

INTRODUCTION

In 1989, the Oregon Legislative Assembly passed a comprehensive set of laws known as the Groundwater Protection Act. These laws established the state goal to prevent groundwater contamination:

"... it is the goal of the people of the State of Oregon to prevent contamination of Oregon's groundwater resource while striving to conserve and restore this resource and to maintain the high quality of Oregon's groundwater resource for present and future uses." (Oregon Revised Statutes [468B.155](#))

The Department of Environmental Quality (DEQ), the Water Resources Department, and Oregon State University are directed to:

"... conduct an ongoing statewide monitoring and assessment program of the quality of the groundwater resource of this state." (Oregon Revised Statutes [468B.190](#))

Other state agencies including the Department of Human Services and local agencies also conduct groundwater monitoring and assessment programs.

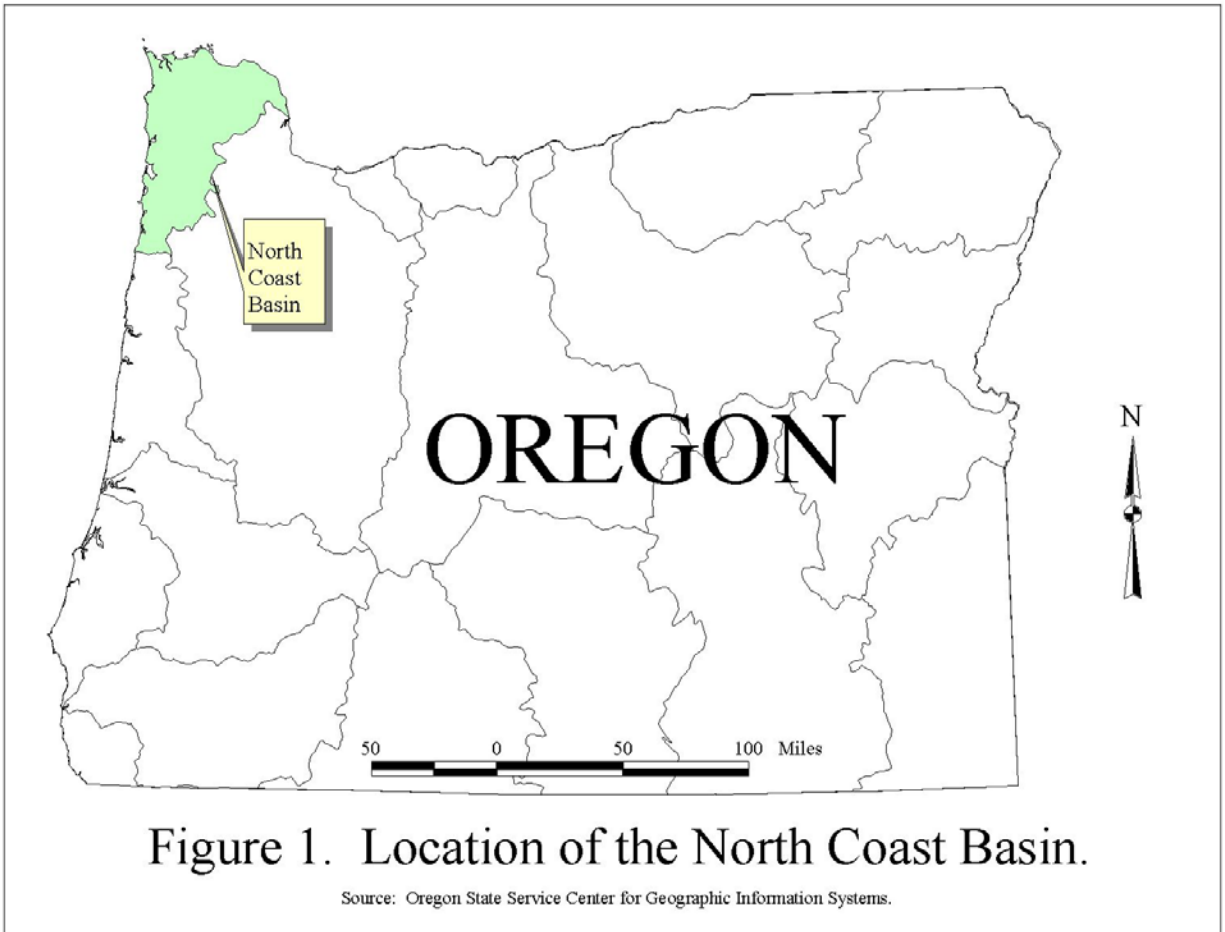
This report presents the following for the North Coast Basin (Figure 1):

- a compilation of groundwater quality data from the Oregon Department of Environmental Quality and other state and local agency studies,
- summary information with references to other reports when available,
- links to data repositories or on-line information and data sources,
- status updates for local studies in the North Coast Basin,
- background information on the North Coast's environmental setting,
- general information about geology and hydrogeology,
- groundwater use information,
- a discussion of potential pollutant sources in the basin,
- an evaluation of the North Coast's overall groundwater quality status, and
- recommendations for actions that could be taken.

ENVIRONMENTAL SETTING

Geography

The North Coast Basin occupies about 2,500 square miles in the northwest corner of Oregon (Figure 1). The Oregon Water Resources Department (OWRD) Map No. 1.6 defines the North Coast Basin for water management purposes ([OAR 690-501](#)). The North Coast Basin is one of the 18 major river drainage basins in the state.



The Columbia River defines the basin’s northern boundary. The western boundary is the Pacific Ocean. To the south is the Mid-Coast Basin, and on the east is the Willamette Basin. Rogers Peak (3,706 feet), in the headwaters of the Wilson River, is the basin’s highest point.

The North Coast Basin encompasses all or portions of the following counties:

- Clatsop,
- Columbia,
- Lincoln,
- Polk,
- Tillamook,
- Washington, and
- Yamhill.

Figure 2 shows the North Coast Basin’s major geographic features.

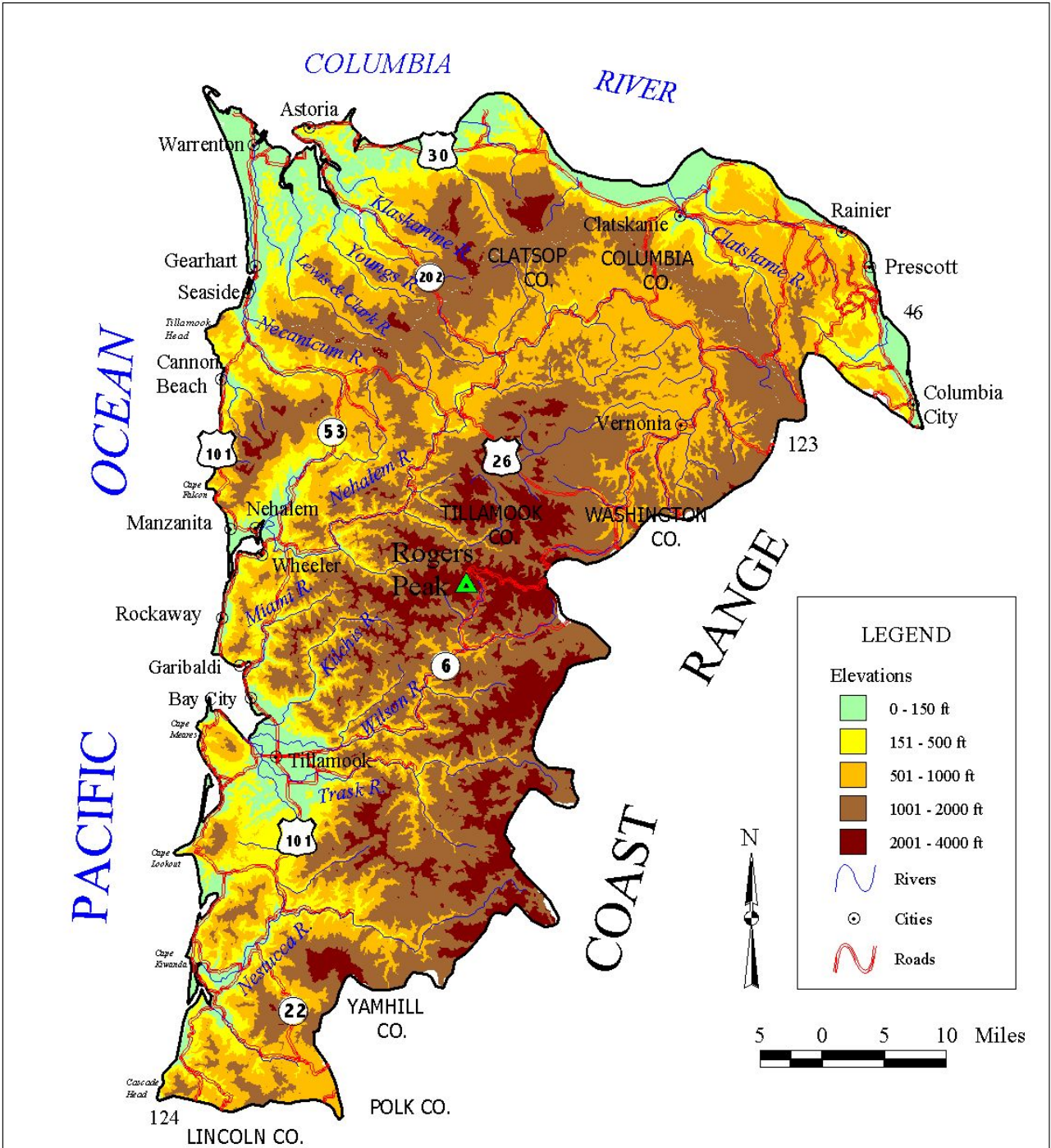


Figure 2. Map of the North Coast Basin showing major geographic features.

Source: Oregon State Service Center for Geographic Information Systems.

Land Use and Population

Land use in the North Coast Basin is 84% forest land; 7% urban, commercial, or industrial; 5% crop, pasture, or range; about 3% estuary; 1% residential, and less than 1% sandy areas or rock/gravel mining (Figure 3) (U.S. Geological Survey, 2003).

The resident population within the North Coast Basin is about 77,000 (U.S. Census Bureau, 2003). The North Coast Basin has many tourist attractions. Up to 200,000 people annually visit sites such as the Fort Clatsop National Memorial in Astoria (Astoria-Warrenton Chamber of Commerce, 2003).

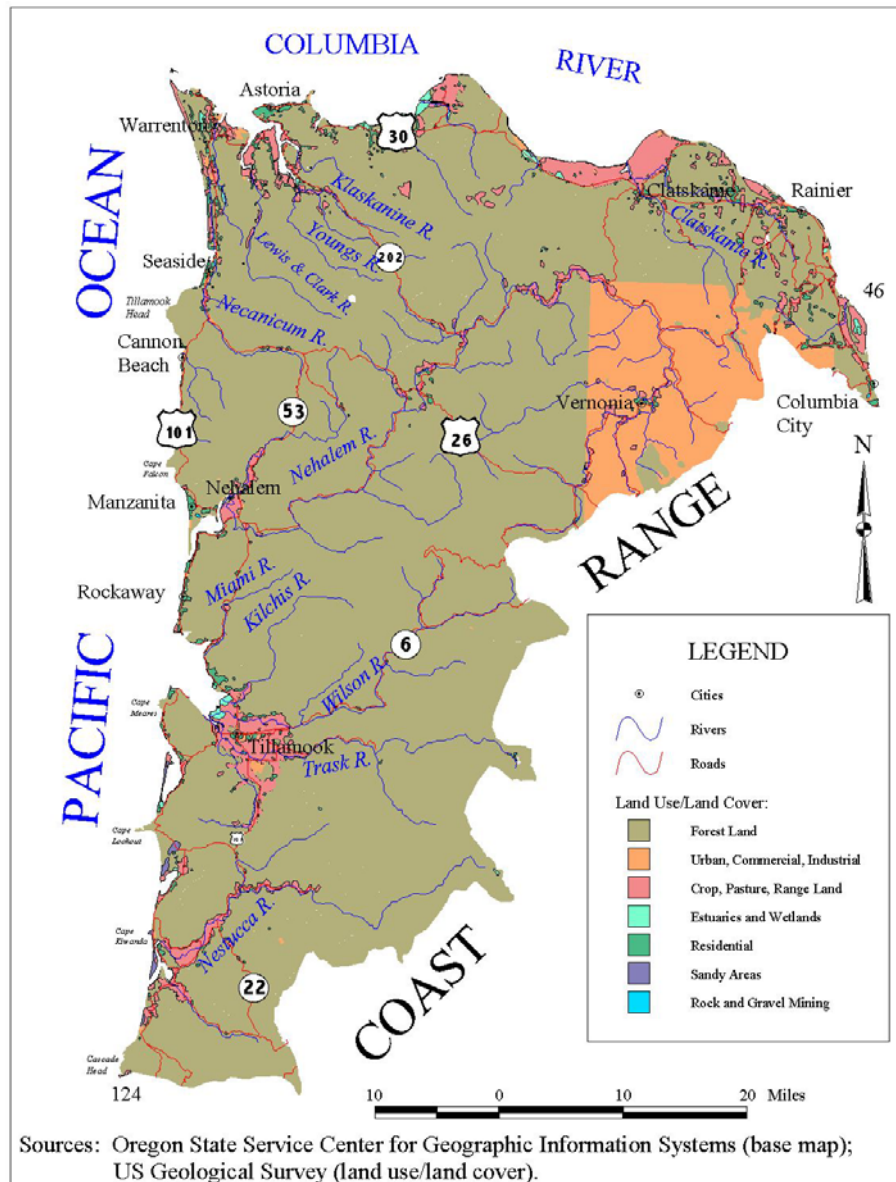


Figure 3. Land Use and Land Cover, North Coast Basin, Oregon.