

# CHAPTER 1 - INTRODUCTION

## What Is Watershed Analysis

Watershed analysis is a systematic procedure for characterizing watershed and ecological processes to meet specific management and social objectives. Throughout the analytical process we are trying to gain an understanding about how the physical, biological and social processes are intertwined. The objective is to identify where those linkages and processes (functions) are in jeopardy (simplified) and where those processes are redundant (complex). The physical processes at work in a watershed establish limitations upon the biological relationships. The biological adaptations of living organisms balance in natural systems, however social processes have tilted the balance toward resource extraction. Our attempt in the Wolf Creek analysis has been to pull together baseline resource information and understand where physical, biological and social processes are or will be in conflict.

## What Watershed Analysis Is NOT

Watershed analysis is not an inventory process and it is not a detailed study of everything in the watershed. Watershed analysis is built around the issues identified as the most important. Data gaps will be identified and subsequent iterations of watershed analysis will attempt to fill in the missing pieces.

Watershed analysis is not intended to be detailed, site-specific project planning. Watershed analysis provides the framework in the context of the larger landscape and looks at the "big picture". It identifies and prioritizes potential project opportunities.

Watershed analysis is not done under the direction and limitations of the National Environmental Policy Act (NEPA). When specific projects are proposed, more detailed project level planning will be done. An environmental assessment would be completed at that time.

## Products and Outcomes of Watershed Analysis

The watershed analysis will provide some of the following:

- ▶ A description of the resource needs, capabilities and opportunities.
- ▶ Spatially explicit information that will facilitate environmental and cumulative effects analysis for NEPA, and the processes and functions operating within the watershed.
- ▶ Identification of data gaps.
- ▶ Guidance for developing monitoring strategies and objectives.
- ▶ Guidance for designation of Riparian Reserves at the landscape level.
- ▶ A list of potential projects and opportunities that are appropriate to the watershed under the Forest Plan.

## The Legal Basis for Watershed Analysis

Watershed analysis is required by the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl (ROD) and the Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl (S&Gs). The term "Forest Plan" is used to denote the document which contains the ROD and S&Gs.

The Forest Plan provides a scientifically sound and legally responsible approach to managing federal forest lands that takes into consideration all elements of the ecosystem. It focuses on reducing fragmented late-successional forests and restoring watersheds to provide healthy riparian and fish habitats. The Forest Plan is notable for focusing on all the components that make up the ecosystem rather than focusing on a single resource.

Watershed analysis focuses on implementing the Aquatic Conservation Strategy of the Forest Plan. The Record of Decision for the Forest Plan states that "Watershed Analysis is required in Key Watershed, for roadless areas in Non-Key Watersheds, and Riparian Reserves prior to determining how proposed land management activities meet Aquatic Conservation Strategy objectives. Ultimately, watershed analysis should be conducted in all watersheds on federal lands as a basis for ecosystem planning and management." <sup>1</sup>

Watershed analysis was recognized as an evolutionary process whereby a system of pilot projects were initiated to test the Federal Agency Guide for Pilot Watershed Analysis.<sup>2</sup> During an interim period, FY 94-96, non-pilot watershed analysis would consider using the FY 1994-96 Watershed Analysis Guidelines<sup>3</sup> developed by the Watershed Analysis Coordination Team. These guidelines were developed in June 1994. The Wolf Creek watershed is not a pilot project and has followed the aforementioned "interim" guidance.

### Steps Utilized in Watershed Analysis

The steps utilized in watershed analysis include:

- ▶ Identify issues and formulate key questions
- ▶ Identify and prioritize key processes and functions
- ▶ Assemble analytic information
- ▶ Analyze information using the Federal Agency Guide, the Eugene District Guide, or Washington's TFW process
- ▶ Describe the past and current watershed conditions
- ▶ Describe key processes, functions and linkages
- ▶ Describe likely future scenarios
- ▶ List management opportunities
- ▶ Develop guidance for monitoring strategy and objectives

### Management Direction and Team Charter

The Eugene District Leadership made a decision in July 1994 that the Wolf Creek Watershed Analysis effort would attempt to establish the process and procedures within the Eugene District for watershed analysis. In order to accomplish this, the Wolf Creek analysis would go beyond analysis requirements needed only to implement proposed Jobs-in-the-Woods projects proposed for FY 1995, but would attempt to mirror the analysis efforts utilized by the Pilot Watershed efforts. The Wolf Creek analysis would therefore examine the full gamut of management opportunities and project proposals currently identified within the watershed.

The Wolf Creek Watershed Analysis Team, referred to as the "Wolf Pups" by team members, developed a team charter. This charter was composed of the following 4 points:

- ▶ Complete an analysis of the Wolf Creek Landscape Analysis Unit (LAU) that is sufficient to allow evaluation of the 1995 Jobs-in-the-Woods projects, proposed timber sales, and identified silvicultural treatments.
- ▶ Provide an initial foundation for the development of Late-Successional Reserves plans and implementation of proposed interim management activities.
- ▶ Capture and document the process and procedures utilized throughout the entire analysis for the development of a District handbook.
- ▶ Attempt to complete the analysis by September 30, 1994.

## Citations and References

1. USDA, Forest Service and USDI, BLM. April, 1994. "Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl, Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl." page B-20.
2. Regional Ecosystem Office. A Federal Agency Guide for Pilot Watershed Analysis. Portland, Oregon. January, 1994.
3. Interagency Watershed Analysis Coordination Team, Regional Ecosystem Office. FY 1994-96 Watershed Analysis Guidelines. June, 1994.