

Appendix A1: Flow Rates and Clogging Results from Full-Depth Column Tests

The figures in this appendix are plots of the measured treatment flow rates for the full-depth columns, as a function of cumulative solids loading. Each plot is for each of the ten columns and the data are presented for each maintenance activity. Column maintenance was triggered when the flow rate approached 5 m/day. The columns were usually considered failed/clogged when the flow rates were at 1 m/day, or less.

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Flow Rate vs. Cumulative Solids Loading: Baker GAC

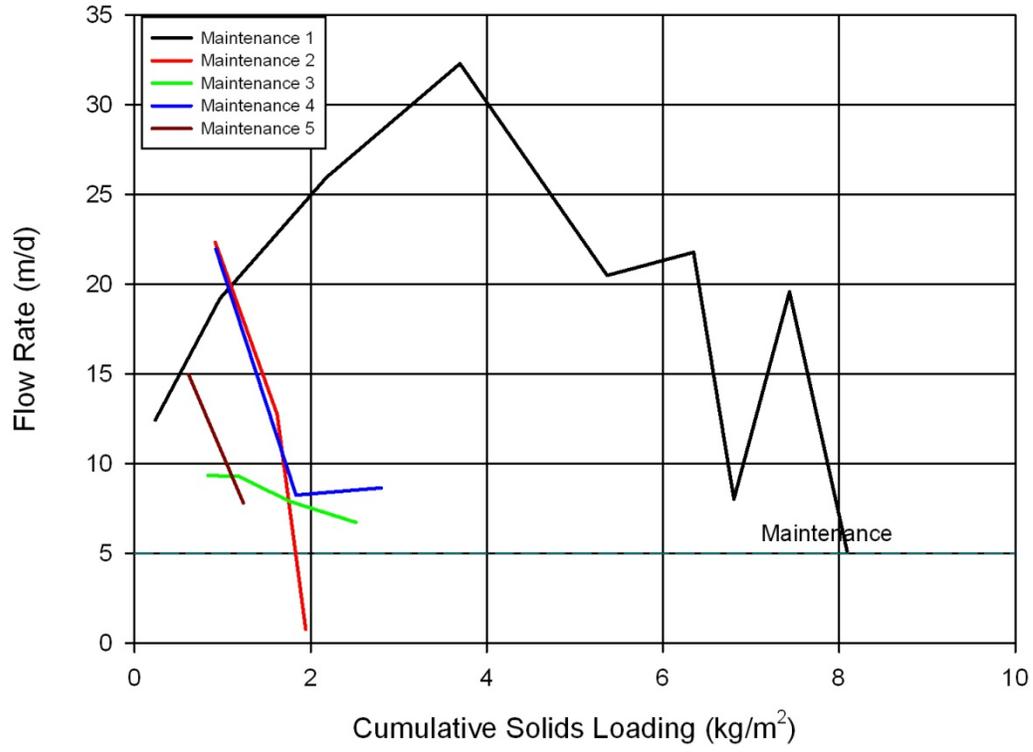


Figure A1-1. Flow rates vs. cumulative solids loading for granular activated carbon (GAC).

Flow Rate vs. Cumulative Solids Loading: Peat Moss

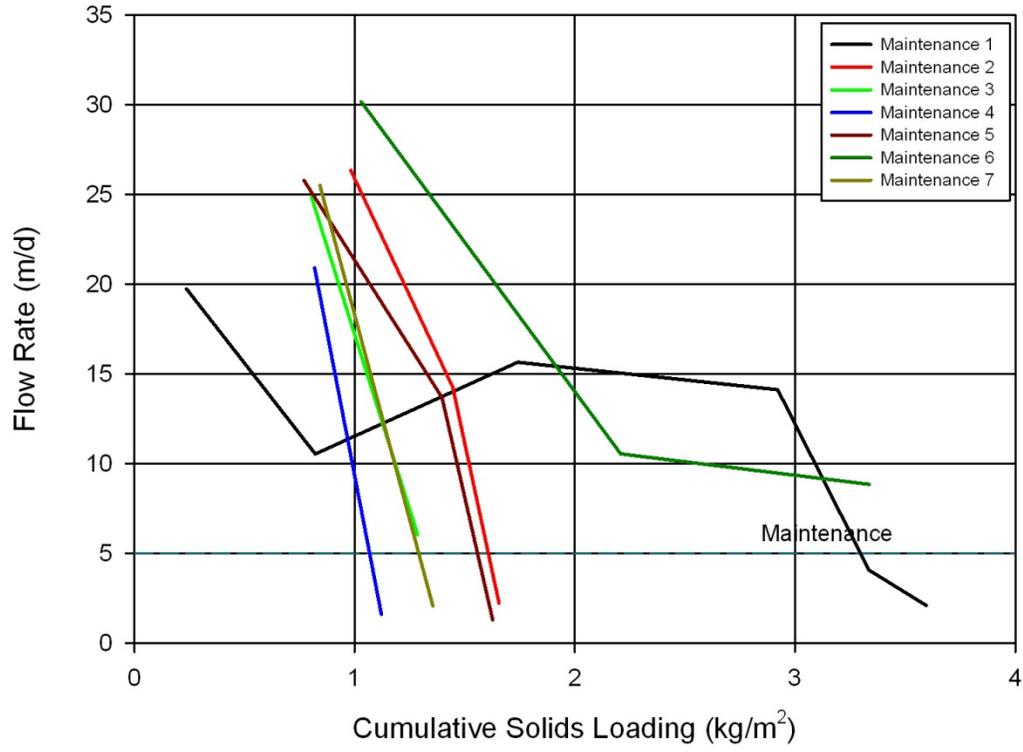


Figure A1-2. Flow rates vs. cumulative solids loading for peat moss (PM).

Flow Rate vs. Cumulative Solids Loading: Rhyolite Sand

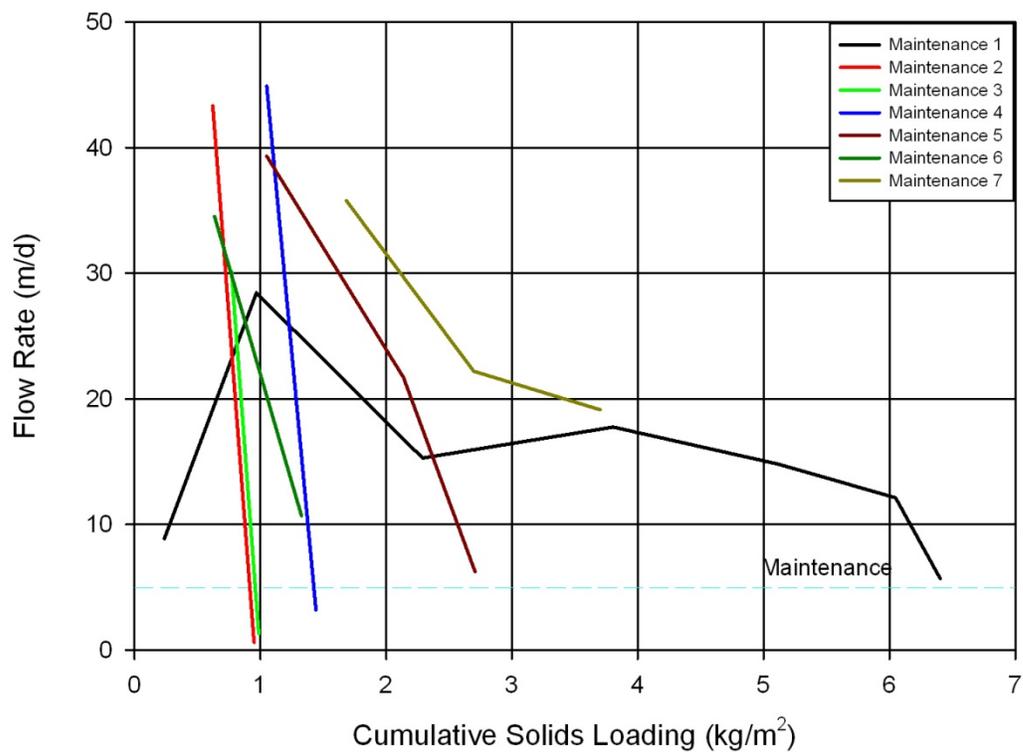


Figure A1-3. Flow rates vs. cumulative solids loading for Rhyolite sand.

Flow Rate vs. Cumulative Solids Loading: Surface Modified Zeolite

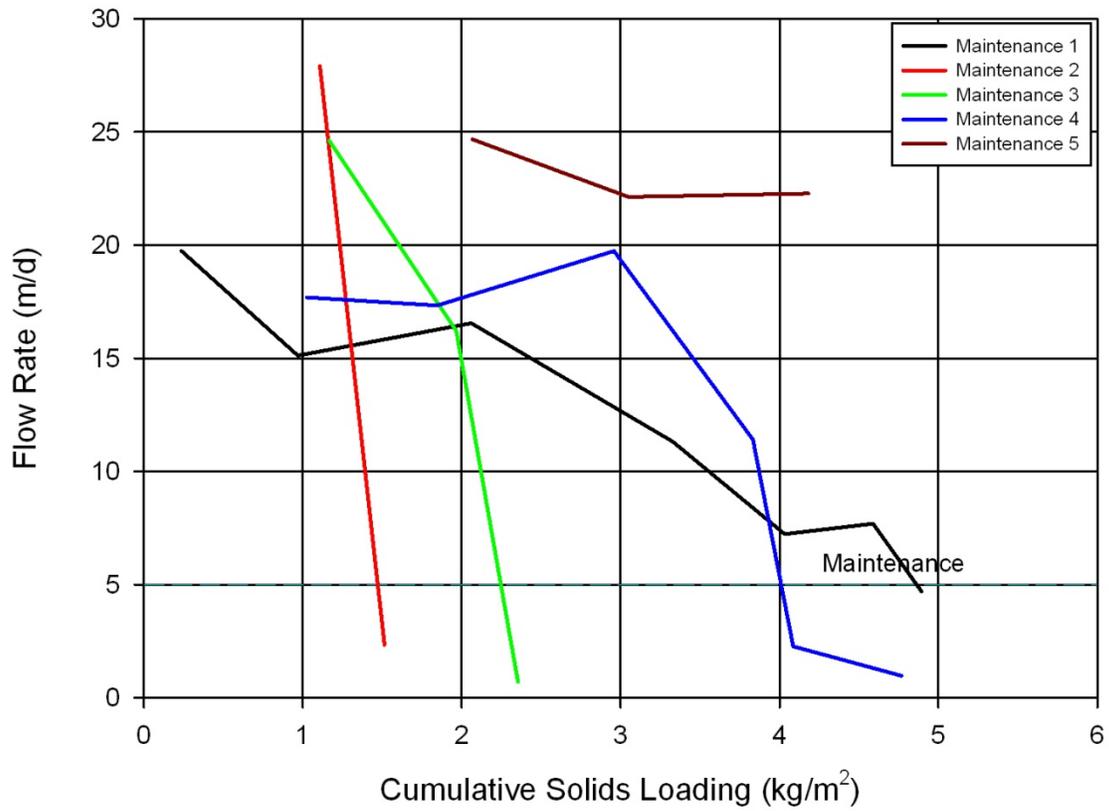


Figure A1-4. Flow rates vs. cumulative solids loading for surface modified zeolite (SMZ).

Flow Rate vs. Cumulative Solids Loading: MWH Zeolite

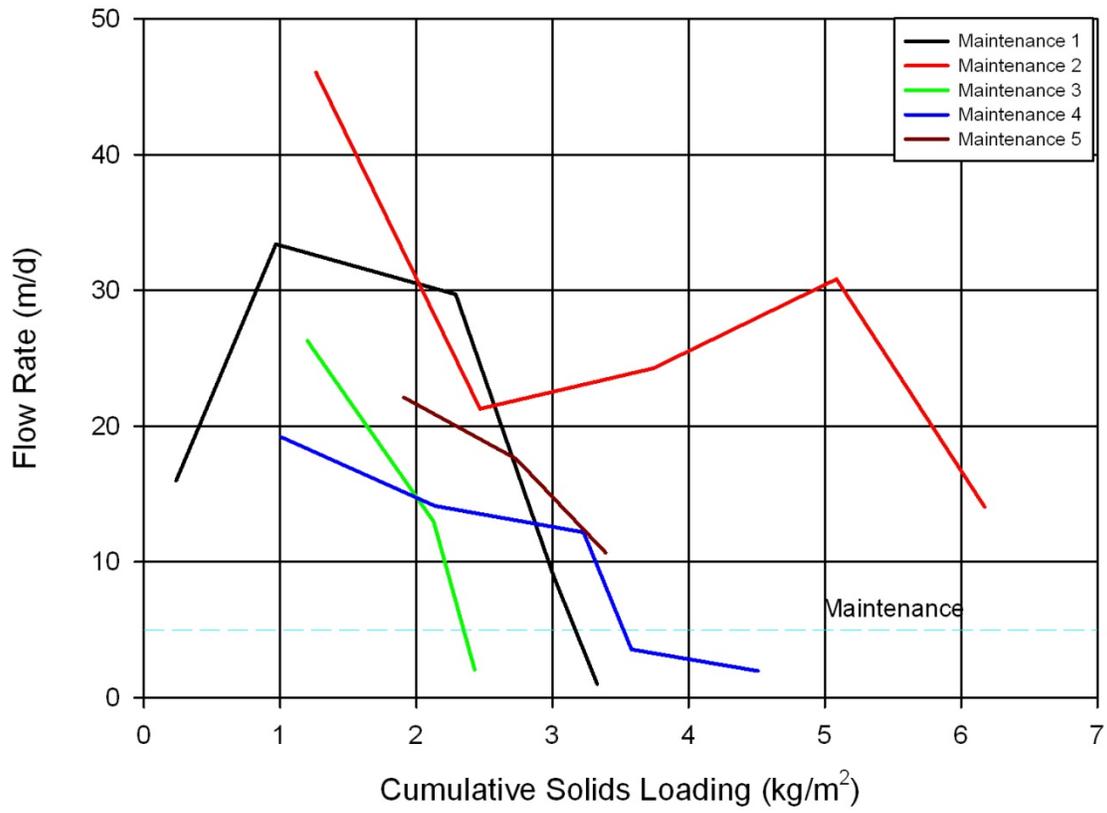


Figure A1-5. Flow rates vs. cumulative solids loading for site zeolite.

Flow Rate vs. Cumulative Solids Loading: MWH Sand

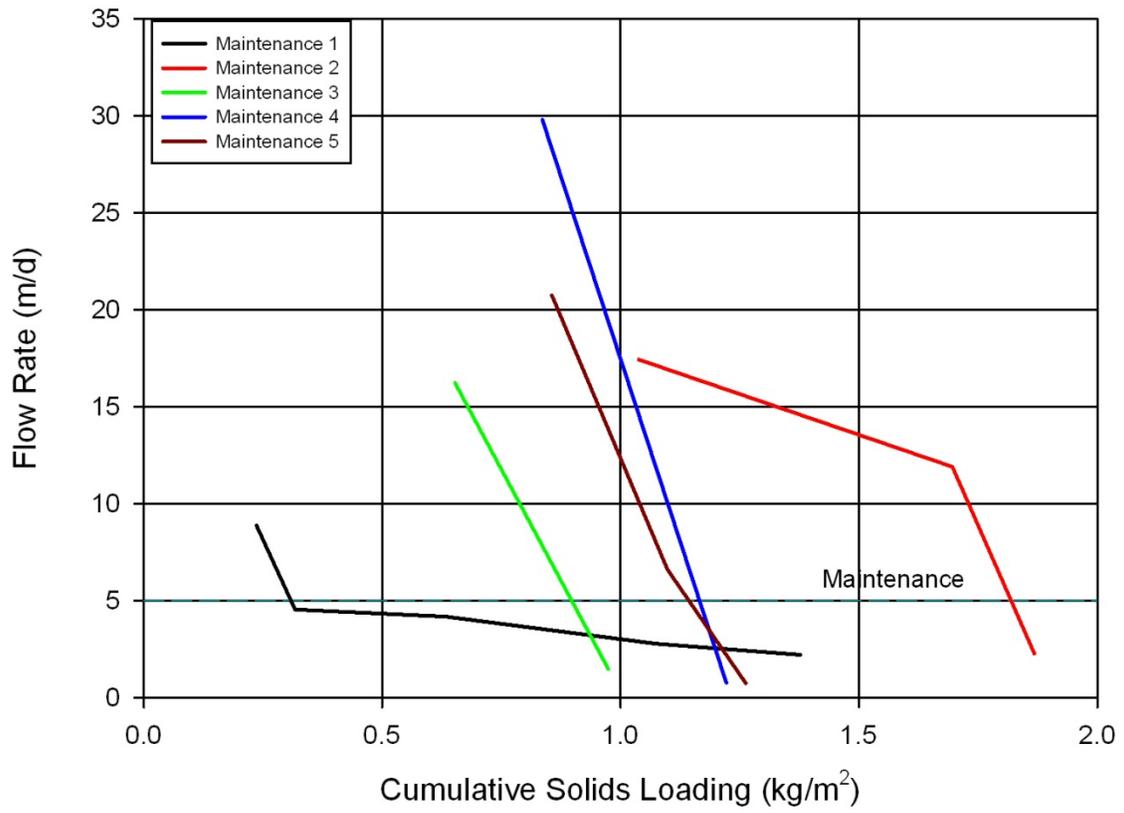


Figure A1-6. Flow rates vs. cumulative solids loading for site filter sand.

Flow Rate vs. Cumulative Solids Loading: R-SMZ

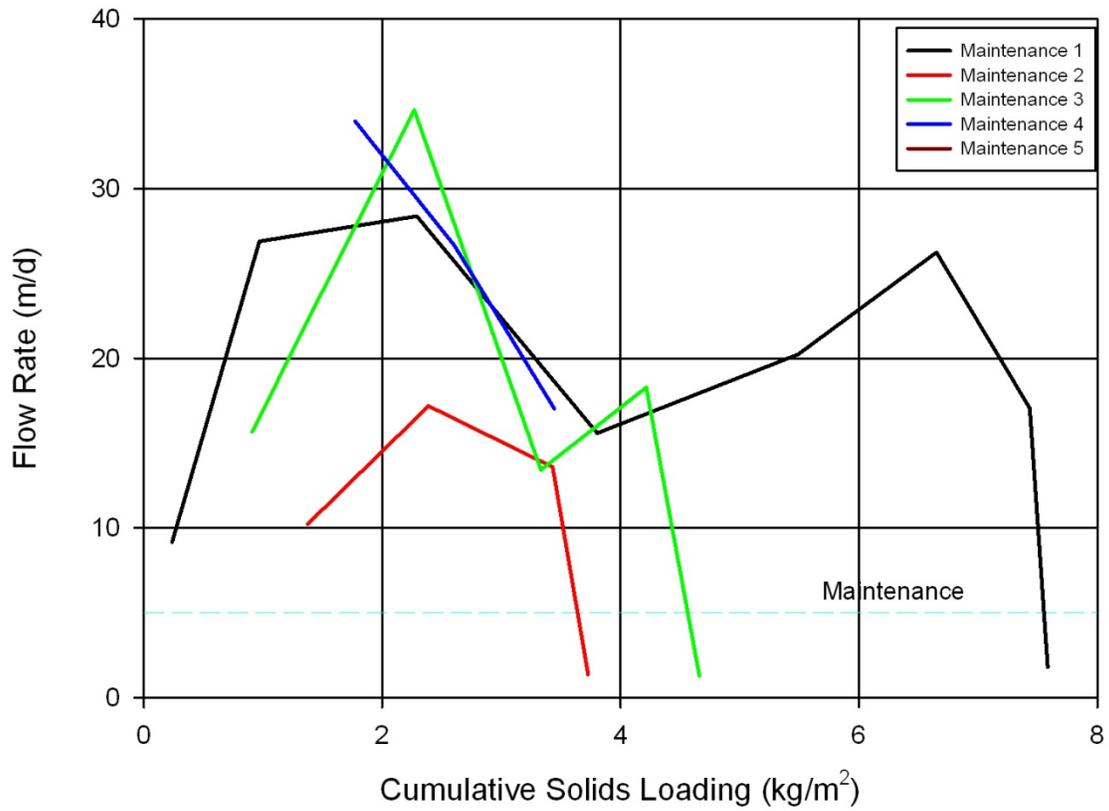


Figure A1-7. Flow rates vs. cumulative solids loading for Rhyolite sand and surface modified zeolite (R-SMZ) mixture.

Flow Rate vs. Cumulative Solids Loading: R-SMZ-GAC Mix

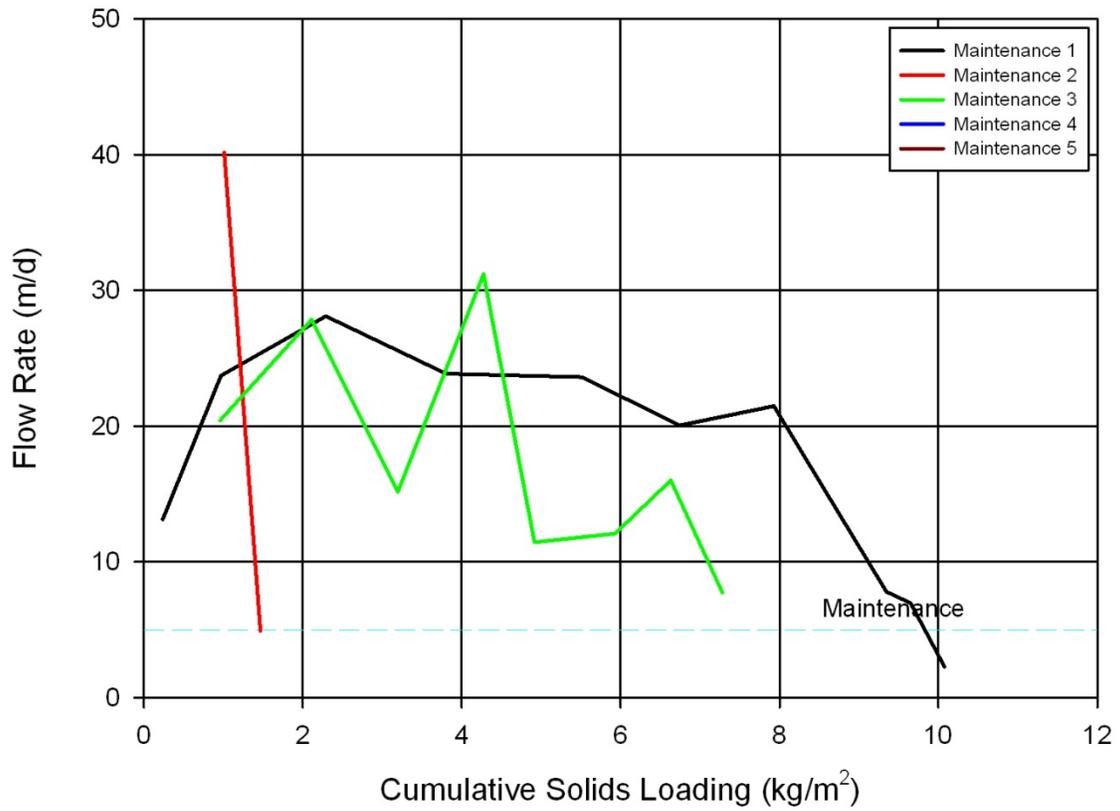


Figure A1-8. Flow rates vs. cumulative solids loading for Rhyolite sand, surface modified zeolite, and granular activated carbon (R-SMZ-GAC) mixture.

Flow Rate vs. Cumulative Solids Loading: R-SMZ-GAC-PM Mix

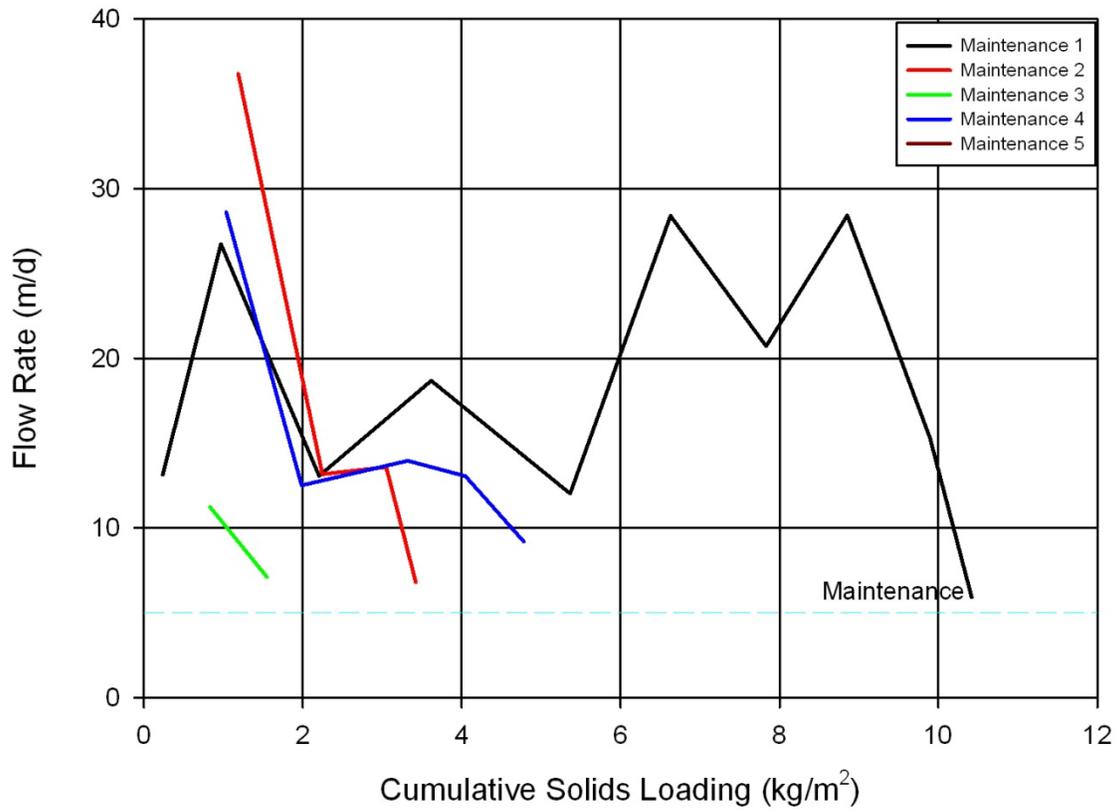


Figure A1-9. Flow rates vs. cumulative solids loading for Rhyolite sand, surface modified zeolite, granular activated carbon, and peat moss (R-SMZ-GAC-PM) mixture.

Flow Rate vs. Cumulative Solids Loading: S-Z-GAC Layered

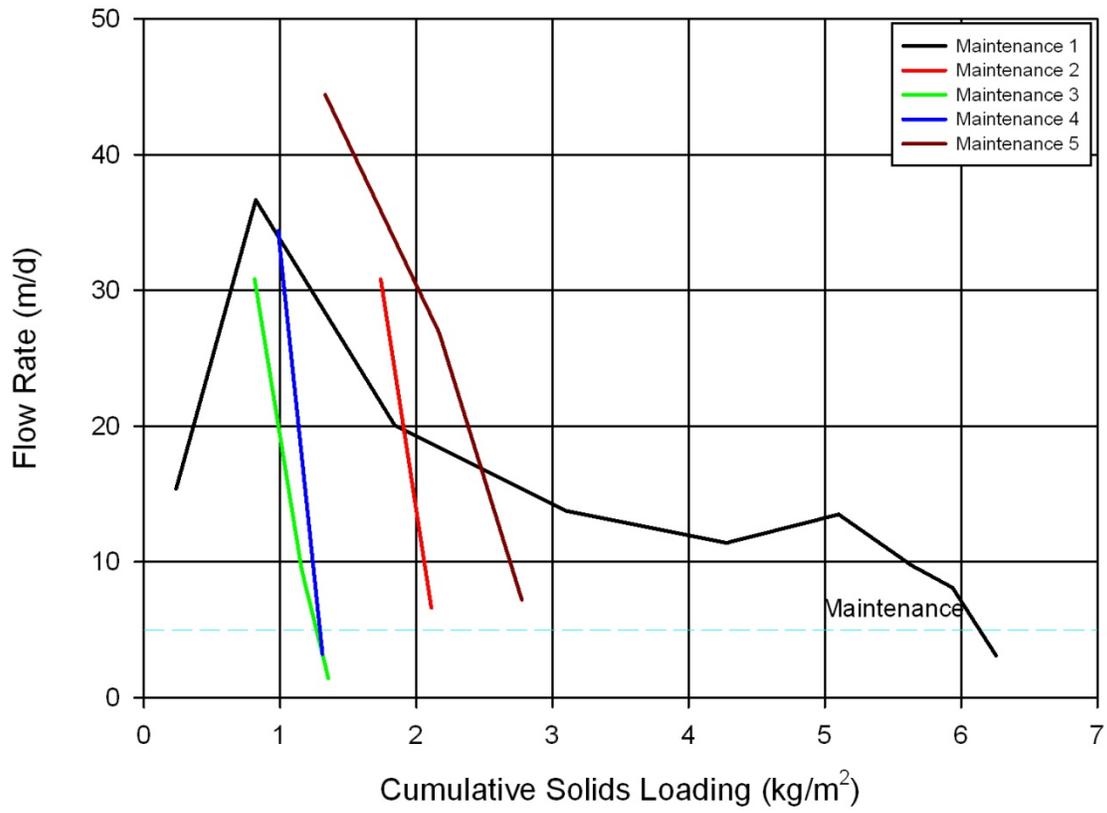


Figure A1-10. Flow rates vs. cumulative solids loading for site filter sand, site zeolite, and granular activated carbon (S-Z-GAC) layered mixture.