

**WEST VIRGINIA  
WILDLIFE HABITAT INCENTIVE PROGRAM (WHIP)  
IMPLEMENTATION PLAN  
FISCAL YEAR 2007**



**Prepared in consultation with:**  
WV Division of Forestry  
WV Division of Natural Resources  
WV Division of Environmental Protection  
USDI Fish and Wildlife Service  
Trout Unlimited

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### Introduction and Background

Because of the wide variation in elevation, latitude and longitude, West Virginia is considered to be a “transition state.” It has attributes of the northern and southern states, and to some extent, eastern and western states. West Virginia is the only state that lies totally within the Appalachian Upland. Most of the state has very rugged terrain with a mean elevation of 1,500 feet; it highest state east of the Mississippi River.

**Area** - Its total area covers 15 million acres, making it the 41st largest of the 50 states. About 93 thousand acres are covered in water. Major rivers, streams, lakes and impoundments comprise about 87 thousand acres of these areas. The rest are wetlands. The Mountain State has historically had very few areas classified as wetlands. Forests cover roughly 12 million acres, or 79% percent of the total land area. The highest point is Spruce Knob at 4,861 feet above sea level, and the lowest point is Harper’s Ferry at 240 feet above sea level.

**Climate** - The monthly average temperatures range from a high of 85.6 degrees to a low of 23.9 degrees. Precipitation is well distributed throughout the year, and all parts of the state receive adequate rainfall with no dry season.

**Landuse** - Due to amount of variability in the state in climate, elevation, aspect and precipitation, the variability in plant life supports a wide diversity of wildlife.

Agriculture in West Virginia has changed dramatically over the last 75 years, and is continuing to change. Due to societal and cultural values, many small farms that once grew a variety of grain and seed crops, cultivate hedgerows and orchards no longer exist. Most of these areas that actually do remain in agricultural production have been converted to grassland based systems for livestock production. Unmanaged family farms have since matured into pole timber. These areas are suitable for many generalist species but are not conducive to specialist species or wildlife that depend on early successional habitat. Areas that were once open due to farming are now utilized for the enjoyment of wildlife by either private landowners or hunting and fishing organizations. This situation is unsuited to many species depending on early successional habitat for their lifecycle such as quail, ruffed grouse and woodcock.

There are 73 Wildlife Management Areas managed by the West Virginia Division of Natural Resources (WVDNR) and nine State Forests, which together comprise about 450 thousand acres. There are 34 State Parks, totaling about 68 thousand acres.

The state suffers from forest fragmentation due primarily to sprawl in the eastern panhandle, loss of agriculture land and the degradation of riparian corridors. The vast majority of counties in West Virginia have shown decreases in population, all seven eastern panhandle counties experienced increases in population with Berkeley and Jefferson counties exhibiting a +150 and +145.5 percent change, respectively.

Having a large amount of forested lands (approximately 7 million acres classified as oak-hickory forest) it is logical that timber harvesting and management play a large role in the economy of the state. Changes in timber harvesting techniques have led to homogenization of age classes in many areas. This has a great affect on the amounts, kinds and distribution of wildlife that occur in any given area.

About one-third of this habitat is federally owned and managed. Of the total 12 million acres of forest in West Virginia, the ownership breakout is as follows:

ENTITY	PERCENT OWNED
Private Non-Industrial	82%
Government (State, Federal and County)	11%
Forest Industry	7%

Table 1. Ownership of forestlands in West Virginia. Most ownership is non-industrial private lands.

The disproportionate amounts of private land lend a tremendous opportunity to influence the habitat quality of a large portion of West Virginia.

**I. State Objectives**

West Virginia’s Wildlife Habitat Incentives Program (WHIP) objectives will focus on the following habitat types: 1) Threatened and Endangered Species; 2) Upland Wildlife; and 3) Aquatic and Riparian Habitat.

West Virginia NRCS has coordinated with the WVDNR, Trout Unlimited, the US Fish and Wildlife Service, the West Virginia Division of Forestry and the West Virginia Division of Environmental Protection to narrow the focus within the state to address issues that are mutually beneficial. The WVVAP has identified seven broad conservation actions that are to be initiated to address conservation issues confronting fish and wildlife species. These are identified as:

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| <b>1. Protecting Key Habitats</b>                  | <b>5. Propagation of Fish and Wildlife Species</b> |
| <b>2. Legislation and Regulation</b>               | <b>6. Management</b>                               |
| <b>3. Coordination</b>                             | <b>7. Education</b>                                |
| <b>4. Restoration of Fish and Wildlife Habitat</b> |  |

Of these seven conservation actions only legislation and propagation fall outside of the scope of this program. The remaining issues are soundly in-line with the goals and objectives of the WHIP program.

When fish and wildlife habitats have been degraded as a result of past activities, active restoration of those habitats can be an important conservation action. Examples of restoration actions would include fencing and planting streambanks to restore riparian areas, removal of invasive species, and stream liming to neutralize acid drainage and runoff. Private landowners, watershed organizations, and other conservation groups are often important partners in such restoration projects.

A summary of these objectives and estimated funding allocations is illustrated in the funding allocation breakdown below in Table 2.

Special projects that incorporate the seven action items have been identified by the USFWS, TU and WVDNR. These projects will occur on a combination of state and

private lands using resources from state federal and non-profit entities. Broad descriptions are as follows:

Noxious and Invasive Species - Remediation in Forestlands  
Wildlife Management Area - Wildlife Management Plans  
Acid Mine Drainage - Restoration of Native Trout Streams  
In-Stream Structural Fish and Benthic Habitat Restoration  
Dam and Low Water Bridge Removal/Restoration  
Red Spruce Forest Restoration  
Balsam Fir Restoration  
Other projects as appropriate

### **III. Relationship to National-State priorities**

The state has prepared the West Virginia Wildlife Conservation Action Plan identifying and discussing several major issues and challenges for conservation of species in greatest need in West Virginia. Mining, residential and commercial development, atmospheric acid deposition, stream sedimentation, forest management, invasive species, water pollution and loss of in-stream, wetland, and riparian habitat have been identified as major regional and/or statewide conservation issues. (Refer to sections 4-D, 5-E and 5-F of the WV Wildlife Action Plan)

The West Virginia objectives for WHIP were developed in consultation with the West Virginia Division of Natural Resources (WVDNR), West Virginia Division of Forestry (WVDOF), US Fish and Wildlife Service (USFWS), and Trout Unlimited (TU). The objectives are designed to address statewide resource concerns identified by the WVDNR Statewide Action Plan. The state priorities complement national resource concerns as illustrated in Table 2.

The partnership with the USFWS Partners for Wildlife program has worked exceedingly well throughout the state in excluding livestock from riparian corridors. WHIP funding is used to cost-share materials while USFWS installs fence. West Virginia will continue this relationship with the help of the Trout Unlimited (TU). Fencing crews will be employed by TU and materials will be purchased by that organization

The practices used to address state wildlife priorities are based upon detailed habitat assessment and wildlife species requirement for acreage composition, habitat quality and distribution of habitat elements. A holistic approach is based on the NRCS Upland Wildlife Habitat Management (645) standard and the West Virginia Wildlife Habitat Evaluation Technique (WVWHET). A numerical evaluation is completed to insure a good or excellent (0.5 equivalent) habitat management system is planned and implemented. This process also requires the planner to establish a benchmark for the targeted habitat. For any individual wildlife management plan, several species may be managed depending on the habit types available and land owners objectives.

Section II Table 2

Habitat Type	Habitat Concern(s) Addressed	National and State Resource Concern Addressed	Target Species/Habitat	FOTG Practices Addressing Concern(s)	Geographic Scope Utilized	FY07 Requested Funding Allocation	Special Cooperative Project Funding	TOTAL
Upland Habitat	<ul style="list-style-type: none"> <li>▪ Residue Management</li> <li>▪ Lack of Brood Habitat</li> <li>▪ Early Successional Forest Habitat</li> <li>▪ Stand Diversity</li> <li>▪ Grassland Nesting Habitat</li> <li>▪ Cropland-Forestland Fragmentation</li> <li>▪ Invasive Species</li> </ul>	<ul style="list-style-type: none"> <li>▪ F&amp;W - Inadequate Food</li> <li>▪ F&amp;W - Inadequate Cover/Shelter</li> <li>▪ F&amp;W - Habitat Fragmentation</li> <li>▪ Plant Condition - Noxious and Invasive Plants</li> </ul>	<ul style="list-style-type: none"> <li>▪ Bobwhite Quail</li> <li>▪ Ring-necked Pheasant</li> <li>▪ Grouse</li> <li>▪ Squirrel</li> <li>▪ Turkey</li> <li>▪ Grassland Birds</li> <li>▪ Rabbit</li> <li>▪ Northern Shrike</li> </ul>	<ul style="list-style-type: none"> <li>▪ (645) Upland Wildlife Habitat Management</li> </ul>	Entire State OR native range as described in the WVWHET Handbook	\$326,700	\$151,700	\$478,400
Aquatic Habitat	<ul style="list-style-type: none"> <li>▪ Fragmentation</li> <li>▪ Riparian Corridor Establishment</li> <li>▪ Water Temperature Regulation</li> <li>▪ Water Quality</li> <li>▪ Acid Mine Drainage</li> <li>▪ Stream Sedimentation</li> <li>▪ Invasive Species</li> <li>▪ Cover and brood habitat for warm water fisheries</li> </ul>	<ul style="list-style-type: none"> <li>▪ F&amp;W - Inadequate Water</li> <li>▪ F&amp;W - Habitat Fragmentation</li> <li>▪ Water Quality -Excessive Suspended Sediment in Surface Water</li> <li>▪ Water Quality - Excessive Nutrients and Organics in Surface Water</li> <li>▪ Water Quality - Harmful Levels of Heavy Metals in Surface Water</li> <li>▪ Plant Suitability - Plants not adapted or suited</li> <li>▪ Plant Condition - Noxious and Invasive Plants</li> </ul>	<ul style="list-style-type: none"> <li>▪ Woodcock</li> <li>▪ Riparian Songbirds</li> <li>▪ Brook Trout</li> <li>▪ Other aquatic or wetland based game and non-game wildlife</li> </ul>	<ul style="list-style-type: none"> <li>▪ (391) Riparian Forest Buffer</li> <li>▪ (644) Wetland Wildlife Management</li> <li>▪ (399) Fishpond Management</li> <li>▪ (395) Stream Habitat Improvement and Management</li> <li>▪ (643) Restoration and Management of Rare or Declining Habitats</li> </ul>	Statewide	\$211,700	\$132,000	\$343,700
T&E and Declining Habitat	<ul style="list-style-type: none"> <li>▪ Cave Exclusions</li> <li>▪ Mussel Restoration</li> <li>▪ High Elevation Forest Restoration</li> <li>▪ Balsam Fir Restoration</li> <li>▪ Critical Nesting/Hibernacula Areas</li> <li>▪ Sensitive Karst and Sinkhole Areas</li> <li>▪ Restoration of coldwater streams</li> </ul>	<ul style="list-style-type: none"> <li>▪ F&amp;W - T&amp;E Species - Federal, State or Tribal Recognized Species</li> <li>▪ F&amp;W - T&amp;E Species, Declining Species, and Species of Concern</li> <li>▪ Plant Condition - T&amp;E Plant Species, Declining Species, Species of Concern</li> <li>▪ Water Quality - Excessive Nutrients and Organics in Surface Water</li> </ul>	<ul style="list-style-type: none"> <li>▪ Clubshell, et al Mussel species</li> <li>▪ Indiana, Virginia Big-eared Bat and other bat species</li> <li>▪ Brook Trout</li> <li>▪ Barn Owl</li> <li>▪ Red Spruce</li> <li>▪ Balsam Fir</li> <li>▪ Other WV Natural Heritage Program recognized species/habitats</li> </ul>	<ul style="list-style-type: none"> <li>▪ (472) Use Exclusion</li> <li>▪ (391) Riparian Forest Buffer</li> <li>▪ (643) Restoration and Management of Rare or Declining Habitats</li> <li>▪ (645) Upland Wildlife Habitat Management</li> </ul>	Statewide	\$12,000	\$140,900	\$152,900
<b>TOTAL FINANCIAL ASSISTANCE REQUESTED</b>								<b>\$975,000</b>

\* Based on the proposed project lists provided by WVDNR and in consultation with NRCS

#### IV. Funding Needs - Fiscal Year 2007

Total West Virginia Financial Assistance Request	Total Partners Financial Assistance Match	Total Technical Assistance Match
\$975,000	\$240,000	\$730,000

#### V. State Ranking Criteria

In the past, separate ranking criteria were used to help ensure uniformity of program funding among the selected major habitat types. The ranking criteria also reflected partner involvement and administrative tracking components. New ranking tools are now or will shortly become available that will streamline ranking and focus priorities within the state.

#### VI. Accomplishments

West Virginia has had tremendous success since 1998 implementing the WHIP. The ability to tailor the program to the state has resulted in over 103,000 acres being actively managed for wildlife habitat. See the chart entitled *WHIP Contract Acreage by Fiscal Year*.

#### VII. Changes from Previously Submitted Plans

As stated earlier, this plan is submitted based on the priorities of the State Wildlife Action Plan developed by the WVDNR. Previous proposals, although complimentary to the WVDNR goals and objects, had no formal connection or relationship to the state wildlife agency. Formal training in planning and program application has been provided to WVDNR over the last two years. This information will enable the WVDNR to better identify and apply the opportunities that WHIP provides.

Past plans have differentiated upland habitat into farm and woodland wildlife. This plan lumps those habitats into a general category of upland habitat. Riparian and other aquatic habitat will be ranked and lumped into a category of aquatic habitat. Threatened and endangered habitat ranking segregation will remain unchanged.

Cost lists and labor rates will be modified to reflect current economic conditions and all practices will be component practices of the (645) Upland Wildlife Habitat Management, (391) Riparian Forest Buffer or other umbrella standard.

Relationships with non-governmental organizations have been strengthened significantly with the addition of Trout Unlimited (TU). Funding for riparian projects may be matched by NGO assistance in funding and technical assistance.

This proposal may be modified in the future based on changing program requirements and funding. Any changes will be based on recommendations from the West Virginia State Technical Committee and approval from the State Conservationist.

#### VIII. Attachments

Current WHIP Contract Acreage by Fiscal Year  
 WHIP Ranking Criteria (TO BE DEVELOPED)

WILDLIFE HABITAT INCENTIVES PROGRAM (WHIP) CONTRACT ACREAGE PER FISCAL YEAR

