
Vashon-Maury Island 2007 Water Resources Data Report

Part of the Water Resources Evaluation Project

October 2008



Department of Natural Resources and Parks

Water and Land Resources Division

Science Section

King Street Center, KSC-NR-0600

201 South Jackson Street, Suite 600

Seattle, WA 98104

dnr.metrokc.gov/wlr

Alternate Formats Available

206-296-7380 TTY Relay: 711

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Submitted by:

Eric W. Ferguson
King County Water and Land Resources Division
Department of Natural Resources and Parks



King County

Department of
Natural Resources and Parks

Water and Land Resources Division

201 South Jackson Street, Suite 600
Seattle, WA 98104

Citation

King County. 2008. Vashon-Maury Island 2007 Water Resources Data Report. Prepared by Eric W. Ferguson, Water and Land Resources Division. Seattle, Washington.

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EXECUTIVE SUMMARY

King County's Water and Land Resource Division (WLRD) has been monitoring precipitation, stream flow, and groundwater on Vashon-Maury Island (VMI) for a number of years in an effort to better understand the water budget and overall water quality. This report summarizes the monitoring activities completed in 2007 for the Water Resource Evaluation (WRE) Project.

A variation of 11+ inches was observed across the island and four out of the five sites recorded more rainfall than Sea-Tac airport, the area reference. Site 43U, North Vashon, recorded the most rainfall at 61.6 inches per water year (October 1 to September 30). The East Maury Island site, 36V, recorded the least amount of rainfall at about 25 inches per water year. This site had an incomplete record with two months of data missing. The Sea-Tac annual total precipitation for the 2007 water year was 47.3 inches which is ~27% above the annual average of 37.2 inches (based on historic data 1971-2000). The wet fall season of water year 2007 was recorded at all sites. The rainfall totals for October-December 2006 ranged from 18.2 to 33.9 inches on VMI. Typically these months have rainfall totals from 13 to 19 inches.

Stream gaging activities continued on VMI in 2007. The totals (Q_t) from water year 2007 increased from the previous year for all sites. The increase observed in this water year data coincides with increases in the precipitation data.

A short-term (14 month) assessment of the water quality of Shingle Mill, Christian, Tahlequah, Fisher, Judd, Mileta, and, Gorsuch Creeks began in November 2006. The parameters of interest are a short list of inorganic constituents, nutrients, and microbiology including bacteria. This list of parameters is comparable to other stream sampling done in King County. These sites have good water quality when compared to other King County streams locations. Mileta Creek had varying concentrations of Nitrate + Nitrite throughout the year that were higher than other VMI creeks and other King County stream sites. The bacteria (Fecal Coliform and E. Coli) data are variable month to month and site to site yet the data shows an increase from June through September primarily in two creeks – Fisher and Judd. The water quality sampling of the Vashon-Maury Island stream is continuing at five sites - Tahlequah, Fisher, Judd, Mileta, and Gorsuch Creeks. This work will continue to evaluate the potential sources/causes of the initial water quality assessment

In 2007, groundwater water level monitoring activities continued across the island. The collected by volunteers that have been monitoring their wells monthly since 2001 was assessed for water level trends in selected areas on VMI. A baseline has been established by averaging all measurements taken at each site between 2001 and 2002. The data for two sites, GWL_w-06 & GWL_w-09, show increasing depth to water between 2003 and 2007. Site GWL_w-01 has increased depth to water measurements when compared to the baseline, yet the trend from 2003 to 2007 is with smaller increases (closer to the baseline) each year. The other two sites show a varying difference from year to year. Two new sites have been added to this network.

Continuous recording water level devices (Levellogger™) were installed in the dedicated monitoring wells in 2006. This data set shows fluctuations in the water table not seen in the monthly volunteer measurements. The extent and duration of these fluctuations vary by well

location and are likely related to recharge events. Manual water level measurements were recorded at these locations throughout the year to help calibrate the water table measurements.

The groundwater water quality sampling, completed in August, included the Environmental Indicators of Arsenic, Chloride, and Nitrate + Nitrite at the 19 long-term monitoring locations. These sites have been monitored by King County WLRD since 2001. Overall, the water quality of the groundwater on VMI is very good. The concentrations of these parameters were similar to the results in the previous nine rounds of sampling.

Additional special sampling occurred at 11 sites in 2007 focusing on small Public Water Systems (Group B). Selected organics along with our environmental indicators were sampled. No organics were detected. Eight of the 11 sites had arsenic speciation done. The dissolved Arsenic in groundwater typically is in two different states: As(III) – Arsenite – H_3AsO_3 or As(V) – Arsenate – H_2AsO_4 . Five of eight sites have As(V) as the majority of the dissolved Arsenic. One these special sites (an exempt well) had arsenic concentrations over 40 $\mu\text{g/L}$ which is above the drinking water standard of 10 $\mu\text{g/L}$.

The precipitation, stream, and groundwater monitoring activities of the WRE project will continue in 2008. The data collected will be presented in a similar report and on the King County web pages.

1.0. INTRODUCTION

The Water Resource Evaluation Project is intended to cover monitoring, modeling, and data management activities within Vashon-Maury Island (VMI) for seven years (2004-2010). As part of this work, an annual data report of monitoring activities is summarized in this report. The structure of the report is as follows: Section 1.0 – Introduction and Overview; Section 2.0 – Precipitation; Section 3.0 – Surface Water Monitoring; Section 4.0 – Groundwater Monitoring; Section 5.0 – Discussion.

1.1 Overview

Vashon-Maury Island is an island that lies in the Puget Lowland encompassing about 36 square miles. All drinking water sources on the island (springs, surface water, and groundwater) are supplied by precipitation. Groundwater is the portion of precipitation that soaks into the ground and gets stored in underground geological water systems called aquifers. Every groundwater system is unique and dependent upon external factors such as the rate of precipitation, the interaction of groundwater with the streams and other surface water bodies, and the rate of evapotranspiration. These external factors all contribute to the overall water budget. Understanding the water budget for VMI and changes occur in response to human activities and climate changes is important in determining the amount of drinking water that can be used on a sustained basis.

A long-term plan that describes and evaluates the different components of the VMI water budget is being implemented to address needs and concerns identified by residents of VMI and King County. Much interest has been expressed over the years in the sustainability of the water supply on the island, although to date there has not been a comprehensive study to address many major water supply issues.

The work plan of the Water Resources Evaluation Project is designed to provide a scientific evaluation of the water supply issues (both water quantity and quality related) on VMI. The work plan can be found at: <http://dnr.metrokc.gov/wlr/WQ/vashon-island/pdf/Vashon-Maury-Island-plan.pdf>. The work plan for the VMI Water Resources Evaluation has four main objectives:

1. To monitor Vashon-Maury Island groundwater and surface water quantity and quality to record and identify changes over time;
2. To build a comprehensive groundwater flow model that evaluates groundwater and surface water quantity and quality under various climate change and land-use scenarios;
3. To satisfy the goals of the countywide data management work plan for the Vashon-Maury Island region; and
4. To coordinate activities with the Vashon-Maury Island Groundwater Protection and Land Use Committees, and the citizens of Vashon Maury Island.

To satisfy the objectives of this project, the work is being done in four major areas. The first three areas, monitoring, modeling, and data management are closely interrelated and must be responsive to each other to satisfy the first three objectives of this work plan. The last area, project communication, addresses the fourth and final objective.

1.2 2007 Monitoring Activities

Groundwater, surface water, and precipitation are being monitored in an effort to better describe the VMI water budget and overall water quality. Monitoring efforts on VMI will serve three purposes: (1) to identify changes and trends in groundwater and surface water quantity and quality; (2) to provide necessary data for model development and calibration; and (3) to have an early warning system on the impacts of pollution sources and groundwater extraction. This monitoring will be conducted by a combination of King County WLRD staff, volunteers, and consultant contracts. Data collected in previous years have been presented in several different formats. The precipitation and stream-flow gaging data have been available via request and web site: <http://dnr.metrokc.gov/wlr/waterres/hydrology/GaugeSelect.aspx>. The groundwater data collected in previous years was presented in a report summarizing all of King County's groundwater monitoring, and is available from the following website: <http://dnr.metrokc.gov/wlr/wq/groundwater-sampling-plans.htm>. The following sections give brief descriptions of the data and outline the major monitoring tasks.

Precipitation

Precipitation monitoring has continued on VMI in 2007. KC WLRD Staff maintained continuous precipitation gages at selected gage locations (see Section 2.1).

Stream-flow gaging

Stream gaging continued on the creeks of Vashon-Mary Island in 2007. The existing KC WLRD continuous stream-gage network on VMI consists of five sites: Shingle Mill, Green Valley, Tahlequah, Fisher, and Judd Creeks. Additional streams sites are monitored on a semi-annual basis (see Section 3.1).

Stream water quality collection

Seven streams (Shingle Mill, Christian, Tahlequah, Fisher, Judd, Mileta, and Gorsuch Creeks) were sampled for a selected set of water quality parameters. This work is a short term (~14 months) project to assess the water quality. Additional information and locations provided in Section 3.2.

Water-level measurements in dedicated monitoring wells

Dedicated groundwater-monitoring wells were drilled and installed throughout VMI. The locations of these wells were determined on the need for additional data at these locations. The Phase I groundwater model helped to determine where data gaps existed.

During drilling, soil samples were collected and a boring log describing subsurface soils completed. After installation and development, these wells were equipped with data loggers that monitor water level fluctuations on a continuous basis (see Section 4.1.3). Water-level measurements will be downloaded from the data loggers during the year by KC WLRD staff.

Groundwater quality sample collection

This task involves collecting groundwater samples from our long-term well locations. These sites are currently 18 public supply/private wells that have been sampled since 2001 (see Section 4.2). The current water quality program has a set of environmental indicators, Arsenic; Chloride; and Nitrate + Nitrite, that are sampled annually at all sites. At selected sites, the type of arsenic present was determined or “speciated” (see Section 4.2).

2.0. PRECIPITATION

This type of gaging activity on Vashon-Maury Island (VMI) was expanded in 2005 as part of the Water Resources Evaluation Project. This increased effort is needed to help establish a baseline of conditions as well highlight the variety of conditions across the island. In 2006, a new rainfall contour map of VMI was completed and presented in the annual data report. This map can be found at: <http://dnr.metrokc.gov/wlr/wq/pdf/0704vmiGWprecip.pdf>.

2.1 Precipitation sites

Five sites are currently being monitored for precipitation across VMI. The locations of the gaging sites are shown in Figure 1 and listed in Table 1. The data from Sea-Tac airport is also included in Table 1 as an area reference. The data presented in Table 1 is summarized as total precipitation (inches per year). The annual total can be calculated in two different ways, Water Year (WY) – October 1 to September 30 or Calendar Year (CY) – January 1 to December 31. Accumulated daily totals of precipitation for both ways of calculating annual totals are presented in Figure 2.

Site 43U, North Vashon, has the most rain for the water and calendar year at 61.6 in/yr and 49.1 in/yr respectively (Table 1, Figure 2, and Appendix A). Site 36V, East Maury Island, typically has the least amount of rainfall of all of the VMI sites. This was true for 2007 but had an incomplete record so the total rainfall amounts are not completely comparable (Figure 2 and Appendix A).

The Water Year and Calendar Year totals are different due to the significant rain fall that occurred in the fall 2006. The total amount of rainfall for these three months (October, November, and December) ranged from 18.2 to 33.9 inches (Table 2). These amounts translate into 50 to 70% of the annual average rainfall for the year.

3.0. SURFACE WATER MONITORING

Surface water monitoring is an important component of the water balance of VMI. The WRE is continuing its stream gaging and water quality monitoring across the island to better understand surface –groundwater interactions.

3.1 Stream gaging sites

Five creeks on VMI, Shingle Mill Creek, Green Valley Creek, Tahlequah Creek, Fisher Creek, and Judd Creek, are monitored as part of the existing KC WLRD stream-gage network. All gaging locations are shown in Figure 1 and the continuous gaging sites are listed in Table 3.

Judd Creek, site 43a, Water Year 2007 have the largest total stream flow, Q_t , for all sites since 1999 (Table 3). The mean, maximum, and minimum flows recorded were similar independent of the 12 month time period, WY vs. CY. The hydrographs (total daily flow versus time) for all the continuous sites are presented in Figures 3–7.

3.1.1 Island-wide gaging sites

In 2004, King County began measuring stream flow around Vashon-Maury Island to better assess the amount of flow in stream catchments where continuous gaging is not feasible. These measurements continued at 28 locations in 2007 on two occasions in May and August. The locations are shown in Figure 1 and the data are presented in Table 4. A typical hydrograph of these sites (based on these points and previous data) has a higher stream flow measurement in May with decreasing flow measurements until mid to late fall (Figure 8).

3.2 Stream water quality sites

Surface water quality is one area of the overall water resources of Vashon-Maury Island that has not been monitored. Very little data has been collected to assess the status of the quality of the stream water on the island with the exception of source water locations (Beall and Ellis Creeks). In late 2006, water quality sampling started at seven stream location across Vashon-Maury Island (see Figure 1). A short-term (14 month) assessment of the water quality of Shingle Mill, Christian, Tahlequah, Fisher, Judd, Mileta, and Gorsuch Creeks began in November 2006 and continued through 2007. The parameters of interest are a short list of conventionals, nutrients, and microbiology (see Table 5). This list of parameters is comparable to other stream sampling done in King County.

The results of this assessment are discussed in Section 5. Comparison graphs of VMI creeks versus other King County streams for Nitrate+Nitrite and Temperature are presented in Figure 9 and Figure 10, respectively. Bacteria (Fecal Coliform and E. Coli) data are presented in Figure 11 and Figure 12. All water quality data are presented in Appendix B.

4.0. GROUNDWATER MONITORING

A major part of the Water Resources Evaluation (WRE) project focuses on the groundwater on Vashon-Maury Island (VMI). This project is expanding the water level and water quality monitoring across the island to better understand the local variations.

4.1 Water Level Monitoring

In 2007, the WRE project continued the water level monitoring by supporting the volunteers who monitor their own well water levels, adding new volunteers, and installing continuous recording devices in our dedicated monitoring wells.

4.1.1 Volunteer sites

The volunteer sites started with five individuals that have monitored water levels in their own wells since 2001. Two new sites started in 2006. The measurements are typically taken once a month and reported to KC staff via e-mail. These locations are shown in Figure 13. The data are presented in Table 6 and shown in Figure 14. Two of the sites, GWL_w-01 and GWL_w-06, have very small fluctuations in the measurements during the year with changes in the range of tenths of a foot (Figure 14 and Table 6). The other five sites show a typical hydrograph with smaller depth to water measurements in late spring and greater measurements in late summer/early fall (Figure 14 and Table 6).

4.1.2 Water quality sites

Six sites of the 19 sites that are sampled for water quality have availability for water levels to be taken. These locations are identified with a unique symbol in Figure 13. During the water quality sampling event in late July/August, water level measurements were taken at six of these sites (Table 7). These sites were also included in the Island-wide water level survey conducted in the fall, see next section.

4.1.3 Monitoring wells

Six monitoring wells were drilled and installed in the fall of 2005, October-December. Water level measurements were taken at numerous times for these sites. Continuous water levels (Levellogger™) were installed in these locations in 2006. The locations of these monitoring wells are shown in Figure 13 and the depth to water data are presented in Table 8. The continuous data from each site are shown in Figures 13–17 with the exception of VAS_w-62 which is “dry.”

Four additional monitoring wells were drilled and installed during October 2007 thru January 2008. Water level data was not taken until the wells were developed in March 2008. The water level data will be reported in the 2008 data report.

4.2 Water Quality Monitoring

The water quality sampling, done in August, included the Environmental Indicators of Arsenic, Chloride, and Nitrate + Nitrite at the 19 long-term monitoring locations (see Figure 13). These sites have been monitored by King County WLRD since 2001. The results of these parameters are presented in Table 9 and Appendix B. Overall, the water quality of the groundwater on VMI is very good. The concentrations of these parameters were similar to the results in the previous nine rounds of sampling (Table 9).

4.2.1 Monitoring Well Sampling

Three of the five monitoring wells were sampled in 2007. The other two wells were not sampled due to sediment in the screen zone. This fine sediment caused high turbidity issues that did not resolve. Additional development for these wells occurred at a later date.

The water quality of the samples wells, VAS_w-61, VAS_w-63 and VAS_w-65, is very good. The list of parameters included the Environmental Indicators, as noted above, are the same as previous sampling “long term” events. The list of parameters for the monitoring wells are presented in Table 10. The results of the Environmental Indicators are presented in Table 11 to allow comparisons of other sampled sites. All sampling results are accessible in Appendix B.

4.2.2 Special Water Quality Sampling

In March 2007, additional water quality sampling occurred at 11 sites. This work focused on providing additional water quality sampling to Group B Public Water Systems and other sites at selected locations. The funding for this work was provided by a Department of Ecology watershed grant.

The parameters of this special sampling included the environmental indicators of Arsenic, Chloride, and Nitrate + Nitrite (same as the long-term sites) as well as selected organics such as Organophosphate pesticides, Chlorinated pesticides, Chlorinated herbicides, and Endocrine Disrupting Compounds. Arsenic speciation was done at those locations that had detected arsenic concentrations. The results of the Environmental Indicators are presented in Table 12 to allow comparisons of other sampled sites. All sampling results are accessible in Appendix B.

The results from this work yielded no detections of organic parameters and the environmental indicators concentrations were similar to the long terms sites except at one exempt well site, see results in Appendix A. This location had arsenic concentrations over 40 µg/L which is above the drinking water standard of 10 µg/L. All sites that had arsenic detections had speciation done and these results are presented in Table 13.

5.0. DISCUSSION

This section of the report summarizes the data and provides a brief rationale of reasons why the activities are important to this project. If additional data was available, this section includes discussion of further interpretation.

5.1 Precipitation

As mentioned in Section 2.1, there is a measurable difference in precipitation across the island with the least amount of rainfall being on Maury Island (Table 1, 2, and 14, and Appendix A). The Water Year and Calendar Year totals are different due to the significant rainfall that occurred in the fall of 2006. The total amount of rainfall for these three months (October, November, and December) ranged from 18.2 to 33.9 inches (Table 2). These amounts translate into 50 to 70% of the annual average rainfall for the year. The Sea-Tac data also show a similar increase in rainfall amounts for this time period (Table 1).

The site, 36V – East Maury Island, is the driest portion of the island. Table 14 highlights the difference on the total precipitation by month for each site. The Sea-Tac data is less than all the Vashon-Maury Island sites except for 36V – East Maury Island highlighting the need to have numerous local sites to record the local variation.

5.2 Surface Water

5.2.1 Stream gaging

The stream gaging activities on VMI are an important part of the WRE project. The stream gage stations help describes the interaction of surface water and groundwater on VMI. It is important to understand how the groundwater levels are related to stream flows since many endangered and threatened species rely on stream flows for survival.

The daily total stream flows from 01Sep2006 to 31Dec2007 for the five continuous gage sites are presented in Figures 3–7. These datasets show increased stream flow during the wet season October – May. The record precipitation during the fall of 2006 yielded equally high flows in nearly all the streams (see Tables 15–16 and Figures 3–7).

A comparison of total stream flow data (Q_t) for previous water years was done for all sites. All stream sites showed an increase and the highest recorded total flows (Table 15). This is in part due to the fact that WY2007 was a wet year

5.2.2 Stream water quality

A 14 month assessment of stream water quality was done for seven creeks on Vashon-Maury Island from November 2006 to December 2007. The water quality data is provided in Appendix B. The VMI creeks overall have good water quality especially when compared to other King County stream sites, see Figures 9–10 and Appendix B. Mileta Creek is one site that

has varying concentration of Nitrate+Nitrite throughout the year that are higher than other VMI creeks and King County stream sites. Potential causes for this effect are application of “fall” fertilizers that get flushed through the system.

The bacteria data from Vashon-Maury Island stream sampling show a dramatic increase from June through September primarily in two creeks – Fisher and Judd (see Figures 11–12). At this time, it is unknown the exact source causing this result. The potential sources are warm blooded mammals including but not limited to birds, deer, horses, and/or people.

The water quality sampling of the Vashon-Maury Island stream is going to continue in 2008 at five sites: Tahlequah, Fisher, Judd, Mileta, and Gorsuch Creeks. This work will continue to evaluate the potential sources/causes of the initial water quality assessment.

5.3 Groundwater

5.3.1 Volunteer water level sites

The volunteer sites have been monitoring their wells monthly since 2001 and this allows for assessment of trends for selected areas on Vashon-Maury Island. A baseline has been established by averaging all of measurements taken between 2001 and 2002. The number of water level measurements taken varies from 11 to 21 for this 24-month period. Establishing a baseline allows for a simple comparison of measurements to this number. Some limitations are present using this technique, such as the limited number of measurements used to establish the baseline number for a few sites. Another concern is the seasonal variation may not be accurately being measured, depending on when the baseline measurements were taken. Despite these limitations, the baseline does show trends when comparing the annual average of measurements taken (Table 16).

Table 16 shows the relative change of the annual average from the baseline in the depth to water measurements taken in 2003 through 2007. Two sites, GWL_w-06 and GWL_w-09, show a trend of increasing depth to water with time from 2003 to 2007. Site GWL_w-01 has increased depth to water measurements when compared to the baseline, yet the trend from 2003 to 2007 is with the increases becoming smaller (closer to the baseline) each year. The other two sites show a varying difference from year to year. Another way to visual the data is to show the monthly depth to water (DTW) measurements versus time (Figure 15). This figure has three separate graphs of the volunteer sites with increasing depth to water on the left and the same annual time periods across the top. The purpose of this figure is to highlight the seasonal variation recorded at some sites as well as to display the steady increase of the DTW measurements for other sites.

5.3.2 Dedicated monitoring wells

The dedicated monitoring wells were installed October through December 2005. A well data report was completed in 2006 and can be found on the web at:

<http://dnr.metrokc.gov/wlr/wq/WRE-welldata-report05.htm>.

Water level measurements were taken throughout the year at these locations (Table 8). Continuous water level recorders (Levellogger©) were installed in each well throughout the year.

The data from each type of water level reading are presented in Figures 14--18. This data presented yielded results that are not easily explained as seen in the atypical hygrographs of VAS_w-60 – Vashon Highway at 145th Pl and VAS_w-64 – Wax Orchard Road at Vashon Hwy, Figure 16 and Figure 19, respectively. Both of these hydrographs yielded dramatic increases (~15+ feet) in the water table elevations for reasons currently unknown. Continued monitoring and research is being done to determine the cause of these observed features.

5.3.3 Water quality monitoring

Three different sampling events occurred on VMI in 2007. In March, a special water quality sampling occurred at 11 sites. This work focused on providing additional water quality sampling to Group B Public Water Systems and a few other selected sites. The funding for this work was provided by a Department of Ecology watershed grant.

The parameters of this special sampling included the environmental indicators of Arsenic, Chloride, and Nitrate + Nitrite (same as the long-term sites) as well as selected organics such as Organophosphate pesticides, Chlorinated pesticides, Chlorinated herbicides, and endocrine disrupting compounds. Arsenic speciation was done at those locations that had detected arsenic concentrations. The results of the Environmental Indicators are presented in Table 12 to allow comparisons of other sampled sites. All sampling results are accessible in Appendix B.

The results from this work yielded no detections of organic parameters and the environmental indicators concentrations were similar to the long term sites except at one exempt well site. This location had arsenic concentrations over 40 µg/L which is above the drinking water standard of 10 µg/L. The arsenic speciation data, done at eight sites, are presented in. Five of eight sites have As(V) as the majority of the dissolved Arsenic.

The second sampling event was the sampling of long-term sites on VMI in July and August. Nineteen sites were sampled and the results for the environmental indicators of Arsenic, Chloride and Nitrate + Nitrite, were similar to the previous results (Table 9).

The third sampling occurred in August and focused on the monitoring wells. Three of the five monitoring wells were sampled. The other two wells were not sampled due to sediment in the screen zone. This fine sediment caused high turbidity issues that did not resolve. Additional development for these wells occurred at a later date.

The water quality of the samples wells, VAS_w-61, VAS_w-63 and VAS_w-65, is very good. The list of parameters included the Environmental Indicators, as noted above, are the same as previous sampling “long term” events. The list of parameters for this sampling are presented in Table 10. The results of the Environmental Indicators are presented in Table 11 to allow comparisons of other sampled sites. All sampling results are accessible in Appendix B.

6.0. REFERENCES

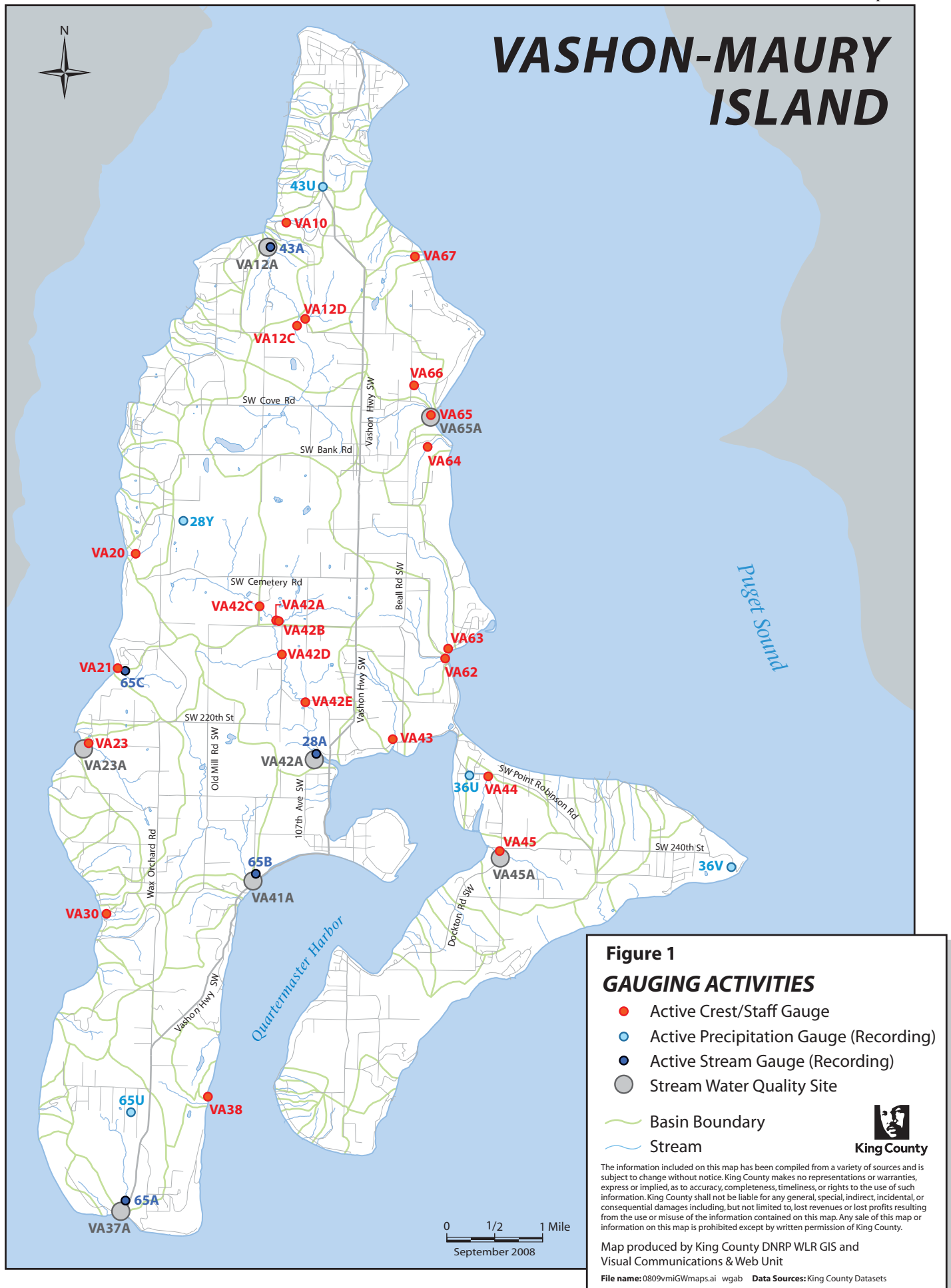
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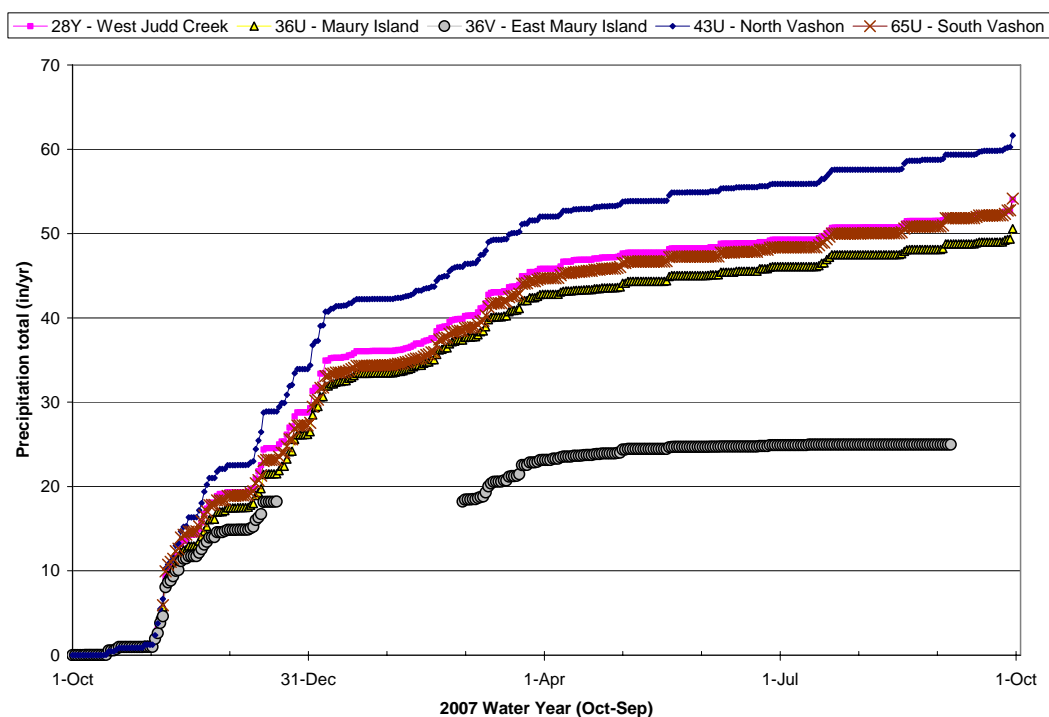
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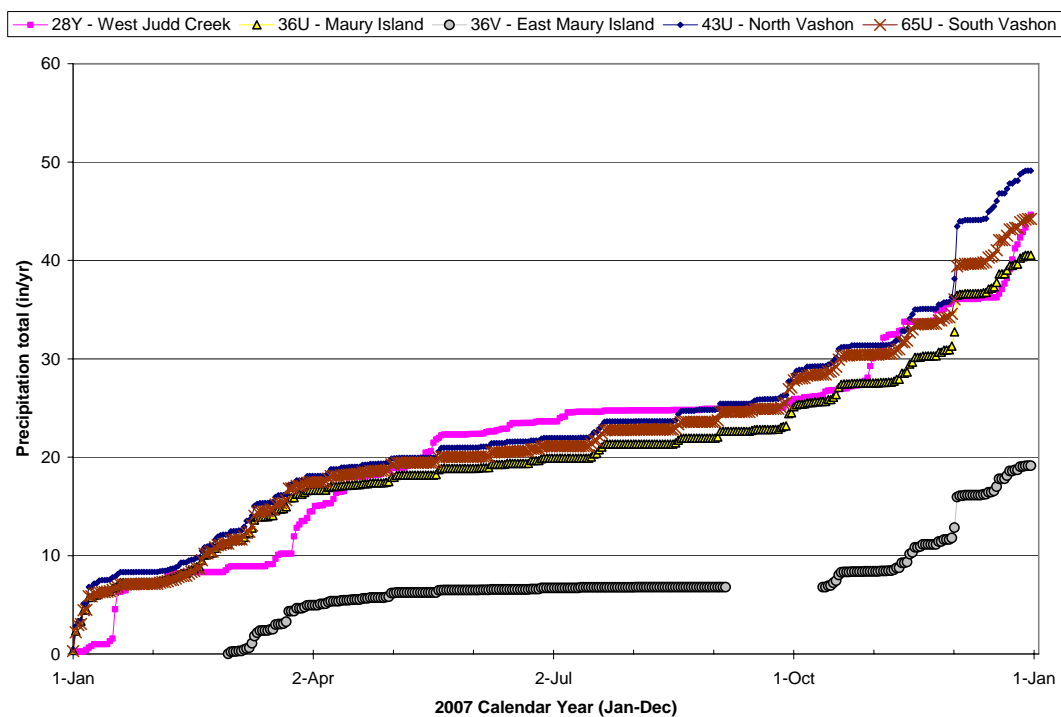
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2a. Accumulated daily totals of precipitation (inches/year) for the 2007 Water Year (October to September)



2b. Accumulated daily totals of precipitation (inches/year) for the 2007 Calendar Year (January to December)

Figure 2 (a-b). Accumulated daily totals of precipitation for all sites on Vashon-Maury Island. Figure 2a displays the data on a Water Year (October to September) time scale while Figure 2b displays the data on a Calendar Year (January to December) time scale.

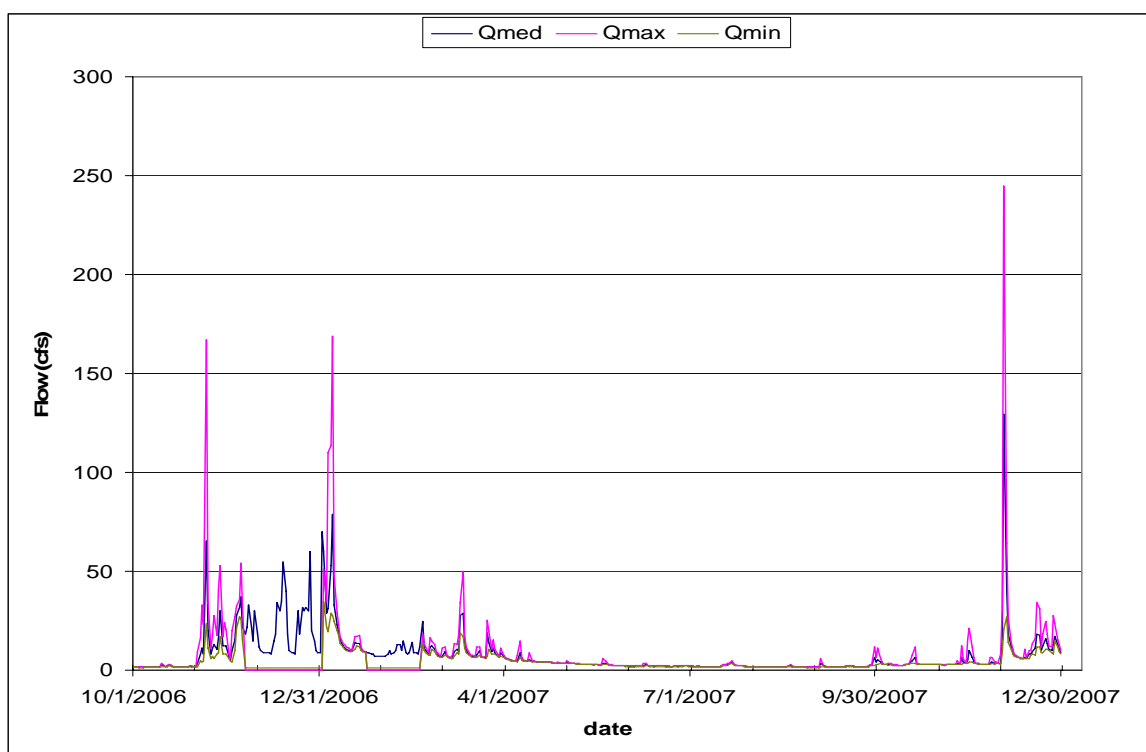


Figure 3. Hydrograph of daily stream flows (mean, maximum and minimum) for the Judd Creek site, gage 28A. The time period shown is from October 1, 2006 to December 31, 2007.

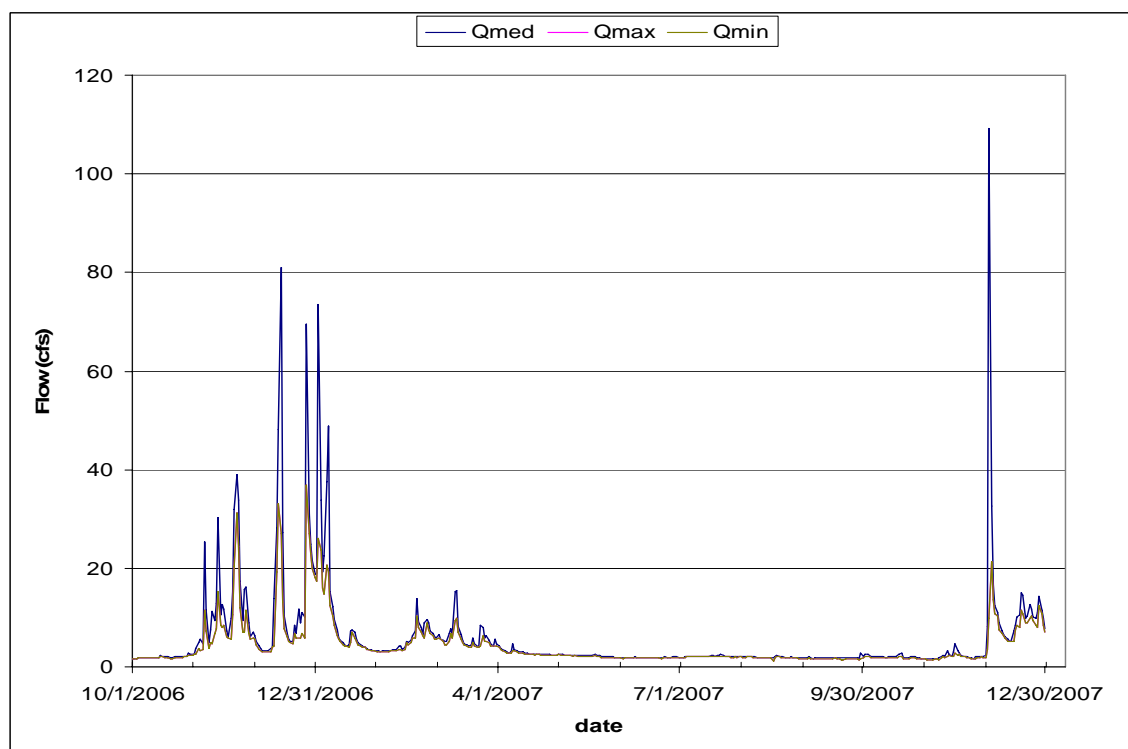


Figure 4. Hydrograph of daily stream flows (mean, maximum and minimum) for the Shingle Mill Creek site, gage 43A. The time period shown is from October 1, 2006 to December 31, 2007.

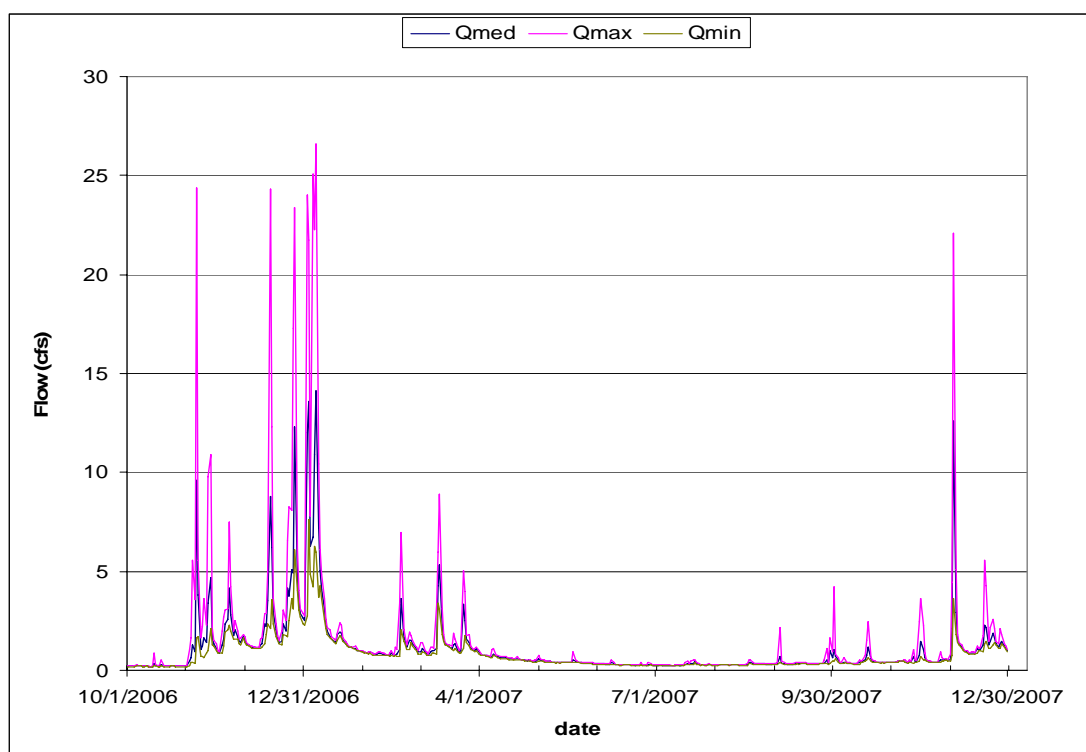


Figure 5. Hydrograph of daily stream flows (mean, maximum and minimum) for the Tahlequah Creek site, gage 65A. The time period shown is from October 1, 2006 to December 31, 2007.

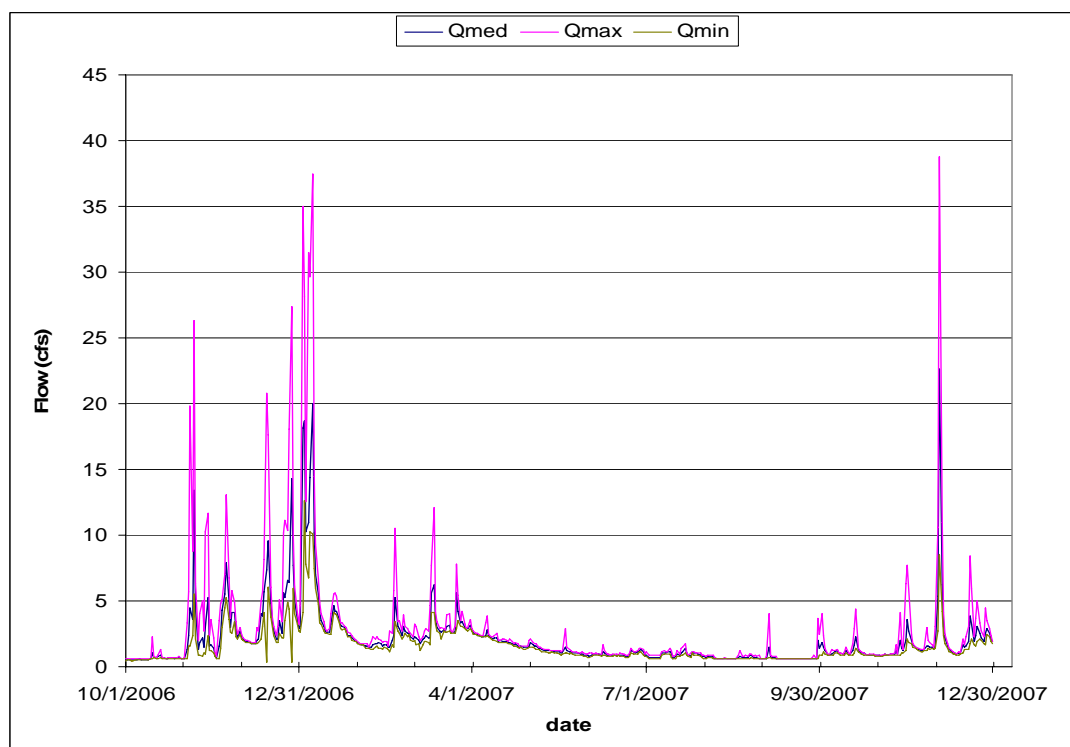


Figure 6. Hydrograph of daily stream flows (mean, maximum and minimum) for the Fisher Creek site, gage 65B. The time period shown is from October 1, 2006 to December 31, 2007.

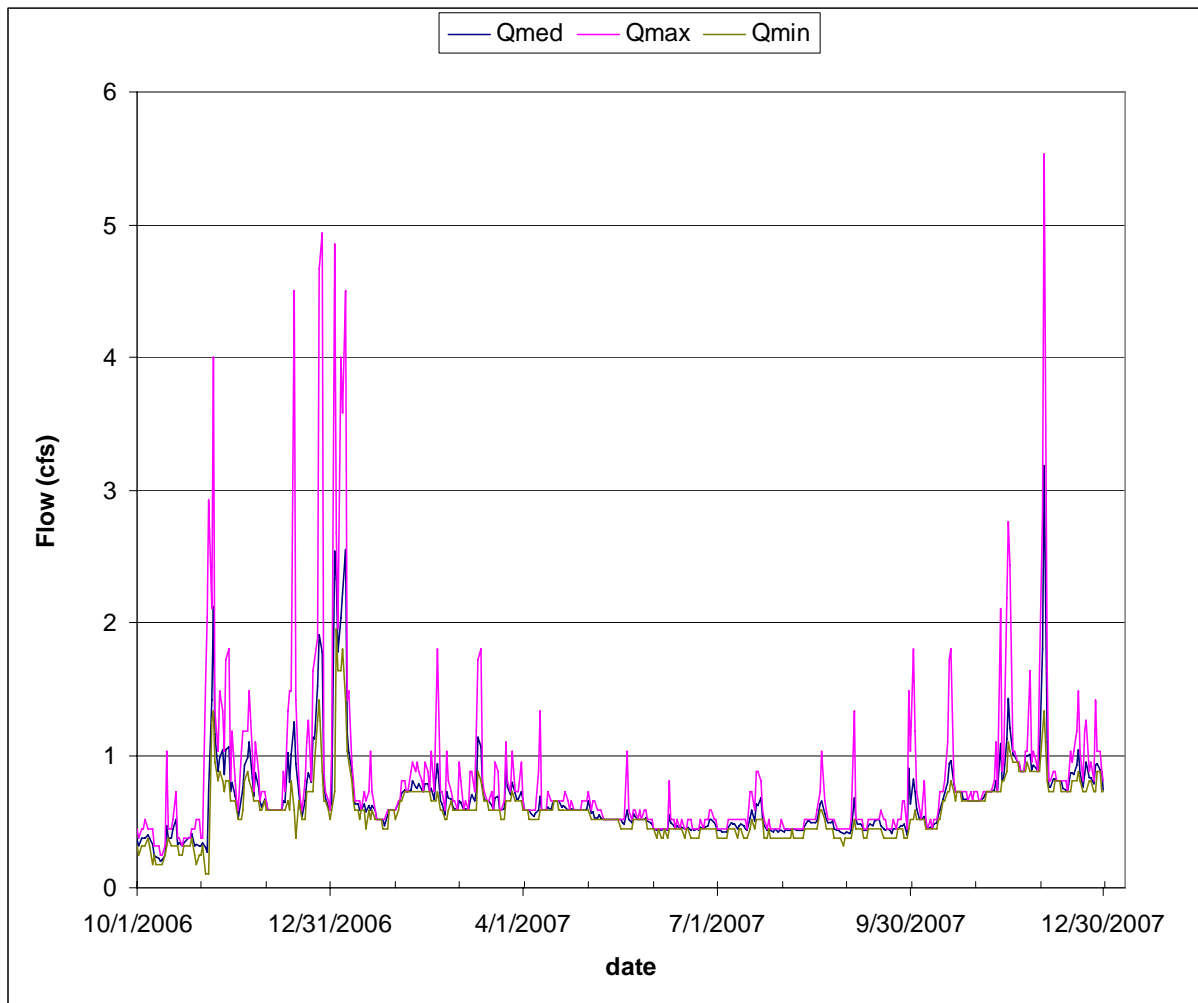


Figure 7. Hydrograph of daily stream flows (mean, maximum and minimum) for the Green Valley Creek site, gage 65C. The time period shown is from October 1, 2006 to December 31, 2007.

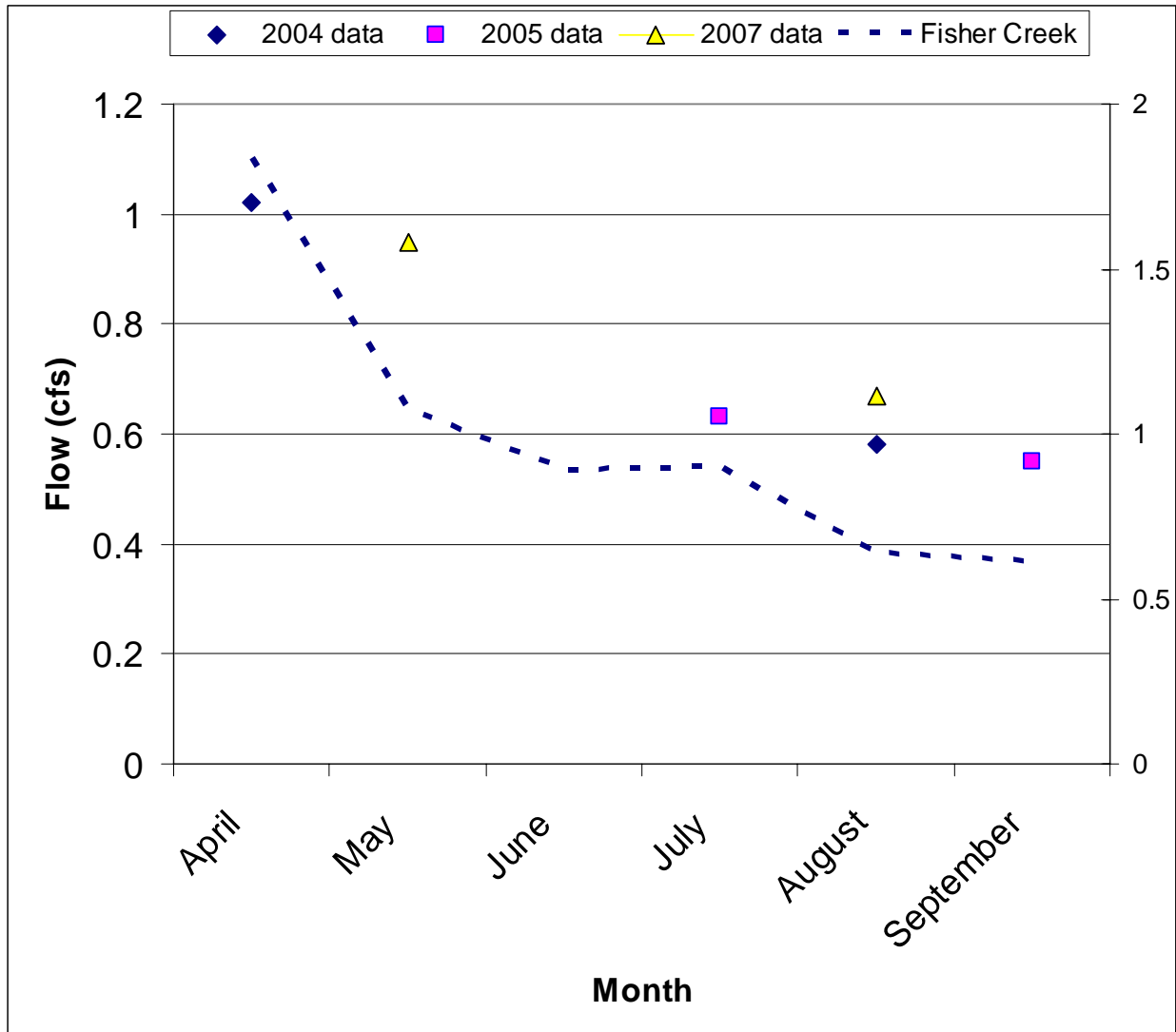


Figure 8. Typical hydrograph for the Island-wide stream gage sites showing a decrease in stream flow from spring through early fall. This location is Christensen Creek, gage VA23, and has been measured since April 2004. Fisher Creek data as monthly mean flow (cfs) is shown on the second axis to help visualize the typical hydrograph.

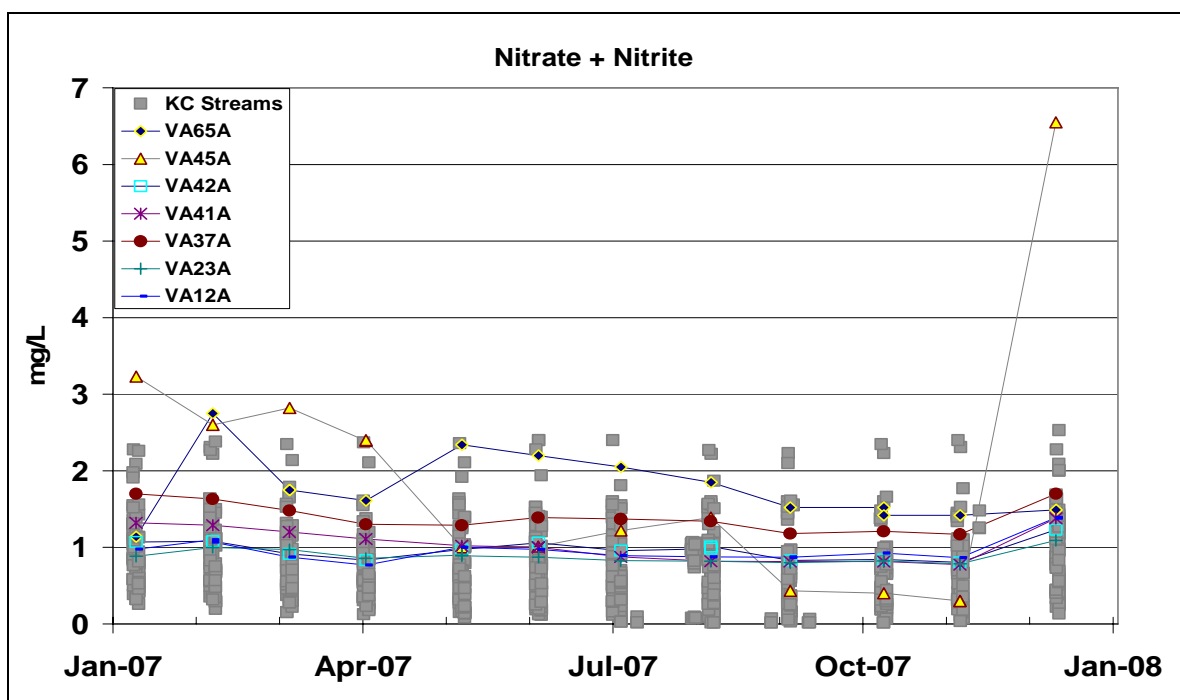


Figure 9. Nitrate + Nitrite water quality data from Vashon-Maury Island Creeks for 2007. The sites sampled are Shingle Mill (VA12A), Christian (VA23A), Tahlequah (VA37A), Fisher (VA41A), Judd (VA42A), Mileta (VA45A), and Gorsuch Creek (VA65A). The grey squares represent data sampled at all the other King County stream sites.

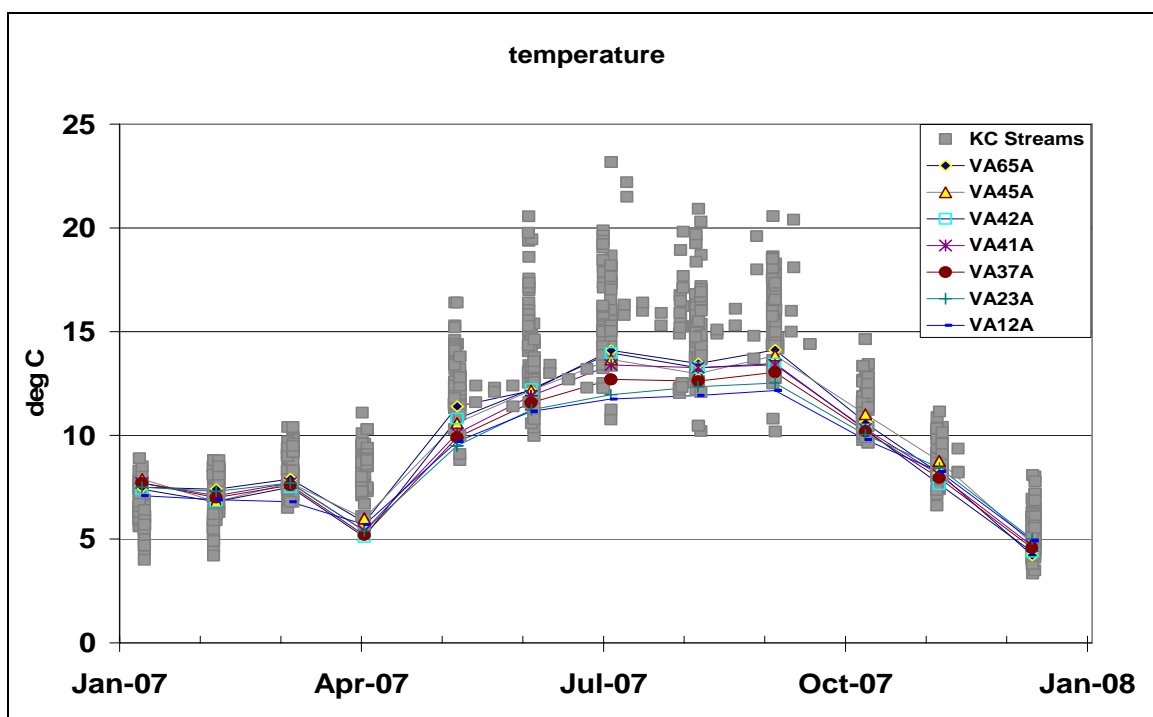


Figure 10. Temperature data from Vashon-Maury Island Creeks for 2007. Data collected monthly at 7 stream sites: Shingle Mill (VA12A), Christian (VA23A), Tahlequah (VA37A), Fisher (VA41A), Judd (VA42A), Mileta (VA45A), and Gorsuch Creek (VA65A).

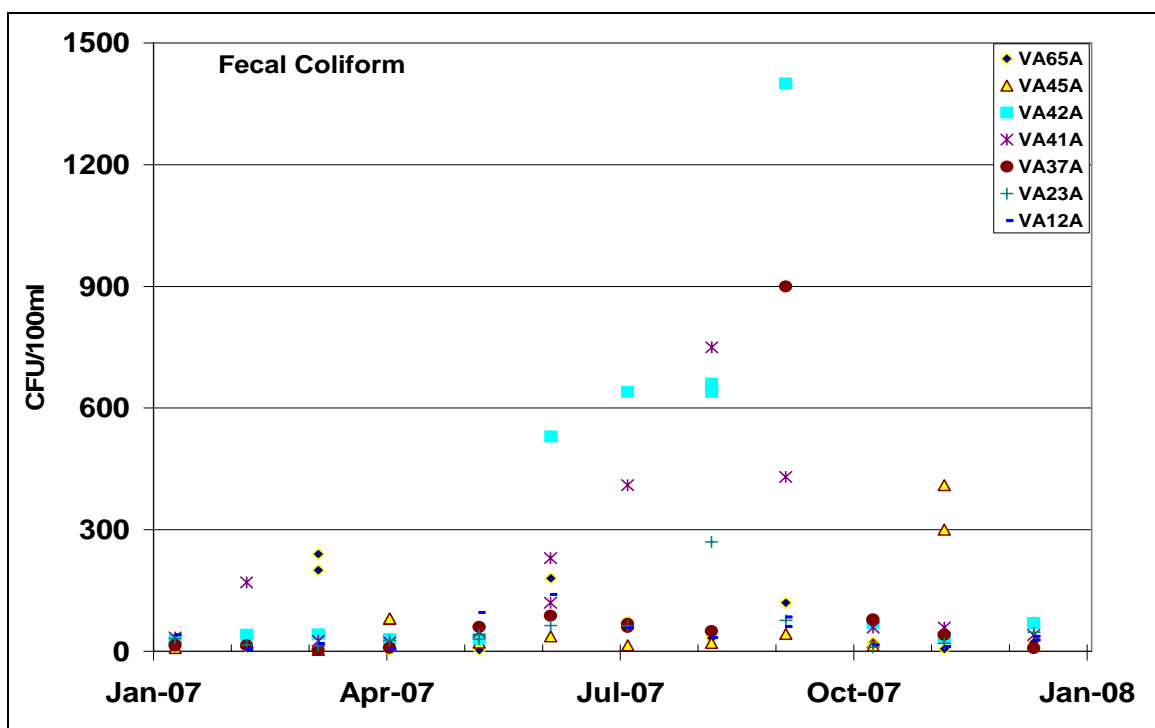


Figure 11. Fecal Coliform data from VMI Stream for 2007. Data collected monthly at 7 stream sites: Shingle Mill (VA12A), Christian (VA23A), Tahlequah (VA37A), Fisher (VA41A), Judd (VA42A), Mileta (VA45A), and Gorsuch Creek (VA65A).

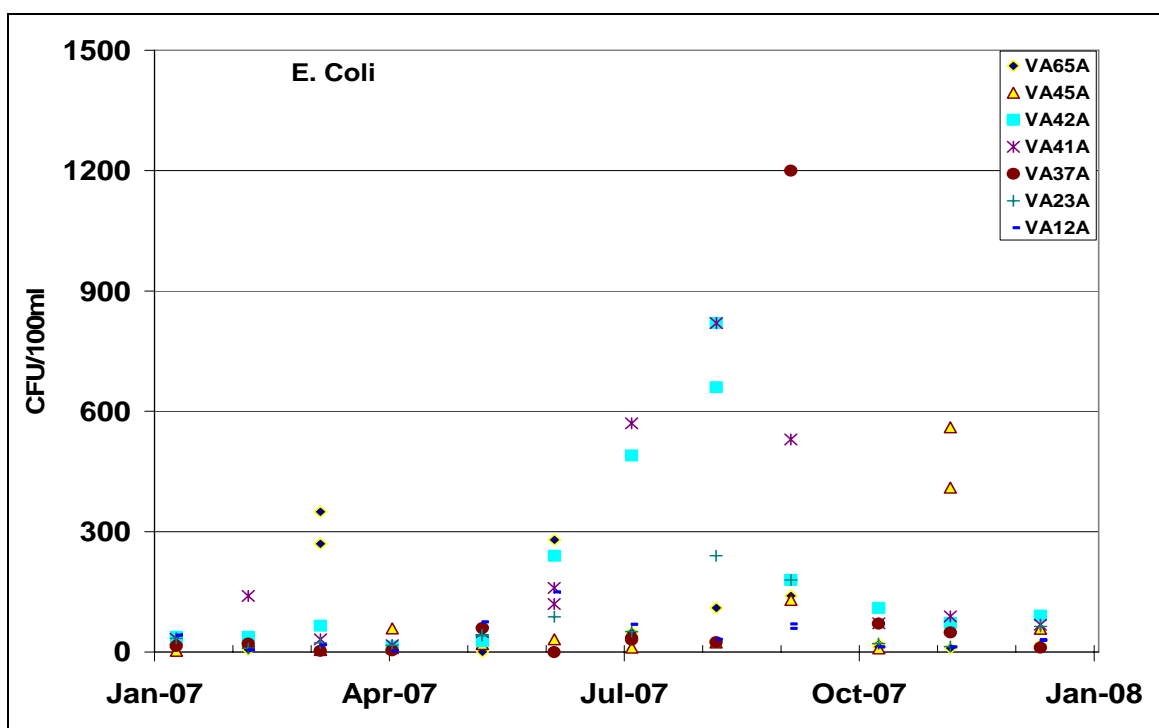
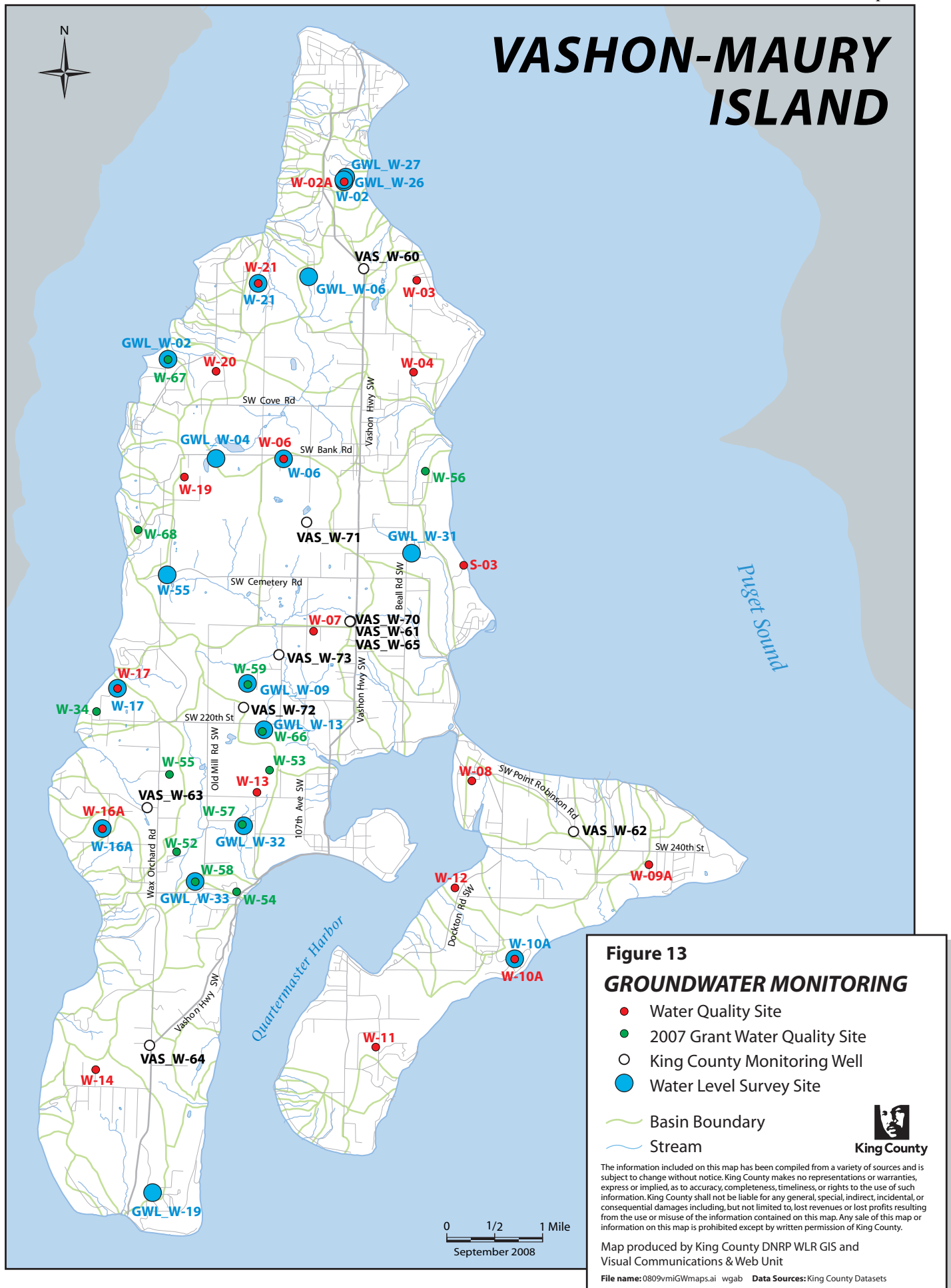


Figure 12. E. Coli data from VMI Stream for 2007. Data collected monthly at 7 stream sites: Shingle Mill (VA12A), Christian (VA23A), Tahlequah (VA37A), Fisher (VA41A), Judd (VA42A), Mileta (VA45A), and Gorsuch Creek (VA65A).

VASHON-MAURY ISLAND



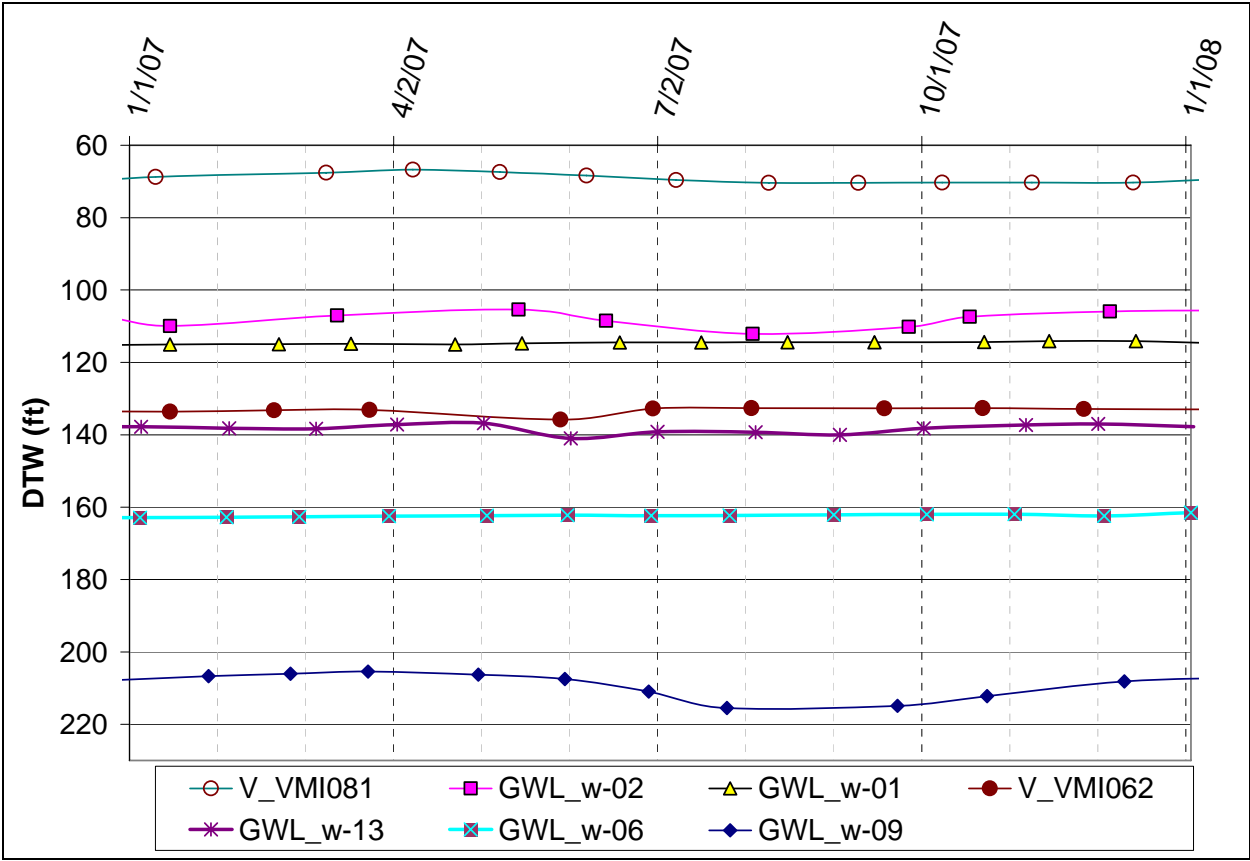


Figure 14. Depth to water (DTW) measurements in feet below land surface at the seven volunteer sites on VMI in 2007.

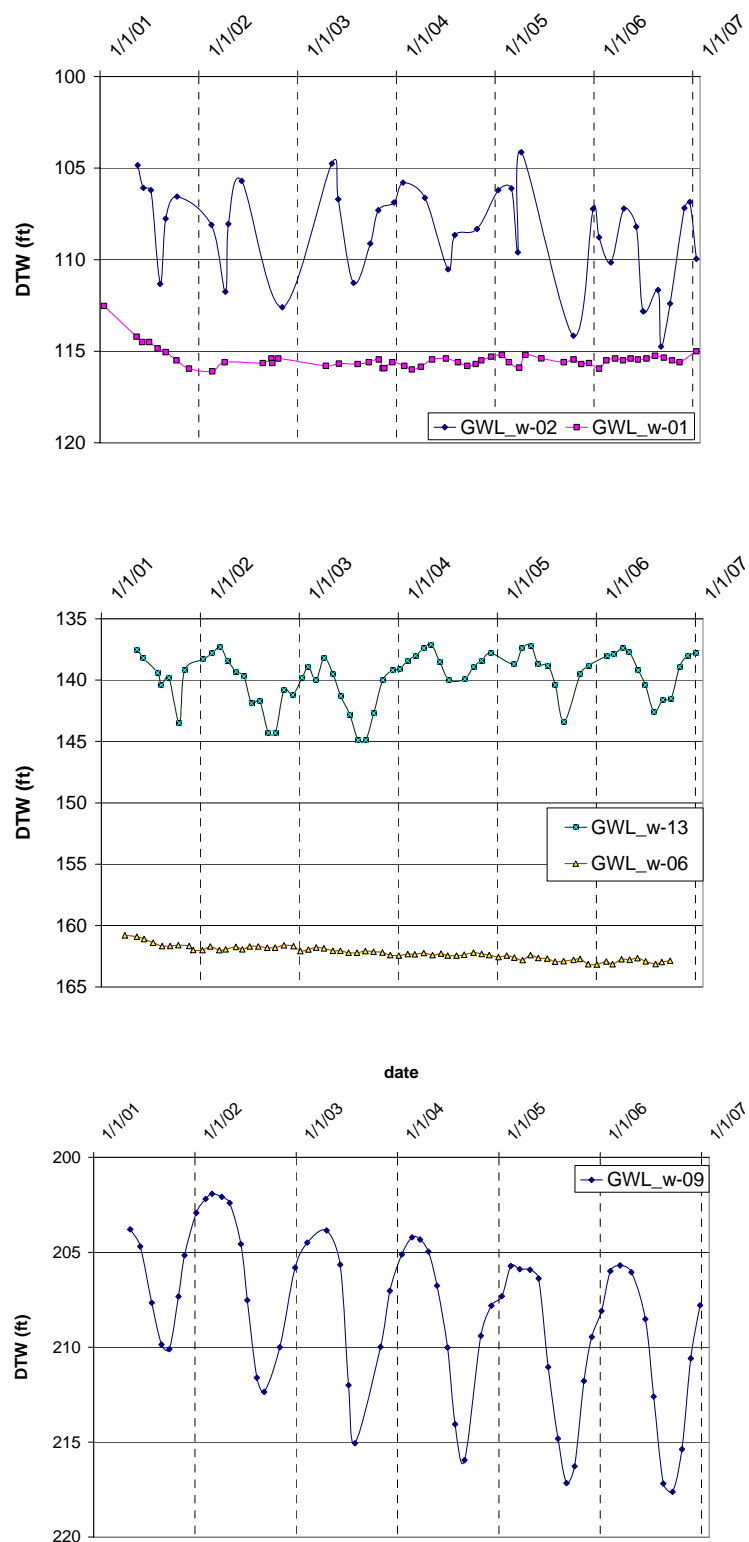


Figure 15. Depth to water (DTW) measurements in feet below land surface for the volunteer monitoring sites since 2001.

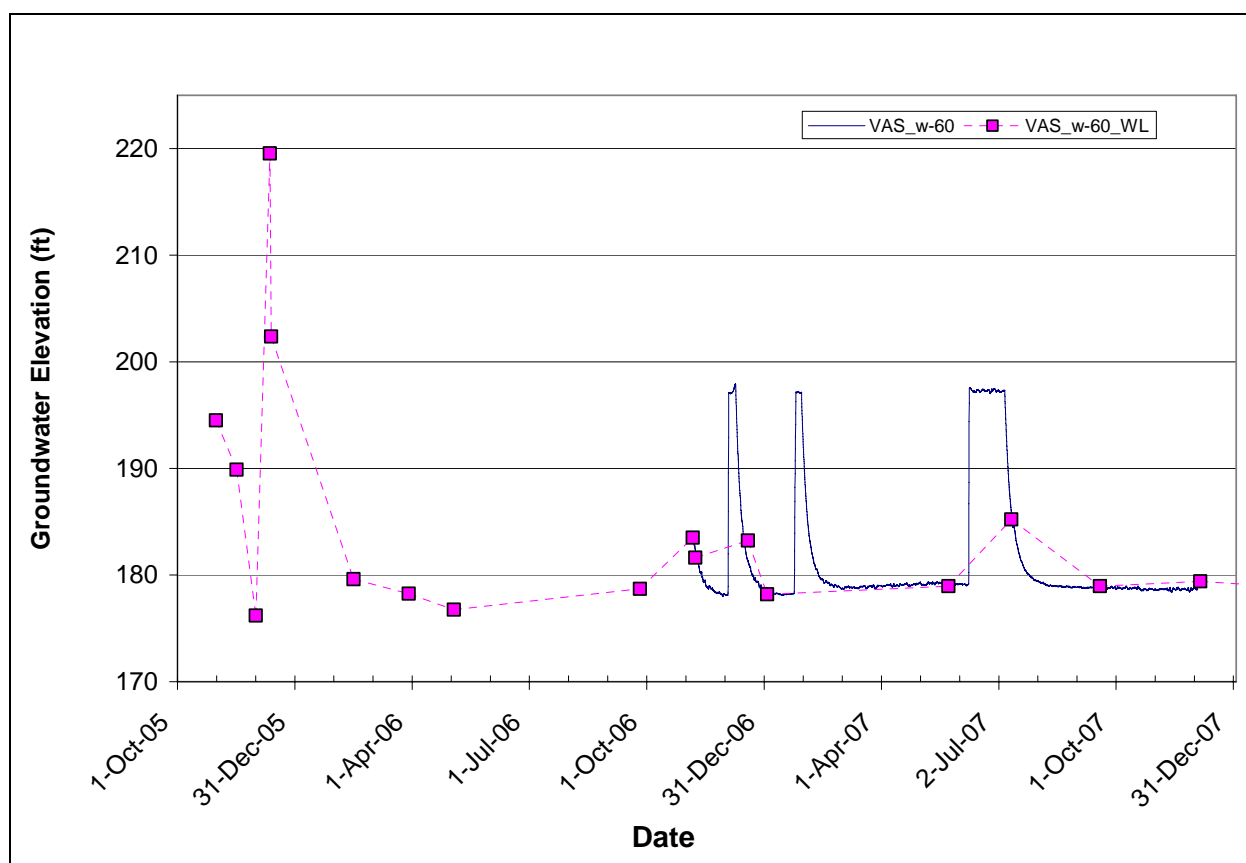


Figure 16. Water table elevations for site VAS_w-60, North Vashon, based on continuous Levellogger water level data and manual depth to water measurements. Levellogger data collection started November 6, 2006. Depth to water measurements are presented as points for the dates measured, see Table 8.

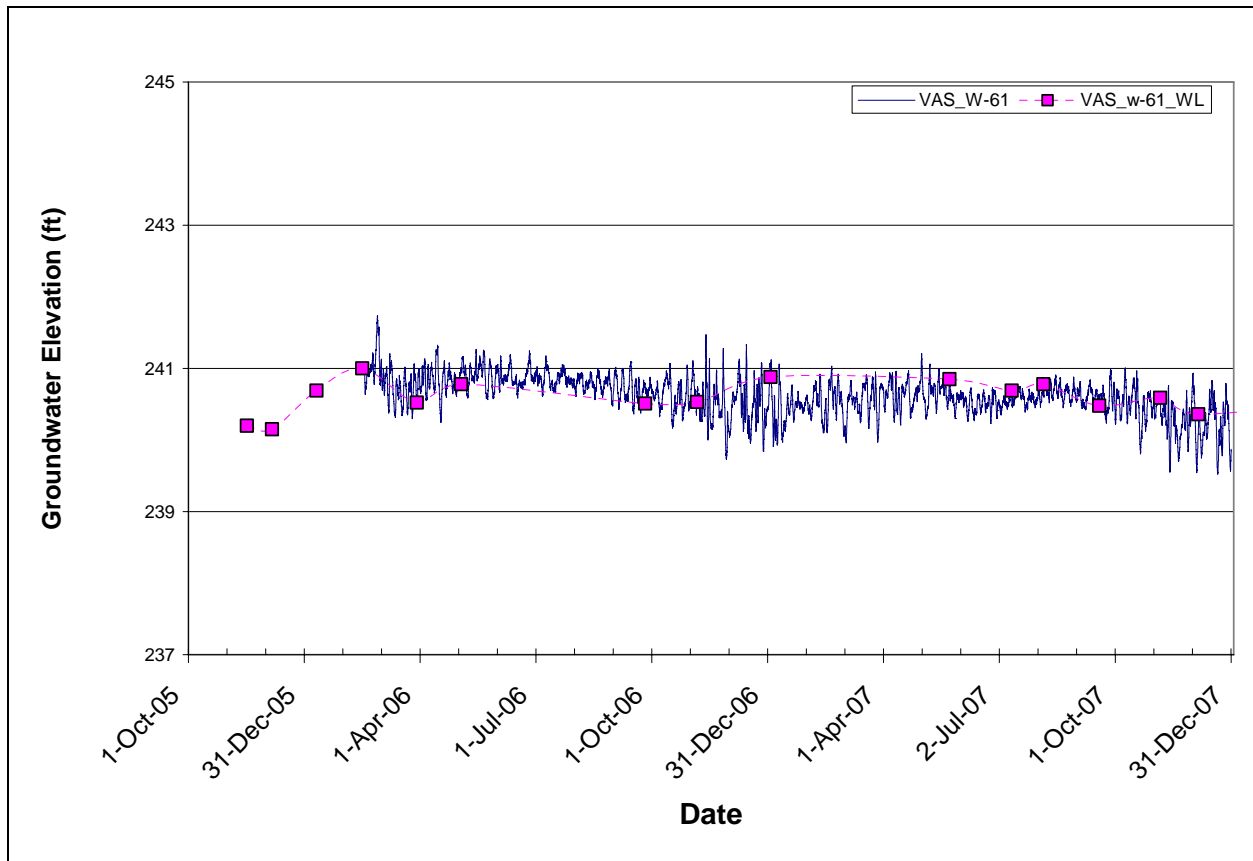


Figure 17. Water table elevations for site VAS_w-61, Valley Center Park-n-Ride 2" well, based on continuous Levellogger water level data and manual depth to water measurements. Levellogger data collection started 15Feb2006. Depth to water measurements are presented as points for the dates measured, see Table 8.

Note VAS_w-62 does not have data presented due to the lack of water in the screen zone.

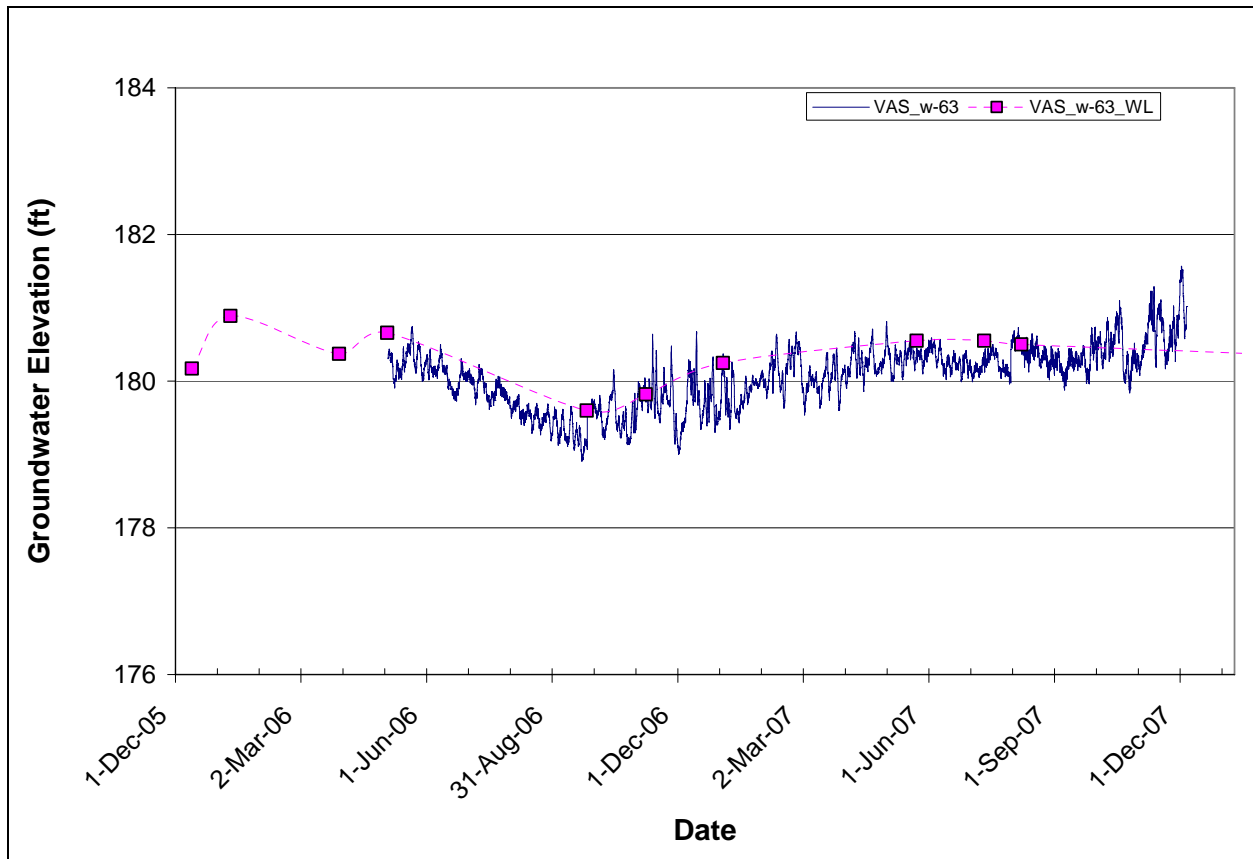


Figure 18. Water table elevations for site VAS_w-63, Redding Beach Rd, based on continuous Levelogger water level data and manual depth to water measurements. Levelogger data collection started May 4, 2006. Depth to water measurements are presented as points for the dates measured, see Table 8.

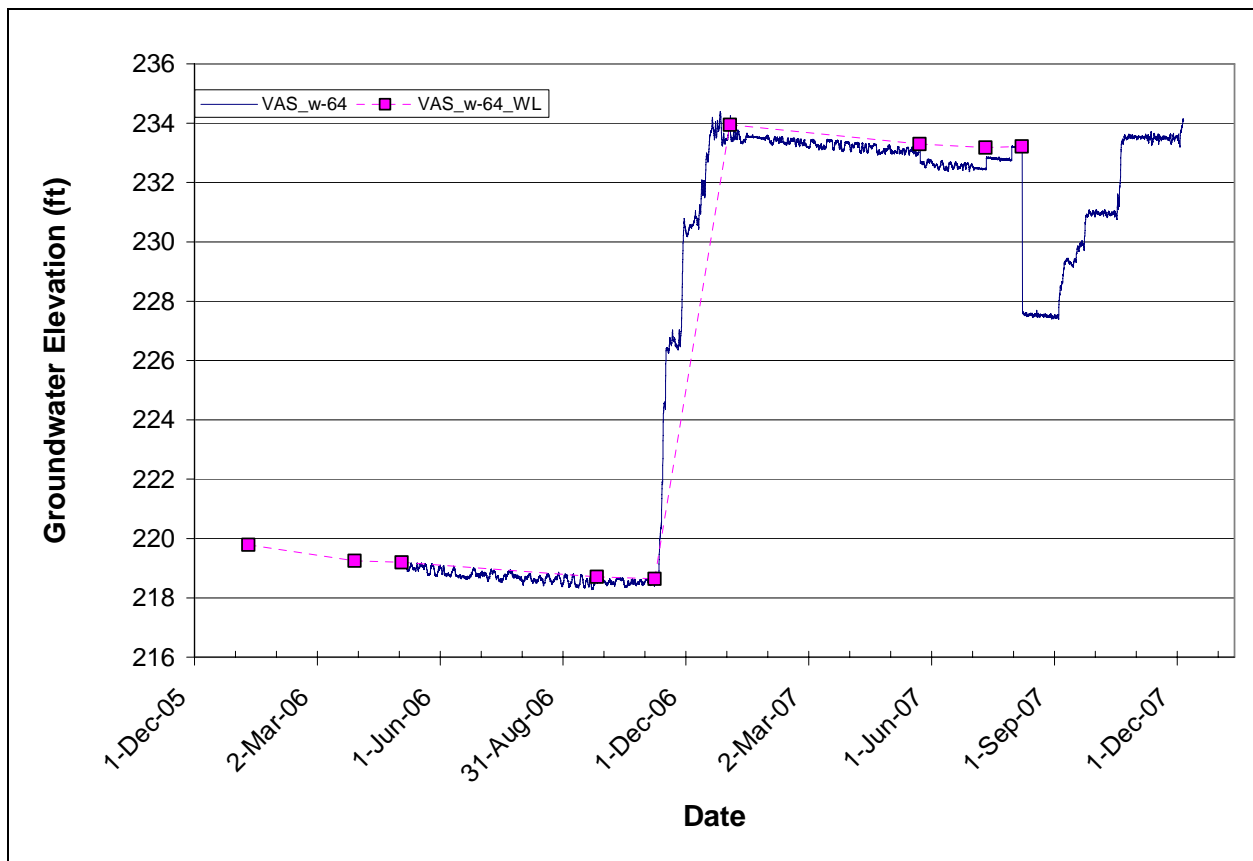


Figure 19. Water table elevations for site VAS_w-64, Wax Orchard Rd @ Vashon Hwy, based on continuous Levellogger water level data and manual depth to water measurements. Levellogger data collection started November 6, 2006. Depth to water measurements are presented as points for the dates measured, see Table 8.

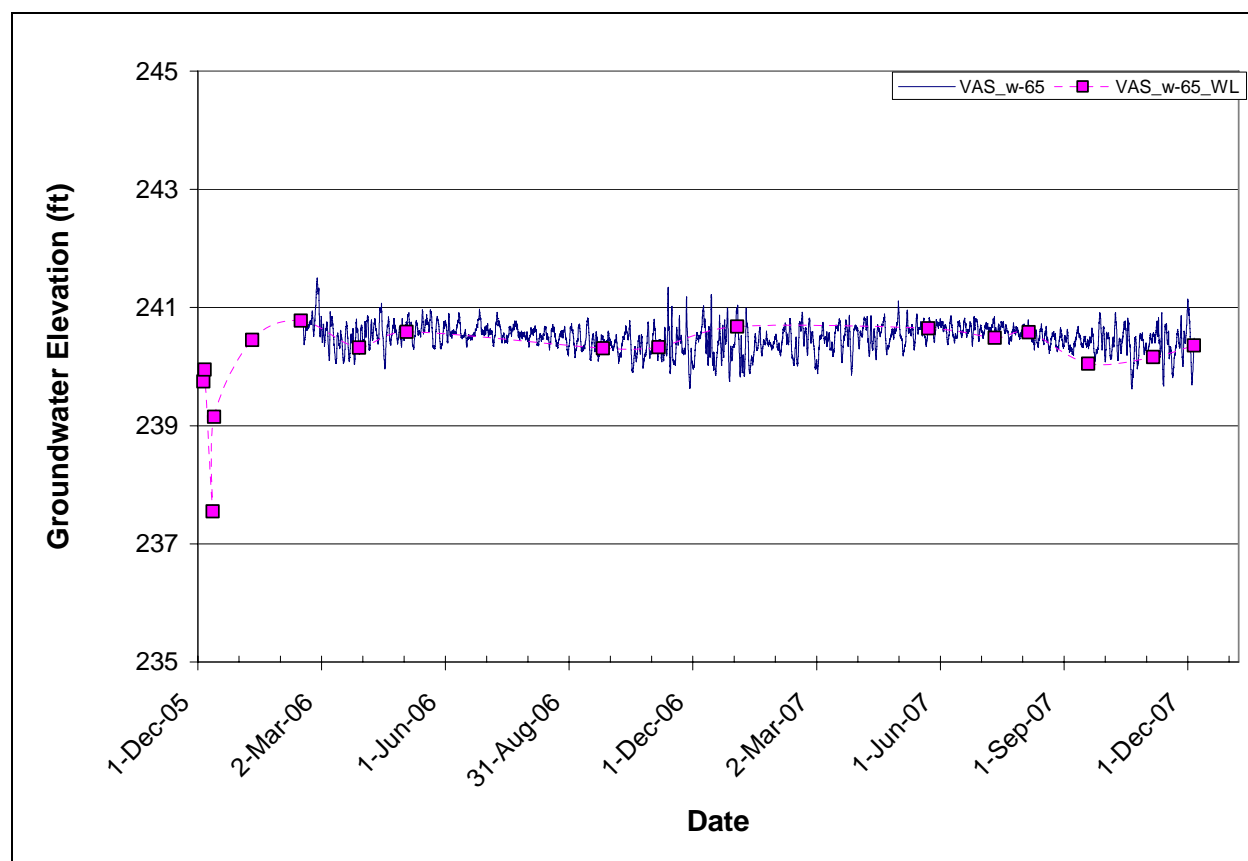


Figure 20. Water table elevations for site VAS_w-65, Valley Center Park-n-Ride 6” well based on continuous Levellogger water level data and manual depth to water measurements. Levellogger data collection started February 15, 2006. Depth to water measurements are presented as points for the dates measured, see Table 8.

Table 1. Precipitation Gage Sites on Vashon-Maury Island.

Gage ID	Gage Name	Date Started	Total Precipitation (inches/yr)	
			Water Year 2007	Calendar Year 2007
28Y	West Judd Creek (Transfer Station)	Oct-5-04	54.0	44.1
36U	Maury Island (KIRO)	Oct-5-04	50.6	40.5
36V	East Maury Island (marine park)	Mar-25-05	25.0*	19.1*
43U	North Vashon (Heights Water District Office)	Sep-20-99	61.6	49.1
65U	South Vashon (Tahlequah Ferry Landing)	Nov-5-04	54.2	44.2
Sea-Tac	Sea-Tac airport (area reference)	1971^	47.3	39.0

“^” = refers to the year that precipitation annual averages started – the annual average for Sea-Tac is 37.2 measured 1971-2000.

“*” = refers to sites that have incomplete data record for the time period measured.

Water Year is a 12 month period from October 1 to September 30¹. Example: Water Year 2007 is from October 1, 2006 to September 30, 2007.

Calendar Year is a 12 month period from January 1 to December 31 for any given year.

Table 2. Difference in rainfall totals for October, November and December for 2006 to 2007.

Gage ID	Gage Name	Total Precipitation (inches) Oct-Nov-Dec		Difference 2007 - 2006
		2006	2007	
28Y	West Judd Creek (Transfer Station)	28.8	18.9	-9.9
36U	Maury Island (KIRO)	26.2	16.1	-10.1
36V	East Maury Island (marine park)	18.2	12.4	-5.8
43U	North Vashon (Heights Water District Office)	33.9	21.4	-12.5
65U	South Vashon (Tahlequah Ferry Landing)	27.3	17.3	-10.0
Sea-Tac	Sea-Tac airport (area reference)	24.5	16.1	-8.4

Table 3. An annual summary of flow data based on the water year for all continuous stream gage sites on Vashon-Maury Island.

Gage Id	Gage Name	Date Started	Q_t WY (cfs/yr)	Q_{mean} (cfs)	Q_{max} (cfs)	Q_{min} (cfs)
28A	Judd Creek	Jul-16-99	2950.7*	3.6*	168.5*	1.4*
43A	Shingle Mill Creek	Jul-9-98	2104.8	2.5	216.7	1.2
65A	Tahlequah Creek	May-1-04	424.2	0.5	26.6	0.2
65B	Fisher Creek	May-1-04	778.5	1.5	37.4	0.3
65C	Green Valley Creek	Mar-25-05	225.1	0.6	4.9	0.1

Q_t = Total mean flow for measured time period of water year (WY) .

Q_{mean} = Mean flow recorded for a given site.

Q_{max} = Maximum flow recorded for a given site.

Q_{min} = Minimum flow recorded for a given site.

(cfs/yr) = cubic feet per second per year ; the unit of measurement for stream flow as an annual (1 year) total

(cfs) = cubic feet per second; the unit of measurement for stream flow.

“*” = refers to sites that have incomplete (estimated) data record for the time period measured.

Table 4. Instantaneous flow measurements at stream gage sites measured semi-annually as part of the Island-wide assessment of stream flow.

Stream number	Stream Name	5/9,10/2007	8/29,30/2007
		Q (cfs)	Q (cfs)
17A	McCormick Creek	0.31	0.18
43A	Shingle Mill Creek	2.26	1.97
VA12c	Shingle Mill above Needle Creek	1.56	1.35
VA12d	Needle Creek	0.27	0.22
VA20	Robinwood Creek	0.44	0.48
65C	Green Valley Creek	0.55	0.46
VA23	Christensen Creek	0.95	0.67
VA30	Bates Creek	0.12	0.08
65A	Tahlequah Creek	0.45	0.30
65B	Fisher Creek	1.35	0.71
28A	Judd Creek @ SW 204th	1.13	0.49
VA42b	East Fork Judd Cr @ SW 204th	0.16	.001 est
VA42	Judd Creek near Mouth	2.97	1.68
VA42c	Judd Creek @ Singer Rd	0.92	0.44
VA42d	Judd Cr @ 111th SW	1.74	0.81
VA42e	Judd Cr @ 107th SW	2.38	1.19
VA43	Tsugwalla Creek	0.12	0.04
VA44	Raab's Creek	0.02	.001 est
VA45	Mileta Creek	0.01	.005 est
VA62	Ellis Creek	0.55	0.16
VA63	Ellisport Creek	0.50	0.22
VA64	Beall Creek - upstream of withdrawal	0.83	0.82
VA65	Gorsuch Creek	0.15	0.06
VA66	Dilworth Creek	0.11	0.03
VA67	Glen Acre Creek	0.05	0.001

Q = Flow recorded for a given site.

(cfs) = cubic feet per second; the unit of measurement for stream flow.

"est" = estimated flow data due to low water.

Table 5. List of parameters sampled as part of the surface water water quality monitoring started in November 2006.

Parameters
Total Alkalinity
Total Suspended Solids
Turbidity
Total Nitrogen
Ammonia Nitrogen
Nitrite + Nitrate Nitrogen
Total Phosphorus
Orthophosphate Phosphorus
Escherichia coli
Fecal Coliform
pH, Field
Sample Temperature, Field
Dissolved Oxygen, Field
Conductivity, Field

Table 6. Depth to water data for volunteer water level sites during 2007.

	GWL_w-01	GWL_w-02	GWL_w-06	GWL_w-09	GWL_w-13	GWL_w-32	GWL_w-33
Month	depth to water (feet)						
Jan	115	109.9	162.9	206.7	137.8	133.6	68.8
Feb	114.95	not meas	162.8	206.0	138.2	133.2	not meas
Mar	114.85	107.0	162.7	205.4	138.3	133.1	67.6
Apr	115.05	not meas	162.5	206..3	137.2	not meas	66.8
May	114.7	105.4	162.4	207.5	136.8	135.8	67.4
Jun	114.5	108.5	162.3	210.9	141.0	not meas	68.4
Jul	114.5	not meas	162.3	215.5	139.2	132.8	69.6
Aug	114.45	112.1	162.3	not meas	139.3	132.6	70.4
Sep	114.4	110.2	162.1	214.9	140.0	132.7	70.4
Oct	114.9	107.4	162.0	212.2	138.2	132.6	70.3
Nov	114.35	not meas	162.9	not meas	137.3	132.9	70.3
Dec	114.1	105.9	162.4	208.2	137.0	not meas	70.3

not meas = Water level not measured that month.

Table 7. Water level measurements for water quality sites on Vashon-Maury Island for 2007.

Site ID	Measurement date	Depth to water (feet)
w-02a	07/30/2007	148.9
w-06	08/01/2007	144.3
w-16a	07/30/2007	20.8
w-17	07/31/2007	169.4
w-20	07/31/2007	86.8
w-21	07/31/2007	114.6

Table 8. Water level measurements at the dedicated groundwater monitoring wells on VMI.

WELL ID	Site Name	Date Measured	Depth to water (feet)
VAS_W-60	Vashon Hwy SW, near 145th Pl	1/3/2007	221.80
		5/24/2007	221.05
		7/12/2007	214.79
		9/19/2007	221.05
		12/6/2007	220.58
VAS_W-61	Valley Center Park-n-Ride 2" well	5/24/2007	84.15
		7/12/2007	84.31
		8/6/2007	84.22
		9/19/2007	84.52
		11/6/2007	84.41
		12/6/2007	84.64
VAS_W-62	Maury Island - 63rd Ave SW	5/24/2007	(dry)
		7/12/2007	(dry)
		9/19/2007	(dry)
		11/6/2007	(dry)
		12/6/2007	(dry)
VAS_W-63	SW Redding Beach Rd	01/03/07	109.75
		5/24/2007	109.45
		7/12/2007	109.45
		8/8/2007	109.50
VAS_W-64	Wax Orchard Rd @ Vashon Hwy	1/3/2007	146.05
		5/24/2007	146.70
		7/12/2007	146.82
		8/8/2007	146.78
VAS_W-65	Valley Center Park-n-Ride 6" well	5/24/2007	84.55
		7/12/2007	84.22
		8/6/2007	84.68
		9/19/2007	84.41
		11/6/2007	84.69
		12/6/2007	84.67

NOTE: Water levels taken within VAS_W-62 are below the screen, so these measurements are reported as "dry."

Table 9. Environmental Indicators – Arsenic, Chloride, and Nitrate-Nitrite – sampling results at the 19 long-term monitoring sites. Sampling occurred July 30 – August 1 2007.

Site Id	Arsenic		Chloride		Nitrate + Nitrite	
	2007 results	Avg Conc	2007 results	Avg Conc	2007 results	Avg Conc.
	µg/L		mg/L		mg/L	
VAS_s-03	1.70	1.77	5.36	6.13	1.32	2.15
VAS_w-02a	7.52	7.37	3.51	3.73	1.83	1.08
VAS_w-03	1.10	1.08	8.75	7.62	0.20	0.37
VAS_w-04	18.60	18.43	3.98	3.65	0.02^	0.02^
VAS_w-06	1.00	1.02	3.37	2.98	1.33	1.19
VAS_w-07	11.10	31.64	2.82	2.69	0.02^	0.02^
VAS_w-09a	3.87	5.71	4.93	4.86	0.02^	0.02^
VAS_w-10a *	1.70	1.35	9.26	9.72	3.82	3.40
	1.70		9.56		3.87	
VAS_w-11	1.40	1.43	5.25	5.00	0.02^	0.02^
VAS_w-12	5.58	5.90	4.24	3.95	0.02^	0.02^
VAS_w-13	1.20	1.12	8.44	8.66	1.67	1.85
VAS_w-14	1.40	1.37	4.24	4.10	0.04	0.03
VAS_w-15	1.30	1.40	4.81	4.60	0.02^	0.02^
VAS_w-16a	0.5^	0.52	4.01	3.93	3.47	4.88
VAS_w-17	0.52	0.52	4.33	3.77	1.76	1.64
VAS_w-19	2.30	1.92	2.83	5.77	0.73	0.63
VAS_w-20	0.58	0.62	3.68	3.43	2.77	2.90
VAS_w-21	3.70	3.92	3.85	3.65	0.02^	0.02^

Avg Conc. = Average Concentration of the previous sampling events (typically 9 results per location)

Units: µg/L = micrograms per liter and mg/L = milligrams per liter.

^ refers to a concentration that is below the detection limit for this parameter

* = these locations had a sample replicate taken during this sampling event.

Table 10. List of parameters sampled in August 2007 for the dedicated monitoring wells on VMI.

Parameters		
Total Alkalinity	pH, Field	Iron
Total Dissolved Solids	Sample Temperature, Field	Lead
Total Suspended Solids	Dissolved Oxygen, Field	Magnesium
Chloride	Conductivity, Field	Manganese
Fluoride	Turbidity, Field	Nickel
Sulfate	Arsenic	Potassium
Nitrite + Nitrate Nitrogen	Cadmium	Silver
Total Phosphorus	Calcium	Sodium
Hardness	Chromium	Zinc
Mercury	Copper	

Table 11. Environmental Indicators – Arsenic, Chloride, and Nitrate-Nitrite – sampling results at three monitoring wells sites. Sampling occurred August 6 & 8, 2007

Site ID	Arsenic (µg/L)	Chloride (mg/L)	Nitrate+Nitrite (mg/L)
VAS_w-61*	1.9	6.86	0.02^
	1.8	6.46	0.02^
VAS_w-63	4.9	2.77	0.02^
VAS_w-65	1.9	6.14	0.02^

Units: µg/L = micrograms per liter and mg/L = milligrams per liter.

^ refers to a concentration that is below the detection limit for this parameter

* = these locations had a sample replicate taken during this sampling event.

Table 12. Environmental Indicators – Arsenic, Chloride, and Nitrate-Nitrite – sampling results for 11 special sampling sites. Sampling occurred March 6 & 7, 2007

Site ID	Arsenic (µg/L)	Chloride (mg/L)	Nitrate+Nitrite (mg/L)
VAS_w-34	0.5^	13.6	4.95
VAS_w-52*	0.7	3.58	1.34
	0.7	3.70	1.32
VAS_w-53	0.5^	16.4	4.87
VAS_w-54	4.7	2.42	0.02^
VAS_w-55	0.5^	7.38	1.13
VAS_w-56	1.5	5.00	0.02^
VAS_w-57	1.9	2.79	0.34
VAS_w-58	0.8	3.59	0.62
VAS_w-66	46.5	2.51	0.02^
VAS_w-67	1.2	2.92	0.02^
VAS_w-68	1.4	5.70	0.87

Units: µg/L = micrograms per liter and mg/L = milligrams per liter.

^ refers to a concentration that is below the detection limit for this parameter

* = these locations had a sample replicate taken during this sampling event.

Table 13. Arsenic speciation results for selected location on Vashon-Maury Island. Sampling occurred in March 2007.

Site ID	As (inorganic) µg/L	As(III) µg/L	As(V) µg/L	As(III) percent	As(V) percent
VAS_w-52	0.67	0.01	0.667	1.3%	99.6%
VAS_w-54	5.69	3.95	1.74	69.4%	30.6%
VAS_w-56	1.85	1.66	0.186	89.7%	10.1%
VAS_w-57	1.89	0.09	1.8	4.8%	95.2%
VAS_w-58	1.67	0.12	1.55	7.3%	92.8%
VAS_w-66	43.1	36.0	7.17	83.5%	16.5%
VAS_w-67	1.41	0.26	1.15	18.2%	81.8%
VAS_w-68	1.24	0.12	1.12	9.3%	90.3%

µg/L = micrograms per liter.

* = these locations had a sample replicate taken during this sampling event

-- = Error in analysis and the concentration values were not determined

As(V) = This concentration is calculated from the equation: As(total) minus As(III) equals As(V).

Table 14. Monthly rainfall totals in inches for Water Year: 2007

Water Year	Site	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	YTD Total
WY07	28Y	1.1	18.2	9.5	7.3	3.8	5.9	1.4	1.0	1.0	1.5	0.8	2.5	54.0
	36U	1.2	16.2	8.7	7.3	3.9	5.4	0.9	1.4	1.1	1.4	0.6	2.5	50.6
	36V	1.0	13.9	3.4	--	--	4.9	0.8	0.7	0.2	0.1	0.0	0.0	25.0
	43U	1.2	21.3	11.4	8.3	3.8	6.0	1.3	1.6	1.0	1.7	1.2	2.9	61.6
	65U	1.3	17.6	8.4	7.1	4.1	6.2	1.3	1.3	1.1	1.6	0.8	3.3	54.2
	Sea-Tac	1.6	15.6	7.3	6.2	3.4	4.4	0.7	1.5	1.3	1.4	0.7	3.2	47.3

YTD Total = Year to date total of the monthly precipitation.

WY = Water Year – a 12 month period starting October 1 through September 30; WY07 is from October 2006 through September 2007.

Table 15. Comparison of Total Stream Flow by Water Year (Oct-Sep) for all continuous stream gage sites on Vashon-Maury Island. All units are cfs of Q_t .

Water Year	28A Judd Creek	43A Shingle Mill Creek	65A Tahlequah Creek	65B Fisher Creek	65C Green Valley Creek
1999	--	1786.6	—	—	—
2000	2418.4	2067.6	—	—	—
2001	1393.5	970.9	—	—	—
2002	2504.3	1844.9	—	—	—
2003	1775.8	1406.5	—	—	—
2004	2160.0	1616.5	—	—	—
2005	1456.6	1102.0	176.6	369.4	87.1*
2006	2232.1	1660.6	334.3	612.7	196.7*
2007	2950.7*	2104.8	424.2	778.5	225.1

Q_t = Total mean flow for measured time period of water year (WY).

WY = Water Year – a 12 month period starting October 1 through September 30.

(cfs) = cubic feet per second; the unit of measurement for stream flow.

— = No data for this site for this water year.

“*” = refers to sites that have incomplete (estimated) data record for the time period measured.

Table 16. The relative change of the annual average (in feet) from the baseline of the depth to water measurements done in 2003 to 2007 for the five long-term water level sites. The baseline for each site is the average of the measurements made in 2001-2002.

	2001-2002		2003		2004		2005		2006		2007	
	baseline	count	data	count	data	count	data	count	data	count	data	count
GWL_w-01	115.3	13	-0.5	8	-0.4	10	-0.3	9	-0.2	11	0.7	12
GWL_w-02	108.1	11	0.4	6	0.1	5	0.2	6	-1.9	10	-0.2	8
GWL_w-06	161.6	21	-0.4	12	-0.7	12	-1.1	12	-1.3	10	-0.7	12
GWL_w-09	206.2	18	-2.1	7	-2.0	10	-3.9	11	-4.3	11	-3.1	10
GWL_w-13	140.2	19	-0.9	12	1.7	11	0.9	9	0.8	11	1.8	12

Appendix A

Precipitation Data

28Y West Judd Creek**Water Year 2007**

01Oct06 to 30Sep07

Rainfall in inches

Data are provisional until end of year

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
2	0.00	1.10	0.00	2.05	0.00	0.36	0.00	0.30	0.00	0.00	0.00	0.00
3	0.00	0.85	0.00	0.40	0.07	0.04	0.00	0.00	0.00	0.00	0.01	0.08
4	0.00	1.32	0.02	0.10	0.06	0.00	0.00	0.08	0.01	0.00	0.00	0.45
5	0.00	1.11	0.00	1.55	0.00	0.05	0.00	0.01	0.13	0.00	0.00	0.00
6	0.02	3.76	0.00	0.03	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.55	0.00	1.53	0.12	0.32	0.03	0.00	0.00	0.00	0.00	0.00
8	0.00	0.36	0.03	0.00	0.04	0.48	0.27	0.00	0.00	0.00	0.00	0.00
9	0.00	0.39	0.26	0.28	0.14	0.09	0.57	0.00	0.40	0.00	0.00	0.00
10	0.00	1.01	0.16	0.03	0.15	0.52	0.00	0.00	0.01	0.00	0.00	0.00
11	0.00	0.26	1.17	0.01	0.22	1.01	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	1.35	0.85	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.39	0.72	0.00	0.00	0.07	0.17	0.00	0.00	0.00	0.00	0.00
14	0.04	0.04	1.88	0.08	0.26	0.00	0.02	0.00	0.00	0.00	0.00	0.00
15	0.43	0.70	0.14	0.00	0.12	0.01	0.00	0.00	0.06	0.00	0.00	0.00
16	0.00	0.00	0.00	0.22	0.06	0.00	0.03	0.00	0.00	0.00	0.00	0.12
17	0.00	0.00	0.00	0.03	0.21	0.11	0.01	0.00	0.00	0.21	0.00	0.11
18	0.23	0.03	0.00	0.22	0.01	0.00	0.00	0.00	0.00	0.23	0.10	0.06
19	0.15	0.67	0.00	0.23	0.82	0.47	0.00	0.01	0.00	0.00	0.38	0.03
20	0.00	0.76	0.47	0.00	0.40	0.10	0.00	0.42	0.00	0.36	0.26	0.00
21	0.00	0.97	0.34	0.00	0.04	0.00	0.15	0.08	0.00	0.30	0.04	0.00
22	0.00	0.65	0.00	0.00	0.13	0.02	0.01	0.01	0.00	0.31	0.00	0.00
23	0.00	0.71	0.81	0.00	0.01	0.19	0.00	0.00	0.00	0.04	0.00	0.00
24	0.04	0.00	0.82	0.00	0.52	1.00	0.10	0.00	0.13	0.00	0.00	0.00
25	0.00	0.00	0.14	0.02	0.20	0.01	0.00	0.00	0.00	0.00	0.00	0.02
26	0.00	0.77	1.19	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.25	0.49	0.00	0.08	0.46	0.02	0.00	0.00	0.00	0.00	0.21
28	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.18	0.00	0.00	0.08
29	0.20	0.00	0.00	0.00		0.00	0.00	0.00	0.09	0.00	0.00	0.04
30	0.00	0.19	0.00	0.00		0.12	0.06	0.00	0.00	0.00	0.00	1.33
31	0.00		0.00	0.00		0.26		0.00		0.00	0.01	
Total	1.11	18.20	9.49	7.26	3.81	5.93	1.44	1.01	1.01	1.45	0.80	2.53

Year To Date Total: 54.04 inches

s = snow

e = estimated

Precipitation is measured with a tipping bucket rain gauge.

Ice and snow accumulations in the rain gage are not recorded until they melt.

Precipitation from snow is not measured accurately

King County Water and Land Resources Division (206) 296-6519

Download streamflow and rainfall data from the
Hydrologic Information Center at the King County
Department of Natural Resources website:
<http://dnr.metrokc.gov/hydrodat>

28Y West Judd Creek**Water Year 2008** 01Oct07 to 31Dec07

Rainfall in inches

Data are provisional until end of year

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.08	0.01	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.70	0.00	1.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.56	0.00	4.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.06	0.03	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.01	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.03	0.25	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.01	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.01	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.15	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.20	1.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.04	0.32	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.28	0.45	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.28	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.78	0.05	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.16	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.01	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.22	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.01	0.03	0.13	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.01	0.01	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00	0.00		0.00		0.00		0.00	0.00	
Total	3.54	4.02	11.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Year To Date Total: 18.90 inches

s = snow

e = estimated

Precipitation is measured with a tipping bucket rain gauge.

Ice and snow accumulations in the rain gage are not recorded until they melt.

Precipitation from snow is not measured accurately

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36U Maury Island**Water Year 2007**

01Oct06 to 30Sep07

Rainfall in inches

Data are provisional until end of year

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.01	0.34	0.00	0.00	0.04	0.05	0.00	0.00	0.00	0.00
2	0.00	1.04	0.00	1.98	0.00	0.31	0.00	0.45	0.00	0.00	0.00	0.00
3	0.00	0.70	0.00	0.89	0.10	0.04	0.00	0.01	0.00	0.00	0.00	0.11
4	0.00	1.88	0.04	0.12	0.09	0.00	0.00	0.19	0.01	0.00	0.00	0.57
5	0.00	0.85	0.00	1.14	0.00	0.05	0.00	0.03	0.06	0.00	0.00	0.00
6	0.06	3.23	0.00	0.02	0.07	0.01	0.00	0.00	0.01	0.00	0.00	0.00
7	0.00	0.55	0.00	1.27	0.13	0.23	0.01	0.00	0.00	0.00	0.00	0.00
8	0.00	0.27	0.03	0.00	0.04	0.37	0.25	0.00	0.00	0.00	0.00	0.00
9	0.00	0.36	0.24	0.23	0.13	0.09	0.11	0.00	0.32	0.00	0.00	0.00
10	0.00	0.78	0.21	0.01	0.16	0.49	0.01	0.00	0.00	0.00	0.00	0.00
11	0.00	0.11	0.94	0.20	0.17	0.82	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	1.17	0.36	0.09	0.01	0.29	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.33	0.45	0.00	0.02	0.03	0.08	0.00	0.00	0.00	0.00	0.00
14	0.04	0.05	1.70	0.07	0.24	0.02	0.02	0.00	0.00	0.00	0.00	0.00
15	0.56	0.41	0.05	0.02	0.11	0.01	0.00	0.00	0.10	0.00	0.00	0.00
16	0.01	0.00	0.00	0.29	0.05	0.00	0.02	0.00	0.00	0.00	0.00	0.11
17	0.00	0.01	0.00	0.12	0.24	0.10	0.02	0.00	0.00	0.11	0.00	0.08
18	0.23	0.02	0.00	0.21	0.00	0.01	0.03	0.00	0.00	0.30	0.10	0.01
19	0.16	0.53	0.01	0.27	0.64	0.50	0.00	0.05	0.00	0.05	0.28	0.00
20	0.01	0.54	0.37	0.00	0.54	0.15	0.00	0.50	0.00	0.38	0.19	0.00
21	0.00	0.65	0.52	0.00	0.06	0.00	0.10	0.12	0.00	0.27	0.03	0.00
22	0.00	0.55	0.00	0.00	0.17	0.04	0.01	0.01	0.00	0.30	0.00	0.00
23	0.00	0.82	0.86	0.00	0.01	0.19	0.00	0.00	0.00	0.02	0.00	0.00
24	0.02	0.03	0.86	0.00	0.47	0.93	0.09	0.00	0.30	0.00	0.00	0.00
25	0.00	0.00	0.08	0.03	0.25	0.01	0.00	0.00	0.00	0.00	0.00	0.02
26	0.00	0.84	1.39	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.01
27	0.00	0.08	0.56	0.00	0.11	0.34	0.01	0.00	0.00	0.00	0.00	0.19
28	0.00	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.18	0.00	0.00	0.10
29	0.13	0.12	0.00	0.00		0.00	0.00	0.00	0.07	0.00	0.00	0.03
30	0.00	0.32	0.01	0.00		0.17	0.05	0.00	0.00	0.00	0.00	1.26
31	0.01		0.00	0.00		0.20		0.00		0.00	0.00	
Total	1.23	16.24	8.70	7.30	3.90	5.40	0.85	1.41	1.05	1.43	0.60	2.49

Year To Date Total: 50.60 inches

s = snow

e = estimated

Precipitation is measured with a tipping bucket rain gauge.

Ice and snow accumulations in the rain gage are not recorded until they melt.

Precipitation from snow is not measured accurately

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36U Maury Island**Water Year 2008**

01Oct07 to 31Dec07

Rainfall in inches

Data are provisional until end of year

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.08	0.02	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.62	0.00	1.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.19	0.00	3.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.08	0.04	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.01	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.08	0.18	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.03	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.10	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.19	0.81	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.01	0.20	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.23	0.49	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.26	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.74	0.02	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.32	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.01	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.01	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.21	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.02	0.03	0.15	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.02	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00	0.00		0.00		0.00		0.00	0.00	
Total	3.10	3.39	9.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Year To Date Total: 16.10 inches

s = snow

e = estimated

Precipitation is measured with a tipping bucket rain gauge.

Ice and snow accumulations in the rain gage are not recorded until they melt.

Precipitation from snow is not measured accurately

King County Water and Land Resources Division (206) 296-6519

Download streamflow and rainfall data from the
Hydrologic Information Center at the King County
Department of Natural Resources website:
<http://dnr.metrokc.gov/hydrodat>

36V East Maury Island**Water Year 2007**

01Oct06 to 30Sep07

Rainfall in inches

Data are provisional until end of year

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.05	0.00	0.00	0.00	0.00
2	0.00	0.95	0.00	0.00	0.00	0.22	0.00	0.37	0.00	0.00	0.00	0.00
3	0.00	0.67	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.01	0.00
4	0.00	1.20	0.03	0.00	0.00	0.00	0.00	0.06	0.01	0.00	0.00	0.00
5	0.00	0.82	0.00	0.00	0.00	0.04	0.14	0.00	0.01	0.00	0.00	0.00
6	0.02	3.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.58	0.00	0.00	0.00	0.15	0.02	0.00	0.00	0.00	0.00	0.00
8	0.00	0.19	0.01	0.00	0.00	0.11	0.15	0.00	0.00	0.00	0.00	0.00
9	0.00	0.52	0.16	0.00	0.00	0.06	0.10	0.00	0.04	0.00	0.00	0.00
10	0.00	0.65	0.18	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.09	0.78	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	1.07	0.32	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.29	0.38	0.00	0.00	0.22	0.07	0.00	0.00	0.05	0.00	0.00
14	0.02	0.02	1.44	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
15	0.52	0.27	0.04	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
16	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.12	0.04	0.00	0.00	0.00	0.00	0.00
18	0.17	0.01	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00
19	0.22	0.40	0.01	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.43	0.00	0.00	0.00	0.06	0.00	0.21	0.00	0.00	0.00	0.00
21	0.00	0.54	0.00	0.00	0.00	0.00	0.10	0.02	0.00	0.00	0.00	0.00
22	0.00	0.34	0.00	0.00	0.00	0.05	0.01	0.01	0.00	0.00	0.00	0.00
23	0.00	0.50	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.01	0.00	0.00
24	0.01	0.03	0.00	0.00	0.00	1.07	0.08	0.00	0.03	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.60	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00
29	0.02	0.14	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.13	0.00	0.00		0.11	0.05	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00	0.00		0.18		0.00		0.00	0.00	
Total	0.99	13.87	3.35	0.00	0.00	4.93	0.84	0.72	0.22	0.06	0.01	0.00

Year To Date Total:**24.99 inches**

s = snow

e = estimated

Precipitation is measured with a tipping bucket rain gauge.

Ice and snow accumulations in the rain gage are not recorded until they melt.

Precipitation from snow is not measured accurately

Download streamflow and rainfall data from the
Hydrologic Information Center at the King County
Department of Natural Resources website:
<http://dnr.metrokc.gov/hydrodat>

King County Water and Land Resources Division (206) 296-6519

36V East Maury Island**Water Year 2008** 01Oct07 to 31Dec07

Rainfall in inches

Data are provisional until end of year

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	3.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.03	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.14	0.82	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.03	0.17	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.27	0.53	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.21	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.59	0.06	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.27	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.19	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.01	0.02	0.07	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.02	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00	0.00		0.00		0.00		0.00	0.00	
Total	1.60	3.25	7.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Year To Date Total: 12.36 inches

s = snow

e = estimated

Precipitation is measured with a tipping bucket rain gauge.

Ice and snow accumulations in the rain gage are not recorded until they melt.

Precipitation from snow is not measured accurately

King County Water and Land Resources Division (206) 296-6519

Download streamflow and rainfall data from the
Hydrologic Information Center at the King County
Department of Natural Resources website:
<http://dnr.metrokc.gov/hydrodat>

43U North Vashon**Water Year 2007**

01Oct06 to 30Sep07

Rainfall in inches

Data are provisional until end of year

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.46	0.00	0.00	0.02	0.12	0.00	0.00	0.00	0.00
2	0.00	1.13	0.01	2.38	0.00	0.34	0.00	0.33	0.00	0.00	0.00	0.00
3	0.00	1.40	0.00	0.40	0.08	0.03	0.00	0.04	0.00	0.00	0.01	0.12
4	0.00	1.72	0.02	0.11	0.05	0.00	0.00	0.01	0.00	0.00	0.00	0.50
5	0.00	1.19	0.00	1.77	0.00	0.06	0.00	0.02	0.11	0.00	0.00	0.00
6	0.00	3.60	0.00	0.08	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.49	0.00	1.60	0.12	0.38	0.03	0.00	0.00	0.00	0.00	0.00
8	0.00	0.35	0.05	0.00	0.04	0.59	0.28	0.00	0.00	0.00	0.00	0.00
9	0.00	0.47	0.25	0.35	0.12	0.08	0.38	0.00	0.35	0.00	0.00	0.00
10	0.00	1.43	0.15	0.03	0.15	0.44	0.00	0.00	0.01	0.00	0.00	0.00
11	0.00	0.26	1.43	0.28	0.33	1.02	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	1.42	1.02	0.03	0.02	0.19	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.52	1.01	0.00	0.00	0.08	0.16	0.02	0.00	0.03	0.00	0.00
14	0.04	0.09	2.30	0.03	0.18	0.00	0.01	0.00	0.00	0.00	0.00	0.00
15	0.40	1.04	0.14	0.03	0.09	0.01	0.00	0.00	0.13	0.00	0.00	0.00
16	0.00	0.00	0.00	0.23	0.03	0.00	0.05	0.00	0.00	0.00	0.00	0.10
17	0.00	0.00	0.00	0.07	0.19	0.07	0.01	0.00	0.00	0.20	0.00	0.21
18	0.21	0.02	0.00	0.27	0.00	0.01	0.00	0.01	0.02	0.36	0.09	0.09
19	0.20	0.81	0.00	0.18	0.70	0.54	0.00	0.02	0.00	0.00	0.63	0.04
20	0.00	0.86	0.54	0.00	0.35	0.16	0.00	0.63	0.00	0.35	0.30	0.00
21	0.00	1.35	0.48	0.00	0.08	0.01	0.19	0.34	0.00	0.36	0.04	0.02
22	0.00	0.85	0.00	0.00	0.10	0.00	0.02	0.00	0.00	0.35	0.00	0.00
23	0.00	0.79	0.96	0.00	0.01	0.15	0.00	0.00	0.00	0.04	0.00	0.00
24	0.03	0.00	1.02	0.00	0.58	0.89	0.08	0.00	0.10	0.00	0.00	0.00
25	0.00	0.00	0.16	0.02	0.29	0.07	0.00	0.00	0.00	0.00	0.00	0.04
26	0.00	0.76	1.38	0.00	0.15	0.01	0.00	0.00	0.00	0.00	0.10	0.00
27	0.00	0.31	0.48	0.00	0.07	0.39	0.04	0.02	0.00	0.00	0.00	0.21
28	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.13
29	0.35	0.00	0.01	0.00		0.00	0.00	0.00	0.07	0.00	0.00	0.05
30	0.00	0.42	0.00	0.00		0.04	0.06	0.00	0.00	0.00	0.00	1.39
31	0.00		0.00	0.00		0.39		0.00		0.00	0.00	
Total	1.23	21.29	11.41	8.32	3.80	5.95	1.33	1.56	0.99	1.69	1.17	2.90

Year To Date Total:**61.64 inches**

s = snow

e = estimated

Precipitation is measured with a tipping bucket rain gauge.

Ice and snow accumulations in the rain gage are not recorded until they melt.

Precipitation from snow is not measured accurately

Download streamflow and rainfall data from the
Hydrologic Information Center at the King County
Department of Natural Resources website:
<http://dnr.metrokc.gov/hydrodat>

King County Water and Land Resources Division (206) 296-6519

43U North Vashon**Water Year 2008**

01Oct07 to 31Dec07

Rainfall in inches

Data are provisional until end of year

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.07	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.61	0.00	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.38	0.00	5.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.09	0.01	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.01	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.33	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.02	0.26	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.02	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.16	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.17	1.11	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.08	0.45	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.28	0.48	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.33	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.89	0.04	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.17	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.43	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.21	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.01	0.03	0.14	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.02	0.01	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00	0.00		0.00		0.00		0.00	0.00	
Total	3.66	4.40	13.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Year To Date Total: 21.41 inches

s = snow

e = estimated

Precipitation is measured with a tipping bucket rain gauge.

Ice and snow accumulations in the rain gage are not recorded until they melt.

Precipitation from snow is not measured accurately

King County Water and Land Resources Division (206) 296-6519

Download streamflow and rainfall data from the
Hydrologic Information Center at the King County
Department of Natural Resources website:
<http://dnr.metrokc.gov/hydrodat>

65U Tahlequah**Water Year 2007**

01Oct06 to 30Sep07

Rainfall in inches

Data are provisional until end of year

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.29	0.00	0.00	0.03	0.09	0.00	0.00	0.00	0.00
2	0.00	1.14	0.00	1.92	0.00	0.35	0.00	0.48	0.00	0.00	0.00	0.00
3	0.00	0.82	0.00	0.73	0.13	0.05	0.00	0.00	0.00	0.00	0.04	0.14
4	0.00	1.60	0.05	0.11	0.06	0.00	0.00	0.17	0.02	0.00	0.00	0.85
5	0.00	1.05	0.00	1.39	0.00	0.04	0.00	0.00	0.01	0.00	0.00	0.01
6	0.13	4.01	0.00	0.05	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.79	0.00	1.36	0.11	0.31	0.05	0.00	0.00	0.00	0.00	0.00
8	0.01	0.33	0.04	0.01	0.04	0.35	0.31	0.00	0.00	0.00	0.00	0.00
9	0.00	0.36	0.22	0.27	0.14	0.10	0.25	0.00	0.45	0.00	0.00	0.00
10	0.00	0.90	0.23	0.03	0.13	0.64	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.29	0.93	0.11	0.11	1.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	1.34	0.39	0.01	0.02	0.38	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.30	0.55	0.00	0.03	0.07	0.10	0.00	0.00	0.01	0.00	0.00
14	0.05	0.04	1.70	0.06	0.20	0.01	0.05	0.00	0.00	0.00	0.00	0.00
15	0.61	0.36	0.14	0.04	0.18	0.01	0.00	0.00	0.07	0.00	0.00	0.00
16	0.02	0.00	0.00	0.13	0.09	0.00	0.04	0.00	0.02	0.00	0.00	0.15
17	0.00	0.00	0.00	0.15	0.24	0.17	0.02	0.00	0.00	0.25	0.00	0.16
18	0.25	0.03	0.01	0.15	0.02	0.01	0.05	0.00	0.00	0.30	0.12	0.00
19	0.21	0.58	0.00	0.25	0.84	0.50	0.01	0.06	0.00	0.01	0.42	0.00
20	0.00	0.62	0.38	0.00	0.66	0.13	0.00	0.46	0.00	0.38	0.21	0.00
21	0.00	0.68	0.46	0.00	0.04	0.00	0.14	0.06	0.00	0.32	0.04	0.00
22	0.00	0.49	0.00	0.01	0.16	0.05	0.01	0.01	0.00	0.33	0.00	0.00
23	0.00	0.72	0.77	0.00	0.01	0.25	0.00	0.00	0.00	0.04	0.00	0.00
24	0.03	0.05	0.83	0.00	0.44	1.19	0.11	0.00	0.25	0.00	0.00	0.00
25	0.00	0.00	0.02	0.04	0.21	0.02	0.00	0.00	0.00	0.00	0.00	0.02
26	0.00	0.52	1.24	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.38	0.00	0.10	0.21	0.02	0.00	0.00	0.00	0.00	0.17
28	0.00	0.01	0.00	0.01	0.02	0.00	0.00	0.00	0.22	0.00	0.00	0.38
29	0.02	0.00	0.01	0.00		0.00	0.00	0.00	0.06	0.00	0.00	0.06
30	0.00	0.54	0.00	0.00		0.19	0.08	0.00	0.00	0.00	0.00	1.38
31	0.00		0.00	0.00		0.14		0.00		0.00	0.00	
Total	1.33	17.57	8.35	7.12	4.08	6.22	1.27	1.33	1.10	1.64	0.83	3.32

Year To Date Total:**54.16 inches**

s = snow

e = estimated

Precipitation is measured with a tipping bucket rain gauge.

Ice and snow accumulations in the rain gage are not recorded until they melt.

Precipitation from snow is not measured accurately

King County Water and Land Resources Division (206) 296-6519

Download streamflow and rainfall data from the
Hydrologic Information Center at the King County
Department of Natural Resources website:
<http://dnr.metrokc.gov/hydrodat>

65U Tahlequah**Water Year 2008**

01Oct07 to 31Dec07

Rainfall in inches

Data are provisional until end of year

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.18	0.01	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.72	0.00	1.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.13	0.00	3.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.08	0.08	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.04	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.22	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.05	0.24	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.03	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.14	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.26	0.83	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.04	0.31	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.17	0.51	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.29	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.75	0.03	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.33	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.08	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.06	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.23	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.02	0.08	0.13	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.01	0.05	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00	0.00		0.00		0.00		0.00	0.00	
Total	3.50	3.81	9.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Year To Date Total: 17.30 inches

s = snow

e = estimated

Precipitation is measured with a tipping bucket rain gauge.

Ice and snow accumulations in the rain gage are not recorded until they melt.

Precipitation from snow is not measured accurately

King County Water and Land Resources Division (206) 296-6519

Download streamflow and rainfall data from the
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Appendix B

Water Quality Data

Appendix B-1

Stream Water Quality Data

PROJECT: 421195DC					Locator: VA12A Descrip: SHINGLEMILL CREEK Sampled: 12/11/07 10:07:00 AM Lab ID: L44655-1 Matrix: FRESH WTR					Locator: VA23A Descrip: CHRISTENSEN CREEK Sampled: 12/11/07 9:13:00 AM Lab ID: L44655-2 Matrix: FRESH WTR					Locator: VA37A Descrip: TAHLEQUAH CREEK UP Sampled: 12/11/07 7:45:00 AM Lab ID: L44655-3 Matrix: FRESH WTR					Locator: VA41A Descrip: FISHER CREEK UPSTR Sampled: 12/11/07 8:07:00 AM Lab ID: L44655-4 Matrix: FRESH WTR					Locator: VA42A Descrip: JUDD CREEK AT SW 2 Sampled: 12/11/07 8:19:00 AM Lab ID: L44655-5 Matrix: FRESH WTR					Locator: VA45A Descrip: MILETA CREEK DOWNS Sampled: 12/11/07 8:39:00 AM Lab ID: L44655-6 Matrix: FRESH WTR					Locator: VA65A Descrip: GORSUCH CREEK NEAR Sampled: 12/11/07 9:50:00 AM Lab ID: L44655-7 Matrix: FRESH WTR					Locator: VA12A Descrip: SHINGLEMILL CREEK Sampled: 12/11/07 10:08:00 AM Lab ID: L44655-8 Matrix: FRESH WTR					Locator: FFBLANK Descrip: FIELD FILTER BLANK Sampled: 12/11/07 7:40:00 AM Lab ID: L44655-9 Matrix: BLANK WTR																																																						
Parameters		Value	Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units																																																									
		-Wet Weight Basis							-Wet Weight Basis							-Wet Weight Basis							-Wet Weight Basis							-Wet Weight Basis							-Wet Weight Basis																																																														
COMBINED LABS																																																																																																			
M=CV SM2130-B (03-01-011-004)																																																																																																			
Turbidity					2.18		0.5	2	NTU	1.2 <RDL					0.5	2	NTU	2.24					0.5	2	NTU	1.9 <RDL					0.5	2	NTU	2.41					0.5	2	NTU	4					0.5	2	NTU	2.08					0.5	2	NTU	2.19					0.5	2	NTU																																		
M=CV SM2320-B (03-03-001-003)																																																																																																			
Total Alkalinity					44.6		1	10	mg CaCO3/L	47					1	10	mg CaCO3/L	38.1					1	10	mg CaCO3/L	40.6					1	10	mg CaCO3/L	40.7					1	10	mg CaCO3/L	7.6 <RDL					1	10	mg CaCO3/L	44.8					1	10	mg CaCO3/L	44.3					1	10	mg CaCO3/L																																		
M=CV SM2540-D (03-01-009-002)																																																																																																			
Total Suspended Solids					5.7		0.5	1	mg/L	2.94					1	2	mg/L	2.5					0.5	1	mg/L	23.2					0.5	1	mg/L	5.3					0.5	1	mg/L	<MDL					0.5	1	mg/L	3.6					0.5	1	mg/L	5.8					0.5	1	mg/L																																		
M=CV SM4500-N-C (03-03-013-003)C																																																																																																			
Total Nitrogen					1.71		0.05	0.1	mg/L	1.32					0.05	0.1	mg/L	2.1					0.05	0.1	mg/L	1.79					0.05	0.1	mg/L	1.62					0.05	0.1	mg/L	7.28					0.2	0.4	mg/L	1.84					0.05	0.1	mg/L	1.71					0.05	0.1	mg/L																																		
M=CV SM4500-NH3-G (03-03-012-004)																																																																																																			
Ammonia Nitrogen					<MDL		0.01	0.02	mg/L	<MDL					0.01	0.02	mg/L	0.0296					0.01	0.02	mg/L	0.012 <RDL					0.01	0.02	mg/L	0.016 <RDL					0.01	0.02	mg/L	<MDL					0.01	0.02	mg/L	<MDL					0.01	0.02	mg/L	0.015 <RDL					0.01	0.02	mg/L	<MDL					0.01	0.02	mg/L																										
M=CV SM4500-NO3-F (03-03-012-004)																																																																																																			
Nitrite + Nitrate Nitrogen					1.39		0.02	0.04	mg/L	1.09					0.02	0.04	mg/L	1.7					0.02	0.04	mg/L	1.38					0.02	0.04	mg/L	1.23					0.02	0.04	mg/L	6.55					0.2	0.4	mg/L	1.49					0.02	0.04	mg/L	1.38					0.02	0.04	mg/L	<MDL					0.02	0.04	mg/L																										
M=CV SM4500-P-B,F(03-03-013-003)C																																																																																																			
Total Phosphorus					0.0364		0.005	0.01	mg/L	0.0375					0.005	0.01	mg/L	0.0271					0.005	0.01	mg/L	0.067					0.005	0.01	mg/L	0.0309					0.005	0.01	mg/L	0.012					0.005	0.01	mg/L	0.0756					0.005	0.01	mg/L	0.0378					0.005	0.01	mg/L																																		
M=CV SM4500-P-F (03-03-012-004)																																																																																																			
Orthophosphate Phosphorus					0.0267		0.002	0.005	mg/L	0.0253					0.002	0.005	mg/L	0.0135					0.002	0.005	mg/L	0.0262					0.002	0.005	mg/L	0.0161					0.002	0.005	mg/L	0.003 <RDL					0.002	0.005	mg/L	0.0214					0.002	0.005	mg/L	0.0238					0.002	0.005	mg/L	<MDL					0.002	0.005	mg/L																										
M=ES Hydrolab (02-01-005-002)																																																																																																			
Conductivity, Field					134		0.5	10	umhos/cm	135					0.5	10	umhos/cm	127					0.5	10	umhos/cm	130					0.5	10	umhos/cm	123					0.5	10	umhos/cm	107					0.5	10	umhos/cm	140					0.5	10	umhos/cm	134					0.5	10	umhos/cm																																		
Dissolved Oxygen, Field					12		0.5	1	mg/L	12.1					0.5	1	mg/L	11.8					0.5	1	mg/L	12.1					0.5	1	mg/L	12.7					0.5	1	mg/L	12					0.5	1	mg/L	11.5					0.5	1	mg/L	11.9					0.5	1	mg/L																																		
pH, Field					7.68				pH	7.6							pH	7.1							pH	7.51							pH	7.69							pH	6.83							pH	7.6							pH	7.67							pH																																		
Sample Temperature, Field					4.92				deg C	5							deg C	4.57							deg C	4.67							deg C	4.39							deg C	4.79							deg C	4.21							deg C	4.93							deg C																																		
M=ES NONE																																																																																																			
Field Personnel					DR				none	DR							none	DR							none	DR							none	DR							none	DR							none	DR							none	DR							none																																		
Sampling Method					11011, 60201, 18100				none	11011, 60201, 18100							none	11011, 60201, 18100, 80011							none	11011, 60201, 18100							none	11011, 60201, 18100, 80011							none	11011, 60201, 18100							none	11011, 60201, 18100							none	11011, 60201, 18100							none																																		
Staff Height					below staff f		TA		ft	3.91							ft	0.78							ft	0.78							ft	0.78							ft	0.78							ft	0.78							ft	0.78							ft																																		
Storm Or Non-Storm					N				none	N							none	N							none	N							none	N							none	N							none	N							none	N							none																																		
M=MC METRO MC SOP 6.5.1																																																																																																			
Escherichia coli					29				CFU/100ml	64							CFU/100ml	11							CFU/100ml	68							CFU/100ml	91							CFU/100ml	58							CFU/100ml	19							CFU/100ml	31							CFU/100ml																																		
M=MC SM-9222 D ed.17																																																																																																			
Fecal Coliform					37				CFU/100ml	47							CFU/100ml	8							CFU/100ml	40							CFU/100ml	70							CFU/100ml	71							CFU/100ml	23							CFU/100ml	28							CFU/100ml																																		

PROJECT: 421195DC										Locator: VA12A					Locator: VA23A					Locator: VA37A					Locator: VA41A					Locator: VA42A					Locator: VA45A					Locator: VA65A					Locator: VA45A					Locator: FFBLANK							
Descrip: SHINGLEMILL CREEK										Descrip: CHRISTENSEN CREEK					Descrip: TAHLEQUAH CREEK UP					Descrip: FISHER CREEK UPSTR					Descrip: JUDD CREEK AT SW 2					Descrip: MILETA CREEK DOWNS					Descrip: GORSUCH CREEK NEAR					Descrip: MILETA CREEK DOWNS					Descrip: FIELD FILTER BLANK												
Client Loc:										Client Loc:					Client Loc:					Client Loc:					Client Loc:					Client Loc:					Client Loc:					Client Loc:					Client Loc:												
Sampled: 11/06/07 9:36:00 AM										Sampled: 11/06/07 8:59:00 AM					Sampled: 11/06/07 7:29:00 AM					Sampled: 11/06/07 7:46:00 AM					Sampled: 11/06/07 8:02:00 AM					Sampled: 11/06/07 8:21:00 AM					Sampled: 11/06/07 9:21:00 AM					Sampled: 11/06/07 8:22:00 AM					Sampled: 11/06/07 7:15:00 AM												
TimeSpan:										TimeSpan:					TimeSpan:					TimeSpan:					TimeSpan:					TimeSpan:					TimeSpan:					TimeSpan:					TimeSpan:												
Lab ID: L44457-1										Lab ID: L44457-2					Lab ID: L44457-3					Lab ID: L44457-4					Lab ID: L44457-5					Lab ID: L44457-6					Lab ID: L44457-7					Lab ID: L44457-8					Lab ID: L44457-9												
Matrix: FRESH WTR										Matrix: FRESH WTR					Matrix: FRESH WTR					Matrix: FRESH WTR					Matrix: FRESH WTR					Matrix: FRESH WTR					Matrix: FRESH WTR					Matrix: FRESH WTR					Matrix: BLANK WTR												
% Solids:										% Solids:					% Solids:					% Solids:					% Solids:					% Solids:					% Solids:					% Solids:					% Solids:												
Parameters		Value	Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units															
		-Wet Weight Basis								-Wet Weight Basis								-Wet Weight Basis								-Wet Weight Basis								-Wet Weight Basis								-Wet Weight Basis								-Wet Weight Basis							
COMBINED LABS																																																									
M=CV SM2130-B (03-01-011-004)																																																									
Turbidity		<MDL	0.5	2	NTU	1.5		<RDL	0.5	2	NTU	1.3		<RDL	0.5	2	NTU	1.5		<RDL	0.5	2	NTU	1.2		<RDL	0.5	2	NTU	0.9		<RDL	0.5	2	NTU	2.09		0.5	2	NTU	0.66		<RDL	0.5	2	NTU											
M=CV SM2320-B (03-03-001-003)																																																									
Total Alkalinity		71.7	1	10	mg CaCO3/L	57.9		1	10	mg CaCO3/L	49.8		1	10	mg CaCO3/L	54.5		1	10	mg CaCO3/L	59.8		1	10	mg CaCO3/L	34.4		1	10	mg CaCO3/L	77.6		1	10	mg CaCO3/L	34.5		1	10	mg CaCO3/L																	
M=CV SM2540-D (03-01-009-002)																																																									
Total Suspended Solids		1	RDL	0.5	1	mg/L	4.8		0.5	1	mg/L	1.8		0.5	1	mg/L	30.6		0.5	1	mg/L	3		0.5	1	mg/L	1.2		0.5	1	mg/L	11.5		0.5	1	mg/L	1.7		0.5	1	mg/L																
M=CV SM4500-N-C (03-03-013-003)C																																																									
Total Nitrogen		0.949	0.05	0.1	mg/L	0.917		0.05	0.1	mg/L	1.31		0.05	0.1	mg/L	1.02		0.05	0.1	mg/L	1.02		0.05	0.1	mg/L	0.593		0.05	0.1	mg/L	1.57		0.05	0.1	mg/L	0.586		0.05	0.1	mg/L																	
M=CV SM4500-NH3-G (03-03-012-004)																																																									
Ammonia Nitrogen		0.013	<RDL	0.01	0.02	mg/L	0.01		<RDL	0.01	0.02	mg/L	0.021		0.01	0.02	mg/L	<MDL		0.01	0.02	mg/L	<MDL		0.01	0.02	mg/L	<MDL		0.01	0.02	mg/L	<MDL		0.01	0.02	mg/L	0.01		<RDL	0.01	0.02	mg/L	<MDL		0.01	0.02	mg/L									
M=CV SM4500-NO3-F (03-03-012-004)																																																									
Nitrite + Nitrate Nitrogen		0.866	0.02	0.04	mg/L	0.785		0.02	0.04	mg/L	1.17		0.02	0.04	mg/L	0.774		0.02	0.04	mg/L	0.805		0.02	0.04	mg/L	0.3		0.02	0.04	mg/L	1.42		0.02	0.04	mg/L	0.299		0.02	0.04	mg/L	<MDL		0.02	0.04	mg/L												
M=CV SM4500-P-B,F(03-03-013-003)C																																																									
Total Phosphorus		0.0449	0.005	0.01	mg/L	0.0468		0.005	0.01	mg/L	0.0258		0.005	0.01	mg/L	0.0595		0.005	0.01	mg/L	0.0368		0.005	0.01	mg/L	0.0178		0.005	0.01	mg/L	0.0662		0.005	0.01	mg/L	0.0199		0.005	0.01	mg/L																	
M=CV SM4500-P-F (03-03-012-004)																																																									
Orthophosphate Phosphorus		0.0384	0.002	0.005	mg/L	0.0349		0.002	0.005	mg/L	0.0173		0.002	0.005	mg/L	0.0366		0.002	0.005	mg/L	0.0243		0.002	0.005	mg/L	0.00908		0.002	0.005	mg/L	0.0411		0.002	0.005	mg/L	0.00744		0.002	0.005	mg/L	<MDL		0.002	0.005	mg/L												
M=ES Hydrolab (02-01-005-002)																																																									
Conductivity, Field		189	0.5	10	umhos/cm	159		0.5	10	umhos/cm	146		0.5	10	umhos/cm	155		0.5	10	umhos/cm	159		0.5	10	umhos/cm	133		0.5	10	umhos/cm	203		0.5	10	umhos/cm	133		0.5	10	umhos/cm																	
Dissolved Oxygen, Field		11	0.5	1	mg/L	10.8		0.5	1	mg/L	10.5		0.5	1	mg/L	10.5		0.5	1	mg/L	10.8		0.5	1	mg/L	9.5		0.5	1	mg/L	10		0.5	1	mg/L	9.5		0.5	1	mg/L																	
pH, Field		7.75			pH	7.41				pH	7.4				pH	7.61				pH	7.72				pH	7.14				pH	7.74				pH	7.11				pH																	
Sample Temperature, Field		8.25			deg C	8.42				deg C	7.95				deg C	8.1				deg C	7.65				deg C	8.76				deg C	8.17				deg C	8.77				deg C																	
M=ES NONE																																																									
Field Personnel		DR			none	DR				none	DR				none	DR				none	DR				none	DR				none	DR				none	DR				none	DR				none												
Sampling Method		11011, 60201, 18100			none	11011, 60201, 18100				none	11011, 60201, 18100, 80011				none	11011, 60201, 18100				none	11011, 60201, 18100, 80011				none	11011, 60201, 18100				none	11011, 60201, 18100				none	11011, 60201, 18100				none	18100				none												
Staff Height		water below TA			ft					ft	3.79				ft	0.73				ft					ft					ft					ft					ft																	
Storm Or Non-Storm		N			none	N				none	N				none	N				none	N				none	N				none	N				none	N				none																	
M=MC METRO MC SOP 6.5.1																																																									
Escherichia coli		13			CFU/100ml	14				CFU/100ml	49				CFU/100ml	89				CFU/100ml	73				CFU/100ml	410				CFU/100ml	10				CFU/100ml	560				CFU/100ml																	
M=MC SM-9222 D ed.17																																																									
Fecal Coliform		12			CFU/100ml	20				CFU/100ml	41				CFU/100ml	59				CFU/100ml	33				CFU/100ml	410				CFU/100ml	6				CFU/100ml	300				CFU/100ml																	

PROJECT: 421195DC	Locator: VA12A	Locator: VA23A	Locator: VA37A	Locator: VA41A	Locator: VA42A	Locator: VA45A	Locator: VA65A	Locator: VA65A	Locator: FFBLANK																																									
	Descrip: SHINGLEMILL CREEK	Descrip: CHRISTENSEN CREEK	Descrip: TAHLEQUAH CREEK UP	Descrip: FISHER CREEK UPSTR	Descrip: JUDD CREEK AT SW 2	Descrip: MILETA CREEK DOWNS	Descrip: GORSUCH CREEK NEAR	Descrip: GORSUCH CREEK NEAR	Descrip: FIELD FILTER BLANK																																									
	Client Loc:	Client Loc:	Client Loc:	Client Loc:	Client Loc:	Client Loc:	Client Loc:	Client Loc:	Client Loc:																																									
	Sampled: 10/09/07 10:03:00 AM	Sampled: 10/09/07 10:30:00 AM	Sampled: 10/09/07 10:48:00 AM	Sampled: 10/09/07 11:22:00 AM	Sampled: 10/09/07 11:41:00 AM	Sampled: 10/09/07 11:56:00 AM	Sampled: 10/09/07 12:18:00 PM	Sampled: 10/09/07 12:20:00 PM	Sampled: 10/09/07 9:55:00 AM																																									
	TimeSpan:	TimeSpan:	TimeSpan:	TimeSpan:	TimeSpan:	TimeSpan:	TimeSpan:	TimeSpan:	TimeSpan:																																									
	Lab ID: L44118-1	Lab ID: L44118-2	Lab ID: L44118-3	Lab ID: L44118-4	Lab ID: L44118-5	Lab ID: L44118-6	Lab ID: L44118-7	Lab ID: L44118-8	Lab ID: L44118-9																																									
	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: BLANK WTR																																									
	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:																																									
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units															
	-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis									
COMBINED LABS																																																		
M=CV SM2130-B (03-01-011-004)																																																		
Turbidity	1	<RDL	0.5	2	NTU	1.2	<RDL	0.5	2	NTU	1.7	<RDL	0.5	2	NTU	2.58		0.5	2	NTU	1.5	<RDL	0.5	2	NTU	1.3	<RDL	0.5	2	NTU	1.9	<RDL	0.5	2	NTU															
M=CV SM2320-B (03-03-001-003)																																																		
Total Alkalinity	70.7		1	10	mg CaCO3/L	57.8		1	10	mg CaCO3/L	48.1		1	10	mg CaCO3/L	53.9		1	10	mg CaCO3/L	58		1	10	mg CaCO3/L	35.1		1	10	mg CaCO3/L	75.7		1	10	mg CaCO3/L															
M=CV SM2540-D (03-01-009-002)																																																		
Total Suspended Solids	2.4		0.5	1	mg/L	4		0.5	1	mg/L	2.94		1	2	mg/L	11		0.5	1	mg/L	2.2		0.5	1	mg/L	2.3		0.5	1	mg/L	7.1		0.5	1	mg/L															
M=CV SM4500-N-C (03-03-013-003)C																																																		
Total Nitrogen	1.03		0.05	0.1	mg/L	0.998		0.05	0.1	mg/L	1.45		0.05	0.1	mg/L	1.06		0.05	0.1	mg/L	1.1		0.05	0.1	mg/L	0.681		0.05	0.1	mg/L	1.71		0.05	0.1	mg/L															
M=CV SM4500-NH3-G (03-03-012-004)																																																		
Ammonia Nitrogen	<MDL	0.01	0.02		mg/L	<MDL	0.01	0.02		mg/L	0.02	<RDL	0.01	0.02	mg/L	<MDL	0.01	0.02		mg/L	<MDL	0.01	0.02		mg/L	<MDL	0.01	0.02		mg/L	<MDL	0.01	0.02		mg/L															
M=CV SM4500-NO3-F (03-03-012-004)																																																		
Nitrite + Nitrate Nitrogen	0.924		0.02	0.04	mg/L	0.823		0.02	0.04	mg/L	1.21		0.02	0.04	mg/L	0.814		0.02	0.04	mg/L	0.84		0.02	0.04	mg/L	0.4		0.02	0.04	mg/L	1.52		0.02	0.04	mg/L															
M=CV SM4500-P-B,F(03-03-013-003)C																																																		
Total Phosphorus	0.0532		0.005	0.01	mg/L	0.0521		0.005	0.01	mg/L	0.0338		0.005	0.01	mg/L	0.0622		0.005	0.01	mg/L	0.0451		0.005	0.01	mg/L	0.022		0.005	0.01	mg/L	0.0604		0.005	0.01	mg/L															
M=CV SM4500-P-F (03-03-012-004)																																																		
Orthophosphate Phosphorus	0.0404		0.002	0.005	mg/L	0.039		0.002	0.005	mg/L	0.0206		0.002	0.005	mg/L	0.0412		0.002	0.005	mg/L	0.0303		0.002	0.005	mg/L	0.0115		0.002	0.005	mg/L	0.0447		0.002	0.005	mg/L															
M=ES Hydrolab (02-01-005-002)																																																		
Conductivity, Field	185		0.5	10	umhos/cm	155		0.5	10	umhos/cm	145		0.5	10	umhos/cm	153		0.5	10	umhos/cm	158		0.5	10	umhos/cm	129		0.5	10	umhos/cm	198		0.5	10	umhos/cm															
Dissolved Oxygen, Field	10.8	E,TA	0.5	1	mg/L	10.8	E,TA	0.5	1	mg/L	11	E,TA	0.5	1	mg/L	10.8	E,TA	0.5	1	mg/L	11.1	E,TA	0.5	1	mg/L	9.3	E,TA	0.5	1	mg/L	9.5	E,TA	0.5	1	mg/L															
pH, Field	7.27				pH	7.54				pH	7.46				pH	7.54				pH	7.58				pH	7.05				pH	7.63				pH															
Sample Temperature, Field	9.8				deg C	10.03				deg C	10.19				deg C	10.31				deg C	10.28				deg C	11.02				deg C	10.63				deg C															
M=ES NONE																																																		
Field Personnel	DR				none	DR				none	DR				none	DR				none	DR				none	DR				none	DR				none															
Sampling Method	11011, 60201, 18100				none	11011, 60201, 18100				none	11011, 60201, 18100, 80011				none	11011, 60201, 18100				none	11011, 60201, 18100, 80011				none	11011, 60201, 18100				none	11011, 60201, 18100				none															
Staff Height	water below	TA			ft					3.77					ft					0.72					ft																									
Storm Or Non-Storm	N				none	N				none	N				none	N				none	N				none	N				none	N				none															
M=MC METRO MC SOP 6.5.1																																																		
Escherichia coli	13				CFU/100ml	21				CFU/100ml	71				CFU/100ml	72				CFU/100ml	110				CFU/100ml	9				CFU/100ml	20				CFU/100ml															
M=MC SM-9222 D ed.17																																																		
Fecal Coliform	16				CFU/100ml	10				CFU/100ml	79				CFU/100ml	59				CFU/100ml	70				CFU/100ml	14				CFU/100ml	22				CFU/100ml															

PROJECT: 421195DC	Locator: VA12A	Locator: VA23A	Locator: VA37A	Locator: VA41A	Locator: VA42A	Locator: VA45A	Locator: VA65A	Locator: VA12A	Locator: FFBLANK											
	Descrip: SHINGLEMILL CREEK	Descrip: CHRISTENSEN CREEK	Descrip: TAHLEQUAH CREEK UP	Descrip: FISHER CREEK UPSTR	Descrip: JUDD CREEK AT SW 2	Descrip: MILETA CREEK DOWNS	Descrip: GORSUCH CREEK NEAR	Descrip: SHINGLEMILL CREEK	Descrip: FIELD FILTER BLANK											
	Sampled: 09/05/07 10:04:00 AM	Sampled: 09/05/07 9:20:00 AM	Sampled: 09/05/07 7:37:00 AM	Sampled: 09/05/07 7:56:00 AM	Sampled: 09/05/07 8:12:00 AM	Sampled: 09/05/07 8:52:00 AM	Sampled: 09/05/07 9:42:00 AM	Sampled: 09/05/07 10:06:00 AM	Sampled: 09/05/07 7:30:00 AM											
	Lab ID: L43720-1	Lab ID: L43720-2	Lab ID: L43720-3	Lab ID: L43720-4	Lab ID: L43720-5	Lab ID: L43720-6	Lab ID: L43720-7	Lab ID: L43720-8	Lab ID: L43720-9											
	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: FRESH WTR	Matrix: BLANK WTR											
	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:											
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis				
COMBINED LABS																				
M=CV SM2130-B (03-01-011-004)																				
Turbidity	1.6	<RDL	0.5	2	NTU	2.62		0.5	2	NTU	45.7		0.5	2	NTU	5.43		0.5	2	NTU
M=CV SM2320-B (03-03-001-003)																				
Total Alkalinity	71.3		1	10	mg CaCO3/L	58.8		1	10	mg CaCO3/L	51.2		1	10	mg CaCO3/L	56.5		1	10	mg CaCO3/L
M=CV SM2540-D (03-01-009-002)																				
Total Suspended Solids	2.9		0.5	1	mg/L	9.2		0.5	1	mg/L	107		2.5	5	mg/L	31.5		0.5	1	mg/L
M=CV SM4500-N-C (03-03-013-003)C																				
Total Nitrogen	0.971		0.05	0.1	mg/L	0.98		0.05	0.1	mg/L	2.42		0.05	0.1	mg/L	1.11		0.05	0.1	mg/L
M=CV SM4500-NH3-G (03-03-012-004)																				
Ammonia Nitrogen	<MDL		0.01	0.02	mg/L	<MDL		0.01	0.02	mg/L	0.019	<RDL	0.01	0.02	mg/L	0.011	<RDL	0.01	0.02	mg/L
M=CV SM4500-NO3-F (03-03-012-004)																				
Nitrite + Nitrate Nitrogen	0.871		0.02	0.04	mg/L	0.8		0.02	0.04	mg/L	1.18		0.02	0.04	mg/L	0.814		0.02	0.04	mg/L
M=CV SM4500-P-B,F(03-03-013-003)C																				
Total Phosphorus	0.0607		0.005	0.01	mg/L	0.0701		0.005	0.01	mg/L	0.168		0.005	0.01	mg/L	0.0884		0.005	0.01	mg/L
M=CV SM4500-P-F (03-03-012-004)																				
Orthophosphate Phosphorus	0.0496		0.002	0.005	mg/L	0.0497		0.002	0.005	mg/L	0.0287		0.002	0.005	mg/L	0.0517		0.002	0.005	mg/L
M=ES Hydrolab (02-01-005-002)																				
Conductivity, Field	188		0.5	10	umhos/cm	158		0.5	10	umhos/cm	146		0.5	10	umhos/cm	159		0.5	10	umhos/cm
Dissolved Oxygen, Field	10.3		0.5	1	mg/L	10		0.5	1	mg/L	10		0.5	1	mg/L	10		0.5	1	mg/L
pH, Field	7.83				pH	7.73				pH	7.59				pH	7.71				pH
Sample Temperature, Field	12.16				deg C	12.52				deg C	13.04				deg C	13.4				deg C
M=ES NONE																				
Field Personnel	DR				none	DR				none	DR				none	DR				none
Sampling Method	11011, 60201, nutrient field filtering				none	11011, 60201, nutrient field filtering				none	11011, 60201, 80011, nutrient field				none	11011, 60201, nutrient field filtering				none
Staff Height	below staff f TA				ft					ft	3.76				ft	0.72				ft
Storm Or Non-Storm	N				none	N				none	N				none	N				none
M=MC METRO MC SOP 6.5.1																				
Escherichia coli	70				CFU/100ml	180				CFU/100ml	1200	C			CFU/100ml	530				CFU/100ml
M=MC SM-9222 D ed.17																				
Fecal Coliform	61				CFU/100ml	76				CFU/100ml	900				CFU/100ml	430				CFU/100ml

PROJECT: 421195DC										Locator: VA12A Descrip: SHINGLEMILL CREEK Client Loc: Sampled: 08/07/07 6:24:00 AM TimeSpan: Lab ID: L43408-1 Matrix: FRESH WTR % Solids:					Locator: VA23A Descrip: CHRISTENSEN CREEK Client Loc: Sampled: 08/07/07 6:53:00 AM TimeSpan: Lab ID: L43408-2 Matrix: FRESH WTR % Solids:					Locator: VA37A Descrip: TAHLEQUAH CREEK UP Client Loc: Sampled: 08/07/07 7:15:00 AM TimeSpan: Lab ID: L43408-3 Matrix: FRESH WTR % Solids:					Locator: VA41A Descrip: FISHER CREEK UPSTR Client Loc: Sampled: 08/07/07 8:30:00 AM TimeSpan: Lab ID: L43408-4 Matrix: FRESH WTR % Solids:					Locator: VA42A Descrip: JUDD CREEK AT SW 2 Client Loc: Sampled: 08/07/07 8:18:00 AM TimeSpan: Lab ID: L43408-5 Matrix: FRESH WTR % Solids:					Locator: VA45A Descrip: MILETA CREEK DOWNS Client Loc: Sampled: 08/07/07 7:54:00 AM TimeSpan: Lab ID: L43408-6 Matrix: FRESH WTR % Solids:					Locator: VA65A Descrip: GORSUCH CREEK NEAR Client Loc: Sampled: 08/07/07 9:19:00 AM TimeSpan: Lab ID: L43408-7 Matrix: FRESH WTR % Solids:					Locator: VA42A Descrip: JUDD CREEK AT SW 2 Client Loc: Sampled: 08/07/07 8:19:00 AM TimeSpan: Lab ID: L43408-8 Matrix: FRESH WTR % Solids:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Parameters					Value	Qual	MDL	RDL	Units	Value					Qual	MDL	RDL	Units	Value					Qual	MDL	RDL	Units	Value					Qual	MDL	RDL	Units	Value					Qual	MDL	RDL	Units	Value					Qual	MDL	RDL	Units																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
										-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis					-Wet Weight Basis																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
COMBINED LABS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
M=CV SM2130-B (03-01-011-004)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Turbidity					3.66		0.5	2	NTU	5.6						0.5	2	NTU	4.18						0.5	2	NTU	9.44						0.5	2	NTU	2.36						0.5	2	NTU	1.4					<RDL	0.5	2	NTU	3.45						0.5	2	NTU	2.35						0.5	2	NTU																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
M=CV SM2320-B (03-03-001-003)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Total Alkalinity					69.2		1	10	mg CaCO3/L	57						1	10	mg CaCO3/L	48.3						1	10	mg CaCO3/L	54.1						1	10	mg CaCO3/L	60.5						1	10	mg CaCO3/L	46.2						1	10	mg CaCO3/L	77						1	10	mg CaCO3/L	60.6						1	10	mg CaCO3/L																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
M=CV SM2540-D (03-01-009-002)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

PROJECT: 421195DC	Locator: VA12A Descrip: SHINGLEMILL CREEK Client Loc: Sampled: 07/05/07 9:44:00 AM Lab ID: L43108-1 Matrix: FRESH WTR % Solids:	Locator: VA23A Descrip: CHRISTENSEN CREEK Client Loc: Sampled: 07/05/07 10:12:00 AM Lab ID: L43108-2 Matrix: FRESH WTR % Solids:	Locator: VA37A Descrip: TAHLEQUAH CREEK UP Client Loc: Sampled: 07/05/07 10:31:00 AM Lab ID: L43108-3 Matrix: FRESH WTR % Solids:	Locator: VA41A Descrip: FISHER CREEK UPSTR Client Loc: Sampled: 07/05/07 11:13:00 AM Lab ID: L43108-4 Matrix: FRESH WTR % Solids:	Locator: VA42A Descrip: JUDD CREEK AT SW 2 Client Loc: Sampled: 07/05/07 11:28:00 AM Lab ID: L43108-5 Matrix: FRESH WTR % Solids:	Locator: VA45A Descrip: MILETA CREEK DOWNS Client Loc: Sampled: 07/05/07 11:47:00 AM Lab ID: L43108-6 Matrix: FRESH WTR % Solids:	Locator: VA65A Descrip: GORSUCH CREEK NEAR Client Loc: Sampled: 07/05/07 12:12:00 PM Lab ID: L43108-7 Matrix: FRESH WTR % Solids:	Locator: VA37A Descrip: TAHLEQUAH CREEK UP Client Loc: Sampled: 07/05/07 10:32:00 AM Lab ID: L43108-8 Matrix: FRESH WTR % Solids:
Parameters	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis
COMBINED LABS								
M=CV SM2130-B (03-01-011-004)								
Turbidity	1.8 <RDL0.52NTU	3.90.52NTU	2.670.52NTU	8.910.52NTU	2.120.52NTU	2.010.52NTU	2.430.52NTU	3.10.52NTU
M=CV SM2320-B (03-03-001-003)								
Total Alkalinity	68.5110mg CaCO3/L	55.8110mg CaCO3/L	47.1110mg CaCO3/L	52.5110mg CaCO3/L	58.9110mg CaCO3/L	38.5110mg CaCO3/L	76.5110mg CaCO3/L	47.4110mg CaCO3/L
M=CV SM2540-D (03-01-009-002)								
Total Suspended Solids	4.420.61.1mg/L	11.10.51mg/L	4.631.12.1mg/L	9.50.51mg/L	4.460.51mg/L	1.370.51.1mg/L	10.40.51mg/L	4.890.51.1mg/L
M=CV SM4500-N-C (03-03-013-003)C								
Total Nitrogen	1.090.050.1mg/L	1.070.050.1mg/L	1.640.050.1mg/L	1.320.050.1mg/L	1.290.050.1mg/L	1.550.050.1mg/L	2.340.050.1mg/L	1.640.050.1mg/L
M=CV SM4500-NH3-G (03-03-012-004)								
Ammonia Nitrogen	0.013 <RDL0.010.02mg/L	<MDL0.010.02mg/L	0.0210.010.02mg/L	0.011 <RDL0.010.02mg/L	<MDL0.010.02mg/L	0.014 <RDL0.010.02mg/L	<MDL0.010.02mg/L	0.019 <RDL0.010.02mg/L
M=CV SM4500-NO3-F (03-03-012-004)								
Nitrite + Nitrate Nitrogen	0.8920.020.04mg/L	0.8270.020.04mg/L	1.370.020.04mg/L	0.8760.020.04mg/L	0.9560.020.04mg/L	1.220.020.04mg/L	2.050.10.2mg/L	1.370.020.04mg/L
M=CV SM4500-P-B,F(03-03-013-003)C								
Total Phosphorus	0.06410.0050.01mg/L	0.06510.0050.01mg/L	0.04420.0050.01mg/L	0.1140.0050.01mg/L	0.05850.0050.01mg/L	0.02910.0050.01mg/L	0.06790.0050.01mg/L	0.04590.0050.01mg/L
M=CV SM4500-P-F (03-03-012-004)								
Orthophosphate Phosphorus	0.04650.0020.005mg/L	0.03930.0020.005mg/L	0.02490.0020.005mg/L	0.04740.0020.005mg/L	0.03320.0020.005mg/L	0.01310.0020.005mg/L	0.04940.0020.005mg/L	0.02570.0020.005mg/L
M=ES Hydrolab (02-01-005-002)								
Conductivity, Field	1830.510umhos/cm	1520.510umhos/cm	1430.510umhos/cm	1510.510umhos/cm	1620.510umhos/cm	1360.510umhos/cm	2060.510umhos/cm	1430.510umhos/cm
Dissolved Oxygen, Field	10.30.51mg/L	10.50.51mg/L	10.10.51mg/L	9.80.51mg/L	9.70.51mg/L	8.60.51mg/L	9.70.51mg/L	10.10.51mg/L
pH, Field	7.88pH	7.79pH	7.75pH	7.81pH	7.98pH	7.16pH	8.01pH	7.75pH
Sample Temperature, Field	11.75deg C	11.96deg C	12.69deg C	13.39deg C	13.97deg C	13.66deg C	14.1deg C	12.7deg C
M=ES NONE								
Field Personnel	JDDnone	JDDnone	JDDnone	JDDnone	JDDnone	JDDnone	JDDnone	JDDnone
Sample Function	Snone	Snone	Snone	Snone	Snone	Snone	Snone	FREP@L43108-3none
Sampling Method	11011, 60201none	11011, 60201none	11011, 60201, 80011none	11011, 60201none	11011, 60201, 80011none	11011, 60201none	11011, 60201none	11011, 60201none
Staff Height	water belowTAft		3.76ft		0.7ft			
Storm Or Non-Storm	Nnone	Nnone	Nnone	Nnone	Nnone	Nnone	Nnone	Nnone
M=MC METRO MC SOP 6.5.1								
Escherichia coli	69CFU/100ml	51CFU/100ml	31CFU/100ml	570CFU/100ml	490CFU/100ml	11CFU/100ml	49CFU/100ml	35CFU/100ml
M=MC SM-9222 D ed.17								
Fecal Coliform	58CFU/100ml	63CFU/100ml	60CFU/100ml	410CFU/100ml	640CFU/100ml	15CFU/100ml	73CFU/100ml	68CFU/100ml

PROJECT: 421195DC	Locator: VA12A					Locator: VA23A					Locator: VA37A					Locator: VA41A					Locator: VA42A					Locator: VA45A					Locator: VA65A					Locator: VA41A									
	Descrip: SHINGLEMILL CREEK					Descrip: CHRISTENSEN CREEK					Descrip: TAHLEQUAH CREEK UP					Descrip: FISHER CREEK UPSTR					Descrip: JUDD CREEK AT SW 2					Descrip: MILETA CREEK DOWNS					Descrip: GORSUCH CREEK NEAR					Descrip: FISHER CREEK UPSTR									
	Client Loc:					Client Loc:					Client Loc:					Client Loc:					Client Loc:					Client Loc:					Client Loc:					Client Loc:									
	Sampled: Jun 05, 2007					Sampled: Jun 05, 2007					Sampled: Jun 05, 2007					Sampled: Jun 05, 2007					Sampled: Jun 05, 2007					Sampled: Jun 05, 2007					Sampled: Jun 05, 2007					Sampled: Jun 05, 2007									
	Lab ID: L42884-1					Lab ID: L42884-2					Lab ID: L42884-3					Lab ID: L42884-4					Lab ID: L42884-5					Lab ID: L42884-6					Lab ID: L42884-7					Lab ID: L42884-8									
	Matrix: FRESH WTR					Matrix: FRESH WTR					Matrix: FRESH WTR					Matrix: FRESH WTR					Matrix: FRESH WTR					Matrix: FRESH WTR					Matrix: FRESH WTR					Matrix: FRESH WTR					Matrix: FRESH WTR				
	% Solids:					% Solids:					% Solids:					% Solids:					% Solids:					% Solids:					% Solids:					% Solids:					% Solids:				
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units					
COMBINED LABS																																													
M=CV SM2130-B (03-01-011-004)																																													
Turbidity	2.9		0.5	2	NTU	5.23		0.5	2	NTU	5.23		0.5	2	NTU	7.11		0.5	2	NTU	3.93		0.5	2	NTU	2.66		0.5	2	NTU	5.77		0.5	2	NTU	6.48		0.5	2	NTU					
M=CV SM2320-B (03-03-001-003)																																													
Total Alkalinity	66.8		1	10	mg CaCO3/L	54.2		1	10	mg CaCO3/L	45.7		1	10	mg CaCO3/L	50.7		1	10	mg CaCO3/L	57.1		1	10	mg CaCO3/L	32.7		1	10	mg CaCO3/L	73.8		1	10	mg CaCO3/L	50.3		1	10	mg CaCO3/L					
M=CV SM2540-D (03-01-009-002)																																													
Total Suspended Solids	5.4		0.5	1	mg/L	11.8		0.5	1	mg/L	9.6		0.5	1	mg/L	25.1		0.5	1	mg/L	6.9		0.5	1	mg/L	3.06		0.9	1.8	mg/L	5.1		0.5	1	mg/L	16.5		0.5	1	mg/L					
M=CV SM4500-N-C (03-03-013-003)C																																													
Total Nitrogen	1.08		0.05	0.1	mg/L	1.06		0.05	0.1	mg/L	1.66		0.05	0.1	mg/L	1.29		0.05	0.1	mg/L	1.26		0.05	0.1	mg/L	1.22		0.05	0.1	mg/L	2.39		0.05	0.1	mg/L	1.23		0.05	0.1	mg/L					
M=CV SM4500-NH3-G (03-03-012-004)																																													
Ammonia Nitrogen	0.014	<RDL	0.01	0.02	mg/L	<MDL	0.01	0.02	mg/L	0.0316	0.01	0.02	mg/L	0.014	<RDL	0.01	0.02	mg/L	0.011	<RDL	0.01	0.02	mg/L	0.012	<RDL	0.01	0.02	mg/L		<MDL	0.01	0.02	mg/L	0.013	<RDL	0.01	0.02	mg/L							
M=CV SM4500-NO3-F (03-03-012-004)																																													
Nitrite + Nitrate Nitrogen	0.975		0.02	0.04	mg/L	0.871		0.02	0.04	mg/L	1.39		0.02	0.04	mg/L	1		0.02	0.04	mg/L	1.06		0.02	0.04	mg/L	1.01		0.02	0.04	mg/L	2.2		0.1	0.2	mg/L	1		0.02	0.04	mg/L					
M=CV SM4500-P-B,F(03-03-013-003)C																																													
Total Phosphorus	0.0674		0.005	0.01	mg/L	0.0694		0.005	0.01	mg/L	0.0532		0.005	0.01	mg/L	0.0909		0.005	0.01	mg/L	0.0562		0.005	0.01	mg/L	0.0287		0.005	0.01	mg/L	0.067		0.005	0.01	mg/L	0.0843		0.005	0.01	mg/L					
M=CV SM4500-P-F (03-03-012-004)																																													
Orthophosphate Phosphorus	0.0519		0.002	0.005	mg/L	0.0441		0.002	0.005	mg/L	0.027		0.002	0.005	mg/L	0.0501		0.002	0.005	mg/L	0.0389		0.002	0.005	mg/L	0.0101		0.002	0.005	mg/L	0.0535		0.002	0.005	mg/L	0.0491		0.002	0.005	mg/L					
M=ES Hydrolab (02-01-005-002)																																													
Conductivity, Field	180		0.5	10	umhos/cm	148		0.5	10	umhos/cm	138		0.5	10	umhos/cm	146		0.5	10	umhos/cm	156		0.5	10	umhos/cm	125		0.5	10	umhos/cm	200		0.5	10	umhos/cm	146		0.5	10	umhos/cm					
Dissolved Oxygen, Field	10.2		0.5	1	mg/L	10.1		0.5	1	mg/L	10.3		0.5	1	mg/L	10.2		0.5	1	mg/L	10.1		0.5	1	mg/L	7.6		0.5	1	mg/L	9.9		0.5	1	mg/L	10.1		0.5	1	mg/L					
pH, Field	7.68				pH	7.62				pH	7.41				pH	7.56				pH	7.8				pH	7.05				pH	7.81				pH	7.57				pH					
Sample Temperature, Field	11.15				deg C	11.24				deg C	11.57				deg C	11.91				deg C	12.23				deg C	12.17				deg C	12.15				deg C	11.91				deg C					
M=ES NONE																																													
Field Personnel	DR				none	DR				none	DR				none	DR				none	DR				none	DR				none	DR				none	DR				none					
Sample Function	S				none	S				none	S				none	S				none	S				none	S				none	S				none	FREP@L42884-4				none					
Sample Start Time	901				hr	949				hr	715				hr	759				hr	1022				hr	833				hr	1040				hr	800				hr					
Sampling Method	11011, 60201, 80011				none	11011, 60201				none	11011, 60201, 80011				none	11011, 60201				none	11011, 60201, 80011				none	11011, 60201				none	11011, 60201				none	11011, 60201				none					
Staff Height	3.15				ft					ft	3.78				ft																														
Storm Or Non-Storm	N				none	N				none	N				none	N				none	N				none	N				none	N				none	N				none					
M=MC METRO MC SOP 6.5.1																																													
Escherichia coli	150	C			CFU/100ml	88	C			CFU/100ml	0				CFU/100ml	120	C			CFU/100ml	240	C			CFU/100ml	32				CFU/100ml	280	C			CFU/100ml	160	C			CFU/100ml					
M=MC SM-9222 D ed.17																																													
Fecal Coliform	140	C			CFU/100ml	64				CFU/100ml	88	C			CFU/100ml	120	C			CFU/100ml	530	C			CFU/100ml	37				CFU/100ml	180	C			CFU/100ml	230	C			CFU/100ml					

PROJECT: 421195DC	Locator: VA12A Descrip: SHINGLEMILL CREEK Client Loc: Sampled: May 08, 2007 Lab ID: L42618-1 Matrix: FRESH WTR % Solids:	Locator: VA23A Descrip: CHRISTENSEN CREEK Client Loc: Sampled: May 08, 2007 Lab ID: L42618-2 Matrix: FRESH WTR % Solids:	Locator: VA37A Descrip: TAHLEQUAH CREEK UP Client Loc: Sampled: May 08, 2007 Lab ID: L42618-3 Matrix: FRESH WTR % Solids:	Locator: VA41A Descrip: FISHER CREEK UPSTR Client Loc: Sampled: May 08, 2007 Lab ID: L42618-4 Matrix: FRESH WTR % Solids:	Locator: VA42A Descrip: JUDD CREEK AT SW 2 Client Loc: Sampled: May 08, 2007 Lab ID: L42618-5 Matrix: FRESH WTR % Solids:	Locator: VA45A Descrip: MILETA CREEK DOWNS Client Loc: Sampled: May 08, 2007 Lab ID: L42618-6 Matrix: FRESH WTR % Solids:	Locator: VA65A Descrip: GORSUCH CREEK NEAR Client Loc: Sampled: May 08, 2007 Lab ID: L42618-7 Matrix: FRESH WTR % Solids:	Locator: VA23A Descrip: CHRISTENSEN CREEK Client Loc: Sampled: May 08, 2007 Lab ID: L42618-8 Matrix: FRESH WTR % Solids:
Parameters	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis
COMBINED LABS								
M=CV SM2130-B (03-01-011-003)								
Turbidity	1.2 <RDL0.52NTU	3.650.52NTU	4.670.52NTU	5.870.52NTU	2.520.52NTU	5.10.52NTU	2.990.52NTU	3.880.52NTU
M=CV SM2320-B (03-03-001-003)								
Total Alkalinity	65.4110mg CaCO3/L	51.5110mg CaCO3/L	41.3110mg CaCO3/L	46.3110mg CaCO3/L	53.1110mg CaCO3/L	25.5110mg CaCO3/L	71.1110mg CaCO3/L	51.4110mg CaCO3/L
M=CV SM2540-D (03-01-009-002)								
Total Suspended Solids	2.80.51mg/L	8.70.51mg/L	7.60.51mg/L	33.30.91.9mg/L	5.20.51mg/L	20.51mg/L	7.50.51mg/L	8.50.51mg/L
M=CV SM4500-N-C (03-03-013-003)C								
Total Nitrogen	1.180.050.1mg/L	1.160.050.1mg/L	1.670.050.1mg/L	1.360.050.1mg/L	1.260.050.1mg/L	1.310.050.1mg/L	2.580.050.1mg/L	1.120.050.1mg/L
M=CV SM4500-NH3-G (03-03-012-004)								
Ammonia Nitrogen	0.013 <RDL0.010.02mg/L	0.013 <RDL0.010.02mg/L	0.02770.010.02mg/L	0.018 <RDL0.010.02mg/L	0.017 <RDL0.010.02mg/L	0.016 <RDL0.010.02mg/L	0.013 <RDL0.010.02mg/L	0.012 <RDL0.010.02mg/L
M=CV SM4500-NO3-F (03-03-012-004)								
Nitrite + Nitrate Nitrogen	10.020.04mg/L	0.8980.020.04mg/L	1.290.020.04mg/L	1.020.020.04mg/L	0.9740.020.04mg/L	10.020.04mg/L	2.340.10.2mg/L	0.890.020.04mg/L
M=CV SM4500-P-B,F(03-03-013-003)C								
Total Phosphorus	0.05070.0050.01mg/L	0.05620.0050.01mg/L	0.04860.0050.01mg/L	0.07560.0050.01mg/L	0.04690.0050.01mg/L	0.03140.0050.01mg/L	0.05940.0050.01mg/L	0.05560.0050.01mg/L
M=CV SM4500-P-F (03-03-012-004)								
Orthophosphate Phosphorus	0.03690.0020.005mg/L	0.03540.0020.005mg/L	0.02070.0020.005mg/L	0.03870.0020.005mg/L	0.02730.0020.005mg/L	0.008680.0020.005mg/L	0.04030.0020.005mg/L	0.03560.0020.005mg/L
M=ES Hydrolab (02-01-005-002)								
Conductivity, Field	1730.510umhos/cm	1410.510umhos/cm	56.90.510umhos/cm	1360.510umhos/cm	1420.510umhos/cm	1080.510umhos/cm	1920.510umhos/cm	1420.510umhos/cm
Dissolved Oxygen, Field	10.90.51mg/L	11.10.51mg/L	10.80.51mg/L	11.20.51mg/L	10.80.51mg/L	9.80.51mg/L	100.51mg/L	110.51mg/L
pH, Field	7.9pH	7.8pH	7.7pH	7.8pH	8pH	7.1pH	8pH	7.8pH
Sample Temperature, Field	9.7deg C	9.5deg C	9.9deg C	10.1deg C	10.8deg C	10.6deg C	11.4deg C	9.5deg C
M=ES NONE								
Field Personnel	DRnone	DRnone	DRnone	DRnone	DRnone	DRnone	DRnone	DRnone
Sample Function	Snone	Snone	Snone	Snone	Snone	Snone	Snone	Snone
Sample Start Time	758hr	822hr	845hr	924hr	1034hr	907hr	1056hr	823hr
Sampling Method	11011, 60201, 80011none	11011, 60201none	11011, 60201, 80011none	11011, 60201none	11011, 60201, 80011none	11011, 60201none	11011, 60201none	11011, 60201none
Staff Height	below staff g TAft	3.77ft	3.77ft	0.76ft	0.76ft	0.76ft	0.76ft	0.76ft
Storm Or Non-Storm	Nnone	Nnone	Nnone	Nnone	Nnone	Nnone	Nnone	Nnone
M=MC METRO MC SOP 6.5.1								
Escherichia coli	75CFU/100ml	44 CCFU/100ml	>6E1CFU/100ml	50CFU/100ml	27CFU/100ml	20CFU/100ml	1CFU/100ml	41CFU/100ml
M=MC SM-9222 D ed.17								
Fecal Coliform	96CFU/100ml	41CFU/100ml	>6E1CFU/100ml	48CFU/100ml	31CFU/100ml	22CFU/100ml	3CFU/100ml	30CFU/100ml

PROJECT: 421195DC	Locator: VA12A Descrip: SHINGLEMILL CREEK Client Loc: Sampled: Apr 03, 2007 Lab ID: L42328-1 Matrix: FRESH WTR % Solids:					Locator: VA23A Descrip: CHRISTENSEN CREEK Client Loc: Sampled: Apr 03, 2007 Lab ID: L42328-2 Matrix: FRESH WTR % Solids:					Locator: VA37A Descrip: TAHLEQUAH CREEK UP Client Loc: Sampled: Apr 03, 2007 Lab ID: L42328-3 Matrix: FRESH WTR % Solids:					Locator: VA41A Descrip: FISHER CREEK UPSTR Client Loc: Sampled: Apr 03, 2007 Lab ID: L42328-4 Matrix: FRESH WTR % Solids:					Locator: VA42A Descrip: JUDD CREEK AT SW 2 Client Loc: Sampled: Apr 03, 2007 Lab ID: L42328-5 Matrix: FRESH WTR % Solids:					Locator: VA45A Descrip: MILETA CREEK DOWNS Client Loc: Sampled: Apr 03, 2007 Lab ID: L42328-6 Matrix: FRESH WTR % Solids:					Locator: VA65A Descrip: GORSUCH CREEK NEAR Client Loc: Sampled: Apr 03, 2007 Lab ID: L42328-7 Matrix: FRESH WTR % Solids:					Locator: VA45A Descrip: MILETA CREEK DOWNS Client Loc: Sampled: Apr 03, 2007 Lab ID: L42328-8 Matrix: FRESH WTR % Solids:									
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units					
COMBINED LABS																																													
M=CV SM2130-B (03-01-011-003)																																													
Turbidity	1	<RDL	0.5	2	NTU	2.88		0.5	2	NTU	2.72		0.5	2	NTU	2.65		0.5	2	NTU	2.36		0.5	2	NTU	5.18		0.5	2	NTU	1.3	<RDL	0.5	2	NTU	4.85		0.5	2	NTU					
M=CV SM2320-B (03-03-001-003)																																													
Total Alkalinity	45.7		1	10	mg CaCO3/L	43		1	10	mg CaCO3/L	30.9		1	10	mg CaCO3/L	39.3		1	10	mg CaCO3/L	41.3		1	10	mg CaCO3/L	10.3		1	10	mg CaCO3/L	51.7		1	10	mg CaCO3/L	11.4		1	10	mg CaCO3/L					
M=CV SM2540-D (03-01-009-002)																																													
Total Suspended Solids	1.6		0.5	1	mg/L	7.53		0.5	1	mg/L	3.05		0.5	1	mg/L	4.8		0.5	1	mg/L	4.4		0.5	1	mg/L	4.9		0.5	1	mg/L	2	RDL	1	2	mg/L	2		0.5	1	mg/L					
M=CV SM4500-N-C (03-03-013-003)C																																													
Total Nitrogen	1.08		0.05	0.1	mg/L	1.15		0.05	0.1	mg/L	1.78		0.05	0.1	mg/L	1.45		0.05	0.1	mg/L	1.21		0.05	0.1	mg/L	2.68		0.05	0.1	mg/L	1.9		0.05	0.1	mg/L	2.75		0.05	0.1	mg/L					
M=CV SM4500-NH3-G (03-03-012-004)																																													
Ammonia Nitrogen	<MDL	0.01	0.02		mg/L	<MDL	0.01	0.02		mg/L	0.013	<RDL	0.01	0.02	mg/L	<MDL	0.01	0.02		mg/L	<MDL	0.01	0.02		mg/L	<MDL	0.01	0.02		mg/L	<MDL	0.01	0.02		mg/L	<MDL	0.01	0.02		mg/L					
M=CV SM4500-NO3-F (03-03-012-004)																																													
Nitrite + Nitrate Nitrogen	0.769		0.02	0.04	mg/L	0.857		0.02	0.04	mg/L	1.3		0.02	0.04	mg/L	1.11		0.02	0.04	mg/L	0.834		0.02	0.04	mg/L	2.39		0.1	0.2	mg/L	1.61		0.02	0.04	mg/L	2.4		0.1	0.2	mg/L					
M=CV SM4500-P-B,F(03-03-013-003)C																																													
Total Phosphorus	0.0322		0.005	0.01	mg/L	0.0402		0.005	0.01	mg/L	0.0258		0.005	0.01	mg/L	0.0438		0.005	0.01	mg/L	0.029		0.005	0.01	mg/L	0.0133		0.005	0.01	mg/L	0.0212		0.005	0.01	mg/L	0.0137		0.005	0.01	mg/L					
M=CV SM4500-P-F (03-03-012-004)																																													
Orthophosphate Phosphorus	0.0222		0.002	0.005	mg/L	0.023		0.002	0.005	mg/L	0.0123		0.002	0.005	mg/L	0.0257		0.002	0.005	mg/L	0.0136		0.002	0.005	mg/L	0.0034	<RDL	0.002	0.005	mg/L	0.014		0.002	0.005	mg/L	0.0033	<RDL	0.002	0.005	mg/L					
M=ES Hydrolab (02-01-005-002)																																													
Conductivity, Field	127		0.5	10	umhos/cm	124		0.5	10	umhos/cm	103		0.5	10	umhos/cm	121		0.5	10	umhos/cm	116		0.5	10	umhos/cm	80.7		0.5	10	umhos/cm	148		0.5	10	umhos/cm	80.4		0.5	10	umhos/cm					
Dissolved Oxygen, Field	11.9		0.5	1	mg/L	12		0.5	1	mg/L	11.8		0.5	1	mg/L	11.7		0.5	1	mg/L	12.2		0.5	1	mg/L	11.2		0.5	1	mg/L	11.9		0.5	1	mg/L	11.1		0.5	1	mg/L					
pH, Field	7.9				pH	7.8				pH	7.5				pH	7.7				pH	7.9				pH	7.1				pH	8.2				pH	7.1				pH					
Sample Temperature, Field	5.7				deg C	5.4				deg C	5.2				deg C	5.4				deg C	5.1				deg C	6				deg C	5.8				deg C	6				deg C					
M=ES NONE																																													
Field Personnel	DR				none	DR				none	DR				none	DR				none	DR				none	DR				none	DR				none	DR				none					
Sample Function	S				none	S				none	S				none	S				none	S				none	S				none	S				none	FREP@L42328-6				none					
Sample Start Time	1015				hr	834				hr	810				hr	852				hr	907				hr	923				hr	958				hr	924				hr					
Sampling Method	11011, 60201				none	11011, 60201				none	11011, 60201, 80011				none	11011, 60201				none	11011, 60201, 80011				none	11011, 60201				none	11011, 60201				none	11011, 60201				none					
Staff Height											3.88				ft						0.84				ft																				
Storm Or Non-Storm	N				none	N				none	N				none	N				none	N				none	N				none	N				none	N				none					
M=MC METRO MC SOP 6.5.1																																													
Escherichia coli	3				CFU/100ml	17				CFU/100ml	4				CFU/100ml	17				CFU/100ml	14				CFU/100ml	10				CFU/100ml	4				CFU/100ml	59				CFU/100ml					
M=MC SM-9222 D ed.17																																													
Fecal Coliform	5				CFU/100ml	27				CFU/100ml	9				CFU/100ml	22				CFU/100ml	30				CFU/100ml	80				CFU/100ml	4				CFU/100ml	81				CFU/100ml					

PROJECT: 421195DC	Locator: VA12A Descrip: SHINGLEMILL CREEK Client Loc: Sampled: Feb 06, 2007 Lab ID: L41677-1 Matrix: FRESH WTR % Solids:	Locator: VA23A Descrip: CHRISTENSEN CREEK Client Loc: Sampled: Feb 06, 2007 Lab ID: L41677-2 Matrix: FRESH WTR % Solids:	Locator: VA37A Descrip: TAHLEQUAH CREEK UP Client Loc: Sampled: Feb 06, 2007 Lab ID: L41677-3 Matrix: FRESH WTR % Solids:	Locator: VA41A Descrip: FISHER CREEK UPSTR Client Loc: Sampled: Feb 06, 2007 Lab ID: L41677-4 Matrix: FRESH WTR % Solids:	Locator: VA42A Descrip: JUDD CREEK AT SW 2 Client Loc: Sampled: Feb 06, 2007 Lab ID: L41677-5 Matrix: FRESH WTR % Solids:	Locator: VA45A Descrip: MILETA CREEK DOWNS Client Loc: Sampled: Feb 06, 2007 Lab ID: L41677-6 Matrix: FRESH WTR % Solids:	Locator: VA65A Descrip: GORSUCH CREEK NEAR Client Loc: Sampled: Feb 06, 2007 Lab ID: L41677-7 Matrix: FRESH WTR % Solids:	Locator: VA12A Descrip: SHINGLEMILL CREEK Client Loc: Sampled: Feb 06, 2007 Lab ID: L41677-8 Matrix: FRESH WTR % Solids:
Parameters	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis
COMBINED LABS								
M=CV SM2130-B (03-01-011-003) Turbidity	1.2 <RDL0.52NTU	1.5 <RDL0.52NTU	1.5 <RDL0.52NTU	1.7 <RDL0.52NTU	1.8 <RDL0.52NTU	3.240.52NTU	2.030.52NTU	1 <RDL0.52NTU
M=CV SM2320-B (03-03-001-003) Total Alkalinity	52.4110mg CaCO3/L	44.5110mg CaCO3/L	31.1110mg CaCO3/L	38.4110mg CaCO3/L	41.5110mg CaCO3/L	11.7110mg CaCO3/L	57.7110mg CaCO3/L	52.4110mg CaCO3/L
M=CV SM2540-D (03-01-009-002) Total Suspended Solids	1.10.51mg/L	2.60.51mg/L	1.2 <RDL12mg/L	2.40.51mg/L	1.80.51mg/L	<MDL0.51mg/L	1.50.51mg/L	1.20.51mg/L
M=CV SM4500-N-C (03-03-013-003)C Total Nitrogen	1.260.050.1mg/L	1.170.050.1mg/L	1.840.050.1mg/L	1.520.050.1mg/L	1.330.050.1mg/L	2.910.050.1mg/L	3.070.050.1mg/L	1.240.050.1mg/L
M=CV SM4500-NH3-G (03-03-012-004) Ammonia Nitrogen	<MDL0.010.02mg/L	0.011 <RDL0.010.02mg/L	0.02130.010.02mg/L	0.011 <RDL0.010.02mg/L	0.014 <RDL0.010.02mg/L	<MDL0.010.02mg/L	<MDL0.010.02mg/L	0.01 <RDL0.010.02mg/L
M=CV SM4500-NO3-F (03-03-012-004) Nitrite + Nitrate Nitrogen	1.10.020.04mg/L	0.9990.020.04mg/L	1.630.020.04mg/L	1.290.020.04mg/L	1.080.020.04mg/L	2.60.10.2mg/L	2.750.10.2mg/L	1.070.020.04mg/L
M=CV SM4500-P-B,F(03-03-013-003)C Total Phosphorus	0.04350.0050.01mg/L	0.04050.0050.01mg/L	0.0260.0050.01mg/L	0.04210.0050.01mg/L	0.03240.0050.01mg/L	0.02020.0050.01mg/L	0.03840.0050.01mg/L	0.04070.0050.01mg/L
M=CV SM4500-P-F (03-03-012-004) Orthophosphate Phosphorus	0.03260.0020.005mg/L	0.02680.0020.005mg/L	0.01370.0020.005mg/L	0.02890.0020.005mg/L	0.01850.0020.005mg/L	0.0039 <RDL0.0020.005mg/L	0.02680.0020.005mg/L	0.03130.0020.005mg/L
M=ES Hydrolab (02-01-005-002) Conductivity, Field	1450.510umhos/cm	1290.510umhos/cm	1100.510umhos/cm	1230.510umhos/cm	1210.510umhos/cm	88.90.510umhos/cm	1710.510umhos/cm	1450.510umhos/cm
Dissolved Oxygen, Field	11.50.51mg/L	11.30.51mg/L	11.50.51mg/L	11.50.51mg/L	11.50.51mg/L	11.10.51mg/L	11.70.51mg/L	11.50.51mg/L
pH, Field	7.8	7.7	7.5	7.7	7.9	6.8	7.9	7.8
Sample Temperature, Field	6.9deg C	7.3deg C	7deg C	7.1deg C	6.8deg C	6.8deg C	7.4deg C	6.9deg C
M=ES NONE Field Personnel	DR, SHnone	DR, SHnone	DR, SHnone	DR, SHnone	DR, SHnone	DR, SHnone	DR, SHnone	DR, SHnone
Sample Function	Snone	Snone	Snone	Snone	Snone	Snone	Snone	FREP@L41677-1none
Sample Start Time	940hr	1000hr	1000hr	1000hr	1100hr	1100hr	1200hr	950hr
Sampling Method	11011, 60201none	11011, 60201none	11011, 60201, 80011none	11011, 60201none	11011, 60201, 80011none	11011, 60201none	11011, 60201none	11011, 60201none
Staff Height	Below staff j TAft	3.9ft	3.9ft	0.82ft	0.82ft	0.82ft	0.82ft	0.82ft
Storm Or Non-Storm	Nnone	Nnone	Nnone	Nnone	Nnone	Nnone	Nnone	Nnone
M=MC METRO MC SOP 6.5.1 Escherichia coli	5CFU/100ml	9CFU/100ml	21CFU/100ml	140CFU/100ml	38CFU/100ml	26CFU/100ml	6CFU/100ml	5CFU/100ml
M=MC SM-9222 D ed.17 Fecal Coliform	7CFU/100ml	16CFU/100ml	15CFU/100ml	170CFU/100ml	41CFU/100ml	23CFU/100ml	11CFU/100ml	2CFU/100ml

Appendix B-2

Grant Water Quality Data

PROJECT: 421195DC

Locator: VAS_W-67
Descrip: VASHON ISLAND WELL
Client Loc:
Sampled: Mar 06, 2007
Lab ID: L41955-1
Matrix: GRND WTR
% Solids:

Parameters	Value	Qual	MDL	RDL	Units
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COMBINED LABS

M=AQ ALPCO 2003 (04-02-014)

Estradiol

M=AQ RBIOPHARM 2003 (04-02-014)

Ethynyl estradiol

M=CV SM4110B (03-03-002-003)

Chloride	2.92		0.05	0.1	mg/L
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M=CV SM4500-NO3-F (03-03-012-004)

Nitrite + Nitrate Nitrogen	<MDL		0.02	0.04	mg/L
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M=ES NONE

Field Personnel	EWF				none
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Sample Function

Sample Start Time	900				hr
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M=MC METRO MC SOP 6.5.1

Escherichia coli

M=MC SM-9222 D ed.17

Fecal Coliform

M=MT EPA 200.8 (06-03-004&004A-001)

Arsenic, Dissolved, ICP-MS	1.2	<RDL	0.5	2.5	ug/L
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Arsenic, Total, ICP-MS	1.2	<RDL	0.5	2.5	ug/L
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Calcium, Total, ICP-MS	22200		50	250	ug/L
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Magnesium, Total, ICP-MS	10100		30	150	ug/L
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M=MT SM2340B.ED19 (06-03-009-000)

Hardness, Calc	96.8		0.2	1.25	mg CaCO3/L
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M=OR EPA 3520C/608 (7-3-03-002)

4,4'-DDD

4,4'-DDE

4,4'-DDT

Aldrin

Alpha-BHC

Alpha-Chlordane

Beta-BHC

Chlordane

Delta-BHC

Dieldrin

Endosulfan I

Endosulfan II

Endosulfan Sulfate

Endrin

Endrin Aldehyde

Gamma-BHC (Lindane)

Gamma-Chlordane

Heptachlor

Heptachlor Epoxide

Methoxychlor

Toxaphene

M=OR EPA 3520C/8270C (7-3-01-004)

Bis(2-ethylhexyl)adipate

Bisphenol A

Chlordecone (Kepone)

Methyltestosterone

Progesterone

Testosterone

Total 4-Nonylphenol

Vinclozolin

M=OR EPA 3520C/8270C (7-3-04-001)

Chlorpyrifos

Diazinon

Disulfoton

Malathion

Parathion-Ethyl

Parathion-Methyl

Phorate

M=OR SW-846 8151A GCMS MODIFIED

2,4,5-T

2,4,5-TP (Silvex)

2,4-D

2,4-DB

Dalapon

Dicamba

Dichloroprop

Dinoseb

MCPA

MCPP

Locator: VAS_W-66
Descrip: VASHON ISLAND WELL
Client Loc:
Sampled: Mar 06, 2007
Lab ID: L41955-2
Matrix: GRND WTR
% Solids:

Value	Qual	MDL	RDL	Units
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-Wet Weight Basis

Locator: VAS_W-58

Descrip: VASHON ISLAND WELL

Client Loc:

Sampled: Mar 06, 2007

Lab ID: L41955-3

Matrix: GRND WTR

% Solids:

Value

Qual

MDL

RDL

Units

-Wet Weight Basis

Value

Qual

MDL

RDL

Units

-Wet Weight Basis

Value

Qual

MDL

RDL

Units

-Wet Weight Basis

Value

Qual

MDL

RDL

Units

-Wet Weight Basis

Value

Qual

MDL

RDL

Units

-Wet Weight Basis

Value

Qual

MDL

RDL

Units

-Wet Weight Basis

Value

Qual

MDL

RDL

Units

-Wet Weight Basis

Value

Qual

MDL

RDL

Units

-Wet Weight Basis

Value

Qual

MDL

RDL

Units

-Wet Weight Basis

Value

Qual

MDL

RDL

Units

-Wet Weight Basis

Value

Qual

MDL

RDL

Units

-Wet Weight Basis

No sampling
for organic parameters
at these sites.

PROJECT: 421195DC

Locator: VAS_W-56
Descrip: VASHON ISLAND WELL
Client Loc:
Sampled: Mar 07, 2007
Lab ID: L41955-4
Matrix: GRND WTR
% Solids:

Parameters	Value	Qual	MDL	RDL	Units
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COMBINED LABS

M=AQ ALPCO 2003 (04-02-014)

Estradiol

M=AQ RBIOPHARM 2003 (04-02-014)

Ethynyl estradiol

M=CV SM4110B (03-03-002-003)

Chloride	5		0.05	0.1	mg/L
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M=CV SM4500-NO3-F (03-03-012-004)

Nitrite + Nitrate Nitrogen	<MDL		0.02	0.04	mg/L
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M=ES NONE

Field Personnel	EWF				none
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Sample Function

Sample Start Time	1405				hr
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M=MC METRO MC SOP 6.5.1

Escherichia coli

M=MC SM-9222 D ed.17

Fecal Coliform

M=MT EPA 200.8 (06-03-004&004A-001)

Arsenic, Dissolved, ICP-MS	1.5	<RDL	0.5	2.5	ug/L
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Arsenic, Total, ICP-MS	1.9	<RDL	0.5	2.5	ug/L
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Calcium, Total, ICP-MS	12500		50	250	ug/L
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Magnesium, Total, ICP-MS	14800		30	150	ug/L
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M=MT SM2340B.ED19 (06-03-009-000)

Hardness, Calc	92.3		0.2	1.25	mg CaCO3/L
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M=OR EPA 3520C/608 (7-3-03-002)

4,4'-DDD

4,4'-DDE

4,4'-DDT

Aldrin

Alpha-BHC

Alpha-Chlordane

Beta-BHC

Chlordane

Delta-BHC

Dieldrin

Endosulfan I

Endosulfan II

Endosulfan Sulfate

Endrin

Endrin Aldehyde

Gamma-BHC (Lindane)

Gamma-Chlordane

Heptachlor

Heptachlor Epoxide

Methoxychlor

Toxaphene

M=OR EPA 3520C/8270C (7-3-01-004)

Bis(2-ethylhexyl)adipate

Bisphenol A

Chlordecone (Kepone)

Methyltestosterone

Progesterone

Testosterone

Total 4-Nonylphenol

Vinclozolin

M=OR EPA 3520C/8270C (7-3-04-001)

Chlorpyrifos

Diazinon

Disulfoton

Malathion

Parathion-Ethyl

Parathion-Methyl

Phorate

M=OR SW-846 8151A GCMS MODIFIED

2,4,5-T

2,4,5-TP (Silvex)

2,4-D

2,4-DB

Dalapon

Dicamba

Dichloroprop

Dinoseb

MCPA

MCPP

Locator: VAS_W-34
Descrip: FOREVER YOURS
Client Loc:
Sampled: Mar 07, 2007
Lab ID: L41955-5
Matrix: GRND WTR
% Solids:

Value	Qual	MDL	RDL	Units
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-Wet Weight Basis

Locator: VAS_W-57

Descrip: VASHON ISLAND WELL

Client Loc:

Sampled: Mar 06, 2007

Lab ID: L41955-8

Matrix: GRND WTR

% Solids:

Value	Qual	MDL	RDL	Units
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-Wet Weight Basis

EWF				none
-----	--	--	--	------

EWF				none
-----	--	--	--	------

EWF				none
-----	--	--	--	------

0				CFU/100ml
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0				CFU/100ml
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1.9	<RDL	0.5	2.5	ug/L
-----	------	-----	-----	------

2.1	<RDL	0.5	2.5	ug/L
-----	------	-----	-----	------

10300		50	250	ug/L
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6720		30	150	ug/L
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53.5		0.2	1.25	mg CaCO3/L
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No sampling
for organic parameters
at these sites.

PROJECT: 421195DC						Locator: VAS_W-53 Descrip: VASHON ISLAND WELL Client Loc: Sampled: Mar 07, 2007 Lab ID: L41955-12 Matrix: GRND WTR % Solids:					Locator: VAS_W-52 Descrip: VASHON ISLAND WELL Client Loc: Sampled: Mar 07, 2007 Lab ID: L41955-13 Matrix: GRND WTR % Solids:					Locator: GROUNDUP Descrip: GROUNDWATER DUPLIC Client Loc: Sampled: Mar 07, 2007 Lab ID: L41955-15 Matrix: GRND WTR % Solids:				
Parameters		Value	Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units	Value		Qual	MDL	RDL	Units		
						-Wet Weight Basis										-Wet Weight Basis				
COMBINED LABS																				
M=AQ ALPCO 2003 (04-02-014)																				
Estradiol			<MDL	0.2	0.2	ng/L				<MDL	0.2	0.2	ng/L				<MDL	0.2	0.2	ng/L
M=AQ RBIOPHARM 2003 (04-02-014)																				
Ethynyl estradiol			<MDL	0.3	0.3	ng/L				<MDL	0.3	0.3	ng/L				<MDL	0.3	0.3	ng/L
M=CV SM4110B (03-03-002-003)																				
Chloride		16.4		0.25	0.5	mg/L	3.58			0.05	0.1	mg/L	3.7			0.05	0.1	mg/L		
M=CV SM4500-NO3-F (03-03-012-004)																				
Nitrite + Nitrate Nitrogen		4.87		0.1	0.2	mg/L	1.34			0.02	0.04	mg/L	1.32			0.02	0.04	mg/L		
M=ES NONE																				
Field Personnel		EWF				none	EWF					none	EWF					none		
Sample Function														Frep@L41955-13						none
Sample Start Time		1050				hr	930					hr	945					hr		
M=MC METRO MC SOP 6.5.1																				
Escherichia coli																				
M=MC SM-9222 D ed.17																				
Fecal Coliform																				
M=MT EPA 200.8 (06-03-004&004A-001)																				
Arsenic, Dissolved, ICP-MS			<MDL	0.5	2.5	ug/L	0.69		<RDL	0.5	2.5	ug/L	0.7		<RDL	0.5	2.5	ug/L		
Arsenic, Total, ICP-MS			<MDL	0.5	2.5	ug/L	0.67		<RDL	0.5	2.5	ug/L	0.72		<RDL	0.5	2.5	ug/L		
Calcium, Total, ICP-MS		17000		50	250	ug/L	11800			50	250	ug/L	11800			50	250	ug/L		
Magnesium, Total, ICP-MS		9180		30	150	ug/L	7900			30	150	ug/L	7830			30	150	ug/L		
M=MT SM2340B.ED19 (06-03-009-000)																				
Hardness, Calc		80.2		0.2	1.25	mg CaCO3/L	61.9			0.2	1.25	mg CaCO3/L	61.6			0.2	1.25	mg CaCO3/L		
M=OR EPA 3520C/608 (7-3-03-002)																				
4,4'-DDD			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
4,4'-DDE			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
4,4'-DDT			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Aldrin			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Alpha-BHC			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Alpha-Chlordane			<MDL	0.012	0.0238	ug/L			<MDL	0.012	0.0238	ug/L			<MDL	0.012	0.0238	ug/L		
Beta-BHC			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Chlordane			<MDL	0.012	0.0238	ug/L			<MDL	0.012	0.0238	ug/L			<MDL	0.012	0.0238	ug/L		
Delta-BHC			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Dieldrin			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Endosulfan I			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Endosulfan II			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Endosulfan Sulfate			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Endrin			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Endrin Aldehyde			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Gamma-BHC (Lindane)			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Gamma-Chlordane			<MDL	0.012	0.0238	ug/L			<MDL	0.012	0.0238	ug/L			<MDL	0.012	0.0238	ug/L		
Heptachlor			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Heptachlor Epoxide			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L			<MDL	0.0024	0.00476	ug/L		
Methoxychlor			<MDL	0.012	0.0238	ug/L			<MDL	0.012	0.0238	ug/L			<MDL	0.012	0.0238	ug/L		
Toxaphene			<MDL	0.024	0.0476	ug/L			<MDL	0.024	0.0476	ug/L			<MDL	0.024	0.0476	ug/L		
M=OR EPA 3520C/8270C (7-3-01-004)																				
Bis(2-ethylhexyl)adipate			<MDL	0.048	0.0952	ug/L			<MDL	0.048	0.0952	ug/L			<MDL	0.048	0.0952	ug/L		
Bisphenol A			<MDL	0.12	0.238	ug/L			<MDL	0.12	0.238	ug/L			<MDL	0.12	0.238	ug/L		
Chlordecone (Kepone)			<MDL	0.12	0.476	ug/L			<MDL	0.12	0.476	ug/L			<MDL	0.12	0.476	ug/L		
Methyltestosterone			<MDL	0.24	0.476	ug/L			<MDL	0.24	0.476	ug/L			<MDL	0.24	0.476	ug/L		
Progesterone			<MDL	0.12	0.238	ug/L			<MDL	0.12	0.238	ug/L			<MDL	0.12	0.238	ug/L		
Testosterone			<MDL	0.24	0.476	ug/L			<MDL	0.24	0.476	ug/L			<MDL	0.24	0.476	ug/L		
Total 4-Nonylphenol			<MDL	0.12	0.238	ug/L			<MDL	0.12	0.238	ug/L			<MDL	0.12	0.238	ug/L		
Vinclozolin			<MDL	0.12	0.238	ug/L			<MDL	0.12	0.238	ug/L			<MDL	0.12	0.238	ug/L		
M=OR EPA 3520C/8270C (7-3-04-001)																				
Chlorpyrifos			<MDL	0.032	0.0472	ug/L			<MDL	0.032	0.0472	ug/L			<MDL	0.032	0.0472	ug/L		
Diazinon			<MDL	0.041	0.0472	ug/L			<MDL	0.041	0.0472	ug/L			<MDL	0.041	0.0472	ug/L		
Disulfoton			<MDL	0.025	0.0472	ug/L			<MDL	0.025	0.0472	ug/L			<MDL	0.025	0.0472	ug/L		
Malathion			<MDL	0.045	0.0472	ug/L			<MDL	0.045	0.0472	ug/L			<MDL	0.045	0.0472	ug/L		
Parathion-Ethyl			<MDL	0.042	0.0472	ug/L			<MDL	0.042	0.0472	ug/L			<MDL	0.042	0.0472	ug/L		
Parathion-Methyl			<MDL	0.034	0.0472	ug/L			<MDL	0.034	0.0472	ug/L			<MDL	0.034	0.0472	ug/L		
Phorate			<MDL	0.031	0.0472	ug/L			<MDL	0.031	0.0472	ug/L			<MDL	0.031	0.0472	ug/L		
M=OR SW-846 8151A GCMS MODIFIED																				
2,4,5-T			<MDL	0.012	0.2	ug/L			<MDL	0.012	0.2	ug/L			<MDL	0.012	0.2	ug/L		
2,4,5-TP (Silvex)			<MDL	0.017	0.2	ug/L			<MDL	0.017	0.2	ug/L			<MDL	0.017	0.2	ug/L		
2,4-D			<MDL	0.0092	0.2	ug/L			<MDL	0.0092	0.2	ug/L			<MDL	0.0092	0.2	ug/L		
2,4-DB			<MDL	0.017	0.2	ug/L			<MDL	0.017	0.2	ug/L			<MDL	0.017	0.2	ug/L		
Dalapon			<MDL	0.034	0.4	ug/L			<MDL	0.034	0.4	ug/L			<MDL	0.034	0.4	ug/L		
Dicamba			<MDL	0.017	0.2	ug/L			<MDL	0.017	0.2	ug/L			<MDL	0.017	0.2	ug/L		
Dichloroprop			<MDL	0.019	0.2	ug/L			<MDL	0.019	0.2	ug/L			<MDL	0.019	0.2	ug/L		
Dinoseb			<MDL	0.044	0.2	ug/L			<MDL	0.044	0.2	ug/L			<MDL	0.044	0.2	ug/L		
MCPA			<MDL	0.015	0.2	ug/L			<MDL	0.015	0.2	ug/L			<MDL	0.015	0.2	ug/L		
MCPP			<MDL	0.011	0.2	ug/L			<MDL	0.011	0.2	ug/L			<MDL	0.011	0.2	ug/L		

PROJECT: 421195DC

Locator: VAS_W-55
 Descrip: VASHON ISLAND WELL
 Client Loc: Resample well W-55 for EDC-LVI
 Sampled: May 14, 2007
 Lab ID: L42717-1
 Matrix: GRND WTR
 % Solids:

Locator: VAS_W-68
 Descrip: VASHON ISLAND WELL
 Client Loc: Resample well W-68 for EDC-LVI
 Sampled: May 14, 2007
 Lab ID: L42717-2
 Matrix: GRND WTR
 % Solids:

Parameters

Value	Qual	MDL	RDL	Units
-Wet Weight Basis				

Value	Qual	MDL	RDL	Units
-Wet Weight Basis				

COMBINED LABS

M=ES NONE

Field Personnel	Eric Ferguson	none
Sample Code	Grab	none
Sample Start Time	1140	hr

Field Personnel	Eric Ferguson	none
Sample Code	Grab	none
Sample Start Time	1305	hr

M=OR TERNES (2002)(SOP 07-03-022-D)

Estradiol	<MDL	0.00048	0.00481	ug/L
Estrone	<MDL	0.00029	0.00288	ug/L
Ethynyl estradiol	<MDL	0.00048	0.00481	ug/L

Estradiol	<MDL	0.00048	0.00481	ug/L
Estrone	<MDL	0.00029	0.00288	ug/L
Ethynyl estradiol	<MDL	0.00048	0.00481	ug/L

Appendix B-3

Monitoring Well Quality Data

PROJECT: 421195DC

Locator: VAS_W-61
 Descrip: VASHON ISLAND WELL
 Sampled: 08/06/07 10:45:00 AM

Lab ID: L43186-2
 % Solids:

Locator: VAS_W-63
 Descrip: VASHON ISLAND WELL
 Sampled: 08/08/07 9:00:00 AM

Lab ID: L43186-3
 % Solids:

Locator: VAS_W-65
 Descrip: VASHON ISLAND WELL
 Sampled: 08/06/07 9:30:00 AM

Lab ID: L43186-5
 % Solids:

Locator: VAS_W-66
 Descrip: VASHON ISLAND WELL
 Sampled: 08/06/07 12:00:00 PM

Lab ID: L43186-6
 % Solids:

Parameters	Value	Qual	MDL	RDL	Units
					-Wet Weight Basis

COMBINED LABS**M=CV SM2320-B (03-03-001-003)**

Total Alkalinity 81.5 1 10 mg CaCO3/L

M=CV SM2540-C (03-01-008-002)

Total Dissolved Solids 153 H 20 40 mg/L

M=CV SM2540-D (03-01-009-002)

Total Suspended Solids 9.9 0.5 1 mg/L

M=CV SM4110B (03-03-002-003)

Chloride 6.86 0.05 0.1 mg/L

Fluoride 0.0623 0.02 0.04 mg/L

Sulfate 20.3 0.5 1 mg/L

M=CV SM4500-NO3-F (03-03-012-004)

Nitrite + Nitrate Nitrogen <MDL 0.02 0.04 mg/L

M=CV SM4500-P-B,F(03-03-013-003)C

Total Phosphorus 0.0625 0.005 0.01 mg/L

M=CV SM4500-P-F (03-03-012-004)

Orthophosphate Phosphorus 0.0537 0.002 0.005 mg/L

M=CV WHITLEDGE 1981 (03-03-012-003)

Silica 37.4 0.5 1 mg/L

M=ES NONE

Field Personnel EWF / DR none

Sample Code Grab none

Sample Function

M=MT EPA 200.8 (06-03-004&004A-001)

Arsenic, Total, ICP-MS 1.9 <RDL 0.5 2.5 ug/L

Cadmium, Total, ICP-MS <MDL 0.1 0.5 ug/L

Calcium, Total, ICP-MS 18800 50 250 ug/L

Chromium, Total, ICP-MS 0.46 <RDL 0.4 2 ug/L

Copper, Total, ICP-MS 0.96 <RDL 0.4 2 ug/L

Iron, Total, ICP-MS 432 20 100 ug/L

Lead, Total, ICP-MS 0.49 <RDL 0.2 1 ug/L

Magnesium, Total, ICP-MS 12700 30 150 ug/L

Manganese, Total, ICP-MS 498 0.2 1 ug/L

Nickel, Total, ICP-MS 1.1 <RDL 0.3 1.5 ug/L

Potassium, Total, ICP-MS 2350 20 100 ug/L

Silver, Total, ICP-MS <MDL 0.2 1 ug/L

Sodium, Total, ICP-MS 8290 20 100 ug/L

Zinc, Total, ICP-MS 19.4 0.5 2.5 ug/L

M=MT EPA 245.1 (06-01-004-003)

Mercury, Total, CVAA <MDL 0.005 0.015 ug/L

M=MT SM2340B.ED19 (06-03-009-000)

Hardness, Calc 99.3 0.2 1.25 mg CaCO3/L

Value	Qual	MDL	RDL	Units
				-Wet Weight Basis

93.8 1 10 mg CaCO3/L

143 20 40 mg/L

6.6 1 2 mg/L

2.77 0.05 0.1 mg/L

0.0948 0.02 0.04 mg/L

5.34 0.1 0.2 mg/L

<MDL 0.02 0.04 mg/L

0.209 0.005 0.01 mg/L

0.196 0.02 0.05 mg/L

32.1 0.5 1 mg/L

EWF / DR none

Grab none

4.9 0.5 2.5 ug/L

<MDL 0.1 0.5 ug/L

22800 50 250 ug/L

0.47 <RDL 0.4 2 ug/L

<MDL 0.4 2 ug/L

172 20 100 ug/L

<MDL 0.2 1 ug/L

8950 30 150 ug/L

130 0.2 1 ug/L

0.89 <RDL 0.3 1.5 ug/L

2610 20 100 ug/L

<MDL 0.2 1 ug/L

7280 20 100 ug/L

0.81 <RDL 0.5 2.5 ug/L

<MDL 0.005 0.015 ug/L

93.8 0.2 1.25 mg CaCO3/L

Value	Qual	MDL	RDL	Units
				-Wet Weight Basis

73.5 1 10 mg CaCO3/L

147 H 20 40 mg/L

3.7 0.5 1 mg/L

6.14 0.05 0.1 mg/L

0.0753 0.02 0.04 mg/L

16.1 0.1 0.2 mg/L

<MDL 0.02 0.04 mg/L

0.0622 0.005 0.01 mg/L

0.054 0.002 0.005 mg/L

37.2 0.5 1 mg/L

EWF / DR none

Grab none

1.9 <RDL 0.5 2.5 ug/L

<MDL 0.1 0.5 ug/L

17000 50 250 ug/L

<MDL 0.4 2 ug/L

<MDL 0.4 2 ug/L

1520 20 100 ug/L

<MDL 0.2 1 ug/L

11700 30 150 ug/L

326 0.2 1 ug/L

0.41 <RDL 0.3 1.5 ug/L

2190 20 100 ug/L

<MDL 0.2 1 ug/L

6250 20 100 ug/L

21.9 0.5 2.5 ug/L

<MDL 0.005 0.015 ug/L

90.7 0.2 1.25 mg CaCO3/L

Value	Qual	MDL	RDL	Units
				-Wet Weight Basis

159 1 10 mg CaCO3/L

213 H 20 40 mg/L

<MDL 0.5 1 mg/L

2.44 0.1 0.2 mg/L

0.151 0.02 0.04 mg/L

<MDL 0.1 0.2 mg/L

<MDL 0.02 0.04 mg/L

0.893 0.05 0.1 mg/L

0.907 0.02 0.05 mg/L

29.2 0.5 1 mg/L

EWF / DR none

Grab none

44.2 0.5 2.5 ug/L

<MDL 0.1 0.5 ug/L

21000 50 250 ug/L

<MDL 0.4 2 ug/L

<MDL 0.4 2 ug/L

367 20 100 ug/L

0.25 <RDL 0.2 1 ug/L

8800 30 150 ug/L

79.7 0.2 1 ug/L

0.49 <RDL 0.3 1.5 ug/L

5410 20 100 ug/L

<MDL 0.2 1 ug/L

36700 20 100 ug/L

65.1 0.5 2.5 ug/L

<MDL 0.005 0.015 ug/L

88.8 0.2 1.25 mg CaCO3/L

PROJECT: 421195DC

Locator: VAS_W-59
 Descrip: VASHON ISLAND WELL
 Sampled: 08/06/07 12:45:00 PM

Lab ID: L43186-7
 % Solids:

Locator: GROUNDUP
 Descrip: GROUNDWATER DUPLIC
 Sampled: 08/06/07 10:55:00 AM

Lab ID: L43186-8
 % Solids:

Locator: ATMOSBLANK
 Descrip: ATMOSPHERE BLANK
 Sampled: 08/06/07 9:30:00 AM

Lab ID: L43186-9
 % Solids:

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
-Wet Weight Basis															
COMBINED LABS															
M=CV SM2320-B (03-03-001-003)															
Total Alkalinity	110			1	10 mg CaCO3/L	80.3			1	10 mg CaCO3/L					
M=CV SM2540-C (03-01-008-002)															
Total Dissolved Solids	161	H		20	40 mg/L	162	H		20	40 mg/L					
M=CV SM2540-D (03-01-009-002)															
Total Suspended Solids	<MDL			1	2 mg/L	6.46			0.5	1 mg/L					
M=CV SM4110B (03-03-002-003)															
Chloride	2.44			0.05	0.1 mg/L	7.14			0.05	0.1 mg/L					
Fluoride	0.131			0.02	0.04 mg/L	0.058			0.02	0.04 mg/L					
Sulfate	3.1			0.1	0.2 mg/L	21			0.1	0.2 mg/L					
M=CV SM4500-NO3-F (03-03-012-004)															
Nitrite + Nitrate Nitrogen	<MDL			0.02	0.04 mg/L	<MDL			0.02	0.04 mg/L					
M=CV SM4500-P-B,F(03-03-013-003)C															
Total Phosphorus	0.296			0.005	0.01 mg/L	0.0629			0.005	0.01 mg/L					
M=CV SM4500-P-F (03-03-012-004)															
Orthophosphate Phosphorus	0.299			0.01	0.025 mg/L	0.0514			0.002	0.005 mg/L					
M=CV WHITLEDGE 1981 (03-03-012-003)															
Silica	38.3			0.5	1 mg/L	36.9			0.5	1 mg/L					
M=ES NONE															
Field Personnel	EWF / DR				none	EWF / DR				none	EWF / DR				none
Sample Code	Grab				none	Grab				none	Grab				none
Sample Function						FREP@L43186-2				none	ABlank@L43186-5				none
M=MT EPA 200.8 (06-03-004&004A-001)															
Arsenic, Total, ICP-MS	1.3	<RDL		0.5	2.5 ug/L	1.8	<RDL		0.5	2.5 ug/L					
Cadmium, Total, ICP-MS	<MDL			0.1	0.5 ug/L	<MDL			0.1	0.5 ug/L					
Calcium, Total, ICP-MS	20200			50	250 ug/L	18800			50	250 ug/L					
Chromium, Total, ICP-MS	<MDL			0.4	2 ug/L	<MDL			0.4	2 ug/L					
Copper, Total, ICP-MS	<MDL			0.4	2 ug/L	0.71	<RDL		0.4	2 ug/L					
Iron, Total, ICP-MS	110			20	100 ug/L	290			20	100 ug/L					
Lead, Total, ICP-MS	<MDL			0.2	1 ug/L	0.37	<RDL		0.2	1 ug/L					
Magnesium, Total, ICP-MS	7390			30	150 ug/L	12500			30	150 ug/L					
Manganese, Total, ICP-MS	138			0.2	1 ug/L	415			0.2	1 ug/L					
Nickel, Total, ICP-MS	<MDL			0.3	1.5 ug/L	0.9	<RDL		0.3	1.5 ug/L					
Potassium, Total, ICP-MS	3570			20	100 ug/L	2410			20	100 ug/L					
Silver, Total, ICP-MS	<MDL			0.2	1 ug/L	<MDL			0.2	1 ug/L					
Sodium, Total, ICP-MS	19000			20	100 ug/L	8370			20	100 ug/L					
Zinc, Total, ICP-MS	4.2			0.5	2.5 ug/L	13.8			0.5	2.5 ug/L					
M=MT EPA 245.1 (06-01-004-003)															
Mercury, Total, CVAA	<MDL			0.005	0.015 ug/L	<MDL			0.005	0.015 ug/L	<MDL			0.005	0.015 ug/L
M=MT SM2340B.ED19 (06-03-009-000)															
Hardness, Calc	81			0.2	1.25 mg CaCO3/L	98.7			0.2	1.25 mg CaCO3/L					

Appendix B-4

Long-Term Monitoring Sites Water Quality Data

PROJECT: 421195DC	Locator: VAS_W-11	Locator: VAS_W-14	Locator: VAS_W-19	Locator: VAS_W-17	Locator: VAS_W-02A	Locator: VAS_W-03	Locator: VAS_W-04	Locator: VAS_W-21	Locator: VAS_S-03	Locator: VAS_W-07
	Descrip: W-11-DOCKTON	Descrip: W-14-KRISHNAN	Descrip: W-19-THORSEN	Descrip: W-17-PERLA	Descrip: W-02A-HEIGHTS W #1	Descrip: W-03-GLEN ACRES	Descrip: W-04-RODRIQUES	Descrip: W-21-KUPERBERG	Descrip: S-03-ATLAS WATER	Descrip: W-07-TOOMEY/SORGE
	Sampled: 08/01/07 9:30:00 AM	Sampled: 07/31/07 9:05:00 AM	Sampled: 07/30/07 12:30:00 PM	Sampled: 07/31/07 11:30:00 AM	Sampled: 07/30/07 8:30:00 AM	Sampled: 07/30/07 9:25:00 AM	Sampled: 08/01/07 10:50:00 AM	Sampled: 07/31/07 12:15:00 PM	Sampled: 07/30/07 12:50:00 PM	Sampled: 07/30/07 1:30:00 PM
	Lab ID: L43175-1	Lab ID: L43175-2	Lab ID: L43175-3	Lab ID: L43175-4	Lab ID: L43175-5	Lab ID: L43175-6	Lab ID: L43175-7	Lab ID: L43175-8	Lab ID: L43175-9	Lab ID: L43175-10
	Matrix: GRND WTR	Matrix: GRND WTR	Matrix: GRND WTR	Matrix: GRND WTR	Matrix: GRND WTR	Matrix: GRND WTR	Matrix: GRND WTR	Matrix: GRND WTR	Matrix: GRND WTR	Matrix: GRND WTR
	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:	% Solids:
Parameters	Value Qual MDL RDL Units	Value Qual MDL RDL Units	Value Qual MDL RDL Units	Value Qual MDL RDL Units	Value Qual MDL RDL Units	Value Qual MDL RDL Units	Value Qual MDL RDL Units	Value Qual MDL RDL Units	Value Qual MDL RDL Units	Value Qual MDL RDL Units
	-Wet Weight Basis	-Wet Weight Basis	-Wet Weight Basis	-Wet Weight Basis	-Wet Weight Basis	-Wet Weight Basis	-Wet Weight Basis	-Wet Weight Basis	-Wet Weight Basis	-Wet Weight Basis
COMBINED LABS										
M=CV SM4110B (03-03-002-003)										
Chloride	5.25 0.05 0.1 mg/L	4.24 0.05 0.1 mg/L	2.83 0.05 0.1 mg/L	4.33 0.05 0.1 mg/L	3.51 0.05 0.1 mg/L	8.75 0.05 0.1 mg/L	3.98 0.1 0.2 mg/L	3.85 0.05 0.1 mg/L	5.36 0.05 0.1 mg/L	2.82 0.05 0.1 mg/L
M=CV SM4500-NO3-F (03-03-012-004)										
Nitrite + Nitrate Nitrogen	0.0692 0.02 0.04 mg/L	0.039 <RDL 0.02 0.04 mg/L	0.725 0.02 0.04 mg/L	1.76 0.04 0.08 mg/L	1.83 0.1 0.2 mg/L	0.198 0.02 0.04 mg/L	<MDL 0.02 0.04 mg/L	<MDL 0.02 0.04 mg/L	1.32 0.1 0.2 mg/L	<MDL 0.02 0.04 mg/L
M=ES NONE										
Field Personnel	DR / Eric Ferguson none	DR / Eric Ferguson none	DR / Eric Ferguson none	DR / Eric Ferguson none	DR / Eric Ferguson none	DR / Eric Ferguson none	DR / Eric Ferguson none	DR / Eric Ferguson none	DR / Eric Ferguson none	DR / Eric Ferguson none
Sample Function										
M=MT EPA 200.8 (06-03-004&004A-001)										
Arsenic, Total, ICP-MS	1.4 <RDL 0.5 2.5 ug/L	1.4 <RDL 0.5 2.5 ug/L	2.3 <RDL 0.5 2.5 ug/L	<MDL 0.5 2.5 ug/L	7.52 0.5 2.5 ug/L	1.1 <RDL 0.5 2.5 ug/L	18.6 0.5 2.5 ug/L	3.7 0.5 2.5 ug/L	1.7 <RDL 0.5 2.5 ug/L	11.1 0.5 2.5 ug/L

PROJECT: 421195DC	Locator: VAS_W-10A Descrip: W-10A-GOLD BEACH W Sampled: 08/01/07 12:00:00 PM Lab ID: L43175-12 Matrix: GRND WTR % Solids:	Locator: VAS_W-09A Descrip: WHITE #1 Sampled: 08/01/07 11:25:00 AM Lab ID: L43175-13 Matrix: GRND WTR % Solids:	Locator: VAS_W-12 Descrip: W-12-HOLLYMERE Sampled: 08/01/07 10:05:00 AM Lab ID: L43175-14 Matrix: GRND WTR % Solids:	Locator: VAS_W-15 Descrip: W-15-ANDERSON Sampled: 07/31/07 9:45:00 AM Lab ID: L43175-15 Matrix: GRND WTR % Solids:	Locator: VAS_W-16A Descrip: W-16A-BAKER/KLEMKA Sampled: 07/30/07 11:15:00 AM Lab ID: L43175-16 Matrix: GRND WTR % Solids:	Locator: VAS_W-13 Descrip: W-13-MISTY ISLE FA Sampled: 07/30/07 10:30:00 AM Lab ID: L43175-17 Matrix: GRND WTR % Solids:	Locator: VAS_W-20 Descrip: W-20-JOHNSON Sampled: 07/31/07 12:45:00 PM Lab ID: L43175-18 Matrix: GRND WTR % Solids:	Locator: VAS_W-06 Descrip: W-06-PACKARD/HEADL Sampled: 08/01/07 8:30:00 AM Lab ID: L43175-19 Matrix: GRND WTR % Solids:	Locator: GROUNDNDUP Descrip: GROUNDWATER DUPLIC Sampled: 08/01/07 12:05:00 PM Lab ID: L43175-20 Matrix: GRND WTR % Solids:
Parameters	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis	ValueQualMDLRDLUnits -Wet Weight Basis
COMBINED LABS									
M=CV SM4110B (03-03-002-003) Chloride	9.260.050.1mg/L	4.930.050.1mg/L	4.240.050.1mg/L	4.810.050.1mg/L	4.010.050.1mg/L	8.440.050.1mg/L	3.680.050.1mg/L	3.370.050.1mg/L	9.560.050.1mg/L
M=CV SM4500-NO3-F (03-03-012-004) Nitrite + Nitrate Nitrogen	3.820.10.2mg/L	<MDL0.020.04mg/L	<MDL0.020.04mg/L	<MDL0.020.04mg/L	3.470.20.4mg/L	1.670.10.2mg/L	2.770.10.2mg/L	1.330.020.04mg/L	3.870.10.2mg/L
M=ES NONE Field Personnel	DR / Eric Fergusonnone	DR / Eric Fergusonnone	DR / Eric Fergusonnone	DR / Eric Fergusonnone	DR / Eric Fergusonnone	DR / Eric Fergusonnone	DR / Eric Fergusonnone	DR / Eric Fergusonnone	DR / Eric Fergusonnone
Sample Function									FREP@L43175-12none
M=MT EPA 200.8 (06-03-004&004A-001) Arsenic, Total, ICP-MS	1.7 <RDL0.52.5ug/L	3.870.52.5ug/L	5.580.52.5ug/L	1.3 <RDL0.52.5ug/L	<MDL0.52.5ug/L	1.2 <RDL0.52.5ug/L	0.58 <RDL0.52.5ug/L	1 <RDL0.52.5ug/L	1.7 <RDL0.52.5ug/L