Assessment of Conservation Priorities in Cascadia

client:
The David and Lucile Packard Foundation

+ *Ecotrust* compiled and analyzed an extensive array of geographic data related to biological richness, conservation status and environmental threats across 167 watersheds in the Cascadia bioregion.

+ *Ecotrust* surveyed conservation organizations working from Monterey Bay to the Kenai Peninsula to assess organizational capacity and the extent of recent investment at the watershed level.

+ *Ecotrust* performed extensive analyses at the watershed and sub-regional level in the Cascadia bioregion to identify areas with high conservation investment opportunities.

+ *Ecotrust* developed and delivered a comprehensive mapbook, associated tabular data, and a CD-ROM of integrated geographic information system data layers and relational databases.

ECOTRUST

The David and Lucile Packard Foundation sought *Ecotrust's* mapping and analysis expertise to develop an initial assessment for setting program and investment priorities in the Cascadia bioregion extending from Kodiak Island in Alaska to Big Sur, California; also known as the Coastal Temperate Rain Forest. The primary project goal was to identify a small of priority areas where the Foundation might focus more detailed efforts.

Ecotrust's project team used fourth field watersheds as the primary analysis units for the assessment effort. A total of 167 watersheds, averaging 967,849 acres in size, were identified. Geographic information system (GIS) data were compiled from numerous and disparate sources and summarized at the watershed level for analysis and comparisons across the bioregion. Data were gathered relative to biological richness, conservation status, key environmental threats, organizational capacity, and recent conservation investment.

· *Ecotrust* examined richness, endemism, and species at risk in order to describe biological richness. In addition, selected biological features (including forest habitat, wild salmon, shorebirds, and others) that are critical indicators of landscape and ecosystem conditions were also examined.
· Land ownership data for four states and one province were compiled and integrated to rank the conservation status of landscapes based on four levels of biodiversity management. These data were used to create an index of unprotected landscapes and identify key areas with critical protection gaps.
· Key environmental threats were compiled from information on original forests at risk due to logging activity, active and potential mining, dams, fish hatcheries, toxic sites, nearshore aquatic exotic species, and urban growth rates.
· Data on recent conservation investment were collected from surveys of over 900 conservation organizations detailing the amount of money and volunteer hours invested in conservation activities by project type (e.g., land acquisition, stream restoration, research).
· An assessment of organizational capacity was made based on the survey of conservation organizations and an analysis of program budgets, staffing levels, area of interest and operation, and longevity.
· The 167 watersheds in the study area were aggregated into 21 sub-regions based on ecological, economic, social, and political characteristics to facilitate general discussions, analysis, and comparisons across the bioreigon.

The final data set delivered to the Foundation on CD-ROM consists of an integrated set of over 75 geographic data layers for the Cascadia bioregion; pre-built ArcView projects of the Cascadia GIS data set, a comprehensive data dictionary; and a MS Access database detailing the organizational characteristics and investment histories of over 900 conservation organizations. The CD-ROM was developed strictly for internal use and analysis by Foundation staff.

The David and Lucile Packard Foundation is a private family foundation created in 1964. The Foundation provides grants to nonprofit organizations in the program areas of science, children, population, conservation, arts, community and special areas that include organizational effectiveness and philanthropy.

An Ecotrust Project Profile

Sample Maps:
Land Ownership, Watershed Groups, and Number of Organizations Working in a Watershed

Land Ownership

Private
Water
National Forests (USFS)
Dept of Defense
Corps of Engineers
US Dept of Energy

Cascadia Watershed Groups

1. Alaska Range
2. BC Mid Coast
3. BC North Coast
4. Cook Inlet/Kodiak

Number of Organizations Working in a Watershed

- 0
- 1-15
- 16-25
- 26-40
- 41-60
- 61-100

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