Watershed Condition Classification & Watershed Restoration Action Plan
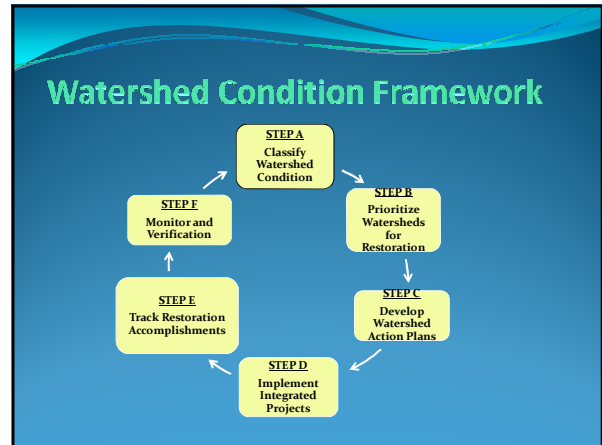
National Forests in Alabama

Forest Service Vision

USDA will use the **restoration of watershed and forest health** as a core management objective of the National Forests and Grasslands.

USDA Strategic Plan for FY 2010 – 2015

Watershed Condition Framework

- A comprehensive approach for pro-actively implementing **integrated restoration on focus watersheds** on National Forests and Grasslands

- Provides the Forest Service with an outcome-based performance measure for documenting improvement to watershed condition at Forest, Regional, and National scales

- Watershed Condition Framework Implementation Guide – WFWARP website
  http://fsweb.wo.fs.fed.us/wfw/watershed/watershed-classification.html

Watershed Condition Framework

STEP A Classify Watershed Condition
STEP B Prioritize Watersheds for Restoration
STEP C Develop Watershed Action Plans
STEP D Implement Integrated Projects
STEP E Track Restoration Accomplishments
STEP F Monitor and Verification

Watershed Condition Classification

- Establish a systematic process for determining **Watershed Condition Class** that can be applied consistently by the Agency
- Improve reporting and tracking of watershed condition
- Strengthen the effectiveness of the Forest Service in maintaining and restoring the productivity and resilience of watersheds and aquatic systems

Definitions

- **Watershed Condition** - the state of the physical and biological characteristics and processes within a watershed that affect the hydrologic and soil functions supporting aquatic ecosystems.

- **Watershed Condition Classification** - the process of describing watershed condition in terms of discrete categories (or classes) that reflect the level of watershed health or integrity.
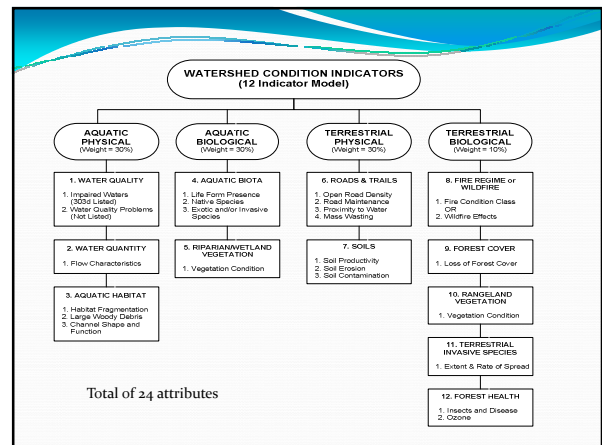
Watershed Condition Classification

- Region 8 National Forests completed all Watershed Condition Classifications in 2011

- National Forests in Alabama's classifications were completed for 6th level HUC's at the Forest (Supervisor's Office) level by team of hydrologists, aquatic biologists, soil scientists and other resource experts

- Watersheds classified as Class 1, 2, or 3

  - Note the 6th level HUC watershed used is a larger watershed unit that the Bankhead's watershed inventory units for Forest Health & Restoration "Next Step" projects

Watershed Condition Classes

- Class 1 – Green/Good – Functioning Properly
- Class 2 – Yellow – Functioning at Risk
- Class 3 – Red – Impaired Function

  - Class 1 –
    - Physical attributes are adequate to maintain or improve biological integrity.
    - Has minimal undesireable human impact on its natural, physical or biological processes and is resilient and able to recover to the desired condition when disturbed by large natural disturbances or land management activities

12 Watershed Condition Indicators

- Water Quality
- Water Quantity
- Aquatic Habitat
- Aquatic Biota
- Riparian/Wetland Vegetation
- Roads and Trails
- Soils
- Fire Regime or Wildfire
- Forest Cover
- Rangeland Vegetation
- Terrestrial Invasive Species
- Forest Health

WATERSHED CONDITION INDICATORS (12 Indicator Model)

Total of 24 attributes

- Classification is subjective and problematic.
- Process necessarily relies on **local professional expertise and judgment** to interpret the indicators and assess watershed condition.
  - As simple surrogates, indicators do not necessarily represent cause and effect relationships
  - Indicators work best when applied within the set of conditions under which they were developed. The same indicator will have different interpretations in different ecological settings.
  - When used inappropriately, indicators and their attributes can provide misleading or incorrect conclusion.

Watershed Restoration Action Plan WRAP

- National Forests in Alabama will prepare 1 – 2 Watershed Restoration Action Plans annually based on Watershed Condition Classification

2011 - WRAP

- Rush-Brushy Watershed, Bankhead National Forest

Condition Class 1 - Good, Functioning

Bankhead National Forest
Rush - Brushy Watershed

Legend
Roads
Trails
Water
Rush_Brushy_Watershed
Wilderness
Private Land

Rush-Brushy Watershed, Class 1

- Goal – Maintain as a Class 1 watershed
- Identify & implement projects for improvement and maintenance of watershed condition

Rush – Brushy Needs

- Primary need –
  - Reduce sedimentation of waterways from roads and trails

- Secondary needs -
  - Eradicate invasive species
  - Improve aquatic habitat
  - Maintain fire regime/native restoration projects

Important Ecological Values

- Ten aquatic species listed as Threatened, Endangered or Sensitive
- Designated Critical Habitat for Mussels
- Rare communities (wetlands and glades)
- Important Bird Area

Projects identified

- Owl Creek Horse Trail – re-route, relocation & maintenance
- Roads & trails – improve, maintain, decommission, block per MVUM, & correct fish passage barriers
- Fire Condition Class – improve and maintain through prescribed burning, midstory removal and thinning
- NNIS – eradicate
- Large woody debris – install fish structures

    Five Year Project Period

Stewardship Project

- Potential for a Stewardship Project(s) in Rush-Brushy Watershed based on needs/projects ID'd in the WRAP

- Intent of Stewardship - To blend the need to restore and maintain healthy forests with the need to work closely with communities
- Goods For Services; Best Value Concept
- Accomplish multiple projects
- Package opportunities
- Collaborate with communities
- Focus on the end result