

## Executive Summary

This study describes the restoration sector in Humboldt County, California and its contribution to the North Coast regional economy. It shows that Humboldt County is at the leading edge of restoration practices and serves as a model for how restoration work can be accomplished. Already, the standardized and codified restoration methodologies that have been developed out of the rich experience with restoration over the last three decades have been used to guide restoration work in other parts of the state and country.

Building on prior attempts to understand the socioeconomic character of the restoration sector, this report describes the size of Humboldt County's restoration sector, in terms of total annual investments in restoration and numbers of restoration-related jobs, and it portrays the institutional infrastructure that has developed to accomplish restoration goals and objectives.

For the purposes of this study, restoration includes 1) upslope watershed restoration activities such as road decommissioning and upgrades/storm proofing, removal/stabilization of landings, land-slide stabilization, and other upslope erosion control projects, 2) riparian and instream fisheries habitat improvement projects, 3) invasive exotic species control and removal activities, and revegetation efforts in forest, meadow, dune and estuary ecosystems, 4) restoration of hydrologic flow regimes in stream and estuary ecosystems, and 5) fuels reduction efforts. It also includes the watershed assessments, planning processes, inventories, and monitoring efforts that precede and accompany these efforts. And it includes activities such as training workshops, organizational and business management workshops, and educational outreach and school programs whose goal is to enhance restoration capacity and support.

While the definition of restoration this study employs may appear to be expansive, it becomes less so when we consider what this definition excludes. This study does not consider restoration activities that are embedded within more traditional resource management and extraction regimes, such as road upgrades, stormproofing, and decommissioning associated with the operation of timber harvest plans on industrial timberland ownerships. Nor does it consider activities such as dairy waste management improvements and scientific studies of watershed and ecological processes that are not directly related to restoration project implementation. Inclusion of these activities and investments, while certainly restoration related, would have diluted this study's narrow focus on natural resources restoration as an independent and autonomous field of economic, social, and institutional activity.

Natural resources restoration in Humboldt County is a tightly coordinated, internally coherent, well organized, and complex network of relationships that bind together extremely diverse groups and organizations around the common goal of reinvesting in ecosystem health. This "system" of relationships is comprised of 1) diverse entities linked together within a restoration network, united in their shared commitment to the goals of restoration, 2) explicit and formalized linkages between science and restoration practice and a commitment to an adaptive management learning process, 3) the development and codification of standardized restoration methodologies and the export of specialized restoration knowledge and expertise, and 4) a complex institutional infrastructure (including both "node" organizations as well as higher level "network organizations") that facilitates collective learning and constitutes an effective vehicle for

advancing restoration efforts.

The entities within the restoration system include federal, state, and local government agencies, tribes, public and private landowners and managers, restoration nonprofits and watershed groups, private contractors and workers, consulting firms, businesses, and applied research scientists. A complex web of relationships has evolved that links these entities together in a coherent fashion to enable restoration work to take place.

The restoration system in Humboldt County contributes significantly to the local economy. Between 1995 and 2002 it generated more than \$65 million for restoration work in Humboldt County. Almost all of this amount came into the county in the form of restoration contracts and grants from state and federal agencies; very little of this amount was used to support the many state and federal government agency restoration jobs and related expenses. In the last three years alone, more than \$38 million came into the county for restoration project implementation or for activities directly related to project implementation. In 2002, approximately \$14.5 million was generated; this is about twice the value of the commercial fishery landings in Humboldt County and it is greater than the value of some of the county's agricultural products. While restoration work is related to these other resource-based sectors in a synergistic manner, it clearly is an economic engine in its own right.

The restoration system in Humboldt County generates significant local employment. We estimate that natural resources restoration work in Humboldt County in 2002 generated approximately 300 jobs (equivalent to 210 FTE's) in the private and public sectors and within tribal government. Approximately 240 of these jobs are in the private sector (70 are in consulting firms and businesses, 105 in contracting businesses, and 65 within area nonprofits), 45 are in the public sector, and approximately 15 are with area tribes (primarily within the Hupa, Yurok, Karuk, and Wiyot tribal governments).

The restoration system's contributions to the North Coast economy rival or exceed those of other industries. However, important characteristics of the restoration system sharply distinguish it from most industries and illustrate the unique ways in which restoration integrates ecosystem reinvestment, knowledge generation, place-based commitment to environmental stewardship, and community development. In significant ways the restoration sector is rooted within an environmental stewardship ethic that prioritizes ecological health over revenue generation. This stewardship ethic is linked with a strong place-based identity joined with a commitment to restoring key ecosystem elements, whether they be salmon and steelhead runs or thriving native plant and forest communities. In recognition of the interdependence between sustainable livelihoods and ecosystems, a key guiding element within the Humboldt restoration sector has been the search for how to provide quality jobs within restoration while simultaneously (re)investing in ecosystem health and productivity.

Despite the impressive accomplishments and contributions of the restoration system, a variety of barriers and challenges hinder its function and growth. Recommendations that will help address these barriers and challenges include:

- Provide loans and other financial “bridgers” to help restoration nonprofits and contractors avoid the cash flow challenges that they regularly face and that limit their ability to do restoration work.
- Improve coordination among agencies that provide restoration grants in order

to improve the complementarity of different grant programs, for example, in terms of grant purposes, terms, conditions, lifespans, and other restrictions.

- Permitting agencies need to continue to ensure compliance with permit and consultation requirements but work in earnest to identify ways to reduce the costly and time-consuming efforts necessary to prove compliance.
- Expand the emphasis on policies and programs that support the provision of quality jobs in restoration.
- Develop more stable funding mechanisms to finance restoration work.
- Continue to develop and improve the funding and policy mechanisms necessary for integrating acquisition, restoration, and management activities on public lands, and restoration and management activities on private lands.
- Remove the inequities between restoration and timber harvesting in the application of regulatory authority governing the heavy equipment work season.

Given the extent of the need, natural resources restoration work in Humboldt County only promises to grow. For example, it is estimated that \$150 million of restoration funding are needed to address water quality and salmonid habitat issues related just to the county roads in the five county north state region.

Apart from the ever-increasing integration of restoration activities into traditional resource management sectors, simply accomplishing the restoration work related to addressing the challenges of these and other legacy issues suggests the need for the continued growth of the restoration system.