

NPDES and Climate Change in Region 1

ACWA National Meeting 2/27/23

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R1 Water Division, Permits Branch**

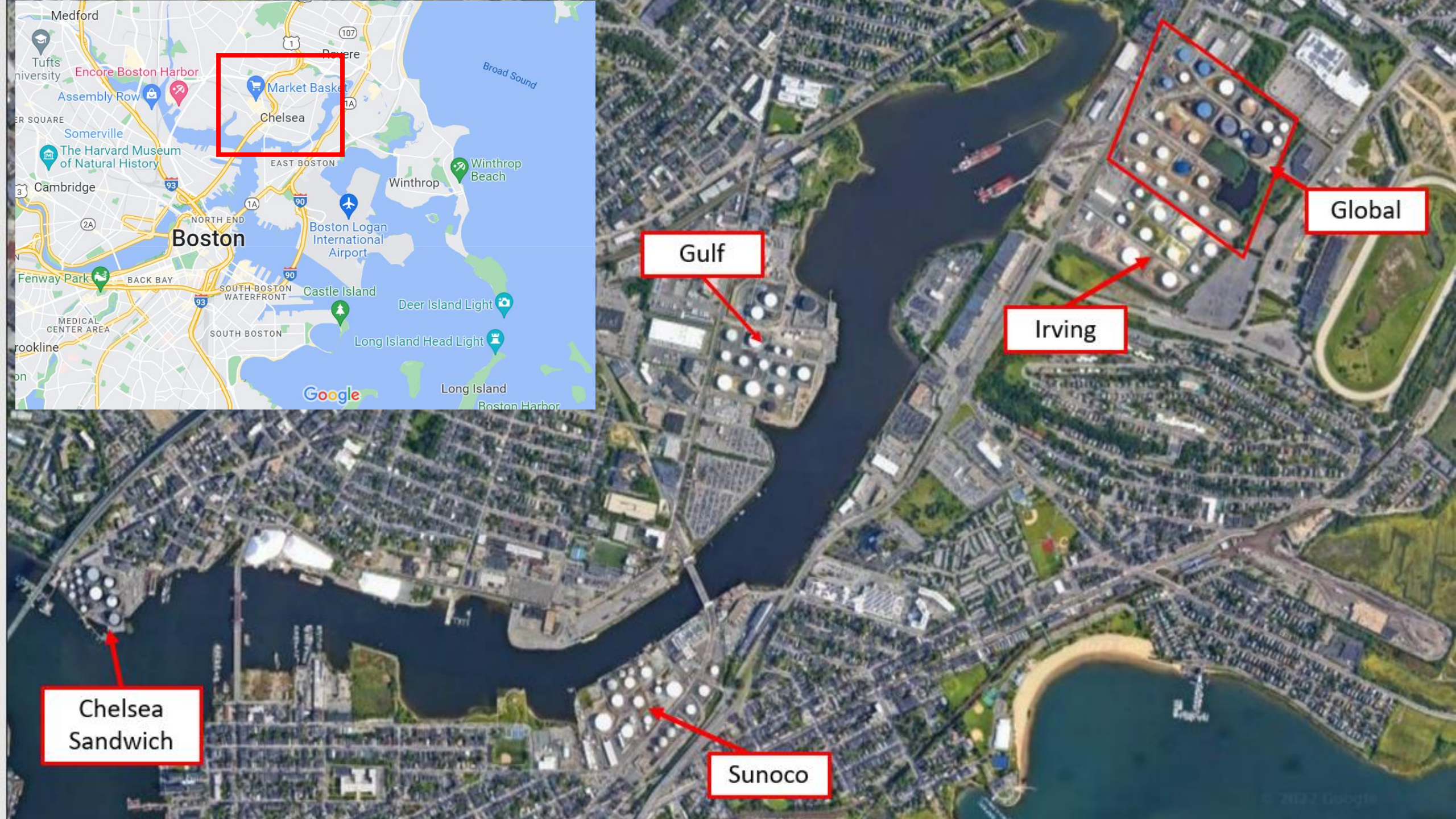
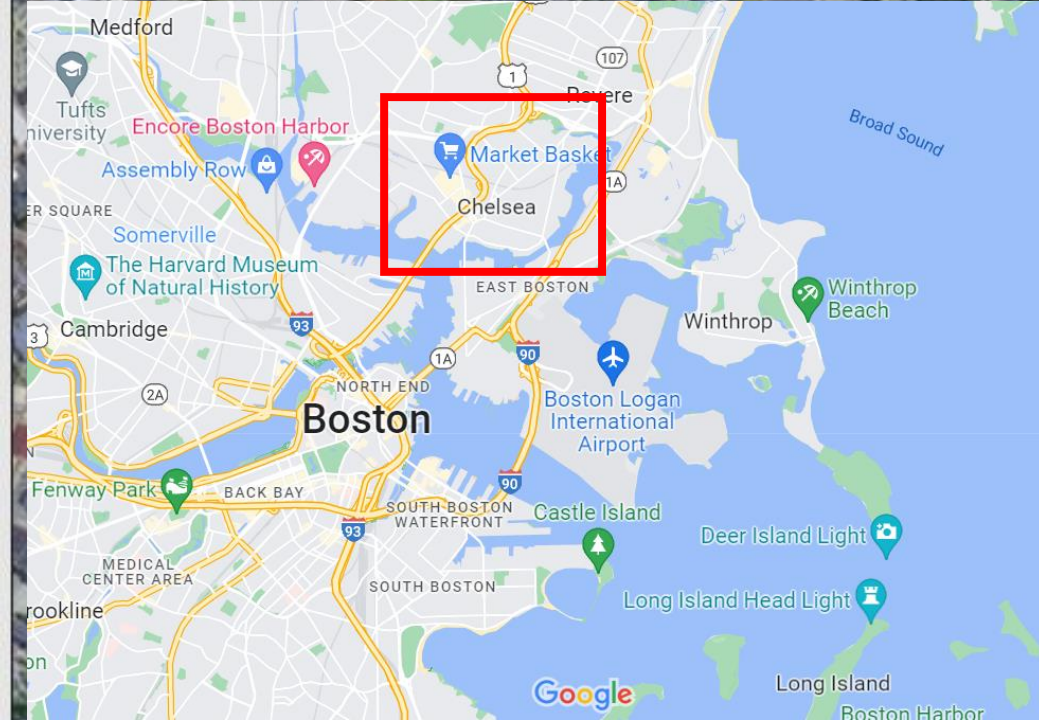


Agenda

- Bulk Oil Facilities, Chelsea, MA
 - New Climate Change Provisions
 - Bonus topic – how we also addressed EJ
- Municipal Wastewater Treatment Facilities

Chelsea Creek Bulk Petroleum Storage Facilities NPDES Permitting

- Chelsea, MA is a large transportation port, adjacent to Boston, recognized for years as a community with complex EJ issues.
- 8 bulk oil facilities unloading millions of gallons of fuel for greater Boston, including all jet fuel for Logan Airport.
- Logan Airport flight line immediately above, access road to airport directly through Chelsea.
- Tobin Bridge and Route 1 provides major access for commuters to Boston



Chelsea Creek Bulk Petroleum Storage Facilities

2014 NPDES Permits

- Permits last issued in 2014
 - stormwater run off and some groundwater treatment.
- At that time, we conducted an EJ analysis identified several issues:
 - Air emissions, high rates of asthma, historic fuel spills impacting sediments and creek, traffic, noise
 - Most issues were outside scope of permit
- Permits were issued with strict water quality-based limits and some enhanced monitoring.

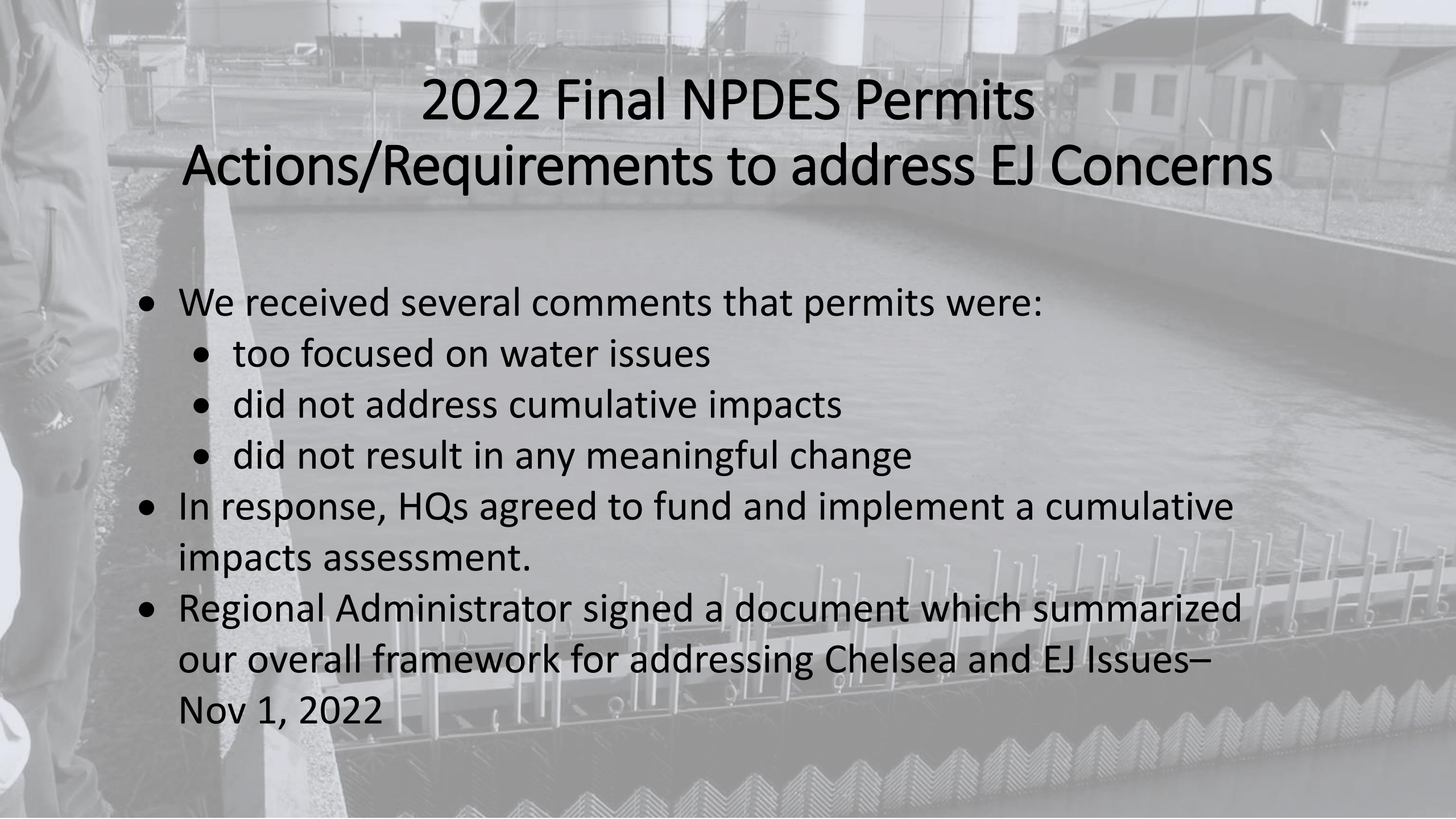


2020 Draft NPDES Permits Actions/Requirements to address EJ Concerns

- Enhanced outreach, including translation, pre-meetings with stakeholder groups
- Revised and Updated the EJ Analysis
- More stringent water quality-based limits, no allowance for dilution.
- More stringent technology-based limits - enhanced control measures (i.e., Best Management Practices)
- New monitoring requirements based on impairments to designated uses of the Chelsea River
- Enhanced ongoing ambient monitoring requirements, including a bioassessment of benthic resources and sediment quality

2022 Final NPDES Permits Actions/Requirements to address EJ Concerns

- Public Comment Period resulted in hundreds of comments, in response – we went further.
- To address accessibility and transparency concerns, we will post instructions on website on how to download facility-specific monitoring data and how to enroll in “ECHO Notify,” which allows the public to sign up to receive notification of permit exceedances for specific facilities of their choosing.
- To address enforcement concerns, we reclassified all of the bulk oil terminals as “major” facilities leading to increased oversight and more frequent inspections.



2022 Final NPDES Permits Actions/Requirements to address EJ Concerns

- We received several comments that permits were:
 - too focused on water issues
 - did not address cumulative impacts
 - did not result in any meaningful change
- In response, HQs agreed to fund and implement a cumulative impacts assessment.
- Regional Administrator signed a document which summarized our overall framework for addressing Chelsea and EJ Issues—
Nov 1, 2022

2022 Final NPDES Permit Requirements *to address Climate Change*

- Required to assess in Stormwater Pollution Prevention Plan (SWPPP) potential impacts/risks of climate change and implement stormwater control measures (i.e., Best Management Practices).
 - Modelled after 2021 Multi Sector General Permit - goes further, includes major storm and flood events to account for dry-weather flooding
 - Must consider specific BMPs
 - Must use forward-looking data over near and far-term time periods, not just historical data
- Must use best science/data
 - Permit identifies specific data sources from the U.S. Global Change Research Program agencies (e.g., NOAA, EPA, NASA, USGS) that must be reviewed
 - Must use up to date information including state and local resources, which will be posted publicly by Region 1 as climate science data become publicly available

2022 Final NPDES Permit *Requirements to address Climate Change*

- Facilities are required to review and update their BMPs over the life of the permits to reflect the latest science and their experiences with major storm and flood events at the facilities.
- BMPs must address, at a minimum, storm surge, increased/heavy precipitation, sea level rise, and dry weather flooding, in addition to direct impacts from major storms, such as wind damage.
- EPA will post facilities' SWPPPs, which identify the specific BMPs implemented and present the results of the climate change assessment, on its public Terminals website

2023 NPDES Wastewater Permits

- This year - expanding to Municipal WWTF Permits
 - adding new provisions to 8 permits, to be placed on PN this month.
- Language includes new provisions in the O&M section of the permits
 - for both the treatment facility and the collection systems
- Three step process:
 - Permittees required to conduct an asset vulnerability assessment to identify which assets are most at risk.
 - Considering use of CREAT as one good tool
 - Prioritize these assets – based on criticality of the asset.
 - Evaluate cost effect alternatives to protect the asset.
- Create and implement a plan based on the assessment

2023 NPDES Wastewater Permits

- The permits further specify that they:
 - Map each of their assets against current and future floodplains
 - Use the most precautionary and comprehensive sources of risk information from the list we provided
 - For both the 1% and 0.2% flood scenarios in the current year, 2050, and 2100
- Permits will be going out for PN very soon.
 - We anticipate receiving lots of questions and comments.
 - Likely tweak the language
 - Provide guidance and training

Questions?

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<https://www.epa.gov/npdes-permits/chelsea-river-bulk-petroleum-storage-facilities-npdes-permits>

