
**CUMULATIVE
IMPACTS &
*WHY YOUR
VOICE
MATTERS***

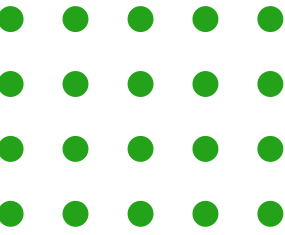


Collaborative Presentation Etiquette



- Keep yourself on **mute**.
- Feel encouraged to **ask questions or leave comments in the chat at any time**.
- **30min Q&A** will be at the **end of the presentation**
 - **Please raise your hand** if you have a question and you will be called upon
 - If we run out of time we will do our best to follow up with an answer in email (*you can also email us - we'd love to continue the conversation*)
- To ensure everyone has a chance to ask their question, we might interrupt you.

Webinar Overview



> What are Cumulative Impacts?

> How are cumulative impacts part of your life?


> The legislative process

> Cumulative impacts in action

> What you can do!


> Conclusion and thank you





What are Cumulative Impacts?

“Cumulative Impacts are defined as the totality of exposures to combinations of chemical and nonchemical stressors and their effects on health, well-being, and quality of life outcomes.” EPA, 2025



What are Cumulative Impacts?



- Cumulative impacts show how multiple sources of pollution can build on each other to harm health, and be worsened by other social stressors – or social determinants of health that disproportionately affect EJ communities [1]
- Cumulative impact bills set protections for communities that are disproportionately exposed to pollution by considering the combined impacts of exposures that can accumulate over time
- Offer an added layer of protection for impacted communities when new permits for industrial facilities are being issued or proposed.

A LEGACY OF ENVIRONMENTAL POLLUTION

Discriminatory Practices and Policies

- Environmental pollution does not operate in isolation
- Continue to influence where sources of pollution are located at the federal and local level[2]
- Determining which communities would face the greatest exposures to environmental hazards [3]

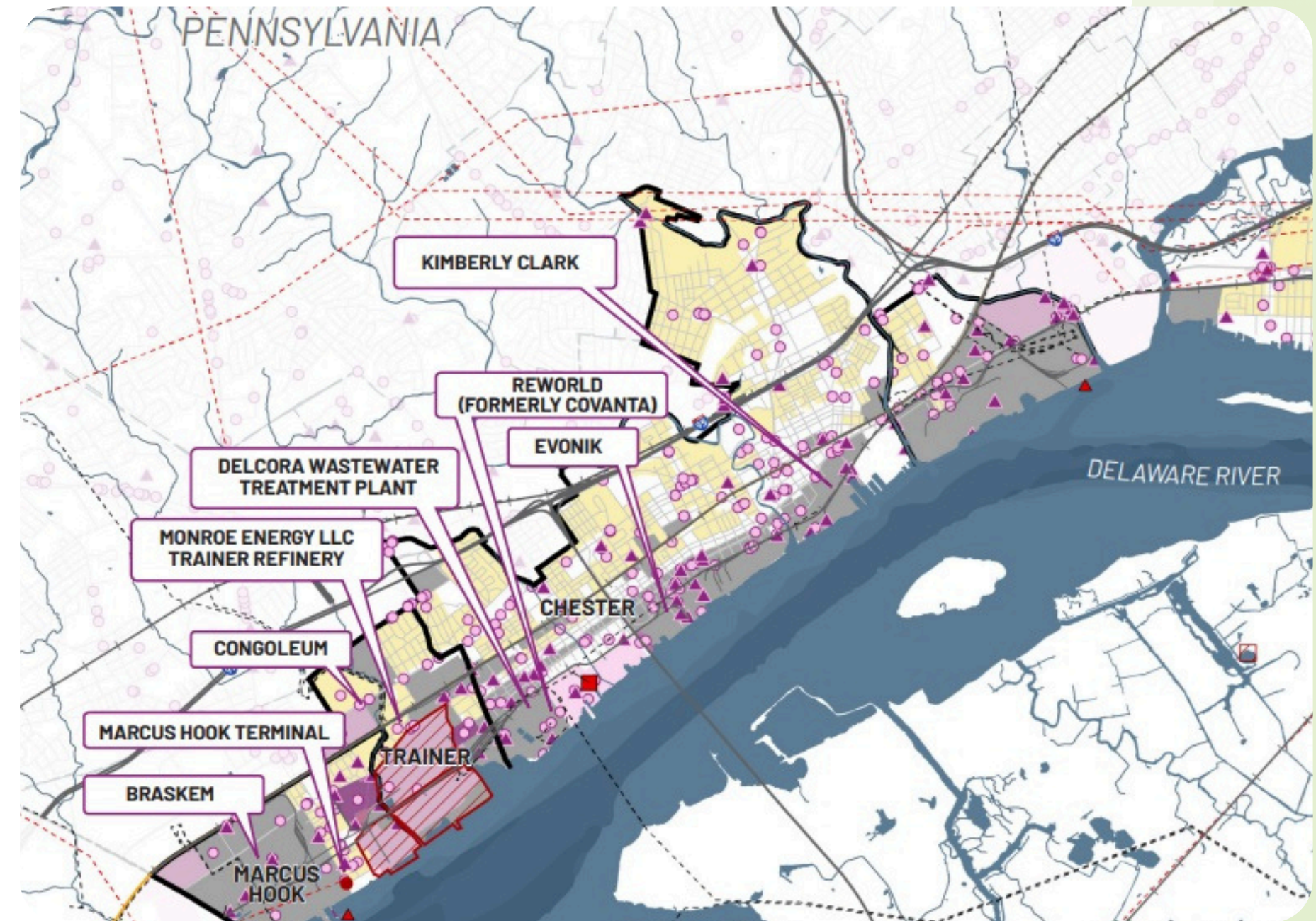


Image from Clean Air Council Climate Resilient Communities Report

A LEGACY OF ENVIRONMENTAL POLLUTION

Historical Redlining

- Federal government established the Home Owners' Loan Corporation (HOLC) in 1930s, who produced discriminatory maps to inform mortgage lending practices, where Black and immigrant communities were classified as “D” for hazardous or colored in red
- Maps also reflected environmental factors
 - Communities with industrial uses would receive lower grades [5]
- Today, historically redlined areas remain largely communities of color [4]

A LEGACY OF ENVIRONMENTAL POLLUTION

What does this mean for environmental pollution?

Research finds that:

- Historically redlined communities tend to have higher levels of air pollution decades later
- Communities are highly vulnerable to air, water and noise pollutants along with other health issues [5]
- Residents in what were labeled D-graded communities lived in proximity to nearly twice the density of oil and gas wells [5]

“Cumulative impacts affect everyone, but racist, biased systems and laws drastically exacerbate cumulative impacts.” (Union of Concerned Scientists, 2024)

A LEGACY OF ENVIRONMENTAL POLLUTION

How does this relate to Cumulative Impacts?

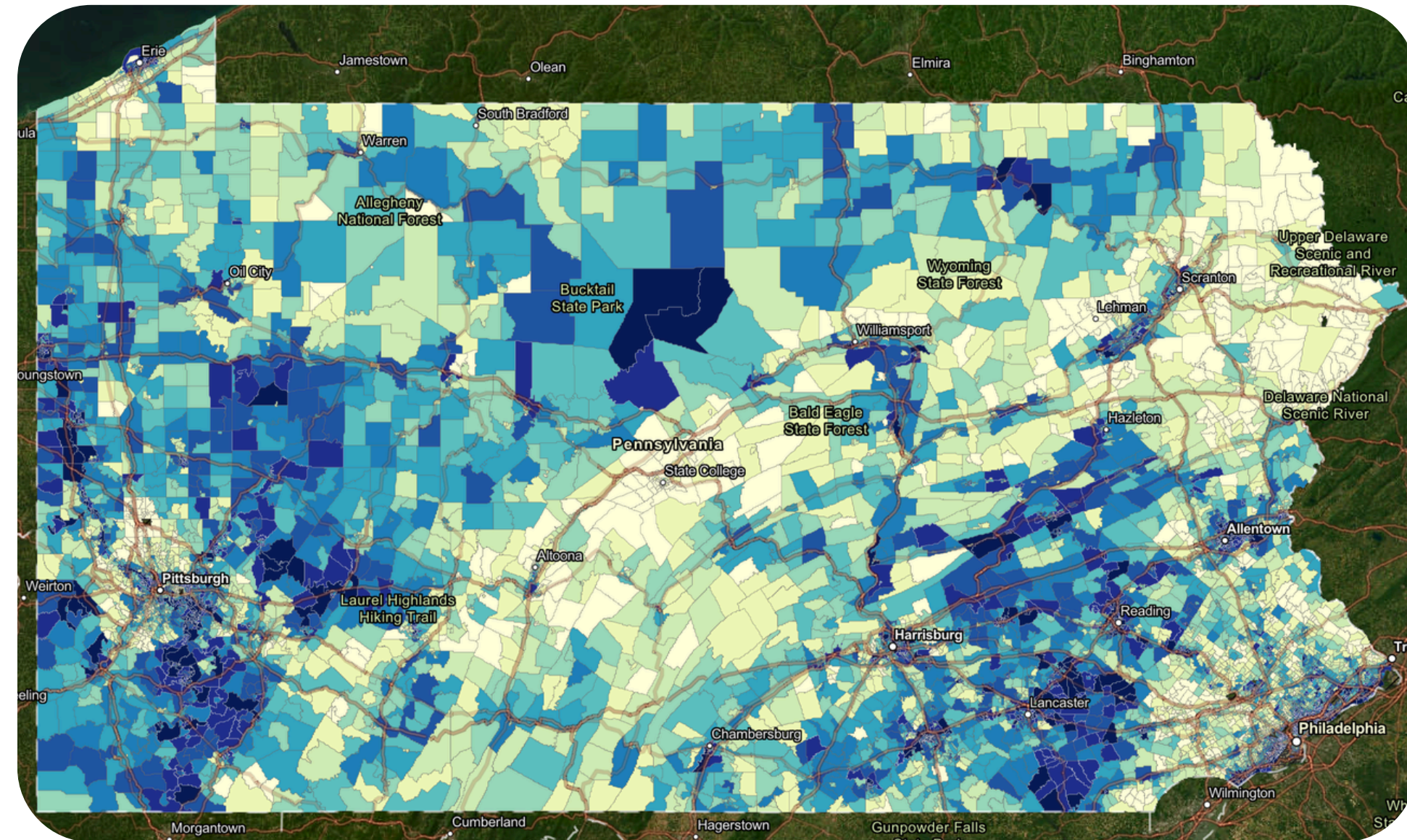
- ***Current health and environmental legislation and policies*** regulate the safety of chemicals and facilities, in isolation or one at a time[2].
- **Communities are exposed to pollutants through numerous pathways**, including a legacy of discriminatory policies, sources of pollution in our neighborhoods and products we use in our everyday lives. These exposures are compounded by social, environmental and economic stressors
- While cumulative impacts affect everyone, it is imperative our environmental regulatory system **targets systemic change** that influences unfair burdens of pollution reflected in decades of discriminatory policies and practices.

House Bill 109 and Senate Bill 1048

Environmental Justice Area

- A geographic area characterized by increased pollution burden, and sensitive or vulnerable populations based on demographic and environmental data.
- EJ Areas are determined by the Department of Environmental Protection (DEP)
- DEP can update criteria that is used to determine EJ Areas

Penn Enviro Screen



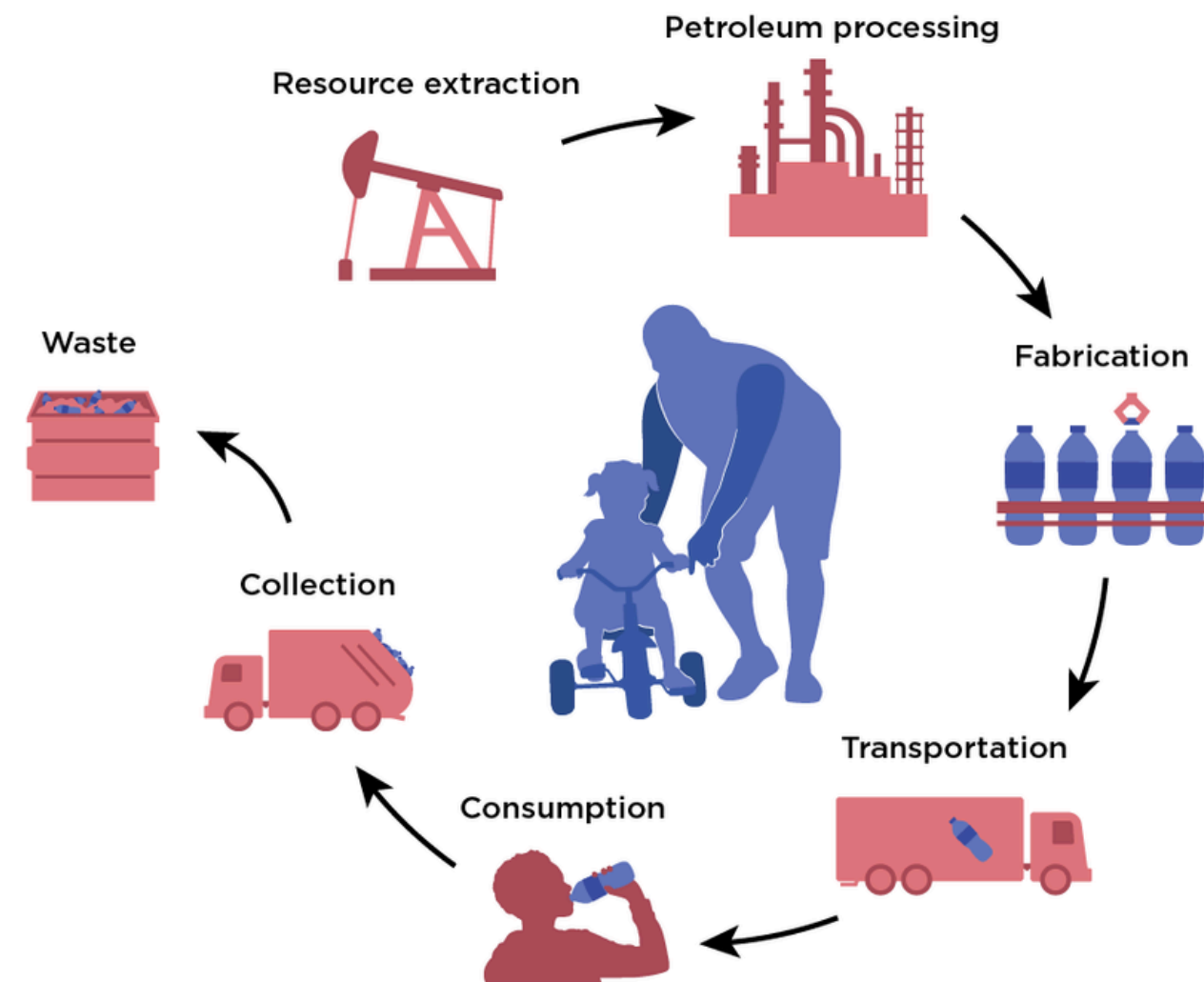
Mapping tool used to measure the need for Environmental Justice and designates EJ areas. It quantifies and visualizes disproportionate environmental effects on historically marginalized populations.

House Bill 109 and Senate Bill 1048

What would happen if these bill passed?

- Would require permit applicants for a new facility or expansion of an existing facility located in an EJ area to submit a “cumulative environmental impact report” to DEP that would assess:
 - Environmental impacts of the facility
 - Cumulative environmental impacts on the EJ area
 - Negative impacts that cannot be avoided

Multiple Impacts on a Community



© 2024 Union of Concerned Scientists

Image from the Union of Concerned Scientists

House Bill 109 and Senate Bill 1048

What would happen if these bill passed?

Public Participation

- Require a public hearing, if not already required.
- Permit applicant would provide the community with information on the facility and its potential environmental and health impacts.
- Public opportunity to weigh in

Meaningful Consideration

- DEP must consider the testimony presented during public hearings.
- Affected municipality can also recommend DEP take specific actions on the permit.

Agency Discretion

- Empower DEP to deny or revise a permit application on the basis of its cumulative environmental impacts

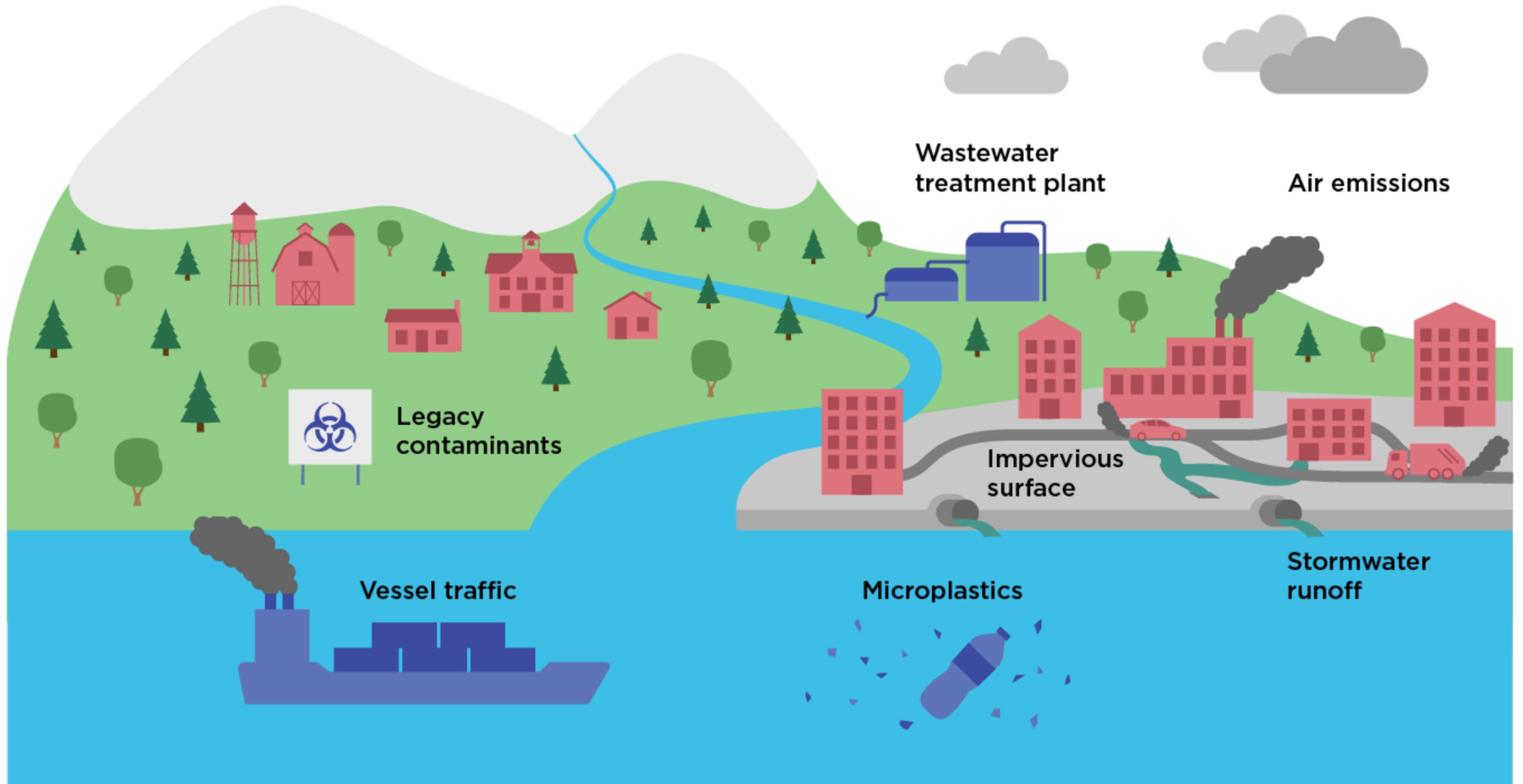


Image from University of Pennsylvania Center of Excellence in Environmental Toxicology



**How are Cumulative
Impacts part of our
lives?**

The Pathways of Pollution



What are *chemical stressors*?

These are synthetic or natural chemical substances that can cause adverse health effects.

Chemical stressors include things like:

- **Industrial pollutants:** PFAS, dioxins, PCBs, flame retardants
- **Heavy metals:** Lead, arsenic, mercury
- **Volatile organic compounds**
- **Pesticides**
- **Air & Water pollution**

What are non-chemical stressors?

These are physical, social or built environment factors that impact quality of life.

Nonchemical stressors can include:

- **Physical stressors:** Inadequate housing, extreme heat or cold, noise pollution.
- **Biological stressors:** Bacteria and viruses
- **Social factors:** Income, exercise, access to healthy foods and other resources.
 - **these disparities typically result from historical and ongoing marginalization.*

chemical stressors

Highway Emissions

- Grew up on protected wetlands adjacent to a state highway

Superfund Site Community

- with ground water contamination including yet not limited to high concentrations of TCE, 1-4 Dioxin & PFAS.

Consumer products exposures

Including beauty and landscaping

non-chemical stressors

Physical Health

- Intermittent lack of access to healthy foods.

Mental Health & Financial Impacts

- Growing up in a Superfund site community, witnessing illness, demands for accountability and fears of “unknown” exposures.
- Flooding events “once in a generation”



Overview of the legislative process

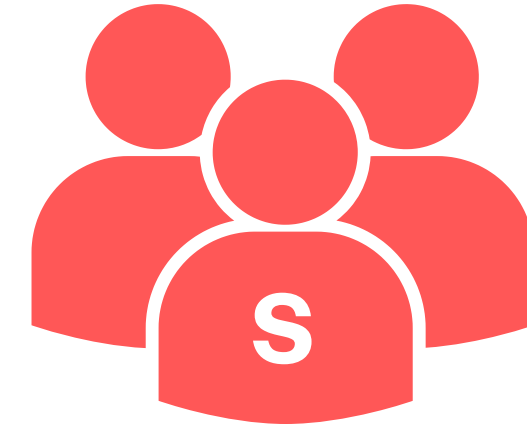
Sessions and legislation



House

203 members

Democrat-controlled



Senate

50 members

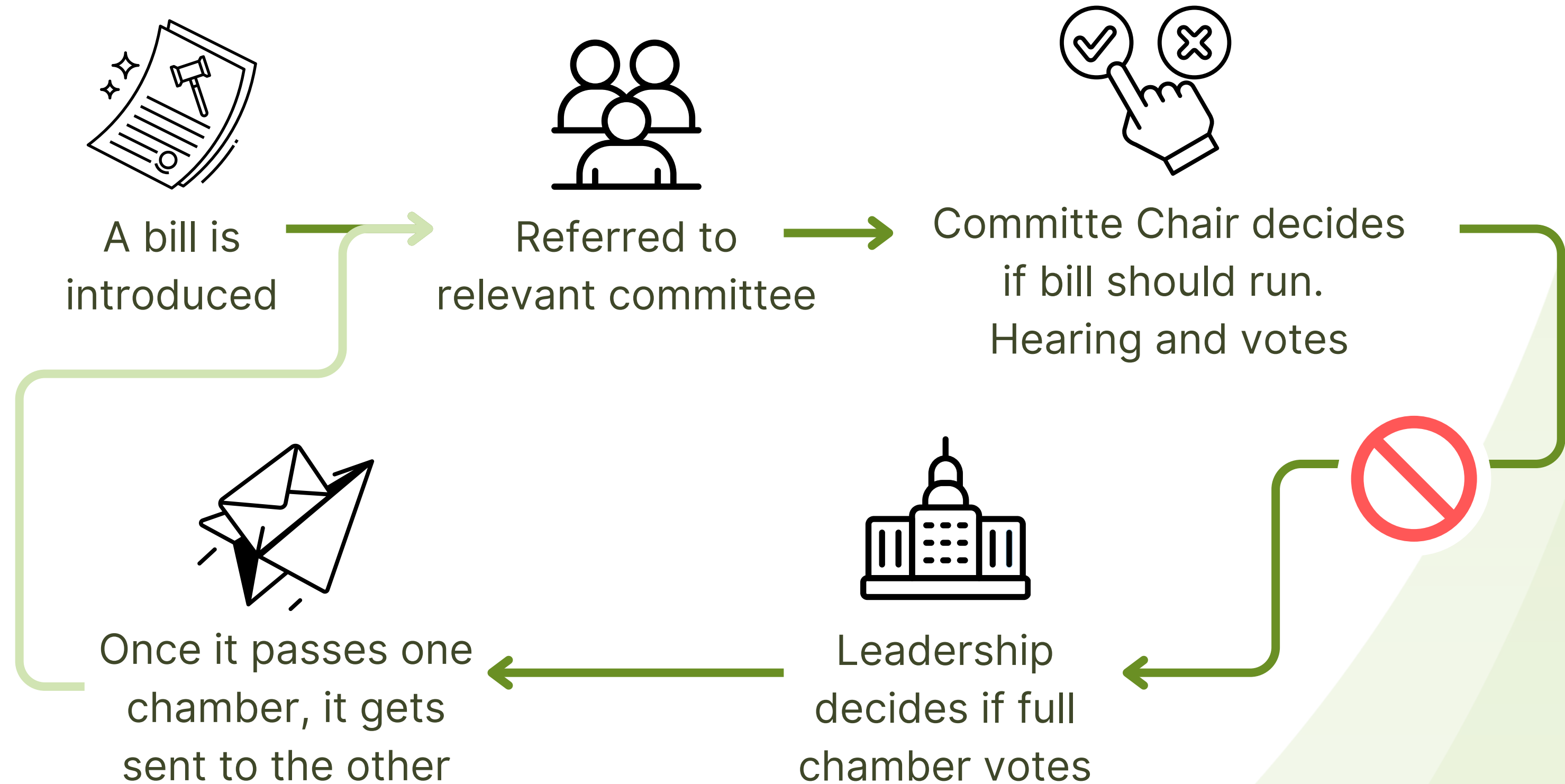
Republican-controlled

A typical session – 2 years; bills not passed need to be reintroduced in next session

Committees – chaired by member of majority party; decides which bills in committee to consider

Find your legislator – palegis.us/find-my-legislator




The path of a bill









Cumulative impacts *in action*

Cumulative Impacts in New Jersey

1	DETERMINATION OF APPLICABILITY <ul style="list-style-type: none">o Proposed or existing facility is one of 8 specific facility types (major air sources, solid waste facilities)o Applicant seeks individual permit under applicable DEP regulationso Facility is located, or proposes to be located, in whole, or in part, in an overburdened community (OBC)	
2	INITIAL SCREEN <p>Once DEP receives permit application subject to EJ Rules, DEP provides initial screening information for the OBC including:</p> <ul style="list-style-type: none">1 - identification of environmental and public health stressors2 - appropriate geographic point of comparison3 - adverse environmental or public health stressors4 - whether OBC is subject to adverse cumulative stressors <p>Applicant may obtain information directly from EJMAP or analyze stressor data independent from EJMAP. OPPN will verify applicant's results with the data in EJMAP.</p>	
3	DETERMINATION OF APPLICATION REQUIREMENTS <p>Where OBC is not subject to adverse cumulative stressors or applicant can demonstrate avoidance of disproportionate impact, applicant would only be required to provide the information required pursuant to N.J.A.C. 7:1C-3.2</p> <p>OR</p> <p>Where OBC is already subject to adverse cumulative stressors or applicant cannot demonstrate disproportionate impact would be avoided, applicant would be required to include both the information required pursuant to N.J.A.C. 7:1C-3.2 and the supplemental information required pursuant to N.J.A.C. 7:1C3.3</p>	

4	PREPARATION AND REVIEW OF EJIS AND ANY ADDITIONAL SUPPLEMENTAL INFORMATION <ul style="list-style-type: none">o Applicant submits EJIS and supplemental information, as applicable, along with public notice documents to DEPo Upon DEP approval, applicant proceeds with meaningful participation processo DEP posts EJIS and public notice online	
5	MEANINGFUL PUBLIC PARTICIPATION <ul style="list-style-type: none">o Applicant holds meaningful public participation pursuant to N.J.A.C. 7:1C-4 including public hearing in host overburdened community.o Minimum 60-day public comment period.	
6	DEPARTMENT REVIEW <ul style="list-style-type: none">o Applicant provides EJIS with response to comments to Department for review.o DEP considers EJIS, response to comments other relevant information to determine whether the facility can avoid a disproportionate impact.o Minimum 45 day review	
7	DEPARTMENT DECISION <ul style="list-style-type: none">o If facility can avoid disproportionate impact, DEP will authorize the applicant to proceed and impose conditions to ensure disproportionate impact is, and remains, avoided.o Where the facility cannot avoid disproportionate impact, DEP would: New: deny application for new facility unless it demonstrates it will serve a compelling public interest in OBC <p>Expanded facilities/Major source renewals: authorize applicant to proceed with DEP permitting subject to appropriate conditions to address facility impacts to environmental and public health stressors.</p>	

Source - NJ Department of Environmental Protection



Your voice matters!
What *you* can do



Why we're calling on you



- **The importance of a call or letter**
 - Elected officials should be accountable to their constituents!
 - Elected officials want to know what you care about
- **HB 109** needs more representatives to sign on as **cosponsors**
- **SB 1048** needs a committee **hearing and vote**



Thank you!



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Presentation Sources

- [1] Baptista, A. I., Sachs, A., & Rot, C. (2019). Local Policies for Environmental Justice: A National Scan. Tishman Environment and Design Center. Retrieved July 29, 2024, from <https://rucore.libraries.rutgers.edu/rutgers-lib/59871/PDF/1/play/>
- [2] <https://www.ucs.org/resources/cumulative-impacts-policies>
- [3] <https://blackprelaw.studentgroups.columbia.edu/news/poisoned-policy-environmental-racism-modern-legal-system>
- [4] <https://publichealth.berkeley.edu/articles/spotlight/research/50-years-after-being-outlawed-redlining-still-drives-neighborhood-health-inequities>
- [5] <https://www.npr.org/2022/03/10/1085882933/redlining-pollution-racism>
- [6] <https://blackprelaw.studentgroups.columbia.edu/news/poisoned-policy-environmental-racism-modern-legal-system>
- [7] https://www.ucs.org/sites/default/files/2024-10/Cumulative%20Impacts%20Guide_Eng.pdf

Factsheet Sources

- (1) Baptista, A. I., Sachs, A., & Rot, C. (2019). Local Policies for Environmental Justice: A National Scan. Tishman Environment and Design Center. Retrieved July 29, 2024, from <https://rucore.libraries.rutgers.edu/rutgers-lib/59871/PDF/1/play/>
- (2) EDF State Climate Equity Report: Documenting How State Rules Support a Just and Equitable Energy Transition. (2023). Environmental Defense Fund. https://www.edf.org/sites/default/files/2023-12/EDF%20State%20Climate%20Equity%20Report_0.pdf
- (3) Lewis et al., (2011). Non-Chemical Stressors and Cumulative Risk Assessment: An Overview of Current Initiatives and Potential Air Pollutant Interactions <https://pmc.ncbi.nlm.nih.gov/articles/PMC3138011/> and EPA EcoBox Tools by Stressors - Chemical (2025). <https://www.epa.gov/ecobox/epa-ecobox-tools-stressors-chemical>
- (4) Environmental Justice Law (2020). <https://dep.nj.gov/wp-content/uploads/ej/docs/ej-law.pdf>