



# METOLIUS WATERSHED UPDATE

December 2003

## WHAT'S NEXT FOR THE METOLIUS?

Last summer's fires in the Metolius Basin are quiet now, covered by a deepening blanket of snow.

Back at the Sisters Ranger District, work on addressing the fires aftermath and determining what needs to be done next has been proceeding at a rapid pace.

**Step 1-** The first task is updating the 1996 Metolius Watershed Analysis to consider how the fires and other changes over the last 7 years have altered the landscape. For more about Watershed Analysis see below.

**Step 2-** Using the updated Watershed Analysis specialists will write Changed Condition reports for the Metolius Vegetation Management Project EIS. These reports will determine the cumulative effects of the fires on the EIS project

and identify if any changes are needed to the project.

**Step 3-** Recommendations of the 2003 Metolius Watershed Analysis Update will be planned and implemented over time.



First snow on Hortense Lake in the Upper Metolius Basin near Cache Mountain

## WHAT IS WATERSHED ANALYSIS?

Ecosystem management begins with the watershed.

Watershed Analysis is like taking your watershed to the doctor for a checkup. What are the symptoms or issues? Tests or analysis focus on these symptoms and reveal how the

watershed has changed. The doctor will assess the results and tell you which trends are important risks not to ignore. The bottom line is a prescription or recommendations that will help correct the undesirable changes that you can control.

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### Fire Rehab on the B&B Fire

- Focus is on ROADS to prepare for increased runoff
- Completed work includes: 30 new drain dips, 70 water bars, 12 new small culverts, 72 culvert cleanouts, & some hazard tree removal
- 7 new large culverts have been surveyed and are being designed
- Noxious weed assessment and control by hand pulling on over 200 acres

## THE METOLIUS WATERSHED...THEN (1996)

The 1996 Metolius Watershed Analysis identified 8 trends in 11 landscape areas and recommended intervention to prevent deterioration of resources, species at risk, or recreational experiences. Trends were rated by areas as “Red Flag– urgent” and “Yellow Flag– less urgent”:

- 1) **Lowered soil quality** due to compaction related to ground –based harvest, roads, trails, and recreation and altered nutrient cycling. (5 Red Flags, 2 Yellow Flags)
- 2) **Fragmentation of the forest** with more edges, and smaller patches of forest structure than existed historically. (5 Red Flags, 1 Yellow Flag)
- 3) **Increased tree stand densities** putting forests at risk from insects, disease, competition, and wildfire. (3 Red Flags, 8 Yellow Flags)
- 4) **Increasing human use**, traffic, road access and demands for day use recreation. (4 Red Flags, 5 Yellow Flags)
- 5) **Less in-stream wood** than occurred historically, reducing aquatic habitat complexity. (3 Red Flags, 1 Yellow Flag)
- 6) **Increased sediment delivery** from roads, compaction, and stream/road crossings. (1 Red Flag, 4 Yellow Flags)
- 7) **Interaction of native and non-native aquatic species** because of fish introduction into formerly fishless systems. (5 Yellow Flags)
- 8) **Decrease in water quality** in the Suttle and Blue Lake area. (1 Red Flag)

*Want to learn more?*

The 1996 Metolius Watershed Analysis is available on the Internet at :  
<http://www.fs.fed.us/r6/centraloregon/manageinfo/nepa/plans/wa-metolius>.

## WHAT'S BEEN DONE SINCE 1996?

The recommendations of the 1996 Analysis addressed these trends and determined work for subsequent years. Some highlights of accomplishments include:

- ⇒ Fuel breaks and thinning projects were completed to reduce fire risk along Highway 20, the Suttle Lake area, Corbett Sno-park, and near Jack and Canyon Creek. Many of these areas were tested by the fire of 2002 and 2003 and provided safe places for firefighters to ignite back burns.
- ⇒ Many damaged roads were repaired or closed and new culverts installed to prevent sediment from entering streams.
- ⇒ Candle Creek Bridge was installed to replace culverts and provide important fish passage.
- ⇒ Head of Jack Creek Trail was redesigned to prevent damage from overuse to this unique place.
- ⇒ Compacted soils were sub-soiled in some areas to relieve soil compaction and all new thinning projects were designed with soils protection in mind.
- ⇒ Many trails and campsites were moved away from sensitive streamside areas.
- ⇒ Prescribed fire has been widely reintroduced as an important natural process to improve forest health and benefit many species.
- ⇒ Regular water quality monitoring was started in the Metolius River, thanks to a partnership with the Friends of the Metolius.
- ⇒ Large wood has been placed in the Metolius River to improve fish habitat. (73 large trees)

# THE METOLIUS WATERSHED...NOW (2003)

**Big changes in the watershed since 1996 include:**

**FIRE**

- 7 large wildfires burned 58 % of the watershed
- 21% burned as low severity underburns

**FOREST VEGETATION**

- Increased number of dead trees due to wildfires (see map and below)

**WILDLIFE**

- 75% of Spotted Owl sites have burned

**FISH**

- Dramatic increases in native fish populations, especially Redband Trout and Bull Trout
- Experimental reintroduction of Chinook salmon which had been extirpated for 30 years

**SOILS**

- Large landslides on the Lower Metolius and Upper Canyon Creek

**HYDROLOGY**

- Largest flood in the recorded history of the Metolius in February 1996

**BOTANY**

- Increases in noxious weeds

**RECREATION**

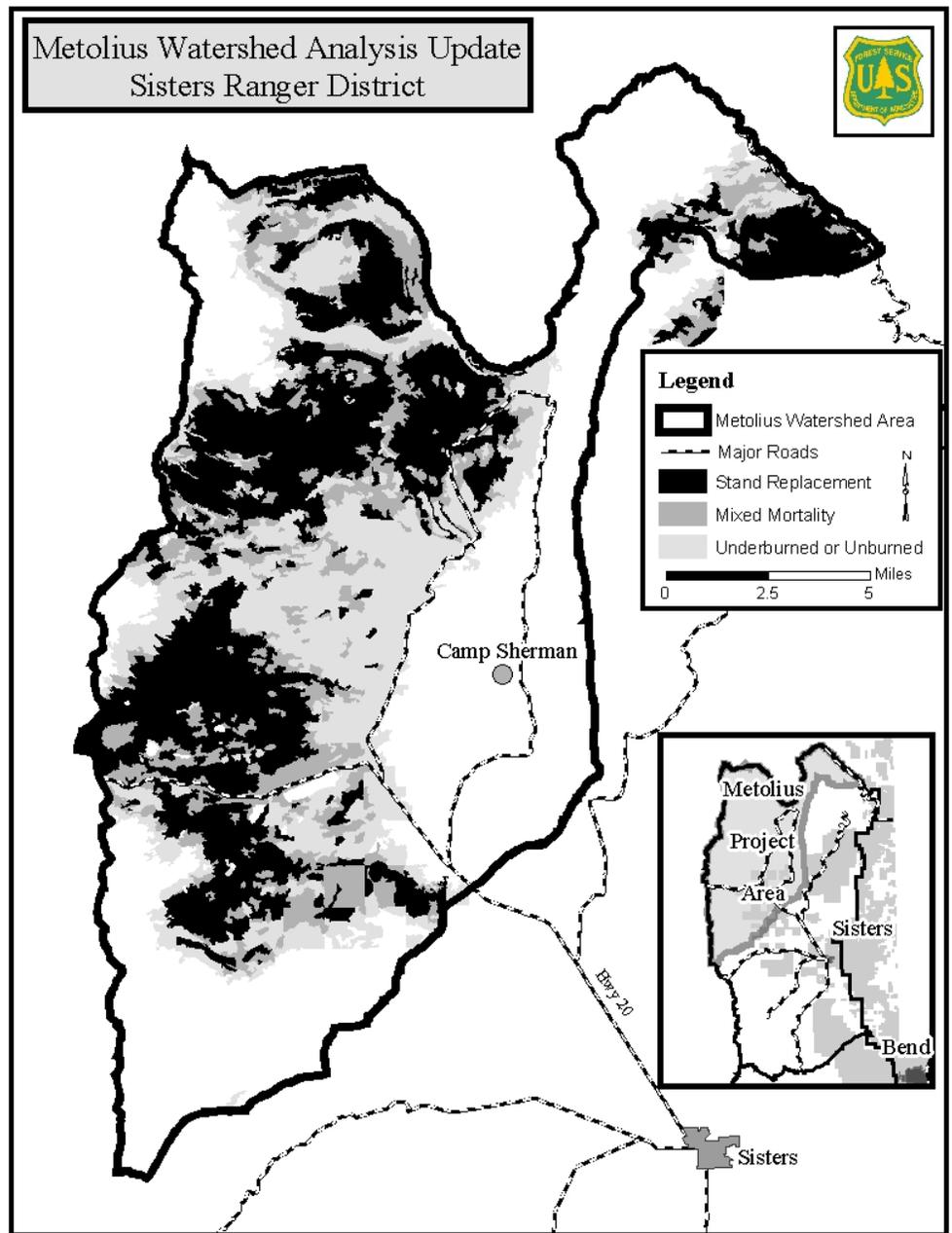
- Increased Off Highway Vehicle use and conflicts

**HERITAGE RESOURCES**

- More sites have been located and recorded

**SCENIC**

- Fires have changed the scenery and opened new viewpoints



**TREE MORTALITY IN THE METOLIUS WATERSHED**

**38,569 acres or 26% = Stand replacement (75-100% dead)**  
**17,018 acres or 11% = Mixed Mortality (25-75% dead)**  
**31,138 acres or 21% = Low or unburned (less than 25% dead)**  
**61,966 or 42% = Outside fire areas**

\*\*\*Information was derived from satellite imagery and field survey



## USDA FOREST SERVICE

Sisters Ranger District  
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Sisters, OR 97759

## HOW CAN YOU HELP?

The Metolius Watershed Analysis Update Team is working to complete their analysis of changes in the watershed by February 2004.

*Topics areas include:*

- Soils
- Hydrology
- Wildlife and Fisheries
- Forest Vegetation and Botany
- Heritage Resources
- Roads
- Recreation
- Scenery

**If you have important new information for us to consider, we'd like to hear from you before January 15th, 2004.**

**1) Write us:**

Metolius Watershed Analysis Update  
Sisters Ranger District, PO Box 249, Sisters, OR 97759

**2) E-Mail us:**

[mpajutee@fs.fed.us](mailto:mpajutee@fs.fed.us)

**3) Call with comments or questions:**

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