



NC Coastal Habitat Protection Plan 2021 Amendment



DEPARTMENT OF ENVIRONMENTAL QUALITY

NC BIWA | Jimmy Johnson | April 27, 2021





What is the NC Coastal Habitat Protection Plan?



What is the Coastal Habitat Protection Plan?

Origin

- Mandated by Fisheries Reform Act (G.S. 143B-279.8)
- Department of Environmental Quality (DEQ) to draft the plan
- Environmental Management (EMC), Coastal Resources (CRC), and Marine Fisheries (MFC) commissions must approve and implement plan recommendations

Purpose

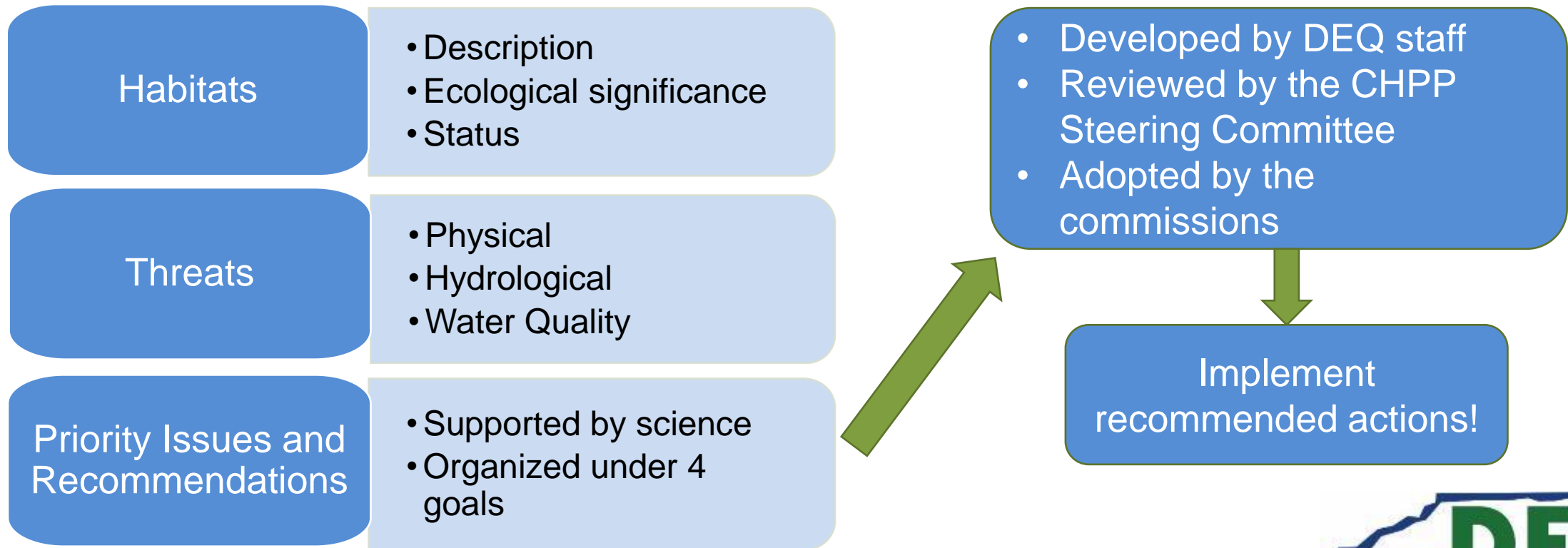
- *Long-term enhancement of coastal fisheries by addressing habitat and water quality needs of fishery species*



What is the Coastal Habitat Protection Plan? (CHPP)

Summarizes the latest science to aid Department divisions and commissions in management of fish habitat and water quality.

Coastal Habitat Protection Plan



CHPP GOALS

- 1) Improve effectiveness of existing rules and programs protecting coastal fish habitats
- 2) Identify and delineate strategic habitat areas
- 3) Enhance and protect habitats from adverse physical impacts
- 4) Enhance and protect water quality





Coastal Fish Habitats

Water Column

connects all aquatic habitat;
allows fish & other aquatic
animals to move; foraging &
spawning area for fish

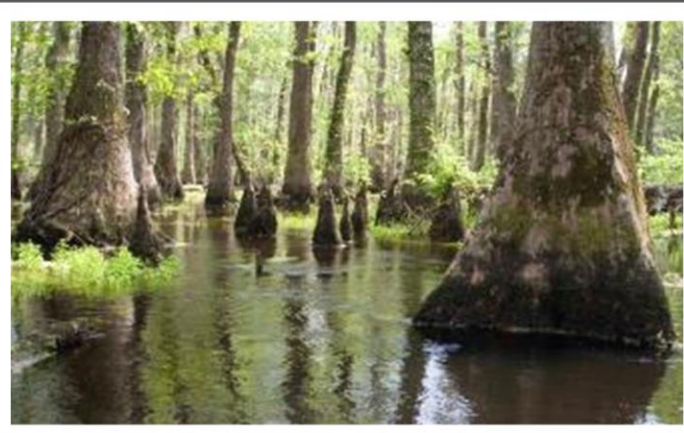
Soft Bottom

stores nutrients & chemicals;
foraging, spawning, & refuge
area for fish; burrowing area
for other marine animals



Wetlands

vital nursery area;
provides refuge & food to
many animals; filters
pollutants; ↑ erosion
control; buffer between
upland & coastal waters



Submerged Aquatic Vegetation

provides refuge & food for
small fish, invertebrates, &
waterfowl; ↑ water quality;
↓ wave energy

Coastal Fish Habitats



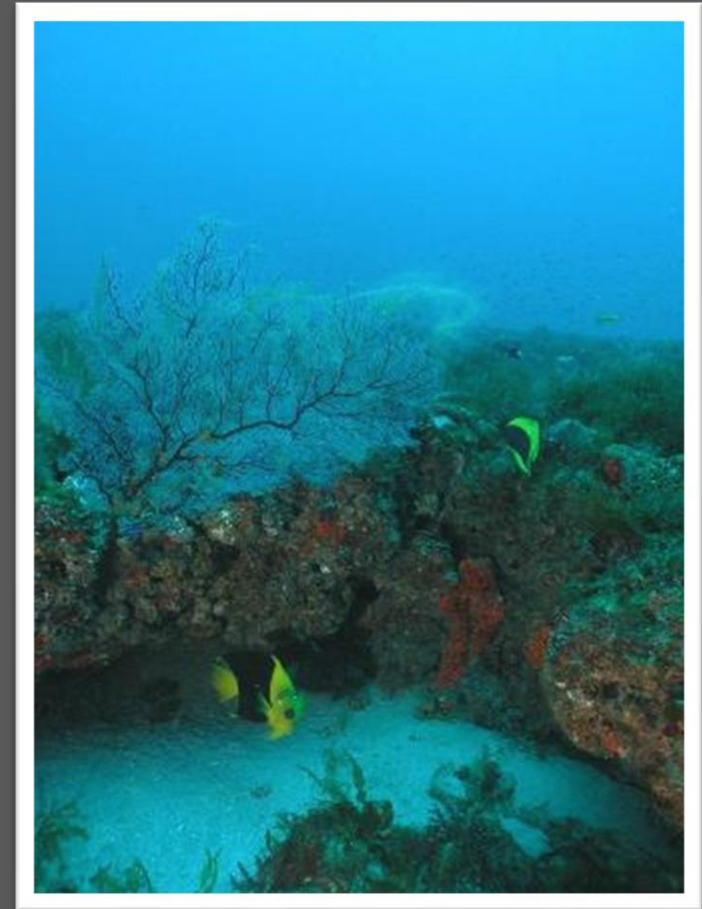


Shell Bottom

nursery, foraging, &
spawning area for fish &
inverts

Coastal Fish Habitats

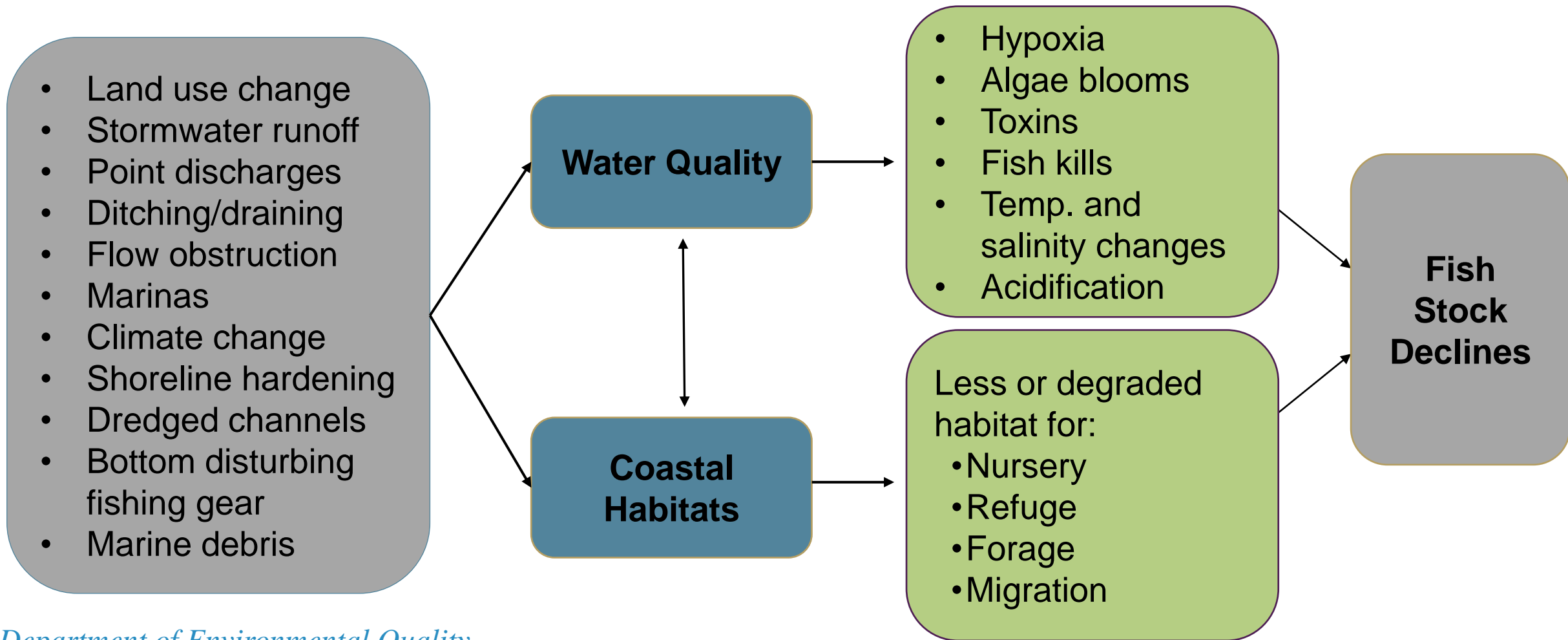
Ocean Hard Bottom
nursery, foraging, refuge, &
spawning for reef fish &
snapper–grouper fishery



Threats

Effects

Impacts



2021 Priority Habitat Issues



Submerged Aquatic
Vegetation Protection and
Restoration



Habitat Status and Monitoring



Wetland Protection and
Enhancement with Nature-
based Solutions

Reducing Inflow and
Infiltration associated with
Wastewater Infrastructure



Environmental
Rule Compliance





**Why should you care about coastal
habitat protection?**



Why Care about Habitat Protection?

FISHERIES PRODUCTION

- Commercial and recreational fisheries valued at \$3.4-4.8 billion per year
- ~90% of NC fishery species estuarine dependent
- Culturally significant to NC



Why Care about Habitat Protection?

RECREATION AND TOURISM AS ECONOMIC DRIVERS

- 320 miles barrier islands & 2.3 million acres of coastal waters
- Ocean economy in 20 coastal counties – \$2.1 billion GDP; 43,385 jobs (2013); tourism and recreation amount to \$1.1 billion of this
- Healthy coastal habitats are the foundation of recreation and tourism
- For every \$1 invested in land conservation in NC, ~ \$4 return in benefits



Why Care about Habitat Protection?

ECOSYSTEM SERVICES



WETLANDS

- Water quality treatment
- Erosion control
- Storm protection
- Flood control
- Carbon sequestration
- Harvestable habitat

Value estimated for storm protection in coastal NC - \$1.3 million/km²/year



Why Care about Habitat Protection?

ECOSYSTEM SERVICES



Value estimated at \$2,200 - \$40,200/ acre/yr

- Water quality treatment
- Erosion control
- Storm protection
- Flood control
- Carbon sequestration
- Harvestable habitat



Why Care about Habitat Protection?

ECOSYSTEM SERVICES



- Water quality treatment
- Erosion control
- Storm protection
- Flood control
- Carbon sequestration
- Harvestable habitat

Value estimated for water quality services -
\$7,700/acre/yr



Why Care about Habitat Protection?

ECOSYSTEM SERVICES

- Biodiversity – birds, reptiles, mammals
- Recreation and Tourism
- Coastal Economy
- Community Resilience



Why Care about Habitat Protection?

CLIMATE CHANGE EXPECTED TO IMPACT THE COAST

- Increasing storm intensity & frequency
- Increasing rate of sea level rise
- Water temperature & salinity changes
- Shoreline & wetland erosion
- Marsh loss from sea level rise
- Water quality degradation impacting SAV & oysters
- Flooding & storm impacts



Why Care about Habitat Protection?

CLIMATE CHANGE EXPECTED TO IMPACT THE COAST

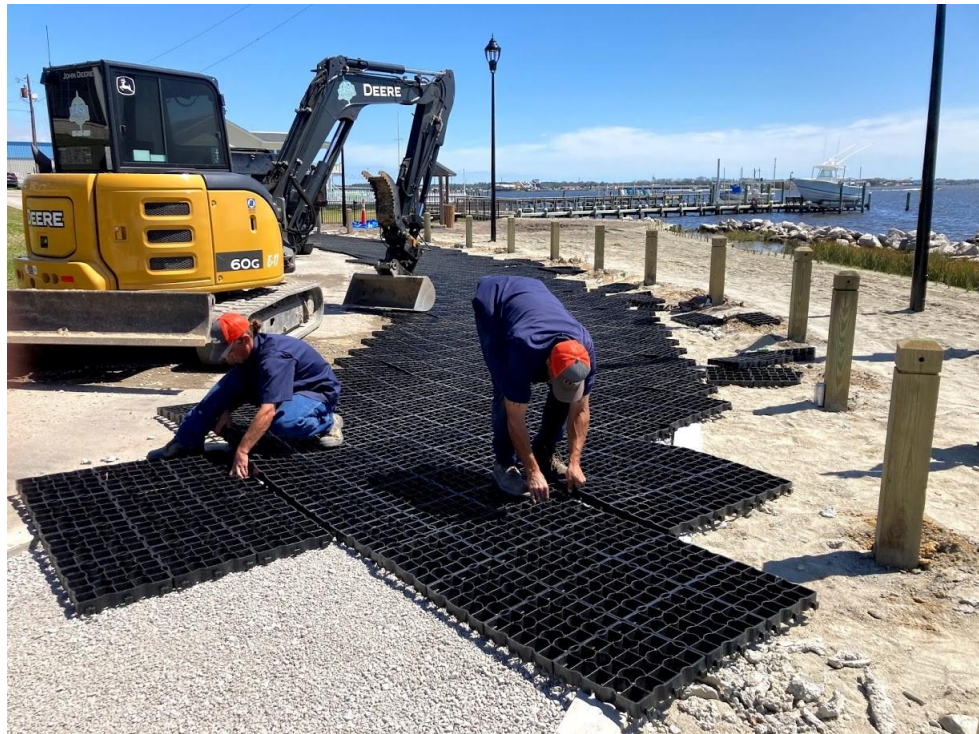
St. Lydia Road – Hyde County



Why Care about Habitat Protection?

Water Quality Improvements

TOWN OF SWANSBORO AND THE NCCF - A PARTNERSHIP



- Installation of pervious parking spaces
- EPA 319 Section Grant – Watershed Plan
- Asphalt and compacted turf removed
- Rock-filled permeable paving grids

Why Care about Habitat Protection?

HEALTHY HABITATS = RESILIENT COASTAL COMMUNITIES

- Protect and restore wetlands and oysters with nature-based solutions
- Increase SAV through improved water quality
- Flood-proof wastewater infrastructure to reduce sewage overflows
- Monitor habitats to prioritize future actions





**How can you get involved with
the CHPP process?**



How can you get involved in the process?

- Read draft issue papers on DMF's website
<http://portal.ncdenr.org/web/mf//12121-chpp-meeting-materials>
- Provide comments at....
 - A CHPP Steering Committee Meeting*
Next meeting will be in late July or early August
 - A Commission Meeting*
Marine Fisheries, Coastal Resources, or Environmental Management
 - Once the plan is out for public comment*
Aug/Sep 2021
- Share your support for implementing plan actions with your local community/government

How can you get involved in the process?

Timeline Actions	Quarter
Present CHPP background, implementation progress, and process for 2021 amendment to commissions	Fall 2019
Present background on SAV, Compliance, and I&I issue papers	Summer 2020
Present background on Wetlands and Habitat Monitoring issue papers	Winter 2021
Complete draft sections	Spring 2021
Virtual public meetings	~end of May
Present draft amendment to commissions; ask to take out for public comment (action item)	Summer 2021
Public comment period; present at commission committee meetings	~end of Sep
Review public comments received; modify as needed; ask for final plan approval (action item)	Fall 2021
Develop public friendly short plan for outreach purposes; implement	Spring 2022



Contact Information:

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CHPP Information and Meeting Materials:

<http://portal.ncdenr.org/web/mf/habitat/chpp/07-2020-chpp>

