

Appendix O: Bainbridge Island Level II Basin Assessment Recommendations

[From: Kato and Warren et al 2001]

The Bainbridge Island Level II Basin Assessment has added greatly to the understanding of the hydrogeologic characteristics of the Island. The report also has revealed several elements that need a greater amount of information to assess. The following recommendations are categorized in order of the assessment organization. Within each category, the recommendations are prioritized by order of perceived importance.

Surface Water

- A City of Bainbridge Island water resource coordinator position should be established to coordinate and deal with water resources issues including the implementation of recommendations made in this report.
- Establish one or more year-round, continuous streamflow gages.
- Establish an effort to annually measure the flow on all creeks under “low-flow” conditions during the late summer.
- Conduct a survey of surface water quality in coordination with local organizations, government agencies, tribes, and Bainbridge Island residents.

Hydrogeologic Characterization

- Continue and expand KPUD’s well database on Bainbridge Island, with special attention to accurate well location and elevation.
- Standardize well monitoring procedures, continue and expand the well monitoring network through KPUD as established in the GWMP.
- Expand the well monitoring network to include more Sea Level Aquifer System wells in the Eagle Harbor area and one or more Glaciomarine Aquifer System wells.
- Continue and expand reporting by purveyors of monthly and yearly production amounts and coordinate the collection and reporting of water level, water quality, and production data.

Groundwater Quality

- Groundwater quality testing for selected parameters was conducted by the USGS in 1985 (Dion and others, 1988). This study found no seawater intrusion problems. Recent water quality results also indicate that currently there is no seawater intrusion problem. However, because of the susceptibility of the below sea level aquifers on Bainbridge Island to seawater intrusion, periodic rounds of water quality testing should be conducted to compare with the baseline established in the USGS study.
- This water quality survey should include the study of the nitrate levels of shallow ground water on the island.
- Older individual wells and septic systems are not regulated for maintenance or proper function after construction. An effort to regulate older well and septic systems should be attempted and would ferret-out failing systems, provide a baseline maintenance

program to extend facility life, provide valuable water resources information, and protect public health.

Land Use

- Coordinate land use policies with regard to aquifer recharge areas.
- Coordinate water resource issues with land use planning.
- Assess impacts of different types of land use on stormwater runoff.

Water Budget

- Refine runoff and baseflow rates by establishing year-round, continuous monitoring sites in streams on the Island.
- Establish a precipitation gage on the southern portion of Bainbridge Island.

Water Rights and Water Use

- Collect additional water production records from water purveyors on the island.
- Determine which water rights are valid (being put to beneficial use) and which water rights, especially surface water rights, are inactive.