**WISCONSIN ENVIRONMENTAL**

**EQUITY TOOL MEETING**

**AGENDA**

**TEAM: AD HOC ADVISORY COMMITTEE**

**Meeting Date/Time: Wednesday, June 29, 2022 at 6:00pm CT**

**Location: Zoom;** [**Link to join**](https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Fus06web.zoom.us%2Fj%2F89036253045%3Fpwd%3DbDhmdUJhSUxmTkpwcUNMUXlsNmV0QT09&data=05%7C01%7Cdana.nielsen%40wedc.org%7C577428d67e814414c5f608da4fdf4402%7Ca4d0c6039c7f4293b89ca08c1a8eb571%7C0%7C0%7C637910117587939396%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=cGyA9AP6yYlvkfZKN2WlHmzfWLApT9%2F96IEqKUNT0d8%3D&reserved=0) **Password: WEET2022**

**AGENDA**

|  |  |
| --- | --- |
| **Topic** | **Outcomes** |
| **Welcome** | **Learn about DHS’s relationship to Wisconsin Environmental Equity Tool (WEET)** |
| **Tetra Tech Updates** | **Introduction WEET creation** |
| **Indicator Discussion** | **Provide follow-up from Steering Committee and continue the conversation from last meeting** |
| **Community Conversations** | **Workgroup Formation** |
| **Closing** | **Discuss including members’ names on website and feedback for future meetings** |

**MINUTES**

[**Link to Recording**](https://us06web.zoom.us/rec/play/PAq1LC0cwResU10AE4CG-ugSvwHlpkkOA-X9DPYuBnMxeZH617w-mxmuhXKl1HHkPPMhiRllD8-uljOA.tFN27_QWHez1h6io?continueMode=true&_x_zm_rtaid=8x2zVAoDTrSWLd613mAvGw.1657228845629.ed34ae1adfd5ab13ba64b683d5c62ff1&_x_zm_rhtaid=212) **- Passcode: 8AL6$3GF**

**Welcome – Jon Meiman**

* One of the medical officers with DHS and work in environmental and occupational health (with lots of work around COVID the last few years).
* Excited to work with the other agencies and advisory committee on WEET
* See health issues everywhere in relation to environmental health and we need to better understand environmental health inequities so we can take steps toward eliminating them.
* Need to bring data together to understand a problem and start tackling these issues
  + No better problem than this to bring together all our data
* The task at hand is challenging which is why the input from the advisory committee is critical

**Tetra Tech Updates – Karl Schultz**

* Karl is the project manager for Tetra Tech’s development of Wisconsin Environmental Equity Index
* We have a team of GIS specialists, human health risks specialists, subject matter experts with measurement indices.
* Current position of WEET: working with Steering Committee (and using Advisory insights) to home in on priority indicators and pull them into a first iteration of the index
  + Have 12 indicators total at the moment for the first iteration and some draft visuals to demonstrate what we have thus far

Q&A

* Noah: Can this pre-beta version be emailed out to the advisory members so we can explore on our own time?
  + Karl: WEDC would have to grant that permission since that’s who our contract is through
  + Dominic: The plan is that we will have a true, full beta version to share with the committee in the future, but we aren’t there yet. We’ve asked Tetra Tech to give a progress report for today. We don’t have anything yet that can be played with yet. I’m sure Tetra Tech could share documents and screenshots in the meantime and hopefully soon there will be a more developed version that you can play with/test
  + Noah: Playing around would allow for more meaningful feedback
  + Dominic: When we have something you can play with we’ll get it to you all
* Adam: *This is not the final version.* This was recently put together quickly to visually share what we’ve been working on. The Overall WEET Score tab is a preliminary overall environmental equity index score by census tract for the entire state (Appendix A). The table below shows all the information that goes into it. Ability to click a specific census tract and get information about it (Appendix B). To show the two main pieces that go into the overall score, we have the summary of the Environmental Burden Score (Appendix C) and the Population Characteristics Score (Appendix D), both with similar functionality of the table below and the quick view of a specific census tract.
* Maggie: confirming that this is not what the final tool will look like, this is just the data visualized
  + Rachel: Correct. This was created for the purpose of showing what we have so far. This visualization platform and the actual index scores will continue to evolve
* Rachel: As mentioned, this is a very preliminary draft of WEET. We have 12 indicators going into it, but are still missing some indicators. These are in the works and will be added shortly. The Overall WEET Score is comprised of these two scores: Environmental Burden Score and Population Characteristics Score
  + Environmental Burden Score is comprised of 8 indicators that are representative of two components: environmental exposures and environmental and climate change effects.
    - Environmental exposure indicators are representative of actual exposures within a tract (e.g. chemical concentrations, calculated risks and hazards from air toxics information)
    - Environmental and climate change effects represent the presence of pollutants or the potential for exposure within a tract. They are not a direct measure of exposure.
  + Population Characteristics score is made of health outcomes and vulnerable populations components. This score has 4 indicators right now. We are working on refining some of the indicators right now, especially as they relate to health outcomes. There are some limitations with what we can do in terms of the granularity of our analysis due to data suppression to protect personal identifiable information.
  + You can see some of the census tracts with high Population Characteristics Scores have elevated Overall WEET Scores, same with the Environmental Burden Score. As we add more indicators that are representative of Wisconsin specific environmental issues we expect to see changes in the geographic distributions of scores. I know some of the national level scores that we’re seeing are weighing more heavily right now than they will in the final product which is why we’re not seeing a lot of variety of scores in the northern portion of Wisconsin.
* Dominic: We have some questions from the Committee. I also think we should put on the agenda at some point to see what kind of formula you are using to come up with the index and how you are weighting data.
* Lamont: I want to stay on the agenda topic, so I put this in the chat
  + Dominic: Okay, but seems like it’s important to discuss so that would be alright. Erika is suggesting that we also discuss Noah’s question from earlier in our Steering Committee meeting tomorrow. Lamont, would you mind elaborating or following up later on what you put in the chat regarding unresolved issues? Maybe this means a separate meeting as you suggested?
  + Beth: I would echo, to get some clarity on the issues you are referring to. And I think it’s a great idea to bring Noah’s question to the Steering Committee. Regardless of when we send out notes, I want a clearer timeline of when we will have a more interactive version of the tool for the Advisory Committee.
  + Lamont: It reflected the conversation. Just pointing out that we had to move on from a prior question and that doesn’t mean that any questions may not persist.
* Sarah: Will we be given how scoring was done? Will we be given the weighting? How “minority” or “low-income” were classified? That is something we’d like to understand how it was determined.
  + Rachel: Definitely, we have been documenting every step on how indicators were decided and how scores were calculated.
  + Sarah: My background with trying to create these indicators in GIS for multiple purposes is always the most controversial aspect of the data. I’m wondering when that data will be provided?
  + Rachel: I can speak to some of them now. For the low-income and minority population we pull them from EJScreen so they are from census tract data. But all of the documentation will be released.
  + Sarah: The actual statistical analysis behind this is detrimental to creating WEET. We need to provide input before the tool is finalized.
  + Dominic: Our assumption is that the Advisory Committee will be able to provide input to first the list of indicators and how they are weighted and calculated.
  + Sarah: Also if the data analysis is handled by the internal group and that’s not what is expected of the Advisory Committee, that is fine too. Just want to clarify our role.
  + Adam: We are documenting how every step was created. I know showing these visuals makes it look like we’ve hit a milestone, but really we aren’t there yet. We’re still trying to integrate indicators and this is a snapshot of our current position. Once we hit key milestones (e.g. integrating all key datasets) then we can provide the methodology to get more detailed feedback.
  + Rachel: I can add we are using a percentile ranked methodology to develop score for each indicator within each census tract. This is in line with the CA Screen and EJScreen
* Christina: Could you explain how you came up with the index (burden scoring, etc)
  + Rachel: We have the environmental exposure indicators and environmental and climate change effects indicators. Each indicator is analyzed by accuracy, completeness, distribution. Then we use SAS to come up with a percentile rate for the indicators in each tract. Then those scores are averaged to come up with a component score. Each indicator score is given equal weight within each component.
    - For example: In the Environmental Burden Score we have the 4 indicators within environmental exposure and 4 indicators within environmental and climate change effects and all of these scores are averaged. However, the environmental and climate change effects component is weighted half as much as environmental exposure to account for these effect indicators merely indicative of the presence of pollutants not real exposures. We are accounting for the *potential* of exposure while the exposure indicators are measured concentrations and risks. So, the environmental exposure and environmental and climate change effects components are combined to form the Environmental Burden.
    - It is the same methodology for the Population Characteristics. However, there is no weighting between the health outcomes component and the vulnerable populations component; it is a straight average.
    - Those scores are then rescaled on a scale on 0-10 and multiplied together to come up with the Overall WEET Score
    - Like I said, this will all be documented and released at a later date. We don’t have all of this documented yet, but once we pull something together we’ll have all the methodology and rational documented and available to share.
* Dominic: I’d recommend Tetra Tech come up with some sort of explanatory visuals before the next meeting. Maybe it would be helpful to have non-Advisory Committee meeting time for advisors to join a data working group if they’d like to get into the nitty gritty. Let’s think and talk about that off-line.
* Beth: There is a GIS team and this is also something we can talk about in the Steering meeting tomorrow and send an email to everyone with clarity.
* Marcy: This is really good input and these are the questions that need to come forward. We don’t have all the answers yet, but we will work through them.
* Lamont: Is it possible to tell us what the specific indicators for the components?
  + Rachel: Yes! And reminder we still have some indicators that need to be worked in. I’ll put them in the chat:
    - Environmental and Climate Change Exposure Indicators
      * Ozone Concentration
      * PM2.5 Concentration
      * NATA Cancer Risk
      * NATA Respiratory Hazard Index
    - Environmental and Climate Change Effect Indicators
      * Per Capita Proximity to RMP Sites
      * Per Capita Proximity to Floodplains
      * Per Capita Proximity to NPL sites
      * Per Capita Proximity to TSD facilities
    - Health Outcomes
      * Asthma Emergency Room Visits
      * Childhood Lead Poisoning
    - Vulnerable Populations
      * Race/Ethnicity
      * Poverty
* Tom: Could I get the environmental burden indicators please?
  + - Rachel: Yes, the environmental exposure indicators we’re currently working with are Ozone Concentration, PM2.5 Concentration, Air Toxic Cancer Risk, and Air Toxic Respiratory Hazard Index. The environmental and climate change effect indicators are Per Capita Proximity to Risk Management Plan Sites (required to have risk management plan—use extremely hazardous substances), Per Capita Proximity to Floodplains, Per Capita Proximity to Natural Priority List sites (e.g. Superfund sites), and Per Capita Proximity to Treatment, Storage, Disposal facilities (hazardous waste management or disposal facilities).
* Tom: I see no problem with redundancy with the EJ Screen. However, I’m not seeing a lot of incremental offerings or contributions that would differentiate the state level tool from a federal level tool. Have concerns that a lot of the indicators deal with ozone and air toxics. My understanding with correspondence from the EPA is the reason the EJScreen only goes down to census tract as the highest resolution on air toxics is because they consider air pollution to be of a greater radius/diameter than others. You lose some of the granular data at the census tract level that you would get from other indicators. I appreciate the climate change indicators, however, I’ve seen in town discussions on climate change and how it can increase flooding on the riverfront. Unfortunately, the context on our riverfront here is that it’s a high end, upscale development. A focus on those metrics would be more bourgeois recreation than what happens in town which would miss risk and burden assessments. I find it worrisome for a state level tool to not have proximity to Environmental Repair Program (ERP) sites as an indicator. Some of the worst sites in the state are ERP sites and not superfund sites. It could be more of a risk to some of the areas and populations that are truly are at risk to use minimal indicators in a beta version than actually waiting and releasing something more comprehensive. I think with limited indicators we would see a lot of false negatives looking at risk and burden because it excludes so much. I think it would be safer to have a wider set of indicators that would give a better set of representation.
  + Dominic: To clarify this is the first portion of all the indicators Tetra Tech wants to do for the first version of WEET we’re hoping to finish this year. We are moving step-wise; this is the first group of indicators and then we will add another group, and another. These are all coming from the list of indicators we provided at the last meeting. This isn’t even the pre-beta version yet.
* Noah: This looks very similar to EJ Screen which often is not helpful for me and my colleagues. For example, on that map Red Cliff is a sovereign nation, but lumped in with neighboring communities. While some of those communities are low-income they do have rich folks with summer homes there. Shifts the way our community and our struggles are reflected in tools like this. Regarding tools I’ve used in the past, the connection to water and harm isn’t being considered (e.g. fish advisories, mercury levels, PFAS). How will an absence of data be considered? WEET should make it explicit that an absence of data doesn’t mean there isn’t an issue. Or go further saying an absence of data assumes there is harm until data proves otherwise. This also doesn’t look at downstream impacts. Especially with Red Cliff and our treaty rights, the wellbeing of next generations would be devastated due to the harm of the treaty rights. Additionally, with crude oil pipelines that currently don’t have catastrophic leaks, how does that potential harm get included?

**Indicator Discussion – Dominic Holt**

* List of data indicators (Appendix E)
  + Eric: There is a subset of this list Tetra Tech is looking at now. Goal of the subset is to get to a beta version quicker that isn’t complete but a starting point. Then the indicators provided by the Committee can also be included.
* List of indicators mentioned by Advisory Committee at 5/25 meeting (Appendix F)
* Eric: To Noah and Tom’s points on environmental justice stories that don’t have sufficient data from the state, but there is still harm. Another part of WEET is to include stories or Story Maps that could help highlight stories that the data itself can’t show. To show there are environmental justice issues that don’t have enough data on them.
* Sarah: Love the idea of story boards so that when people look at the tool they understand there is bias in data. To show these tools can only be as good as the data and to show some stories the data can’t tell.
* Eric: We can use these meetings to identify some of those stories that should be included.
* Tom: While I raised some concerns, I appreciate the work being done and the data/tech challenges. Ultimately as WEET progresses, WI has an opportunity an opportunity to do a cumulative impact assessment, looking at the indicators in totality and not just alone. Might be far down the road, but I haven’t seen a tool look at the cumulative impact yet.
* Lamont: Bringing back the issue that environmental equity/exposures/risks/etc. are specific to the communities where they are and different across the state. Is there a possibility to have more contextualized/quantitative analysis on factors that are specific to communities?
  + Adam: are you talking about an analysis that looks at a specific community and provide an evaluation of the same metrics within that area? Or a different set of analyses for a specific community?
  + Lamont: The latter. I don’t think we’ll be able to pick any set of indicators that we can run a blanket set of analysis across the state and get the true analysis of equity or inequity. What are the possibilities of having a baseline of indicators and building WEET to get to the specific environmental factors in communities?
  + Adam: The base concept of reevaluating in a specific geographic area is possible. EJScreen has the national comparison but then you can look at individual states so you aren’t comparing WI to FL. A similar approach could be done where its regional or community area analysis. Adding additional analyses that are only relevant to one area is possible, but you would only be able to compare it to that specific area. Impossible to compare an indicator that reflects an issue in one area when in another area that issue doesn’t exist.
  + Lamont: I’m not clear on why comparing different geographies is necessary. This needs to inform local needs. I don’t feel the need to compare what is happening in Milwaukee to Rhinelander.
  + Noah: I agree. Not a competition of who’s environment is hurting the most. It’s how can we assess the impacts in our communities and how can we mitigate them.
  + Dominic: Isn’t using the percentile approach a way of saying “this is the level of X in Area A, but in Area B, the level of X is less.” Do relative comparisons help us figure out how bad something is?
    - Sarah: I think everyone must have the same understanding of percentile scores. When you get something that says “your score is in the 70th percentile,” it’s a comparison of everyone in the group, not the total percentage. It’s a big knowledge gap to jump into. Comparatively, that does exactly what you’re talking about.
  + Dominic: We have data that tells us the level or occurrence of something. So, the tool tells us that information in every part of the state. Isn’t that information still helpful?
    - Lamont: In terms of equity, we’ve been told we need to look at disparate analysis. It’s bad fundamental use and data thinking. If this tool can do anything different, that would be great. With the environment, you’ll be in a situation where you have almost meaningless analysis. What are we saying to the specific needs of an area? We need to make this relevant to the communities.
  + Tom: When you’re using percentiles, do you have a threshold in terms of the identification of environmental justice areas? Thresholds might become arbitrary at some point.
  + Adele: Lamont, there is someone I could connect you to who is familiar with a lot of this.

**Community Conversations – Erika Kluetmeier**

* Erika: We wanted to propose a separate workgroup to plan/host community conversations. We have some preliminary plans together from earlier in the year to launch discussions. We could meet outside of the Advisory meetings, probably just once and do work over email. At the next Advisory meeting we can present a proposal for wider feedback. In the meantime, we can send preliminary thoughts for feedback. Looking for people interested in joining this group. Hoping to do planning over the summer and conduct the conversations in September.
  + Noah, Cristina, Tom interested

**Closing – Dominic Holt**

* Wanted to list Advisory members on WEET website. Just names and maybe a few sentences on your EJ interest. We wouldn’t include contact information. Just wanted to see if there was any opposition. We can follow-up on specifics on email.
* Provide minute corrections to Dana by Friday
* Let us know of any ideas on how we can make these meetings better or suggestions for the next meeting’s agenda
* We promised 3-5 meetings for this committee. We can revisit that if needed or form more working groups to get more work done between meetings.

**Chat**

Dana Nielsen-WEDC 27:49

envequity@wedc.org

Lamont Smith 47:05

Im going to offer that this intro portion of the meeting has possibly raised a number of potential issues with this process that have been let unresolved. The need to continue with the agenda doesn't make those issues go away. There may be a need find an adequate space so that any one with questions about what’s going on to have those resolved for the sake of the quality of the process.

Lamont Smith 01:09:44

Thanks Tom, for reasking the question. and the follow up comments. Rachel please do also provide the indicators in writing. Having a Score specification matrix that includes the indicators listed would very helpful.

Rachel Houle (she/her) - Tetra Tech 01:13:44

Environmental and Climate Change Exposure Indicators• Ozone Concentration• PM2.5 Concentration• NATA Cancer Risk• NATA Respiratory Hazard IndexEnvironmental and Climate Change Effect Indicators• Per Capita Proximity to RMP Sites• Per Capita Proximity to Floodplains• Per Capita Proximity to NPL sites• Per Capita Proximity to TSD facilitiesHealth Outcomes• Asthma Emergency Room Visits• Childhood Lead PoisoningVulnerable Populations• Race/Ethnicity• Poverty

Sarah Lerner (WEET Advisory) 01:18:54

Noah brings up kind of the overall problem with ACS estimates because of both census tract geography issues and margin of error issues, but I don't know what other alternatives are out there unfortunately that has such a comprehensive estimate.

Tom Kilian, WEET Advisory Committee 01:30:35

<https://www.epa.gov/system/files/documents/2022-01/ord-cumulative-impacts-white-paper_externalreviewdraft-_508-tagged_0.pdf>

Pearly Wong—DNR 01:40:08

I think the tools might have policy makers actions and community actors in mind. comparison help them explain why they invest in certain communities more than other. But that's not helpful for communities themselves to take actions

Pearly Wong—DNR 01:41:51

Sorry, I mean they might have policy makers rather than community actors in mind

Maggie Thelen - WI DHS - she/hers 01:42:04

For TetraTech, are we able to configure the future app to be able to select by geography (maybe by drop down) and it could re-calculate the index so that the comparison only happens within a geographic location and not statewide?

Dana Nielsen-WEDC 01:47:51

Hi all! We actually made a little post meeting survey. This will give you another chance to comment on any of our agenda items: https://forms.office.com/Pages/ResponsePage.aspx?id=A8bQpH-ck0K4nKCMGo61cVykTajrmrJGtx0mBV4AgWJURFY3VkM4TVpXWFRST1c2Tzk0Q0hOTUYxVi4u

Dana Nielsen-WEDC 01:48:42

Also sharing the general email again: envequity@wedc.org. You can also shoot me an email and I can get it to the proper person

Noah 01:48:52

I can be on the outreach planning work group.

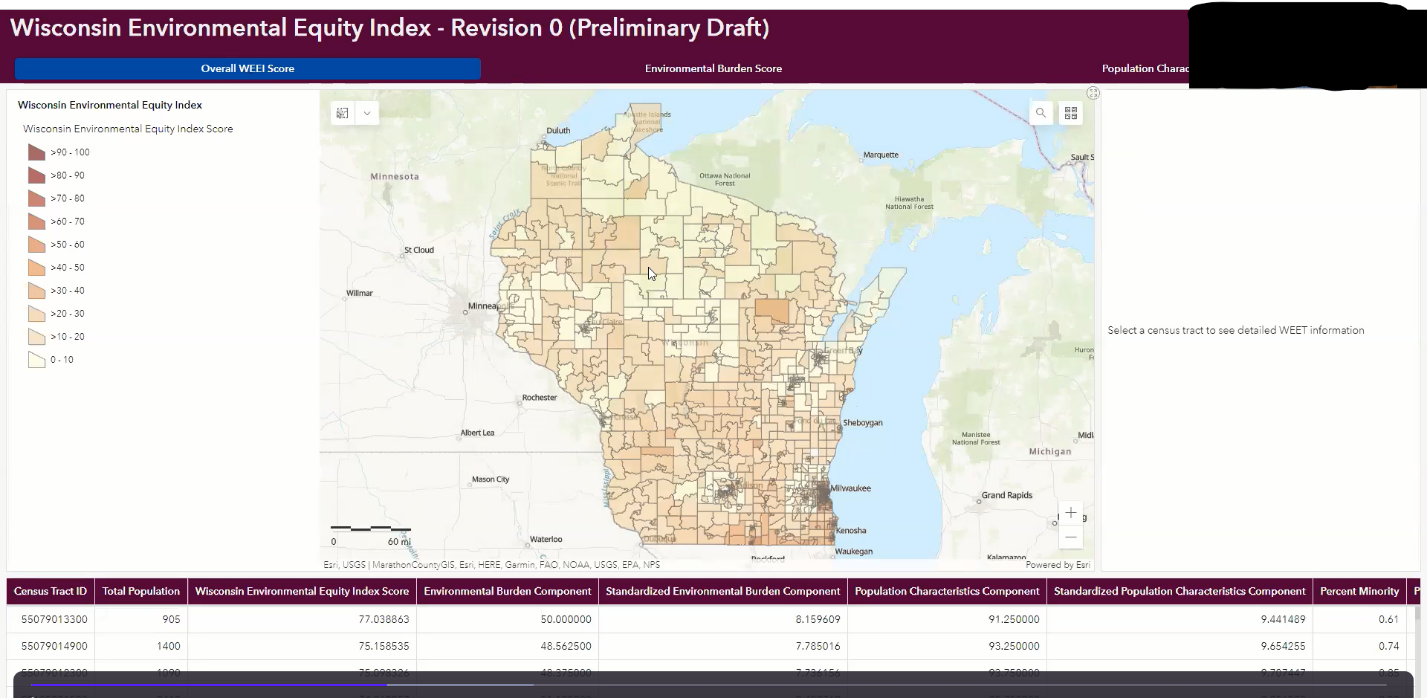
Kate Beardmore (she/hers) – DHS 01:48:53

If there is something we missed, or you feel you did not get to share with us, please use the survey link or email address above. You can also share your name and email in the survey to join the community connections work group

Lamont Smith 01:52:47

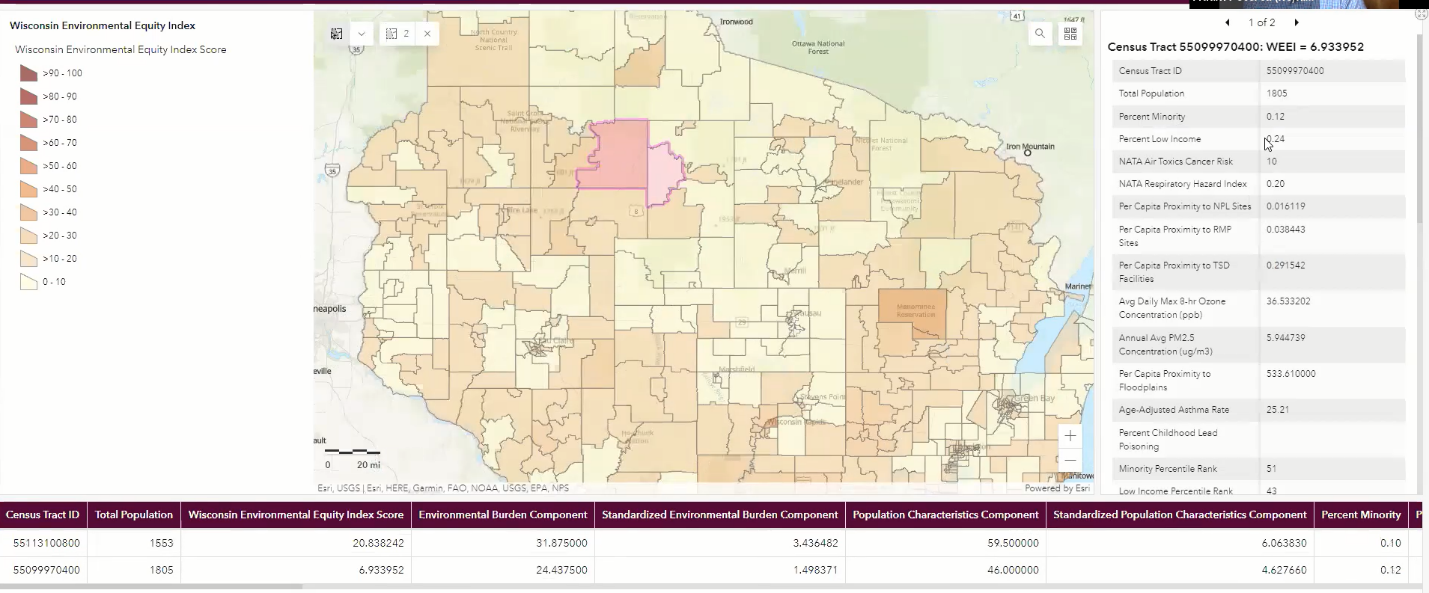
Thanks for a great meeting!

**APPENDIX A**

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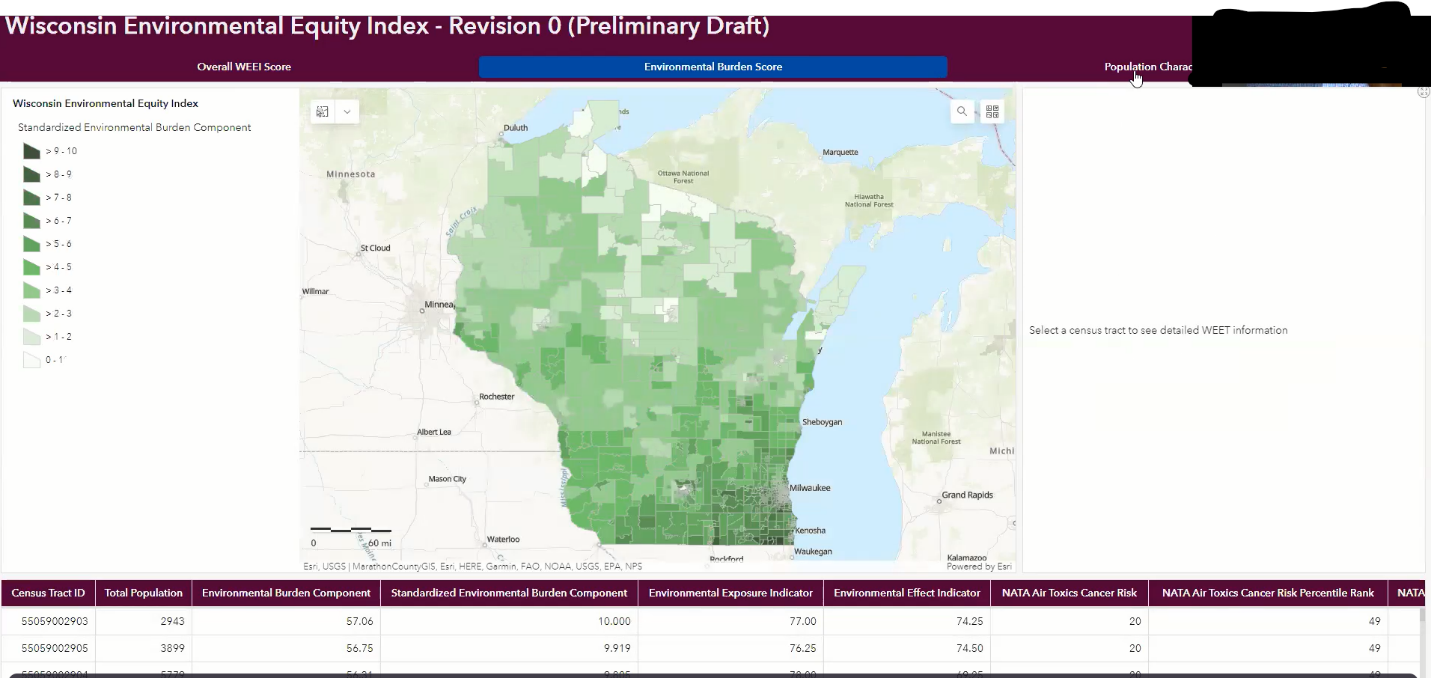
Visual aid for the discussion of the Overall WEET Score. This is not an accurate representation of what the Wisconsin Environmental Equity Tool will look like in its final stage.

**APPENDIX B**

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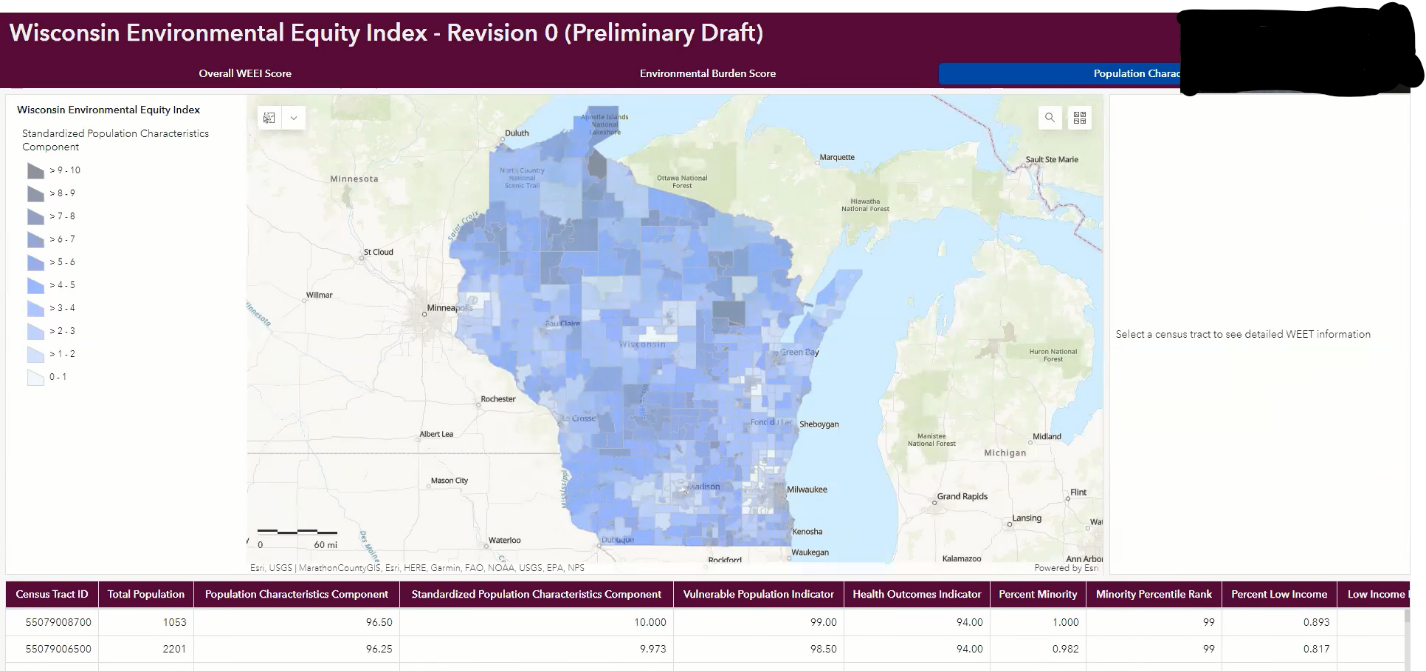
Visual aid for the discussion of the Overall WEET Score when looking at a specific census tract. This is not an accurate representation of what the Wisconsin Environmental Equity Tool will look like in its final stage.

**APPENDIX C**

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Visual aid for the discussion of the Environmental Burden Score. This is not an accurate representation of what the Wisconsin Environmental Equity Tool will look like in its final stage.

**APPENDIX D**

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Visual aid for the discussion of the Population Characteristics Score. This is not an accurate representation of what the Wisconsin Environmental Equity Tool will look like in its final stage.

**APPENDIX E**

List of data indicators from the WEET Request for Proposals.

Population category

* Cardiovascular disease
* Low birth-weight infants
* Asthma emergency room visits
* Poverty
* Race/Ethnicity
* Isolation of non-English speakers due to language barriers
* Level of education
* Unemployment
* Housing burden
* Transportation expense
* Health insurance
* Tribal land

Environment category

* Risk Management Plan Sites
* Proximity to National Priority List contaminated sites, called Superfund
* Proximity to facilities that store, treat, transport, or dispose of hazardous waste
* Impaired water bodies
* Solid waste sites and facilities (landfills, etc.)
* Ozone concentrations in the air
* Particulate matter (PM2.5) concentrations in the air
* Diesel air emissions
* Traffic density/proximity
* National assessment that estimates cancer and noncancer risks from breathing air toxics (NATA)
* Wastewater discharges
* Childhood lead poisoning
* Public drinking water index
* Pesticide use
* Respiratory hazard index

Climate change category

* Social Vulnerability Index - housing type and transportation index
* Average percent of developed surfaces that cannot absorb water
* Proximity to flood zones
* Tree canopy

**APPENDIX F**

List of indicators suggested by the Advisory Committee at the May 25th Meeting

* Proximity to food markets and deserts
* Proximity to DNR (ERP) sites
* Location of lead pipes
* PFAS
* How indicators relate to each other --> cumulative impact
* How do we prevent race data from being used against communities?
* Communities have different reasons for why they don’t have access to something, how do we represent that?
* Proximity to emergency rooms or higher-level hospitals
* How do we highlight that just because there may not be data on something, that doesn’t mean it’s not an issue?
* Isolation of non-English speakers vs having ability to learn or be with Native speakers
* How do we geographically identify tribal land
* Soil types (how water penetrates is dependent on type)