

Andrew Morley

How should the MPCA know when to require a mandatory cumulative impacts analysis?

Please see Chamber comments in attached file

How should the MPCA know when to require a discretionary cumulative impacts analysis?

See Chamber comment attached to question 1

What should the MPCA consider for the petition process?

See Chamber comment attached to question 1

What do you think is missing?

See Chamber comment attached to question 1



October 22, 2024

Minnesota Pollution Control Agency
520 Lafayette Road N.
St. Paul, Minnesota 55155

To Whom It May Concern:

On behalf of the Minnesota Chamber of Commerce and Industry, (Chamber), a statewide organization representing more than 6,300 businesses and more than a half a million employees throughout Minnesota, I appreciate the opportunity to comment on the Minnesota Pollution Control Agency's (MPCA) request for comments regarding cumulative impacts in environmental justice areas. The Chamber represents numerous members who the rulemaking will impact.

On September 19th, 2024, MPCA held a public meeting to solicit input on criteria MPCA could use to determine when to require a cumulative impact analysis (CIA). MPCA structured the discussion into three topics: mandatory analyses, discretionary analyses, and a petition process citizens could use to request an analysis. Chamber comments focus on those three aspects of a future rule.

Generally, MPCA should propose and establish clear criteria for when a CIA is required so an applicant knows with certainty whether a permit application must include a CIA. The rulemaking must conform with the enabling legislation, prioritize requirements based on risk, and align with available agency resources. Any CIA should remain in line with statute and focus on regulated air emissions as a trigger for analyses and not mobile source emissions, water quality, or other types of activity. It is reasonable to focus requirements on potential areas with the highest risk to public health or greatest disparity in risk for the local population. While prioritizing risk, MPCA should remain mindful about how many CIAs can reasonably be completed at the same time.

The overall goal should be public health improvement and not maximizing the number of required analyses regardless of risk. Any analyses focused on marginal risks or minimal disparities may pull agency resources away from higher priority analyses and delay related improvements, all while potentially stalling low-risk economic development projects.

Thresholds for analyses requirement and justification should be clear, concise, and based on sound, quantifiable, reproducible science so applicants have certainty and agencies avoid litigation. Anecdotal evidence, non-peer reviewed articles, and other unscientific evidence should not be considered. An expansive, undefined approach can cause confusion and uncertainty among permittees, regulators and community groups. Available local, quality-assured monitoring data should be reviewed to determine whether a CIA is required for a total facility air permit reissuance.

CIA requirement also should not be based on the nature of a proposed project, like in the case of mandatory categories to trigger Environmental Assessment Worksheets (EAW) or Environmental Impact Statements (EIS). Further, emissions changes in pounds per hour or tons per year of a small number of specific pollutants should not trigger a CIA automatically either. Neither the nature of a proposed project nor small criteria pollutant emissions changes necessarily correlate to the proposed project having substantial adverse impacts in the environmental justice (EJ) areas covered by the legislation. Lastly, any new construction or facility expansion permits with no increase in emissions, should not be delayed by a CIA. The goal of the CIA is to limit air emissions in EJ areas, and it would therefore be illogical to slow any permit issuance that will not increase emissions.

Mandatory Cumulative Impact Analyses

MPCA should focus requirements for mandatory CIAs on specific guidelines for projects in the local community context. The MPCA should establish clear guidelines and identify specific health- or impact-based criteria rather than, for example, a low-emissions threshold.

MPCA distributed a discussion document at the September 19th public meeting. The document included potential benchmarks for required CIAs, including air pollution emissions, programmatic triggers (e.g., permit modification), local air quality, and higher than average stressors. Given that these benchmarks will lead to mandatory CIAs, the criteria should be aimed at those projects or facilities that are most likely to influence local air pollution levels for pollutants of concern. For example, a facility proposed in an area with measured concentrations of several pollutants near or above regulatory standards may be a candidate for a mandatory CIA. The mandatory CIA benchmarks should not be structured to pull in all permit modifications in a given area or all facilities that are modifying a permit without any change in emissions. One threshold for a CIA could be based on a quantified risk assessment like the MPCA's existing Air Emissions Risk Analysis (AERA) or the Risk Analysis Screening Spreadsheet (RASS) using the Minnesota Department of Health's incremental risk guideline values.

The Chamber believes the use of both facility and local data in combination will be more likely to succeed than a broad set of benchmarks that pull in many projects or facilities for CIAs.

Discretionary Community Impact Analyses

MPCA should identify types of issues that may require discretionary CIAs and not establish a lower tier of numerical benchmarks. That said, a narrative explanation of the criteria and how MPCA may consider them will provide more certainty for regulated entities and the public.

MPCA should consider local conditions and specific connections between proposed projects and known public health issues. MPCA may include factors that could drive local refinement of data and identification of public health issues (e.g., local scale monitoring).

Additionally, MPCA should use caution when considering areas with many small or unregulated sources of pollution. Discretionary CIAs should not be required for projects or facilities with negligible potential contributions to issues of concern.

Petition Processes

The enabling legislation allows for 100 people who reside or own property in an environmental justice area to sign petitions requesting CIAs. MPCA's rule should require any petition signers to be proven

residents of the environmental justice area that could be impacted by a proposed project or facility. The rule should not allow people outside the environmental justice area to sign a petition.

It may fall outside the scope of the eventual rule, but it would be a good practice for MPCA to notify the subject facility of the petition ahead of a decision on a CIA. The facility and community may be able to work out their concerns in a way that satisfies the interested parties without the need for a CIA, which may result in addressing specific issues directly and more timely reviews.

The rules should define what is considered (i) "material evidence" of a (ii) "potential adverse cumulative impact" resulting from (iii) the permit under consideration. All three of these elements are necessary to support a successful petition.

As noted above, the Chamber believes it is important to clarify that the impacts under consideration must be related to the project under consideration and must be substantial. There is no legislative purpose in granting a petition for a project that, by definition, could not lead to a "substantial adverse impact," and the MPCA should establish rules to guide the petition process accordingly.

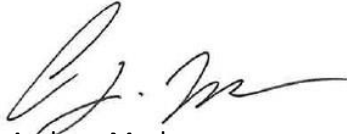
In addition, the MPCA should establish clear procedural rules for the petition process. Among other things, we believe the rules should address the timing of a petition (e.g., when in the process will a petition be deemed too late?) and verification of signatures. The rules also should establish the timeline for an MPCA decision on any petition.

The MPCA should expect petitions for projects or issues that fall outside the scope of this rule (e.g., highway projects or general noise concerns). The MPCA must be clear on their future treatment of petitions that raise out-of-scope issues. The Chamber is concerned that a new or modified permit will become a vehicle to potentially address complex and diverse community concerns that are unrelated to the permitted entity. The rule should not put the MPCA and an applicant in the position of delaying a permit's issuance due to issues that may be unrelated or even outside of MPCA's jurisdiction.

We also note that, like the petition process (under Subd. 3, (e)(2)), the legislation (under Subd. 3, (e)(1)) allows the MPCA to require a cumulative impacts analysis if a project is below all the benchmarks established for conducting a cumulative impacts analysis but the commissioner determines that such an analysis is "necessary" and supported by "material evidence". Likewise, clear definitions on the application of "necessary" and "material evidence" should be provided by MPCA in the rules and guidance.

Thank you for the ability to comment on the proposed rule. I have attached the Chamber's previous comment letter on the rulemaking below these comments for context as well.

Please feel free to contact me with any questions.



Andrew Morley
Director, Environmental Policy
Minnesota Chamber of Commerce and Industry



October 5, 2023

Administrative Law Judge James Mortenson
Minnesota Office of Administrative Hearings

Comments submitted electronically through OAH's website

The Minnesota Chamber of Commerce (Chamber) submits these comments in response to the Minnesota Pollution Control Agency's (MPCA or Agency) request for comments on the Agency's planned rulemaking related to cumulative impacts in environmental justice areas. The Chamber represents members that the rulemaking will impact.

As indicated below, the Chamber welcomes this opportunity to share its point of view regarding the proposed regulations. The Chamber recognizes that these rules, in conjunction with associated rules for air toxics regulation, pose the possibility of a significant impact on the economic vitality of the areas subject to the rules. We believe that the MPCA also recognizes this concern. As such, the Chamber urges MPCA to be deliberative and consultative in its approach.

Toward that end, and as a preliminary matter, the Chamber urges creating an advisory committee of key stakeholders to consult with the Agency before publishing draft rules. These stakeholders should include significant representation from parties that will be subject to new legal requirements under this rule as well as community representatives. Such a process would help drive consensus around key issues to create a strong and well-considered proposed rule and help the MPCA avoid (or at least narrow the scope of) potential rule challenges.

Overview

The Chamber supports efforts to ensure facilities operate in a manner that minimizes public health risks. We understand the importance of maintaining public trust in operating facilities, particularly in communities that may face disproportionate impacts. At the same time, and as acknowledged by the legislation, we note that one way of addressing such issues is through ongoing and future economic development. We urge MPCA to keep in mind the need to protect public health while not unduly stalling or stifling needed economic development.

The Chamber is providing specific responses to the MPCA questions below. However, as a preliminary matter, we note that assessing cumulative impacts for existing or potential industrial operations is complex and challenging. While a number of state agencies and the US EPA may be considering how or

whether to implement some form of Cumulative Impacts Analysis requirement, we are unaware of any agency (local, state, or federal) in the United States that is implementing a program with positive and objectively measurable results. A fit-for-purpose underlying scientific approach is still in development.

We understand that the MPCA has an obligation to undertake this effort consistent with its legislative mandate, and we urge the Agency to be deliberate and thoughtful in its approach. We believe the legislation gives the MPCA the latitude to take an incremental approach to implementation, starting with a program that focuses on the areas of greatest potential concern and, as necessary, expanding from there.

Definition of Cumulative Impacts

We note that cumulative impacts can mean different things to different people. For example, US EPA, in its [January 2022 Draft Recommendations for ORD Research](#), defines cumulative impacts as "the total burden – positive, neutral, or negative – from chemical and non-chemical stressors and their interactions that affect the health, well-being, and quality of life of an individual, community, or population at a given point in time or over a period of time." That is not what the Minnesota Legislature intends here. Section 3 of Article 8 of HF 2310 (Subd. 1 (c)) defines cumulative impacts as the "impacts of aggregated levels of **past and current air, water, and land pollution** in a defined geographic area to which current residents are exposed." (emphasis added). This point is reinforced by the fact that the Legislature chose to trigger possible cumulative impact evaluation based solely on air quality permit activity (per Subd. 2 and Subd. 1 (h)).

Thus, the Legislature intends the focus to be on specific pollution impacts. In that way, this cumulative analysis is more akin to a cumulative risk analysis, focused on the additive impacts of pollutants. While environmental stressors (as defined in the legislation) are relevant to the analysis and the MPCA's ultimate decision to issue or deny a permit, we believe the Legislature's particular focus on pollution impacts was intentional. We urge the Agency to keep this in mind as it proceeds with rulemaking. If the MPCA intends to include a broader scope in its rulemaking, it should make that clear as quickly as possible. We suggest the MPCA refine and focus the scope through the stakeholder process.

Consideration of the MNRisks Process as a Model

We believe the MPCA already has in place a tool it can build on. The Chamber understands the MPCA's MNRISKS process already has defined benchmarks for prioritizing any additional cumulative impacts evaluation. For example, the MNRISKS tool already considers environmental stressors as it evaluates potential focus areas. While this process may have its own concerns, the MPCA could draw insights from this program and solicit feedback to identify what concepts may work or what aspects may need to be improved in establishing criteria for areas to include or exclude from further analysis.

Definition of Environmental Justice Area

Section 3 and Section 5 of Article 8 include similar definitions of "environmental justice area", but they are not exactly the same – Section 3 includes the word "decennial" before "census data". Importantly, neither definition specifies or implies that the census data should be modified statistically to create a confidence interval. While the Chamber has no indication at this point that the MPCA contemplates making a statistical adjustment to the Census data, the MPCA has done so on one of its current [web pages](#) (a map identifying environmental justice areas of concern), resulting in an increase in the number

of such areas. The Chamber would oppose such an approach in implementing the Article 8 rules. The MPCA should make its map of environmental justice areas align with the statutory definition, which does not include any statistical adjustment, thereby ensuring a consistent understanding and identification of environmental justice areas across the state.

Not only would such an adjustment be contrary to the express language of the legislation, it would also be inconsistent with the approach utilized by other states (e.g., New Jersey, New York, Colorado) that administer cumulative impacts analysis programs. The addition of a confidence interval would artificially inflate the number of environmental justice areas which in turn would dilute the effectiveness, focus, and credibility of the environmental justice effort. Please see the Attachment for an additional technical description of this issue and concern.

As the attached analysis indicates, including a statistical adjustment (i.e., a margin of error) inappropriately skews the number of environmental justice area based solely on the confidence interval employed in one direction – to increase the number. Further, the data show the confidence interval changes based on the number of census respondents because a confidence interval may be greater for any given year's data if fewer people respond. The U.S. Census data (as presented in the Attachment) illustrates this point.

The direct result of the unidirectional statistical adjustment is to substantially increase the number of environmental justice areas based solely on that confidence interval. Thus, the data indicate that using a confidence interval can almost double the number of potential environmental justice areas in the Twin Cities metropolitan area. As the number of respondents decreased during the COVID-19 pandemic, the statistical confidence intervals increased, almost tripling the number of environmental justice areas.

Such an approach not only inflates the number of environmental justice areas in any year, it also creates greater variability in possible environmental justice areas year-to-year. For example, an area with consistent actual reported data on a year-to-year basis could become an environmental justice area because there was a low number of respondents in any given year. If the number of respondents increases the next year, the area will once again not be listed as an environmental justice area. To meet the legislation's intent, any process for identifying environmental justice areas should aim for accuracy rather than maximization.

Responses to Specific MPCA Questions

The MPCA seeks specific comment on the elements of the rules required under Subd. 6. The following section presents each topic listed in MPCA's Request for Comments (and Subd. 6(c)) with the Chamber's initial thoughts:

1. Establish benchmarks to assist the Commissioner's determination regarding the need for a cumulative impacts analysis.

Developing benchmarks is critical to the effectiveness of the entire program. Based on the public participation timelines in the legislation and the work necessary to prepare an analysis, the Chamber anticipates that any project that triggers the need for a cumulative impacts analysis will take a year or

more to complete on top of an already schedule-constrained air quality permitting program. Thus, the decision to require an analysis is consequential. The Chamber urges the MPCA to establish clear screening criteria to ensure that the Agency's focus and resources are devoted to those instances where a cumulative impacts analysis is truly warranted and that the intent of the program is not diluted.

We urge the MPCA to establish benchmarks with clear criteria below which projects, particularly low-impact projects or projects with emissions unrelated to specific pollutants of concern, need no additional follow up. For example, the MPCA should consider:

- De minimis levels of emissions and emission increases below which no further action is needed.
- Pollutant-specific indicators where no additional action is needed – if emissions from a project are not pollutants of concern in a given area.
- Air monitoring benchmarks indicating that an area can be exempt from further analysis.
- Criteria clearly defining whether a project has a "material" impact based on the project contribution, not the background conditions.

In addition, we believe the Agency should establish separate criteria for the reissuance of existing permits as opposed to permits for new projects. For existing sources that potentially trigger review upon permit renewal, we urge the Agency to establish an actual-emissions-based approach that considers air quality monitoring data. For new projects, we urge the Agency to adopt screening criteria so that any cumulative impacts analysis process does not unduly stall or prevent needed and beneficial economic activity and infrastructure. Such screening criteria could include limiting a cumulative impacts analysis to construction projects requiring a major permit amendment.

Finally, we note that the US EPA and several early-acting states have shown an interest in developing a single number, or "score" as a metric for characterizing cumulative impacts. While developing such a metric is in the early stages and would need additional consideration, if successful, it could provide a benchmark for the MPCA to consider in its rulemaking.

Each of our suggestions would require additional dialogue and technical work to formulate a specific approach. The need for collaboration drives our request, noted above, for an advisory committee and the potential need for technical working groups on certain topics.

2. Establish the required content of a cumulative impacts analysis and provide sources of public information that an applicant can access regarding environmental stressors present in an EJ area.

In the Chamber's view, this issue and the definition of "substantial adverse impact" addressed in item 3 below will be the most important portions of the rule. Thus, we urge caution and an incremental approach. Any rules need to clearly define what is, and is not, relevant to assessing cumulative impacts. MPCA must be clear about their proposed treatment of cumulative impacts across pollutants, media, and health end points. The rule also needs to define clearly when an applicant has met its duty to complete the analysis.

Based on the legislative definition of cumulative impacts, the rules also need to clarify how "environmental stressors" should be incorporated into the analysis. In other words, while relevant, the

legislation implies that the MPCA Commissioner should consider stressors but that these are not intended to be part of an applicant's direct impacts analysis. This is reinforced by Subd. 5, which requires the cumulative impacts analysis be considered "in combination with the environmental stressors." To the extent the MPCA wants environmental stressors to be considered in an analysis, data and guidance should be provided to the permittee. This could be included as supporting data within a "score" approach as discussed above. If MPCA wants factors such as historical health effects or adverse social conditions to be included, the agency must develop an approach that is scientifically valid, uses sufficiently available data, and leads to a basis for decision-making. MPCA would also need to characterize uncertainty in the available data and lay out how those uncertainties should be considered.

Any rules should be clear about which data an applicant must collect and develop themselves and which data are available publicly. Requirements should be related and proportional to an applicant's proposed action. For example, it would seem inappropriate for an applicant renewing an existing air quality permit to be required to perform a historical analysis of land pollution in the area. To enable consideration of historic pollution that is unrelated to a permit applicant's operations, the MPCA will need to provide data and analysis for areas across the state in a consistent and easy to access manner. Again, this could be included as supporting data within a "score" approach as discussed above.

3. Define conditions, criteria, or circumstances that establish an environmental or health impact as a substantial adverse impact.

This is of utmost concern and interest to the Chamber. Because the legislation gives the MPCA the authority to deny a permit due to a "substantial adverse impact", the definition of the term must be clear and the threshold for such an impact must be high. In other words, "substantial" must clearly be substantial.

The Chamber believes the most appropriate way to address this question is as an extension of the effects identified in response to the benchmarks in question 1. Those factors/impacts are most relevant to the determination of "substantial adverse impact".

We also note that this determination must be made on a permit-specific basis. In other words, the MPCA must determine that the contribution of the impacts from the permit changes under consideration is "substantial". This is different than a determination that substantial harm is already occurring in an area (likely because of a range of factors) and that a given permit could potentially contribute, however insignificantly, to that harm. That is not the balance the Legislature asks the Agency to make.

To be substantial, we believe a given permit must be determined to contribute some level of disproportionate risk. To that end, MPCA air quality permit regulations are already designed to evaluate a project's emissions impacts on air quality and human health. Only in rare exceptions should a project that meets the air quality permitting requirements still have a substantial adverse impact. The MPCA must be clear on the ways that a cumulative impacts analysis differs from existing analyses for National/Minnesota Ambient Air Quality Standards or Air Emissions Risk Analyses.

4. Establish the content of a community benefit agreement and procedures for entering into community benefit agreements, which must include: i) active outreach to residents of the affected EJ area designed to achieve significant community participation; ii) considerations other than or in addition to economic considerations, but with priority given to considerations

that directly impact the residents of the EJ area; and iii) at least one public meeting held within the affected EJ area.

The Chamber generally supports the goal of significant outreach and public participation in EJ areas and believes a community benefit agreement may be a good mechanism to memorialize an applicant's commitments to a community.

We are concerned that the community benefit agreement is directly tied (in Subd. 5) to the Agency decision to issue a permit following the Agency's determination of "substantial adverse impact". While an agreement creates the possibility of eliminating a lengthy cumulative impacts process, we also caution the Agency that it not become a tool by which the MPCA can avoid making a difficult "substantial adverse impact" determination. Thus, again, we urge the MPCA first to establish clear criteria for "substantial adverse impact" and then focus the efforts of any community benefit agreement on proportional measures to balance any adverse impacts and direct net benefits to the community.

A community's input on any benefit agreement is critical to success. Clear decision rights on community benefit agreements are important. If the agreement will be between a permitted entity and the MPCA, requirements for soliciting input and securing concurrence from other parties must be included in the rule. The rule writers should anticipate that many people will claim to speak for the community. The MPCA must outline a process to ensure community members who are part of the process represent the whole of the community. Each requirement in the rule must allow a permitted source operating in good faith to "complete" the process in a reasonable time frame. The Chamber suggests that the rule focus on the process for seeking community input and not a specific outcome or requirement for community consensus. The MPCA should provide a consistent template for a community benefits agreement but recognize there is no one-size-fits-all approach, and the benefits will be community- and project-specific.

5. Establish a petition process and form to be submitted to the Agency by EJ area residents to support the need for a cumulative impact analysis.

The Chamber supports the creation of a petition process for deciding whether a cumulative impacts analysis is required but stresses the importance of ensuring it is a well-defined process and consistent with the legislatively-specified criteria. Specifically, the rules should define what is considered (i) "material evidence" of a (ii) "potential adverse cumulative impact" resulting from (iii) the permit under consideration. All three of these elements are necessary to support a successful petition.

As noted above, the Chamber believes it is important to clarify that the impacts under consideration must be related to the project under consideration and must be substantial. There is no legislative purpose in granting a petition for a project that, by definition, could not lead to a "substantial adverse impact," and the MPCA should establish rules to guide the petition process accordingly.

In addition, the MPCA should establish clear procedural rules for the petition process. Among other things, we believe the rules should address the timing of a petition (e.g., when in the process will a petition be deemed too late?) and verification of signatures. The rules also should establish the timeline for an MPCA decision on any petition.

The MPCA should expect petitions for projects or issues that fall outside the scope of this rule (e.g., highway projects or general noise concerns). The MPCA must be clear on their future treatment of petitions that raise out-of-scope issues. The Chamber is concerned that a new or modified permit will become a vehicle to potentially address complex and diverse community concerns that are unrelated to

the permitted entity. The rule should not put the MPCA and an applicant in the position of delaying a permit's issuance due to issues that may be unrelated or even outside of MPCA's jurisdiction.

We also note that, similar to the petition process (under Subd. 3, (e)(2)), the legislation (under Subd. 3, (e)(1)) allows the MPCA to require a cumulative impacts analysis if a project is below all the benchmarks established for conducting a cumulative impacts analysis but the commissioner determines that such an analysis is "necessary" and supported by "material evidence". Likewise, clear definitions on the application of "necessary" and "material evidence" should be provided by MPCA in the rules and guidance.

6. Establish a process through consultation as defined in MN Statute 10.65 by which a Tribal government can elect to apply this section to a permit application.

The Chamber has no specific comment here other than to note we support Tribal Governments' authority to implement these requirements consistent with the legislation and rules.

7. Establish methods for holding public meetings and handling public comments.

The Chamber fully supports the goal of holding public meetings as a means of disseminating information about a project and collecting public input, particularly in EJ areas. We also support the creation of clearly defined rules and processes to govern such public meetings. We urge the MPCA to set rules that allow meeting facilitators to ensure meetings adhere to the issues at hand and that those persons most affected by a proposed project are heard. We suggest the rules allow engagement processes to run in parallel with technical review to the extent practicable and allow flexibility in the timing of consultation to allow applicants and the MPCA to address potential community concerns in an efficient way and not be bound to predetermined time frames.

Thank you for the opportunity to provide comment and participate in this rulemaking. The Chamber and its members are available for further consultation as the rulemaking process proceeds. Given the complexity of assessing cumulative impacts and the interest of diverse stakeholder, and iterative and consultative process will most likely lead to success.

Sincerely,



Tony Kwilas
Director, Environmental Policy
Minnesota Chamber of Commerce
tkwilas@mnchamber.com
651-292-4668

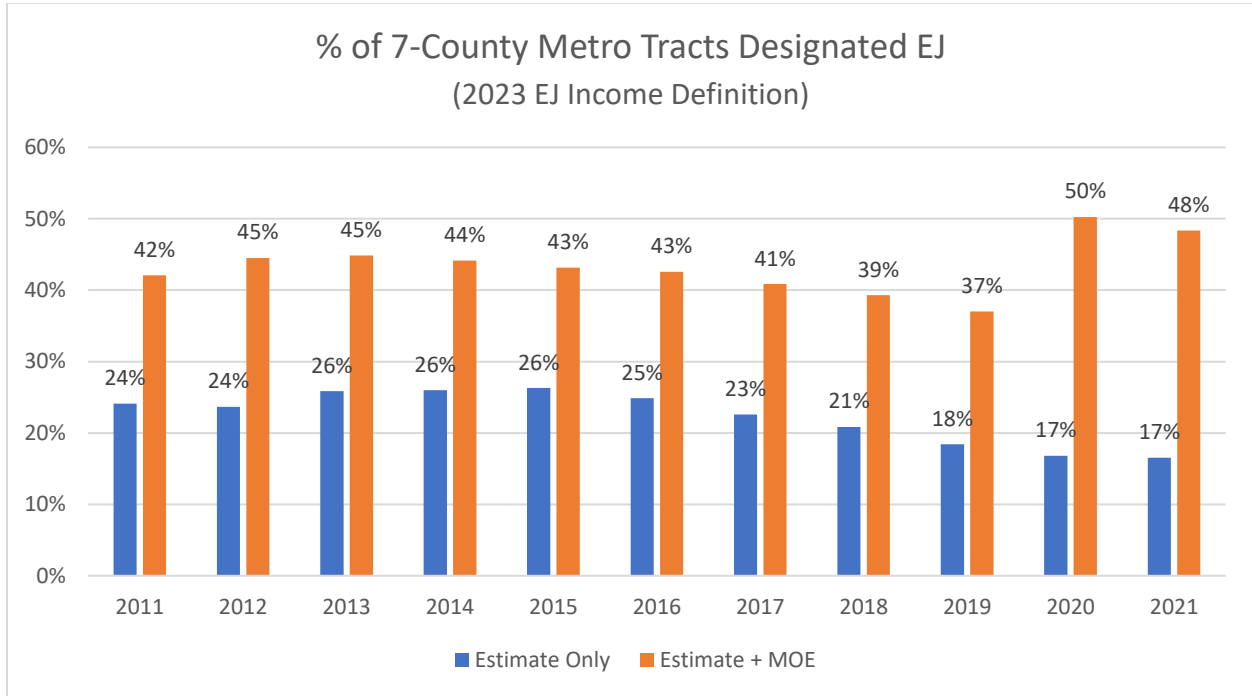
Attachment: U.S. Census American Community Survey Income Data for 7-County Metro and Margin of Error Analysis

U.S. Census American Community Survey Income Data for 7-County Metro and Margin of Error Analysis

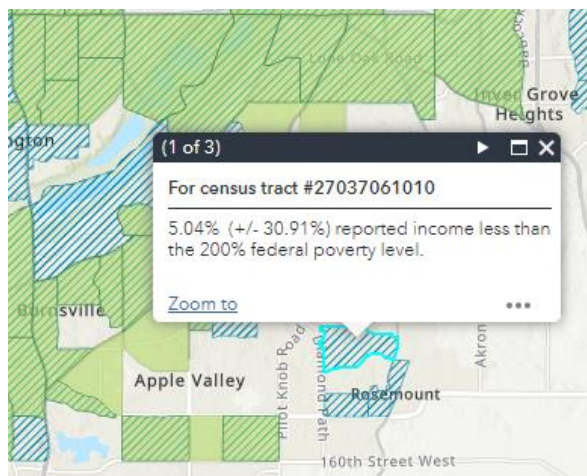
Only one of the four demographic criteria for determining whether a census tract is an Environmental Justice (EJ) area – persons of color – can be readily obtained from the most recent decennial census as defined in the law. The low-income-based criterion is outside the decennial census’s scope and is expected to be based on the most recent American Community Survey (ACS), as used in other states and in the MPCA’s current MNRISKS EJ Map. The current MNRISKS EJ Area Map is inconsistent with the use of ACS income data in other states and the direct read of the definition in the MN law by adding a one-sided and highly consequential margin of error (MOE) to the actual survey result estimate. The Chamber recognizes that this inconsistency is likely an unintended carryover of the prior MNRISKS Program’s discretionary and conservative use of the data. Nonetheless, the Chamber provides the technical analysis below to further inform the MPCA as to why the Chamber’s recommendations should be followed in making EJ designations. The Chamber believes that any broadening of the definition of environmental justice areas creates the risk of diluting the primary purpose of this legislation. Expanding the focus of this mission will, among other things, divert already scarce agency resources away from the environmental justice focus.

Note: The data below are directly obtained from the tables maintained by the U.S. Census Bureau and represent income-based EJ status, as defined by the 2023 Minnesota legislative session: “35 percent or more of the households have an income at or below 200 percent of the federal poverty level.” Specifically, the Census Estimates and Margins of Error were obtained from the 5-year estimate tables for the ACS: Table C17002 for “Ratio of Income to Poverty Level in the Past 12 Months,” which is consistent with the data presented with the current MNRISKS EJ Map. The data therein are obtained for census tracts within the 7-county metro area (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, or Washington counties). The income definition of EJ status is shown here as the most broadly represented definition in current MPCA maps; however, the conclusions stated here are logically consistent for all statistical definitions of EJ status.

The chart below illustrates the direct result when MOE is incorporated into the income-based designation of EJ. In the below chart, prior to 2020, the amount of census tracts selected for EJ status was roughly doubled. In 2020 and 2021, the value that accounted for MOE (orange) roughly tripled despite a continued downward trend in low-income tracts in the actual survey results (blue).



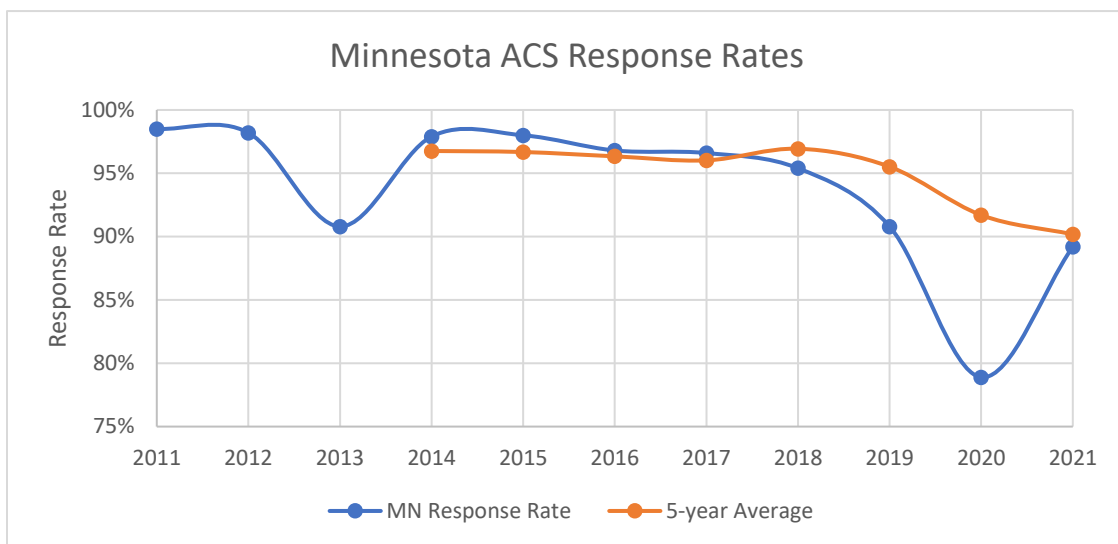
Doubling or tripling the results of the census survey data is inconsistent with the written language and intent of the law, as well as the effectiveness of implementing the law, and it is contrary to a valid assessment of tracts throughout the metro area. As an example of the extent of this relevance, a south metro tract is currently labeled as an EJ area in MPCA’s MNRISKS EJ Map despite an actual survey result of 5% of the population being below the income threshold. This is due to the addition of ~31 percentage point margin of error to the base estimate, causing this tract to cross the 35% low-income EJ threshold defined by the law (~7x base estimate).



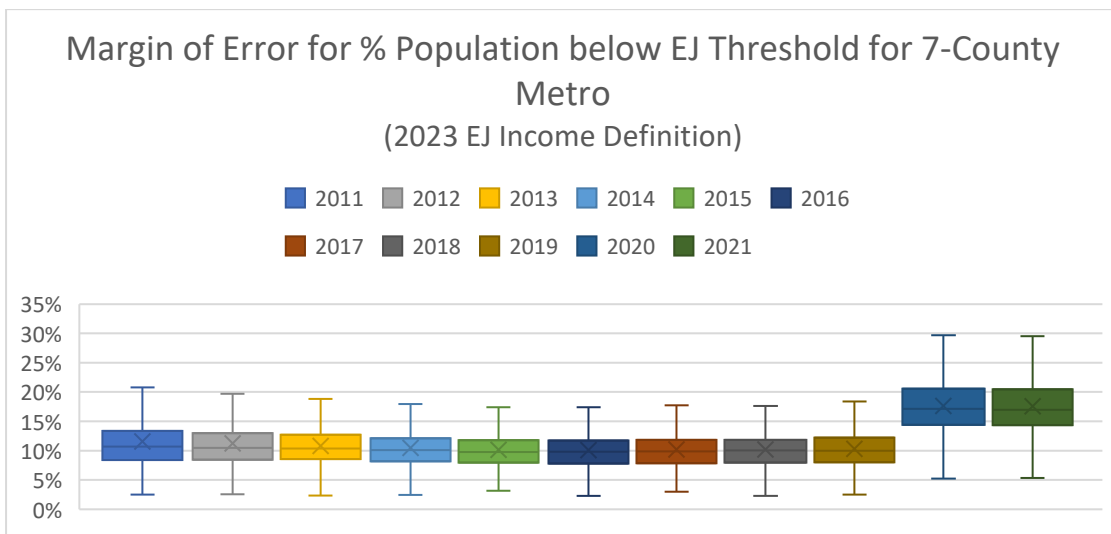
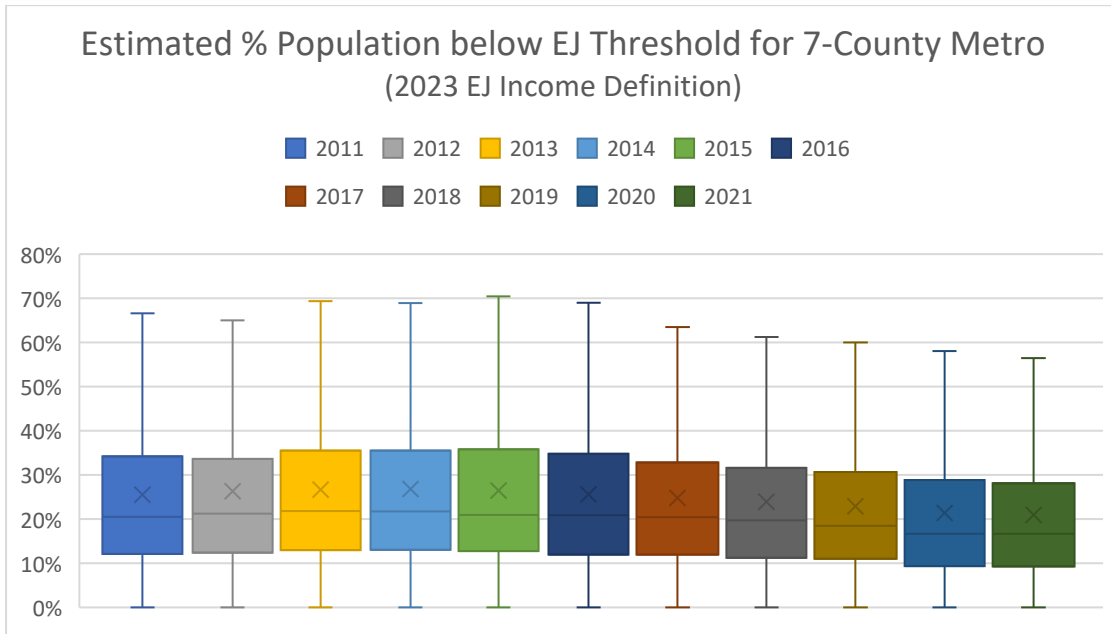
The following analysis provides further perspective on the practical application challenges if the MPCA considers such a practice.

The recent step change in the effect of MOE incorporation correlates with the decrease in ACS response rates in 2020 and 2021, as shown below for Minnesota. The decrease in response rates led to a significant increase in the sampling error incurred in those years' surveys and the subsequent spike in the number of EJ-designated tracts without regard to the actual survey results received.

It is important to note that because the selected metric is a 5-year-average estimate, the clustering of poor response rates in 2019, 2020, and 2021 compounds to lower the overall sampling rate across the 5-year period. Note that the 5-year average shown in the chart below does not strictly indicate the complex weighting procedures employed by the Census Bureau and is only shown as an illustration of the compounding effects of poor response rates.



Further, an analysis of the potential variance of MOE in years with poor response rates, displayed below, shows that while the average margin of error jumps in such years, the results also spread. This means those years have greater uncertainty in the reported MOE across census tracts. Previously, those margins would range between 3% and 18%; they now range between 5% and 30% (excluding outliers). This effect is not found in the census estimates, which lends to the consistency that usage of only the estimate (without the MOE) provides.



Legend:

- Box: 1st quartile - 3rd Quartile
- Whiskers: Min (0th Quartile) and Max (4th Quartile), excluding outliers
- IQR: Interquartile range (3rd Quartile minus 1st Quartile)
- Outliers: Values outside of 1.5 x IQR added or subtracted to either side of the box
- X: Mean
- Middle Line: Median

To this point, it is clear to see that years affected by cumulative poor response rates lead to greater variability in the EJ status, as shown below. A consistent lack of responses is likely to result in consistently large MOE and subsequent instability and exaggeration of EJ status.

% of 7-County Metro Tracts Changing EJ Status Year-on-Year (2023 EJ Income Definition)

