Resolution Urging the Board of Commissioners
To Establish and Staff a County Office of Sustainability and Resilience
In Order to Implement the County's Climate Action Plan, *Resilient Washtenaw***

*Approved October 24, 2023
Washtenaw County Environmental Council
Prepared by Michelle Deatrick*

WHEREAS, on November 18, 2018, the Washtenaw County Board of Commissioners ("BOC") established the Washtenaw County Environmental Council ("WCEC" or "Council") by a unanimous vote; and

WHEREAS, the Council was tasked with "developing recommendations for environmental policy and organizational recommendations for Washtenaw County government in order to: achieve net-zero emissions for County operations, reduce county contributions to climate change; protect the County's air, land, water, food network, and both mental and public health as related to the environment; and prioritize environmental justice, and intergenerational justice related to the environment"; and

WHEREAS, implementation of Resilient Washtenaw and urgent action by the County are more important than ever, as the climate and environmental justice crises are escalating at the local, national and global levels, with greenhouse gas pollution being the direct cause of harms to people and planet, including in Michigan and in Washtenaw County, where harms to health, livelihoods, the economy, and more include torrential rain events, flooding, increases in tick and other vector-borne diseases, damage to food systems and farms, heat waves, threats to biodiversity, with Black, Brown, Indigenous and low-income communities and people disproportionately harmed, and increased occupational health and safety threats to workers and first responders from climate change including increased chemical exposures, heat stress and physical hazards such as falls from height, trench collapse and other construction hazards; and

WHEREAS, the County is implementing some significant climate resilience initiatives, including stormwater management and more, but is nevertheless falling behind on implementing its Resilient Washtenaw plan to reduce emissions, including but not limited to these initiatives that are to be *completed* in 2023: creation of a climate education and outreach program; identification of target areas for weatherization, solar and building electrification; identification and tracking of methane (a potent GHG) capture opportunities; creation of interlocal agreement and public outreach plan for a county-wide energy concierge, development of relevant service provider database; development of training and enforcement programs to ensure compliance with updated energy building codes; ensuring all new construction planned beginning in 2023 is all-electric, renewable energy ready, and EV ready; creation of an emissions formula for all new developments in the County integration of the formula into the review process for new housing developments; and

WHEREAS, the Resilient Washtenaw plan committed the County to numerous goals for 2024 with long lead times, including the creation of a Regional Resilience Authority, to bring together the 28 units of local governments, nonprofits, and local and regional labor for collaborative work, and which is responsible for a large portion of the initiatives in Resilient Washtenaw related to housing, emissions, transit, heat island reduction and more; and

WHEREAS, implementation and development of Resilient Washtenaw requires commitments to budget, staff, and infrastructure including office space and equipment; and

WHEREAS, County Staff developed a staffing plan for an Office of Sustainability and Resilience which includes three positions - a Chief Resilience Officer, a Program Officer, and a Communications Coordinator Officer; and

WHEREAS, on May 23, 2023, the WCEC voted unanimously to recommend adoption of this staffing plan and to urge County Administration to hire staff without delay; and that recommendation was forwarded to the Board of Commissioners in the form of a *Resolution Affirming Support by the Washtenaw County Environmental Council For Urgent Implementation of the County's Historic, Bold Climate and Environmental Justice Action Plan, Resilient Washtenaw, Including Approval of a Budget, Retention of Staff, Allocation of Office Space and All Other Necessary Measures*; and

WHEREAS, numerous opportunities for grants and other funding directly supportive of the goals of Resilient Washtenaw are currently available and are becoming available through federal and state government programs, especially those related to the Bipartisan Infrastructure Act and the Inflation Reduction Act, and many of these opportunities have deadlines in 2023 and 2024, with some deadlines having already passed, and there is potential for the County to gain millions in funding from those grant and other funding programs; and

WHEREAS, local governments undertaking similar climate action plans have staffing levels exceeding the single staff member hire that is advised in the County Administrator's Recommended Budget; for example, the City of Ann Arbor's Sustainability Office has a permanent staff of 17, with an additional 10 (Americorps members) - and the scope of the County's Climate Action Plan, which encompasses not emissions for the entire County, not just County operations, is much larger than that of the City of Ann Arbor; and

WHEREAS, there is a national shortage of sustainability workers, as articles in the *Wall Street Journal* and numerous other outlets, as well as a recent National Sustainability Society convening in Ann Arbor have highlighted, and the shortage is projected to increase given federal incentives estimated to create more than 9 million jobs; and therefore attracting staff with the requisite skills and education to a County Sustainability and Resilience Office is likely to mean offering positions with the possibility of longer term employment and stability rather than temporary, one-year positions;

THEREFORE LET IT BE RESOLVED, the Washtenaw County Environmental Council recommends that the Board of Commissioners approve the County Administrator's recommendation for hiring a Resilience Officer;

BE IT FURTHER RESOLVED, the WCEC urges the BOC to approve funding for that position for four years rather than the single year described in the Administrator's recommended Budget;

BE IT FURTHER RESOLVED, the WCEC urges the BOC to approve funding for the two additional staff members as laid out in the proposal developed by County Staff and endorsed by the WCEC;

BE IT FURTHER RESOLVED, the WCEC urges the BOC to provide adequate funding for the Office of Sustainability and Resilience to accomplish the work set forth in *Resilient Washtenaw* on the timetable previously approved by the BOC; and

BE IT FURTHER RESOLVED that this resolution be sent to the Board of Commissioners.

###

DRAFT

Light Pollution and Solutions

sites.lsa.umich.edu/darkskies

Sally Oey, University of Michigan

John Mirsky, Ann Arbor Energy and
Environmental Commissions



Michigan Dark Skies

UM Astronomy

Scenic Michigan

Washtenaw350

Sierra Club Huron Valley Group

Sierra Club Southeast Michigan Group

Washtenaw Safe Passage

Detroit Audubon

Wayne State Physics & Astronomy

EMU Physics & Astronomy

UM Student Astronomical Society

University Lowbrow Astronomers

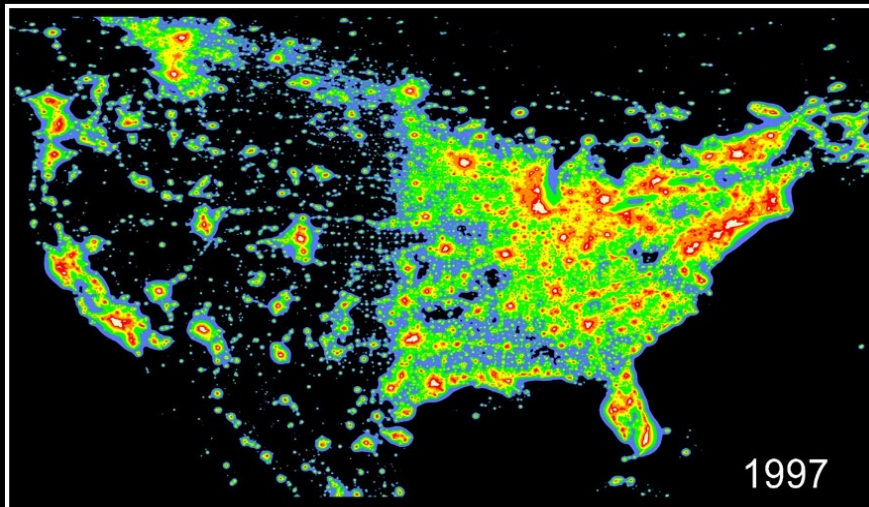
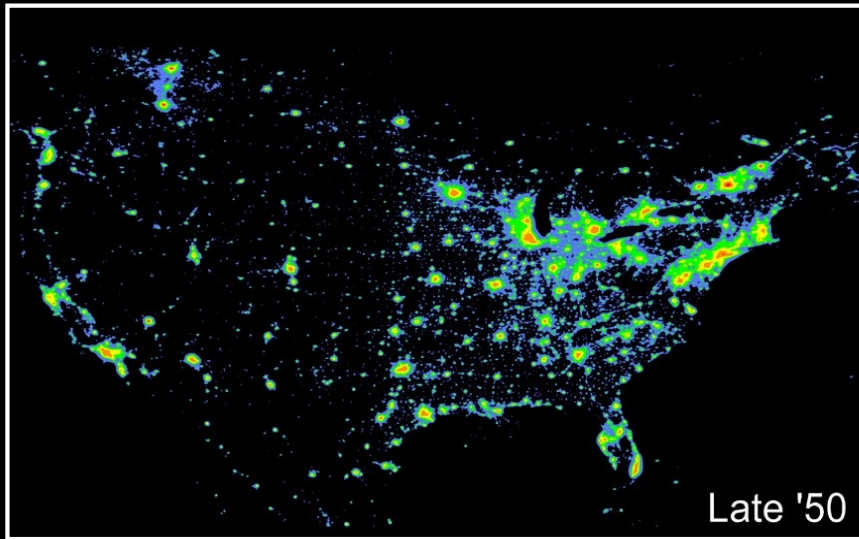
Nightscape: now

80% of people live
in urban areas

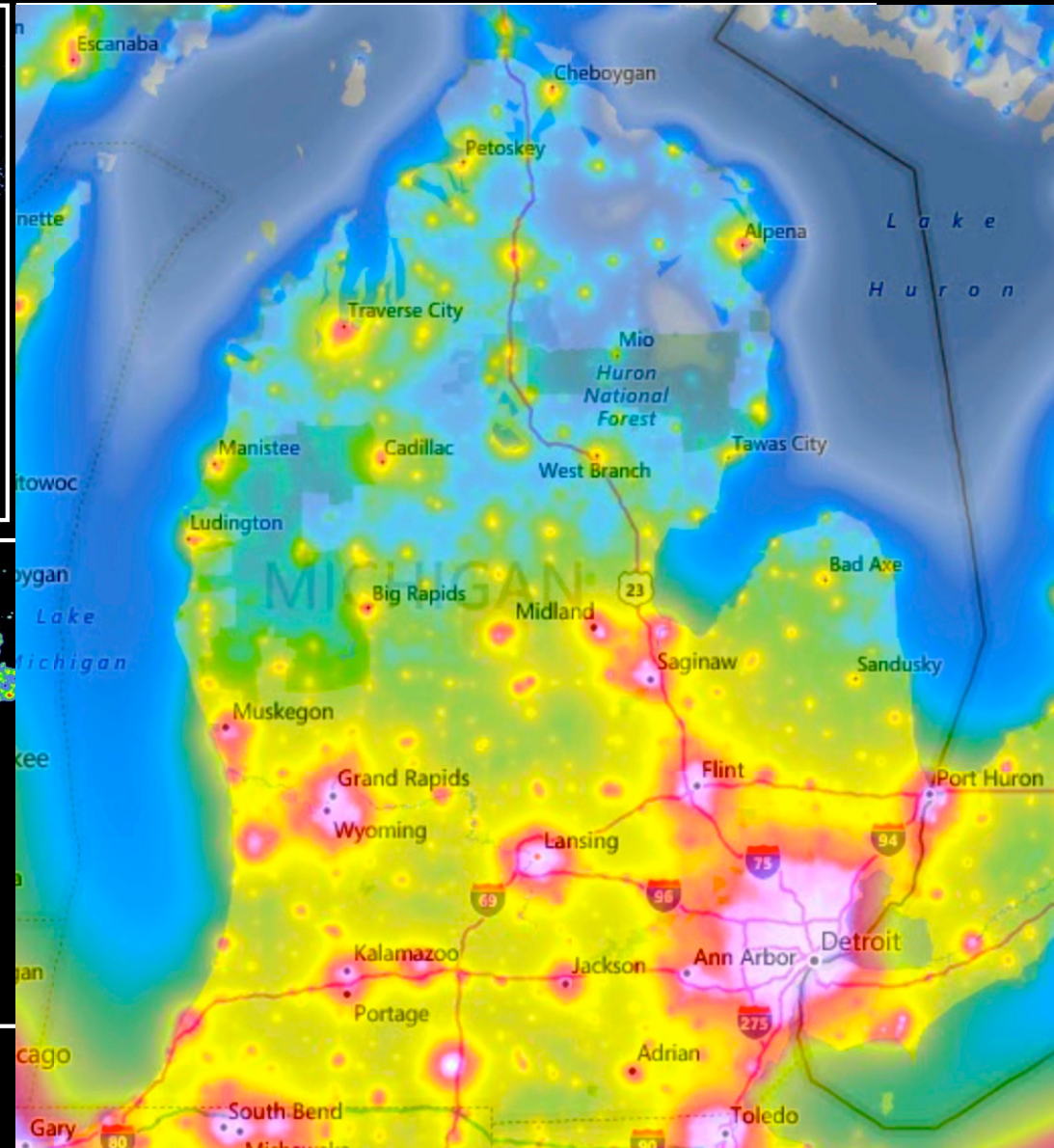


Light Pollution increasing at 10% / yr

(Kyba et al. 2023)



Cinzano, Falchi, and Elvidge (2001)



Impacts Biology and Human Health

- 24-hr circadian rhythm, and melatonin production, is disrupted by **artificial light at night (ALAN)**.



The Nobel Prize in Physiology or Medicine 2017

Jeffrey C. Hall, Michael Rosbash, Michael W. Young

“for their discoveries of molecular mechanisms controlling the circadian rhythm”

- ALAN disrupts the ecosystem: birds, nocturnal pollinators, etc.



Existential threat to the nocturnal ecosystem



The Animals Come Out at Night

Written and Illustrated by
Erin Gennow

**Insect
Apocalypse**

Yspi: 1 building, 1 day



- Birds migrate at night
- Building collisions are #2 cause of bird death
- Up to a **Billion** birds killed annually
- 25% of species declined in 50 yrs

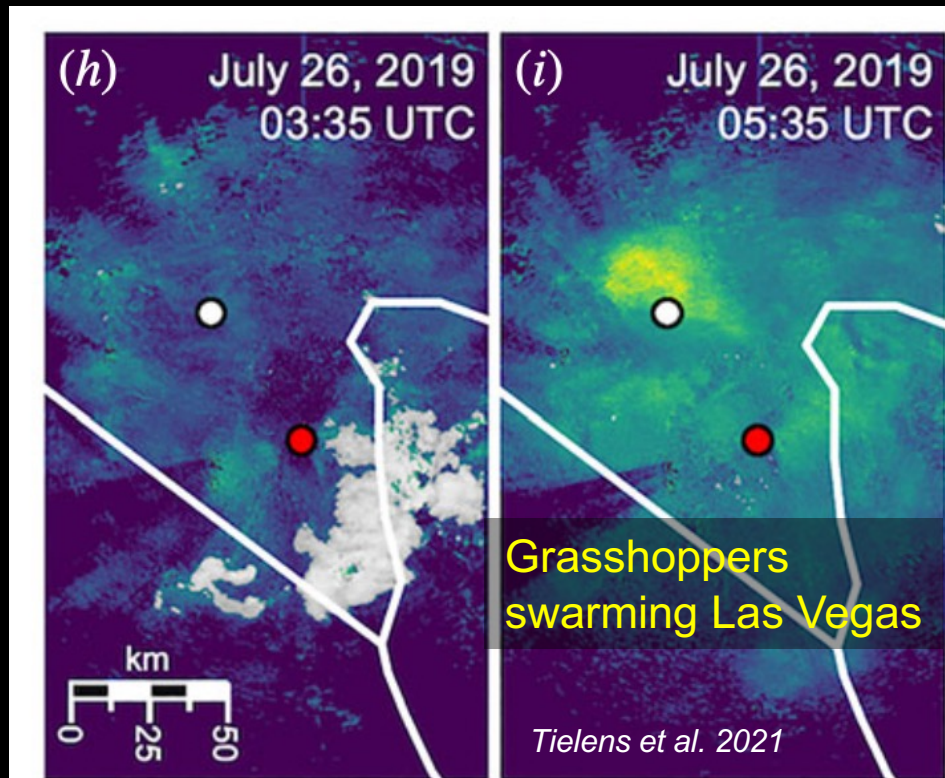
FLAP Canada's Annual Bird Display / flap.org
Royal Ontario Museum, 2016
These 2100 birds, recovered by FLAP volunteers, died in window collisions.



- Washtenaw Safe Passage
- Safe Passage Great Lakes, Detroit Audubon Society
- Fatal Light Awareness Program (FLAP), Toronto
- Chicago Lights Out Program



Insect Apocalypse:
40% of species threatened



- **Fireflies**
- **Bats**
- **Sea Turtles**
- **Salmon**
- **Deciduous trees**
- *... incl. nocturnal pollinators*
- **whole ecosystem!**

Humans: American Medical Association

Report of the Council on Science and Public Health (2016)

*... some evidence supports a long-term increase in the risk for **cancer, diabetes, cardiovascular disease and obesity** from chronic sleep disruption or shiftwork and associated with exposure to brighter light sources in the evening or night.*

*... excessive blue wavelength. This feature further contributes to **disability glare**, i.e., visual impairment due to stray light, as blue wavelengths are associated with more scattering in the human eye, and sufficiently intense **blue spectrum damages retinas**.*

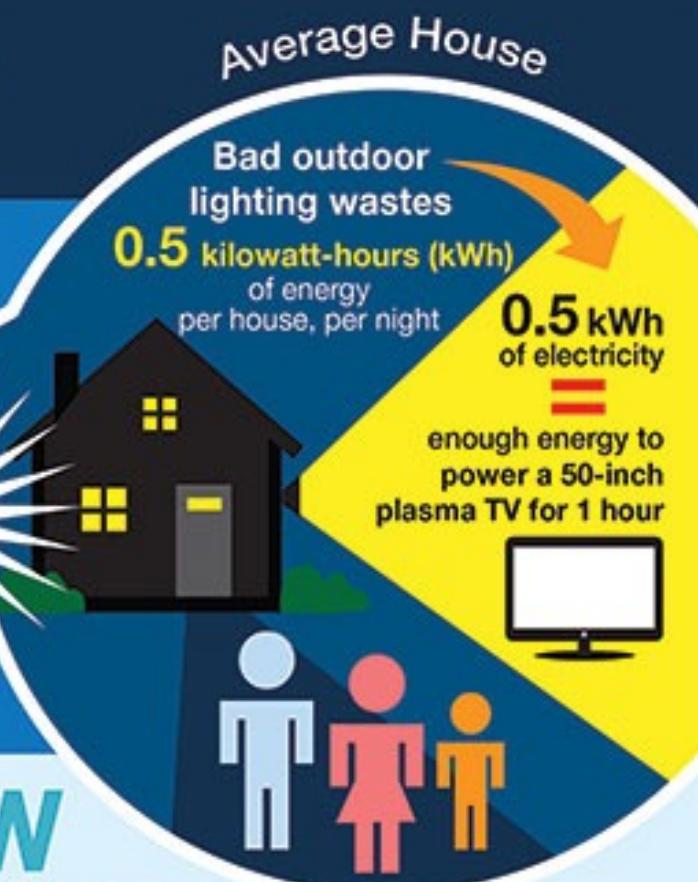
It is well known that unshielded light sources cause pupillary constriction... This leads to worse vision than if the light never existed at all, defeating the purpose of the lighting fixture.

ENERGY WASTE

What is light pollution costing us?



13% of residential electricity use in the U.S. is for outdoor lighting



About **15 million** tons of CO₂ are emitted each year in order to power residential outdoor lighting in the U.S.

About **35%** of light is wasted by unshielded and/or poorly-aimed outdoor lighting

SKYGLOW

is the artificial brightness of the night sky that's caused by light pollution.

About **3 million** passenger cars have the same CO₂ emission rate, which is 40,000 tons per day.



This is about **\$3 BILLION** per year worth of energy lost to skyglow



Which is about **\$10.00** spent for every man, woman, and child in the U.S. every year

About **600 million** trees would need to be planted to offset that amount of carbon emission



3 Types of Light Pollution:



- Glare

Light Trespass -



- Sky glow

Safety

More light is not necessarily safer

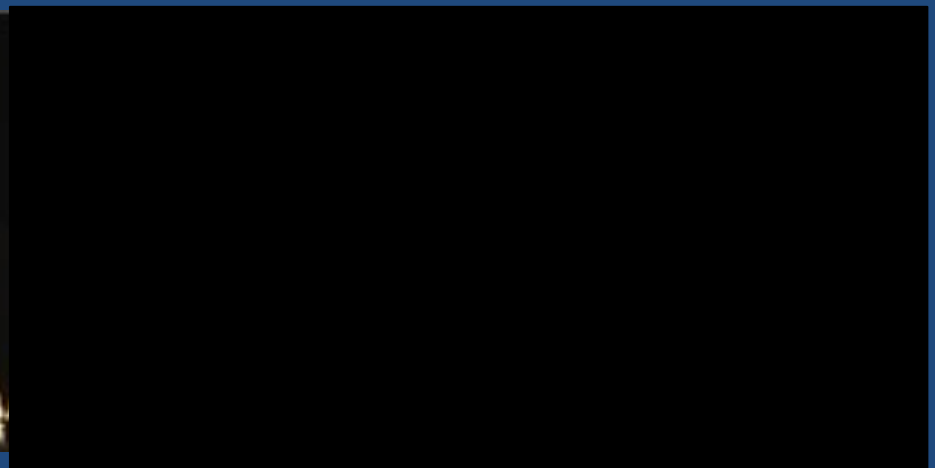
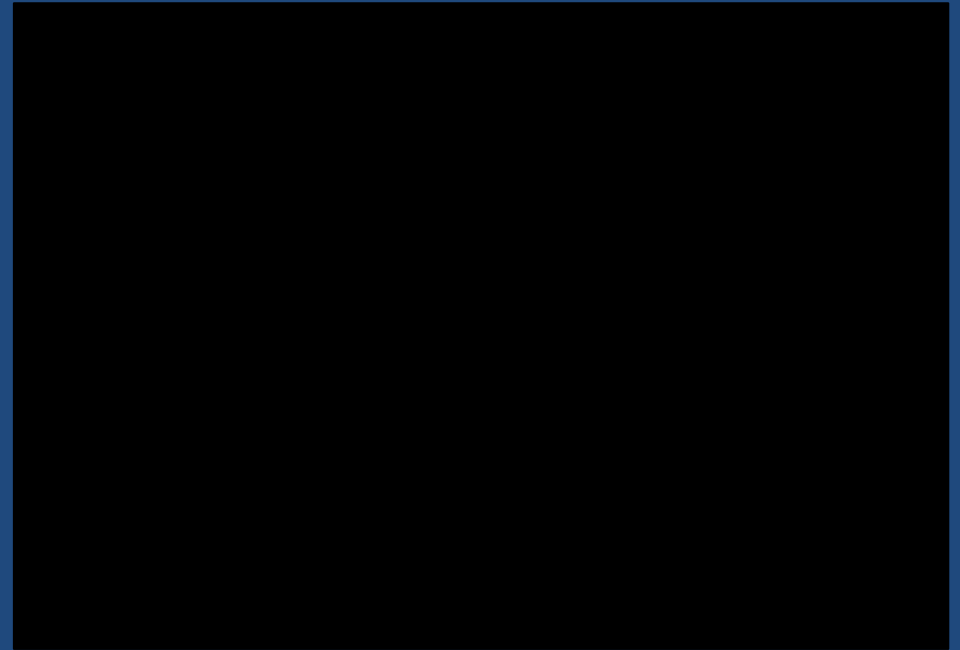
- Over-illumination causes deep shadows
- Glare reduces visibility
- Night vision compromised
- Stage lighting





More light ≠ more safe

Glare reduces visibility



Stage Lighting

Visible and safe? or vulnerable and exposed?



Eye's dark adaption compromised

LEDs tend toward Blue: Bad!

- Blue light scatters more strongly
- More disability glare, vision problems
- Blue destroys night vision more than red
- Blue is worse for ecosystem

It is estimated that white LED lamps have five times greater impact on circadian sleep rhythms than conventional street lamps.

--- **American Medical Association**, June 14, 2016

Easy Solutions!

Light only:

- What is needed
- No more than needed
- When needed
- No bluer than needed

*Need smart lighting,
not more lighting!*



Michiganders care!



Q dark sky



Michigan dark sky park announces 2021 stargazing dates

Jan 14, 2021 CASS COUNTY, MICH. — Stargazers, mark your calendars. Dr. Lawless International Dark Sky Park, which debuted just last year, has announced its night sky viewing ...



12 Michigan dark-sky spots for watching the Perseid meteor shower this week

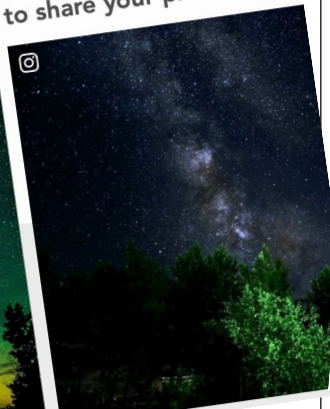
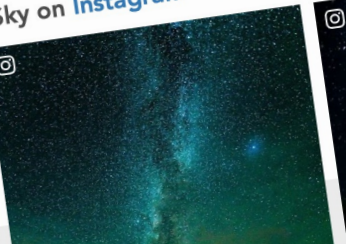
Aug 10, 2020 For stargazers, mid-August is one of the most magical times of the year. That's when the annual Perseid meteor shower occurs, a celestial show that, ...



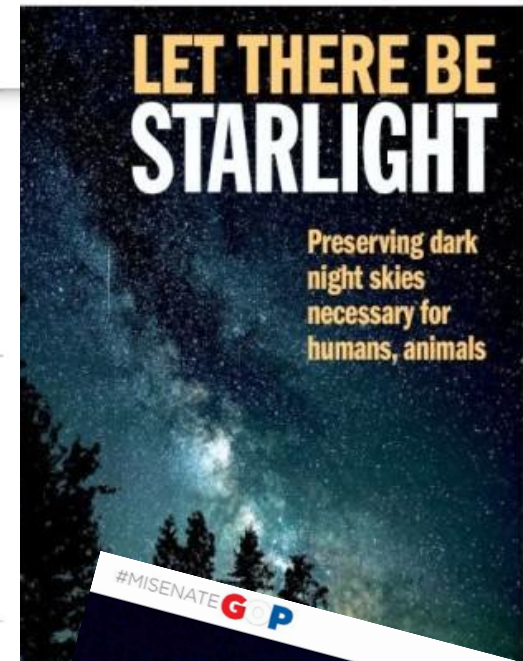
How to 'look up together' while social distancing during International Dark Sky Week

Apr 18, 2020 If you're growing tired of your everyday surroundings during pandemic stay-home orders, it's the perfect time to tap into a fresh, free resource that's updated ...

SHARE YOUR PURE MICHIGAN DARK SKY PHOTOS
Use #PureMichigan or #DarkSky on [Instagram](#) or [Twitter](#) to share your photos of yo



PURE MICHIGAN®

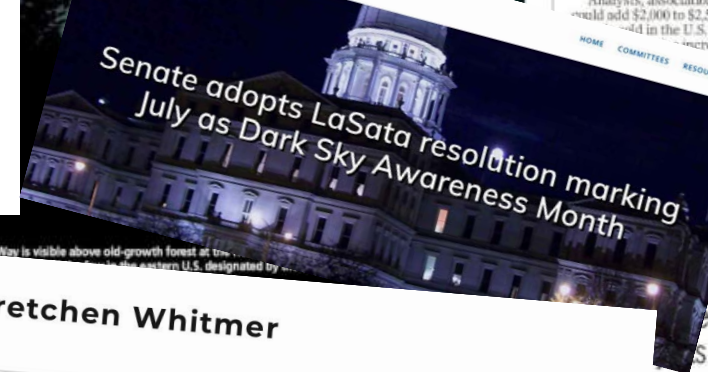


Would
for be
wall j
car p

Vehicles sold
\$2,500 more
Proposals for a ho
with Mexico and
facturing in the 1
thousands of dollars to
truck sold here, includ



MARK PHELAN
the umbrella group for
tions representing 1,00
Analysts, association
could add \$2,000 to \$2.4
ad in the U.S.



Governor Gretchen Whitmer

About News Issues & Accomplishments Appointments

April 22-30, 2022: Dark Sky Week

April 15, 2022

- Didn't th
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to find out v
roads that
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actively.
y should the
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pected to pr
maintenance
n won't come

6 MI State Parks are
Dark Sky Preserves

+

3 International
Dark Sky Parks



Headlands, Dr. T K Lawless, Keewenaw

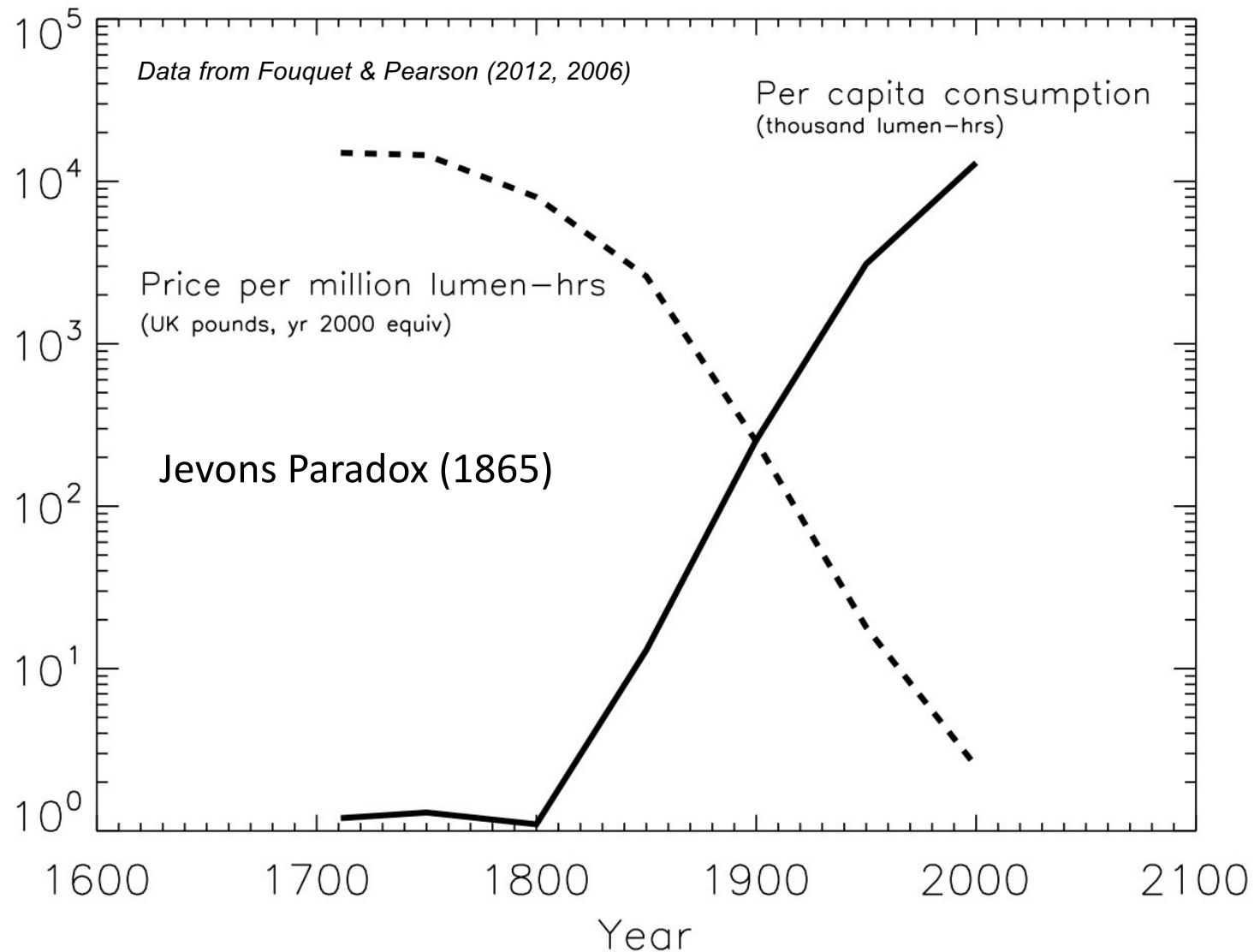


DarkSky



Cheaper energy = More consumption

Legislation imperative to realize conservation!



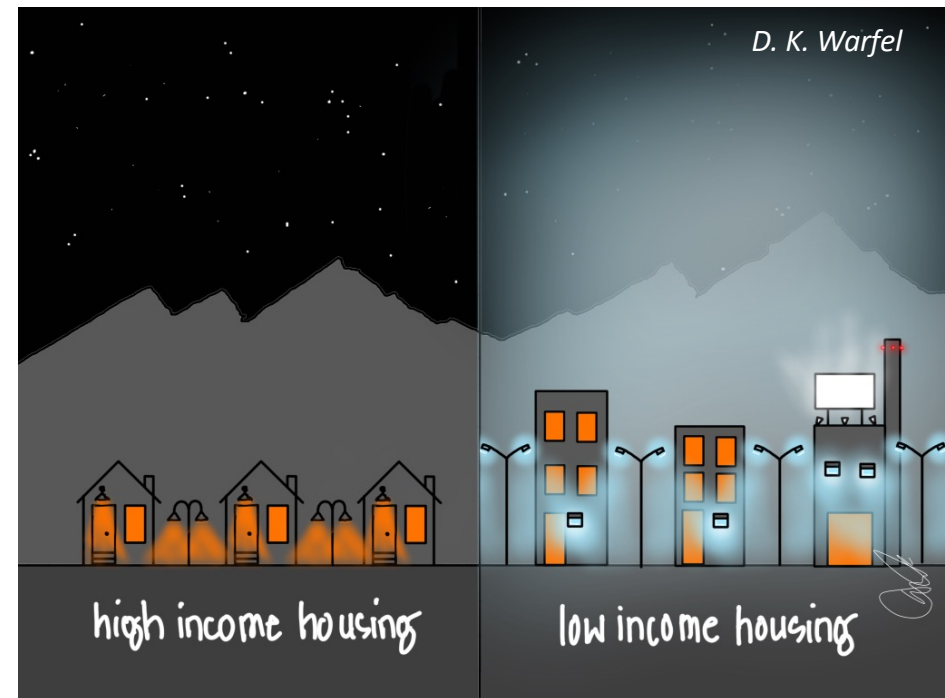
RESILIENT WASHTENAW

November 16, 2022

PRINCIPLES

Light pollution control
addresses all Principles

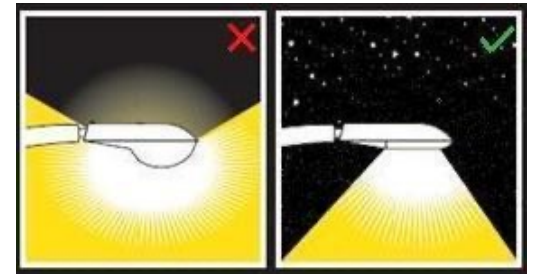
1. Racial Equity and Environmental Justice
2. Support Public Health
3. Just Transition
4. Resilient Economy *Food security*
5. Community Support & Partnership
6. High Communication & Engagement *Visibility*



Dark-Sky Compliant Criteria

ANSI standards set by Illuminating Engineering Society (IES)

1. Fixtures fully shielded
2. No light trespass at property line
3. Hours of operation
4. Brightness limits on specific uses, e.g., façade, canopy, and parking lot lighting
5. Warm colors (CCT < 2700 K)
6. Amortization



Township Lighting Codes

- Few fully implement dark-sky principles & standards
- ~25% have basically nothing
- Enforcement is poor
- **Rural areas critical** for containment of light pollution!

Ann Arbor Twp 76-606

Augusta Twp, 9.13

Bridgewater Twp, 11.20

Dexter Twp, Art. 21

Freedom Twp, 10.08

Lima Twp, Sec 6.7

Lodi Twp, Sec 55.21

Lyndon Twp, Sec 3.21

Manchester Twp, none

Northfield Twp, 36-602

Pittsfield Twp 40-13.05

Salem Twp 50.5d

Saline Twp 7.09

Scio Twp 36-315

Sharon Twp 18-04

Superior Twp, 14.11

Sylvan Twp, none (but working)

Webster Twp, 13-200

York Twp, 7.8, none

Ypsilanti Twp, 1303

Our group can suggest a consultant and/or help update

Washtenaw County

Suggested Actions

1. Enact Policy for outdoor lighting, adopting the ANSI standards of the Illuminating Engineering Society (IES) for all County facilities, roads.

Include Road Commission projects

Don't defer to DTE recommendations

2. Include Light Pollution Control specifics in implementation plans for Resilient Washtenaw
3. Raise public awareness
4. Promote dark-sky practices among Townships and municipalities

We welcome your advice and
collaboration.

Thank you!

- sites.lsa.umich.edu/darkskies
- darksky.org