

Evaluating Biodiversity and Open Space Priorities on Bainbridge Island, Puget Sound, Washington

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Bainbridge Island is a 25-square-mile island located in Puget Sound, near Seattle, Washington. The island is incorporated as a city and its population is continuing to grow, with a projected 25 percent increase over the next 20 years. The city is reviewing appropriate areas to increase infrastructure and density while preserving habitat connectivity and sensitive natural resources. In an effort to channel growth into nodes rather than sprawl throughout the island, the city initiated an Open Space Study to identify priority open space and habitat corridors that should be preserved.

A Priority Open Space Evaluation was conducted using several models based on the principals of landscape ecology and biodiversity analysis, input from local experts and the public, and coordination with an open space stakeholder group and the City Council. These models considered development vulnerability, environmental sensitivity, connectivity, rarity, habitat quality, and nature-oriented human use potential, among other factors. Each open space parcel was identified on maps and in a matrix that rated parcels across a number of categories to provide a clear, step-wise evaluation for use in public and stakeholder input. A conservation strategy portion of the report recommends applicable options for conserving open space,, including conservation easements, transfer of development rights, and fee purchase. Given the limited budgets of local jurisdictions, this effort provides a scientific-based, cost-effective process for evaluating and documenting open space priorities.

Jim Keany

Jim Keany is an ecologist with 27 years experience in developing and implementing natural resource studies throughout the Pacific Northwest including Oregon, Idaho, Montana, Washington, and Alaska. He has a M.S. degree in Wildlife Ecology and a B.S. in Natural Resource Management. His studies include an emphasis on natural resource inventories, rare plant communities, habitat function, and landscape-level assessment and long-term management . He has a diverse background with experience in endangered species surveys; large-scale vegetation inventory and mapping; coordination of science-based studies with local planning efforts; terrestrial habitat surveys; fisheries and stream surveys; and research on passerine birds in shrub-steppe habitats.

Sarah Daniels

Sarah Daniels is an environmental planner with a background in biology and a master's degree in environmental management. She brings a diverse set of ecological and planning skills to a variety of projects, including long-term planning projects for the U.S. Fish and Wildlife Service and Bureau of Reclamation, regional park planning, and local communities. Sarah is highly adept at geospatial analysis using an array of ecological models, as well as ArcGIS products for raster and vector modeling and GPS/GIS mapping. She is also proficient in the use of ESRI and Erdas software products, S-Plus statistical software, Mat-Lab modeling, and the Adobe and Microsoft suites of products.