

Macleay Park/Balch Creek Watershed Urban Site

Domain name: PNW NEON – Domain 16

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Web page: <http://www.portlandonline.com/parks/index.cfm?c=39872&a=93728>

Location: 45.536 N; -122.713 W

Ecological Themes: Climate; Land Use (urbanization); Pollution; Invasives (plant, animal); Disturbance (fire); Aquatic (stream).

Site History and Characteristics. Encompasses the 550 ha drainage of Balch Creek at the southern end of Portland's Tualatin Mountains, spanning an elevation range from 15 to 350 m msl. Macleay Park composes 34% of the Balch creek watershed area, and is situated in the middle and lower elevations. The lower extent of the park is bordered by residential housing, and the stream enters a large culvert at the watershed outlet (see photo above); the stream remains culverted through the industrial area of Northwest Portland, emptying into the Willamette. Due to logging and fire in the late 1800s, vegetation cover is a mix of early successional hardwoods and more mature conifer species. The Tualatin Mountains provide a wildlife corridor into Portland from the Coast Range; in addition to a sustained but isolated population of native cutthroat trout in Balch Creek, approximately 200 native species of birds, amphibians, snakes, mammals, including elk, have been observed in the watershed. The stream is one of the few small streams in the Portland area that has been gauged, with streamflow data available from the period 1996-2002 from the City of Portland. An extensive watershed protection plan was completed by the City of Portland in 1991, which is available at <http://www.portlandonline.com/shared/cfm/image.cfm?id=103619>



Gradients and Themes. At the edge of the industrial/residential area of Northwest Portland (see photo looking downstream from the outlet), Balch Creek serves as a unique interface between a large urban park and an intensely developed urban area. Due to Portland's high level of infill development and population growth (>20% during the 1990s), urban density will likely continue to increase during the coming decades. A vital question concerns the impact of such increased urban density in Portland on the ecological viability (e.g., air and water quality, invasive species impacts) of natural areas such as Macleay Park, as well as for the quality of ecosystem services provided by such natural areas within the city context.



Existing facilities. The City of Portland and the Friends of Forest Park, a citizens group actively engaged in park activities such as removal of invasive English ivy, jointly maintain a facilities building in Lower Macleay Park. The facilities of the Audubon Society of Portland, including a wildlife sanctuary, exists in the mid elevations of Balch Creek, in upper Macleay Park. The Portland State University campus is within 3 km of the park entrance.