U.S. Department of the Interior
Bureau of Land Management

Salem District Office
Tillamook Resource Area
4610 Third Avenue
Tillamook, OR 97141

February 14, 2001

Middle Tualatin-Rock Creek Watershed Analysis

JT Hawksworth, Principal Author

As the Nation’s principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interest of all our people. The department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S . administration.

BLM/OR/WA/PT-00/015+1792

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Tillamook Resource Area Office
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4610 Third Street
Tillamook, Oregon 97141

IN REPLY REFER TO:

(080.6) 7300

March 21, 2001

Attached is a copy of the Middle Tualatin-Rock Creek Watershed Analysis prepared through a partnership between Washington County Soil and Water Conservation District, Tualatin River Watershed Council, and the Bureau of Land Management. A grant from Oregon Watershed Enhancement Board contributed funding that made this watershed analysis possible. The acknowledgments page demonstrates the breadth of cooperation and valuable assistance received during this effort.

This watershed analysis is a combination of current inventory data provided by a BLM interdisciplinary team and information compiled by the principal author John Hawksworth, of Washington County SWCD. The purpose of this watershed analysis is to provide reference information used in project selection, priority, and planning. The information in this document is considered the most current data available.

Watershed analysis is a continuing process. This document represents the first iteration of the analysis; updates in the future are expected as additional information is obtained. Additional information and comments are encouraged and will be welcomed at any time on this watershed analysis. The information will be retained with the analysis, used accordingly and eventually evaluated and incorporated into future iterations.

If you have any questions, please contact Katrina Symons at the above address or phone 503-815-1100.

Sincerely,

Dana R. Shuford Date: 3-23-01

Dana R. Shuford, Field Manager
Tillamook Resource Area

Rediscover Your Public Lands

Middle Tualatin-Rock Creek Watershed Analysis

Washington County Soil and Water Conservation District

J.T. Hawksworth, Principal Author

February 2001

Introduction

The concept of watershed analysis is built on the premise that management and planning efforts are best addressed from the watershed perspective. Better decisions are made, and better actions taken, when watershed processes and other management activities within a watershed are taken into consideration. Issues related to erosion, hydrologic change, water quality, and species are not limited to a specific site. Changes to watershed processes at one site often have effects that extend downstream and elsewhere in the watershed. By addressing these issues at the watershed level, we take the interconnected nature of watershed processes into account. We are thereby enabled to synthesize approaches to planning and management that preserve ecosystem functions. Where these functions have been diminished from reference conditions, we are able to plan activities to restore these functions.

In keeping with the principle of ecosystem analysis at the watershed scale, the Bureau of Land Management (BLM) has formed a partnership agreement with the Washington County Soil and Water Conservation District (SWCD) to prepare the Middle Tualatin-Rock Creek Creek Watershed Analysis. The BLM manages lands that are mostly in mountainous, forested portions of the watershed. The BLM is charged with several management duties by the people of the United States. As part of its stewardship role, the BLM is mandated to maintain ecosystem functions and processes. This includes maintenance of wildlife habitat. As part of its mission, the SWCD works with farmers to conserve the soil resources of the valley, and to protect water quality within the watershed. The Washington County SWCD is mostly active within lower portions of the watershed. Together these agencies cover many of the interests within the watershed. This watershed analysis report is designed to address questions of interest to these agencies. However, in recognition that diverse interests exist in the watershed that are not covered by these agencies, this watershed analysis is also designed to be consistent with the interests of the Tualatin River Watershed Council, as expressed by the Tualatin River Basin Action Plan. Within the time and financial limitations of this report, it has done so.

The framework of this watershed analysis is built according to the requirements of *Ecosystem analysis at the watershed scale: a federal guide for watershed analysis* (REO 1995). This watershed analysis methodology is built up of six complementary parts. The first chapter is a watershed **characterization**, defining the characteristics that distinguish the watershed. The background laid out in this chapter leads to a set of **core topics and key questions** that have to do with watershed processes and their specific interactions with management activities. In response to these questions, the third and fourth chapter are constructed. The third chapter describes the **current conditions** within the watershed, while the fourth chapter reconstructs watershed processes and conditions under **reference conditions** (usually prior to European settlement). Based on the information provided in these chapters, we are able to synthesize the changes in watershed process that have been caused by various management activities. The results of this **synthesis** are included in the fifth chapter. Based on this synthesis, **recommendations** for current management and restoration are formulated.

Within the general framework of the federal methodology, there were opportunities to incorporate many techniques of the 1999 Oregon Watershed Enhancement Board (OWEB) methodology. We believe that combination of the federal approach with techniques endorsed by the State of Oregon has expanded the usefulness of this analysis. Thus, this report is able to address BLM directives (as summarized by the Northwest Forest Plan) while assisting with the watershed preservation and restoration efforts of the SWCD, TRWC and other interested parties.

As a level one analysis using the federal methodology, this watershed analysis report relies heavily upon data collected by other agencies and private sources. This watershed analysis report has relied extensively upon GIS analysis of publicly available data contained in the Tualatin River Watershed Information System (Ecotrust 1998). These data have facilitated the analysis from these reports. However, they are not intended to replace field-based data for site-specific decisions. Although the data were analyzed for obvious flaws, no intensive review was performed on any data used in this report. There may be flaws in the source data and/or analysis performed in this report. This report should be used for general guidelines to point the direction to more site-specific studies.

The production of this watershed analysis required many analytic steps that are not contained within the pages of the Middle Tualatin-Rock Creek watershed analysis report. Supplementary information is available on the Washington County SWCD web site (www.swcd.net). This includes the results of individual OWEB modules, as well as other technical appendices. Requests for further information can also be submitted to this site. In the interest of maintaining an accurate and current information base, those who access this site are encouraged to

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Acknowledgements

Successful completion of the Middle Tualatin-Rock Creek watershed analysis report required the contribution of experts in many disciplines. The following primary team members contributed technical assistance, provided editorial review, and in many cases authored paragraphs specific to their fields of expertise.

Mike Allen, BLM, Project coordinator
Steve Bahe, BLM, Wildlife
Jim Grimes, ODFW, Fisheries
Bob McDonald, BLM, GIS
Dean Moberg, NRCS, Soils and agriculture
Tom Nygren, TRWC, Forestry (small woodlands)
Mark Pierce, BLM, Forestry
James P. Rounds, BLM, Oregon State Office Mapping Sciences Section
Cindy Weston, BLM, Fisheries
Greg White, TRWC, Fisheries

People outside the primary team also made substantial contributions to the watershed analysis. Through his efforts, John McDonald, SWCD, facilitated the partnership between BLM and the SWCD that made this cooperative watershed analysis possible. Finally, experts from many agencies provided information useful to the preparation of this report. Many thanks to all of these people for their assistance with the preparation of this watershed analysis report.

Finally, we express our appreciation to the Oregon Watershed Enhancement Board and the U.S.D.I Bureau of Land Management, which provided funding to produce this watershed analysis.

John Hawksworth

December 19, 2000

Table of Contents

List of Tables