

Indiana Department of Environmental Management

Environmental Stakeholder Inclusion

2023 Annual Report



IDEM Environmental Stakeholder Inclusion 2023 Annual Summary

Trends - Statewide Socioeconomic Maps

The 2022 and 2023 IDEM Environmental Justice (EJ) maps are included with this report in Appendix A. The maps are developed by internal GIS staff with data obtained from the “American Community Survey Five Year Estimates” released annually by the Census. Each map has notes about socioeconomic indicators. The following are notable results obtained from comparing these indicators between the two maps:

- There was a slight increase in Indiana residents who self-identified as a racial minority, 18.8% in 2022 versus 20.0% in 2023.
- The percentage of Indiana residents reporting annual incomes of less than twice the poverty level decreased slightly from 29.8% in 2022 to 29.6% in 2023.
- Indiana residents identifying as Hispanic increased slightly during the period (7.3% in 2022 and 7.5% in 2023).

Overview

The ESI program has made significant progress during the 2023 calendar year, as follows:

- **Focus on External and Internal Stakeholder Outreach**

In 2022, two PowerPoint presentations were created for external outreach efforts. One was created generally for community-based stakeholders. The other presentation was developed for an audience of companies, industries, and IDEM permit holders. The community-based presentation provided a general explanation of IDEM’s ESI program. The industry/permittee presentation explained the program and outlined ways that companies, industries, and permit holders can strive to be “better neighbors” in the communities where they do business. The ESI presentations evolved and the ESI coordinators added data from applicable census tracts using the Climate and Economic Justice Screening Tool (CEJST) database in both presentations.

In 2023, an extended “Environmental Equity” presentation was developed for use at longer speaking engagements, such as seminars and conferences. The presentation details the historical development of the environmental justice movement, including governmental responses, and was presented to professional audiences at the CITES Symposium on 4/21/23, the Indiana Miners and Reclamation “Technology Transfer” seminar on 12/5/23, the Indiana Air and Waste Management “Environmental Conference and Winter Technical Meeting” on 12/7/23, and the Indiana Latino Roundtable monthly meeting on 12/20/23. The extended presentation will continue to be updated to ensure the subject matter is current and relevant to the intended audience.

ESI staff also developed an internal presentation to provide training regarding the program and agency expectations for IDEM staff. Internal presentations were provided to senior staff in Indianapolis as well as staff in the Northwest regional office. Compliance and Technical Assistance Program (CTAP) staff were also included in internal presentations as their roles are likely to intersect with ESI concerns. The majority of these presentations were well received and led to productive discussions with staff regarding the development of the ESI program and the current roles of ESI staff. Internal presentations regarding the ESI program will continue in 2024 to ensure all staff are aware of the program and how ESI staff can

assist in complying with EPA expectations regarding Environmental Justice. Additionally, it is anticipated that an Environmental Justice training program will be developed in 2024 so that staff have a better understanding of the historical development of the environmental justice movement in the United States.

Starting in January 2023, IDEM's ESI coordinators conducted twenty-seven virtual and in-person external outreach presentations, with an emphasis on in-person meetings. Agency ESI staff believe that in-person meetings promote open dialogue and provide a better understanding of local concerns. A summary is attached with details of these outreach events in Appendix B.

Due to the significant percentage of individuals in Indiana who self-identify as Latino or Hispanic, outreach efforts were focused on engaging this population through outreach. ESI Coordinator Engman was featured on a local Spanish news channel health segment "¡Salud Mami!" in an effort to make Spanish speaking stakeholders aware of asbestos licensing requirements in Indiana, as well as to introduce them to the ESI program and provide a means for open communication. The news segment originally aired on the local Spanish channel "Canal 19" on 7/15/23 and was archived on YouTube at https://youtu.be/7_wXvkc2rqo. IDEM also focused on providing IDEM representation at events that were specifically designated for a Latino/Hispanic audience; the "Indiana Commission on Hispanic and Latino Affairs" festival at the Indiana statehouse on 9/1/23, "Monarch Festival" in East Chicago on 9/16/23, and the Mayor's Latino and Hispanic Festival held in Indianapolis on 9/2/23. ESI staff presented program information to Latino and Hispanic organizations in Indianapolis on 6/21/23 (Indiana Latino Roundtable-virtual meeting), 11/16/23 (Indiana Commission on Latino and Hispanic Affairs), and 12/20/23 (Indiana Latino Roundtable-in-person meeting). Given the large numbers of Latino and Hispanic populations in Southern Indiana, it is anticipated that outreach efforts in 2024 will pivot to focus on disadvantaged communities in that area of the state.

To have a better understanding of EJ concerns in the northwest portion of Indiana, a survey was conducted in both English and Spanish between 7/10/23 and 9/30/23. Physical copies of the survey were distributed at the main libraries of Whiting and East Chicago on 7/10/23, 7/11/23, 7/17/23, 7/31/23, 8/3/23, and 8/14/23. Surveys were also distributed at the National Night Out in Hammond, IN on 8/1/23 and the Railcats baseball game in Gary, IN on 8/13/23. Additionally, surveys were made available online with a QR code generated for info sheets provided at outreach activities. There was limited participation in the surveys; however, the results that were received indicated the respondents were primarily concerned with clean waterways, invasive species, clean air, and environmental justice. The majority of responses indicate the survey takers were unaware of the program. Additionally, the respondents indicated they would like to learn more about the Grand Calumet River/Area of Concern (AOC) and the ESI program. The information obtained indicates additional outreach efforts should be a primary goal of 2024. IDEM's ESI staff engaged in discussions with Indiana University staff to study survey methodology which would be more conducive to generating increased participation and responses. A plan was developed to look at cooperating with a professional polling agency; however, the costs were prohibitive. IDEM ESI staff will be working on strategies to improve survey participation in 2024.

As the ESI Coordinator for Northern Indiana, Rahim Evans was able to serve the Environmental Justice areas of Gary, Whiting, Hammond, and East Chicago which are designated as the Grand Calumet River AOC.” During the reporting period, Evans met with the mayors or their staff, of Hammond, Whiting, Gary, and East Chicago to discuss EJ and their concerns. Evans was able to go on inspections at both Cleveland Cliffs and Tradebe to learn about companies that work in the AOC. He attended a conference on “Sustainability, Policy, and Justice” with members of northwest Indiana environmental justice groups in Gary, Indiana. During the event, Evans was able to get a better understanding of their environmental concerns. Evans also attended a public hearing for the Governors Parkway Railroad Overpass at Scott Middle School in Hammond on 4/26/23. After attending the meeting, he assisted community members with an ESI Request concerning the project and its environmental concerns. Throughout the year, Evans continued to address ESI requests and stakeholder concerns within the AOC. He attended meetings including attending EPA’s USS Lead meeting in East Chicago and Federated Metals Superfund site meeting in Whiting. Evans also helped with outreach efforts at the AOC Open House events held in East Chicago and Hammond during the year. Evans attended the National Night Out in Hammond and the East Chicago Monarch Festival. Due to the high Spanish-speaking population in the AOC, both open houses and the Monarch Festival had bilingual staff available to assist in Spanish as needed. Written material and visual aids were also presented in Spanish to ensure language barrier issues were addressed.

ESI Coordinator Evans participated in the “Environmental Justice Retreat” at Purdue University Northwest in Hammond on 1/26/23, to discuss community-focused environmental justice efforts taking place within the AOC and begin the process of identifying needs and gaps.

He staffed an information booth containing information about IDEM’s ESI program at the “Federation of Block Club Spring Call-Out Meeting” in Gary on 4/29/23 hosted by the NWI Urban League. The Federation of Block Clubs is an important component of the Urban League Movement. By organizing and mobilizing the community at a grass roots level, citizens have a more powerful voice in their community.

ESI Coordinator Evans gave an introduction to the ESI program presentation at the “Partners for Clean Air” annual luncheon on 5/5/23, as well as at the “Northwest Indiana Stormwater Advisory Committee” (NISWAG) on 6/6/23. NISWAG members include the Municipal Separate Storm Sewer System Coordinators for municipalities in Lake, Porter, and LaPorte Counties.

He attended the Grand Calumet “Stewardship Day at Seidner Dune and Swale” in East Chicago on 5/16/23. The event was organized by The Nature Conservancy and provided an opportunity for East Chicago public schoolchildren to learn about the river and surrounding habitats.

Evans participated in East Chicago Jeorse Park Beach Clean-Up Day on 5/23/23 where he assisted with clean-up efforts.

ESI Coordinator Evans also attended a public meeting regarding Carmeuse Lime’s air permit renewal on 6/1/23. As part of his role, Evans will continue to attend permit meetings and hearings in the area that may be contentious to ensure the public has opportunities to engage in the process in a meaningful manner.

ESI staff also assisted IDEM AOC staff in the completion and presentation of a GIS “StoryMap” to assist stakeholders in understanding the issues and work that has been done in the Calumet River AOC. The project was initially undertaken by an intern under the Governor’s Summer Internship program; however, that internship ended before the final product was completed. To ensure the project was made available to the public before an AOC event, ESI staff assisted in the completion of the project. The StoryMap collection was made available at the AOC open house on 9/28/23 in Hammond, IN and is available for viewing at [Decades in the Making: Saving the Grand Calumet River](#).

IDEM’s Lake Michigan Program Coordinator Michael Spinar and ESI Coordinator Rahim Evans worked together from 7/6/23 to 12/6/23 developing a historical document outlining IDEM’s AOC outreach efforts in Northwest Indiana. The “Diversion, Equity, and Inclusion” template summarized thirty-three events and activities undertaken by IDEM staff from 2013 to the present to ensure all stakeholders in the area had access to information and could participate in activities, related to remediation efforts in that area. Again, in recent years, emphasis was placed on ensuring materials and services were provided in Spanish due to the high levels of Latino/Hispanic populations in that area of the state.

- **Responding to ESI Requests**

In 2023, ESI Coordinators responded to and resolved thirty-six ESI requests. Requests were from both external and internal stakeholders addressed a variety of issues ranging from translation of documents (primarily into Spanish) and providing EJ analysis for stakeholders. All requests were addressed and resolved in compliance with the established SOP of the program. It is anticipated that ESI requests will increase exponentially as the community becomes more aware of the program due to the extensive outreach efforts outlined above.

- **Providing EJ Grant Analysis**

The Biden administration continued to provide numerous grant opportunities through the Justice40 initiative, Bipartisan Infrastructure funding, and Inflation Reduction Act funding. As a result, almost all grant application processes require EJ analysis as a grant funding requirement. In January of 2023, ESI staff were asked to assist Office of Land Quality staff in providing an EJ analysis of underground storage tank (UST) locations. ESI Coordinator Engman collaborated with GIS staff to create a layer based on the provided data and results were provided to UST staff prior to the anticipated due date of that grant application. ESI Coordinator Engman also assisted Pollution Prevention (P2) staff in EJ analysis for two grant applications that were due in June of 2023. Copies of the grant EJ analysis summaries are included below as Appendix C.

- **Providing EJ Analysis for Staff**

ESI staff provided EJ analysis for staff members as needed to ensure project focus and inspection guidelines comply with the EPA partnership agreement’s goals and metrics. These analysis requests were typically received requiring a short turnaround time; therefore, the projects were assigned priority to ensure IDEM staff could fulfill their work requirements. It is anticipated that internal EJ analysis needs will increase as ESI Coordinators continue internal outreach efforts to educate staff about the program and how the program can assist them with EJ analysis needs.

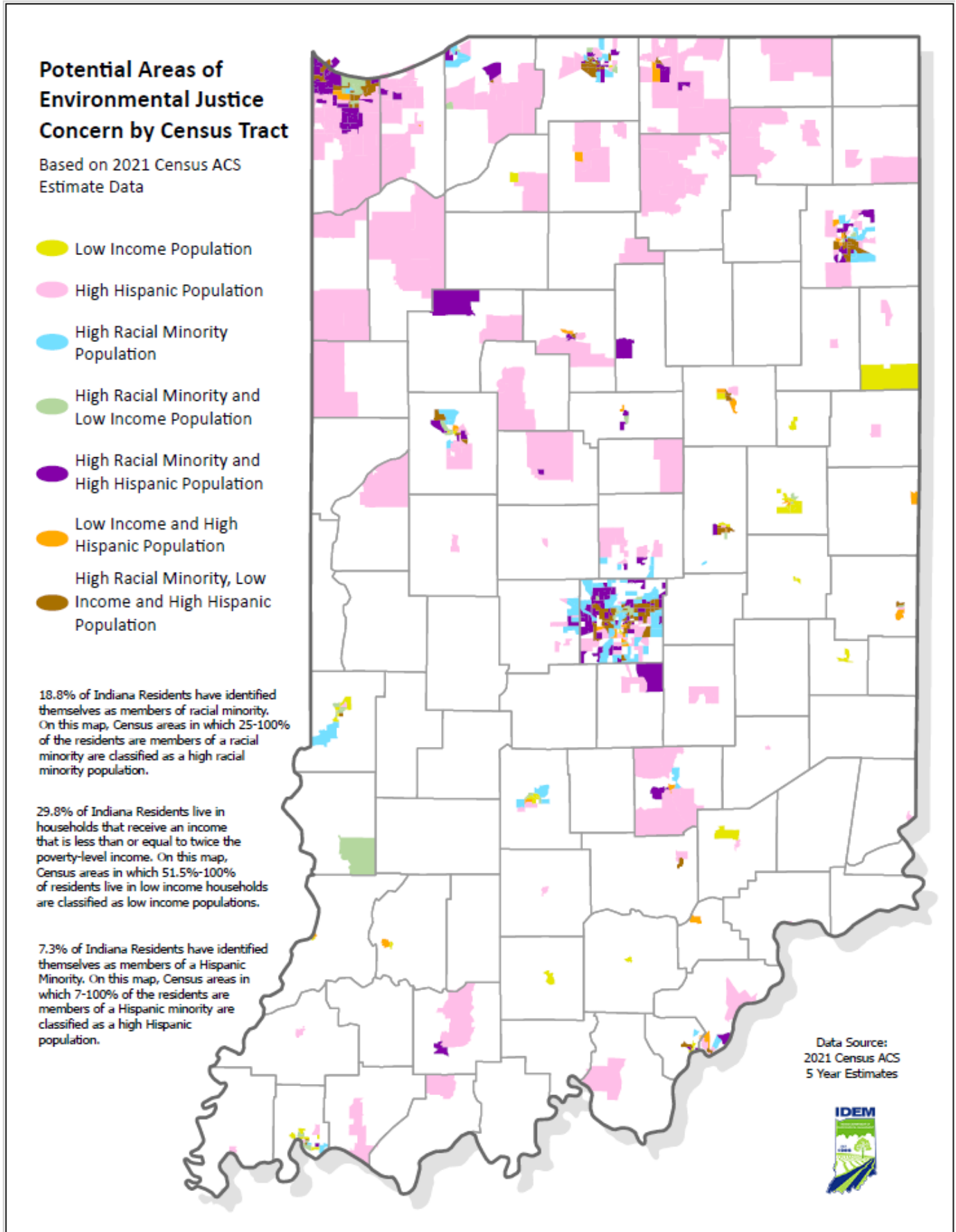
- **ESI/EJ Successes**

IDEM's ESI staff initially met with the Martindale-Brightwood Association in October of 2022. Several stakeholders expressed concerns about lead water service lines in this neighborhood, which led to further discussions with staff at Citizens Energy. Those conversations led to a partnership between Martindale-Brightwood, Citizens Energy, Indiana Finance Authority, and IDEM to explore a lead service line replacement project. In July of 2023, Citizens Energy had initial discussions with Martindale-Brightwood community leaders advising that the financing had been approved to make that neighborhood of Indianapolis the next area on their project list. Citizens Energy held a neighborhood meeting in the Martindale-Brightwood neighborhood on 10/19/23. Community members were provided a detailed explanation of the project parameters, questions regarding the project were answered, and residents were advised initial construction would begin in January 2024. IDEM assisted with outreach efforts regarding public meetings to ensure residents in that area were prepared for, and willing to sign required "right of entry" forms for the project to get started. It is anticipated that IDEM ESI staff will continue to collaborate with Citizen's Energy ensuring that "Right of Entry" forms are signed and returned in a timely manner so that project work can be started.

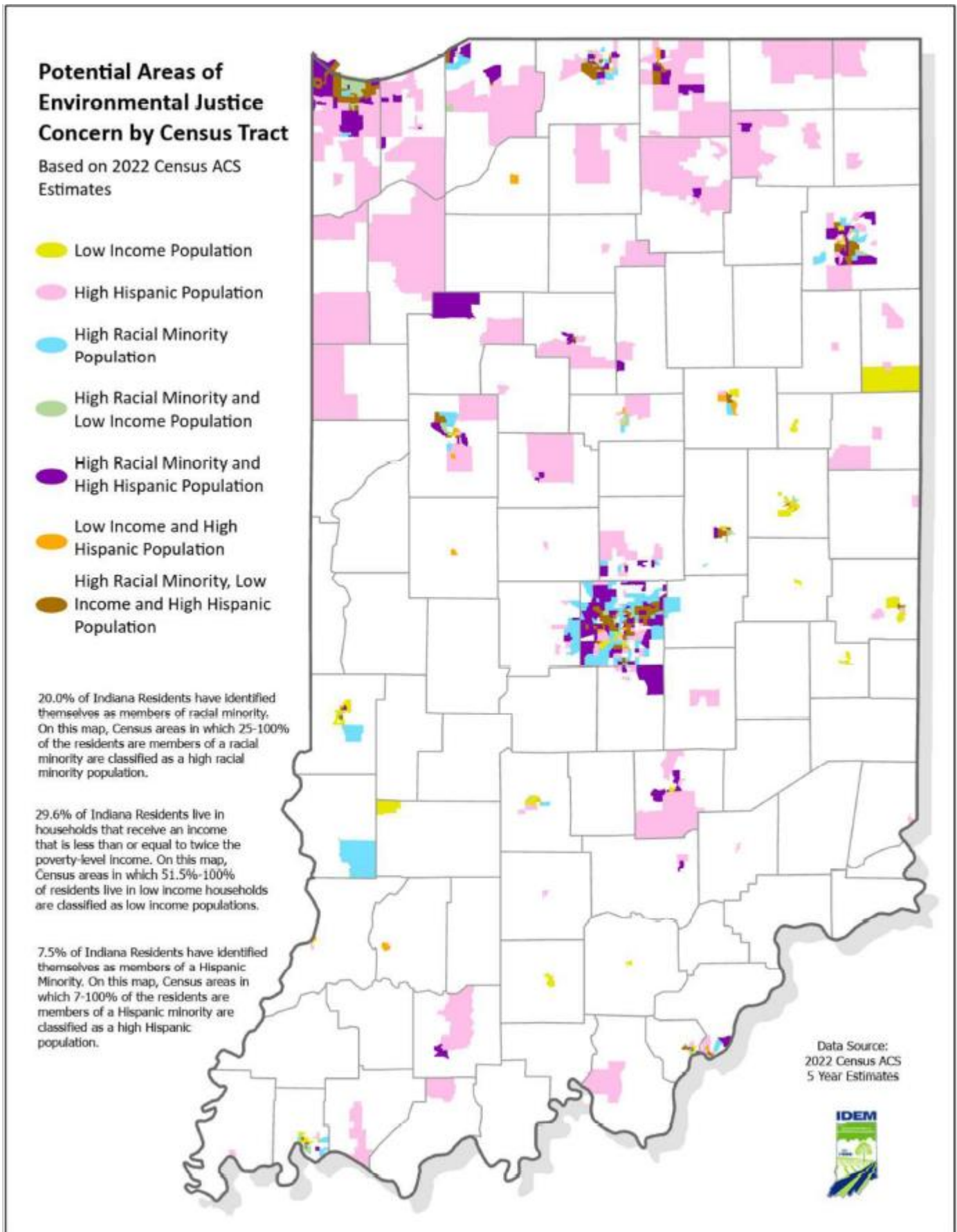
IDEM's ESI team was engaged in extensive outreach efforts in 2023. They will continue outreach efforts in 2024 with a goal of examining the EJ concerns of stakeholders and making recommendations to IDEM management to address these concerns. Future focus goals will include continued attempts to reach the Latino/Hispanic residents in Indiana, as well as residents of southern and northeast Indiana, and rural parts of the state. The assistance the ESI team provided IDEM staff on various grant proposals made it apparent that there are many disadvantaged communities within Indiana that continue to be under-represented in regard to meaningful participation. The expectation is that with continued outreach efforts, those communities will begin utilizing ESI staff to assist them in increasing their involvement in terms of Environmental Justice.

Appendices

Appendix A: Statewide Socioeconomic Map 2022



Appendix A (continued): Statewide Socioeconomic Map 2023



Appendix B: ESI External Stakeholder Outreach

2023 Outreach Meetings

ESI Master Spreadsheet					
Stakeholder or Group	Primary Contact	Contact Date	City	ESI Coord	Concerns/Issues
Mapleton-Fall Creek Neighborhood Association	Travis Tatlock	1/12/2023	Indianapolis	Engman	Did ESI program intro presentation to neighborhood group, questions asked and follow-up promised
Groundworks Indy	Kevin Velazquez	1/13/2023	Indianapolis	Engman	Virtual introduction to program done w GWI staff.
United Northeast	Ashley Gurvitz	1/25/2023	Indianapolis	Engman	Met with United Northeast Neighborhood Association virtually. Did ESI intro presentation, a question was asked by a stakeholder and follow up promised.
Keep Indianapolis Beautiful	Carly Weidman	2/2/2023	Indianapolis	Engman	Virtual meeting with KIB staff, intro to ESI presentation done.
Tetrattech	Alyssa French	2/8/2023	Indianapolis	Engman	Virtual meeting with Tetrattech staff to explain ESI program to them, recent initiatives and share screening tools used.
Northwest Indiana Paddling Association	Rob Albrecht-Mallinger	2/15/2023	Merrillville	Evans	Met with the Northwest Indiana Paddling Association. ESI presentation was given. We also discussed the organizations initiatives. Follow up with EJ Analysis of Little Calumet River will be sent.
Riverside Civic League	Careena Jackson	3/2/2023	Indianapolis	Engman	ESI Coordinator Engman and AC Lugar met with Riverside Civic League to introduce selves and program.
Tradebe	Bob O'Brien	3/2/2023	East Chicago	Csatari	Meeting to review presentation on expansion of facility
Indiana American Water	Chris Gosnell	3/6/2023	Indianapolis	Engman	IDEM staff met virtually with INAW staff to discuss their successful outreach efforts regarding lead pipe replacement.
IUPUI	Dr. Nathan Cook	3/30/2023	Indianapolis	Engman	IDEM staff met with Dr. Cook's EJ class to introduce the ESI program and discuss their concerns. Two student stakeholders present had concerns about coal ash in rental property basement and identifying lead pipes in residence. Contact info exchanged for follow-up.
Tradebe	Wade Scheel	3/15/2023	Merrillville	Evans	IDEM staff followed up to discuss concerns that were not addressed before Tradebe's public meeting.
Tradebe	Wade Scheel	3/16/2023	East Chicago	Evans	IDEM staff attended a Town Hall hosted by Tradebe
The Nature Conservancy	Susan MiHalo	4/19/2023	Merrillville	Evans	IDEM ESI team met with The Nature Conservancy to provide introduction to program.
Mayors Neighborhood Advocates	Susan Martinez	5/4/2023	Indianapolis	Engman	IDEM ESI team met with Mayors Neighborhood Advocates to provide introduction to program.
Northwest Indiana Stormwater Advisory Group	Reggie Korthals	6/6/2023	Dyer	Evans	IDEM ESI team met with NISWAG to provide an introduction to ESI Program
City of Portage	Norma Laboy	6/13/2023	Portage	Evans	IDEM ESI team met with the Mayor of Portage to get acquainted with IDEM Regional Office staff and to discuss ESI and other programs.
Gary East Side Community	Marlon Mitchell	6/16/2023	Valparaiso	Evans	IDEM ESI team met with Gary East Side Community Development Corporation to discuss environmental justice and community outreach in regards to Northwest Indiana.

2023 Outreach Meetings (continued)

Fountain Square Neighborhood Association	Jessica Barnett	6/19/2023	Indianapolis	Engman	IDEM ESI team met with Fountain Square to do intro to ESI program. Two questions were asked; air quality in former Coke/Twin Aires area and update on vacant lot at 1034 Va Ave, ESI request was opened in tempo and investigation started
Indiana Latino Roundtable	Maryori Duarte-Sheffield	6/21/2023	Indianapolis	Engman	Virtual meeting was held with primarily bilingual stakeholders to provide introduction to ESI program and emphasize outreach efforts for Spanish speaking stakeholders.
U.S. Steel Corporation	Joesph Hanning	7/7/2023	Valparaiso	Evans	IDEM ESI team met with U.S. Steel Corporation to discuss IDEM's ESI program and have a conversation about EJ. Evans followed up with ESI Annual Report and ESI Powerpoint
Northwest Indiana Forum	Kay Nelson	7/21/2023	Portage	Evans	IDEM ESI team met with Northwest Indiana Forum to discuss EJ screening tools CEJST and EJ Screen for better understanding.
City of Hammond	Alex Stahura	7/24/2023	Hammond	Evans	IDEM ESI team met with the Mayor of Hammond's team to get acquainted with IDEM Regional Office staff and to discuss ESI and other programs.
Highland Sustainability Group	Connie Wachala	8/16/2023	Highland	Evans	IDEM ESI Coordinator Evans meet with Highland Sustainability and other groups within Northwest Indiana to discuss the ESI program. Evans did follow up with the group in regards to Sites of Interest Page, Gov Delivery and how to file a complaint
Northwest Indiana Forum	Kay Nelson	9/17/2023	Portage	Evans	IDEM ESI team met with NWI Forum Environmental Committee to discuss IDEM's ESI program and what's on their mind EJ wise.
ICLHA	Alexis Gonzalez	11/16/2023	Indianapolis	Engman	ESI Coordinator Engman and AC Lugar met with ICHLA to do intro to ESI program. Discussion and questions occurred afterwards.
Faith In Place	Christine Glaser	11/2/2023	Valparaiso	Evans	ESI Coordinator Evans meet with Faith In Place to discuss IDEM's ESI program and understand and discuss EJ
Urban League of Northwest Indiana	Dr. Vanessa Allen McCloud	12/11/2023	Gary	Evans	ESI Coordinator Evans meet with the Urban League of Northwest Indiana to discuss IDEM's ESI program and understand what the Urban League of Northwest Indiana's goals are and possible points of collaboration.
Indiana Latino Roundtable	Maryori Duarte-Sheffield	12/20/2023	Indianapolis	Engman	ESI Coordinator Engman met with the Indiana Latino Roundtable at their first in-person meeting since Covid. Because the "Intro to ESI" program was done virtually earlier in the year, the extended "Environmental Equity in Indiana" presentation was provided. Stakeholders present were receptive and networking occurred afterwards in which staff with other agencies expressed challenges reaching disadvantaged communities

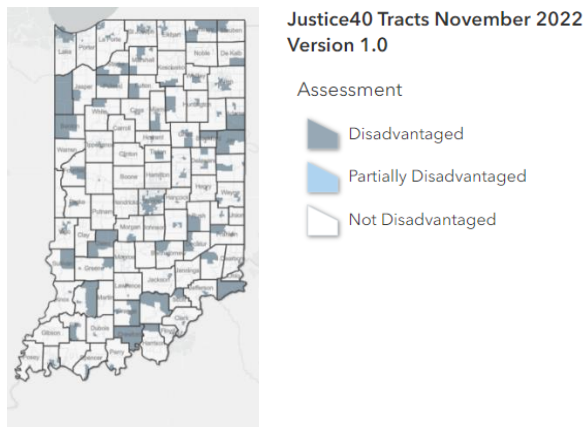
Appendix C: EJ Grant Analysis

IDEM UST/LUST Economic Justice Analysis Project February 2023

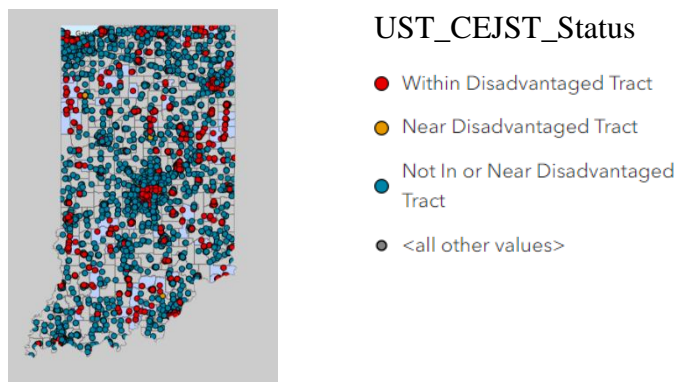
On 1/18/23, IDEM Environmental Stakeholder Inclusion Coordinator Engman was tasked in assisting Office of Land Quality staff with identifying Underground Storage Tanks locations, specifically regarding locations within EPA designated “disadvantaged” areas. A list of 4,911 underground and leaking storage tanks was provided by OLQ staff Goulet on 1/24/23 for an Environmental Justice analysis. IDEM GIS staff Waldron assisted with overlaying those addresses with data obtained via the Justice 40 initiative “Climate and Economic Justice Screening” tool (also known as “CEJST” and located at <https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>). For the purposes of this analysis, a “near distance” of twenty feet was factored into the available UST/LUST sites to negate any potential spatial errors associated with collected latitude and longitude (typically representing property access point) values as well as any spatial errors with boundaries. Those “near distance” UST sites were included in the disadvantaged communities designation to adjust for any possible spatial errors. On the Excel Spreadsheet provided to OLQ staff, USTs/LUSTs were organized as identified via the data obtained from the CEJST website. USTs #2 to #2939 were in areas designated as “Not in or Near Disadvantaged Tract” (59.8% of the total USTs). USTs #2940-4912 were near or in disadvantaged communities according to CEJS data as of 2/3/23; therefore, of the 4,911 underground storage tanks in Indiana, 1,973 or 40.1% were in or within twenty feet of those designated communities.

These maps illustrate the disadvantaged communities in Indiana and USTs in those areas using data from the Climate and Economic Justice Screening tool uploaded to ARCGIS by IDEM GIS staff.

Disadvantaged communities in Indiana per CEJST as of 2/3/23



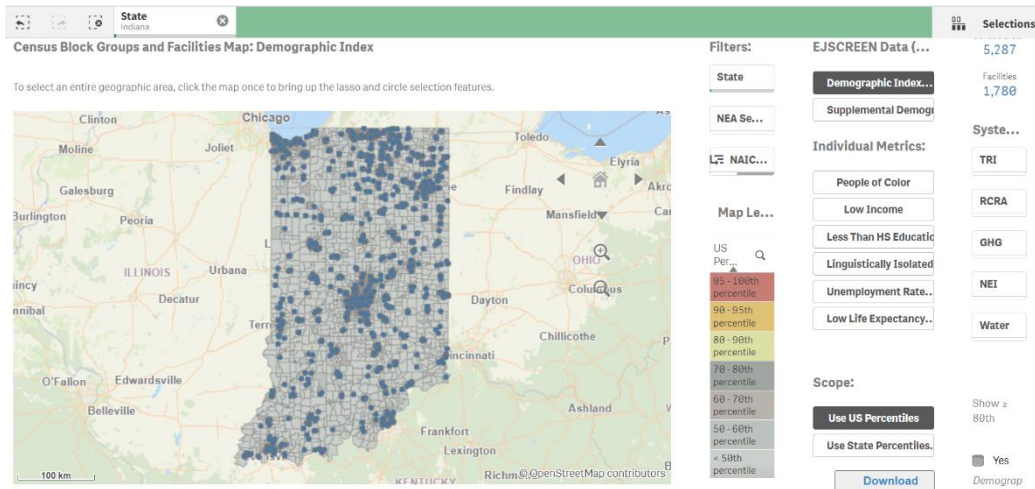
UST/LUSTs located in and near disadvantaged communities per CEJST as of 2/3/23



EPA Pollution Prevention (P2) Grant:

Environmental Justice in Communities Grant June 2023

Pollution Prevention (P2) Environmental Justice (EJ) Facility Mapping Tool-June 2023

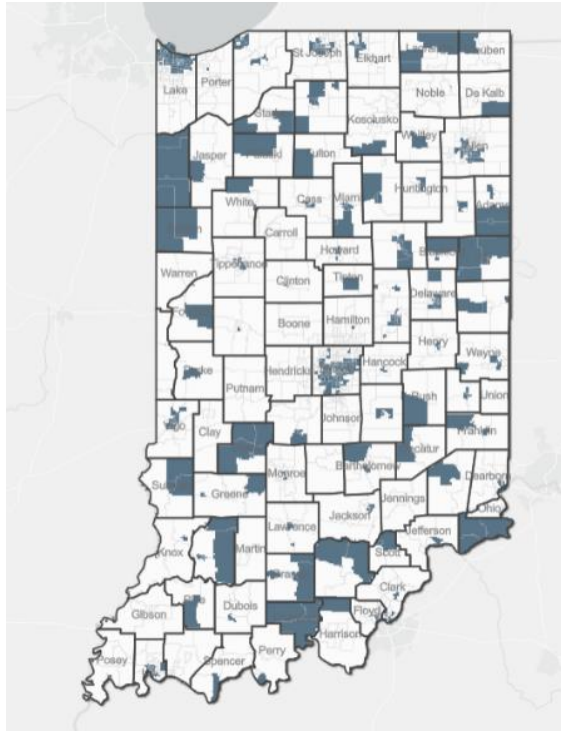


https://awsedap.epa.gov/public/extensions/P2_EJ/P2_EJ.html

There are 1,780 "Target Facilities" identified in Indiana per the EPA's "Facility Mapping Tool" provided on the "Pollution Prevention Environmental Justice in Communities" grant application website (Appendix A). The mapping tool which is based on "EJScreen" data, designates areas of higher percentile "Demographic Index" (percentile of the Census block group based on the average of Percent People of Color and Percent Low Income) via a color-coded layer. "Target Facilities" on the map are defined as facilities in manufacturing and NEA sectors that are in one or more of five EPA data systems; TRI, RCRA, GHG, NEI, and NPDES permit data bases. IDEM staff downloaded the data from the mapping tool and uploaded it into ESRI ARCGIS to compare the data with an existing layer of disadvantaged communities as identified by the Climate and Economic Justice Tool (CEJST) developed by the White House Council on Environmental Quality (CEQ). Of the 1,780 facilities, twenty-five were unable to be geocoded due to incomplete or inaccurate address locations; therefore, they were omitted from the analysis. Of the 1,755 remaining target facilities, 626 or 36% are located in disadvantaged communities (Appendix B and Excel spreadsheet "Targeted Sites_EPA_sorted_5.16.23" available upon request).




On a statewide level, the small and medium size businesses on that list that are in disadvantaged communities would be the primary focus for IDEM's Environmental Health and Safety (EHS) education efforts. From a local perspective, there are seventy-three facilities in Indianapolis in disadvantaged communities that could improve those communities by taking measures to eliminate or reduce pollution. Similarly, there are forty-nine targeted facilities in disadvantaged communities in the "Region" area of Indiana that could benefit those communities by reducing pollution (East Chicago, Gary, and Hammond). Utilizing provided grant funds to provide additional training and opportunities for voluntary assistance via the "Compliance and Technical Assistance Program" (CTAP) could provide those businesses in disadvantaged communities with the knowledge and skills needed to implement pollution prevention measures to directly improve health outcomes in those areas.

Climate and Economic Justice Screening Tool (CEJST) Indiana Disadvantaged Communities

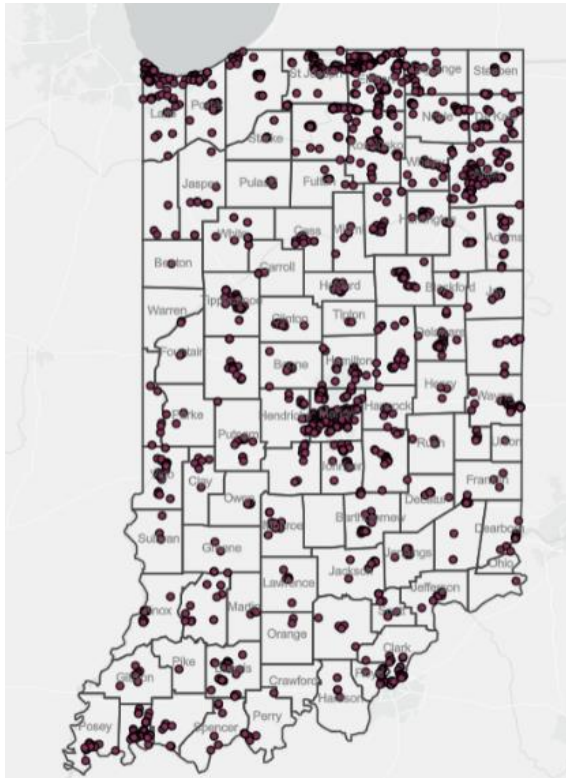


Justice40 Tracts November 2022
Version 1.0

Assessment

-  Disadvantaged
-  Partially Disadvantaged
-  Not Disadvantaged

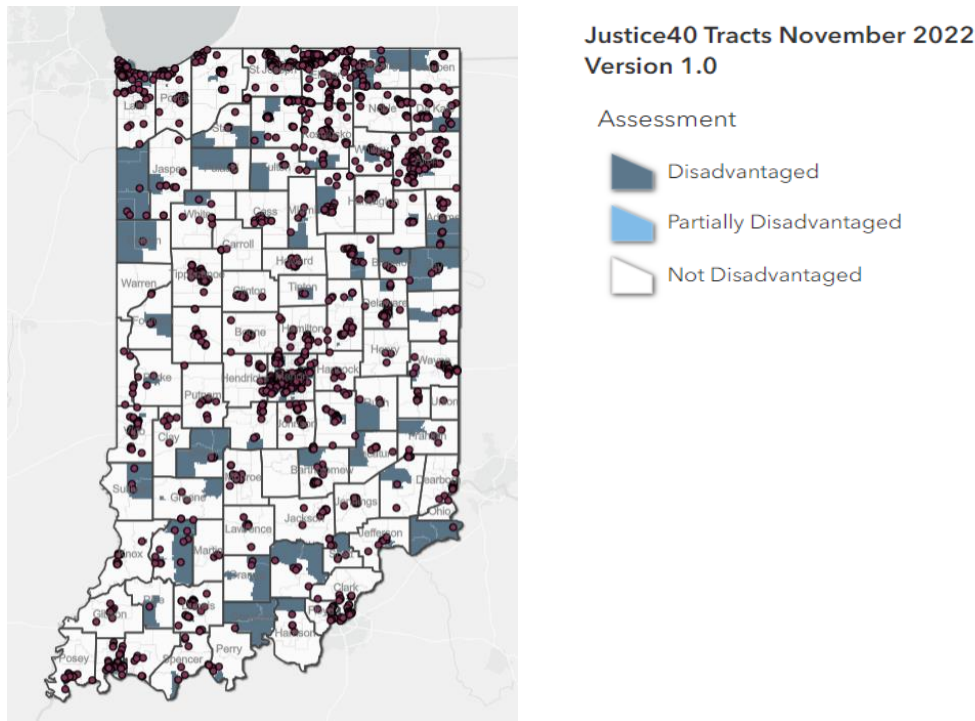
Targeted Facilities EPA



Targeted_Sites_EPA



Targeted Facilities in Disadvantaged/Justice40 Communities






FY 2024 319 Nonpoint Source Grant Applications EJ Analysis

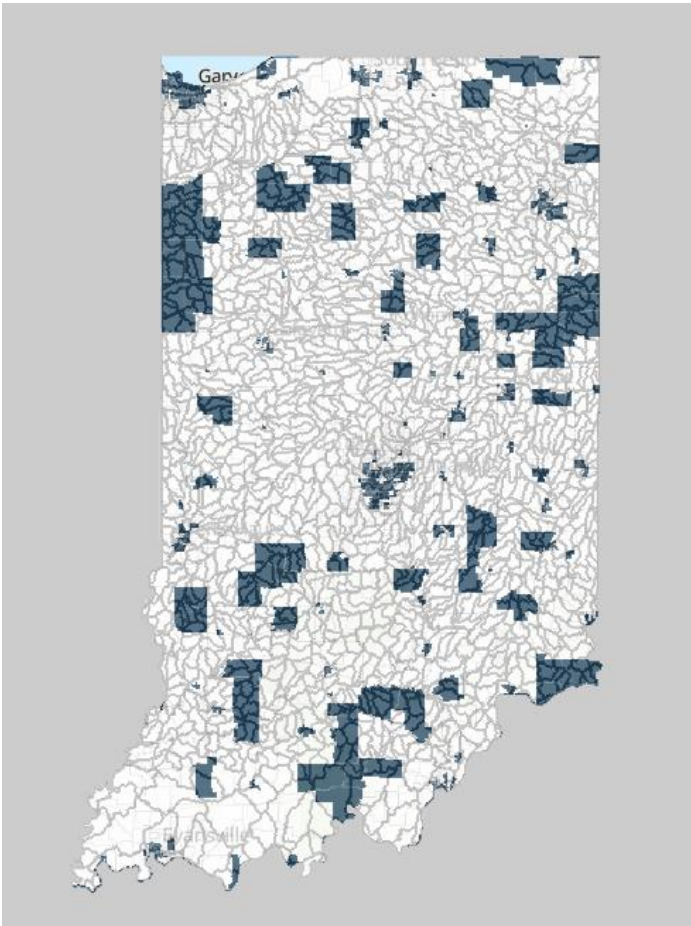
In 2023, IDEM received twenty-four 319 Nonpoint Source pass through grant applications. An Environmental Justice (EJ) analysis was done for each application as a part of the evaluation process. The methodology entailed using ESRI GIS technology to create a layer that outlined the watershed locations specified on each application, blended with a layer that identified disadvantaged communities (DAC) as defined by the Climate and Economic Justice Screening Tool (CEJST). After blending those layers and using census data made available within GIS Pro, “EJ” scores were developed taking into consideration the percentage of the watershed area that was in a designated disadvantaged community, but more importantly, the percentage of population within that watershed that lived in those disadvantaged communities. The 319 applications were then ranked in order based on highest to lowest score under that methodology.

There were two different watershed layers created as eighteen applications identified watersheds using ten digit “Watershed Hydrologic Unit Codes” (HUCs), and five applications provided the more specific twelve-digit HUCs. Those two layers were joined as one layer, then the more specific HUC 12 designations were dissolved, so that there was only one layer of all watersheds for consistent analysis. One application, “Pathway to Water Quality” indicated their efforts would be statewide; therefore, that application was excluded from the EJ analysis component of the evaluation process and will need to be scored based on the other application criteria. As an illustration of how difficult a statewide analysis would be, below is an overview of disadvantaged communities overlaid with all of the watersheds in the state.

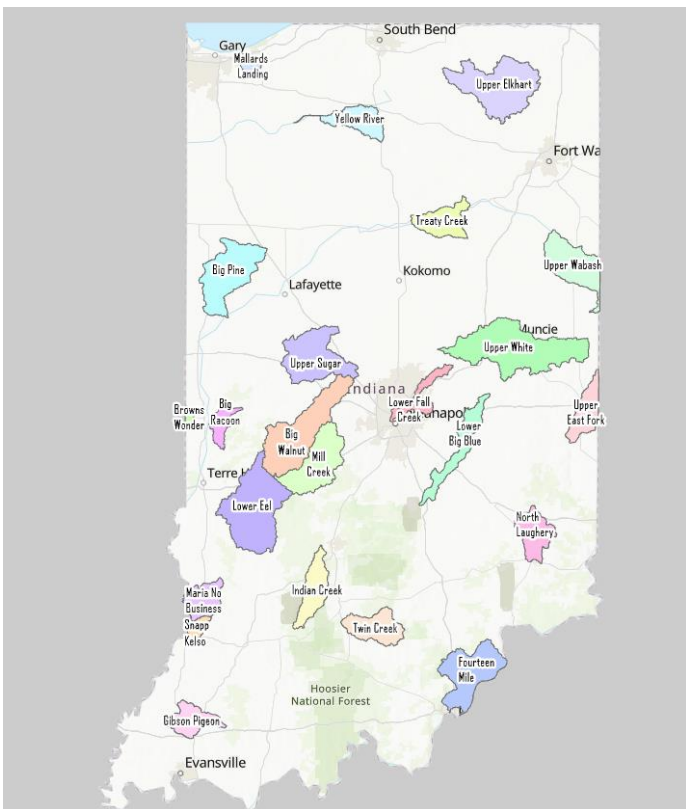
Justice40 Tracts November 2022 Version 1.0

Assessment

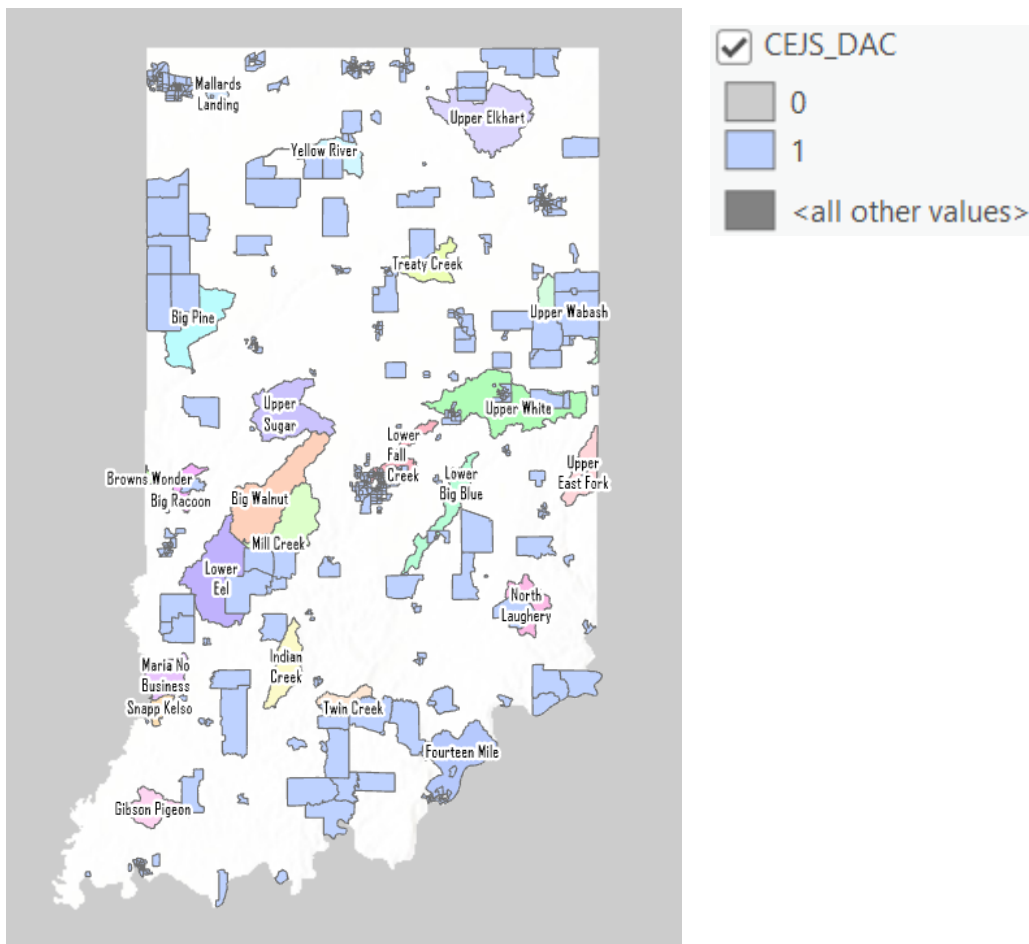
-  Disadvantaged
-  Partially Disadvantaged
-  Not Disadvantaged



The initial color-coded map with twenty-three remaining watersheds identified is as follows:



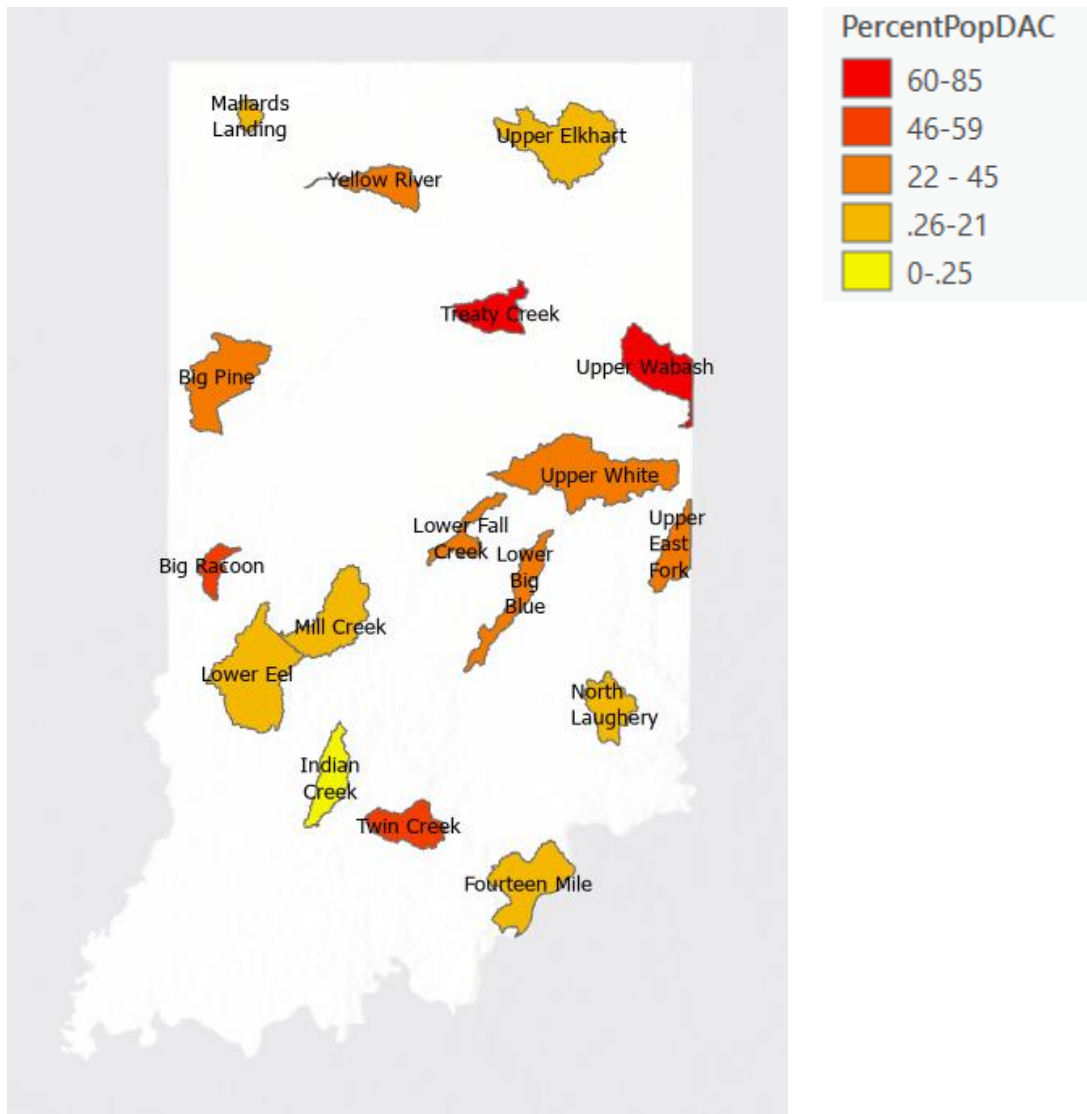
An overview of the identified watersheds layer blended with the CEJS layer is as follows:



After blending the two layers and incorporating 2023 population estimates from ESRI’s GeoEnrichment service (large-scale demographic data derived from US Census products and other data sources), EJ scores were obtained with a primary focus on populations living in disadvantaged communities within those watersheds. Those scores are as follows and as illustrated below. Four watersheds were excluded from the population analysis as the analysis indicated those watersheds had no overlap with disadvantaged communities (Brown’s Wonder, Big Walnut, Maria-No Business, and Upper Sugar). Additionally, two watersheds had a very small overlap with disadvantaged communities; however, per census data, there was no population residing in those overlap areas, therefore, those two watersheds were also eliminated (Gibson Pigeon and Snapp-Kelso).

A final review of the data revealed a data entry error had occurred with Brown’s Wonder. The HUC10 of Brown’s Wonder, 0512011001 had been incorrectly entered as 0512011101, placing it on the western part of the state. When that error was noted, a separate GIS map was created to correctly locate Brown’s Wonder and overlay that data with the CEJST disadvantaged communities layer. The review of that new map indicated no portion of Brown’s Wonder contains disadvantaged communities as identified by CEJS; therefore, the overall EJ score of the grant analysis was not affected by the geospatial error.

EJ Score Heat Map



*Note: eliminated watersheds have been removed from the scoring map.

Final EJ Score

Name	PercentPopDAC*
Upper Wabash	85
Treaty Creek	71
Twin Creek	60
Big Racoon	51
Yellow River	45
Lower Fall Creek	45
Upper East Fork	43
Upper White	41
Big Pine	40
Lower Big Blue	35
North Laughery	21
Mallards Landing	14
Mill Creek	13

Fourteen Mile	13
Lower Eel	12
Upper Elkhart	8
Indian Creek	0.25
Gibson Pigeon	0
Snapp Kelso	0
Big Walnut	NA
Browns Wonder	NA
Maria- No Business	NA
Upper Sugar	NA

*The average percent population in a disadvantaged community for the watersheds above is 35%; therefore, those with a score above 35% should be given priority in terms of application consideration (highlighted). Percentages have been rounded up or down to the next whole percentage.

After the grant committee review process concluded, which took into consideration many factors for each application, six of the ten watershed projects identified as serving disadvantaged communities received funding for fiscal year 2024.