



Coronado National Forest Desired Conditions & Fire Recovery



Michele Girard

Watershed Program Manager



Watershed Condition Framework



- **Establish a systematic process for determining Watershed Condition Class**
 - 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 Indicators



WATERSHED CONDITION INDICATORS (12 Indicator Model)



1. Water Quality
2. Water Quantity
3. Aquatic Habitat
4. Aquatic Biota
5. Riparian/Wetland Vegetation
6. Roads and Trails
7. Soils
8. Fire Regime or Wildfire
9. Forest Cover
10. Rangeland Vegetation
11. Terrestrial Invasive Species
12. Forest Health



MILLER CANYON SCORE



Watershed Condition Classes

Class 1 = 1.0 to 1.66 – properly functioning

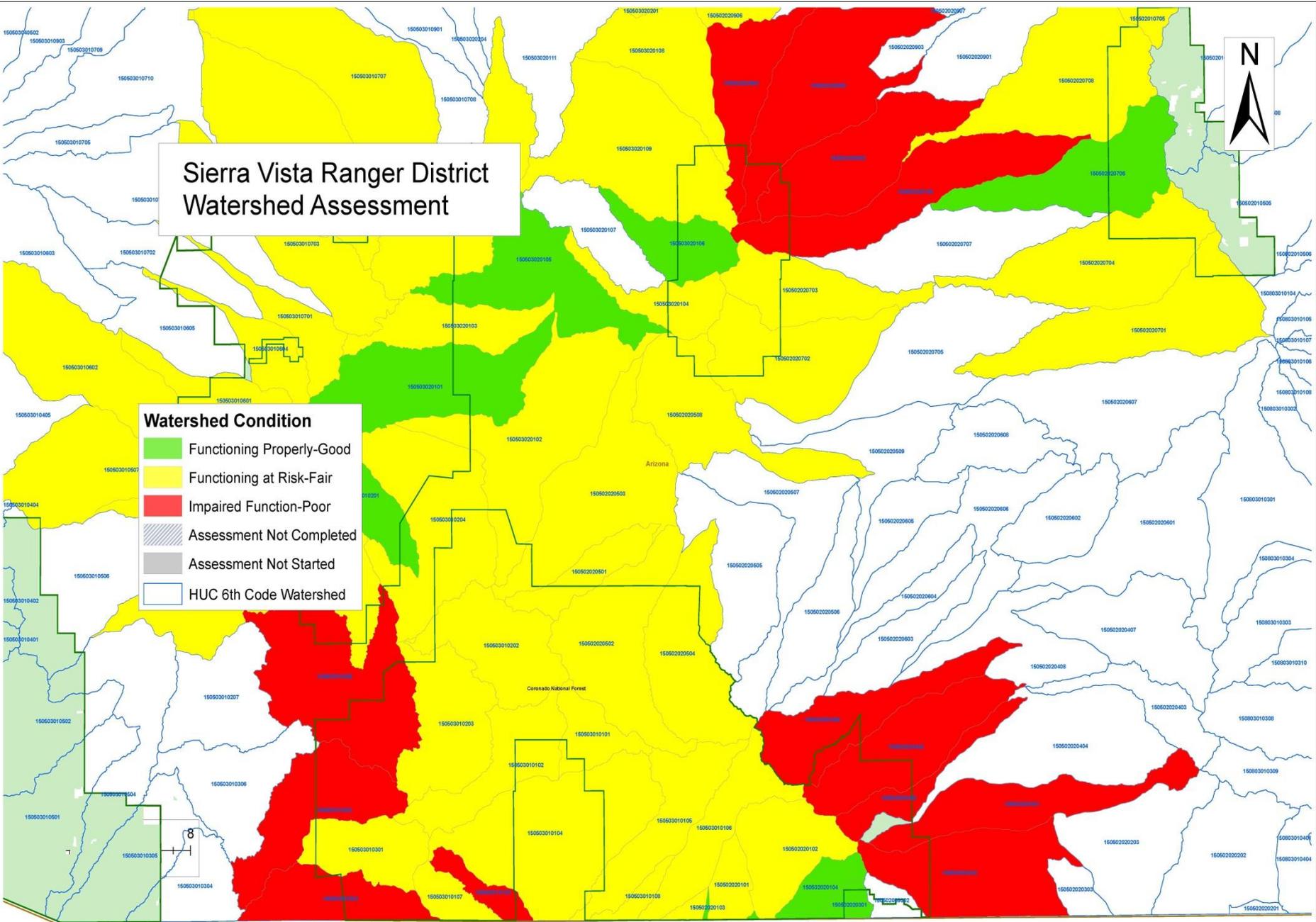
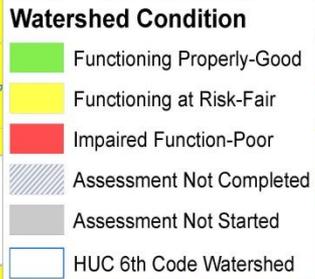
Class 2 = >1.66 and <2.33 – at risk

Class 3 = >2.33 to 3.0 – impaired function

Miller Canyon – functional at risk

- USFS = 1.6+
- Non-USFS = 3
- Final Rating = 2.3+

Sierra Vista Ranger District Watershed Assessment





Watershed Condition Issues in Miller Canyon 6th Code



- Fragmentation
 - Habitat
 - Drainages
- Urban development
- Road density and maintenance
- Fire condition class
- Invasive species



Coronado NF Draft Forest Plan



Desired Conditions
are described for major
vegetation types





Huachuca EMA

- Recreation
- Watershed Health
- Research/Natural Areas
- Arizona Trail
- Wildlife Habitat
- Range Health



Desired Conditions

- Described for major vegetation types
 - Landscape Scale
 - Mid-scale
 - Fine Scale
- Along with a description of:
 - Objectives
 - Guidelines



Desired Conditions for Dominant Vegetation Types

- Desired plant and wildlife species
- Plant basal and canopy cover
- Soil cover and function
- Channel stability and function
- Dead/down woody material





Madrean Encinal Woodland Mid-scale



- Plant basal cover 2-10%
- Litter 20-50%
- Canopy cover
 - Grasses 5-40%
 - Forbs 1-5%
 - Shrubs/succulents 1-10%
 - Trees & large shrubs 10-40%

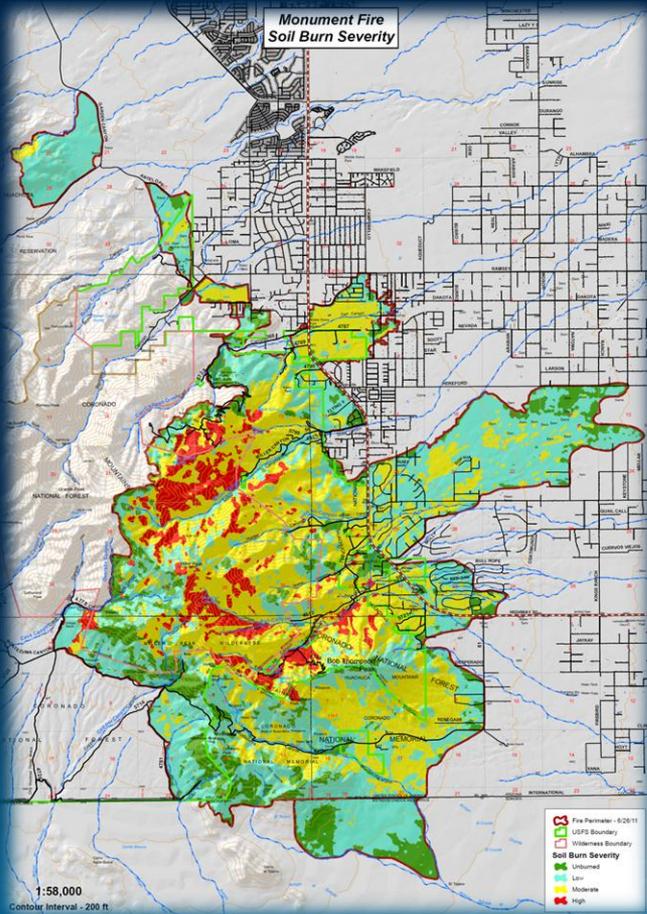


Fire Recovery





Monument Fire



Soil Burn Severity	Acres	Percent
High	2318	7.3%
Moderate	12493	39.0%
Low	12946	40.0%
Unburned	4317	13.7%
Total	32,074	



BAER Treatments

Treatments

- Seeding
- Heli-mulching
- Sand bagging
- Clear drainages
- Road maintenance
- Fence repair
- Flood warning systems
- Invasive species treatment & monitoring







Erosion Control





Ongoing Recovery



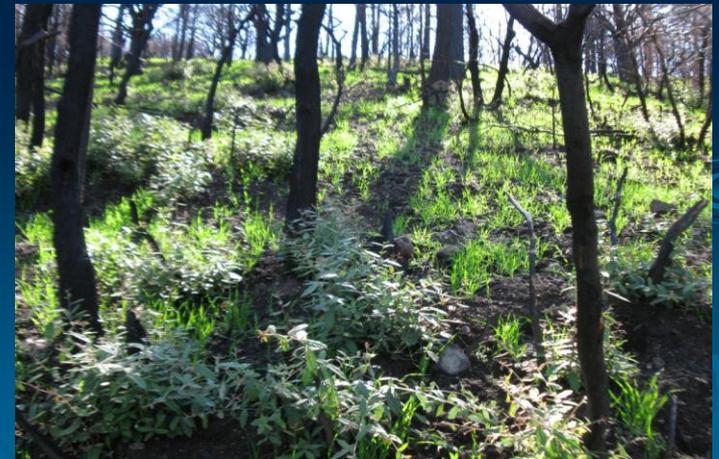
Treatments

- Fuels Treatments
- Tank cleaning
- Fence Repair
- Chiricahua leopard frog habitat
- Invasive plant species monitoring and removal





Natural Recovery





Influences



on San Pedro Riparian NCA

- Urbanization has occurred in much of the area between BLM and USFS resulting in a loss of watershed function
 - Channel fragmentation
 - Soil Compaction
 - Increased runoff
 - Introduction of non-native species



Hazardous Fuels & Wildfires



- Moderate to high severity wildfires have a negative impact on watershed health
 - Sediment delivery to streams
 - Soil erosion
 - Increased runoff
 - Private property and infrastructure damage
- USFS is working on hazardous fuels reduction on the Huachuca EMA



CNF New Forest Plan

➤ Objectives

- Healthy ecosystems by describing **Desired Conditions** for major vegetation types including biotic and abiotic resources
- Grazing administered to standards
- Watershed health
- Hazardous fuels reduction
- Recreation opportunities