

Lower Holston Conservation Opportunity Area



The Lower Holston Conservation Opportunity Area (COA) is contained within the Ridge and Valley ecoregion. Agricultural activities are the dominant form of land use, commonly small farms interspersed with residential development. Federally endangered Gray Bats and other GCN species such as American Woodcock, Eastern Box Turtle, and Northern Bobwhite have been documented here, along with more common species such as the Hoary Bat.

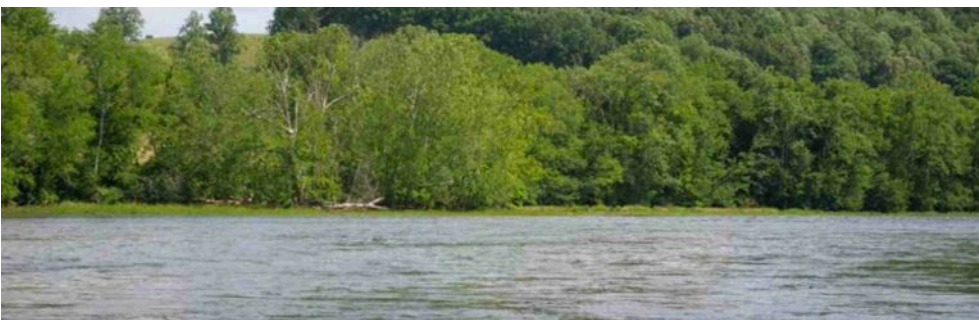
Most of the larger streams in this area meander parallel to the ridges and contain extensive cobble and gravel shoal areas. The smaller streams in this COA are characterized by limestone rubble with bedrock riffles and silty sand pool areas. These geological features increase productivity by adding nutrients to the region's soil and waters, enhancing wildlife species diversity.

This COA encompasses approximately 290 square miles and contains the Holston River below Cherokee Reservoir. Approximately 400 acres of this COA are publicly owned and provide limited outdoor recreational opportunities, primarily along the river. TWRA's Region 4 quail focal area is located within this COA.

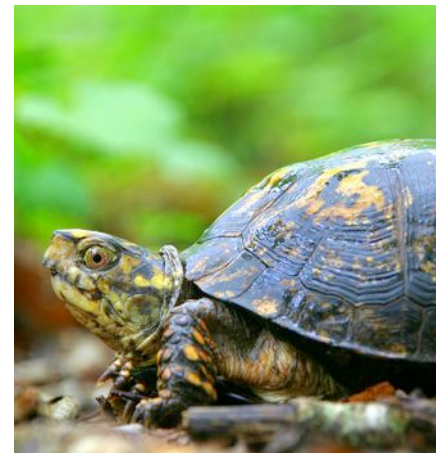
This COA provides habitat for multiple GCN species, and it is a focal area for Lake Sturgeon reintroduction efforts. An experimental population of the federally listed Snail Darter resides within this COA as well.

Public Lands within the COA

Buffalo Springs Wildlife Management Area, House Mountain State Natural Area



In this region, agriculture is the dominant form of land use, commonly small farms. This COA contains the Holston River below Cherokee Reservoir.

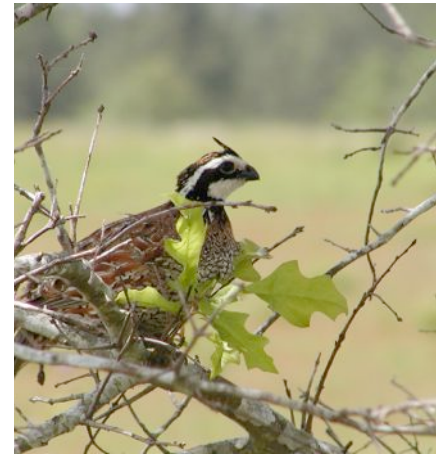


Top to bottom: **Hoary Bat** - Daniel Neal; **Wary** (Eastern Box Turtle) - Ezra Freelove; Holston River below Cherokee Reservoir - TWRA/next page: **Northern Bobwhite Quail** - USFWS

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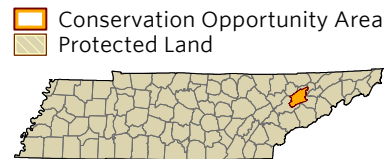
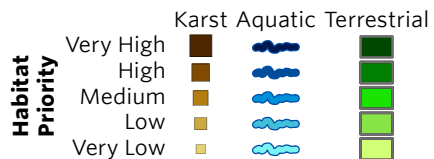
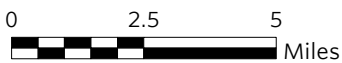
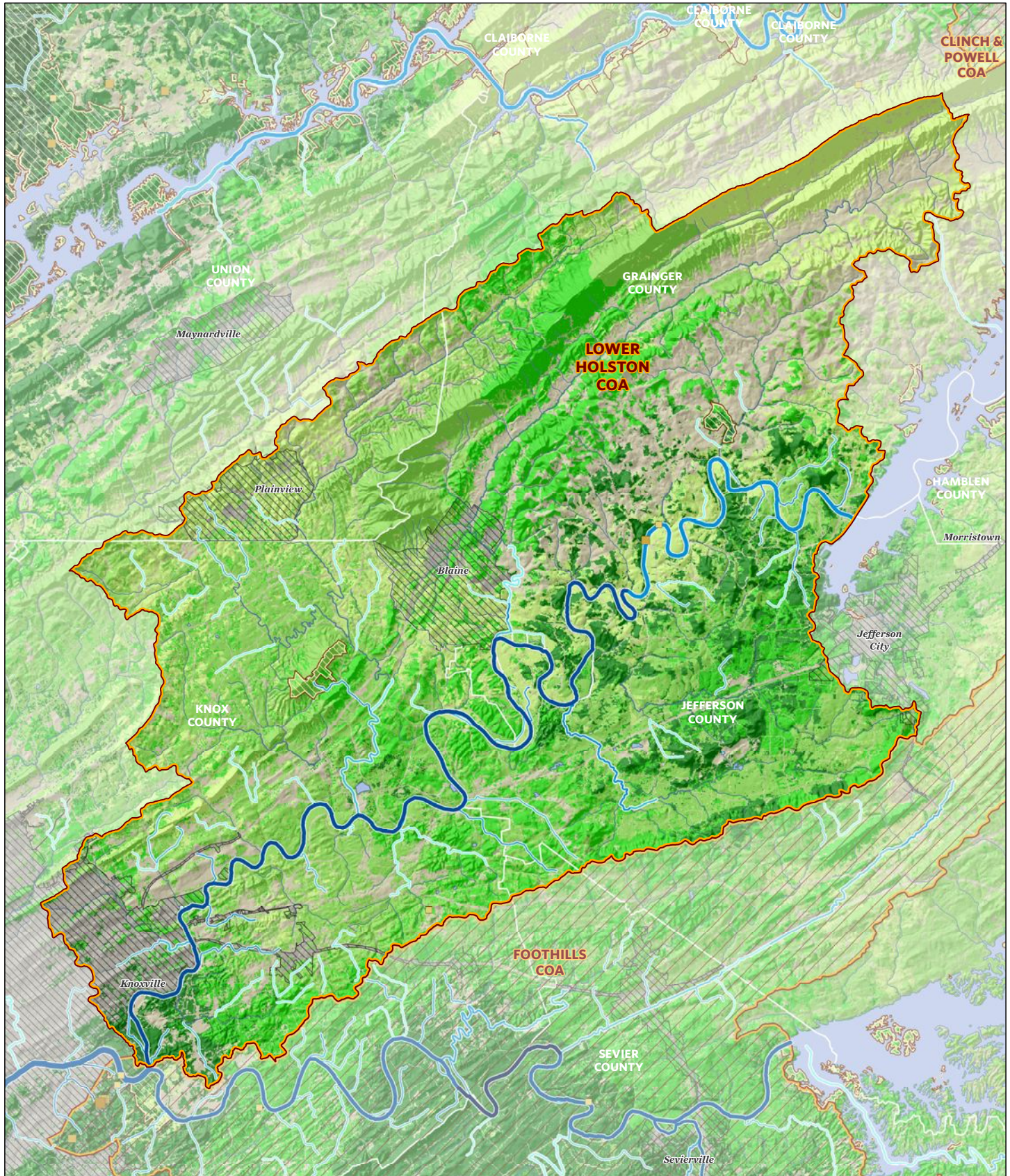
Partnerships

To implement priority conservation and management strategies, including species propagation and reintroduction, TWRA will continue to work with the US Fish & Wildlife Service, the Natural Resources Conservation Service, the Tennessee Department of Environment and Conservation, Tennessee Division of Forestry, the Tennessee Valley Authority, the Tennessee Aquarium, Middle Tennessee State University, and private land owners. TWRA will also seek to educate local governments and private developers about sensitive habitats and water quality issues.



Desired Change	Units
+ Increase the application of Best Management Practices to benefit GCN species and habitats on private lands using government funded incentive programs.	number
+ Increase forest acres in or near critical habitat units by restoring degraded forests and other areas.	acres
+ Restore acres or stream miles of habitat through natural process restoration.	acres/miles
+ Develop and implement integrated pest management plan to aid in the control of native and exotic pests.	acres
+ Increase acres of protected habitat through purchase of land - whether fee title or easements - to secure critical habitat units and areas for restoration and management.	acres
+ Increase and improve the awareness, education, and cooperation of stakeholders/citizens pertaining to GCN species and habitat.	number
- Decrease the negative effects of development on GCN species and habitats by providing data to municipalities in planning/zoning processes with potential impacts on GCN species.	plans
+ Increase GCN species populations (propagation/translocation).	animals

To learn more about the Lower Holston Conservation Opportunity Area, please contact:
Scott Dykes, Wildlife Diversity Coordinator, Region 4 (423) 587-7037



LOWER HOLSTON COA GCN SPECIES (TN)	
Taxa Group	Scientific & Common Names
Amphibian	<i>Cryptobranchus alleganiensis</i> (Hellbender)
Bat	<i>Myotis grisescens</i> (Gray Bat)
Bat	<i>Myotis septentrionalis</i> (Northern Myotis)
Bat	<i>Myotis sodalis</i> (Indiana Bat)
Bat	<i>Perimyotis subflavus</i> (Tri-colored Bat)
Bird	<i>Accipiter striatus</i> (Sharp-shinned Hawk)
Bird	<i>Ammodramus savannarum</i> (Grasshopper Sparrow)
Bird	<i>Anas rubripes</i> (American Black Duck)
Bird	<i>Aquila chrysaetos</i> (Golden Eagle)
Bird	<i>Bartramia longicauda</i> (Upland Sandpiper)
Bird	<i>Bonasa umbellus</i> (Ruffed Grouse)
Bird	<i>Caprimulgus carolinensis</i> (Chuck-will's-widow)
Bird	<i>Caprimulgus vociferus</i> (Whip-poor-will)
Bird	<i>Cardellina canadensis</i> (Canada Warbler)
Bird	<i>Chaetura pelagica</i> (Chimney Swift)
Bird	<i>Chordeiles minor</i> (Common Nighthawk)
Bird	<i>Circus cyaneus</i> (Northern Harrier)
Bird	<i>Cistothorus platensis</i> (Sedge Wren)
Bird	<i>Colinus virginianus</i> (Northern Bobwhite)
Bird	<i>Empidonax minimus</i> (Least Flycatcher)
Bird	<i>Empidonax traillii</i> (Willow Flycatcher)
Bird	<i>Euphagus carolinus</i> (Rusty Blackbird)
Bird	<i>Falco peregrinus</i> (Peregrine Falcon)
Bird	<i>Geothlypis formosa</i> (Kentucky Warbler)
Bird	<i>Grus americana</i> (Whooping Crane)
Bird	<i>Haliaeetus leucocephalus</i> (Bald Eagle)
Bird	<i>Helmitheros vermivorum</i> (Worm-eating Warbler)
Bird	<i>Hylocichla mustelina</i> (Wood Thrush)
Bird	<i>Icteria virens</i> (Yellow-breasted Chat)
Bird	<i>Icterus spurius</i> (Orchard Oriole)
Bird	<i>Ictinia mississippiensis</i> (Mississippi Kite)
Bird	<i>Lanius ludovicianus</i> (Loggerhead Shrike)
Bird	<i>Limnothlypis swainsonii</i> (Swainson's Warbler)
Bird	<i>Melanerpes erythrocephalus</i> (Red-headed Woodpecker)
Bird	<i>Nycticorax nycticorax</i> (Black-crowned Night-heron)
Bird	<i>Parkesia motacilla</i> (Louisiana Waterthrush)
Bird	<i>Protonotaria citrea</i> (Prothonotary Warbler)
Bird	<i>Riparia riparia</i> (Bank Swallow)
Bird	<i>Scolopax minor</i> (American Woodcock)
Bird	<i>Setophaga cerulea</i> (Cerulean Warbler)
Bird	<i>Setophaga discolor</i> (Prairie Warbler)
Bird	<i>Setophaga dominica</i> (Yellow-throated Warbler)
Bird	<i>Setophaga fusca</i> (Blackburnian Warbler)
Bird	<i>Sitta pusilla</i> (Brown-headed Nuthatch)
Bird	<i>Sturnella magna</i> (Eastern Meadowlark)
Bird	<i>Tyto alba</i> (Barn Owl)
Bird	<i>Vermivora chrysoptera</i> (Golden-winged Warbler)
Bird	<i>Vermivora cyanoptera</i> (Blue-winged Warbler)
Bivalve	<i>Lampsilis abrupta</i> (Pink Mucket)
Bivalve	<i>Plethobasus cyphus</i> (Sheepnose)
Bivalve	<i>Pleurobema rubrum</i> (Pyramid Pigtoe)
Bivalve	<i>Pleuronaia barnesiana</i> (Tennessee Pigtoe)
Bivalve	<i>Villosa iris</i> (Rainbow)

LOWER HOLSTON COA GCN SPECIES (TN)	
Taxa Group	Scientific & Common Names
Crustacean	<i>Orconectes forceps</i> (Surgeon Crayfish)
Fish	<i>Acipenser fulvescens</i> (Lake Sturgeon)
Fish	<i>Chrosomus tennesseensis</i> (Tennessee Dace)
Fish	<i>Percina tanasi</i> (Snail Darter)
Insect	<i>Gomphus consanguis</i> (Cherokee Clubtail)
Reptile	<i>Terrapene carolina</i> (Eastern Box Turtle)
Subterranean - Amphibian	<i>Gyrinophilus gulolineatus</i> (Berry Cave Salamander)
Subterranean - Amphibian	<i>Gyrinophilus palleucus</i> (Tennessee Cave Salamander)
Subterranean - Arachnid	<i>Nesticus tennesseensis</i> ((a spider))
Subterranean - Crustacean	<i>Amerigoniscus nicholasi</i> ((a cave obligate isopod))
Subterranean - Crustacean	<i>Caecidotea</i> sp. (cave isopods)
Subterranean - Crustacean	<i>Crangonyx antennatus</i> (Appalachian cave amphipod)
Subterranean - Crustacean	<i>Stygobromus mackini</i> (Southwestern Virginia Cave Amphipod)
Subterranean - Insect	<i>Batriasymmodes spelaeus</i> ((a cave obligate beetle))
Subterranean - Insect	<i>Batrisodes specus</i> ((a beetle))
Subterranean - Insect	<i>Litocampa cookei</i> (Cooke's Cave Dipluran)

LOWER HOLSTON COA HABITATS (TN)	
Terrestrial Habitat Type	Total acres of very high, high, and medium ranked habitat
Natural habitats	
Southern Ridge and Valley / Cumberland Dry Calcareous Forest	28674
South-Central Interior Mesophytic Forest	12602
Southern Appalachian Low-Elevation Pine Forest	7299
Allegheny-Cumberland Dry Oak Forest and Woodland	4046
South-Central Interior Small Stream and Riparian	3299
Appalachian (Hemlock)-Northern Hardwood Forest	357
South-Central Interior Large Floodplain	209
Southern and Central Appalachian Cove Forest	100
Southern Appalachian Montane Pine Forest and Woodland	97
Semi-natural habitats	
Old Field / Successional	11186
Pasture	8610
Cropland	492
Aquatic Habitat Type	Total stream miles of very high, high, and medium ranked habitat
Headwaters & Streams	26
Medium River	53