



Chesapeake Bay Program
A Watershed Partnership

Background

410 Severn Avenue, Suite 109 • Annapolis, Maryland 21403 • 410-267-5700 • toll free 800-YOUR-BAY

The Bay Program is moving toward a fish-eye view of the Chesapeake. What a fish sees, though, is a highly diverse Chesapeake Bay. There are shallow areas that are important for spawning, and grass beds that serve as nursery areas for their young. There are also large areas of open water where they feed on algae or other fish. Deep areas, where they may rarely venture during the summer, are important refuges from winter cold.

The new criteria and designated uses seek to take that diversity into account by essentially zoning the Bay. They divide the Bay and its tidal tributaries into five "designated uses" based on the types of habitat provided for specific species: shallow-water bay grass, open-water fish and shellfish, spawning and nursery areas, deep-water seasonal fish and shellfish, and deep-channel seasonal refuge. Different criteria would be applied to each use based on the species found there: grasses in shallow water, adult fish in open water, oysters in deep water, crab food in the deep channel, and so on.

Defining Designated Uses - or Habitat Zones - for Bay Water Quality Restoration

Migratory Fish Spawning & Nursery Use Habitat

Designated Use: Protects migratory and resident tidal freshwater fish during the late winter to late spring spawning and nursery season in tidal freshwater to low-salinity habitats.

Boundary: From the upper extent of tidal waters to the lower reach of existing spawning and nursery habitats, and from the water surface to the bottom or to the pycnocline where it exists.

Representative Species/Life Stages: Adult spawning, egg, larval and juvenile life stages of striped bass, American shad, hickory shad, alewife, blueback herring, white perch and yellow perch and other migratory species not listed here.

Critical Support (food, shelter) Communities: Phytoplankton, zooplankton, underwater grasses, forage fish and bottom-dwelling worms and clams.

Seasonal Use Application: The migratory spawning and nursery designated use applies from February through May; during the rest of the year, the open water designated use applies.

Applicable Bay Water Quality Criteria: Dissolved oxygen.

Shallow Water-Bay Grass Use Habitat

Designated Use: Promote the growth of balanced, native populations of ecologically, recreationally and commercially important fish, shellfish and underwater grasses.

Boundary: Tidal waters up to two meters in depth where SAV has been historically observed, measured from low tide

Representative Species/Communities: Largemouth bass, pickerel, juvenile speckled sea trout, blue crabs and underwater grasses.

Critical Support Communities: Phytoplankton, zooplankton, forage fish and bottom-dwelling worms and clams.

Seasonal Use Application: The shallow-water designated use applies from April through October; during the rest of the year the open-water designated use applies.

Applicable Bay Water Quality Criteria: Water clarity.

more \$



Open-Water Fish and Shellfish Use Habitat

Designated Use: Promote the growth of balanced, indigenous populations of ecologically, recreationally and commercially important fish and shellfish species.

Boundary: Tidal waters extending vertically from a 2-meter depth into the water column to the bottom, or to the top of pycnocline in areas where it exists and prevents mixing with the surface waters.

Representative Species: Menhaden, bay anchovy and striped bass.

Critical Support Communities: Phytoplankton, zooplankton and forage fish.

Applicable Bay Water Quality Criteria: Dissolved oxygen and chlorophyll a.

Deep-Water Seasonal Fish and Shellfish Use Habitat

Designated Use: Protect the propagation and growth of balanced, indigenous populations of ecologically, recreationally and commercially important fish and shellfish species.

Boundary: Tidal waters below the depth of the pycnocline or, in the absence of a measured pycnocline, below a certain depth that would vary in different parts of the Bay based on geographic conditions.

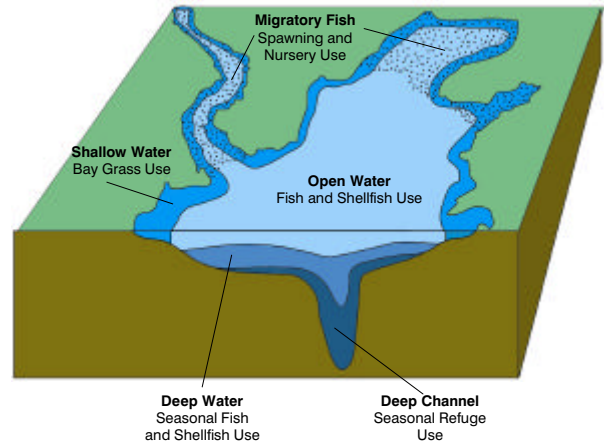
Representative Species: Blue crab, oyster, softshell clam, hard clam, spot, croaker, flounder and catfish.

Critical Support Communities: Bottom-dwelling worms and clams, and reef-inhabiting forage fish.

Seasonal Use Application: The deep-water designated use applies from June through September, during the rest of the year the open-water designated use applies.

Applicable Bay Water Quality Criteria: Dissolved oxygen.

Oblique View of the Chesapeake Bay and Its Tidal Tributaries



Deep-Channel Seasonal Refuge Use Habitat

Designated Use: Refuge for balanced, indigenous populations of ecologically, recreationally and commercially important fish species that depend on deep channel habitats for overwintering during the months of October through May; and for the propagation and growth of bottom sediment dwelling worms and clams that provide food for bottom-feeding fish and crabs during the months of June through September.

Boundary: Very deep water column and adjacent bottom surficial sediment habitats located principally in the channels at the lower reaches of major tidal rivers and along the spine of the upper and middle mainstem Bay.

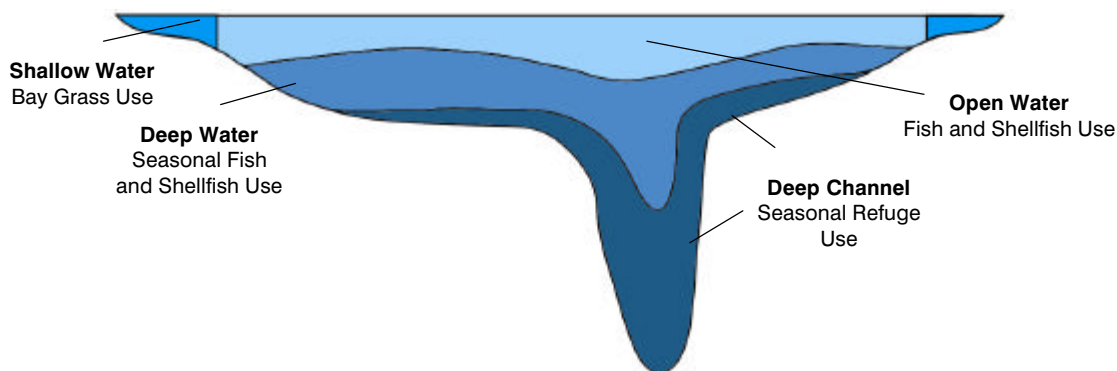
Representative Species: Blue crab, migrating striped bass, white perch, Atlantic croaker, shortnose sturgeon and Atlantic sturgeon.

Seasonal Use Application: The deep-channel designated use applies from June through September; during the rest of the year the open-water designated use applies.

Critical Support Communities: Bottom-dwelling worms and clams.

Applicable Bay Water Quality Criteria: Dissolved oxygen.

Cross Section View of Chesapeake Bay or Tidal Tributary



For additional information about restoring Chesapeake Bay water quality, visit www.chesapeakebay.net.