

## EPA Tools & Resources Webinar | Q&A

### Understanding Environmental Justice through two EPA tools: EJSCREEN and EnviroAtlas

(Note: Some questions may have been edited for clarity/brevity.)

**1. When is EJScreen going to use the 2020 Census Tract/ Census Block boundaries?**

*We will be incorporating the 2020 Census boundaries as well as the 2016 - 2020 ACS data into the tool this summer.*

**2. Does EJScreen update data from the Superfund Ranking system or other EPA databases more regularly?**

*The Superfund scores are updated at least annually. This year (2022) they will be updated twice.*

**3. Are there ways to include other climate data such as urban heat island or tree canopy?**

*Yes. You can bring any published map service into the tools. There is also the ability to bring in data from EPA's GeoPlatform or from a locally stored file. So there are ways to bring in data not built into the tools. EnviroAtlas includes tree canopy data and a featured collection of data addressing urban heat island.*

**4. What size unit (block group or census tract) is used for demographic data in rural areas?**

*Block group is the unit for all areas rural and urban in EJScreen. The user can display block group, census tract, or county level data in EJScreen and in EnviroAtlas.*

**5. What is the difference between the "2017 air Toxics Cancer Risk" & "2017 Air Toxics Respiratory HI" fields found in both the Pollution and Sources & Environmental Justice Indexes section?**

*The "2017 Air Toxics Cancer Risk" estimates cancer risk per million due to cumulative air toxics as described from the EPA's [National Air Toxics Assessment](#). Cancer risk is defined as the probability of contracting cancer over the course of a lifetime, assuming continuous exposure. The "2017 Air Toxics Respiratory HI" is a map of non-cancer respiratory risk (hazard quotient) due to cumulative air toxics from the National Air Toxics Assessment, expressed as a hazard index.*

*In EJScreen, more info on these and other map layers in the tool can be found at:*

*<https://www.epa.gov/ejscreen/ejscreen-map-descriptions>.*

*In EnviroAtlas, more info can be found on these two map layers in the Dynamic Data Matrix*

*where the user has access to a short description, a more detailed fact sheet, or the metadata:*

*<https://www.epa.gov/enviroatlas/enviroatlas-dynamic-data-matrix>*

**6. In EJ Screen, there was a Sites Reporting to EPA layer in version 1.0. Is that layer still available in 2.0? If so where is it located?**

*It is now in the Places tab.*

**7. In EJ Screen, do the service gap data include access to recycling and/or trash collection?**

*They do not.*

**8. Have you considered adding data for Urban Heat Islands?**

*Yes, EJScreen is considering this. We have talked with NASA about using their satellite data. There is a featured collection of data in EnviroAtlas focused on Urban Heat Islands.*

**9. What areas do the 22% 'other' EJ users comprise?**

*Those were users that selected "other" as a response option. We did not include academia as an option, and we do know there are a lot of academic users.*

**10. Where is the best place to start on EJScreen if I'm looking for potential new areas that warrant further research on EJ concerns?**

*There are many ways to start, but one way is to examine the areas highlighted as above the 80<sup>th</sup> percentile.*

**11. What are challenges to assembling other layers of EJ-relevant data (e.g. water, Animal Feeding Operations (AFOs), pesticides)?**

*Accessing data for the nation on some topics can be challenging when the data are reported differently by states or may not be accessible or at a useful scale.*

**12. For the Socioeconomic indicators in EJ Screen: why are children <5 included however those aged 6-17 years are not? I am particularly interested in this as children are more susceptible to the harms of air pollution and other exposures for several reasons. Additionally, insults during childhood may have lasting consequences into adulthood.**

*Children during the early ages of development are the most susceptible. Under age 18 can also be mapped using the demographic widget in EJ Screen and in EnviroAtlas.*

**13. For the Health Indicators in EJ Screen: why aren't children included? Also, several studies have shown reduced life expectancy from PM2.5 exposure. Thus, is there concern about confounding by including PM2.5 and low life expectancy?**

*We rely on the CDC for the health data, and the Places data we use does not include information on children.*

*Life expectancy is shared as a health outcome, not to show a causal relationship between the environmental pollutants.*

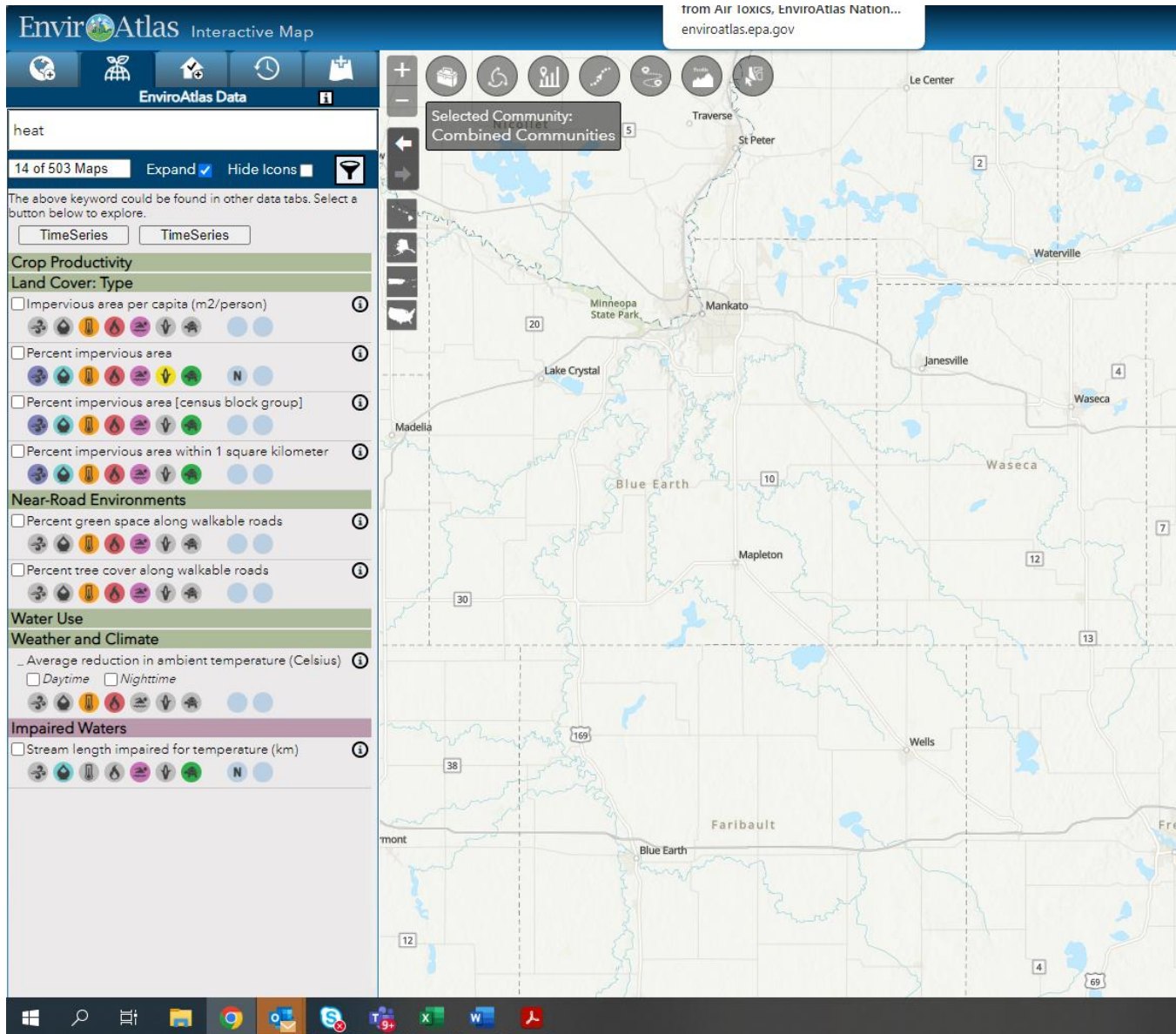
**14. In EJ Screen, what is the pre1960 housing data source?**

*We use Census data for this.*

**15. Could you add heat health data together, such as combining heat island, tree canopy, permeable surface, heat wave, and temperature data? Or is info like that in the Climate and Economic Justice Screening Tool (CEJST)?**

*There are data layers in EnviroAtlas that speak to this topic; if you search for the word 'heat' in the map layers table of contents, several maps will be made available including maps indicating the average reduction in daytime and nighttime ambient temperature due to local tree canopy.*

You can also find temporal temperature data in the data under the icon that looks like a clock. Also one of the [Featured Collections of data](#) relate to Urban Heat Island.



**16. What should I do when I get the message, “The area is too small or sparsely populated to generate an EJScreen report?” This appears for our location, St. Croix VI. Is there no data being reported?**

*You will need to select a larger area for a report to be generated.*

**17. Has EPA considered helping states to develop the same tool and be able to layer specific state demographic and environmental information to your existing data?**

*Yes, we have considered this. EPA has provided assistance to states using EJScreen in the development of those efforts.*

**18. Is the EJScreen available via ArcGIS server?**

*EJScreen is an online tool. However, its data can be opened in ArcGIS via map service or download.*

**19. What are the important differences between CEJST and EJScreen for stakeholders looking to identify EJ communities?**

*There are many differences, but basically EJScreen is a screening and analysis tool. The Climate and Economic Justice Screening Tool (CEJST) is an identification tool for Justice40 efforts.*

**20. Does the wastewater discharge tool show all municipal and industrial wastewater discharges regardless of volume, or does it only show major (>1MGD) discharges?**

*The wastewater indicator use data from EPA's National Pollutant Discharge Elimination System (NPDES). For more information on this, please visit: <https://www.epa.gov/npdes>*

**21. Do these tools account for tribes/Native American communities?**

*Both EnviroAtlas and EJScreen include tribal boundary layers and the demographic data include data related to Native American population (e.g., percent and number of the population self-identifying as American Indian).*

**22. Could you elaborate more on the interpretation of the results from EJScreen?**

*For more on the interpretation of the results from EJScreen, please visit: <https://www.epa.gov/ejscreen/understanding-ejscreen-results>*

**23. Is it possible to view EJ screen and EnviroAtlas variables on the same map? Would I need to download and use my own GIS to combine them?**

*Yes, it is very easy to view EJScreen variables in EnviroAtlas or to view EnviroAtlas variables in EJScreen. In EnviroAtlas, go to the Add Data tab (the one with the plus sign) and search the EPA GeoPlatform for EJScreen. You can select relevant data and add to the map. In EJScreen, go to the tools (wrench and pen icon) and select 'Search GeoPlatform'. Then enter EnviroAtlas and add any other search term if you want to limit the search to a particular topic or map.*

**24. There was a Sites Reporting to EPA layer in 1.0. Is that layer still available in 2.0? If so where is it located?**

*It is found in the "Places Tab" in EJScreen. In EnviroAtlas, this group of layers can be found in the map table of contents.*

**25. Are all the data layers used in EJScreen readily available for all states from national datasets?**

*We generally only use data sets that have national coverage in EJScreen, so yes. However, some datasets may not have data for HI, AK, or territories.*

**26. Are there indicators in the EJ screening tool that cover crime geospatial data?**

*No.*

**27. Can the EnviroAtlas summarize data at the town/city level? Are there any simple ways to create a printout report for specific parameters?**

*There is no tool summarizing data at the town/city level because boundaries for towns and cities are challenging to use. There is a Compare My Area tool that lets you compare a selected census block group to all the others in county and state for demographic and air toxics data. Users can also select a 12-digit HUC (medium sized drainage basin) and compare that HUC to all others in county and state. There is a new tool coming soon allowing the user to summarize land cover and land cover change for any geography of choice. In this case, a user could draw the boundary of a city and get a report for that area. Additional data layers will be added to the tool soon after the initial release. This new tool should be released sometime late 2022 or early 2023. There is also a 'Select' tool which lets the user select a group of HUC12s or Census units and run statistical summaries for those areas.*

**28. Regarding EJScreen, can one create reports for critical service gaps, climate change data, and health disparities?**

*That information is not currently in the Standard Reports but likely will be added in the future.*

**29. How do you address the different resolution of data layers in EJScreen?**

*EJScreen uses block group level as the default. If we use census tract data, all block groups receive the same census tract score.*

**30. Does the EnviroAtlas tool allow users to add buffers around points of interest?**

*Not yet, but we have a new tool coming soon allowing the user to summarize land cover and land cover change for any geography of choice. That new tool offers choices including the ability to drop a point on the map and designate a buffer width from which to draw a circle around the point. A buffer can also be designated around a polygon or a linear feature. The user can calculate metrics for the buffer area they designated (e.g., land cover change between 2001 and 2019). The new tool should be released sometime late 2022 or early 2023, and we plan to add more indicators to its functionality soon after initial release.*

**31. Can you choose to toggle between SI (the International System of Units) and English units or do we have to make those conversions externally?**

*This functionality is not available in EnviroAtlas or EJScreen, but it's a good idea.*

**32. The USEPA Tool Recovery Potential Screening (RPS) for impaired waters and watersheds has a Social Indicator called "Environmental Justice Area of Concern." Is this different or same as data in the EJScreen Tool?**

*The Recovery Potential Screening Tool and EJScreen are completely different tools. EPA has a wide array of tools that serve different purposes. However, these tools do use some of the same metrics for considering environmental justice.*

**33. How do we get data submitted for inclusion in the EPA tools?**

*Please use the 'Contact Us' form for either tool, we always welcome the opportunity to discuss the possible inclusion of additional data layers.*

**34. How are food deserts defined? Is there a standard definition involving a specific distance/radius being considered as well as the food source in question?**

*There are multiple ways of defining food deserts. The data layer in EJScreen is based on low income and low access tract measured at 1 mile for urban areas and 10 miles for rural areas. This data is available at the tract level and come from the U.S. Department of Agriculture which maintains a [Food Access Atlas](#).*

**35. Can you speak a bit to your feeling in terms of the usefulness of these tools for more rural communities?**

*Many of the EnviroAtlas data layers and tools are as relevant for rural communities as they are for urban communities. Some of the data layers are more relevant for rural communities than they are for urban areas. EJScreen likewise provides results for all places in the country, however some datasets may do a better job highlighting rural verses urban issues.*

**36. Are there plans to incorporate some of the health indicators and measures derived by the CDC from their Environmental Public Health Tracking Program?**

*We have discussed this possibility with CDC in the past for EnviroAtlas and decided against it at the time, however it is something we may revisit especially if we hear comments from users that this is desirable.*

**37. How do you expect the public will use EJScreen? For example, when people are considering new places to move?**

*Some potential uses can be found at: <https://www.epa.gov/ejscreen/purposes-and-uses-ejscreen>*

**38. How does EJScreen compare with the CalEnviroScreen for California? Does it have additional data or factors?**

*EJScreen is a national tool, not a state tool. The two tools score many indicators.*

**39. Do either tools include walkscores?**

*The company who developed Walkscore is a private company and as such the data are proprietary. EnviroAtlas does not have a 'Walkscore' per se but there are several data layers related to walkability. If you go to the Interactive Map and search for the word 'walk' in the map layers table of contents, several maps will be made available including maps relating to intersection density, walkable roads, and green space.*

**40. For food deserts, are you including community gardens and urban agriculture?**

*No. This is defined by the U.S. Department of Agriculture so we would suggest directing questions to them.*

**41. Will noise levels be added to the EJ mapping tools especially near airports and highways?**

*We are not currently planning to add noise as a factor.*



**42. For the pollution fields, is there a way to see the source of pollution, e.g., for "2017 air Toxics Cancer Risk" & "2017 Air Toxics Respiratory HI"**

*There is not a direct way to see the source of the National Air Toxics Assessment pollution in EJScreen or EnviroAtlas, but a user can go to the EPA National Air Toxics Assessment [web site](#) where source information is available as part of the data set. Adding air emitters to the EnviroAtlas map and looking at the road density metric will also give the user a good idea of the source of air pollution.*

**43. How would a state substitute modeled air quality data, for instance future ozone with and without possible rules, into EJScreen or EnviroAtlas for an EJ analysis?**

*If a state or other entity has a map layer of their modeled air quality data, it is very easy for them to add their map to EJScreen or EnviroAtlas. The data can be added in various formats, however there is currently no mechanism to create an EJ index using state supplied data.*

**44. EJScreen uses summer average of daily maximum ozone concentrations, but the ozone National Ambient Air Quality Standards (NAAQS) uses the 4th high daily maximum ozone concentration. Why does EJScreen use a different metric?**

*For more information on this, please visit: <https://www.epa.gov/ejscreen/technical-documentation-ejscreen>*

**45. Aren't some data sets related, leading to a danger of coming to amplified conclusions?**

*The EJScreen indices are each compiled with only one environmental indicator and a demographic indicator - the EJ indices are not compiled into an aggregate index so the fact that some of the data sets are related is not an issue. In a more general sense, yes, many of the data layers will be related and the user should be aware of collinearity between data layers in a statistical analysis.*

**46. I have a question: How are these tools utilized for American territories such as American Samoa, Puerto Rico, etc?**

*EnviroAtlas includes a subset of data available for the contiguous U.S. for Puerto Rico, U.S. Virgin Islands, Hawaii and Alaska. The Interactive Map includes a mechanism to limit the data to only those available for those areas. We will be working in the coming year to include data for American Samoa and other U.S. Pacific Islands. EJScreen will be building in territory data in the future.*

**47. When looking at national data, is it possible to aggregate to county level in EnviroAtlas?**

*No, it is generally not possible to aggregate the data to county level except for the demographic data which are available by county. The Compare My Area tool does calculate some metrics for one county at a time as part of its functionality. The select tool can be used to capture all HUC-12's intersecting a county, but again, can only summarize for one county at a time. A new tool coming soon will allow a user to select a county as one of many options. Initially a user will be able to calculate land cover and land cover change percentages for one county at a time. Other metrics will be added shortly after initial release.*

**48. Have you considered adding a layer for real estate valuations?**

*The demographic data from the U.S. Census do contain a few variables related to home value. We have considered adding a layer for real estate valuations but have not found a defensible, non-proprietary data source.*

**49. Can we get the link to the catalog of use cases for EnviroAtlas?**

Yes: <https://www.epa.gov/enviroatlas/enviroatlas-use-cases>

*To see use cases presented as featured collections of maps in the EnviroAtlas Interactive Map, click [here](#).*