



SOURCES AND ACKNOWLEDGEMENTS

REDWOOD CREEK IS ONE OF THE most intensely studied and monitored streams of its size in the world. The extensive amount of information on its channels is generally unavailable for most other drainage basins. The cumulative story that emerges is one of water quality and the strength of the Redwood Creek salmon and steelhead trout populations, which presumably have fluctuated over time as a result of several documented factors.

U.S. Fish and Wildlife Service reports began in the late 1800s, U.S. Geological Survey reports date from the 1930s, and National Park Service surveys began in the early 1970s and continue to this day. A unique long-term monitoring program—established in 1973 by a \$33 million congressional appropriation—was designed and implemented to evaluate the physical changes of the creek over time. Also, other federal and state resource agencies have sponsored studies of Redwood Creek and closely related North Coast watersheds. In addition, faculty and students of academic institutions such as Pennsylvania State, University of California at Berkeley, and Humboldt State University have conducted numerous investigations at Redwood Creek.

The authors of this document compiled information from published literature and supplemented it with local knowledge gained from historical sources, personal interviews, and photographs. This includes

newspaper accounts of floods, the size of the salmon populations, and other historical events and data associated with Redwood Creek, as well as the files of historical organizations such as the Humboldt Historical Society, Humboldt County Library, and the Bancroft Library.

Subsequent to notifying the public via the local newspaper, the authors interviewed long-time residents of the Redwood Creek basin. Three different forums were held with individuals who have knowledge of the creek and its history. Approximately 200 photographs were discovered in the course of these interviews; these range from as far back as the late 1800s to the current day. A number of reaches of Redwood Creek were later rephotographed in 1999 for purposes of comparison with many of these historical photographs.

In all, this report brings together information obtained from more than 500 individual sources, including such experts as geologists, fluvial geomorphologists, hydrologists, freshwater fisheries biologists, marine biologists, oceanographers, climatologists, anthropologists, forest and range scientists, wildlife biologists, and many others. Also, we are grateful for the technical reviews of this manuscript provided by Don Chapman, Ray Rice, and Bill Platts. The collective knowledge presented here represents countless hours of work by dedicated individuals committed to conserving the natural resources of Redwood Creek.

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FOREWORD

THE AUTHORS OF THIS COMPENDIUM are members of the Redwood Creek Landowners Association. The Association is comprised of ten private landowners ranging from small to large who own and manage tracts in the Redwood Creek drainage basin. Its collective land ownership encompasses more than 80 percent of the privately owned portion of the basin. Some members have managed land in the basin for half a century or longer. Thus, the Redwood Creek landscape and its uses are of vital concern to the authors.

The Association's members represent a mix of land uses, including ranching and forestry activities. The primary land-use concerns of the Association center around timber operations in the Redwood Creek basin where: (1) the creek is listed under the Clean Water Act Section 303(d) as impaired based on sediment; and (2) populations of anadromous salmonids are listed as threatened under the federal Endangered Species Act.

Our resource stewardship is best when we can analyze and synthesize all of the available information pertinent to land management. This document brings together an extensive

library of information not previously available in one place: a library of about 12,000 pages of reports and materials. With this document, the Redwood Creek story is perhaps more complete now than ever before. And the story points to a need to re-examine salmonid ecology as it relates to the creek's habitats, sediment conditions, and compatible land uses.

This document examines the agents of ecological change—floods, earthquakes, landslides, fires, land uses, and the influence of the ocean—and the consequences of these changes on the physical environment and aquatic resources within the Redwood Creek basin. An understanding of the current status of the basin and expectations for the future are subsequently presented. The authors make the conclusion, based on the scientific evidence at hand, that it is time to rethink past speculations about sediment impairment of salmonid productivity in Redwood Creek. On the basis of the evidence, the authors further hope that this document about the Redwood Creek basin will provide a springboard for improved fact-finding, resource analysis, and decision-making in the months and years to come.

