



**Environmental Justice
in Monitoring and
Assessment**

Agenda

Introduction

Overview of EJ in monitoring (~15 minutes)

Overview of EJ in assessment and listing (~15 minutes)

Overview of New Jersey's holistic approach to EJ (~20 minutes)

Questions and & Open Discussion (~30 minutes)

What is Environmental Justice ?

Table 1. Comparison of Two Foundational Definitions of Environmental Justice	
<p>Traditional EJ definition adopted by EPA:</p> <p>EJ is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.</p> <p>This goal will be achieved when everyone enjoys:</p> <ul style="list-style-type: none"> ● The same degree of protection from environmental and health hazards, and ● Equal access to the decision-making process to have a healthy environment in which to live, learn, and work.⁹ 	<p>New EJ definition in EO 14096:</p> <p>EJ means the <u>just</u> treatment and meaningful involvement of all people, regardless of income, race, color, national origin, <u>Tribal affiliation, or disability, in agency decision-making and other federal activities</u> that affect human health and the environment so that people:</p> <ul style="list-style-type: none"> ● Are <u>fully protected from disproportionate and adverse human health and environmental effects</u> (including risks) and hazards, including those related to climate change, <u>the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers</u>, and ● Have equitable access to a healthy, <u>sustainable, and resilient</u> environment in which to live, <u>play, work, learn, grow, worship, and engage in cultural and subsistence practices</u>.¹⁰

Source: <https://www.ecos.org/wp-content/uploads/2024/02/ECOS-EJ-Green-Report-2023.pdf>

9 <https://www.epa.gov/environmentaljustice/learn-about-environmental-justice>

10 <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/21/executive-order-on-revitalizing-our-nationscommitment-to-environmental-justice-for-all/>

EJ at EPA

- [EPA's Strategic Plan \(FY2022-FY2026\) goal focuses on advancing environmental justice and civil rights](#)
 - Objective 2.2 objective focuses on embedding EJ into EPA's Programs Policies, and Activities
- [2022 Update to EPA's Legal Tools to Advance Environmental Justice](#)
 - Highlights where there are opportunities to integrate EJ into the agency's policies, programs, and activities
- [CWA 303\(d\) Vision 2022-2032](#)
 - Environmental Justice Focus Area that includes opportunities to actively consider EJ in assessment, listing, TMDLs, and other restoration and protection plans

Water Quality Portal

Launched by the National Water Quality Monitoring Council and operated under An Interagency Agreement (USGS & EPA)

- Serves data in a standard format using EPA's WQX template
- # WQP: Data from >1,500 organizations, incl. Federal, state, Tribal and more
- # WQP: >425m records from >1m sites
- Serves data of All Water Types and all sample media
- Offers a Graphical User Interface (GUI) & Web Services
- Internet of Water Integrated Systems (IOW HUB)
- DATA ServiceS can directly power analytics like those in HMW
- Growing Number of internal/external Tools built on top of this data source

Download the Data

Data Source

- NWIS (USGS)
- STEWARDS (ARS)
- WQX (EPA)

Data Profiles

- Organization Data
- Site Data Only
- Project Data
- Project Monitoring Location Weighting Data
- Sample Results (physical/chemical metadata)
- Sample Results (biological metadata)
- Sample Results (narrow)
- Sampling Activity
- Sampling Activity Metrics
- Result Detection Quantitation Limit Data
- Biological Habitat Metrics

File Format

- Comma-Separated
- Tab-Separated
- MS Excel 2007+

Query URL

Copy and share the URL of this query.

```
https://www.waterqualitydata.us/#mimeType=csv&dataProfile=narrowResult&providers=NWIS&providers=STEWARDS&providers=STORET
```

Result

```
https://www.waterqualitydata.us/data/Result/search?mimeType=csv&zip=yes&dataProfile=narrowResult&providers=NWIS&providers=STEWARDS&providers=STORET
```

Data ServiceS

- NWIS
- STEWARDS
- WQX

WFS GetFeature

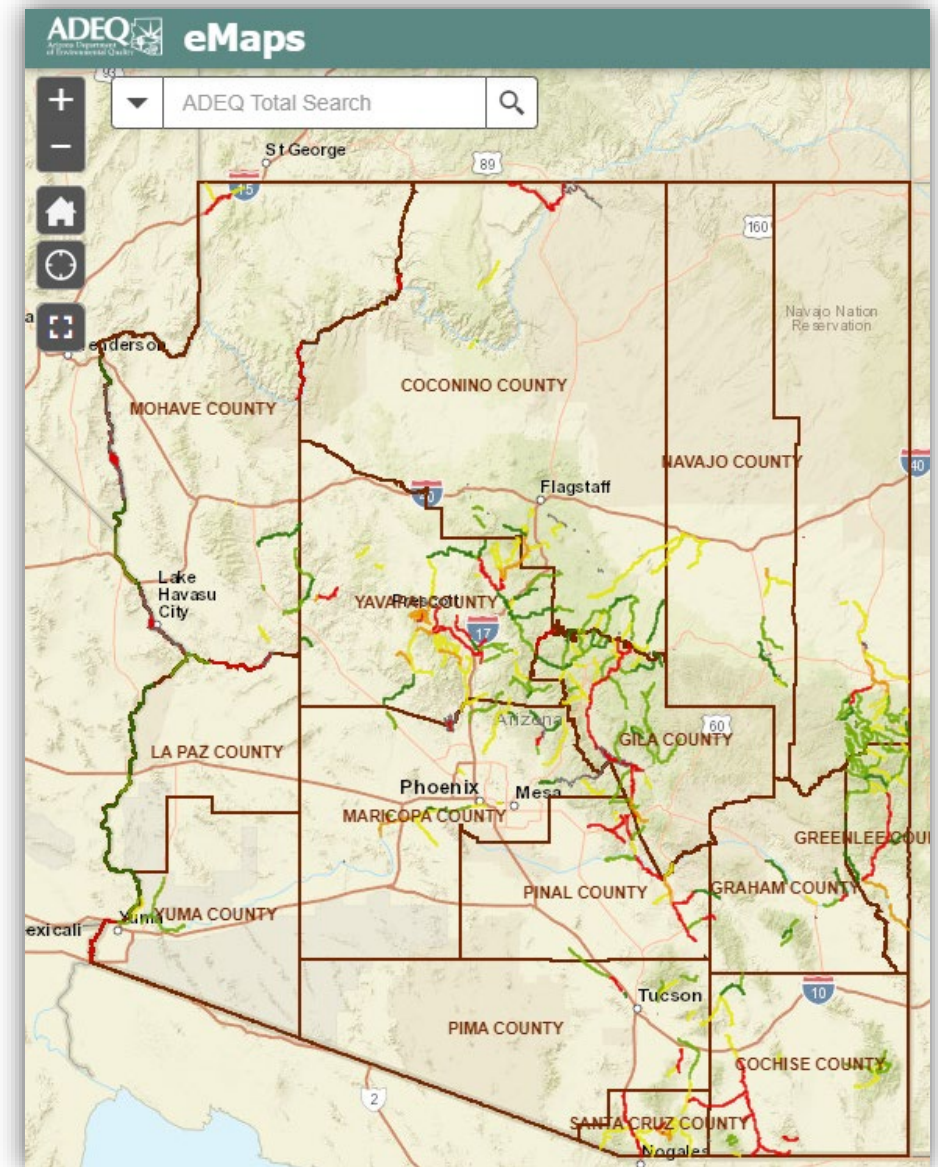
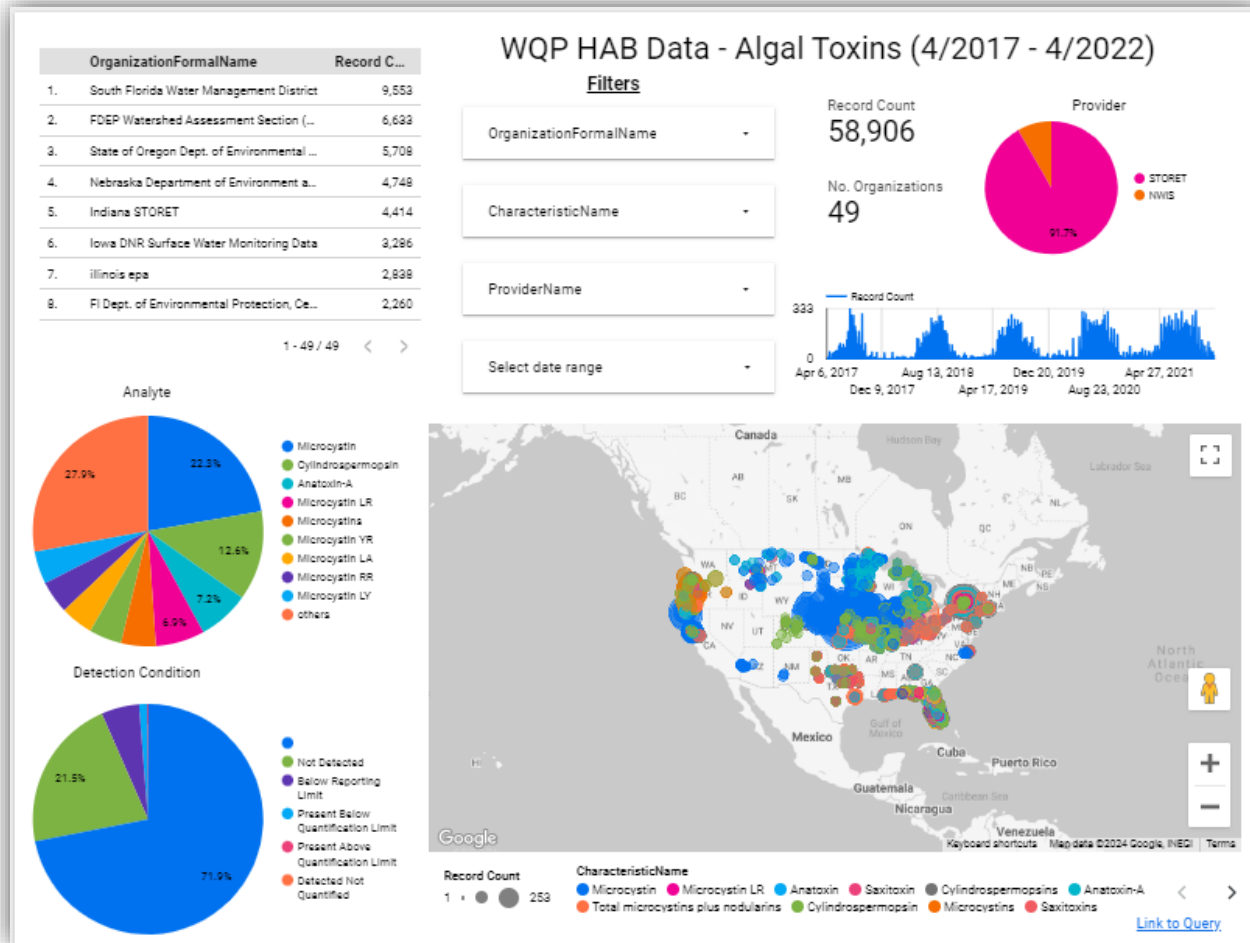
```
https://www.waterqualitydata.us/ogcservices/wfs/?request=GetFeature&service=wfs&version=2.0.0&typeName=wqp_sites&SEARCHPARAMS=providers%3ANWIS%7CSTEWARDS%7CSTORET&outputFormat=application%2Fjson
```

File Format

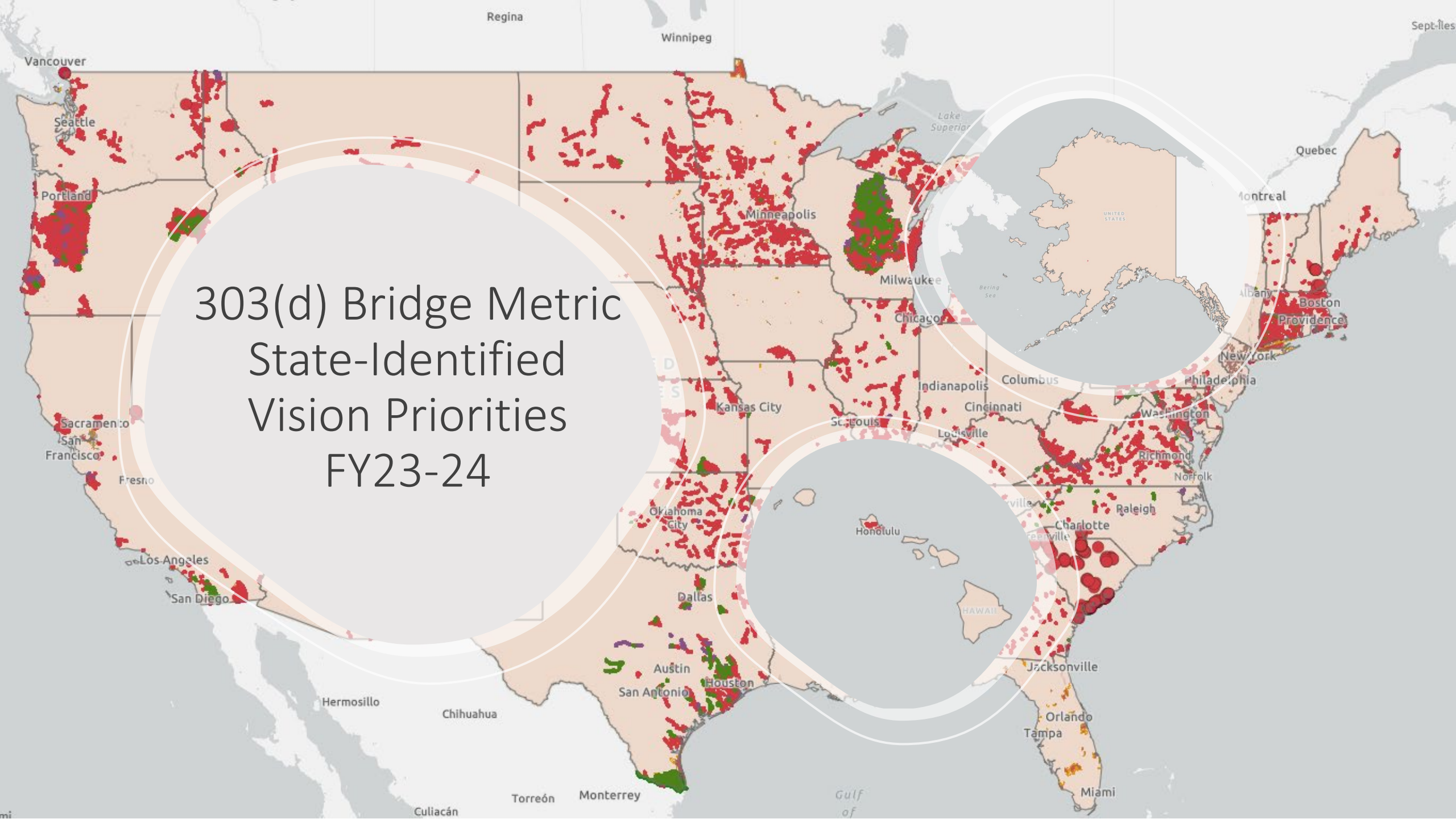
- Comma-Separated
- Tab-Separated
- MS Excel 2007+

Buttons: Clear search, Download

Build Automated Data Dashboards or even Assessment Reports



303(d) Bridge Metric State-Identified Vision Priorities FY23-24



Justice40 Tracts and 303(d) Priorities

Legend

USA States Generalized Boundaries



Justice40 Tracts November 2022 Version 1.0

Assessment

- Dark blue square: Disadvantaged
- Light blue square: Partially Disadvantaged
- White square: Not Disadvantaged

ATTAINS_Assessment

ATTAINS Assessment Points

- Black triangle: Unassessed
- Green circle: Good
- Red circle: Polluted

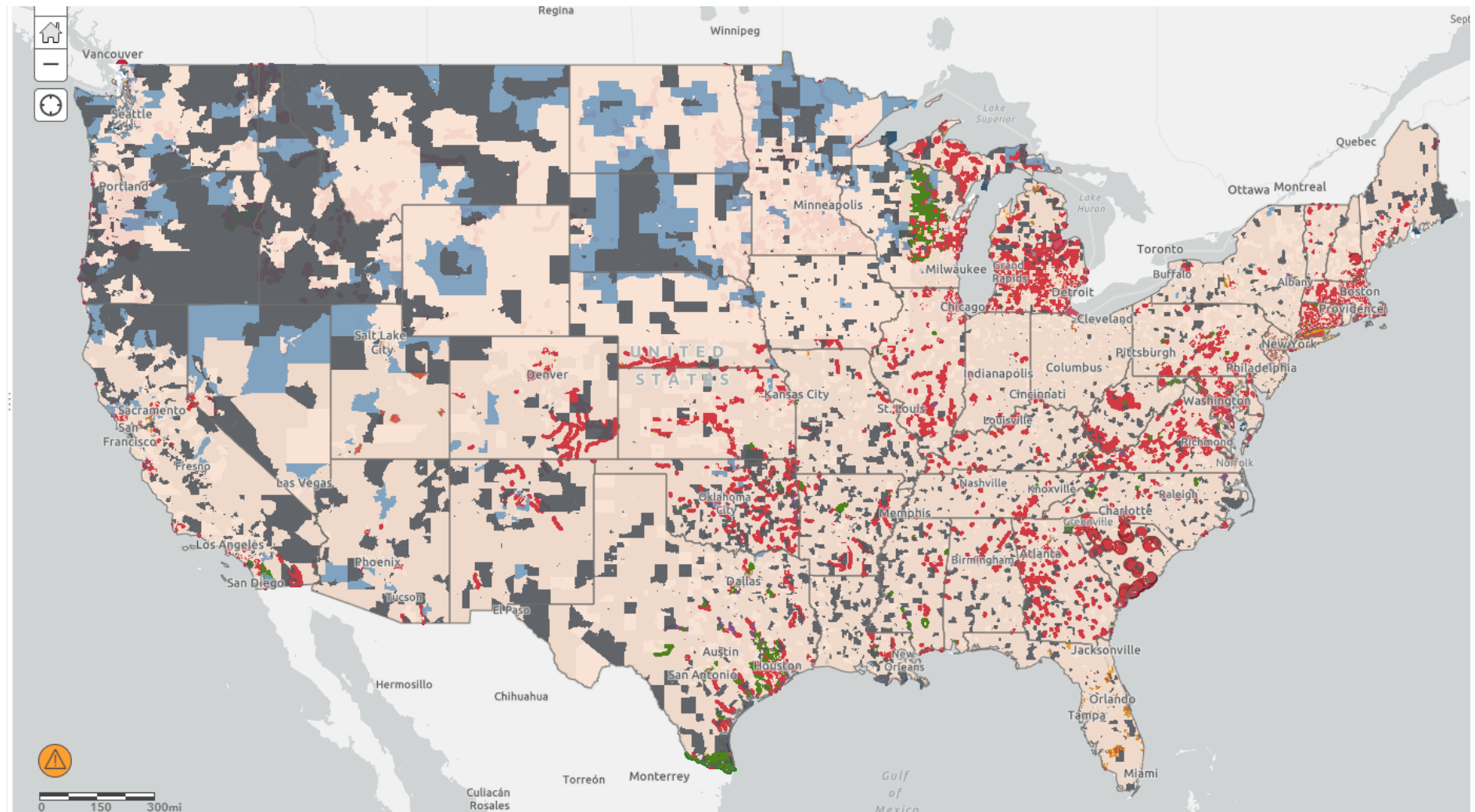
ATTAINS Assessment Lines

- Black line: Unassessed
- Green line: Good
- Red line: Polluted

ATTAINS Assessment Areas

- Purple square: Unassessed
- Green square: Good
- Red square: Polluted

ATTAINS Assessment Unit Catchment Associations



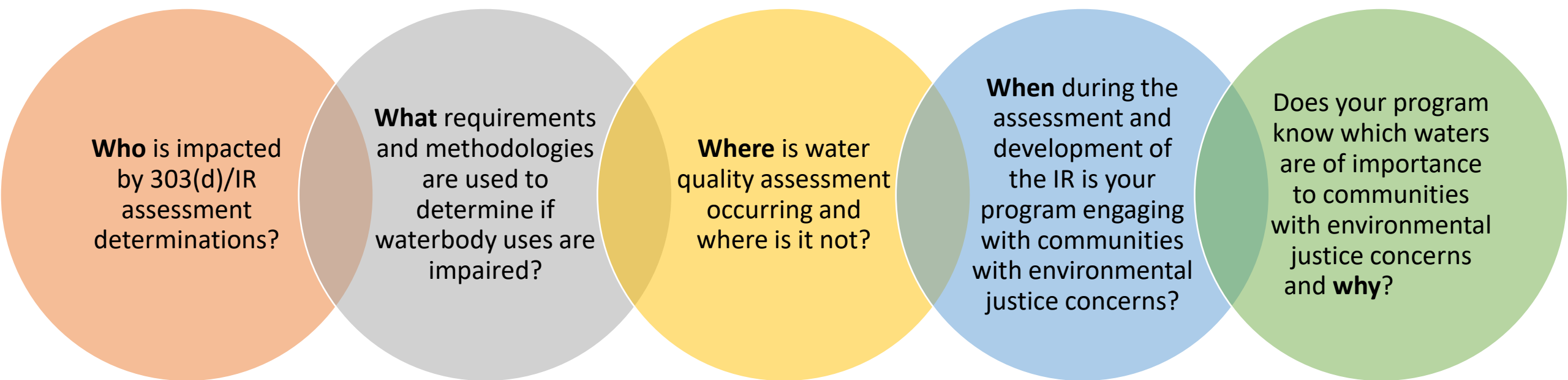
Recovery Potential Screening Scenario Fact Sheet Series | Community Context

RPS Tool screening tutorial that considers environmental justice in the selection of priority watersheds

Table 2. Example indicators for an initial screening that considers environmental justice in the selection of priority watersheds for restoration and protection.

Category	Subcategory	Indicator Name	Description
Ecological	Integrated Watershed Health Index & Sub-Indices	PHWA Watershed Health Index, State	The statewide Watershed Health Index score for the HUC12 from the EPA Preliminary Healthy Watersheds Assessment (PHWA).
Stressor	Impaired Waters	Impaired Waters, % of Assessed Area in HUC12	Percent of the Assessed Area of the HUC12 containing Impaired Waters. The Assessed Area is the portion of the HUC12 containing waters that have been assessed for attainment of surface water quality standards under Section 305(b) of the Clean Water Act. Impaired Waters are not attaining water quality standards.
		Impaired Waters Cause Count in HUC12	Count of unique Impairment Causes in the HUC12. An Impairment Cause is a pollutant or related parameter that is causing non-attainment of water quality standards.
Social	Community Context	% Low-Income Population in HUC12	Percent of the total population in the HUC12 living in a household with low-income.
		% Minority Population in HUC12	Percent of the total population in the HUC12 that is in a minority group.
		% < High School Educated Population in HUC12	Percent of the age 25 and over population in the HUC12 with less than a high school degree.
		% Linguistically Isolated Population in HUC12	Percent of households in the HUC12 that are linguistically isolated.
		% Vulnerable Age Group Population in HUC12	Percent of the total population in the HUC12 that is under age 5 or over 64 years old.

Guiding Questions for Practitioners



Who is impacted by 303(d)/IR assessment determinations?

What requirements and methodologies are used to determine if waterbody uses are impaired?

Where is water quality assessment occurring and where is it not?

When during the assessment and development of the IR is your program engaging with communities with environmental justice concerns?

Does your program know which waters are of importance to communities with environmental justice concerns and **why**?

Impaired Waters List

Who is impacted by 303(d)/IR assessment determinations?

The IRs let the public know which waters are meeting water quality standards and can support activities such as fishing, swimming and Other recreational activities.

- **Decision makers use IRs to, for example, prioritize, inform and justify restoration activities, additional monitoring and permit limits. Is this information appropriately communicated to those impacted by assessment determinations?**

Opportunities

- **Maintain a list of communities with environmental justice concerns** that could be impacted by 303(d) listing decisions for waters in their area.
 - **Notify them in a timely manner about significant decisions** and provide outreach and enhanced technical assistance (including providing translated materials) as appropriate throughout the 303(d) listing process.
- **Promote transparency around assessment determinations** by clearly communicating the water quality standards in place and the data and information used to make each use attainment decision and why (e.g., physical/chemical monitoring, toxicity testing, benthic macro-invertebrate surveys, etc.).
 - Practitioners may use the EPA's EJScreen as a starting point for identifying areas that may have EJ concerns, but the results should be cross checked with local data and information and outreach should be done with the communities in question.

What requirements and methodologies are used to determine if waterbody uses are impaired?

States, territories and authorized Tribes must assemble and evaluate all water-quality related data and information and determine whether all water quality standards are met.

- States, territories and authorized Tribes develop a methodology that outlines how they assess the quality of their waterbodies.
 - These methodologies explain what kind of data and information are used when assessing waterbodies against established water quality standards.
 - Public comment periods allow communities to evaluate whether these methodologies are appropriate for determining if uses that are important to them, such as subsistence fishing, cultural and recreational uses, are protected.

Opportunity



Is this information shared with communities with environmental justice concerns so that they can understand how assessments are conducted in their waterbodies and provide feedback on the process?

Where is
water quality
assessment
occurring
and where is
it not?

- How are communities with environmental justice concerns being considered when deciding where to conduct water quality monitoring given limited data and/or resources?

Opportunities

- **Coordinate with monitoring programs** to consider communities with the most significant pollution burden and/or communities with environmental justice concerns when prioritizing monitoring and assessment.
 - This information can help lead to increased monitoring, outreach to communities to inform them of impairments potentially affecting their subsistence foods, cultural practices and recreational opportunities or to seek water quality data and information that the community might possess.

What additional information could be provided to communities to increase engagement?

Is sufficient outreach being conducted to ensure that communities with environmental justice concerns are aware of opportunities for participation in the assessment process?

IRs can help states, territories and authorized Tribes increase transparency around assessment determinations by clearly communicating the water quality standards in place and the types of data used to make each use attainment decision.

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- **Offer webinars on the assessment and data/information submittal process** to help build an understanding of the process and raise awareness of the opportunity; provide transcripts in multiple languages, as appropriate.
 - **Employ the IR as a tool for informing people about the status of their waters**, building an understanding of the CWA Sections 303(d) and 305(b) and helping inform what actions the EPA, states, territories, Tribes and communities may want to take to restore or protect waters.
 - **Create plain language summaries of assessments and develop user-friendly interactive map viewers like story maps for integrated reports.**
 - Identify what data and information was used for listing decisions and explain why such data and information was used or not used in order to meet requirements and increase transparency.
 - **Establish clear and technically sound guidelines for the quality-control of data and information** and communicate these guidelines in the public call for data.
 - Develop QA/QC measures that enable all scientifically sound data to be assessed; if needed, reach out to whoever submitted the data/information to work through quality concerns before deciding to exclude it from listing decisions. (Note: the EPA supports reasonable approaches to ensuring that data and information used to make listing decisions are of appropriate quality.)
 - Provide an estimate for when the data call will open so people can plan accordingly.
 - **Share the data call** with communities with environmental justice concerns including instructions for how to submit data and information.
 - **Assist communities in submitting data** and information in a form that can be used for assessment purposes.
 - **Work proactively with participatory science programs to expand participation** within communities that are predominantly of color, indigenous, linguistically isolated and low-income to help increase water quality data in these communities where needed.
 - Organizations already working in the community may be best suited to help coordinate these efforts with the support of the CWA Section 303(d) Program (e.g., faith-based institutions, youth groups, etc.).
 - **Conduct limited English proficiency assessment and research community demographics** to help determine best modes of outreach where assessment decisions may occur.
 - **Put the data call and public comment period announcements in plain language and include languages that are prevalent in communities** with environmental justice concerns in your state, territory or authorized Tribe;
 - **post through a variety of media.**

When during the assessment and development of the IR is your program engaging with communities with environmental justice concerns?

— *States, territories and authorized Tribes are expected to provide opportunities for the public to review and comment on the CWA 303(d) lists and to demonstrate how they considered public comments in their final decisions.*

How can the program conduct targeted outreach to meaningfully engage communities with environmental justice concerns throughout this process? In addition to public comment periods on draft methodologies and draft assessments, **widely share opportunities for public engagement earlier in the process such as calls for data.**

- ✓ **Work with monitoring programs** to provide communities an opportunity for input on sampling locations to ensure that areas of subsistence, cultural or recreational importance are monitored appropriately.
- ✓ **Coordinate with other environmental quality programs** conducting outreach and engagement to take a holistic approach and decrease the burden on the community.
- ✓ **Identify and build relationships with local leaders** to understand how the CWA Sections 303(d) and 305(b) Programs can address communities' environmental justice concerns early in the process.
 - ✓ **Research who the trusted voices and organizations** are that represent community perspectives and seek their advice on the best means of communication.
- ✓ If holding public meetings to solicit feedback on the IR, **consider what times, locations, languages, etc.** will be most accessible for community members.
 - ✓ **Convene a mix of virtual and in-person public meetings** and make recordings available to reach more people.

Does your program know which waters are of importance to communities with environmental justice concerns and why?

Section 303(d) and Section 305(b) reporting are required under the CWA. The IR process provides the public with the information they need to determine which waters can support the uses that are important to them.

- **Seek community input** on monitoring locations.
- **Ask communities if they are willing to share** traditional or historical knowledge about their local waterbodies and the importance of their uses.
- As the EPA reviews state CWA 303(d) lists and consults with Tribes on list submittals, **appropriate consideration must be given to Tribal treaty and other reserved rights that exist within and outside of Indian country.** In addition, the EPA acknowledges the importance of attending to tribal concerns regarding tribal data sovereignty.
 - [EPA's Policy on Consultation and Coordination with Indian Tribes](#) describes the EPA's commitment to consulting on a government-to-government basis with federally recognized Tribal governments when the EPA actions and decisions may affect Tribal interests.

How can the public participate and engage in this water quality assessment process?



Public Opportunity 1: Submit Data

What: In developing their CWA 303(d) lists, states, territories and authorized Tribes are required to assemble and evaluate all existing and readily available water quality-related data and information, including for waters for which water quality problems have been reported by local, State or Federal agencies; members of the public; or academic institutions.

These organizations and groups should be actively solicited for research they may be conducting or reporting.

How: State, territory and authorized Tribal assessment programs ordinarily publish a call for public data during the Integrated Reporting (IR) development process.

You can reach out to your state, territory or authorized Tribe's environmental departments to inquire about IRs that have current or upcoming data calls and the process for submitting data for consideration and evaluation in the assessment.

Note: The state, territory or authorized Tribe may have a credible data policy describing the background information that is needed about the data or information so that the state can efficiently use it in the list development process. The call for data will also describe any cutoff dates for submittal.



Public Opportunity 2: Submit Public Comment

What: States, territories and authorized Tribes are expected to provide opportunities for the public to review and comment on the CWA 303(d) lists and to demonstrate how they considered public comments in their final decisions.

States, territories and authorized Tribes must describe in their Continuing Planning Processes (CPPs) how they involve the public in the CWA 303(d) listing process (40 CFR 130.7(a)).

How: Draft Integrated Reports including water quality impairment information are made publicly available for review and comment. Many states, territories and authorized Tribes also offer a separate public comment period for review of draft assessment methodologies, which describe how a state plans to assess data and make water quality status determinations.

Check with your state, territory or authorized Tribe's environmental department or join their listserv for notices of upcoming public comment opportunities.



Public Opportunity 3: Learn More

What: Sign up for email notifications from states, territories or authorized Tribes and join local watershed groups.

States, territories and authorized Tribes often use listservs to send email notifications about calls for data, public comment periods, public meetings, webinars, requests for public information and funding opportunities.

Additionally, local watershed groups often have great information about the status of local waters, they are interested in collecting local knowledge to inform water resource management and they often participate in volunteer water quality monitoring and restoration activities. These are both great ways to get timely information about opportunities to engage in the assessment process.

How: Refer to your state, territory or authorized Tribes' webpage to sign up for email notifications.

Search online for local watershed groups or visit their tables at local fairs and festivals to get involved.



Considering Environmental Justice in Water Quality Assessment – *A Driver for Many Other Activities*

- Assessment determinations allow patterns in water quality status to be more readily visualized and can highlight communities that are being disproportionately affected by impaired waters or show where assessment determinations are lacking.
- Prioritize high quality waters for protection
- Identify local waterways in need of restoration to meet water quality standards
- Develop restoration plans, like Total Maximum Daily Load (TMDL) plans and watershed plans, that reduce pollution
- Issue permits with water quality-based discharge limits
- Target compliance and enforcement actions
- Track overall water quality conditions, changes over time and effectiveness of the CWA
- Understand where existing monitoring locations are to assess whether there are missing areas of concern

Related Resources

-
- 2024 [Integrated Reporting Guidance Memo](#) for more on environmental justice and participatory science as it relates to the 303(d) program.
 - [How's My Waterway \(HMW\)](#): Can be used to see where data exist and to intersect the availability of monitoring data with indicators from the EPA's Environmental Justice Screening Tool which are imbedded as geospatial layers in HMW.
 - Environmental Justice Screening and Mapping Tool: [EJScreen](#) is an EPA environmental justice mapping and screening tool that provides a nationally consistent dataset and approach for combining environmental and demographic socioeconomic indicators.
 - [Recovery Potential Screening \(RPS\) Tool](#): Each state and U.S. territory has their own publicly available RPS tool, most containing over 300 watershed indicators (e.g. ecological, stressor, and social indicators). These indicators can be used to integrate environmental justice into water quality planning. *Other*
 - [Water Quality Portal](#): The Water Quality Portal (WQP) is the premiere source of discrete water-quality data in the United States and beyond.
 - [ECHO](#): EPA's Enforcement and Compliance History Online website can be used to assess compliance with environmental regulations in your community.
 - [Watershed Academy](#)'s online training modules that look at the Clean Water Act through an environmental justice lens and explores the CWA as a guiding framework to highlight water equity challenges and opportunities in watershed management. Public version to be released summer of 2024!
 - Visit the [EPA's participatory science website](#) to explore resources like toolkits, funding, example projects and the EPA's Vision for participatory science.
 - [Quality Assurance Guide for Volunteer Monitoring](#) - For data generated by the public to have a meaningful impact, quality assurance during data gathering is critical. The EPA has created a Quality Assurance Toolkit to help organizations starting or growing a participatory/citizen science project.
 - [Environmental Justice State by State](#): A law library for community advocates, attorneys, scholars, and policymakers.
 - [Federal Environmental Justice Law Tracker](#): An Environmental Law at Harvard tool to provide up-to-date information on the administration's environmental justice commitments and progress made. These include administrative and regulatory actions across the whole of government, and at specific agencies