



Commonwealth of Massachusetts

*Executive Office of Energy and
Environmental Affairs*

**Massachusetts Environmental Policy Act
ACEC Presentation
November 21, 2022**



KEY THEMES FOR REGULATORY REVIEW (2021-22)

- **Regulatory review effort launched in February 2021**
- **Alignment with policy and planning efforts**
 - Environmental justice (regulations promulgated 12/24/21)
 - Climate resiliency (interim protocol launched 10/1/21)
 - Greenhouse gas (GHG) mitigation
- **Updates to thresholds and process (“Phase 2”)**
 - Clarify definitions
 - Update thresholds
 - Clarify review procedures



2021 Regulatory Review

Environmental Justice Update



CLIMATE LEGISLATION (Section 58)

- **Added new requirements for EIRs to contain analysis of impacts on Environmental Justice (EJ) populations:**
 - EIR for projects that are **likely to cause Damage to the Environment** and are located within 1 mile of an EJ population or within 5 miles if the project that impacts air quality
 - Step 1: Assess **existing unfair or inequitable environmental burden** and related public health consequences from any prior or current project
 - Step 2: If EJ population is subject to an existing burden, the report shall identify any: (i) environmental and public health impact from the proposed project that would likely result in a **disproportionate adverse effect**; and (ii) potential impact or consequence from the proposed project that would **increase or reduce the effects of climate change**



CLIMATE LEGISLATION (Section 60)

- **Added new requirements for public involvement by EJ populations:**
 - Environmental notification form shall indicate if an EJ population that lacks English language proficiency within a designated geographical area is **reasonably likely to be affected negatively by the project**
 - If a proposed project affects an EJ population, the secretary shall require additional measures to improve public participation by the EJ population.
 - The term **designated geographic area** shall mean an EJ population located within a distance of 1 mile of a project, unless the project affects air quality then the distance from such project shall be increased to 5 miles.



MEPA Protocol for Analysis of EJ Impacts

Step 1: Assess Existing Environmental Burden

1. **DPH EJ Tool**: “vulnerable health criteria” for EJ populations and additional mapping layers (available at <https://matracking.ehs.state.ma.us/Environmental-Data/ej-vulnerable-health/environmental-justice.html>)
2. **Climate Resilience Design Tool**: climate risks for sea level rise and precipitation (urban and riverine) (available at https://resilientma.org/rmat_home/designstandards/)
3. **EPA EJ Screen**: environmental indicators (available at <https://www.epa.gov/ejscreen>).
4. Any other factors identified during **community engagement**



MEPA Protocol for Analysis of EJ Impacts

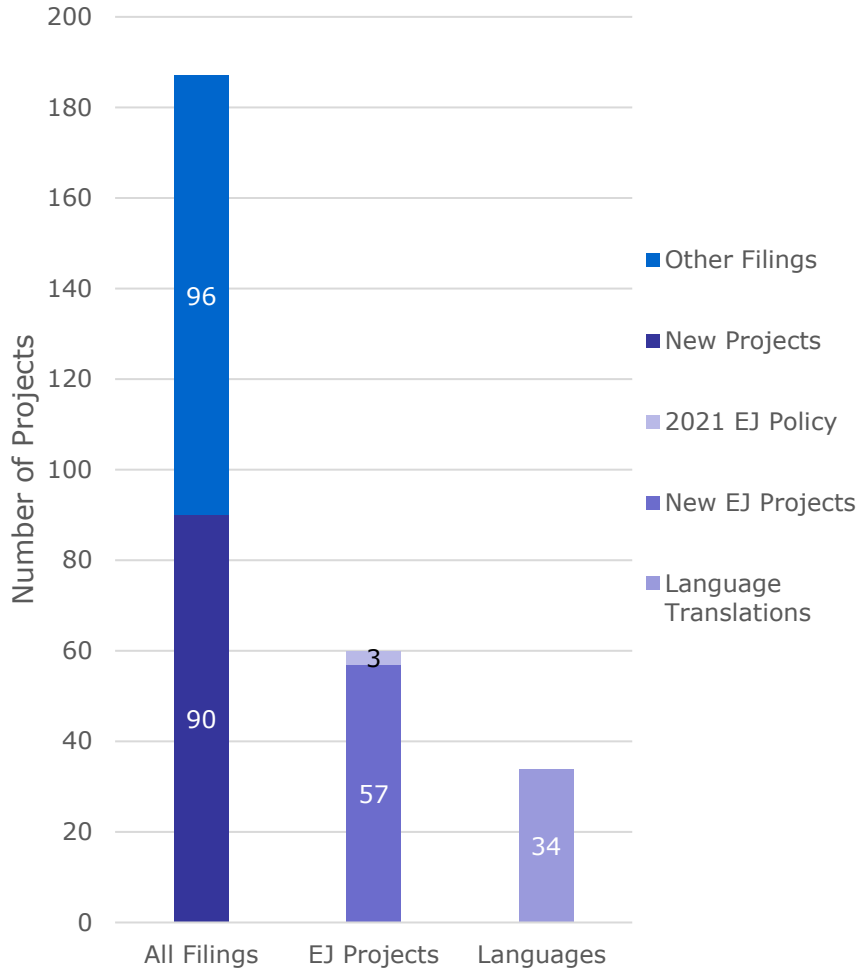
Step 2: Assess Project Impacts

1. Consider **nature and severity** of project impacts to determine disproportionate adverse effect (“materially exacerbate”)
2. Compare impacts on **EJ vs. non-EJ** populations
3. Consider **project benefits** that will reduce existing environmental burden
4. Consider **climate change** effects (e.g., flooding)
5. Provide mitigation if disproportionate adverse effects or increased climate risks to EJ population are identified.

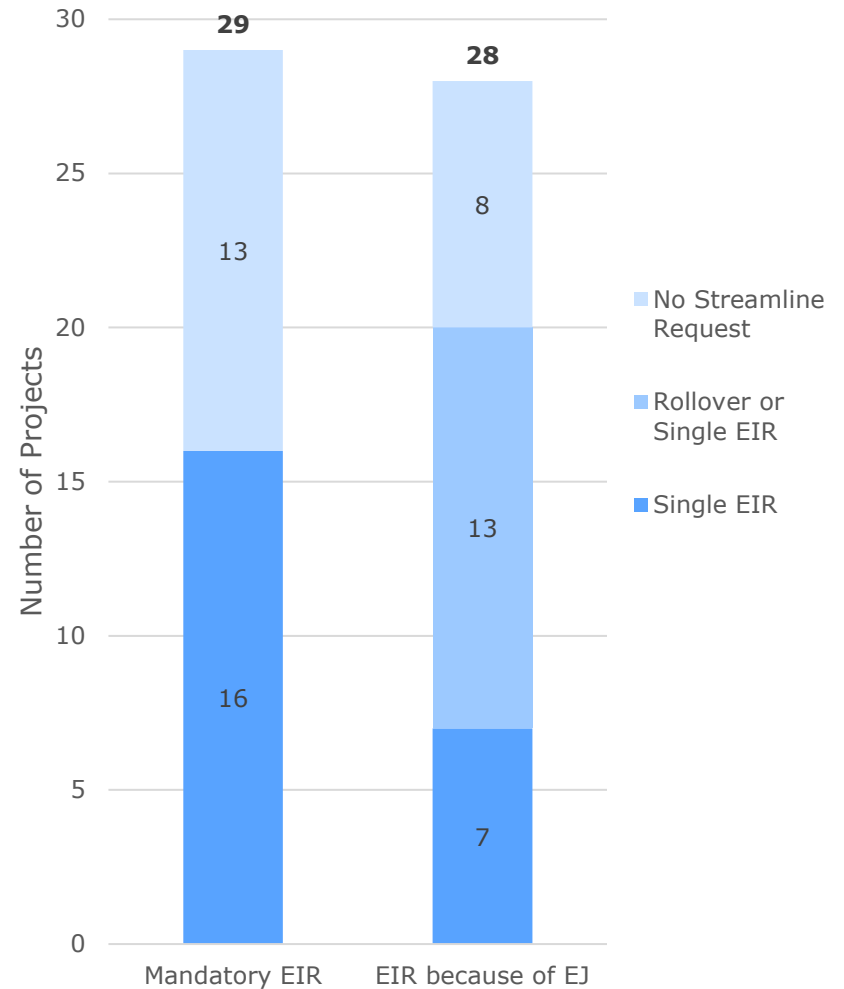


MEPA Projects Near EJ Populations (Jan 1 – Sep 30, 2022)

Projects Filed from Jan 1 – Sep 30

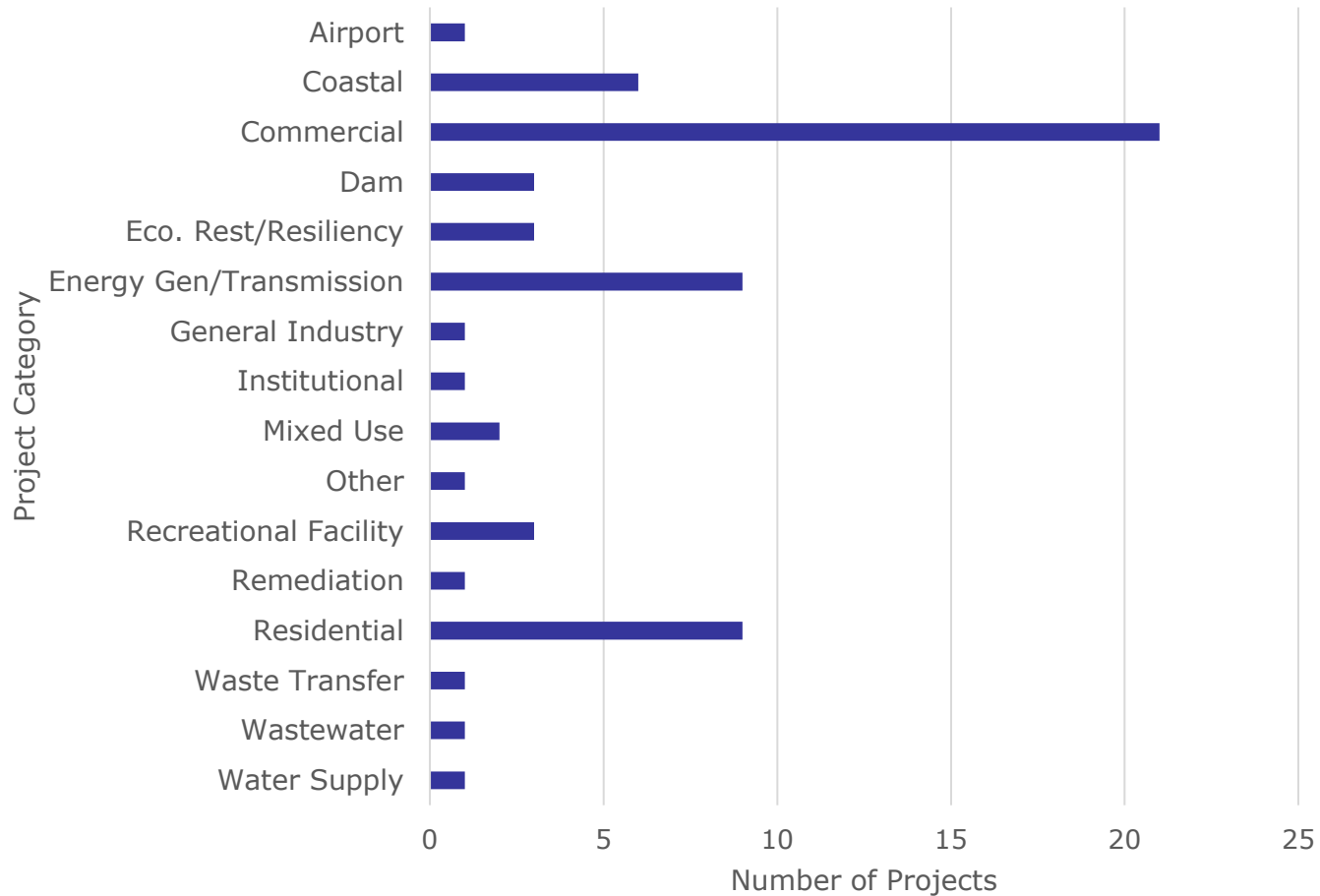


New EJ Projects: Review Type





EJ Projects by Project Type (Jan 1 – Sept 30, 2022)





Key Observations

Advance Notification

- Most projects are complying with 45-day advance notice requirement, even if not strictly required (such as NPCs)
- Some notices have lapsed (after 90 days), causing concerns about delay
 - Eff. 10/7/22, MEPA is requiring 30-day notice for any “repeat” notices
- Some recipients have requested to be removed from EJ Reference List, and a few requests to be added were received

Public Involvement

- “Joint” MEPA-EJ prefilings times (Thu’s) are booked each week
- Very few projects are employing truly “community-based” strategies
- EEA EJ Director to plan trainings with EJ communities on how to participate in the MEPA process



Key Observations

Analysis of EJ Impacts

- **Baseline conditions assessment**
 - “Vulnerable health EJ criteria” (110% above statewide average) is mistaken to mean “statistical significance”
 - Public health data are not provided at census tract level
 - Survey of polluting facilities from DPH EJ Tool is missing
- **Assessment of project impacts**
 - Traffic / air quality analysis is cursory
 - Discussion focuses on generalized community benefits
 - Draft Section 61 findings do not address EJ separately
 - Public health section is not provided separately



Issues for Future Consideration

Make Project Information More Readily Available

- Working to add searchable “EJ Notice” to Environmental Monitor

Improve Public Involvement and Outreach

- Consider requiring 45-day advance notification for all EJ projects (would require regulatory change)
- Provide better guidance on public involvement strategies, possibly focusing on specific project types (EEA EJ staff has been expanded)

Improve EJ Analysis

- Coordinate with MassDEP’s cumulative impacts analysis stakeholder effort

Evaluate MEPA Review Thresholds

- Potentially raise/lower to focus on projects of concern



2021 Policy Update

Climate Resiliency and Adaptation



Executive Order 569



- Comprehensive approach to reduce GHG emissions to combat climate change and prepare for the impacts of climate change
 - State Adaptation Plan
 - Climate Coordinators
 - Agency Vulnerability Assessments
 - Municipal Support

Environmental Bond Bill



- \$2.4 billion bond bill with focus on climate change resiliency
- Over \$200 million authorized for climate change adaptation
- Codifies EO 569, including the Municipal Vulnerability Preparedness (MVP) Program



Resilient MA Action Team (RMAT)

Climate Resilience Design Standards Tool



The RMAT is responsible for the State Hazard Mitigation and Climate Adaptation Plan (SHMCAP) implementation, monitoring, and maintenance, with representatives from each Secretariat and key state agencies.



Integration of climate resilience into capital planning is a SHMCAP Priority Action

- Incorporating climate change vulnerability, resilience and adaptation standards into budgeting, coordination, capital planning
- Review and update design standards using MA climate change projections that will support best management and construction practices
- Incorporate climate vulnerability, resilience, and adaptation standards into capital planning for new projects



Tool Outputs: Preliminary Climate Exposure

Project Status: 🟡 Scored - Not Submitted Delete Project

START HERE → LOCATE PROJECT → PROJECT INPUTS → PROJECT OUTPUT → VIEW REPORT → SUBMIT PROJECT

Project Located **Inputs Complete**

Overall Project Scores Output

The Ecosystem Service Benefits Score and Preliminary Climate Exposure Ratings presented below are assigned to the overall project, while the Preliminary Climate Risk Ratings and Climate Resilience Design Standards are asset-specific. The Scores and Standards are based on the questions previously answered and the location of the overall project. This information can be used to think critically about site suitability, regional resilience efforts, and adaptive site design for long-term climate resilience.

Environmental Justice

In Massachusetts, an Environmental Justice (EJ) neighborhood (census block group) is defined as meeting one or more criteria linked to the size of a census block group's minority populations, median household income, and language isolation. EJ neighborhoods typically include climate vulnerable populations, who may have lower adaptive capacity or higher exposure and sensitivity to

Does this project fall within mapped Environmental Justice neighborhoods? Yes

Ecosystem Benefits

The purpose of this output is to provide an overall indication of the Ecosystem Service Benefits (ESB) provided by a project, through protection of natural resources and implementation of nature-based solutions. Natural systems and ecosystem services provide great economic value and social benefit, often untapped in non-resilient projects. Nature-based solutions may cost less than

Ecosystem Benefits Scores Moderate

Preliminary Climate Exposure Score

The purpose of the Exposure Score output is to provide a preliminary assessment of whether the overall project site and subsequent assets are exposed to impacts of natural hazard events and/or future impacts of climate change. For each climate parameter, the Tool will calculate one of the following exposure ratings: Not Exposed, Low Exposure, Moderate Exposure, or High Exposure. Click on the question mark to identify why your project location is receiving the exposure rating.

Sea Level Rise/Storm Surge High	Extreme Precipitation - Urban Flooding High
Extreme Precipitation - Riverine Flooding Moderate	Extreme Heat High



Tool Outputs: Recommended Climate Resilience Design Standards

Recommended Design Standards for Corridor Revitalization

Climate Resilience Design Standards are recommended for each asset and climate parameter. Tiered methodologies, or methodologies to calculate design criteria values, are intended for projects that will be designed for today's climate and plan for the future. The three planning horizons represent recommended levels of effort for determining design criteria values, dependent upon the consequences of failure of an asset as a function of time.

- Sea Level Rise/Storm Surge
- Extreme Precipitation
- Extreme Heat

Target Planning Horizon: 2070

Intermediate Planning Horizon: 2050

Return Period: 500-yr (0.2%)

Design Criteria Applicable for Corridor Revitalization

- Projected Tidal Datums
- Projected Water Surface Elevation
- Projected Wave Action Water Elevation
- Projected Wave Heights

- Sea Level Rise/Storm Surge
- Extreme Precipitation
- Extreme Heat

Design Standards Projected Water Surface Elevation Maps

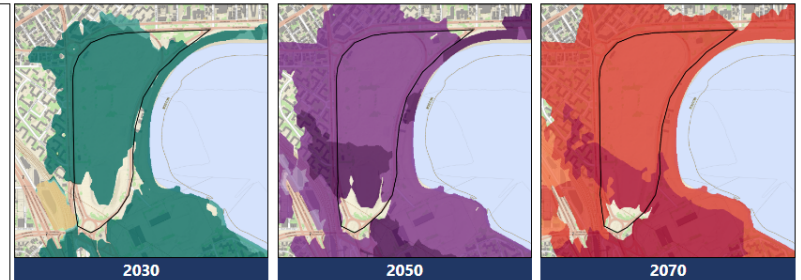
The following maps illustrate the Projected Water Surface Elevation for the 2030, 2050, and 2070 planning horizons corresponding to the lowest return period (largest design storm) recommended across the assets identified for this project in the Tool (see Recommended Design Standards Section below for projected values for individual assets). For projects that only have Natural Resource assets, the maps will show the Projected Water Surface Elevations corresponding to the 5% (20-year) return period. The maps include the project area as drawn by the user with a 0.1 mile minimum buffer, but do not reflect the location of specific assets on the site. Users can zoom into a parcel for more information.

Legend

- Project Boundary
- Projected Water Surface Elevation (ft-NAVD88)
 - ≤ 10.6
 - 10.6 - 10.7
 - 10.7 - 10.9
 - 10.9 - 11.1
 - 11.1 - 11.3
 - 11.3 - 11.5
 - 11.5 - 11.7
 - 11.7 - 11.9
 - 11.9 - 12.1
 - 12.1 - 12.3
 - 12.3 - 12.5
 - 12.5 - 12.7
 - 12.7 - 12.9
 - 12.9 - 13.1

Climate Resilience Design Standards Tool: Sea Level Rise/Storm Surge Design Criteria

[Click to Expand Maps](#)



Projected Water Surface Elevation Map: 0.5% (200-yr)

Asset Name	Planning Horizon	Return Period	Max	Min	Area Weighted Average (ft-NAVD88)
Flood Barrier - South Boston Protection	2030	0.5% (200-yr)	11.3	10.6	11.1
	2050	0.5% (200-yr)	12.9	12.7	12.8
	2070	0.5% (200-yr)	14.7	14.6	14.6



MEPA Chronology

- 2008: Global Warming Solutions Act adds requirement to consider climate change in Section 61 of MEPA
- 2010: MEPA Greenhouse Gas (GHG) Emissions Policy released
- 2014: *Draft* MEPA Climate Adaptation and Resiliency Policy issued for comment but not finalized
- 2016: Executive Order 569 requires state planning for climate change
- 2018: Statewide Integrated Hazard Mitigation and Climate Adaptation (SHMCAP) released
- Feb. 2021: MEPA Interim Protocol on Climate Adaptation and Resiliency issued for comment
- Apr. 2021: Climate Resilience Design Standards Tool released
- **Oct. 1, 2021: Effective date of MEPA Interim Protocol on Climate Adaptation and Resiliency**



MEPA Project Data (Oct. 1, 2021 to Sep. 30, 2022)

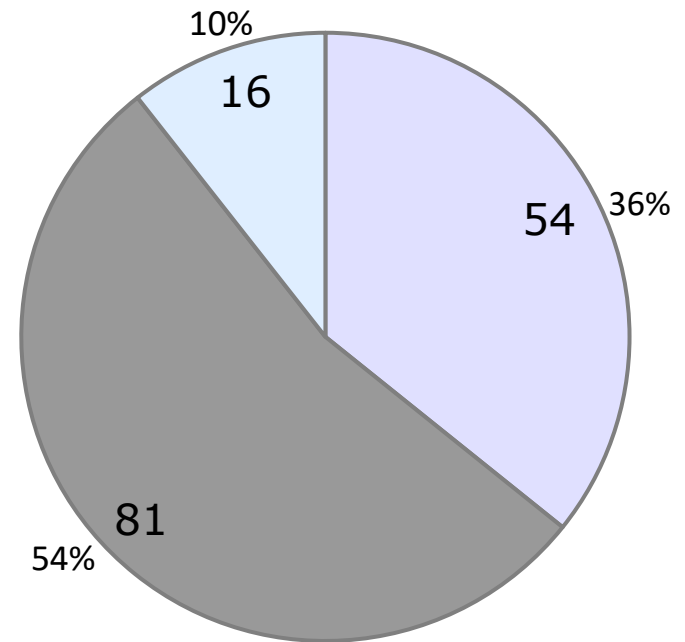
	2021	2022	TOTAL
Infrastructure	18	36	54
Building / Facility	29	52	81
Natural Resources	2	14	16
TOTAL	49	102	151

151 new projects

43 mandatory EIRs (based on thresholds)

3 discretionary EIRs

67 near EJ populations (since Jan. 1, 2022)

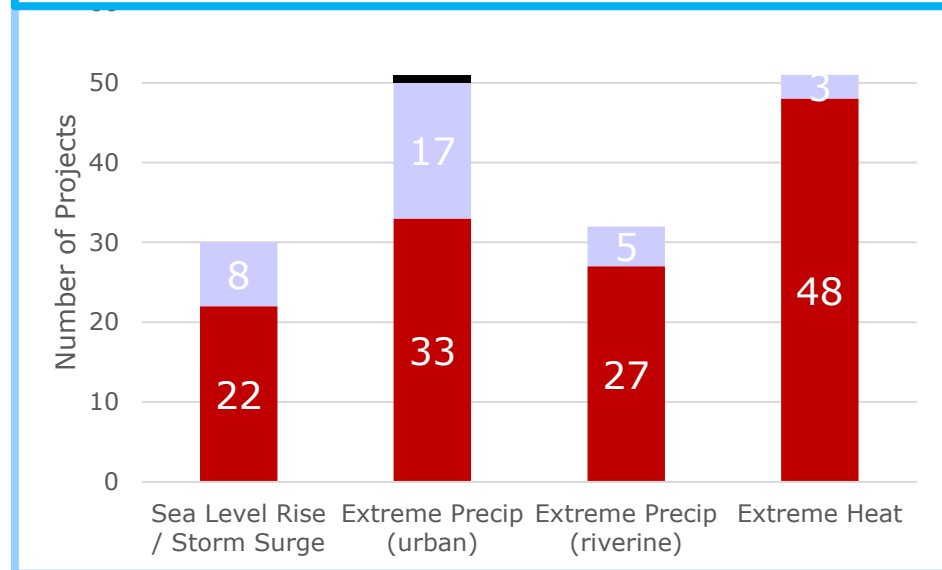
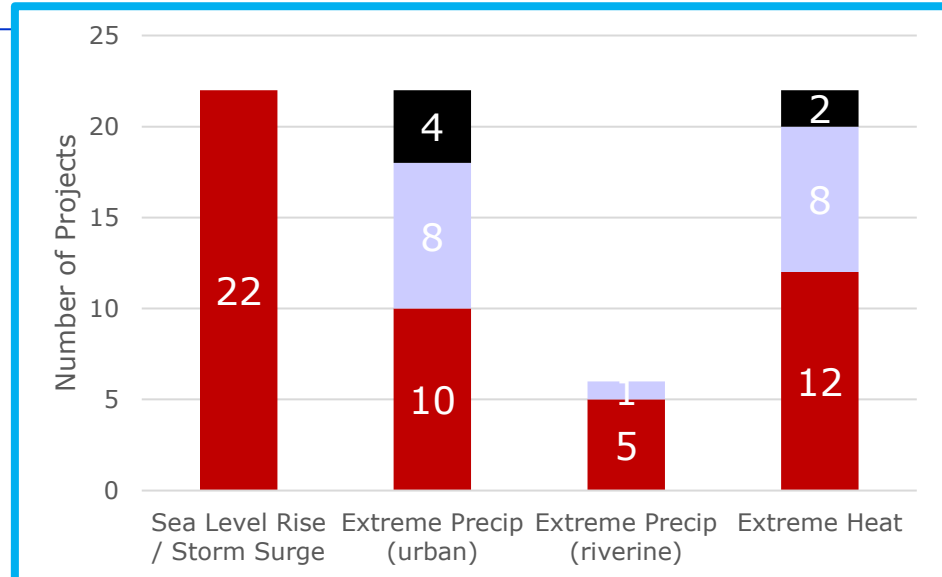
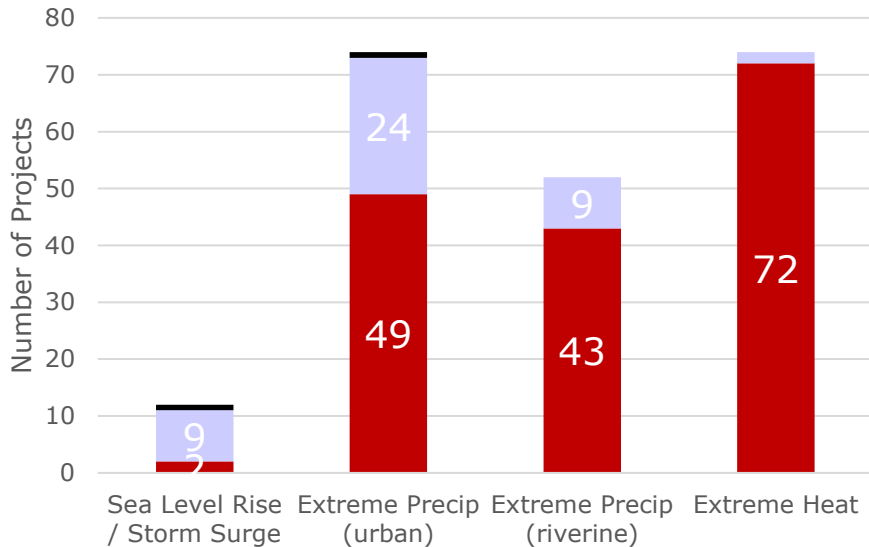
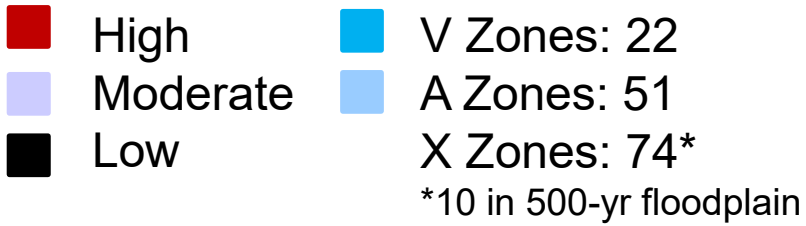


151 Projects Published & Submitted Climate Report



MEPA Project Data

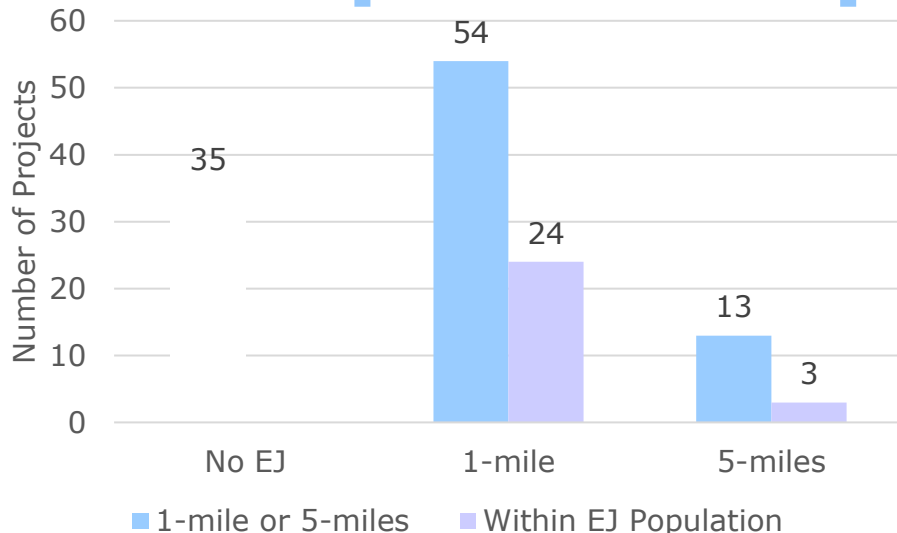
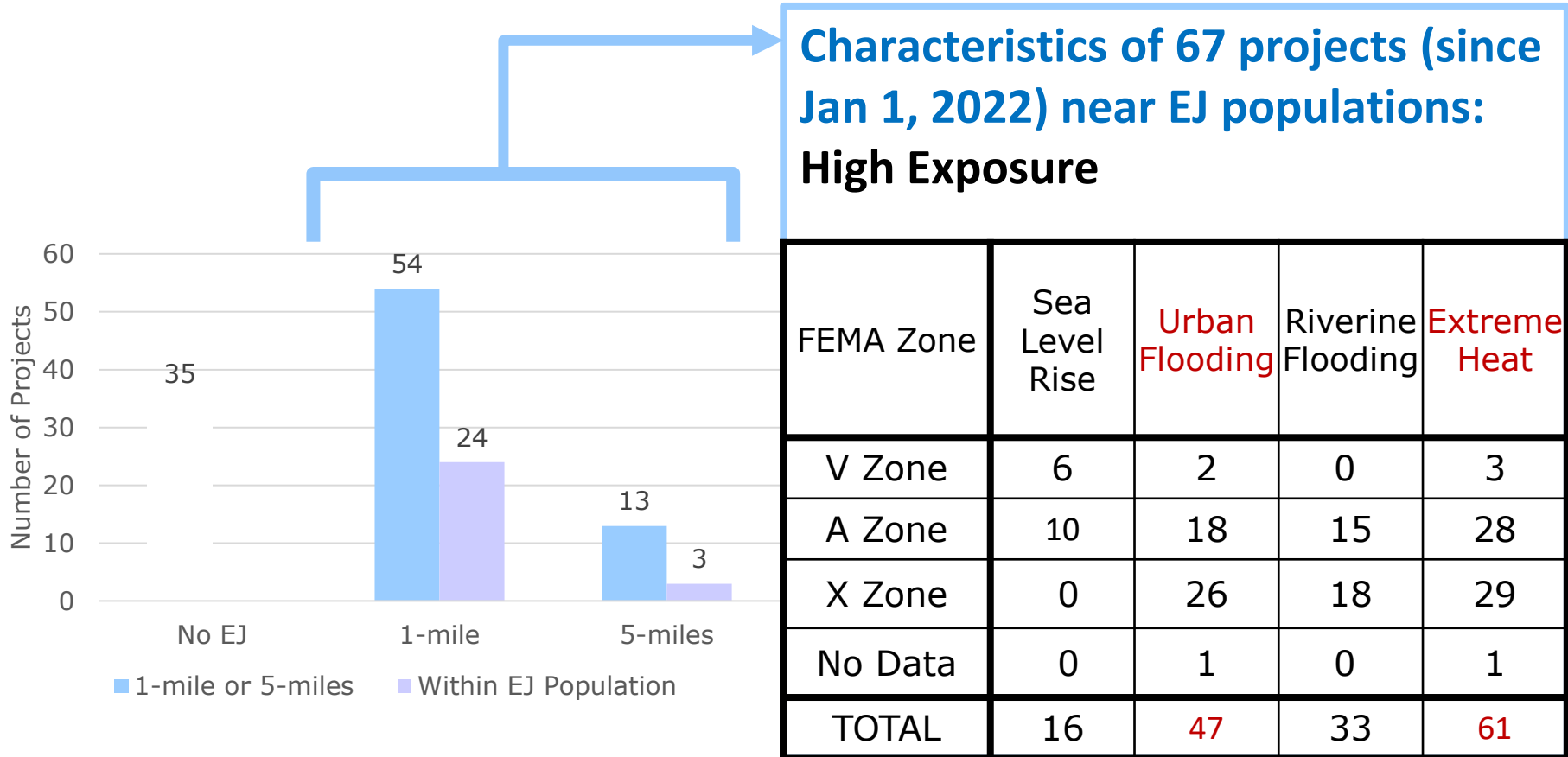
Exposure Rating





MEPA Project Data

EJ Communities





MEPA Climate Resiliency Policy

Future Updates Under Consideration

- ❖ Continue to require **standard output report** from MA Resilience Design Tool and discussion of climate resiliency in ENF/EENF.
- ❖ For EIR-level projects, require further analysis to **address recommendations** from MA Resilience Design Tool for applicable project components, including:
 - Elevation of buildings and structures
 - Stormwater sizing
 - Off-site flood impacts
 - Other applicable quantitative metrics



WAYS TO KEEP INFORMED

- Attend public meetings of the MEPA advisory committee: <https://www.mass.gov/info-details/mepa-advisory-committee>.
- Send blank email to subscribe-mepa_reg_review@listserv.state.ma.us to receive ongoing alerts. To request translation, email MEPA-regs@mass.gov.
- Updates will be posted at MEPA website at <http://mass.gov/service-details/information-about-upcoming-regulatory-updates>.