78th Ave SE, Mercer Island, WA – Mercer Island Vibroseis Experiment – 2006

The USGS Earthquake Hazards Program collected P-wave vibroseis data along 78th Ave SE, on Mercer Island, western Washington State, as part of an earthquake hazards study. The profile trended North to South. Light traffic persisted throughout acquisition.

Data were acquired with a “minivib III” seismic vibrator using a linear sweep of 20-160 Hz over 12 seconds followed by 2 seconds of “listen” time (total record length=14 seconds). The sample interval was 2 milliseconds. Geophones were single, 8-Hz vertical component sensors installed every 5m along the seismic profile. The source point interval was 5m. The number of channels per record was 136 for field records 1001-1154, 144 channels per record for field records 1155-1167, and 164 channels per record for records 1170-1387. Other acquisition parameters are noted in the observer’s log file. Data are unstacked and uncorrelated. Station location information is in the SEGY file headers. The coordinates are in UTM Zone 10 N with WGS84 datum.