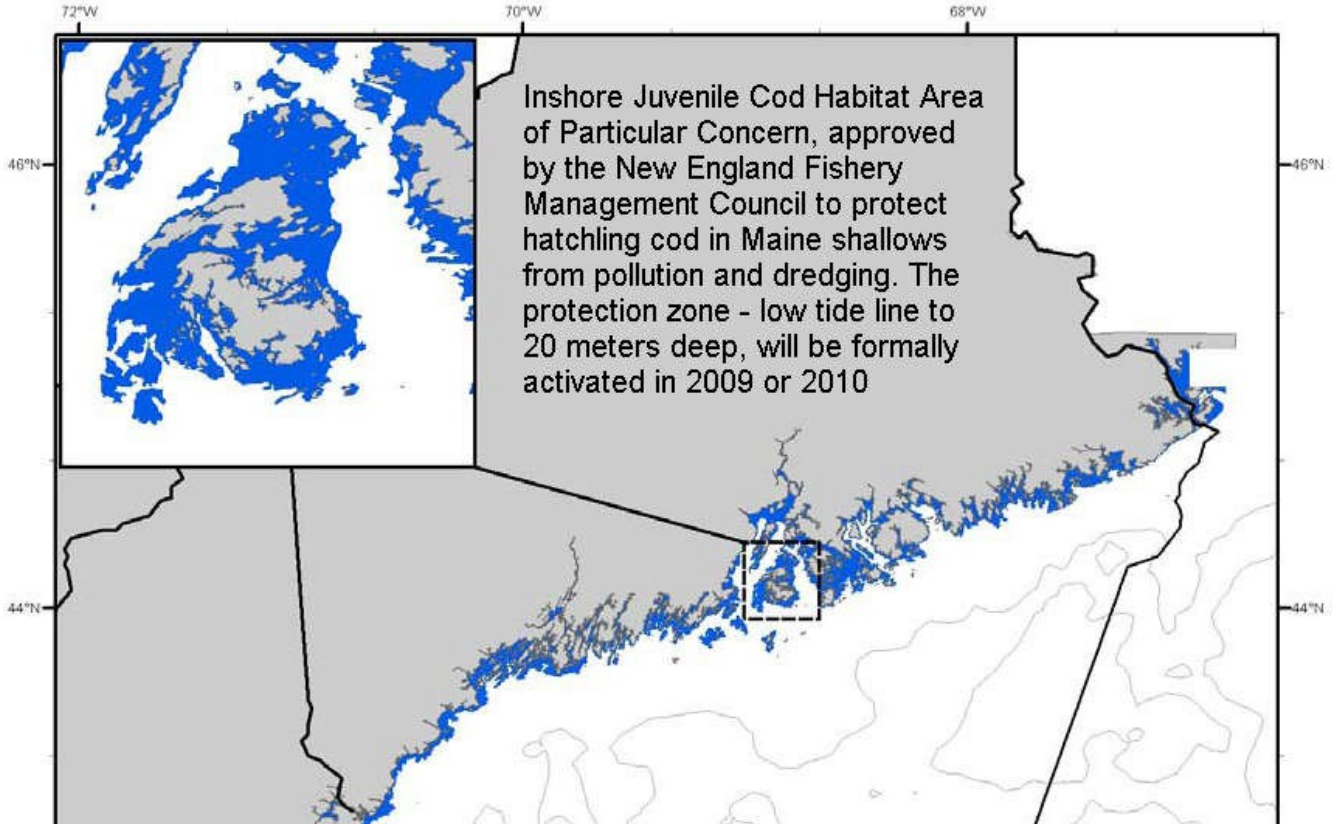


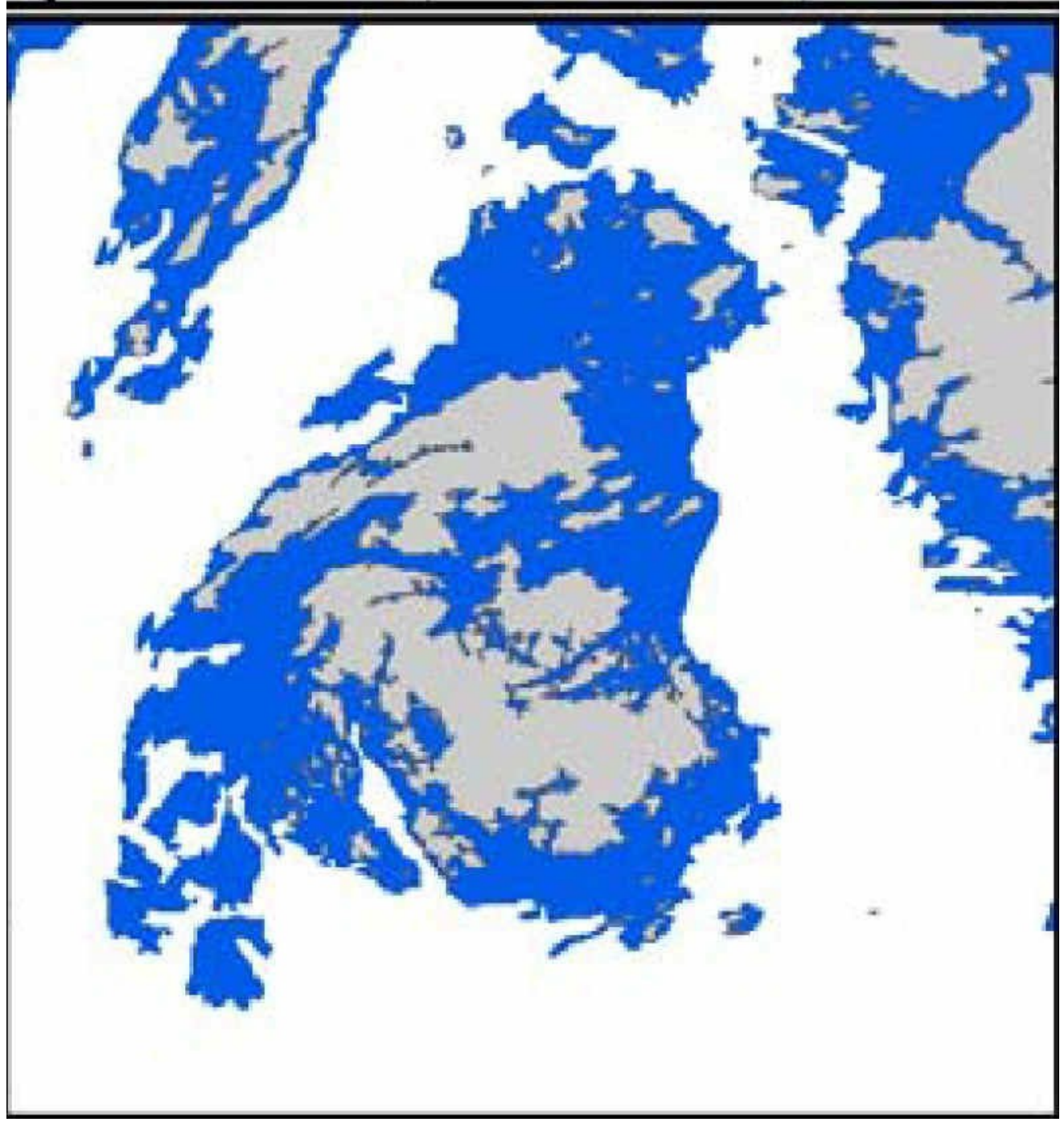
SHALLOW ECOLOGY

New federal regs to protect
inshore juvenile cod from
pollution, sprawl & other land
based impacts.

HAPC

**HABITAT
AREA OF
PARTICULAR
CONCERN**





Purpose of the HAPC

1. Recognizes the importance of inshore areas to juvenile Atlantic cod.

2. Recognizes the importance of 3-D inshore areas to juvenile cod.

3. Recognizes
impacts of impaired
water quality on
juvenile cod.

4. Recognizes the impacts of fishing tech to juvenile cod in shallow waters.

5. Recognizes the impacts of land-based pollution & habitat loss in inshore areas to juvenile cod.

Potential Threats from Landbased Sources

PAH	Road Building/Maintenance
PCB	Dam Construction/Operation
Heavy Metals	Agriculture/Silviculture
Nutrients	Water Intake
Pesticides/Herbicides	Water Discharge
Acid	Sewage/Septic Discharge
Chlorine	Marine Mining
Greenhouse Gases	Salinity
Channel Dredging	Suspended Particles
Dredge and Fill	Thermal
Dredge Material Disposal	Dissolved Oxygen
Marina/Docks	Exotic Species
Vessel Operation	Pathogens
Utility Lines/Pipelines	Aquaculture Operations
Oil/Gas Operations	Plankton Blooms
Erosion/Flood Control Structures	

IMPLEMENTATION.

State and federal environmental agencies evaluate development projects & discharge licenses for effects on juvenile cod.

Lets the public ask that
development projects
and discharge licenses
get reviewed for
Juvenile Cod impacts.

Omnibus EFH Amendment 2 – Volume 2

Potential Threats	Type	Eggs	Larvae	Juveniles	Adults
PAH	Chemical	M	M	M	M
PCB		M	M	M	M
Heavy Metals		M	M	M	M
Nutrients		M	M	M	M
Pesticides/Herbicides		U	U	U	U
Acid		M	M	M	L
Chlorine		M	M	M	M
Greenhouse Gases		U	U	U	U
Channel Dredging		Physical	M	M	M
Dredge and Fill	M		M	M	M
Dredge Material Disposal	H		M	M	M
Marina/Docks	M		M	M	L
Vessel Operation	M		L	L	L
Utility Lines/Pipelines	U		U	U	U
Oil/Gas Operations	M		M	M	M
Erosion/Flood Control Structures	U		U	U	U
Road Building/Maintenance	U		U	U	U
Dam Construction/Operation	U		U	U	U
Agriculture/Silviculture	U		U	U	U
Water Intake	M		M	L	L
Water Discharge	L		M	M	M
Sewage/Septic Discharge	M		M	M	M
Marine Mining	M		L	L	L
Salinity	L		L	L	L
Suspended Particles	M		M	M	L
Thermal	M		M	M	L
Dissolved Oxygen	M		M	M	M
Exotic Species	Biological		U	U	U
Pathogens		U	U	U	U
Aquaculture Operations		U	U	U	U
Plankton Blooms		U	U	U	U

NEXT STEPS

FEDS

- FINAL OK BY FEDS
- NOTICE IN THE FEDERAL REGISTER.

NEXT STEPS STATE

- DMR ASSESSMENT OF MAINE JUVENILE COD HAPC.

What Citizens Can Do:

- Document state of this HAPC in their local shallows.

- * Request review of local development projects and waste dischargers for effect on juvenile cod & their prey

CLOSING THOUGHTS

In 1999, New England
Fishery Mgmt Council
approved this HAPC.

15 years later....
Added to the 2015
Fishery Mgt plan.