

Strategies for Protecting and Enhancing Stream, Wetland, and Forest Habitats on Private Lands in the Hudson River Valley

Wetland Habitats

Taxa of Concern – Amphibians & Reptiles, Breeding & Migratory Birds, Rare Plants

Protection Strategies –

- maintain adjacent upland buffers
- place permanent wetlands for fish & waterfowl or ponds where ephemeral wetlands do not exist
- avoid locating roads in wetlands or surrounding buffer
- maintain hydrology
- maintain travel corridors between wetlands
- leave logs, snags and coarse woody debris in place
- reduce or avoid swimming, boating and ATV in or near wetlands during turtle nesting (May – July) and amphibian migration (late winter/early spring)

Enhancement Activities –

- avoid/reduce chemical and sediment runoff into wetlands
- plant buffers
- fence wetlands to protect from overgrazing
- practice prescribed grazing
- plant native vegetation along shorelines and between wetlands
- remove non-native vegetation
- provide tunnels, ramps, and sloping curves to help amphibians & reptiles cross roads
- create sparsely vegetated openings on well-drained soils for turtle nesting (away from wetland edge)
- install nesting boxes and platforms

Restoration Strategies –

- break drainage tile
 - fill ditches
 - remove fill
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Rivers & Stream Habitats

Taxa of Concern – Amphibians & Reptiles, Invertebrates, Fish, Migratory Animals, Rare Plants

Protection Strategies –

- avoid clearing or replacing native vegetation
- maintain filter strips and buffers to reduce pollutants in runoff and hold soils
- avoid building in the active floodplain
- leave backwater areas undisturbed
- avoid the use of dikes and levees
- maintain woody debris that does not substantially block water flow
- avoid the use of chemicals along waterways and in the buffer
- limit use of rip-rap and retaining walls to control erosion (blocks access to habitat)
- reduce or avoid swimming, camping and ATV use on sand and gravel bars and sandy banks during turtle nesting (May – July) and amphibian migration (late winter/early spring)
- maintain native shrubs or thinned trees where a view is desired (to hold soil and shade/cool water)
- place new roads away from streams

Enhancement Activities –

- plant filter strips and buffers along shorelines
- plant native vegetation
- plant the “gaps” in continuous vegetated stream corridors
- use streambank bioengineering
- install fencing to protect from streamside grazing
- remove non-native vegetation
- create sparsely vegetated openings on sandy soil for turtle nesting
- provide alternative water sources for cattle

Restoration Strategies –

- remove or setback floodplain berms
 - install streamside plantings
 - redirect channel into natural shape and course (requires permit – consult SWCD)
 - remove barriers to upstream migration of fish
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Forest Habitat

Taxa of Concern - Breeding Birds, Amphibians & Reptiles, Rare Plants, Bats, Bobcats and other Mammals

Protection Strategies –

- maintain large, contiguous forest areas and minimize edge and fragmentation
- avoid fragmentation by carefully placing roads, structures and other barriers
- leave snags and live cavity trees for nesting and roosting
- leave loose-barked trees (e.g. shagbark hickory) for bat roosting
- minimize soil disturbance (work during winter months)
- leave fallen woody debris on the forest floor
- maintain habitat diversity (young to mature forests, keep the understory) and diversity of tree and plant species
- while harvesting - leave some large cull/legacy trees and residual patches, vary stand sizes and tree ages
- protect wetlands in the forest
- avoid disturbance to microhabitats – seeps, springs, rocky outcrops, ponds, and streams - while harvesting and leave buffers around these areas
- plan for successful regeneration of a variety of tree species

Enhancement Activities –

- develop a forest management plan (consult NYSDEC forester)
- manage for a diversity of native species
- remove non-native vegetation
- plant or allow natural vegetation growth along riparian forests
- maintain or encourage development of wildlife travel routes between forest patches
- use timber stand improvement to encourage vertical structural diversity (vegetation at many heights)
- install fencing to protect seedlings from deer browsing
- encourage deer management to keep populations in balance with habitat
- conduct timber stand improvements or crop tree release
- install best management practices along forest roads/trails and during management activities to prevent erosion

Restoration Strategies –

- reforestation via small or large tree plantings
- control invasive species
- protect forest understory from deer via fencing or population reduction