



Connecticut Department of Energy and Environmental Protection



Integration of Environmental Justice Concerns into 303(d) and Other CWA Programs in Connecticut

Presenter: Traci Iott, CTDEEP
National 303(d) & Data Meeting
June 1, 2022



Connecticut Department of Energy and Environmental Protection

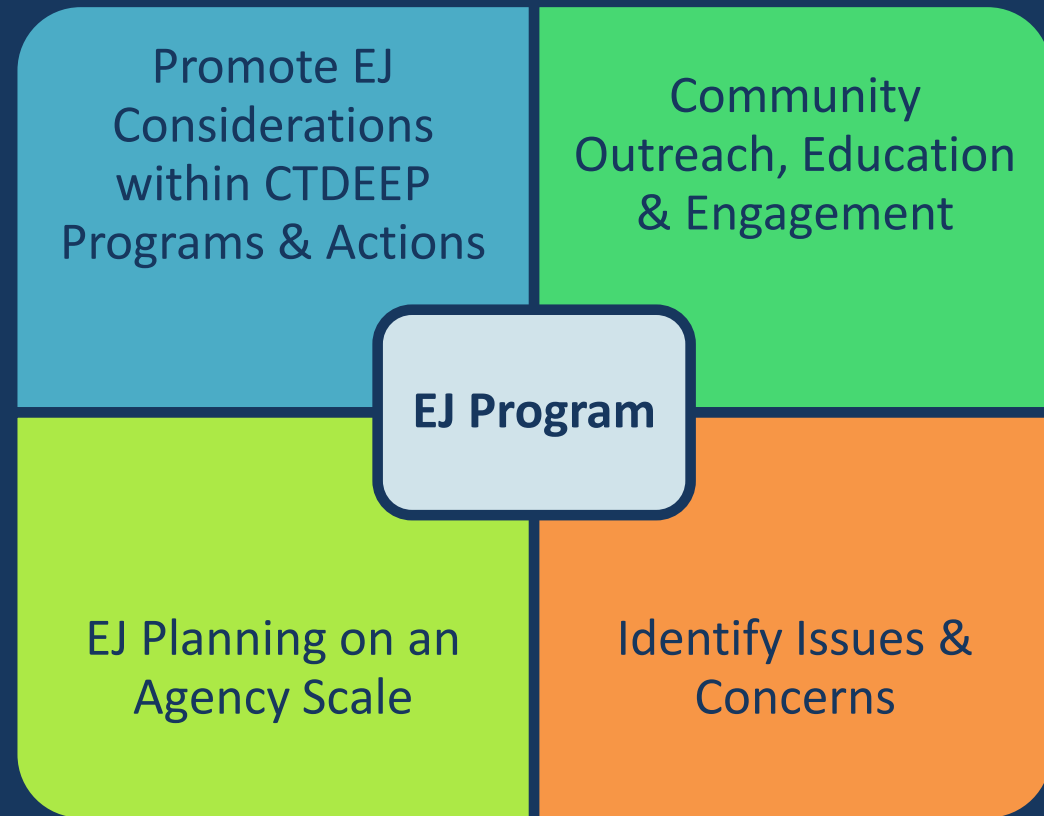
Presentation Topics

- Describe CTDEEP Environmental Equity Program and Policy
- Identify approaches used in 303(d) Program to consider Environmental Justice
- Identify approaches used in other Water Quality-based Programs to consider Environmental Justice



Environmental Equity Program & Policy

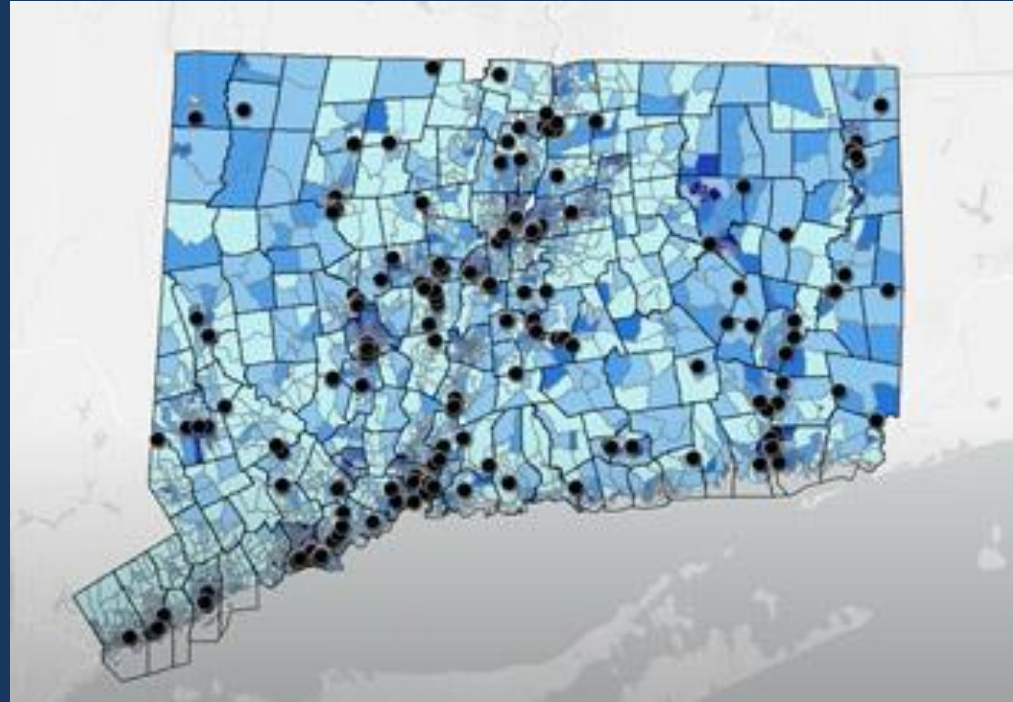
"...no segment of the population should, because of its racial or economic makeup, bear a disproportionate share of the risks and consequences of environmental pollution or be denied equal access to environmental benefits." *CTDEEP's Environmental Equity Policy, 1993*




CTDEEP Environmental Justice Program

Current Statewide Activities

- Development of a CT EJ Mapping Tool
- Establishing a Connecticut Equity and Environmental Justice Council

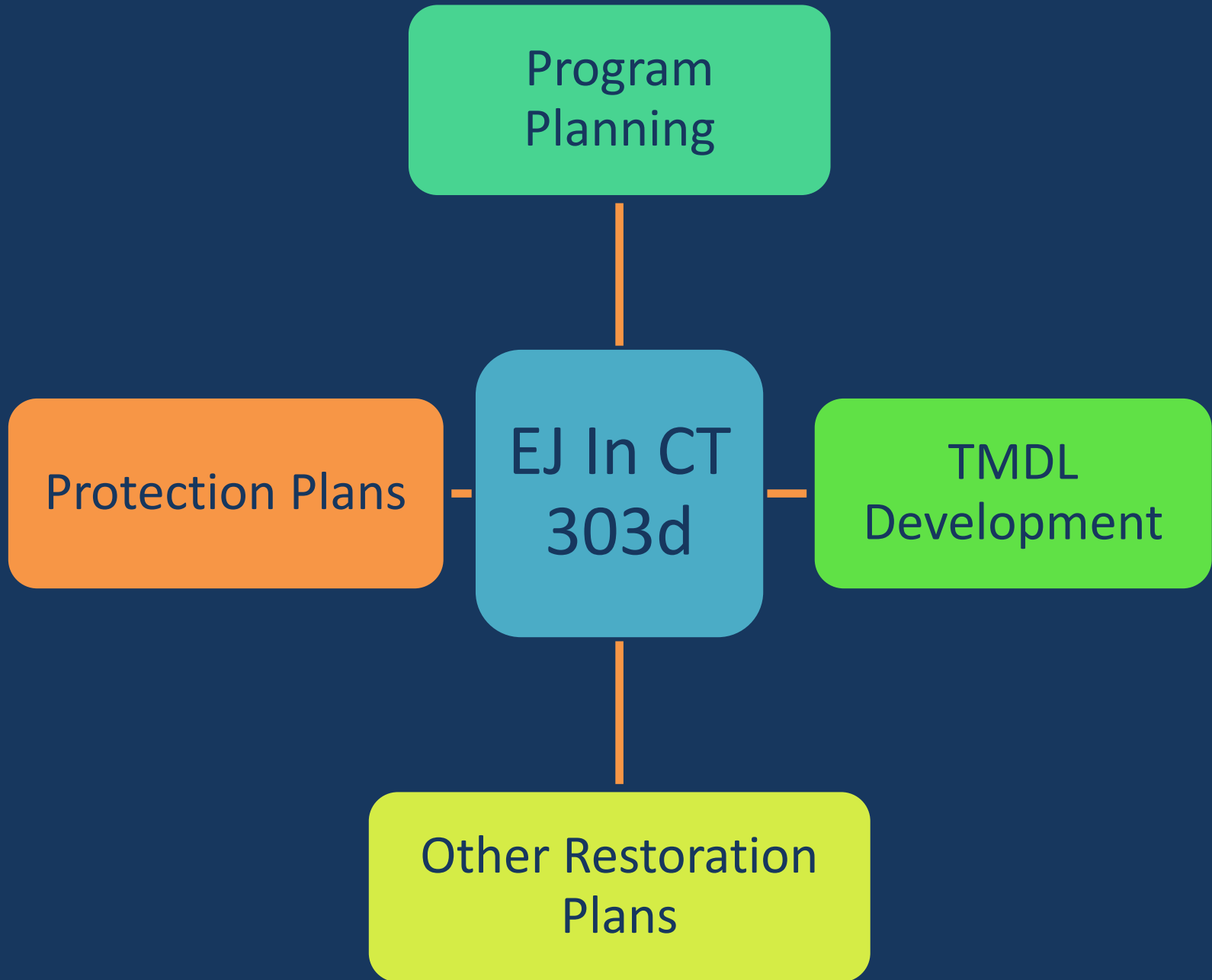




Environmental Justice: CTDEEP 303(d) Program



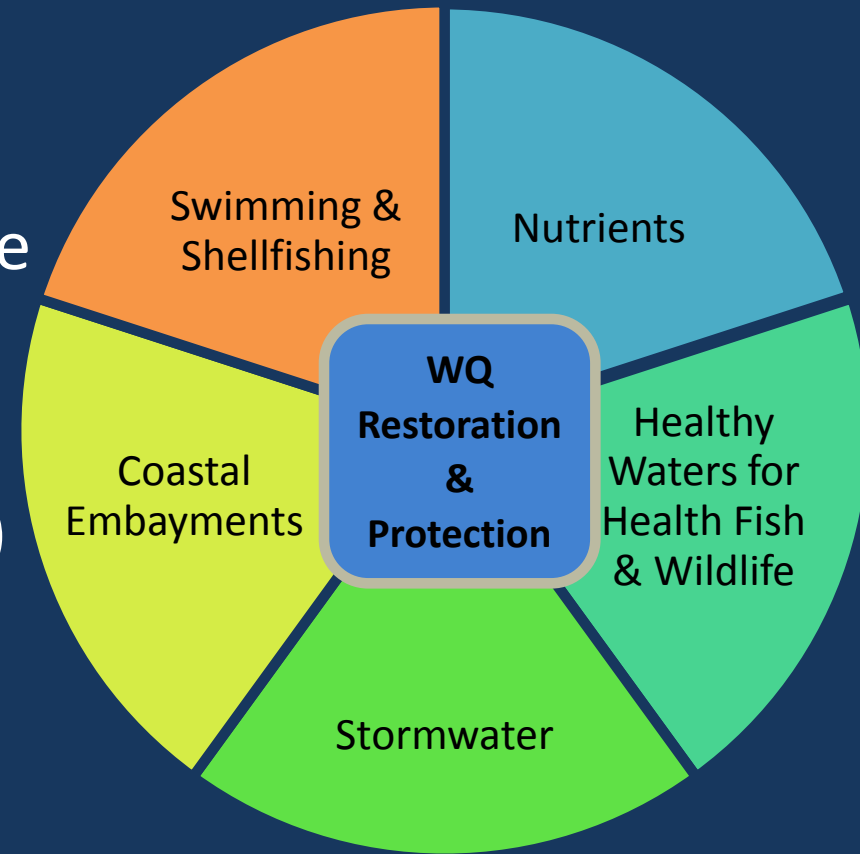
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Program Planning

Enhanced process to identify where 303(d) water quality-based plans will be developed

- Extensive engagement within CTDEEP & with public & outside partners
- Integrated Water Resource Management in CT (EPA 303(d) Program Vision) 2012-2022
- Included Consideration of Environmental Justice



Identifying Water For Plan Development



General Watershed Health

- Restoration
- Protection



Stormwater

- Restoration
- Protection

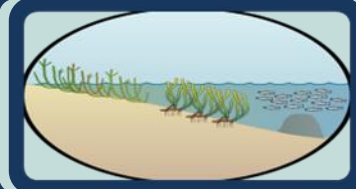


Nutrients

- Restoration
- Protection



Bacteria Impairments Current and Future (not tool based)



Estuaries and Embayments (not tool based)

EJ
Considered

SIX RPS TOOL SCENARIOS
GENERATING SIX LISTS OF
WATERSHEDS

All impaired waters
across entire state

Based on areas with
community partners
& on-going actions



Recovery Potential Screening Tool: Example Indicators

Ecological Category	Stressor Category	Social Category
# dams with fishways	Phosphorus yield	# impaired segments with TMDLs
# of sampling stations with sensitive aquatic insects	% Impervious Cover >12% in a watershed	Stream miles of trout stocking
% of watershed as protected open space	# impacted toxicity results	# of known recreation areas
Miles of free flowing stream	Nitrogen yield	% drinking water source area
% Natural Diversity Data Base areas	% Agriculture in watershed	% Environmental Justice Areas



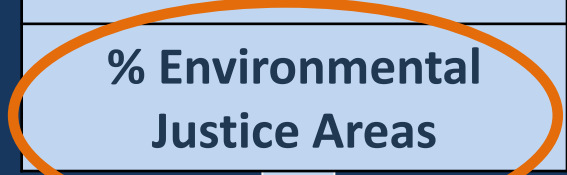
Ecological Index

Stressor Index

Social Index



RPI Score



RPT Available Online from EPA



Considering EJ in TMDLs & Protection Plans

Develop maps for new TMDLs or Protection Plans to show

- water quality conditions
- Key community landmarks such as schools, parks and roads
- Areas of EJ Concern
 - Distressed Municipalities
 - Low Income Area Census Blocks
 - Tribal Areas

Include Recommendations to Prioritize Implementation to Restore or Protect Water Quality within EJ areas

TMDLs are “Action Plans” that evaluate water quality conditions and sources, to establish a plan to restore or protect water quality based on State’s Water Quality Standards



Environmental Justice

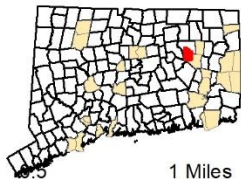
Sawmill Brook Subregional Basin

Legend

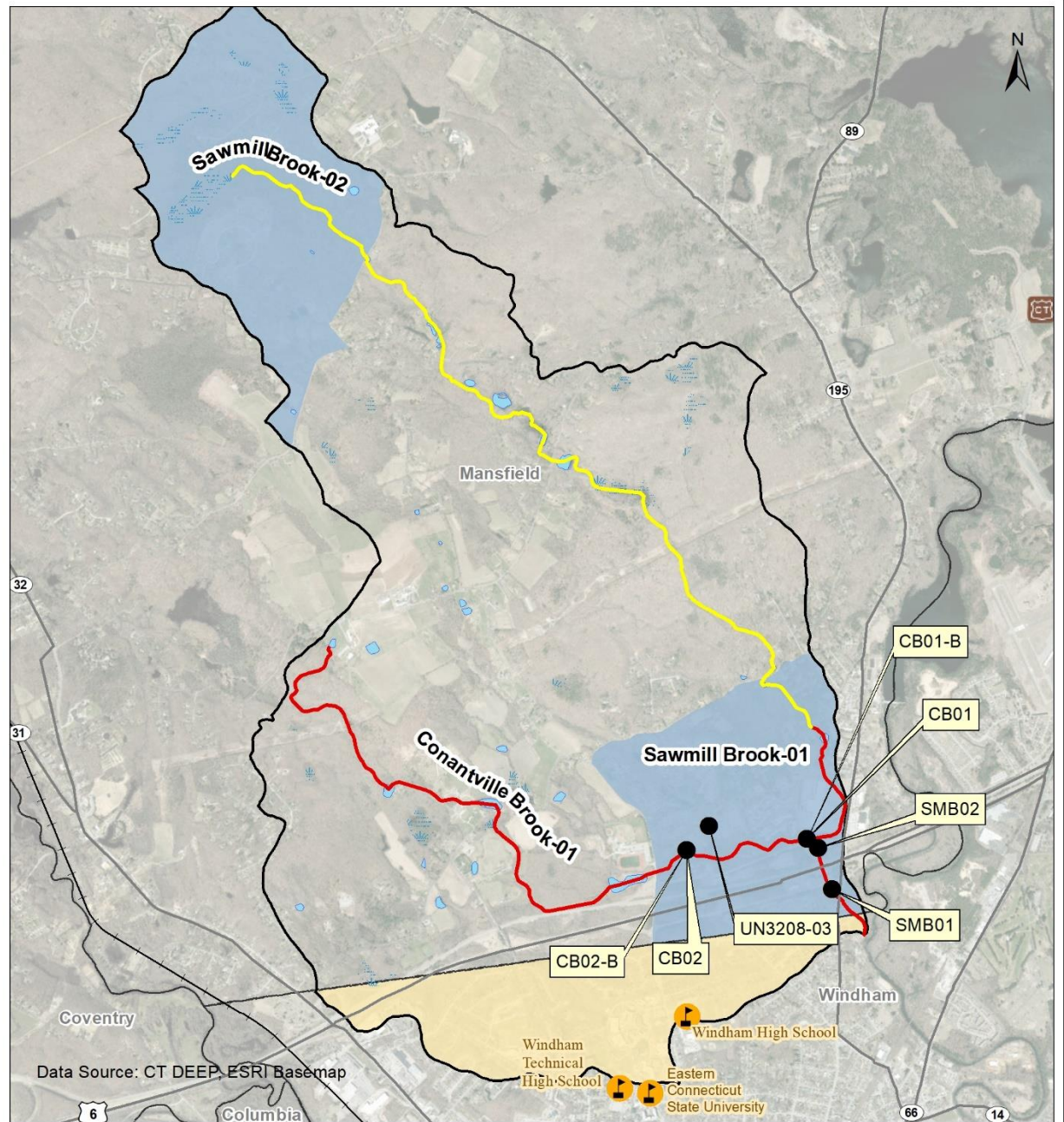
- Bacteria Monitoring Station
 - 🏫 School (3)
 - 🚗 State Park or Reserve Access (1)
 - 🚊 Railroad
 - 🛣 Interstate
 - 🛣 US Route
 - 🗺 Town Boundary
 - 🌿 Marsh
 - 💧 Waterbody
- CT 2020 Recreation Assessment Rivers**
- 🟡 Insufficient Information; Not Assessed
 - 🔴 Not Supporting
- Distressed Municipality**
- 🟡 Distressed Municipality (1)
 - 🟦 Low Income Areas by Census Block (2)



Created
2022











0 1 Miles



Environmental Justice Pumpkin Ground Brook Subregional Basin

Legend



-  School
-  State Route
-  Railroad
-  Town Boundary
-  Marsh
-  CT Unassessed Waterbody
-  Tribal Land (1)
-  CT Unassessed Stream

Subregional Basin Study Area

-  Pumpkin Ground Brook

CT 2020 Recreation Assessment Rivers

Recreation

-  Insufficient Information; Not Assessed
-  Not Supporting

Environmental Justice Communities

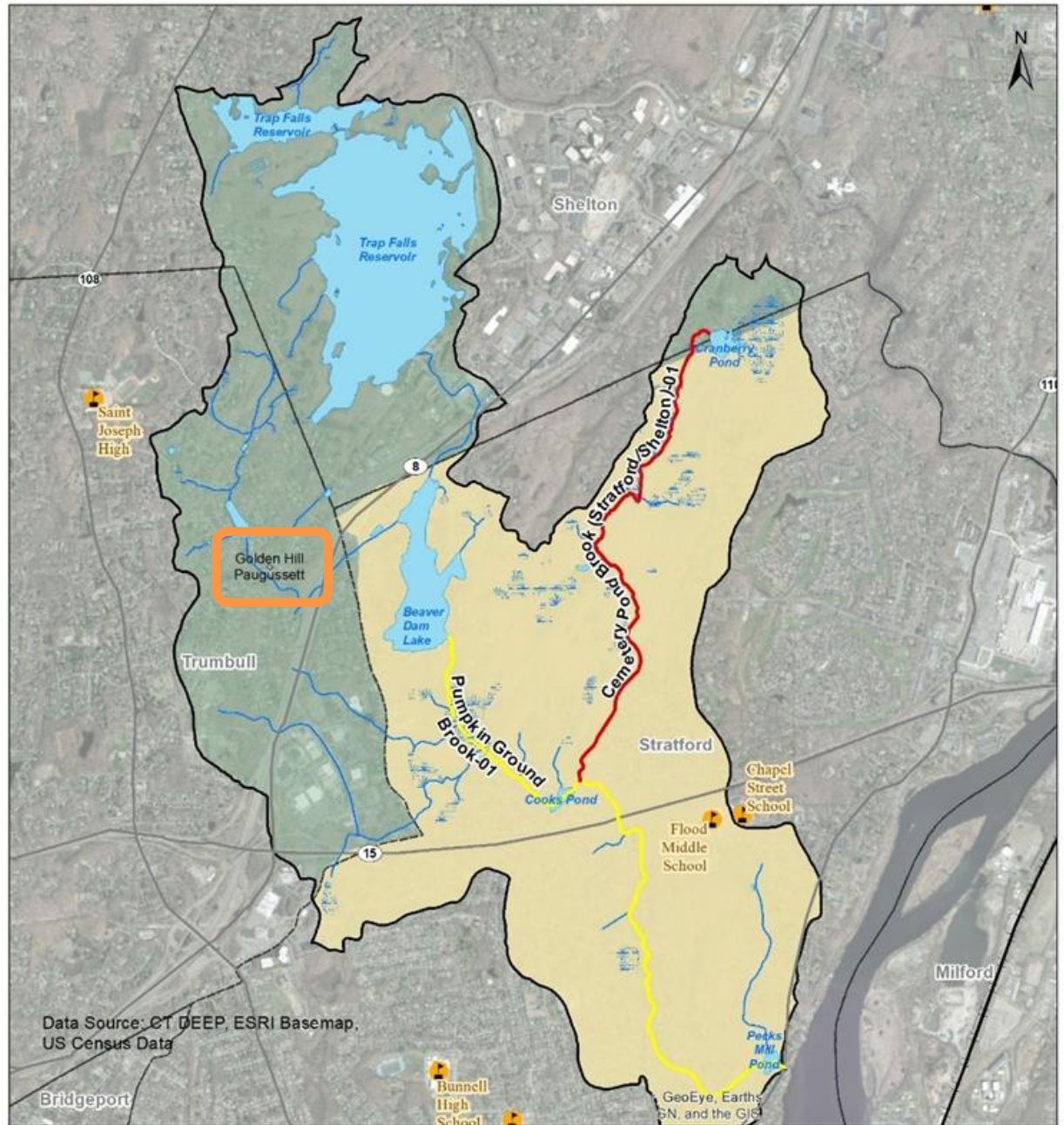
-  Distressed Municipalities (1)
-  Low Income Areas by Census Block (0)



Created
2022



0 0.5 1 Miles



303(d) Alternative Restoration Plans

Remediation Program activities:

- 303(d) Program Staff set environmental goals
- Implement Water Quality Standards to address environmental quality and protect uses for Surface Water, Groundwater, Sediment & Erodible Soils

Address exposures to populations that may be more highly exposed for cultural or economic reasons

Fishing & Shell
Fishing

Sediment Contact

Tribal Practices

Climate Change

Communication



Remediation: Contaminated Sediment

WARNING

**PERTAINING TO THIS SECTION OF MILL RIVER
RIVER**

Sediments & Blue Crabs May Contain Lead

Do Not Use Shoreline:

- No Crabbing
- No Wading
- No Swimming
- Avoid Contact with Sediments
- No Powerboats

These Activities Are Safe

- Canoeing or Kayaking
- Fishing From Boats (finfish are not affected)
- Crabbing in Southport Harbor (this area is unaffected by lead)

For More Information Call:

The Fairfield Health Department: 256-3020



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Setting Environmental Goals for the Mill River

Human Health Risk Assessment

Sediment & Surface Water

Fish & Shellfish Tissue

Children & Adults Fishing and Direct Contact

Ecological Risk Assessment

Sediment & Surface Water

Plants, Aquatic Organisms, Birds & Mammals

Biological Assessments for Survival, Growth & Reproduction



Risk-based Remedial Goals for Lead

Pre-Excavation	Area 4	Area 3	Area 2	Area 1	Area 5
Minimum	2	1	2.5	3	1
Maximum	1,300	3,200	170,000	3,600	6,200
Average	93	355	3,760	590	148

- Ecologically Based Remediation Goals:
- Human Health Protection
 - 400 mg/kg
 - Ecological Protection
 - Birds: 437 mg/kg
 - Aquatic Organisms: 220 mg/kg

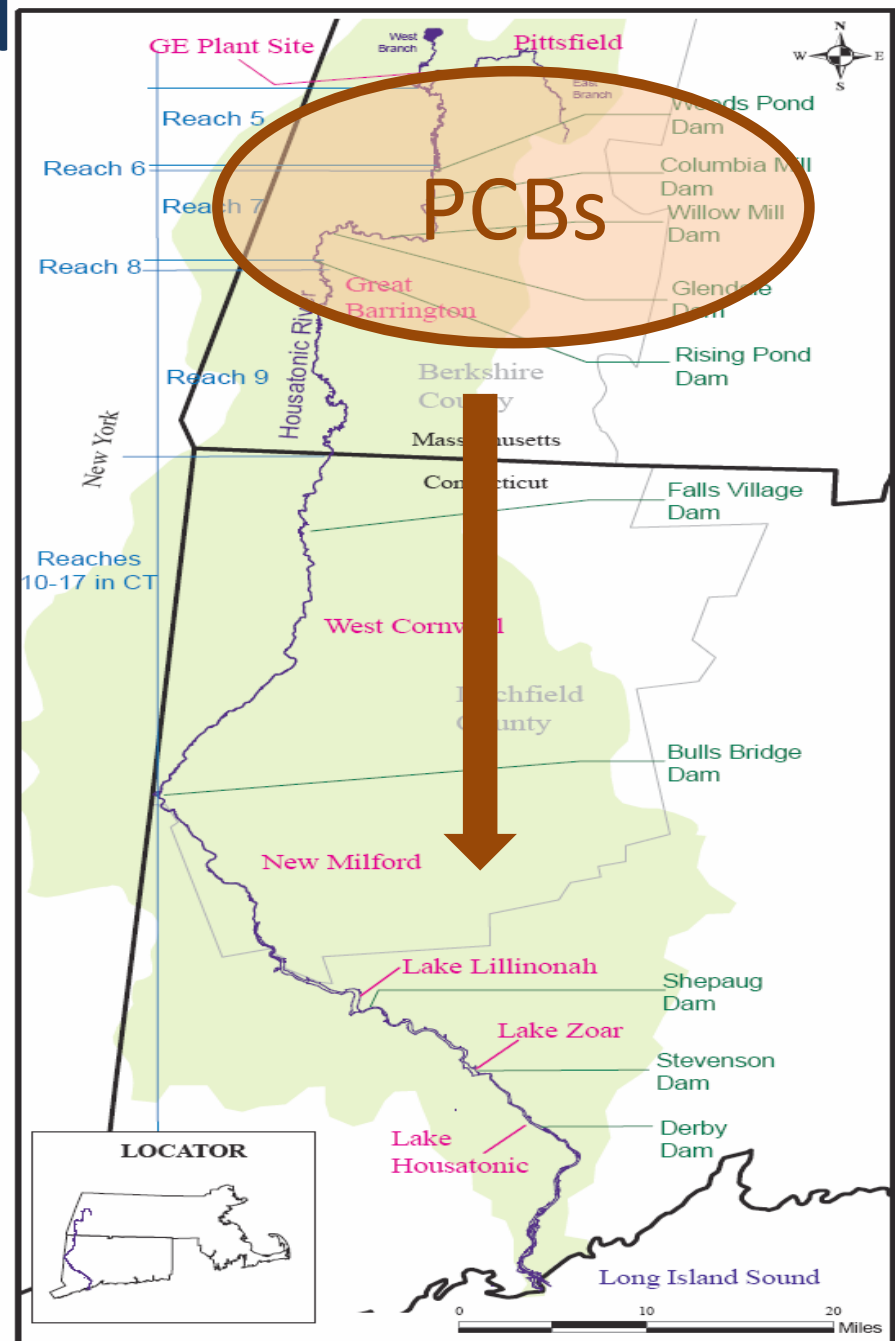


Housatonic River MA & CT

Reducing Transport: Critical to Achieving CT's Environmental Goals

- Contamination in CT comes from downstream transport of contaminants from areas in MA
- Remedy proposes to address contamination in MA
- River system is out of balance & dynamic, must consider need for future actions if transport targets are not met.

Goal: Substantial Reduction in downstream transport to meet WQS in CT

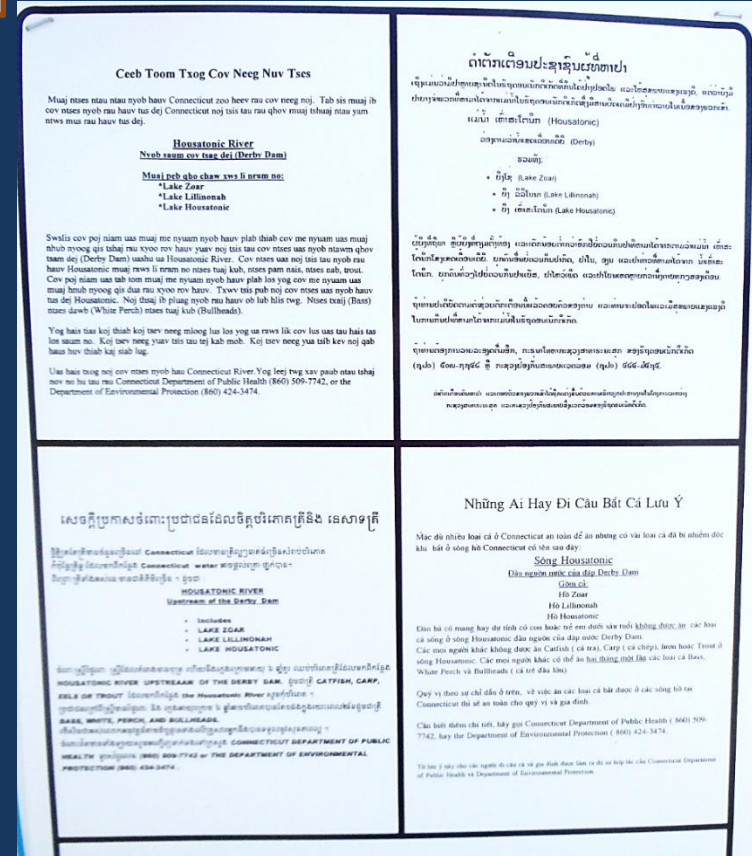


Eliminate Impact on Future Generations

PCBs Move & Accumulate in Food Chain

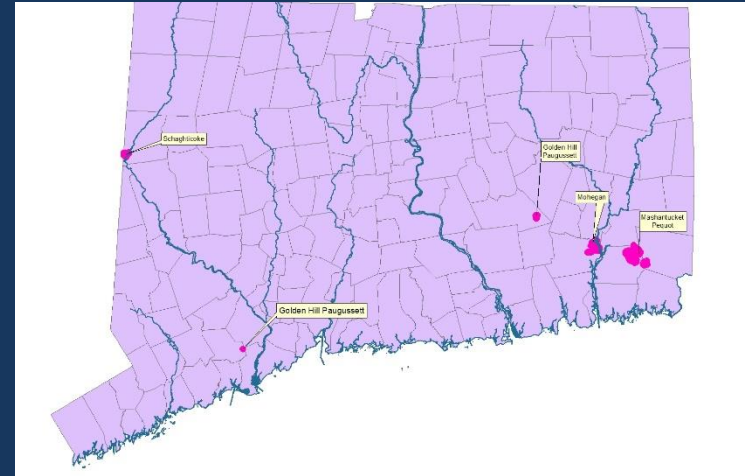
- Fish have elevated levels of PCBs
 - Need advisories against eating fish from Housatonic River
 - Causes risks to birds and mammals that eat fish
 - Concern for people who don't follow advisories for cultural or economic reasons


Goal: Reduce fish contamination to remove risks to people and animals



Considering Tribes in CT

- New Project underway to map/document CT waters that flow into and out from tribal areas in State
- Use information to better identify whether 303(d) project areas may be associated with water resources in tribal areas
- Hope to share with tribes in state for discussion and collaboration





Environmental Justice: NonPoint Source Management Program & Long Island Sound Study



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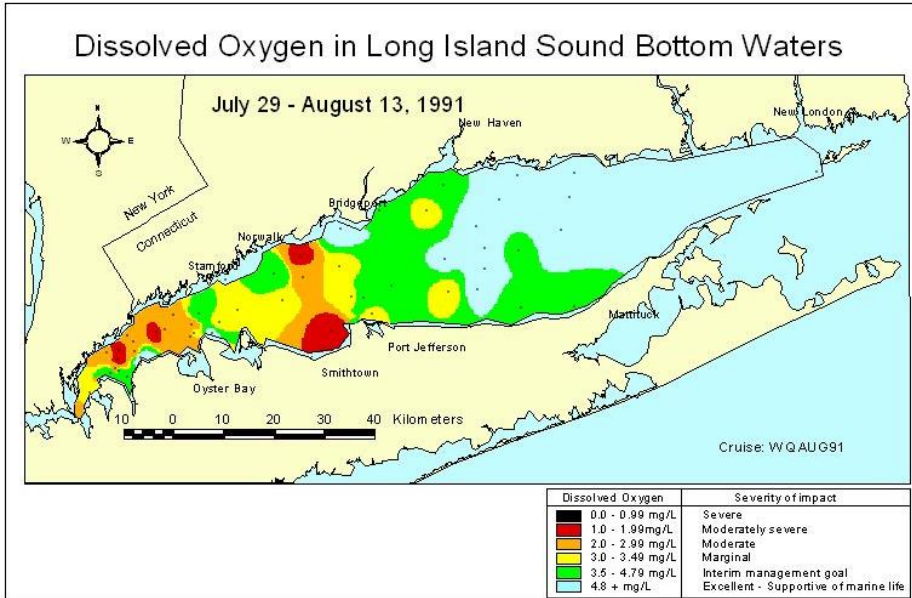
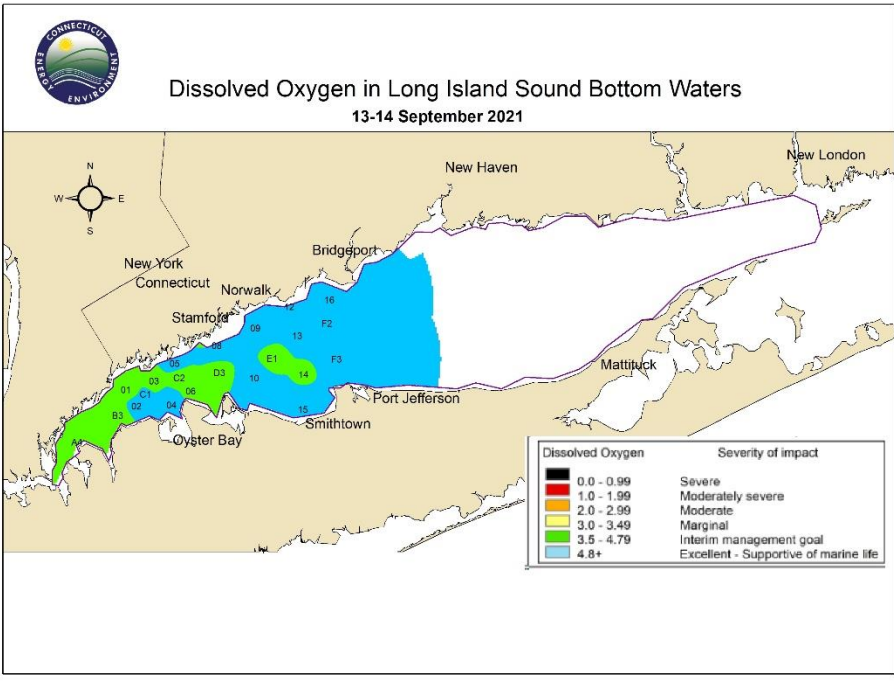
CTDEEP: NonPoint Source Program

- Manages CWA 319 Grants
- Considers whether proposed grant projects support EJ communities, among other considerations
- Participates in Urban Waters Initiative Projects



Long Island Sound Study

- LISS is a partnership between EPA, CT and NY to address hypoxia, nutrient loads, habitat restoration, public involvement & education and water quality monitoring
- LIS is part of the National Estuary Program



LISS: New EJ Workgroup

Provide a platform to support and promote the incorporation of environmental justice into LISS decision-making and implementation of all Management Plan goals.

- Environmental Justice Needs Assessment
- Establish Community Impact Fund
- Internal Assessment and Internal Conversations
- Training



LISS: Other Initiatives

The [Sustainable Resilient Communities Workgroup](#) hired five extension educators who are facilitating opportunities for the diverse voices within a community to be co-creatively integrated for effective and sustainable planning and implementation strategies leading to more resilient communities in the face of increasing impacts from climate change.

CT DEEP is pursuing funding to initiate a plan and support to address language barriers with our state's fishing communities.



Monitoring & Assessment Program

- Evaluate existing monitoring network and sample locations to identify which may be located within EJ areas and identify EJ areas which should be prioritized for monitoring





Traci Iott

Supervising Environmental Analyst

Water Quality Group

CTDEEP

Traci.Iott@CT.gov



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