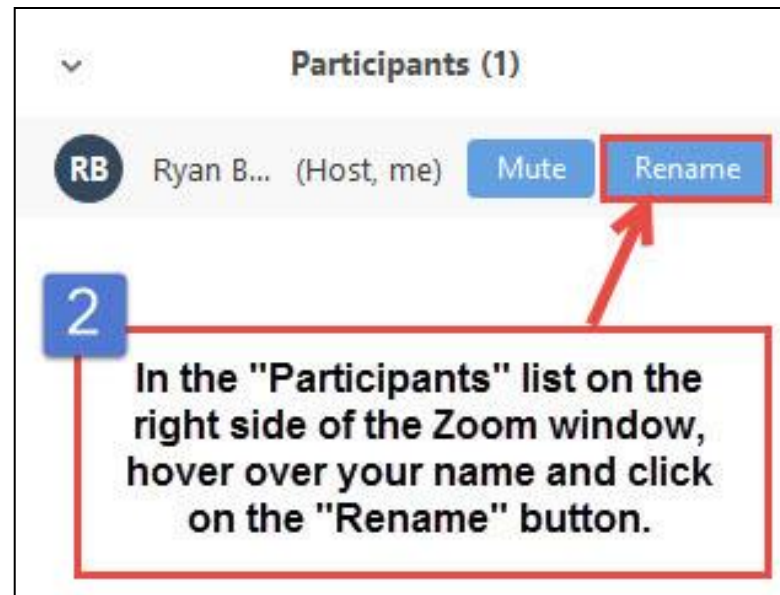
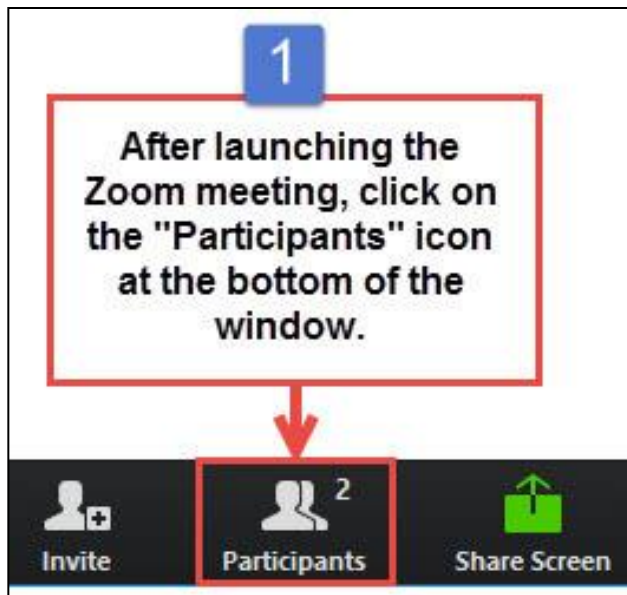


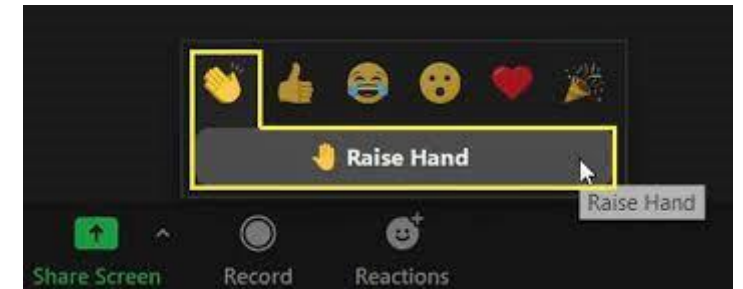
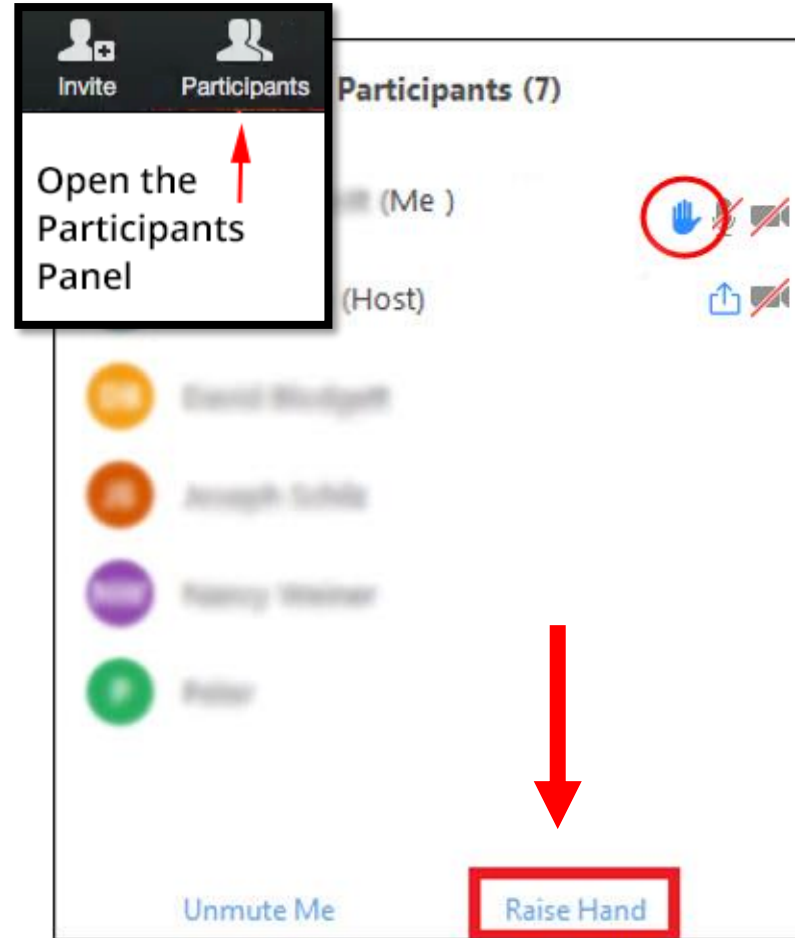
Zoom Meeting Logistics

- This meeting is being recorded.
- All attendees are muted to minimize background noise.
- Please enter your full name in the “Participants” panel.
- Audio is available via your computer’s speakers or by phone.



Have a Question?

- Raise your virtual hand.
- During the question-and-answer session, we will:
 1. Announce your name.
 2. Allow you to unmute.
- Technical issues? Contact “Technical Support” via the chat.



CUMULATIVE IMPACT ANALYSIS

Stakeholder Meetings
April 26/27, 2022



Welcome

Assistant
Commissioner
Christine Kirby

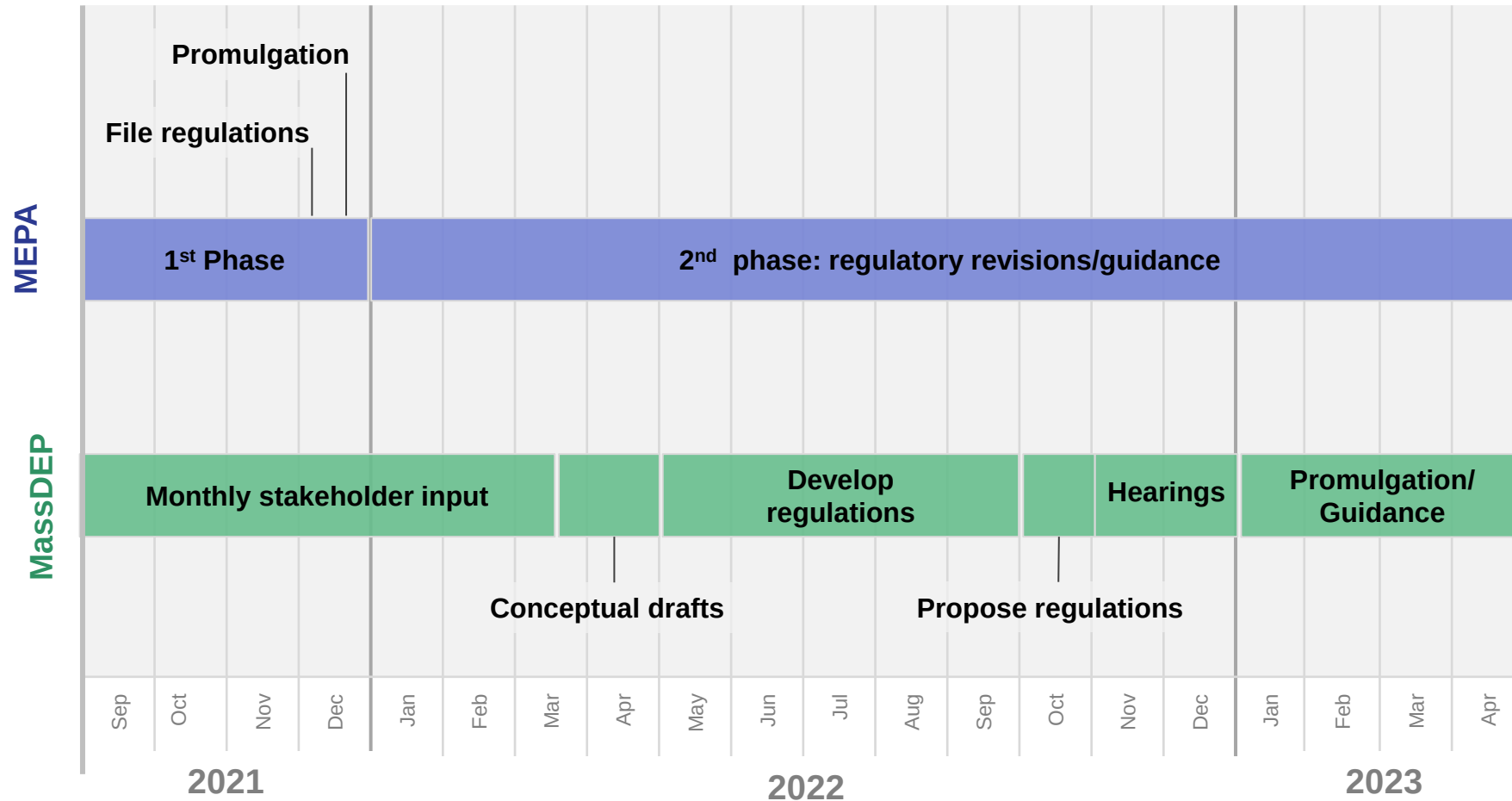


Agenda

Goal: Receive Feedback on Cumulative Impact Analysis Framework

- CIA Applicability
- Pre-application community notice / engagement
- Existing community conditions description
- Cumulative impacts analysis
- Permit process and public comment
- Next steps

Where we are



An Act Creating a Next Generation Roadmap for MA Climate Policy

Signed into law by Governor Baker on March 26, 2021 and effective on June 26, 2021



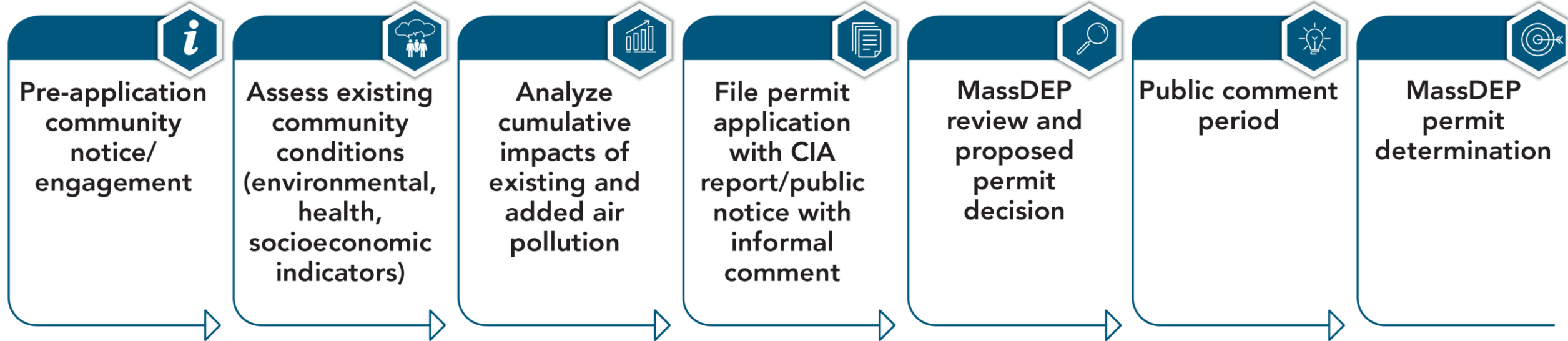
- **Directs MassDEP** to evaluate and seek public comment on incorporating cumulative impact analyses into certain permits, and to propose regulations within 18 months requiring cumulative impact analysis in certain air permits.
- **Directs MEPA** to require an environmental impact report for any project located near environmental justice (EJ) populations to assess whether there is an existing unfair or inequitable environmental burden and related public health consequences, and how the proposed project might result in a disproportionate adverse effect on the EJ population.



Cumulative Impact Analysis Examples

- MN – requires cumulative air toxics risk assessment that considers existing health conditions (applicable to air permits in specified geographic area)
- NJ – requires environmental and health indicator scoring of overburdened communities and comparison to non-overburdened communities (applicable to certain permits)
- CA – uses environmental and health indicator tool to develop cumulative scores and comparative indices (use to allocate resources and direct programs)
- EPA developing research program to develop methods and tools for assessing cumulative impacts

Cumulative Impact Analysis Steps



Future Program Review

Applicability

- New facility that requires a comprehensive plan application (CPA) in or near Environmental Justice (EJ) Populations
 - Non-major CPAs in or within 1 mile of EJ population
 - Major CPAs in or within 5 miles of EJ population
- Existing facility with an approved CPA that requires new or modified CPA if emissions would increase above de minimis plan approval threshold (i.e., ≥ 1 ton/year)

CPA Thresholds

Non-major CPA thresholds:

- Process emissions ≥ 10 tons per year
- Combustion units that meet fuel input thresholds (e.g., ≥ 40 mmBTU/hour natural gas)
- Incinerators
- Non-emergency engines (proposing those restricted to 100 hours of use per year would not require CIA)

Major CPA thresholds:

- 50 tons NO_x / VOCs (ozone precursors)
- 100 tons Any other criteria pollutant (e.g., PM_{2.5})
- 25 tons Combined Hazardous Air Pollutants (HAPs)
- 10 tons Individual HAP

Pre-Application Community Notice / Engagement

- 60 days prior to submitting a permit application, applicant would notify MassDEP, EJ Director, local officials and affected community about proposed project
- Applicant would prepare fact sheet and conduct outreach to the affected community.
- Similar to MEPA's new pre-filing EJ community engagement.

Questions

MassDEP



Assess Existing Community Conditions

- Applicants would collect data on environmental, health, and socioeconomic indicators to characterize the affected community
- Community assessment would include data tables, maps of indicators, and include a narrative of community conditions
- Community input would inform the community assessment

Process for Evaluating Indicators

Evaluation criteria for each indicator were used to determine if and how/when it could be included in a CIA:

- Data availability
- Appropriate geographic scale
- Appropriate timeframe
- Redundancy
- Quantitative or qualitative

Indicators

Pollution Burden

Air Quality Indicators (EJScreen)

- PM2.5
- Ozone
- Diesel PM
- Air Toxics Cancer Risk
- Air Toxics Respiratory Hazard Index
- Traffic Volume and Proximity

* Under consideration

Regulated Site Proximity (DPH EJ Tool/EJScreen)

- Air permitted sites
- Solid waste facilities
- Large quantity hazardous waste generators
- Large quantity toxic users
- Toxics Release Inventory sites
- Hazardous waste treatment, storage, and disposal facilities
- Wastewater Treatment Plants
- Energy generation and supply
- Large fuel depots
- Ports, airports, rail infrastructure

Climate Indicators (RMAT)

- Impervious surfaces *
- Tree canopy *

Indicators

Population Characteristics / Vulnerabilities

Health Indicators (MDPH EJ Tool)

- Asthma – pediatric emergency department visits
- Heart attack (myocardial infarction) – hospitalizations
- Elevated blood lead – elevated BLLs for ages 9-47 months
- Low birth weight – full term singleton births <2500 g
- Elementary school asthma prevalence
- Low life expectancy* (EJScreen)

* Under consideration

Socioeconomic Indicators (MDPH EJ Tool)

- Poverty/low-income
- Community of Color
- English language isolation
- Unemployment* (EJScreen)
- Young (< 5 years old)* (EJScreen)
- Older (>65 years old)* (EJScreen)
- Renter occupied housing* (EJScreen)

Sensitive Receptor Locations (MDPH EJ Tool)

- Schools (k-12)
- Child/Day care and pre-schools
- Long-term care residences
- Public housing* (EJScreen)
- Prisons* (EJScreen)

Questions

MassDEP



Conduct Cumulative Air Quality Analysis

- Air Quality Analysis would include:
 - Cumulative impacts of existing and added air pollution through air dispersion modeling and evaluation of significant local traffic/transportation emissions
 - Comparison to standards and risk management criteria
 - Display modeling results to graphically show concentrations of pollutants at specific distances from the facility
 - Describe effect of project on existing community
- Considering use of lower standards for certain EJ populations based on existing conditions to be determined
- Doubling number air toxics for evaluation

Criteria Pollutant Air Dispersion Modeling

- Include emissions from facility
- Include emissions from nearby permitted air sources
- Include background data from MassDEP air monitoring network
- Compare to National Ambient Air Quality Standards (NAAQS) (or lower standards in certain EJ communities to be determined)

Air Toxics Modeling and Risk Characterization

- Include all emissions from facility
- Include emissions from nearby permitted air sources
- Analyze cumulative risk of air toxics
 - Initial screening for combined toxics to ensure below cumulative risk management criteria of < 10 in 1 Million excess lifetime cancer risk and hazard index of 1 (or lower risk management criteria for certain EJ populations to be determined)
 - Conduct detailed risk characterization if screening does not meet risk management criteria

Evaluate Traffic / Transportation Emissions

- Conduct evaluation of significant local traffic / transportation emissions which could include:
 - US Department of Transportation traffic volume and proximity
 - National modeled concentrations of traffic / transportation emissions
- On-going research is needed for methods and approaches for community-level traffic / transportation emissions

Impacts of Project on Community Conditions

- Description of potential impact of emissions on existing conditions in the community based on the indicators
- If applicable, consideration of any relevant analyses or findings made during the MEPA review process, including any finding of disproportionate adverse effect
- Description of potential impacts would be a qualitative analysis

Questions

MassDEP



Permit Application with CIA Report

- After conducting the CIA, the Applicant would file the air permit application, including CIA, with MassDEP
- MassDEP would notify the affected community of the availability of the application and begin its review
 - Community can submit comments for MassDEP to consider during its review
- After its review, MassDEP would issue a proposed permit decision for formal 60-day public comment period
- After the public comment period, MassDEP would issue a final permit decision – approve, approve with conditions, or deny

What is New in CIA Permit Process

- Pre-application community notice and stakeholder engagement
- Assessment of existing community conditions
- Double the current the number of air toxics evaluated
- Cumulative air toxics air dispersion modeling and risk characterization
- Consideration of significant traffic and other transportation emissions
- More detailed air dispersion modeling results to increase transparency and understanding of potential risks
- Description of potential impacts on community conditions and possible mitigation actions
- Opportunity to comment on CIA / permit application during MassDEP review
- Extension of formal public period from 30 to 60 days

Questions

MassDEP



Next Steps

- Draft Regulations
- Develop Risk Assessment Tool
- Develop Guidance
- Continue Stakeholder Input

Opportunity for Further Input

- Provide further input in a survey format after the stakeholder meetings:
 - <https://www.surveymonkey.com/r/GM8CJPY>
- Materials will be posted on Air Quality website:
 - <https://www.mass.gov/info-details/cumulative-impact-analysis-in-air-quality-permitting>

Further Information

	MassDEP CIA	MEPA Regulation Changes
Comments/ input	massdep.impact@mass.gov	Attend a meeting of MEPA Advisory Committee https://www.mass.gov/info-details/mepa-advisory-committee
Distribution list	Please enter your information at this link: https://massgov.formstack.com/forms/subscribe_cia	Send <u>blank</u> email to subscribe-mepa_reg_review@listserv.state.ma.us to receive ongoing alerts
Website	https://www.mass.gov/info-details/cumulative-impact-analysis-in-air-quality-permitting	http://mass.gov/service-details/information-about-upcoming-regulatory-updates
Survey	https://www.surveymonkey.com/r/GM8CJPY	

Please Take A Few Minutes After the Meeting...

- When you exit the meeting, Zoom will automatically direct you to a short evaluation.
- The evaluation contains 4 questions about the stakeholder meeting.
- All responses are anonymous unless you choose to provide your contact information.
- We look forward to receiving your feedback!