



Date: Wednesday, August 5, 2009
To: Reserves Steering Committee
From: Metro Staff
Cc:
Re: Understanding the Natural Features Dataset and Map

Metro provided the Natural Landscape Features Inventory Map and related data (accompanying GIS project containing the individual features (layers) defining the NLFI Map) to Clackamas, Multnomah and Washington Counties in October 2008 to provide ecological context for the urban and rural reserves process. Through recent conversations with the counties, however, it became clear that some of the information embedded within the NLFI (e.g., the multiple geographic layers) was being missed and might require further interpretation. Therefore, Metro sought to provide guidance to help the Counties understand the nature of the map and take full advantage of the rich data set it represents. Additionally, in an effort to provide the most current “best available” information Metro has updated the NLFI map and related data set to provide the best available information to the technical team and decision makers in determining land suitability for both urban and rural reserves. This memo describes the changes in the NLFI map and data sources. The revised map, data sources and process of development will be presented to the regional Reserves Steering Committee on August 12.

Natural Features Map Development

The natural features map presented to the regional Reserves Steering Committee May 14, 2008 was developed in 2006-2007 to provide a scientifically credible natural features component to the Shape of the Region Study, a precursor to the reserves designation process. Metro worked with a consortium of experts from local and state agencies, academic institutions and non-governmental organizations to compile state-of-the-art information on important natural features within the greater region. The members of the Natural Landscape Features Taskforce are experts in landscape ecology and conservation biology and have led high profile processes to identify priority areas for conservation investment. They used spatial data from these studies and prioritization efforts to develop the natural features map. Because the source studies were conducted at a variety of scales, the taskforce adapted the maps to the scale of the reserves study area, employing both professional judgment and local knowledge. The finalized map was later used to inform the state’s rule-making process and included in Administrative Rule 660-027, which sets out the factors to be considered for reserves.

Originally produced as a graphic, the map was reproduced as GIS spatial data in October, 2008. Over the past several months, the Metro GIS staff at the request of the Reserves Technical Team adapted the natural features map to further refine and update the mapped data. Specifically, results of the Willamette Basin Synthesis were added, refining and replacing redundant layers from the Oregon Department of Fish and Wildlife Statewide Comprehensive Wildlife Conservation Strategy and The Nature Conservancy Ecoregional Assessment that were used as placeholders in 2008. Additionally, place names that had meaning at a very broad landscape scale were inappropriate at a finer metro regional scale and were replaced.

Data Sources for the Natural Features Map

Metro Greenspaces Policy Advisory Committee (GPAC)

Metro Planning and Parks and Greenspaces staff worked with members of the Metro Greenspaces Policy Advisory Committee to identify natural landscape features that influence the sense of place for the greater region. The committee and staff used GIS natural resource maps as well as the collective expertise of a select group of ecology and park professionals from various federal, state, local and private organizations to identify resources essential to health and welfare of the region and landscape features that define a sense of place.

The Nature Conservancy's Willamette Valley/ Puget Trough/ Georgia Basin Ecoregional Assessment Portfolio – This data set was replaced by more current Willamette Synthesis Data

TNC's ecoregional assessments provide a regional scale, biodiversity-based context for implementing conservation efforts. They identified ecologically significant areas for conservation action with a goal of protecting representative biodiversity.

Pacific Northwest Ecosystem Research Consortium (PNWERC)

Thirty five scientists from ten institutions over five years compiled data on the historic condition of the Willamette Valley prior to European settlement, mapped contemporary land use and land cover, then worked with basin stakeholders to consider three plausible alternative futures. The Conservation 2050 scenario determined it was possible to double the basin's human population without sacrificing the integrity of natural systems if specific conservation actions were taken. This scenario provided recommendations and mapped high priority conservation opportunity areas.

Oregon Comprehensive Wildlife Conservation Strategy – This data set replaced by more current Willamette Synthesis Data

Produced by the Oregon Department of Fish and Wildlife, the strategy provides a blueprint and action plan for the long-term conservation of Oregon's native fish and wildlife and their habitats through a non-regulatory, statewide approach to conservation. Willamette Basin component included PNWERC and TNC datasets among many others. It provides a variety of recommendations for conservation actions on private lands.

Willamette Basin Synthesis Project 2009

Combined results from five major Willamette conservation assessments (PNWERC, ODFW Conservation Strategy, TNC Ecoregional Assessment, Wetland Conservancy priority wetlands and the Oregon Biodiversity Project). The synthesis delineates priority land and freshwater sites where investment in conservation or restoration would most improve:

- the health of historically significant and functional habitats;
- survival or recovery of imperiled plants and wildlife dependent on those habitats;
- floodplain connections to benefit water quality for aquatic biodiversity and
- overall watershed health.

This is a partnership between Oregon Department of Fish and Wildlife, The Nature Conservancy, The Wetlands Conservancy, the Willamette Partnership, Oregon Parks & Recreation Department, Defenders of Wildlife, Oregon Natural Heritage Information Center, Oregon Department of Environmental Quality, the Oregon Biodiversity Project and Metro. The Willamette Synthesis will be adopted as an update of both the ODFW Conservation strategy and TNC's ecoregional assessment.

Additional data layers

- Metro Title 13 Fish and Wildlife Habitat Inventory – covers only a portion of the U and R reserves study area
- Federal Emergency Management Agency (FEMA) Floodplains and 96 Flood extent
- National Wetland Inventory
- 200' stream buffers