**Outline of Environmental Justice Considerations**
**to Support EPA's Response to the**
**Charles/Neponset/Mystic Watersheds RDA Petition**
**(May 3, 2023)**

*The overall goal of this analysis and deliverable is to identify where the EJ communities are located in the impacted RDA watersheds so that EPA can: 1) minimize, where possible, any undue burdens to EJ Communities and 2) communicate information about the RDA regulatory process and intended outcomes in a timely and effective manner.*

*Below is an abbreviated outline with some instructions in italics and some example language to help guide you, however they are just examples and do not need to be directly replicated.*

I. **Background**

*In this section introduce the watershed being analyzed and the EJ analysis being undertaken, provide the link between document to the parcel data analysis done for the respective watershed.*

II. **Applicable Environmental Justice Factors**

*In this section, provide a description of the EJ factors used in the analysis. Much of this will come from the metadata for the dataset itself.*

*Some example language for factor description:*

CEJST, the Climate and Economic Justice Screening Tool, is a national tool that was developed to help federal agencies locate and identify environmentally and economically disadvantaged communities. CEJST uses census tracts, which are a small unit of geography, giving users access to high-resolution information. The tool uses datasets as indicators of burdens. The burdens are organized into categories.

The Climate and Economic Justice Screening Tool (CEJST) is available at https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5. [1] The goal for this watershed is to identify environmental justice populations in the Charles River Watershed using the following criteria:

- Any census tract with greater than or equal to the 80th percentile for low median household income as a percent of area median income,
- Any census tract with greater than or equal to the 80th percentile for households in linguistic isolation,
  OR
- Any census tract defined as "Disadvantaged" in the Climate and Economic Justice Screening Tool.

---

[1] Additional information on CEJST can be found at: https://screeningtool.geoplatform.gov/en/downloads#3/33.84/-76.34 (*see* links to the Technical Support Document and Instructions to Federal Agencies On the Use of CEJST).

*Definitions:*

> *Disadvantaged:* A community is highlighted as disadvantaged on the CEJST map if it is in a census tract that is: (1) at or above the threshold for one or more environmental, climate, or other burdens, and (2) at or above the threshold for an associated socioeconomic burden. In addition, a census tract that is completely surrounded by disadvantaged communities and is at or above the 50% percentile for low income is also considered disadvantaged.
> https://screeningtool.geoplatform.gov/en/methodology#3/33.47/-97.5

> *Burden categories*: there are several different burden categories, including, climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development.
> https://screeningtool.geoplatform.gov/en/methodology#3/33.47/-97.5

> *Census tracts*: are small units of geography. Census tract boundaries for statistical areas are determined by the U.S. Census Bureau once every ten years. The tool utilizes the census tract boundaries from 2010. This was chosen because many of the data sources in the tool currently use the 2010 census boundaries.
> https://screeningtool.geoplatform.gov/en/methodology#3/33.47/-97.5

> *Linguistic Isolation*: is defined as "the share of households where no one over age 14 speaks English very well." https://screeningtool.geoplatform.gov/en/methodology#ling-iso

> *Low Median Household Income*:  is defined as the percent of a census tract's population in households where household income is at or below 200% of the Federal poverty level, not including students enrolled in higher education.
> https://screeningtool.geoplatform.gov/en/methodology#low-income

## III.    Environmental Justice Data Analyses

### Watershed Overview

*Provide a brief overview of the process and introduce EJ factors on watershed area map. Provide a map/table and or charts identifying and describing the overall area identified as EJ areas in the watershed using the above factors.*

*Include visuals to show which areas are identified by which factors.*

*Example:*

> MAP OF ALL PARCELS IDENTIFIED AS IN EJ AREAS to include a map that displays if 0, 1, 2, or 3 factors apply to the parcels and demonstrates all of the various ways parcels fall into different EJ classifications by using different colors to show the differences as well as the areas of overlap.

SUMMARY TABLE with all communities in the watershed, total area identified as EJ areas, breakdown of amount of area identified as EJ in each Land Use classification (e.g. commercial, industrial, residential etc.)

*Include any other maps or graphics that summarize the EJ data in the watershed.*

**Parcel Analysis**

*The goal of each section is to display how the number of properties, type of properties, and TP load changes based on IC threshold. Feel free to approach this as you see fit.*

*At a minimum this should contain 4 sections summarizing the parcels located in areas identified as EJ areas. An appendix can be created with larger tables of all data OR reference an Excel file with the data, at a minimum the excel dataset should include the same column headings identified in Task 3C and 4C and also include the EJ factors triggered for each parcel.*

*The 4 sections should be: 1) Overall parcel breakdown with no IC threshold; 2) Parcels with greater than or equal to 0.5 acres IC; 3) Parcels with greater than or equal to 1 acre IC; and 4) Parcels with greater than or equal to 5 acres IC. Add other breakdowns as you see fit to accurately display or describe how changing IC thresholds impact the number of parcels located in EJ areas, land use types of those parcels and TP load from those parcels. See an abbreviated example below:*

Consistent with the analysis conducted in [ref data analysis paper] EPA then identified which parcels in the CRW are within EJ areas based on the amount of impervious cover per parcel. Chart 1 below displays the number of parcels identified as being in EJ areas for the subset of all parcels containing greater than or equal to 0.5 acres of impervious cover (≥0.5 acres IC). Of the 5,558 parcels identified in the CRW with ≥0.5 acres IC, 2,503 are located in EJ areas (45.03% of the total identified) with the majority (41.43%) are commercial properties.
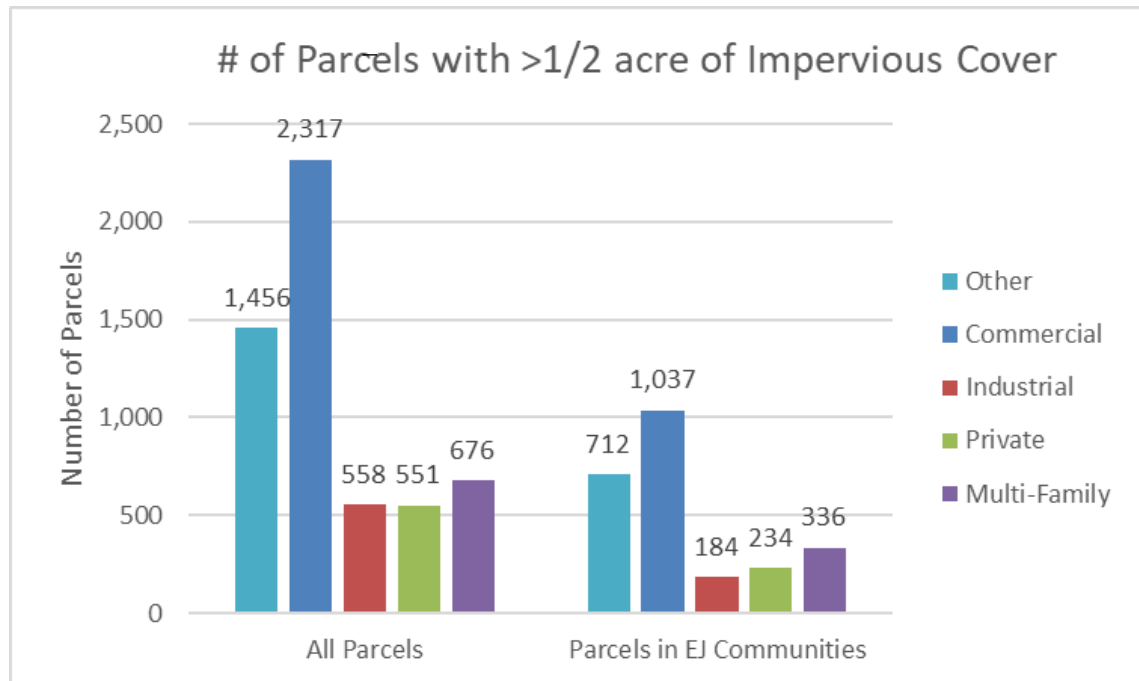
| City | # EJ Parcels > 1/2 Acres of IC | # of Total Parcels > 1/2 Acres of IC | % of Parcels that are EJ | P-Load | EJ Parcels P-Load | % of P-Load from EJ Parcels |
|---|---|---|---|---|---|---|
| ARLINGTON | 0 | 8 | 0% | 11.55 | 0.00 | 0% |
| ASHLAND | 1 | 132 | 1% | 28.44 | 1.36 | 5% |
| BELLINGHAM | 44 | 1199 | 4% | 798.55 | 60.89 | 8% |
| BELMONT | 2 | 170 | 1% | 85.87 | 2.28 | 3% |
| BOSTON | 536 | 1987 | 27% | 4395.98 | 688.43 | 16% |
| BROOKLINE | 139 | 1024 | 14% | 918.36 | 195.67 | 21% |
| CAMBRIDGE | 193 | 487 | 40% | 1035.35 | 251.81 | 24% |
| DEDHAM | 57 | 835 | 7% | 815.96 | 77.83 | 10% |
| DOVER | 48 | 1754 | 3% | 591.32 | 59.88 | 10% |
| FOXBOROUGH | 0 | 5 | 0% | 0.97 | 0.00 | 0% |
| FRANKLIN | 113 | 5419 | 2% | 2695.24 | 132.88 | 5% |
| HOLLISTON | 81 | 3714 | 2% | 1245.59 | 100.65 | 8% |
| HOPEDALE | 16 | 238 | 7% | 74.71 | 17.49 | 23% |
| HOPKINTON | 6 | 816 | 1% | 193.16 | 7.33 | 4% |
| LEXINGTON | 19 | 720 | 3% | 503.59 | 23.79 | 5% |
| LINCOLN | 28 | 1301 | 2% | 445.11 | 35.48 | 8% |
| MEDFIELD | 42 | 2268 | 2% | 761.62 | 53.15 | 7% |
| MEDWAY | 41 | 3286 | 1% | 992.76 | 54.74 | 6% |
| MENDON | 4 | 45 | 9% | 21.31 | 5.63 | 26% |
| MILFORD | 85 | 1792 | 5% | 1432.34 | 107.90 | 8% |
| MILLIS | 44 | 2019 | 2% | 644.03 | 60.31 | 9% |
| NATICK | 66 | 2089 | 3% | 777.24 | 85.02 | 11% |
| NEEDHAM | 98 | 1695 | 6% | 1236.66 | 127.28 | 10% |
| NEWTON | 197 | 2018 | 10% | 1878.18 | 260.46 | 14% |
| NORFOLK | 53 | 3343 | 2% | 1060.99 | 68.60 | 6% |
| SHERBORN | 35 | 1454 | 2% | 442.99 | 46.85 | 11% |
| SOMERVILLE | 57 | 147 | 39% | 339.66 | 72.16 | 21% |
| WALPOLE | 4 | 385 | 1% | 116.46 | 4.71 | 4% |
| WALTHAM | 189 | 1139 | 17% | 2881.53 | 242.29 | 8% |
| WATERTOWN | 74 | 261 | 28% | 790.64 | 96.55 | 12% |
| WAYLAND | 0 | 125 | 0% | 44.03 | 0.00 | 0% |
| WELLESLEY | 97 | 2145 | 5% | 1307.58 | 129.81 | 10% |
| WESTON | 91 | 3474 | 3% | 1659.04 | 117.20 | 7% |
| WESTWOOD | 17 | 760 | 2% | 302.70 | 20.28 | 7% |
| WRENTHAM | 26 | 1586 | 2% | 446.39 | 33.09 | 7% |
| **TOTAL** | **2,503** | **49,840** | **5%** | **30,975.87** | **3,241.79** | **10%** |

| | Boston | Brookline | Cambridge | Milford | Waltham | Total |
|---|---|---|---|---|---|---|
| # of Parcels >= 1 acres of IC | 231 | 5 | 13 | 6 | 24 | 279 |
| % of Parcels that are EJ & >= 1 acres of IC | 83% | 2% | 5% | 2% | 9% | 100% |
| Total P-Load (lbs per year) | 1237.64 | 14.96 | 66.73 | 40.37 | 100.43 | 1460.13 |
| # of Commercial | 97 | 5 | 3 | 4 | 17 | 126 |
| P-Load from Commercial | 525.56 | 14.96 | 9.40 | 21.67 | 65.07 | 636.66 |
| % of P-Load due to Commercial | 42% | 100% | 14% | 54% | 65% | 44% |
| # of Industrial | 8 | 0 | 0 | 0 | 6 | 14 |
| P-Load from Industrial | 28.33 | 0.00 | 0.00 | 0.00 | 32.37 | 60.70 |
| % of P-Load due to Industrial | 2% | 0% | 0% | 0% | 32% | 4% |
| # of Institutional Private | 17 | 0 | 10 | 2 | 0 | 29 |
| P-Load from Private | 76.24 | 0.00 | 57.33 | 18.71 | 0.00 | 152.27 |
| % of P-Load due to Private | 6% | 0% | 86% | 46% | 0% | 10% |
| # of Multi-Family | 22 | 1 | 0 | 0 | 1 | 24 |
| P-Load from Multi-Family | 99.56 | 2.55 | 0.00 | 0.00 | 3.01 | 105.12 |
| % of P-Load due to Multi-Family | 8% | 17% | 0% | 0% | 3% | 7% |

## IV. Potential Impacts of this Action on EJ Communities

*Given what is identified in the EJ Analysis, above, provide initial recommendations on where to target outreach efforts, which might include:*

- *EJ priority areas based on overlapping criteria*
- *Recommendations on languages (other than English) that are representative of the communities for which linguistic isolation is identified in the EJ Analysis, above (this will inform translation decisions for the development of outreach materials)*
- *Any recommendations based upon the data analysis above, that identifies stakeholders, such as active local community groups, with whom EPA can work to provide technical assistance to impacted EJ communities*
- *Any data analysis that can help EPA respond to concerns that low-income communities will be unfairly burdened by this regulatory approach (i.e., data that shows that how residential communities in EJ areas will not be impacted by the RDA matter (perhaps show residential, multi-family housing in EJ communities in relation to their proximity to other RDA permittees) and also data that shows potential positive impacts to EJ communities from the expected RDA permitting outcomes (see next section)).*

## V. Positive Environmental and Community Benefits

*A quantitative and qualitative analysis of how an RDA permit would benefit communities in areas with EJ considerations. This analysis will include both pollutant reductions from implementing actions taken within areas with EJ considerations, as well as the broader benefits from green infrastructure*

*implementation such as flood mitigation, additional groundwater recharge, carbon capture, heat island impacts and other benefits as identified in the SCM maps developed under Subtask 3A and 4A.*