Connecticut Wetland Program Plan
2023 - 2027

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Pursuant to:
Enhancing State and Tribal Programs (ESTP) Initiative for Wetland Programs
Environmental Protection Agency
Region 1

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Introduction & Background

Connecticut's geographical location, geological features, and glacial history are leading factors in the diversity, distribution, and types of wetlands located within the state. Wetlands in Connecticut are statutorily defined at the state level and include tidal wetlands as well as inland wetlands and watercourses. Tidal wetlands are defined by their current or former tidal connection, and their capacity to support some, but not necessarily all, of over sixty different plant species (Connecticut General Statutes (CGS) Sec. 22a-29(2)). Inland wetlands are defined by soil type and include poorly drained soils, very poorly drained soils, alluvial soils, and floodplain soils (CGS Sec. 22a-38(15)). Watercourses refer to rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private (CGS Sec. 22a-38(16)).

In 1969, after recognizing the need to lawfully protect and preserve the state's tidal wetlands, Connecticut passed a legislative policy (Tidal Wetlands Act, CGS Sec. 22a-28) for the preservation of such wetlands. This policy declared that much of Connecticut's tidal wetlands had been lost or despoiled by unregulated dredging, dumping, filling and like activities, and its remaining tidal wetlands were in jeopardy of being lost or damaged by these and other activities. Further, the legislature declared that the loss of tidal wetlands will adversely affect or eliminate their function as food and habitat to fisheries and other resources of significant economic value; that such loss or damage would substantially reduce marine commerce, recreation, and aesthetic enjoyment; and that the loss of tidal wetlands will disrupt the natural ability to reduce flood damage and absorb silt, resulting in increased silting of channels and harbor areas to the detriment of free navigation and adversely affecting public health and welfare.

The Connecticut Department of Energy and Environmental Protection (DEEP) regulates activities occurring within tidal wetlands pursuant to the state's legislative policy and associated regulations, and under the Connecticut Coastal Management Act (CGS Sec. 22a-90 through Sec. 22a-111). Regulated activities in tidal wetlands include: draining, dredging, excavation, or removal of soil, mud, sand, gravel, aggregate of any kind or rubbish from any wetland or the dumping, filling or depositing thereon of any soil, stones, sand, gravel, mud, aggregate of any kind, rubbish or similar material, either directly or otherwise, and the erection of structures, driving of pilings, or placing of obstructions, whether or not changing the tidal ebb and flow. Activities that are not regulated in tidal wetlands only include certain official activities conducted for public health and safety, such as conducting mosquito control, or the issuance of permits or certificates to repair previously authorized structures within tidal wetlands, such as aids to navigation.

Similarly, in 1972, Connecticut enacted the Inland Wetlands and Watercourses Act (IWWA, CGS Sec. 22a-36 through Sec. 22a-45). This landmark legislation formally recognized that Connecticut's inland wetlands and watercourses are an indispensable, irreplaceable, and fragile natural resource with which the citizens of the state have been endowed. As with tidal wetlands, the legislature acknowledged that inland wetlands and watercourses have been destroyed or are in danger of destruction because of unregulated use by reason of the deposition, filling or removal of material, the diversion or obstruction of water flow, and the erection of structures and other uses, all of which have despoiled, polluted, and eliminated these resources. Further, the legislature stated that the preservation and protection of inland wetlands and watercourses from unnecessary, undesirable, and unregulated uses is critical to protect the ecological, economic, scenic, historic, and recreational benefits these resources provide, and that these numerous functions and values are essential to the well-being of Connecticut's citizens. The IWWA emphasizes balancing the need for economic growth of the state and the use of its land with the need to protect its environment and ecology for future generations.

In keeping with Connecticut's long-standing application of home rule, the IWWA mandates that any operation within or use of an inland wetland or watercourse involving removal or deposition of material, or any obstruction, construction, alteration or pollution, of such inland wetlands or watercourses, be regulated by municipal inland wetlands agencies (MIWA). CGS Sec. 22a-42 of the IWWA states, "it is hereby declared to be the public policy of the state to require municipal regulation of activities affecting the wetlands and watercourses within the territorial limits of the various municipalities or districts." Currently, there are 171 such agencies. Under the IWWA, activities affecting inland wetlands and watercourses are subject to the same regulatory review and consideration regardless of size or quality of the resource. Only State agency actions involving any operation within, or use of an inland wetland or watercourse, or activities on state land, are regulated by DEEP.

Consistent with the U.S. Environmental Protection Agency's (EPA) guidelines and goals, Connecticut not only aims to protect and restore wetland resources, but also to bring awareness to the significance of our wetland resources in the overarching goal of climate resiliency. At an internal level, this requires the involvement and cooperation of more than one bureau and many divisions within DEEP. This includes but is not limited to the Bureau of Water Protection and Land Reuse in which the Water Planning and Management Division and the Land and Water Resources Division (LWRD) belong; the Bureau of Natural Resources through the Divisions of Fisheries, Forestry and Wildlife; and the Office of Climate Planning. Externally, this includes inter-agency collaboration with the Department of Transportation and other state agencies, and coordination with outside partners and stakeholders.

DEEP's third *Connecticut Wetland Program Plan* is formulated in accordance with EPA's Enhancing State and Tribal Wetland Programs (ESTP) initiative. This current plan is prepared with the guidance of EPA's Core Elements of Effective State and Tribal Wetlands Program, otherwise known as the Core Elements Framework (CEF), which includes Monitoring and Assessment, Regulatory Activities Including 401 Certification, Voluntary Restoration and Protection, and Water Quality Standards for Wetlands.

The *Connecticut Wetland Program Plan* identifies specific activities that potentially can be undertaken from 2023 through 2027. These activities aim to strengthen Connecticut's capabilities of protecting, restoring, and regulating its wetlands and watercourses while building awareness and support through education and management strategies. Aligned with EPA's predominant wetland goals of no net loss and overall increase in wetland extent, and the protection of aquatic resources, this plan will improve our state's climate resiliency response. The activities listed within this plan are subject to availability of resources and capacity of all partners involved. The plan is dynamic in nature and is subject to revision to address future and potential changes within DEEP and Connecticut's tidal and inland wetlands programs.

Note

Activities listed within this Wetland Program Plan are either ONGOING DEVOPLMENT or ANTICIPATED DEVELOPMENT consequently leading to a corresponding letter coding of either **O** or **A.**

List of Abbreviations

ACOE – Army Corps of Engineers

CCMP – Connecticut Coastal Management Program

CGS – Connecticut General Statutes

CMA – Coastal Management Act

CT – Connecticut

DEEP – Department of Energy and Environmental Protection

DOT – Department of Transportation

DPH – Department of Public Heath

EPA – Environmental Protection Agency

GC3 – Governor's Council on Climate Change

HCE – Habitat Conservation and Enhancement Program, DEEP Fisheries Division

IWWA – Inland Wetlands and Watercourse Act

LISS – Long Island Sound Study

LWRD – DEEP Land and Water Resources Division

MIWA – Municipal Inland Wetlands Agencies

MMCA – DEEP Materials Management and Compliance Division

NEIWPCC – New England Interstate Water Pollution Control Commission

NERR – National Estuarine Research Reserve

NFWF – National Fish and Wildlife Foundation

NOAA – National Oceanic and Atmospheric Administration

NPDES - National Pollutant Discharge Elimination System

NRCS – Natural Resources Conservation Service (USDA)

OCP – DEEP Office of Climate Planning

SIMS – Site Information Management System

SSAM – Sentinel Site Application Module (NERR)

WPLR – DEEP Bureau of Water Planning and Land Reuse

WPMD – DEEP Water Planning and Management Division

Core Element 1: Monitoring and Assessment

Objective 1: Develop a monitoring and assessment strategy consistent with Elements of a State Water Monitoring and Assessment Program for Wetlands (USEPA, 2006) or other similarly structured state, regional, or national approaches.

Action Item (a): Identify programs, program decisions, and long-term outcome(s) that will benefit from a wetland monitoring and assessment program							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Collaborate with CT NERR staff to develop an implementation plan for the NERR Sentinel Site Application Module 1 (SSAM-1): coastal habitat response to changing water levels for wetlands within and/or near the CT NERR boundary. NOTE: SSAM-1 Plan can address some/all of action items b, c & d within this Objective. See https://coast.noaa.gov/data/docs/nerrs/Research_SentinelSites GuidanceDoc.pdf	DEEP LWRD, DEEP WPMD	A	A	A			DEEP - Wildlife, CT NERR
Restore water monitoring activities as staffing resources are available to determine environmental impacts of certain pesticides.	DEEP Pesticide Management Program	A	A	A	A	A	

Action Item (b): Evaluate the potential to build capacity to conduct inland wetlands bioassessments							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Attend national training on inland wetland condition to gain knowledge to provide a basis for making an informed evaluation & decision on the direction of wetlands bioassessments for Connecticut.	DEEP LWRD, DEEP WPMD	A	A	A	A	A	
Expand joint training series and partnerships on wetland delineation, monitoring, and assessment with local professional organizations.	DEEP LWRD		A	A	A	A	NRCS, CT Association of Wetland Scientists, American Society of Civil Engineers, CT Society of Civil Engineers, etc.

Action Item (c): Define wetlands monitoring objectives and strategies

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Identify areas impacted by use of environmentally persistent pesticides.	DEEP Pesticide Management Program	A	A	A	A	A	
Develop a strategy to collect and analyze data regarding wetland loss vs gain.	DEEP LWRD	A	A	A	A	A	Federal and State agencies
Develop a monitoring strategy to align with the designated uses associated with wetlands.	DEEP		A	A	A	A	Federal and State agencies

Action Item (d): Develop monitoring design, or an approach and rationale for site selection that best serves monitoring objectives

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Develop a rationale for site selection related to impacts of certain pesticides, to be based on annual pesticide use summary reports submitted by certified applicators indicating usage of certain pesticides of concern.	DEEP Pesticide Management Program	A	A	A	A	A	

Action Item (e): Evaluate the need and a process to establish Waterbody Segment IDs for wetlands

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Hold meetings within DEEP to identify the need for developing Waterbody Segment IDs for wetlands and a process to develop these IDs if needed. Waterbody Segment IDs are used by Clean Water Act - based programs to track assessment information and plan development to restore or protect water quality for consistency with the Water Quality Standards.	DEEP LWRD, DEEP WPMD	A	A	A	A	A	Federal agencies

Objective 2: Implement a sustainable monitoring program consistent with the wetlands monitoring strategy.

Action Item (a): Monitor wetland resources as specified in strategy							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Collaborate with CT NERR staff to Implement NERR SSAM-1 monitoring program for wetlands within and/or near the CT NERR boundary, which would include some/all of component's a, c, d & e within this Objective. See https://coast.noaa.gov/data/docs/nerrs/Research_SentinelSites GuidanceDoc.pdf	DEEP LWRD, DEEP WPMD				A	A	DEEP Wildlife, CT NERR
Develop a data collection Quality Management & Quality Assurance Project Plan for traditional environmental monitoring, collection of online or observational data, field surveys, etc. as appropriate for DEEP programs.	DEEP			A	A	A	

Action Item (b): Establish reference conditions							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Refer to action item (a) - NERR SSAM-1	DEEP LWRD, DEEP WPMD				A	A	DEEP Wildlife, CT NERR

Action Item (c): Track monitoring data in a system that is accessible, updated, and integrated with other state or tribal water quality data							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Refer to action item (a) – NERR SSAM-1	DEEP LWRD, DEEP WPMD				A	A	DEEP Wildlife, CT NERR
Collaborate with WPMD staff to determine whether or not to use the EPA Water Quality Data Portal (Water Quality Data | US EPA) to receive and store data on ambient environmental conditions.	DEEP LWRD, DEEP WPMD	A	A	A	A	A	EPA
Develop a refined mechanism to collect, store and analyze data reported by municipal inland wetland agencies, land use boards, etc.	DEEP LWRD		A	A	A	A	

Action Item (d): Analyze monitoring data to evaluate wetlands extent and condition/function and/or to inform decision-making

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Implement Sea Level Affecting Marshes Model (SLAMM) modeling to include water-level monitoring data.	DEEP LWRD, DEEP WPMD	O	O	O	O	O	DEEP Wildlife

Action Item (e): Coordinate with external partners on wetland assessment and monitoring capacities/BMPs/strategies

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Expand participation with groups such as New England Biological Assessment of Wetlands Workgroup (NEBAWWG), LISS, Save the Sound, NERR, etc.	DEEP LWRD, DEEP WPMD	O	O	O	O	O	NEBAWWG, LISS, Save the Sound, etc.
Coordinate with US Fish and Wildlife Service on National Wetlands Inventory.	DEEP WLPR		A				US Fish and Wildlife, other federal agencies
Identify new potential monitoring partner organizations.	DEEP LWRD, DEEP WPMD	A	A	A	A	A	

Objective 3: Incorporate monitoring data into agency decision making.

Action Item (a): Develop geographically defined wetland protection, restoration, and management plans

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Develop a Wetland Restoration plan which can include tidal or inland wetland types.	DEEP LWRD	A	A	A			LISS, CT NERR, assorted non-governmental organizations and colleges/universities
Coordinate/determine if it is appropriate to include wetlands assessment information in the Integrated Water Quality Report.	DEEP LWRD, DEEP WPMD		A	A	A	A	
Coordinate/determine if water quality restoration or protection plans should be developed under Section 303(d) of the Clean Water Act.	DEEP LWRD, DEEP WPMD		A	A	A	A	

Core Element 2: Regulatory Activities (including 401 Certification)

Objective 1: Clearly define the jurisdictional scope of the program.

Action Item (a): Provide clear and comprehensive jurisdictional coverage of aquatic resources							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Jurisdiction is defined in state statute and regulations, develop and update DEEP website to include non-consumptive water diversions and so that jurisdiction is easily found and understandable.	DEEP LWRD, DEEP WPMD	A		A			

Action Item (b): Clearly identify a comprehensive scope of activities to be regulated							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Activities are defined in state statute and regulations, develop and update DEEP website to include non-consumptive water diversions and so that regulated activities are easily found and understandable.	DEEP LWRD, DEEP WPMD	A		A			

Action Item (c): Provide clear guidance to public on how to identify jurisdictional waters and activities							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Develop new guidance documents, web pages, social media, FAQs, and other formats which clearly define municipal vs. state vs. federal jurisdiction over tidal and inland wetlands; incorporate amendments/updates and modernize guidance.	DEEP LWRD		A		A		

Action Item (d): Evaluation/periodic review							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Reassess current Wetland Program Plan and coordinate with partners to incorporate additional activities for future comprehensive wetland program.	DEEP LWRD					A	Federal and state agencies, Stakeholders
Develop surveys for municipal staff/commissions, consultants, regulated community, and public to determine level of regulatory knowledge, DEEP performance, and gaps in information.	DEEP LWRD			A			

Objective 2: Administer regulatory activities efficiently and consistently.

Action Item (a): Adopt regulations, policies, and/or rules to implement state and/or federal water quality statutes							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Update Standard Operating Procedures for administering 401 Water Quality Certifications based on the outcome of the proposed 401 Water Quality Certification Rule.	DEEP LWRD		A	A			DEEP Water Quality Group
Assess and redevelop as needed inland wetlands and watercourses permits for state actions which have a direct impact in accordance with the IWWA, consider infrastructure and climate resiliency initiatives; assess indirect impacts for consideration under IWWA.	DEEP LWRD		A	A	A	A	State agencies

Action Item (b): Develop and operate according to a clear and effective set of criteria for reviewing and responding to applications							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Continue coordination efforts with US ACOE, EPA & DOT on the 404/401 Water Quality Certification process for infrastructure projects (monthly and bi-weekly meetings); further develop administrative efficiencies and develop inter-agency training programs; assess and modify (as needed) coordination and pre-application procedures.	DEEP LWRD	O	O	O	O	O	
Collaborate with the Water Quality Group within WPMD to develop and establish procedures for reviewing applications consistent with the Water Quality Standards.	DEEP LWRD, DEEP WPMD, DEEP Pesticide Management Program		A	A	A	A	

Action Item (c): Assess proposed impacts to waters of the state							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Assess and refine process to provide comments and recommendations to protect aquatic resources.	DEEP HCE	O	O	O	O	O	
Establish Standard Operating Procedures for evaluating water resource impacts/assessment and formulate adequate mitigation measures.	DEEP LWRD		A	A			
Assess and refine process to review activities for consistency with the Water Quality Standards, including the Antidegradation Policy and Implementation Procedures.	DEEP		A	A	A	A	

Action Item (d):	Adopt and apply comprehensive project review criteria							

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Implement the updated DEEP Stormwater Quality Manual (when finalized) into the review of IWWA inland wetlands and watercourses permit applications and 401 Water Quality Certifications; develop guidelines, operating procedures as necessary.	DEEP LWRD		A	A	A		
Develop staff knowledge of erosion and sedimentation controls, low impact development, construction methods, NPDES stormwater general permits, CMA policies and goals, and sea level rise and resiliency.	DEEP LWRD	A	A	A	A	A	Federal and state agencies, Stakeholders

Action Item (e):	Coordinate among agencies, programs, and industry groups to reduce duplicative efforts							

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Coordinate efforts to protect aquatic resources with state agency staff, municipalities, federal agencies, non-governmental organizations, and other groups.	DEEP HCE	O	O	O	O	O	
Develop a comprehensive list of parcels that are publicly owned which may be suitable for wetland mitigation and obtain concurrence from ACOE that sites meet mitigation rule criteria.	DEEP LWRD			A			ACOE, EPA, Stakeholders
Clearly define/survey state ownership of waterbodies to aid municipal and state permitting authorities and mitigation and restoration efforts; develop inventories and management plans in coordination with stakeholders.	DEEP Land Management, DEEP LWRD		A	A	A	A	

Action Item (f):	Require effective mitigation for authorized impacts							

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Refine the process to review state and federal regulated activities and provide comments and recommendations to protect aquatic resources.	DEEP HCE		A	A	A	A	
Develop wetland mitigation guidance for Tidal Wetland and Inland Wetlands and Watercourses programs.	DEEP LWRD		A	A	A		Federal agencies, municipalities, Stakeholders
Develop a wetland banking and/or In-lieu Fee or another program.	DEEP LWRD				A	A	

Action Item (g): Update regulations, laws, and general permits

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Develop a new state Inland Wetlands and Watercourses General Permit for state actions to address common/minor regulatory activities.	DEEP LWRD	A	A				Stakeholders
Revise statutes to expand General Permits for regulated activities e.g., docks on state-owned inland wetlands and water bodies.	DEEP LWRD		A	A			Stakeholders
Develop new state tidal and inland wetlands regulations; explore developing regulations pertaining to docks.	DEEP LWRD		A	A	A	A	
Evaluate existing and develop new policy and/or guidance on key regulatory issues such as "reasonable access", etc.	DEEP LWRD		A	A	A	A	

Action Item (h): Track permit/certification program activity

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Develop a system that links permit and enforcement SIMS identification numbers and workflows to the LWRD Data Viewer to monitor project completion and periodically inspect active construction sites.	DEEP LWRD		A	A			

Action Item (i): Track/Evaluate

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Refine inspections and investigation of complaints concerning aquatic pesticide use (commercial aquatic service providers must maintain specific records and annually report on the actual pesticides used).	DEEP Pesticide Management Program	O	O	O	O	O	
Review processing times for DEEP applications and 401 Water Quality Certifications for both individual & general permits and adapt program to address identified trends or challenges.	DEEP LWRD			A	A		

Action Item (j): Consider environmental justice within tidal and inland wetland regulatory programs

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Work with state and federal partners to define environmental justice opportunities.	DEEP LWRD		A	A	A	A	CT NERR, Stakeholders

Objective 3: Evaluate regulatory activities to ensure environmental results.

Action Item (a): Monitor the implementation of permit/license conditions							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Improve the process to conduct routine inspections and investigate complaints relating to aquatic pesticide permits to assure that permit and certification conditions/requirements are followed.	DEEP Pesticide Management Program	O		A		A	
Develop standard operating procedures with DOT for onsite inspections and protocol for non-compliance issues.	DEEP LWRD	O	O	O	O	O	DOT
Develop tracking of work commencement, modifications, extensions, and work completion certifications for all coastal, tidal wetland, and inland wetland and watercourses licenses; assess and re-develop to address needs.	DEEP LWRD	O	A		A		

Action Item (b): Enforce aquatic resource protections							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Develop processes to work with DEEP programs (LWRD, Fisheries, etc.), ACOE and municipal staff on enforcement issues.	DEEP	O	O	O	O	O	ACOE, municipalities
Develop a standardized inspection report with DOT that is utilized by both agencies.	DEEP LWRD	A	A	A	A	A	DOT
Develop an inspection program based on active infrastructure schedules.	DEEP LWRD	A	A	A	A	A	
Evaluate the results from the compliance assurance initiative to see if procedures or analysis of permit applications should be modified based on compliance issues.	DEEP LWRD	A		A		A	

Action Item (c): Ensure impact assessments and mitigation crediting lead to replacement of aquatic resources with similar structural, functional or condition attributes							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Standardize the DEEP accepted methods for wetland function and value assessment, wetland impact evaluation and wetland mitigation plan development; develop specific wetland mitigation goals, monitoring requirements and success criteria for projects.	DEEP LWRD		A	A			

Action Item (d): Incorporate the watershed approach into the regulatory decision-making process							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Keep apprised of the proposed 401 Water Quality Certification rule, specifically with regards to activities. If implemented, look to develop new standard operating procedures for reviews to address TMDLs and other 303(d)-based plans along impaired waterbodies.	DEEP LWRD, DEEP WPMD		A				

Action Item (e): Develop and conduct education and outreach and evaluate effectiveness (can fit Objective 1, Action Item (c) and Objective 2, Action items (a) and (b))							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Update/re-develop best management practices for water quality while harvesting forest products guide; update agriculture, forestry and IWWA brochure; develop related jurisdictional ruling form for municipal officials.	DEEP Forestry Division, DEEP LWRD	A	A	A			UCONN Extension Services, CT Professional Timber Producers Association
Lead educator workshops via the national environmental education curricula, Project WET and Project Aquatic WILD. Activities from the curricula may also be incorporated into DEEP's No Child Left Inside activities and seasonal state park interpretive sites for families and the public.	DEEP State Parks and Forests Divisions	O	O	O	O	O	CT Department of Education
Develop information and surveys regarding wetland protection, regulated waters and activities, and the authorization process; habitat fragmentation, sea level rise and marsh migration, climate resiliency, environmental justice, and more. Work with specific groups to develop focused guidance e.g., realtors, coastal property owners, land trusts, CT Farm Bureau, regional planning organizations, etc.	DEEP LWRD	A	A	A	A	A	
Develop evaluation methods and criteria to assess effectiveness of education and outreach.	DEEP LWRD		A	A	A	A	

Action Item (f): Measure/track environmental results							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Monitor selected aquatic sites for certain pesticides of concern within available resources (sites to be identified by pesticide use reports indicating usage of pesticides of concern).	DEEP Pesticide Management Program		A	A	A	A	
Develop a data management system to track tidal wetland loss vs. gain based on verification of data resulting from state and federal permitted activities (leverage existing federal NOAA and Coastal Zone Management reporting).	DEEP LWRD	A	A	A	A	A	
Maximize efficiency and ensure reporting compliance by municipal inland wetland agencies: reevaluate goals and objectives of existing reporting, develop a new electronic reporting and filing system with geocoding which will effectively identify inland wetlands and watercourses losses and gains (mitigation); develop statistical analysis of collected data and develop system, as needed, to combine previous and new reporting data.	DEEP LWRD	A	A	A	A		
Establish minimum requirements and review criteria for both inland wetland & tidal wetland banks.	DEEP LWRD	A	A	A	A	A	
Develop a dashboard of metrics for transportation projects to be shared with DOT.	DEEP LWRD	A	A				DOT
Develop an internal wetland impact and mitigation database for all LWRD permitting programs.	DEEP LWRD			A	A	A	
Evaluate the utility of using the Integrated Water Quality Report to report on water quality every two years per the Clean Water Act.	DEEP LWRD, DEEP WPMD		A	A	A	A	

Core Element 3: Voluntary Restoration and Protection

Objective 1: Clearly and consistently define restoration and protection goals throughout the state.

Action Item (a): Establish goals that are consistent or compatible across relevant agencies							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Work in partnership with LISS to develop ecosystem targets for a Comprehensive Conservation and Management Plan and implement actions for theme areas relating to coastal habitat extents for tidal wetlands and river miles.	DEEP LWRD	O	O	O	O	O	LISS, DEEP Wildlife and WPMD Divisions, NEIWPCC, Save the Sound
Use DEEP Climate Resilience Fund to advance goals for planning and project development using nature-based solutions including wetlands restoration and protection.	DEEP OCP	A	A				
Develop a Wetland Restoration Plan focused generally on tidal wetlands, and which will include restoration goals and project prioritization metrics.	DEEP LWRD	A	A	A			LISS, NERR, non-governmental organizations, colleges/universities

Action Item (b): Consider watershed planning, wildlife habitat, and other objectives when selecting restoration/ protection sites							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Work through established LISS annual workplan proposal development processes to identify restoration/protection activities which includes consultations with various wetland and restoration stakeholders within DEEP.	DEEP LWRD	O	O	O	O	O	LISS, DEEP Wildlife and WPMD, NEIWPCC, Save the Sound
Identify proposed wetlands restoration and protection projects which have benefited from initial planning and coordination which can be funded under DEEP Climate Resilience Fund.	DEEP OCP	A	A				
Coordinate with other agency staff on habitat projects.	DEEP HCE	O	A	A	A	A	

Action Item (c): Provide clear guidance on appropriate restoration and management techniques and success measures							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Develop nature-based solutions technical assistance, including nature-based solutions design manual.	DEEP OCP	A	A				DEEP LWRD
Provide comments on regulated activities and provide technical assistance to municipalities, state agencies, non-governmental organizations, and private individuals on aquatic habitat management issues, and habitat enhancement and restoration.	DEEP HCE	O	O	O	O	O	
Develop guidance on tidal and inland wetland restoration v. enhancement, project monitoring, and success measures; evaluate applicability to municipal inland wetlands agencies per IWWA.	DEEP LWRD			A	A	A	Federal agencies, Stakeholders, municipalities

Objective 2: Protect wetlands from degradation or destruction.

Action Item (a): Establish partnerships to leverage additional protections							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Establish collaborative relationships between CT NERR, DEEP programs, and tidal wetland stakeholders.	DEEP LWRD	O	A	A	A	A	CT NERR
Establish collaborative relationships between LWRD, CT Association of Conservation and Inland Wetlands Commissions (CACIWC), Rivers Alliance, Conservation Districts, Colleges and Universities, Regional Planning Organizations, and other partners to further the purposes and policies of the IWWA and to protect inland wetlands and watercourses.	DEEP LWRD	O	A	A	A	A	

Action Item (b): Establish and institutionalize long term protection using mechanisms such as incentives, purchase of land title or easements to protect wetlands, or amendments to statutes and policies

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Work with LISS to identify and seek funding for land acquisition/ easements supporting tidal wetlands and tidal wetland migration areas.	DEEP LWRD	O	O	O	O	O	LISS
Develop riparian corridor protection policies/statutes for watercourses; develop riparian area policies/statutes to protect coastal waters (e.g., coastal nonpoint pollution).	DEEP LWRD		A	A	A	A	DEEP Wildlife, Fisheries and WPLR; CACIWC, Rivers Alliance, and other Stakeholders
Leverage renewed activity in NOAA Coastal and Estuarine Land Conservation Plan (CELCP) to help prioritize and fund conservation efforts targeted to tidal wetlands and/or tidal wetland migration areas.	DEEP LWRD	A	A	A	A	A	NOAA CELCP
Build off work being done to assess other state approaches to develop CT-oriented wetland policy recommendations to seek alternative options to provide protective measures for tidal wetland migration areas and upland areas adjacent to tidal wetlands.	DEEP LWRD	A	A	A	A	A	DEEP Wildlife Division, The Nature Conservancy, Save the Sound, Audubon-CT

Action Item (c): Integrate implementation of Antidegradation Policy into Wetlands Management Programs

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Collaborate with WPMD (Water Quality Group) to determine if procedures are needed to implement the Antidegradation Provisions of the Water Quality Standards into wetlands management permits and activities. Develop procedures as needed.	DEEP LWRD, DEEP WPMD		A	A	A	A	

Objective 3: Restore wetland acres, condition, and function.

Action Item (a): Increase wetland acreage through restoration (reestablishment)							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Work with LISS and associated partners to include projects within annual workplans that target LISS CCMP goals for habitat restoration, continue to include and develop measures to advance Nature Based Solution (NBS) techniques like living shorelines, etc. through the state tidal wetland regulatory process.	DEEP LWRD	O	O	O	O	O	Assorted LISS partner groups
Incorporate wetlands restoration projects that are intended to be submitted to federal grants for implementation, resulting in increased wetland acreage.	DEEP OCP			A	A		
Identify and acquire new GIS and/or remotely sensed data (e.g., multi-spectral aerial imagery, LIDAR, etc.) or associated technology (e.g., drones, GIS software or applications) that can help support tidal and inland wetland restoration planning and implementation.	DEEP LWRD	A	A	A	A	A	Habitat Restoration & Stewardship Workgroup and CT Restoration Team members
Work with partners/stakeholders to establish goals and measures to advance Nature Based Solution (NBS) techniques through the CT inland wetlands and watercourses regulatory process.	DEEP LWRD	A	A	A	A	A	

Action Item (b): Improve natural wetland conditions and functions through restoration (rehabilitation)							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Incorporate wetlands restoration projects that are intended to be submitted to federal grants for implementation, resulting in improved wetland conditions and function.	DEEP OCP			A	A		
Facilitate beneficial use of dredged sediments in tidal wetland restoration projects.	DEEP LWRD	A	A	A	A	A	CT Port Authority, DEEP Remediation Division, DEEP MMCA, Federal Agencies
Define opportunities or partnerships for projects benefitting minority and lower income communities.	DEEP LWRD	A	A	A	A	A	

Action Item (c): Establish partnerships to leverage more restoration							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Collaborate with DEEP OCP to leverage DEEP Climate Resilience Funds to support wetland restoration via state funding sources.	DEEP LWRD	A	A	A	A	A	DEEP OCP, grant applicants
Establish collaborative relationships with CT NERR.	DEEP LWRD	A	A	A	A	A	CT NERR
Work with partners on dam removal and habitat enhancement projects.	DEEP HCE and Diadromous Fish Restoration Programs	O	A	A	A	A	Save the Sound, Trout Unlimited, CT River Conservancy, Conservation Districts
Work with GC3 wetland related committees and groups to develop and further tidal and inland wetlands restoration goals.	DEEP LWRD	O	O	O	O	O	DEEP OCP, GC3 workgroups

Objective 4: Monitor and Track progress over time, document results, and modify practices as appropriate.

Action Item (a): Track restoration/protection projects							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Track and maintain data on current and completed tidal wetland restoration projects.	DEEP LWRD	O	O	O	O	O	
Track and maintain data on completed inland wetlands and watercourses restoration projects at both the state and the municipal level.	DEEP LWRD		A	A	A	A	DOT and other state agencies

Action Item (b): Monitor restoration/protection sites to ensure that they are implemented and managed correctly and linked to relevant watershed planning efforts							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Conduct monitoring on an as-needed basis through state and federal regulatory permit conditions for certain restoration projects.	DEEP LWRD	O	O	O	O	O	assorted permittees

Core Element 4: Water Quality Standards for Wetlands

Objective 1: Ensure that wetlands are treated as waters within Connecticut's water quality programs.

Action Item (a): Adopt and ensure appropriate definition of wetlands is included in water quality standards							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Review the definitions for surface water and wetlands within the Water Quality Standards to determine if any revisions are necessary.	DEEP LWRD, DEEP WPMD			A	A	A	

Objective 2: Develop wetland-specific water quality standards.

Action Item (a): Gather and analyze monitoring data and other information that will become the basis of water quality standards							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Work with partners to review EPA recommendations, consider incorporating wetlands into the Water Quality Standards.	DEEP WPMD	O	O				

Action Item (b): Establish and adopt appropriate wetland specific designated uses to be achieved and protected							
Activity	**Organization**	**2023**	**2024**	**2025**	**2026**	**2027**	**Possible Partners**
Evaluate whether designated uses should be established for wetlands in Connecticut.	DEEP WPMD		A	A	A	A	DEEP LWRD
Evaluate whether wetlands-specific water quality classifications are needed or useful for Connecticut.	DEEP WPMD		A	A	A	A	DEEP LWRD

Action Item (c): Establish and adopt narrative criteria that qualitatively describe the condition or suite of functions that must be achieved to support a designated use

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Adopt narrative criteria to define and support existing water quality standards as they apply to wetlands.	DEEP WPMD		A	A	A	A	DEEP LWRD
Evaluate the need for additional narrative criteria and standards to support the wetlands management program and other programs with wetland related tasks.	DEEP WPMD, DEEP LWRD			A	A	A	

Action Item (d): Establish and adopt numeric criteria representing wetland specific values for chemical, physical, and biological parameters that may not be exceeded, must be exceeded, or some combination to protect or restore designated uses

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Establish numerical water quality criteria for chemical constituents for surface waters, including wetlands.	DEEP WPMD	O	O	O	O	O	
Evaluate the need for additional numeric criteria and standards to support the wetlands management program and other programs with wetland related tasks.	DEEP WPMD, DEEP LWRD			A	A	A	

Action Item (e): Better define state antidegradation policies for wetlands, requiring full protection of existing uses (functions and/or condition), maintenance of functions/condition in high quality wetlands, and a prohibition against lowering functions/condition in outstanding wetlands

Activity	Organization	2023	2024	2025	2026	2027	Possible Partners
Evaluate the need for changes to the Antidegradation Policy and Implementation Policy to better address wetlands.	DEEP WPMD, DEEP LWRD	A	A	A	A	A	

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