

## USDA PROGRAMS

### WETLAND RESTORATION PROGRAMS

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### FOUR PROGRAMS

- ❑ WETLANDS RESERVE PROGRAM (WRP)
- ❑ CONSERVATION RESERVE PROGRAM (CRP)
- ❑ WILDLIFE HABITAT INCENTIVE PROGRAM (WHIP)
- ❑ WETLAND CONSERVATION PROVISION OF FARM BILL (SWAMPBUSTER)

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### WRP/WHIP ELIGIBLE LANDS

- ❑ PRIVATELY OWNED
- ❑ TRIBAL
- ❑ NON-FEDERAL PUBLIC



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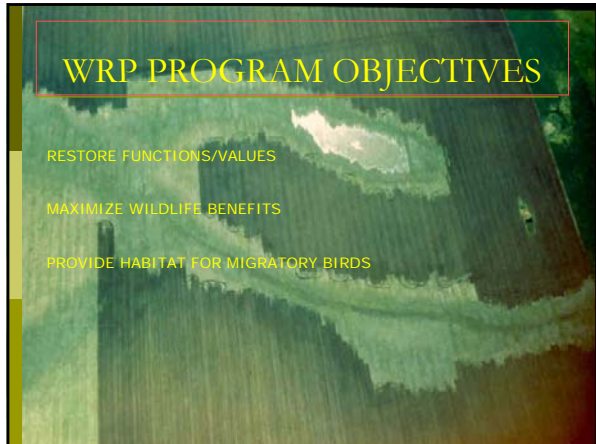
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## WRP PROGRAM OBJECTIVES

- RESTORE FUNCTIONS/VALUES
- MAXIMIZE WILDLIFE BENEFITS
- PROVIDE HABITAT FOR MIGRATORY BIRDS

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## WETLAND FUNCTIONS

Function – the natural physical, chemical and biological processes.

- FLOOD STORAGE
- FLOOD ATTENUATION
- REMOVE OR RETAIN NUTRIENTS
- TRAP SEDIMENT
- SUPPORT WILDLIFE
- EROSION CONTROL
- GROUNDWATER RECHARGE

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## WETLAND VALUES

- A value is the result of the process determined beneficial in human terms
- FLOOD PROTECTION
- CROP PRODUCTION
- LIVESTOCK PRODUCTION
- TIMBER PRODUCTION
- RECREATION: HUNTING, FISHING,
- EDUCATION
- AESTHETICS
- WATER QUALITY IMPROVEMENT

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**30-YEAR EASEMENT**

- 75% OF CAP, APPRAISED VALUE, OR LANDOWNER OFFER
- 75% RESTORATION COST SHARE



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**10 YEAR RESTORATION AGREEMENT**

- 75% RESTORATION COST SHARE



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**RESTORATION REQUIREMENTS**

- Pre-conversion hydrology
- Hydrologic enhancement for targeted species
- Pre-conversion native plant restoration
- 70% reforestation
- 30% open
- 5% food plots



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### LANDOWNER RESERVED RIGHTS

- ▣ QUIET ENJOYMENT
- ▣ HUNTING
- ▣ FISHING

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### COMPATIBLE USES

- ▣ TIMBER HARVESTING
- ▣ HAYING, GRAZING, BURNING, DISKING
- ▣ FOOD PLOTS
- ▣ WATER LEVEL MANIPULATION
- ▣ AUTHORIZED ONLY WHEN FUNCTIONS/VALUES ENHANCED

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### WHIP WETLAND OBJECTIVES

- ▣ PROVIDE HABITAT FOR WATERFOWL, WADING BIRDS, AQUATIC-BASED WILDLIFE
- ▣ IMPROVE WATER QUALITY

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### WHIP WETLAND PRACTICES

- ❑ WETLAND RESTORATION
  - ❑ - PC areas
- ❑ WETLAND ENHANCEMENT
  - ❑ - Increase number of functions
- ❑ WETLAND CREATION
  - ❑ - Capability class IIw or IIIw non-hydric soils

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### WHIP PROGRAM AND PRACTICES

- ❑ 75% COST SHARE
- ❑ 5-10 YEAR CONTRACTS
- ❑ DIKE CONSTRUCTION
- ❑ LEVEE BREACHES
- ❑ SHALLOW WATER DEVELOPMENT
- ❑ WATER CONTROL STRUCTURES
- ❑ TREE PLANTING

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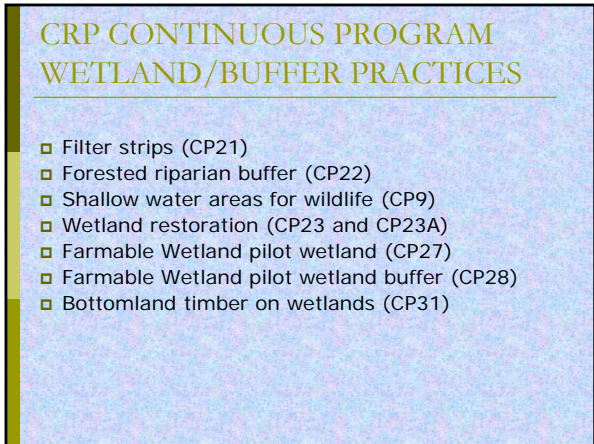
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### CRP CONTINUOUS PROGRAM WETLAND/BUFFER PRACTICES

- ❑ Filter strips (CP21)
- ❑ Forested riparian buffer (CP22)
- ❑ Shallow water areas for wildlife (CP9)
- ❑ Wetland restoration (CP23 and CP23A)
- ❑ Farmable Wetland pilot wetland (CP27)
- ❑ Farmable Wetland pilot wetland buffer (CP28)
- ❑ Bottomland timber on wetlands (CP31)

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### Filter Strip (CP21)

- ❑ Remove concentrated flow points
- ❑ Pass >50% of runoff as sheet flow
- ❑ Width 20 – 120 feet
- ❑ Increase width with slope, DA, high runoff soils
- ❑ Restricted haying/grazing allowed

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### Forested Riparian Buffer (CP22)

- ❑ 3 zones
- ❑ Zone 1 – 15 feet – Shrubs/trees
  - bank stability
  - rapid growth
  - low blockage risk
- ❑ Zone 2 – 20 feet – Trees; 3 species
- ❑ Zone 3 – Native grass filter strip (optional)
- ❑ Width 35 – 180 feet

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### Shallow Water Areas (CP9)

- ❑ 10 acre limit per tract
- ❑ Native grass buffer around waterline (20-120')
- ❑ Impound for at least six months
- ❑ Average depth of 6-18 inches

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### Wetland Restoration (CP23, 23A)

- ❑ PC or FW acres
- ❑ 51% hydric soils in field
- ❑ Within 100 year floodplain (23)
- ❑ Outside 100 year floodplain (23A)
- ❑ <3:1 upland buffer (23)
- ❑ <4:1 upland buffer (23A)
- ❑ 23A offers cannot be eligible for CP27
- ❑ Either grassland or forested ecosystem (landowner decides)

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### Farmable Wetland Pilot (CP27)

- ❑ PC or FW
- ❑ Offered area 10 acres or less
- ❑ Enrolled acres 5 acres or less
- ❑ Area outside the 100 year floodplain and not on NWI

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### Bottomland Timber Establishment (CP31)

- ❑ Reforestation in 100 year floodplain
- ❑ Does not have to be hydric soil
- ❑ Min. 3 mast producing hardwoods

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## SWAMPBUSTER WETLAND DEFINITION

- ❑ Hydric soil (soil parameter)
- ❑ Inundated or saturated (hydrology parameter) long enough during growing season in most years
- ❑ Wetland plant community under normal circumstance (vegetation parameter)

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## Hydric Soil Criteria

1. Histosols
2. Aquic suborders and other groups
  - a. Somewhat poorly drained and water table at surface
  - b. Poorly or very poorly drained and water table  $\leq 0.5$  ft. with permeability  $\geq 6$  in. or water table  $\leq 1.0$  ft. with permeability  $\leq 6$  in. in the top 20 inches.
3. Frequently ponded for long or very long duration in growing season.
4. Frequently flooded for long or very long duration in growing season.

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## Hydric Soil Indicators

- ❑ Low chroma matrix
  - 6 in. thick starting in top 10
  - 2 in. thick starting in top 6
  - gleyed
- ❑ Mottles
- ❑ Oxidized rhizospheres
- ❑ Manganese concretions
- ❑ Water in the hole
- ❑ Sulfidic odor

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## HYDROLOGY CRITERIA

- Saturation
  - 14 consecutive days or more during growing season (50% occurrence)
- Flooding or Ponding
  - WETLANDS – 5% or more of growing season (50% occurrence)
  - FARMED WETLANDS – 15 consecutive days or more of growing season (50% occurrence)
  - FARMED WETLAND PASTURE – 7 consecutive days or more of growing season (50% occurrence)

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## Hydrology Indicators

- Saturation Indicators
  - Water marks
  - Drift lines (crappy)
  - Sediment deposits (crappy)
  - Stained leaves
  - Plant species
  - Plant morphology

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## PLANT COMMUNITY CRITERIA

- PREDOMINANCE
  - 50/20 RULE
- INDICATOR STATUS
  - OBLIGATE
  - FACULTATIVE WETLAND
  - FACULTATIVE
  - FACULTATIVE UPLAND
  - UPLAND
- National List of Wetland Plants 1988 and 1993 (FWS)

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## SWAMPBUSTER

- ❑ CONVERSION OF WETLANDS TO "CROPPABLE CONDITION" AFTER NOVEMBER 28, 1990 WILL RESULT IN LOSS OF USDA PROGRAM PARTICIPATION

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## DEFINITION OF WETLAND CONVERSION

- ❑ DRAINED, DREDGED, FILLED, LEVELED OR OTHERWISE MANIPULATED INCLUDING REMOVAL OF WOODY VEGETATION THAT RESULTS IN IMPAIRING OR REDUCING THE FLOW AND CIRCULATION OF WATER FOR THE PURPOSE OF OR TO HAVE THE EFFECT OF MAKING THE PRODUCTION OF AN AGRICULTURAL COMMODITY POSSIBLE.

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## TYPES OF WETLANDS

- ❑ WETLANDS (W)
- ❑ PRIOR CONVERTED CROPLANDS (PC)
- ❑ FARMED WETLANDS (FW)
- ❑ FARMED WETLAND PASTURES (FWP)
- ❑ WETLANDS FARMED UNDER NATURAL CONDITION (W)

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## WETLAND LOSSES IN TENNESSEE

- ❑ 2 million acres in 1780's (FWS)
- ❑ 800,000 acres in 1980's
- ❑ 59% loss
- ❑ 80% of wetland conversion due to agriculture from 1970 to 1990 (Audubon)
- ❑ 2,500 acres lost annually from 1975 to 1985
- ❑ Only 9% of forested wetlands in Mississippi River Valley remained in 1990.

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## Presidential Policy

Earth day 2004

- ❑ President sets new policy to expand base acreage over the old "no net loss" policy
- ❑ 1 million acre restoration increase by 2009
- ❑ 1 million acre enhancement increase by 2009

Between 2004 and 2006

- ❑ 588,000 acres restored
- ❑ 563,000 acres enhanced
- ❑ 646,000 acres protected (acquisition/easement)

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## VOLUNTARY PROGRAMS PRIVATE LANDS

- ❑ Wetlands Reserve Program (NRCS)
  - National – 1.8 million ac. (& buffers)
  - Tennessee – 20,000 ac.
- ❑ Conservation Reserve Program (FSA)
  - National – 2.3 million ac. (& buffers)
  - Tennessee – 929 ac. (bottomland reforest)
- ❑ Wildlife Habitat Incentive Program (NRCS)
  - National
  - Tennessee
- ❑ Partners for Fish and Wildlife (FWS)
  - National – 750,000 ac.

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**Title II: Conservation**  
**2007 FARM BILL**

- **Increase conservation funding by \$7.8 billion**
- **Consolidate existing cost-share programs into a newly designed Environmental Quality Incentives Program (EQIP)**
  - Increase total funding by \$4.2 billion
  - Includes \$1.7 billion for a Regional Water Program
- **Streamline working lands easement programs into one Private Lands Protection Program**
  - Increase funding by \$900 million
  - Eliminate redundancies

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**Title II: Conservation**  
**2007 FARM BILL**

- **Increase Wetlands Reserve Program funding by \$2.1 billion**
  - Increase enrollment cap from 2.3 to 3.5 million acres
- **Increase funding for the Conservation Security Program by \$500 million**
  - Provide incentives for increased conservation

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**Title II: Conservation**  
**2007 FARM BILL**

- **Reauthorize the Conservation Reserve Program with added focus on the most environmentally sensitive lands**
  - Give priority within whole field enrollments to lands utilized for biomass production
- **Authorize Federal agencies to accelerate the development of private markets for the trading of ecosystem benefits associated with conservation**

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