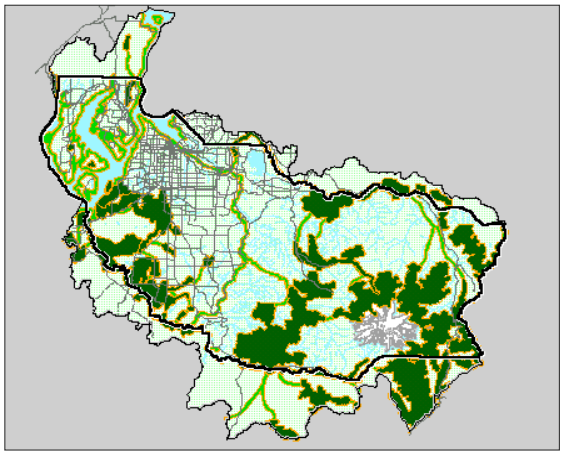
Pierce County
Planning & Land Services
Advance Planning Division

Science in the Community

Biodiversity Planning in Pierce County

The Science of Biodiversity Planning

The Washington State Growth Management Act requires every county in the state to address open space areas in their comprehensive plans. During Pierce County's open space planning process, county planners were approached by representatives from Washington Department of Fish and Wildlife (WDFW) and the University of Washington who asked that open space areas include those lands that have the greatest level of wildlife biological diversity, or "biodiversity." Pierce County embraced this philosophy and, along with several key partners, embarked on a multi-year process to develop a Biodiversity Plan for Pierce County (1997-2000).



The planning method used to identify biodiversity areas is called "gap analysis." This method employs the mapping technologies of satellite imagery and the Geographical Information System (GIS) to create a current vegetation map. From that, distribution of wildlife species is derived and areas of high biodiversity are identified. The map is refined or "ground-truthed" with any and all known plant community and wildlife occurrences from WDFW's Priority Habitats and Species and Streamnet databases, the Department of Natural Resources' Heritage and Sensitive Plant Species databases, county natural resource inventories, and local expert biological opinion. These core habitat areas (referred to as Biodiversity Management Areas) are connected by corridors of habitat, which are often located along waterways. The resulting coverage is the Biodiversity Network.

In 2003, the county conducted a finer-level analysis of the lands located within the Biodiversity Network and documented this information in the Pierce County Biodiversity Network Assessment Report (August 2004).

This process wouldn't have take place without the help and support of a unique group of stakeholders who formed a partnership known as the Pierce County Biodiversity Alliance (PCBA). The PCBA includes: Pierce County, Washington Department of Fish and Wildlife, University of Washington – Cooperative Fish and Wildlife Unit & *NatureMapping* Program), Tahoma Audubon, and Metro Parks – Tacoma.

Implementation of the Biodiversity Data

The Biodiversity Network coverage was integrated into the county's Comprehensive Plan Open Space Corridors map; first in 1999 and then updated and revised in 2004 based upon the Pierce County Biodiversity Network Assessment Report. This information has also been considered in community planning processes. In one community plan, the Biodiversity Network was the basis for the creation of a Residential [sensitive] Resource land use designation (which provides for reduced densities inside the urban growth area) and the establishment of habitat conservation based design standards such as low impact development techniques and minimum native vegetation retention. The county will also use

the Biodiversity Network information in various incentive programs such as the Conservation Futures Program and Current Use Assessment Program.

This multi-pronged implementation strategy puts emphasis on proactive conservation of multiple species, rather than on reactive restoration of individual threatened or endangered species. This approach helps guide county planners in directing more intense development away from identified bio-rich lands and can also guide private and public land conservation purchases or easements.

Involving Citizens in Biodiversity Planning

The PCBA is now working hard to bring this information to landowners that live within individual Biodiversity Management Areas (BMAs).

Land use is the primary driver of habitat loss, introduction of exotic species, environmental degradation, and increased runoff and pollutants. These effects are exacerbated in urbanizing landscapes such as Pierce County, Washington, where changes are both rapid and permanent. While some progress has been made, the PCBA recognizes that landscape scale planning documents often fail to implement on-the-ground land use actions that serve to promote long-term conservation of "biorich" areas.

The PCBA is beginning a pilot project in 2005 using one BMA (Gig Harbor), to design and implement a community outreach and stewardship process. Citizens will be engaged through education workshops, trainings, citizen-based science, and development of a habitat conservation plan. The pilot project will be initiated with a "BioBlitz", where scientists working with local landowners will conduct a rapid (24-hour) biological inventory of the species found within the Gig Harbor BMA. Success will be measured through citizen involvement, data collection, and participation in incentive-based land use programs and other threat abatement or restoration actions. The overall goal is for each local BMA to retain its ecological function while still accommodating the community in reaching their land-use objectives. This pilot project addresses responsible land use by empowering local communities. Once this initial pilot project is completed, the hope is to repeat this process in each of the other 15 BMAs.

For more information about biodiversity planning in Pierce County please visit the Pierce County webpage at: www.co.pierce.wa.us/pc/services/home/property/pals/other/biodiversity.htm or contact Katherine Brooks, Senior Planner at 253-798-3181 or by email at kbrooks@co.pierce.wa.us