

APPENDIX Q: WATER QUALITY DATA

Georgetown University Boathouse
Environmental Assessment

April 2006

**NEPA-Environmental Assessment Report, Proposed Georgetown University
Non-Motorized Boathouse, Water Street, N.W., Washington D.C.**

1.0 Surface Water

Schnabel obtained existing water quality information data from monitoring stations in the near vicinity of the subject site. The Maryland Department of Natural Resources (DNR) has a monitoring station identified as Middle Potomac River – Little Falls (POT1184), which is located just north of the District of Columbia. This station is a shallow, non-tidal, fresh water site where water temperature, dissolved oxygen (DO), and pH are measured. We obtained monthly data for these parameters for the 2004 monitoring year and graphed it on Figure 1. In addition, on Figure 1, is monthly rainfall data obtained from nearby Reagan National Airport for the same time period. Review of the graph shows that pH levels are fairly constant throughout the year. In addition, since air temperatures decrease in the winter, so do the stream temperatures, and the graph shows a decrease in stream temperature during the winter months. Also, the DO levels show an opposite effect during winter months by showing increased DO levels during that time. This is due to the fact that aquatic life becomes less active during the winter and therefore uses less dissolved oxygen. In addition, DO levels are affected by temperature in that cold water ‘holds’ more oxygen than warmer water.

The DNR station did not provide any data on turbidity, so the Maryland Department of the Environment (MDE) was contacted for a nearby location with this data. MDE provided us with daily turbidity and rainfall information obtained by Washington Suburban Sanitary Commission (WSSC) at a station in Great Falls, just north of the proposed boathouse site. The data provided to us was graphed and is presented as Figure 2. The graphs show some voids in the data, where information was not provided to us. However, a review of Figure 2 shows that rainfall events generally produce an increase in turbidity levels. In addition, higher turbidity levels are visible in the fall, which do not appear to be linked to precipitation events. This may be related to algal blooms, which often occur during the fall months.

Figure 1 - 2004 Water Quality Data from Middle Potomac River - Little Falls Monitoring Station

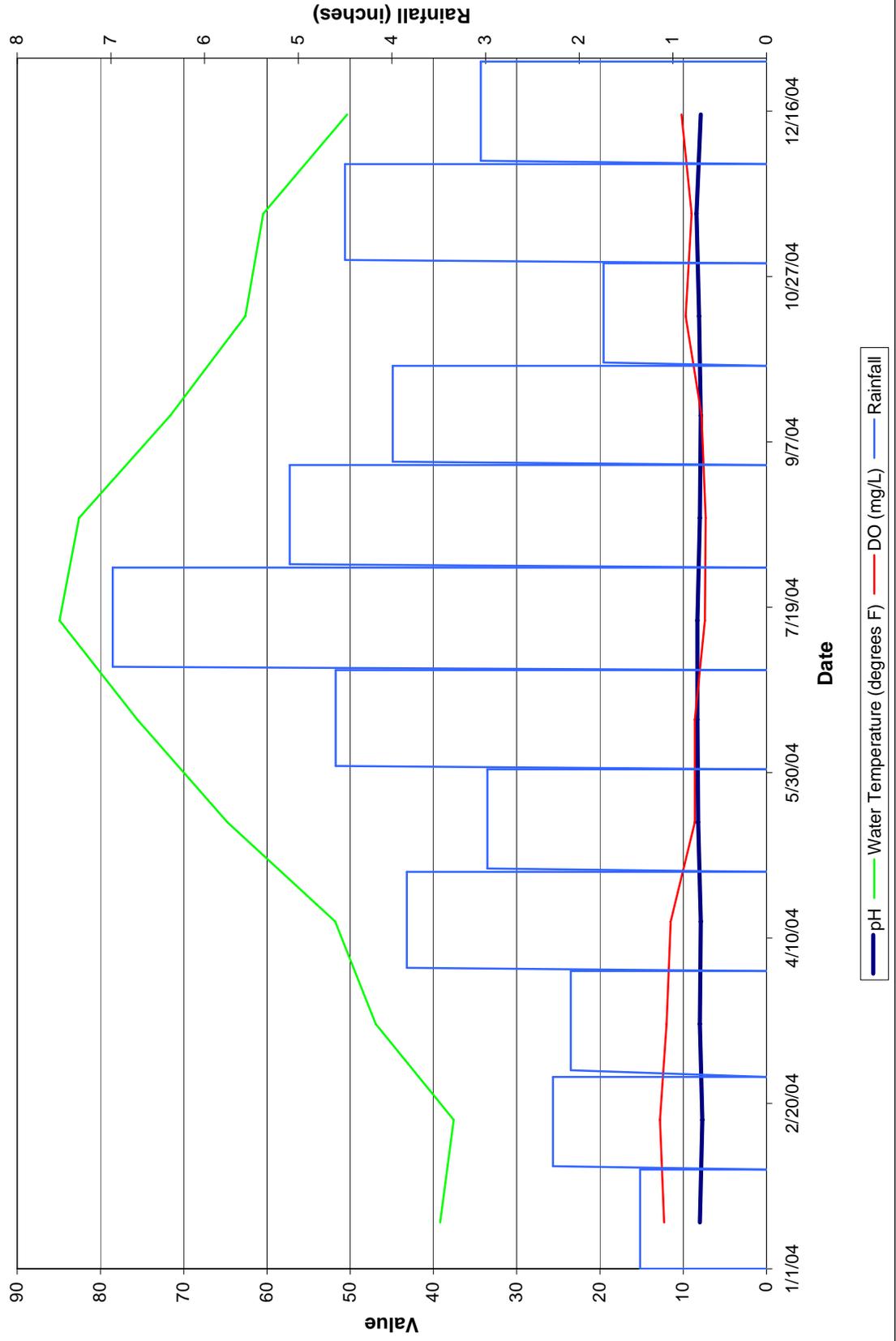


Figure 2 - Potomac River Water Quality

