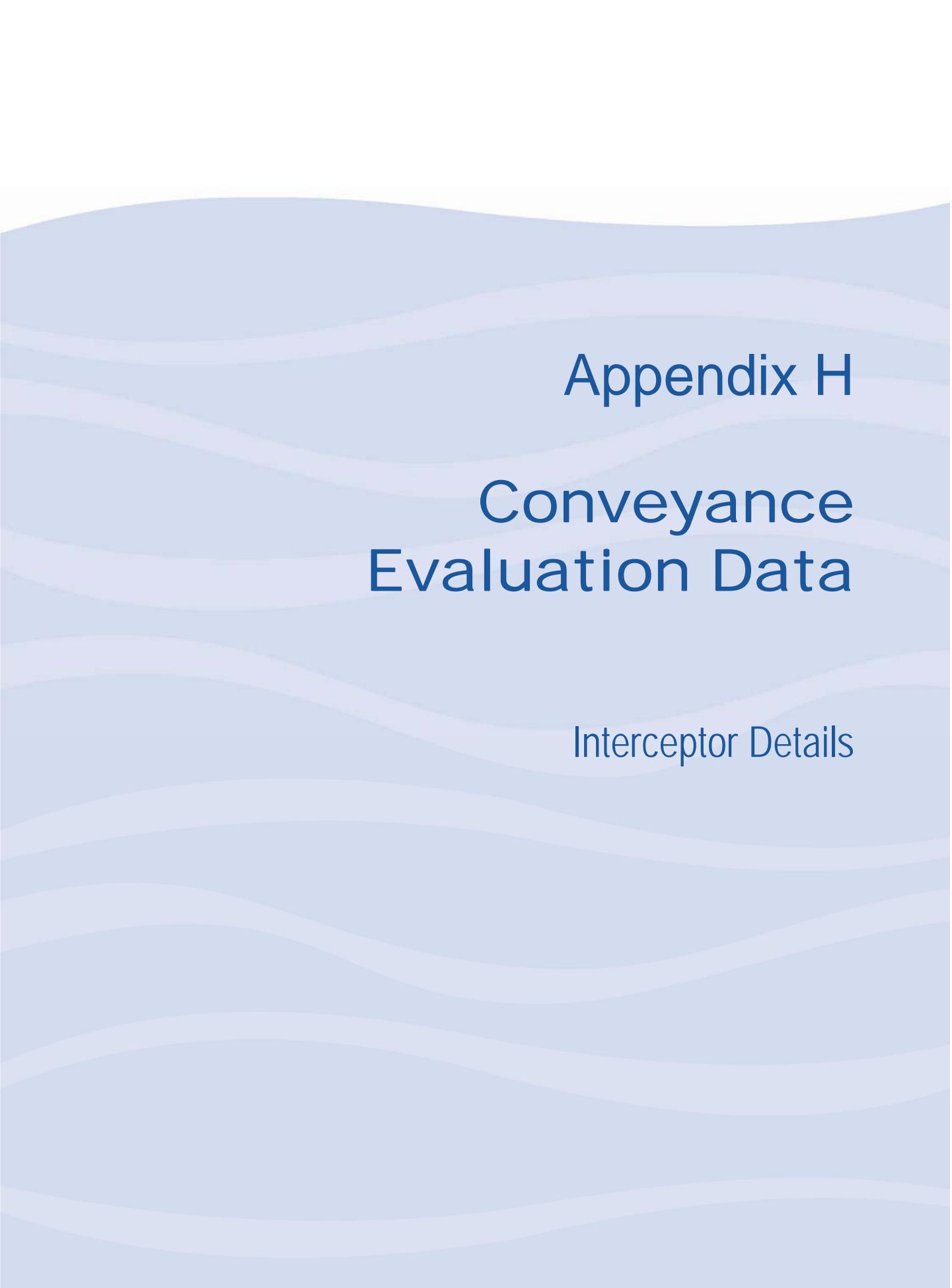


## APPENDIX H

### Conveyance Evaluation Data



The background of the page features a series of horizontal, wavy lines in various shades of light blue, creating a textured, water-like effect. The lines are more pronounced in the lower half of the page and fade towards the top.

# Appendix H

## Conveyance Evaluation Data

Interceptor Details

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### Appendix H – Interceptor Details

#### H-1 Aviation Corridor to Santa Cruz Interceptor (ACSC)-1

- Both flow rate and water depth are monitored at this site. A fairly good correlation between water depth and flow rate is observed.
- The 1-year daily peak water depth varies from 7 to 18 inches. The 1-year flow rate ranges from about 2 to 9 mgd. The 100-percentile water depth and flow rate are significantly higher than the 90-percentile values (see **Table H-1**, located at the end of the Appendix). This indicates that the site is affected by wet weather flow quite significantly.
- Two highest water depths and flow rates occurred on August 4 and August 8, 2006. (The peaks happened at different times during the day, further indication that they are caused by wet weather flows.
- Calculated 10-year water depth is about 21 inches, or a water depth to pipe diameter ratio ( $d/D$ ) of about 0.51, well below the pipe diameter. The calculated 10-year flow rate is about 10.2 mgd, well below the Manning's design capacity determined from the previous study.
- In summary, this site is impacted significantly by wet weather flows. The net wet weather flow corresponding to a 10-year storm event is estimated to be 6.63 mgd (see **Table H-1**, located at the end of the Appendix). The corresponding wet weather peaking factor is 4.00, which is the second highest of the monitored sites. Nevertheless, hydraulic capacity does not appear to be a problem, but needs to be confirmed by hydraulic modeling.

#### H-2 Aviation Corridor (AV)-1

- This site is somewhat independent of the other parts of the conveyance system. It has both flow rate and water depth data. Correlation between water depth and flow rate is considered fair, although there were periods that an increase in water depth did not correspond to an increase in flow rate. This could be due to either a downstream deficiency or instrument malfunction.
- A review of the data indicated the anomalies were more likely caused by erroneous velocity measurements. Those questionable flow rate data were excluded for further analysis, while water depth data at those days were included in the analysis. Days with questionable flow rate data sets include: July 17 to 22, August 15 and 16, September 19, October 10 to 12, and November 15 (2005), January 15 and 25, March 29 and 30, April 1, June 1 to 5, June 16 and 17 (2006).
- Historical daily peak water depth varies from 6 to about 12 inches. The historical flow rate ranges from about 1 to 3.3 mgd. The 100-percentile water depth and flow rate are significantly higher than the 90-percentile values (see **Table H-1**, located at the end of the Appendix) indicating a significant wet weather response.
- Two highest water depths and flow rates occurred on July 27 and August 14, 2005.
- Calculated 10-year water depth is about 13 inches, well below the pipe diameter for existing flows. The calculated 10-year flow rate is about 4 mgd, well below the design capacity determined from the previous study.
- In summary, this site is impacted significantly by wet weather flows. The net wet weather flow corresponding to a 10-year storm event is estimated to be 2.48 mgd (see **Table H-1**, located at the end of the Appendix). The peaking factor is 3.80, which is the third highest of the monitored sites. Hydraulic capacity appears to be adequate, but needs confirmation via hydraulic modeling.

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#### H-3 Canada Del Oro (CDO)-1

- Only water depth data are available at this site.
- Results exclude two questionable 1-minute data points which occurred on April 15, 2006. These two data points were probably caused by erroneous measurements.
- The 100-percentile and 90-percentile water depth is about 19 inches and 17 inches, respectively (see **Table H-1**, located at the end of the Appendix). The maximum daily peak water depth occurred on March 5, 2006.
- In summary, this site is affected by wet weather flows, but not as significant as the previous two sites. The calculated 10-year water depth is about 21 inches, which is less than half of the pipe diameter. Hydraulic capacity is therefore not a concern for the current condition but needs to be confirmed by hydraulic modeling.

#### H-4 CDO-2

- Only water depth data are available at this site.
- The 100-percentile and 90-percentile water depth is about 12 inches and 10 inches, respectively (see **Table H-1**, located at the end of the Appendix). The maximum daily peak water depth occurred on August 6, 2005.
- In summary, this site is affected by wet weather flows. The calculated 10-year water depth is about 14 inches, which is less than half of the pipe diameter. Hydraulic capacity is not a concern for the current condition, but needs to be confirmed by hydraulic modeling.

#### H-5 CDO-3

- This site is upstream of CDO-2 and only has water depth data.
- The 100-percentile and 90-percentile water depth is about 12 inches and 8 inches, respectively (see **Table H-1**, located at the end of the Appendix).
- Maximum daily peak water depth occurred at the same day as that for site CDO-2, which is August 6, 2005. This indicates that the maximum daily peak water depths for these two sites may be the result of the same storm event.
- In summary, this site is affected by wet weather flows. The calculated 10-year water depth is about 12 inches, which is half of the pipe diameter. Hydraulic capacity is not a concern for the current condition, but needs to be confirmed by hydraulic modeling.

#### H-6 Campbell Wash (CW)-1

- Only water depth data are available at this site. Note that this is one of the two locations with the smallest pipe diameter of the monitoring sites.
- The 15-minute daily peak water depth varies from 2 to about 3.7 inches. The 100-percentile water depth is considerably higher than the 90-percentile value (see **Table H-1**, located at the end of the Appendix). The maximum water depth occurred on August 23, 2005.

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- In summary, this site is affected significantly by wet weather flows. The calculated 10-year water depth is about 3 inches, which is half of the pipe diameter. Hydraulic capacity is not a concern for the current condition.
- Note that the calculated 10-year water depth is less than the historical 100-percentile value. This indicates that the 100-percentile water depth during this one year period may be the response to a storm event with a recurrence interval of longer than 10 years.

#### H-7 Dove Mountain (Dove)

- Only water depth data are available at this site.
- Results exclude questionable 1-minute data points on the following days: July 13, August 2, 3 and 8, September 10 and 19, October 18 and 22, November 9, December 9 (2005), January 20, February 2 and 19, May 4, 14 and 24, and June 6 (2006).
- Measured water depth either jumped to a very high value in one minute and back to a low value in the next minute, or the measured values fluctuated around zero and very high values during a short period of time. Note that including these abnormal data points will overestimate the water depth. For example, the 100-percentile water depth would be almost 7 inches rather than 3 inches described below.
- The 15-minute daily peak water depth varies from 2 to about 3 inches. The 100-percentile value is not much different than the 90-percentile value (see **Table H-1**, located at the end of the Appendix). The maximum water depth occurred on March 18, 2006.
- In summary, this site is not affected significantly by wet weather flow. The calculated 10-year water depth is about 3.3 inches, well below the pipe diameter. Hydraulic capacity is not a concern for the current condition.

#### H-8 Green Valley (GV)-1

- This site is somewhat independent of the other parts of the conveyance system. It has both water depth and flow rate data.
- Correlation between water depth and flow rate is considered fair, except during the period from October 15 to 23, 2005. The 1-minute data exhibited many zero flow rates during this period. This is likely caused by erroneous velocity readings. Flow rate data from October 15 to 23, 2005 were therefore excluded from the analysis.
- The 15-minute daily peak water depth and flow rate varies from about 6 to 11 inches and from about 1 to 3 mgd. The 100-percentile values are somewhat higher than the 90-percentile values (see **Table H-1**, located at the end of the Appendix). The maximum water depth and flow rate occurred on February 20, 2006.
- Calculated 10-year water depth is about half of the pipe diameter. The calculated 10-year flow rate is about 3.2 mgd, well below the Manning's design capacity determined from the previous study.
- Net weather flow corresponding to a 10-year storm event is estimated to be 1.52 mgd (see **Table H-1**, located at the end of the Appendix) with a peaking factor of 2.66. In summary, this site is affected by wet weather flow, yet it seems to have adequate capacity to convey it.

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#### H-9 North Rillito Interceptor (NRI)-1

- Both water depth and flow rate data are available at this site. There is a period, from October 5 to October 28, 2005, during which the flow rates are significantly higher than those at other periods. However, the water depths do not exhibit a similar pattern at the same time period. The anomalies are more pronounced when water depths are plotted against flow rates.
- A review of the data seems to indicate these anomalies were likely caused by erroneous velocity measurements. Questionable flow rate data was excluded from this analysis, while water depth data for those days was included.
- Historical daily peak water depth ranges from about 22 to 31 inches. The historical daily peak flow rate varies from about 16 to 31 mgd. The 100-percentile water depth and flow rate are significantly higher than the 90-percentile values (see **Table H-1**, located at the end of the Appendix).
- Highest water depth and flow rate occurred on September 15, 2005.
- Calculated 10-year water depth is about 32 inches, less than the pipe diameter for existing flows. The calculated 10-year flow rate is about 38 mgd, below the design capacity determined from the previous study.
- In summary, this site is impacted significantly by wet weather flows with the net wet weather flow corresponding to a 10-year storm event is estimated to be 11.16 mgd (see **Table H-1**, located at the end of the Appendix). The peaking factor is 2.21. While hydraulic capacity appears to be adequate at the moment, this may not be the case for the entire 25-year planning period.

#### H-10 NRI-2

- This site has both water depth and flow rate data.
- Correlation between water depth and flow rate is considered fair, except for the data point at the maximum flow rate. It is not clear whether this abnormal data point was real or caused by an erroneous velocity reading.
- Daily peak water depth varies from about 15 to 26 inches. The daily peak flow rate ranges from 10 to 32 mgd. The maximum flow rate occurred on July 6, 2005, as discussed above. The maximum water depth occurred on September 14, 2005.
- The 100-percentile values of water depth and flow rate are significantly higher than the 90-percentile values (see **Table H-1**, located at the end of the Appendix), indicating significant wet weather impacts.
- Calculated 10-year water depth and flow rate is about 29 inches and 33 mgd, respectively.
- In summary, this site is significantly affected by wet weather flows. The net wet weather flow corresponding to a 10-year storm event is calculated to be 17.97 mgd (see **Table H-1**, located at the end of the Appendix) with a peaking factor of 3.04. Hydraulic capacity appears to be adequate at the moment, but this may not be the case for the entire 25-year planning period.

#### H-11 NRI-3

- This site has both water depth and flow rate data. Correlation between these daily peak water depths and flow rates is good .



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- Daily peak water depth varies from about 10 to 14 inches. Flow rates range from about 6 to 12 mgd.
- Highest water depth and flow rate occurred on August 23 and November 24, 2005 respectively.
- Calculated 10-year water depth is about 15 inches, or a d/D of 0.46. The calculated 10-year flow rate is about 12 mgd, well below the Manning's design capacity reported in previous studies.
- In summary, this site is only slightly affected by wet weather flows. The net wet weather flow corresponding to a 10-year storm event is estimated to be 2.29 mgd (see **Table H-1**, located at the end of the Appendix). The corresponding wet weather peaking factor is 1.74. Hydraulic capacity does not appear to be a problem.

#### H-12 Northwest Outfall (NWO)-1

- Only depth data were provided for this site. Although a maximum water depth of about 30 inches was found on June 30, 2006, a review of the 1-minute data indicated that this data point is questionable and was therefore excluded from the analysis.
- Daily peak water depth varies from about 21 to 29 inches. The 100-percentile water depth occurred on August 6, 2005.
- Calculated 10-year water depth is about 30 inches, well below the pipe diameter (48-inch).
- In summary, this site is only slightly impacted by wet weather flows. Hydraulic capacity appears to currently be adequate.

#### H-13 Pontatoc Wash (PONT)-1

- Only water depth data are available at this site. Although a daily peak water depth of about 30 inches was found on May 25, 2005, this data point was excluded in the analysis due to the potential erroneous reading at that day.
- Daily peak water depth varies from about 3 to 5 inches. The 100-percentile water depth is significantly higher than the 90-percentile value (see **Table H-1**, located at the end of the Appendix). The maximum water depth occurred on August 14, 2005. This may have been a backwater condition resulting from capacity limitations of the downstream NRI.
- Calculated 10-year water depth is about 4 inches, significantly less than the pipe diameter (12-inch).
- In summary, while this site appears to be slightly impacted by wet weather flows, this cannot be verified from depth data alone.

#### H-14 Pantano Interceptor (PTI)-1

- Both water depth and flow rate data were provided for this site.
- Correlation between water depths and flow rates is good, although there are periods that flow rates were relatively low.
- A review of the 1-minute data for those low flow rate periods does not indicate any unusual readings. No data were excluded in this analysis.
- Daily peak water depth varies from about 12 to 16 inches. The historical daily peak flow rate ranges from about 8 to 14 mgd.

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- Maximum water depth and flow rate occurred on August 23, 2005. The calculated 10-year water depth is about 17 inches, half of the 36-inch pipe diameter. The calculated 10-year flow rate is about 13 mgd, well below the design capacity determined from the previous study.
- In summary, this site does not appear to be significantly impacted by wet weather flows with a 10-year wet weather flow of about 2.3 mgd and a peaking factor of 1.71 (see **Table H-1**, located at the end of the Appendix).

#### H-15 PTI-2

- Only water depth data were provided for this site. Two questionable 1-minute water depth readings occurred on August 26, 2005 and are excluded from this analysis.
- Daily peak water depth varies from about 9 to 14 inches.
- Maximum water depth occurred on November 24, 2005.
- Calculated 10-year water depth is about 15 inches, significantly less than the pipe diameter (30-inch).
- In summary, this site is not significantly impacted by wet weather flows and hydraulic capacity appears to be adequate.

#### H-16 Santa Cruz-East Interceptor (SCE)-1

- Both water depth and flow rate data were provided for this site.
- Water depth data on November 20, 2005 and June 26, 2006 were considered questionable and excluded from the analysis. Flow rate data on the following days are considered questionable and excluded: July 29 and 30, 2005. November 11 to 21, 2005 and June 25, 2006.
- Daily peak water depth varies from 19 to 29 inches. The daily peak flow rate varies from 14 to 44 mgd. The 100-percentile water depth and flow rate are significantly higher than the 90-percentile values (see **Table H-1**, located at the end of the Appendix).
- Calculated 10-year water depth is about 28 inches, or a d/D of about 0.36, well below the pipe diameter (78-inch). The calculated 10-year flow rate is about 50 mgd, well below the Manning's design capacity determined from the previous study.
- In summary, this site is significantly affected by wet weather flows. The net wet weather flow corresponding to a 10-year storm event is about 21 mgd (see **Table H-1**, located at the end of the Appendix). The corresponding peaking factor is 2.45. Hydraulic capacity appears to be adequate at the moment, but this may not be the case for the entire 25-year planning period.

#### H-17 SCE-2

- Both flow rate and water depth data were provided for this site. However, flow rate data are only available for: February 28, 2006 and March 1 to 30, 2006. Therefore, only water depth data were analyzed. Note that water depth data from February 17 to 27, 2006, are not available.
- A review of the 1-minute data for the two maximum daily water depths occurred on August 7 and 9, 2006 indicated that the data for these two days were likely caused by erroneous readings. Data for these two days are excluded from the analysis.

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- Remaining data exhibited a water depth from about 8 to 19 inches. The 100-percentile value is significantly higher than the 90-percentile value (see **Table H-1**, located at the end of the Appendix).
- Calculated 10-year water depth is about 17 inches, or a d/D of about 0.6. Note that the calculated 10-year value is less than two of the maximum daily water depth values observed in this one-year period. These two water depths may be a response to storm events with recurrence intervals greater than 10 years, or may have been caused by downstream deficiencies.
- In summary, this site appears to be significantly impacted by wet weather flows. A comparison of the 10-year water depth and pipe diameter indicates that hydraulic capacity is adequate for current flows.

#### H-18 Santa Cruz Interceptor (SCI)-1

- Both water depth and flow rate data were provided for this site. Data on July 24 and 25, 2005 are considered questionable and were excluded. Data on July 27 and 28, 2005 were not available. The remaining data indicated a fairly good correlation between water depths and flow rates.
- Daily peak water depth varies from about 11 to 19 inches. The historical flow rate varies from about 4 to 8 mgd. The 100-percentile values of water depth and flow rate are significantly greater than the 90-percentile values (see **Table H-1**, located at the end of the Appendix).
- Calculated 10-year water depth and flow rate are about 17 inches and 7.3 mgd, respectively. These values are well below the pipe diameter (30-inch) and the Manning's design capacity determined from the previous study.
- In summary, this site is significantly impacted by wet weather flows. The net weather flow due to a 10-year storm event is estimated to be about 2.78 mgd, with a peaking factor of 2.26 (see **Table H-1**, located at the end of the Appendix). Hydraulic capacity is not considered to be a problem but needs confirmation via hydraulic modeling.

#### H-19 Southeast Interceptor (SEI)-1

- Only water depth data are available at this site.
- Historical water depth varies from about 19 to 28 inches. The 100-percentile water depth is significantly higher than the 90-percentile value (See **Table H-1** at the end of Appendix E).
- Calculated 10-year water depth is about 28 inches, or a d/D of about 0.5.
- In summary, this site is affected by wet weather flows but hydraulic capacity is not a problem.

#### H-20 SEI-2

- Only water depth data are available at this site.
- Maximum daily peak water depth occurred on August 23, 2005. It has a value of about 35 inches, which is significantly higher than all other observed values at this site. Furthermore, this value is very close to the pipe diameter, which is 36 inches. A review of the 1-minute data indicates that the observation may be real. This peak value was included in the historical percentile value. The second maximum water depth occurred on July 23, 2005.
- In summary, the water depth at this site varies from 10 to 35 inches. It is impacted by wet weather flows significantly. The calculated 10-year water depth is about 19 inches or a d/D of 0.52 (see



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**H-21 SEI-3**

- Only water depth data are available at this site. Some high water depth readings were questionable and excluded in this analysis. Days with these questionable readings include: the whole month of July, August 1, 19 and 26, September 2, 14, and 15 to 30, October 1, 24 and 26, November 15, 18 and 26, December 16 to 29 (2005), January 21, February 1 to 21, March 6, April 14, May 14, 22 and 24, June 6, 14 to 19 and 30 (2006).
- Daily peak water depths, after excluding the above abnormal data points, vary from about 9 to 17 inches. The 100-percentile value is significantly higher than the 90-percentile value (See **Table H-1** at the end of Appendix E).
- Calculated 10-year water depth is about 16 inches, or a d/D of about 0.53.
- In summary, this site is impacted by wet weather flows quite significantly. Hydraulic capacity appears to be adequate for the current condition but needs confirmation via hydraulic modeling.

**H-22 South Rillito Interceptor-Central (SRC)-1**

- Both water depth and flow rate data are available at this site. Correlation between water depth and flow rate is good, except for 4 daily peak data points. These abnormal data points occurred on August 24 to 27, 2005, which include the two highest daily peak flow rates.
- A review of the 1-minute data points for these 4 days indicated that they are probably due to erroneous velocity measurements. Flow rate data for these 4 days were excluded for further analysis, while water depth data at those days were included in the analysis.
- Historical daily peak water depth varies from about 19 to 25 inches. The historical daily peak flow rate varies from about 14 to 26 mgd. The 100-percentile water depth and flow rate are significantly greater than the 90-percentile values (see **Table H-1**, located at the end of the Appendix).
- Calculated 10-year water depth is about 26 inches, which is well below the pipe diameter. The calculated 10-year flow rate is about 29 mgd, which is higher than the Manning's design capacity determined from previous study. Note that the capacity is 11.8 mgd, which is even less than the lowest flow rate (14 mgd) observed in this year. This indicated that the design capacity from the previous study is probably not accurate.
- In summary, this site is impacted by wet weather flows. The calculated 10-year net wet weather flow is 12.36 mgd, with a peaking factor of 2.47 (see **Table H-1**, located at the end of the Appendix). The 10-year calculated water depth is only about half of the pipe diameter, an indication that hydraulic capacity is not a concern. The 10-year calculated flow rate should be compared with hydraulic modeling results to confirm whether the existing hydraulic capacity is adequate.

**H-23 South Rillito Interceptor – West (SRW)-1**

- This site has both water depth and flow rate data, with a fairly good correlation.

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- Historical daily peak water depth varies from about 8 to 15 inches. The historical daily peak flow rate varies from about 2 to 4 mgd. The 100-percentile values are somewhat higher than the 90-percentile values (see **Table H-1**, located at the end of the Appendix).
- Calculated 10-year water depth is about 15 inches, or a d/D of 0.51. The calculated 10-year flow rate is about 4.2 mgd, below the Manning's design capacity determined from the previous study.
- In summary, this site is affected by wet weather flows. The calculated 10-year net wet weather flow is 1.81 mgd, with a peaking factor of 2.45 (see **Table H-1**, located at the end of the Appendix). Hydraulic capacity does not appear to be a problem, but requires confirmation via hydraulic modeling.

#### H-24 South Rillito Interceptor-West, North Line (SRWN)-1

- This site only has water depth data.
- Historical daily peak water depth varies from about 8 to 19 inches. The 100-percentile value is somewhat higher than the 90-percentile value (see **Table H-1**, located at the end of the Appendix).
- Calculated 10-year water depth is about 18 inches, or a d/D of 0.3.
- In summary, this site is slightly impacted by wet weather flows, but hydraulic capacity appears to be adequate.

#### H-25 South Rillito Interceptor-West, South Line (SRWS)-1

- Only water depth data are available at this site, with the daily peak values varying from about 12 to 19 inches.
- The 100-percentile water depth is significantly greater than the 90-percentile value (see **Table H-1**, located at the end of the Appendix), indicating a considerable impact of wet weather flows.
- Calculated 10-year water depth is about 21 inches or a d/D of 0.77.
- In summary, this site is impacted by wet weather flows, but hydraulic capacity appears to be adequate for the current condition based on the calculated 10-year water depth and pipe diameter.

#### H-26 Southwest Interceptor (SWI)-1

- Both water depth and flow rate data are available at this site. A good correlation between water depth and flow rate is observed, except for the day with the highest water depth and flow rate.
- Highest daily peak water depth and flow rate occurred on August 23, 2005. A review of the 1-minute data on that day indicated that backwater, caused by downstream deficiency, might occur.
- Historical daily peak water depth varies from about 4 to 30 inches. The historical daily peak flow rate ranges from about 2 to 10 mgd. The 100-percentile values of water depth and flow rates are significantly higher than the 90-percentile values (see **Table H-1**, located at the end of the Appendix).
- Calculated water depth is about 11 inches, or a d/D of 0.35. The calculated 10-year flow rate is about 9 mgd, well below the Manning's design capacity determined from the previous study.
- In summary, this site is impacted by wet weather flows. The calculated 10-year net wet weather flow is 2.13 mgd, with a peaking factor of 1.87 (see **Table H-1**, located at the end of the Appendix). Backwater, caused by downstream deficiency, might happen during the one-year

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period. Hydraulic capacity at this site appears to be adequate for the current condition but needs confirmation via hydraulic modeling.

#### H-27 Tucson Boulevard Diversion (TUCDIV)

- Both water depth and flow rate data are available at this site. Note that this site is unique because the amount of flow through this pipe depends on how it is operated. Water depth and flow rate shown at this site may not be a direct response of wet weather flows in this area.
- Some water depth and flow rate data are questionable and excluded in the analysis. After excluding those questionable data points, a fairly good correlation between water depth and flow rate is observed.
- Historical daily peak water depth varies from about 2 to 32 inches. The historical daily peak flow rate varies from about 1 to 12 mgd. The 100-percentile values are significantly higher than the 90-percentile values (see **Table H-1**, located at the end of the Appendix).
- Calculated 10-year water depth is about 23 inches, or a d/D of 0.70. The calculated 10-year flow rate is about 15 mgd, well below the Manning's design capacity from the previous study (see **Table H-1**, located at the end of the Appendix).
- In summary, this site may be impacted by wet weather flows. However, the impact is complicated by the way this site is operated and may not be a direct result of the wet weather flows in this area. Nevertheless, the calculated 10-year net wet weather flow is 11.79 mgd, with a peaking factor of 6.67 (see **Table H-1**, located at the end of the Appendix). Note that this is the highest peaking factor among all the monitoring sites. However, it may not be a real peaking factor as mentioned previously. Whether hydraulic capacity is adequate is related to future operation.

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**Table H-1  
Historical and Calculated Flow Rates and Water Depths**

| Site     | Flow Rate, mgd            |       |       |       |                    | Design Capacity <sup>(2)</sup> , mgd | Wet Weather Flow <sup>(3)</sup> | PF <sup>(4)</sup> | Water Depth/Pipe Diameter |      |      |      |                    | Pipe Diameter (inch) |
|----------|---------------------------|-------|-------|-------|--------------------|--------------------------------------|---------------------------------|-------------------|---------------------------|------|------|------|--------------------|----------------------|
|          | Historical <sup>(1)</sup> |       |       |       | Calculated 10-year |                                      |                                 |                   | Historical <sup>(1)</sup> |      |      |      | Calculated 10-year |                      |
|          | 10%                       | 50%   | 90%   | 100%  |                    |                                      |                                 |                   | 10%                       | 50%  | 90%  | 100% |                    |                      |
| ACSC-1   | 2.69                      | 3.56  | 4.60  | 8.77  | 10.19              | 19.2                                 | 6.63                            | 4.00              | 0.22                      | 0.26 | 0.29 | 0.42 | 0.51               | 42                   |
| AV-1     | 1.10                      | 1.45  | 1.87  | 3.28  | 3.93               | 9.1                                  | 2.48                            | 3.80              | 0.30                      | 0.34 | 0.38 | 0.53 | 0.57               | 24                   |
| CDO-1    | -                         | -     | -     | -     | -                  | 94.8                                 | -                               | -                 | 0.29                      | 0.32 | 0.36 | 0.39 | 0.43               | 48                   |
| CDO-2    | -                         | -     | -     | -     | -                  | 31.1                                 | -                               | -                 | 0.24                      | 0.25 | 0.28 | 0.33 | 0.38               | 36                   |
| CDO-3    | -                         | -     | -     | -     | -                  | -                                    | -                               | -                 | 0.27                      | 0.31 | 0.33 | 0.48 | 0.49               | 24                   |
| CW-1     | -                         | -     | -     | -     | -                  | -                                    | -                               | -                 | 0.19                      | 0.20 | 0.21 | 0.31 | 0.25               | 12                   |
| Dove Mtn | -                         | -     | -     | -     | -                  | -                                    | -                               | -                 | 0.16                      | 0.17 | 0.20 | 0.21 | 0.22               | 15                   |
| GV-1     | 1.26                      | 1.69  | 2.34  | 2.82  | 3.21               | -                                    | 1.52                            | 2.66              | 0.34                      | 0.39 | 0.46 | 0.51 | 0.50               | 21                   |
| NRI-1    | 16.96                     | 19.40 | 25.54 | 30.82 | 30.56              | 38.3                                 | 11.16                           | 2.21              | 0.54                      | 0.56 | 0.66 | 0.74 | 0.76               | 42                   |
| NRI-2    | 12.82                     | 15.32 | 20.04 | 32.40 | 33.29              | -                                    | 17.97                           | 3.04              | 0.45                      | 0.50 | 0.56 | 0.68 | 0.73               | 39                   |
| NRI-3    | 8.19                      | 9.49  | 10.10 | 11.93 | 11.78              | 20.1                                 | 2.29                            | 1.74              | 0.33                      | 0.36 | 0.37 | 0.41 | 0.46               | 33                   |
| NWO-1    | -                         | -     | -     | -     | -                  | 28.7                                 | -                               | -                 | 0.48                      | 0.52 | 0.55 | 0.60 | 0.63               | 48                   |
| PONT-1   | -                         | -     | -     | -     | -                  | 16.18                                | -                               | -                 | 0.27                      | 0.31 | 0.33 | 0.44 | 0.35               | 12                   |
| PTI-1    | 9.37                      | 10.57 | 11.66 | 14.44 | 12.87              | 29.8                                 | 2.30                            | 1.71              | 0.36                      | 0.38 | 0.40 | 0.44 | 0.46               | 36                   |

(1) Based on data recorded from July 1, 2005 to June 30, 2006

(2) From previous study: 2006 Metropolitan Area Facility Plan Update. Included here for reference only

(3) Wet weather flow, estimated as the difference between the calculated 10-year flow and historical 50-percentile flow

(4) PF: Peaking factor, estimated as 1.4 x (calculated 10-year flow/ historical 50-percentile flow)

ACSC = Aviation Corridor to Santa Cruz Interceptor; AV = Aviation Corridor; CDO = Canada Del Oro; CW = Campbell Wash; Dove Mtn = Dove Mountain; GV = Green Valley; NRI = North Rillito Interceptor; NWO = Northwest Outfall; PONT = Pontatoc Wash; PTI = Pantano Interceptor

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Appendix H – Interceptor Details

**Table H-1 (continued)  
Historical and Calculated Flow Rates and Water Depths**

| Site   | Flow Rate, mgd            |       |       |       |                    | Design Capacity <sup>(2)</sup> , mgd | Wet Weather Flow <sup>(3)</sup> | PF <sup>(4)</sup> | Water Depth/Pipe Diameter |      |      |      |                    | Pipe Diameter (inch) |
|--------|---------------------------|-------|-------|-------|--------------------|--------------------------------------|---------------------------------|-------------------|---------------------------|------|------|------|--------------------|----------------------|
|        | Historical <sup>(1)</sup> |       |       |       | Calculated 10-year |                                      |                                 |                   | Historical <sup>(1)</sup> |      |      |      | Calculated 10-year |                      |
|        | 10%                       | 50%   | 90%   | 100%  |                    |                                      |                                 |                   | 10%                       | 50%  | 90%  | 100% |                    |                      |
| PTI-2  | -                         | -     | -     | -     | -                  | 13.5                                 | -                               | -                 | 0.35                      | 0.38 | 0.41 | 0.45 | 0.48               | 30                   |
| SCE-1  | 25.23                     | 28.33 | 34.05 | 44.32 | 49.52              | 148.1                                | 21.19                           | 2.45              | 0.28                      | 0.30 | 0.31 | 0.37 | 0.36               | 78                   |
| SCE-2  | -                         | -     | -     | -     | -                  | 7.8                                  | -                               | -                 | 0.30                      | 0.38 | 0.42 | 0.62 | 0.58               | 30                   |
| SCI-1  | 4.19                      | 4.51  | 4.97  | 8.34  | 7.29               | 12.1                                 | 2.78                            | 2.26              | 0.38                      | 0.40 | 0.42 | 0.62 | 0.57               | 30                   |
| SEI-1  | -                         | -     | -     | -     | -                  | 92.8                                 | -                               | -                 | 0.36                      | 0.37 | 0.38 | 0.46 | 0.47               | 60                   |
| SEI-2  | -                         | -     | -     | -     | -                  | -                                    | -                               | -                 | 0.30                      | 0.31 | 0.33 | 0.98 | 0.52               | 36                   |
| SEI-3  | -                         | -     | -     | -     | -                  | 21.4                                 | -                               | -                 | 0.33                      | 0.36 | 0.39 | 0.57 | 0.53               | 30                   |
| SRC-1  | 14.93                     | 16.17 | 18.03 | 26.26 | 28.53              | 11.8                                 | 12.36                           | 2.47              | 0.35                      | 0.37 | 0.38 | 0.45 | 0.48               | 54                   |
| SRW-1  | 2.22                      | 2.42  | 2.69  | 3.90  | 4.23               | 7.8                                  | 1.81                            | 2.45              | 0.30                      | 0.32 | 0.33 | 0.51 | 0.51               | 30                   |
| SRWN-1 | -                         | -     | -     | -     | -                  | 127.9                                | -                               | -                 | 0.20                      | 0.24 | 0.25 | 0.28 | 0.28               | 66                   |
| SRWS-1 | -                         | -     | -     | -     | -                  | 9.7                                  | -                               | -                 | 0.48                      | 0.50 | 0.53 | 0.71 | 0.77               | 27                   |
| SWI-1  | 5.48                      | 6.39  | 7.10  | 9.46  | 8.52               | 43.9                                 | 2.13                            | 1.87              | 0.28                      | 0.31 | 0.33 | 0.89 | 0.35               | 33                   |
| TUCDIV | 1.37                      | 3.13  | 7.61  | 11.98 | 14.92              | 30.2                                 | 11.79                           | 6.67              | 0.20                      | 0.30 | 0.40 | 0.96 | 0.70               | 33                   |

(1) Based on data recorded from July 1, 2005 to June 30, 2006

(2) From previous study: 2006 Metropolitan Area Facility Plan Update. Included here for reference only

(3) Wet weather flow, estimated as the difference between the calculated 10-year flow and historical 50-percentile flow

(4) PF: Peaking factor, estimated as 1.4 x (calculated 10-year flow/ historical 50-percentile flow)

SCE = Santa Cruz-East Interceptor; SEI = Southeast Interceptor; SRC = South Rillito Interceptor-Central;

SRW = South Rillito Interceptor-West; SRWN = South Rillito Interceptor-West, North Line; SRWS = South Rillito Interceptor-West, South Line;

SWI = Southwest Interceptor; TUCDIV = Tucson Boulevard Diversion

# Appendix H

## Conveyance Evaluation Data

Flow and Depth Figures for :

|      |        |
|------|--------|
| ACSC | SCE    |
| AV   | SCI    |
| CDO  | SEI    |
| CW   | SRC    |
| Dove | SRW    |
| GV   | SRWN   |
| NRI  | SRWS   |
| NOW  | SWI-1  |
| Pont | TUCDIV |
| PTI  |        |

# Regional Optimization Master Plan Final Report

## Appendix H - Flow and Depth Figures

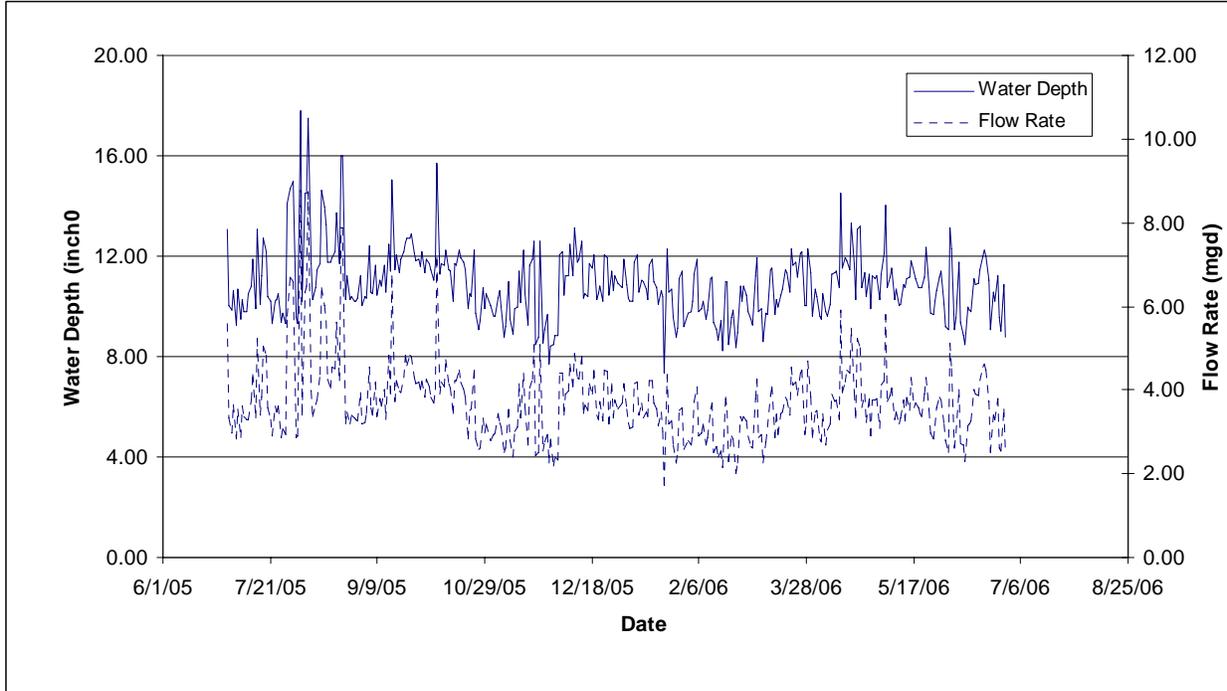


Figure ACSC-1 Daily Peak Water Depths and Flow Rates (site: ACSC-1).

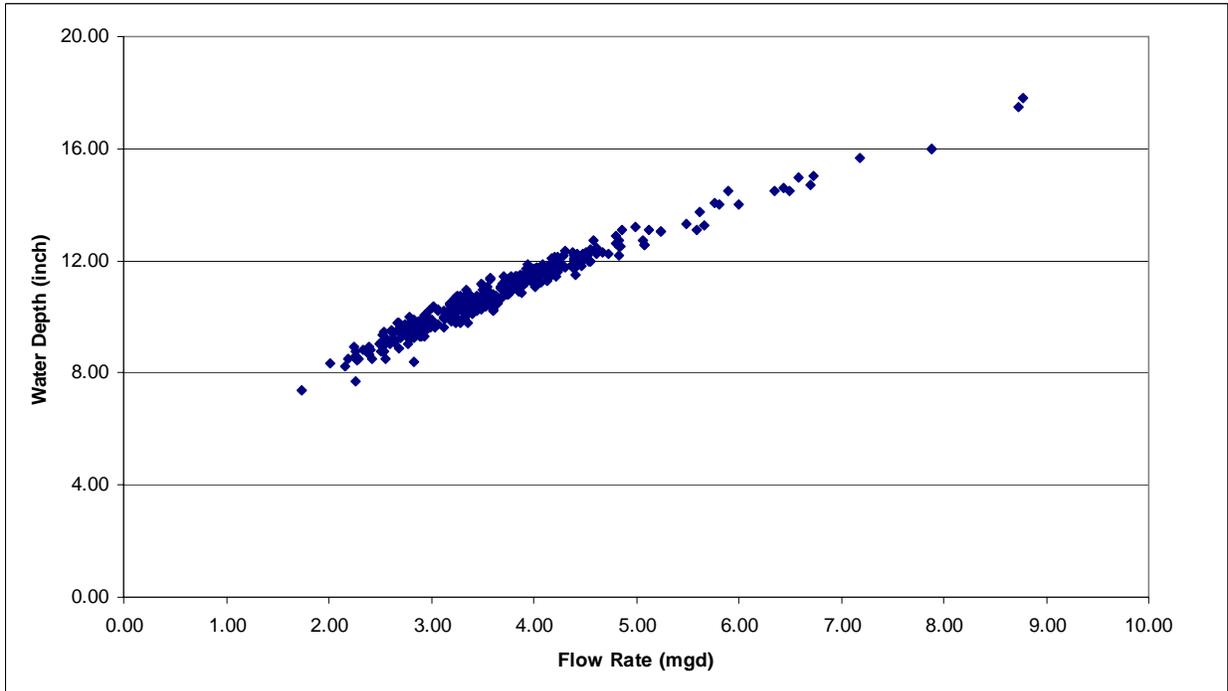


Figure ACSC-2 Correlation between Daily Peak Water Depths and Flow Rates (site ACSC-1)

# Regional Optimization Master Plan Final Report

## Appendix H - Flow and Depth Figures

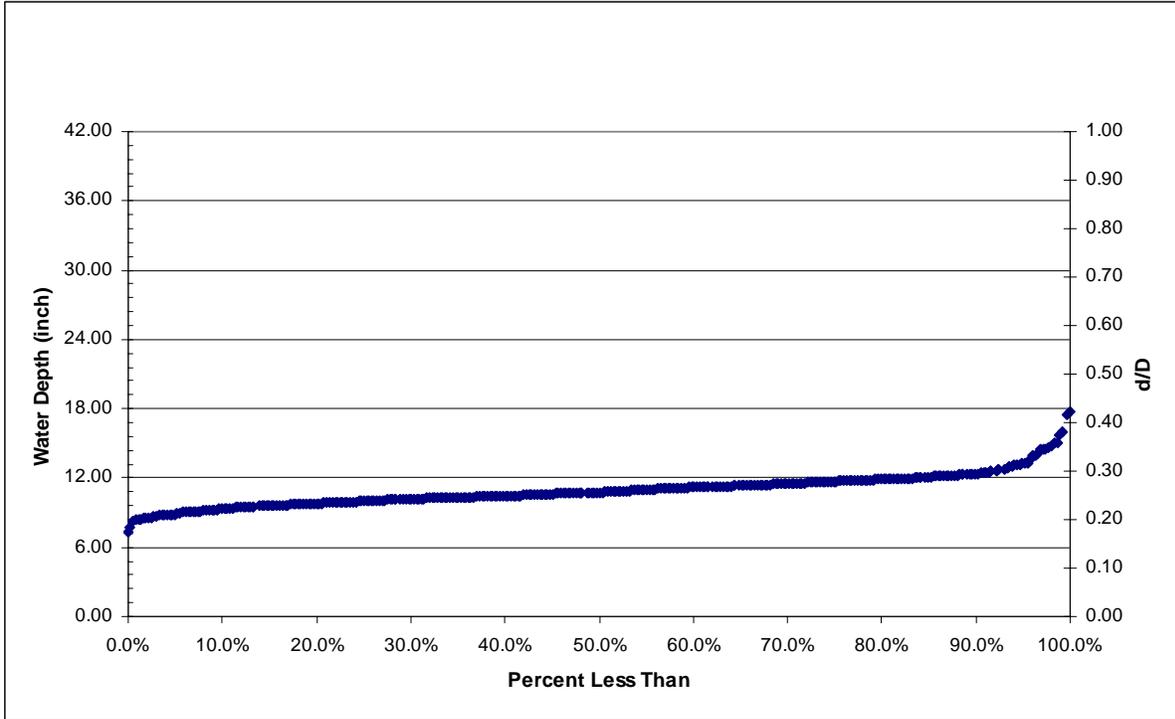


Figure ACSC-3 Historical Percentile Values of Water Depth (site: ACSC-1)

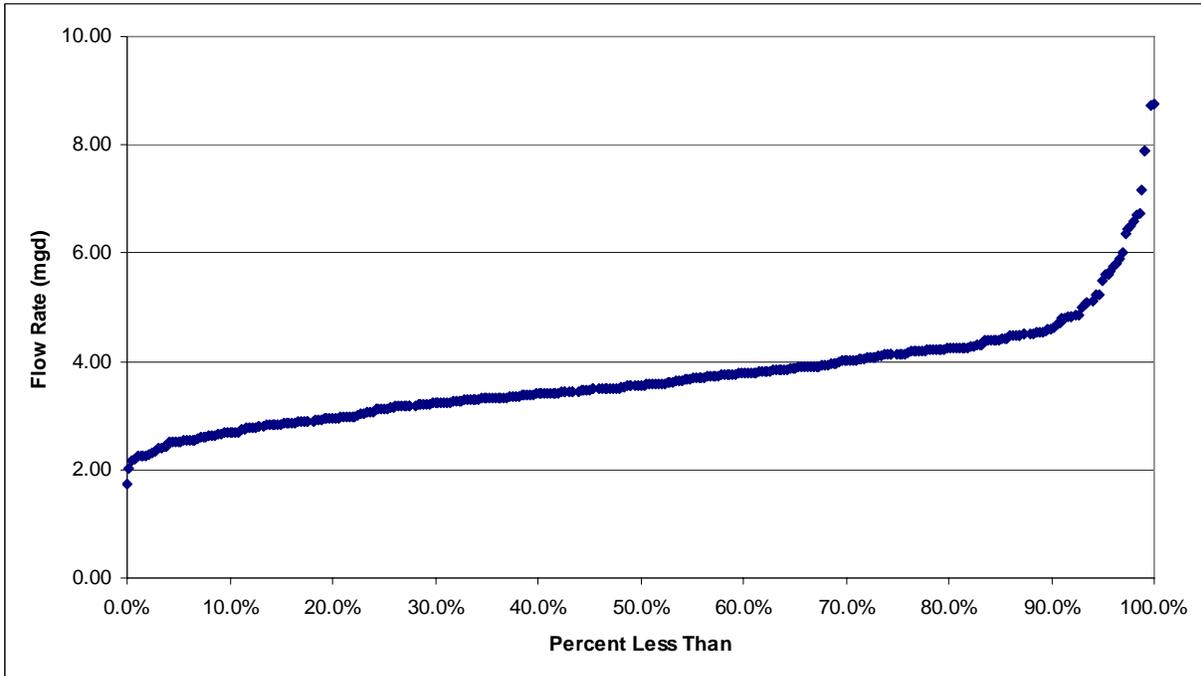


Figure ACSC-4 Historical Percentile Values of Flow Rate (site: ACSC-1)

## Regional Optimization Master Plan Final Report

### Appendix H - Flow and Depth Figures

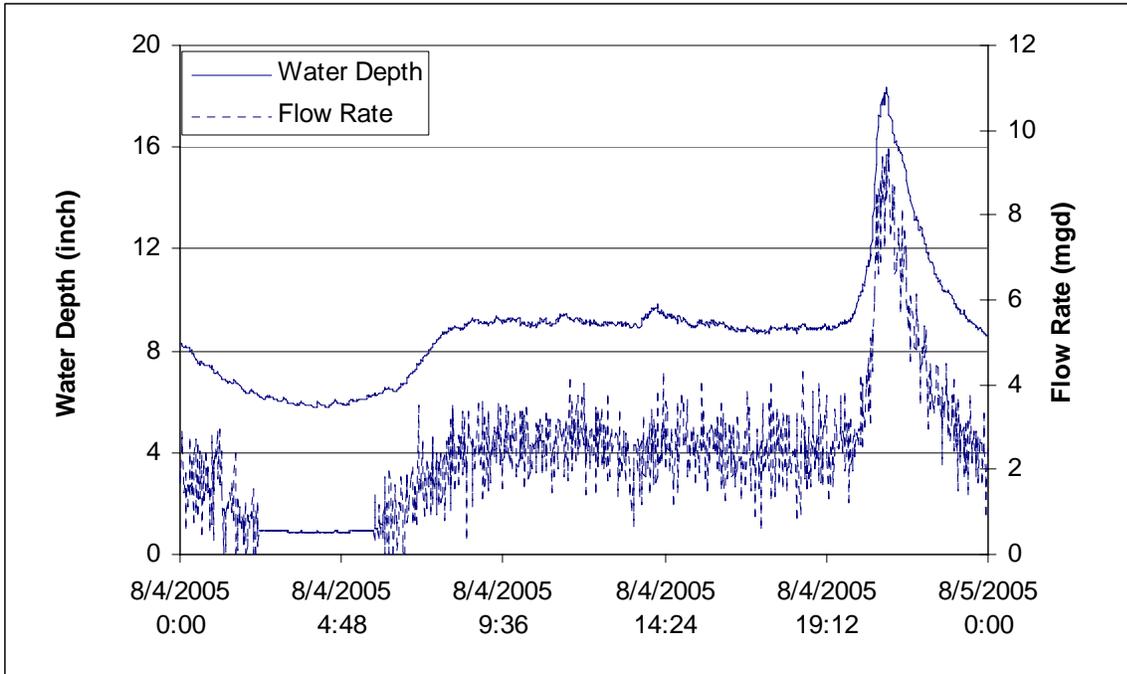


Figure ACSC-5 One-minute Data Points with the Maximum Water Depth and Flow Rate (site: ACSC-1)

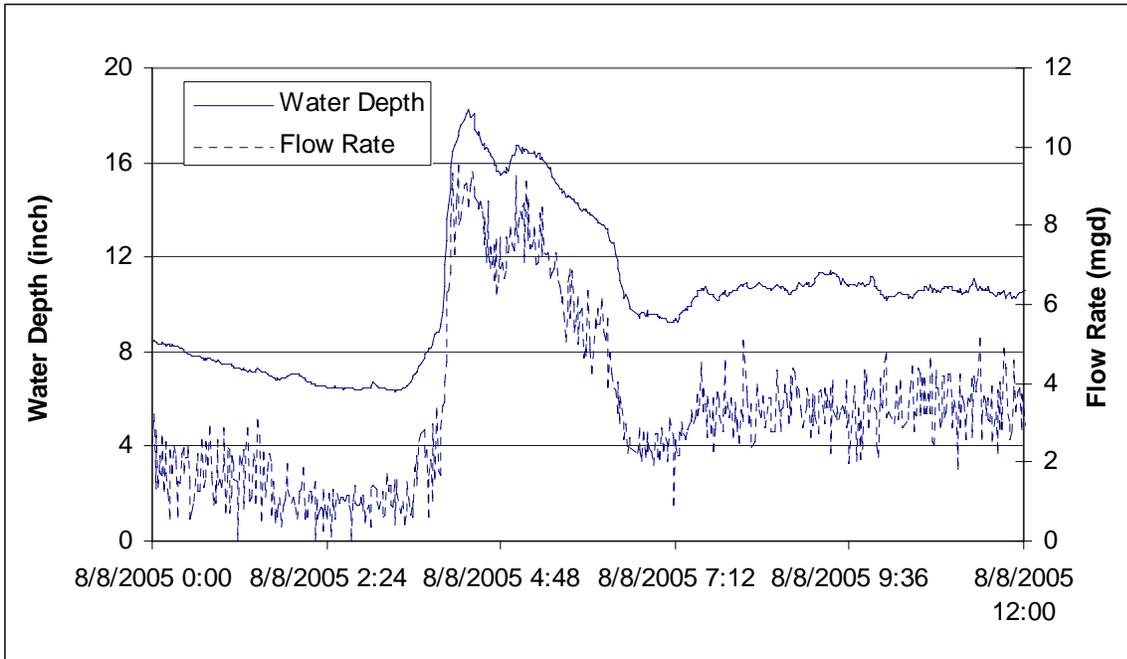


Figure ACSC-6 One-minute Data Points with the Second Highest Water Depth and flow Rate (site: ACSC-1)

# Regional Optimization Master Plan Final Report

## Appendix H - Flow and Depth Figures

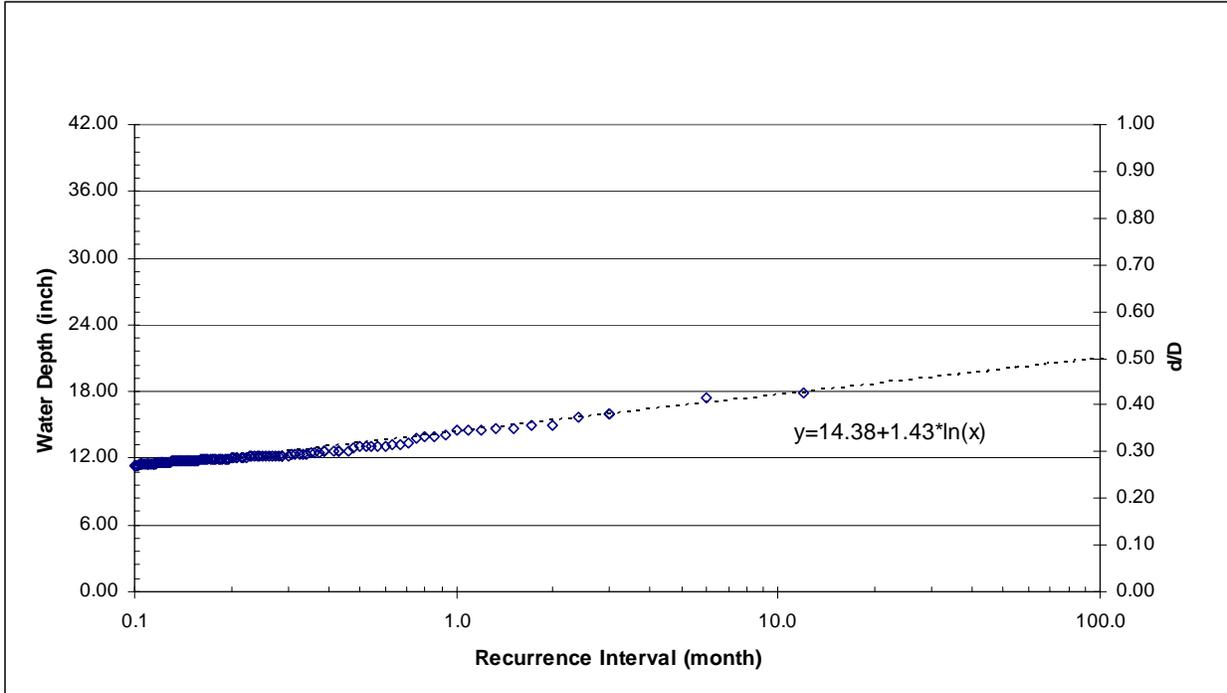


Figure ACSC-7 Water Depths at Different Recurrence Intervals (site: ACSC-1).

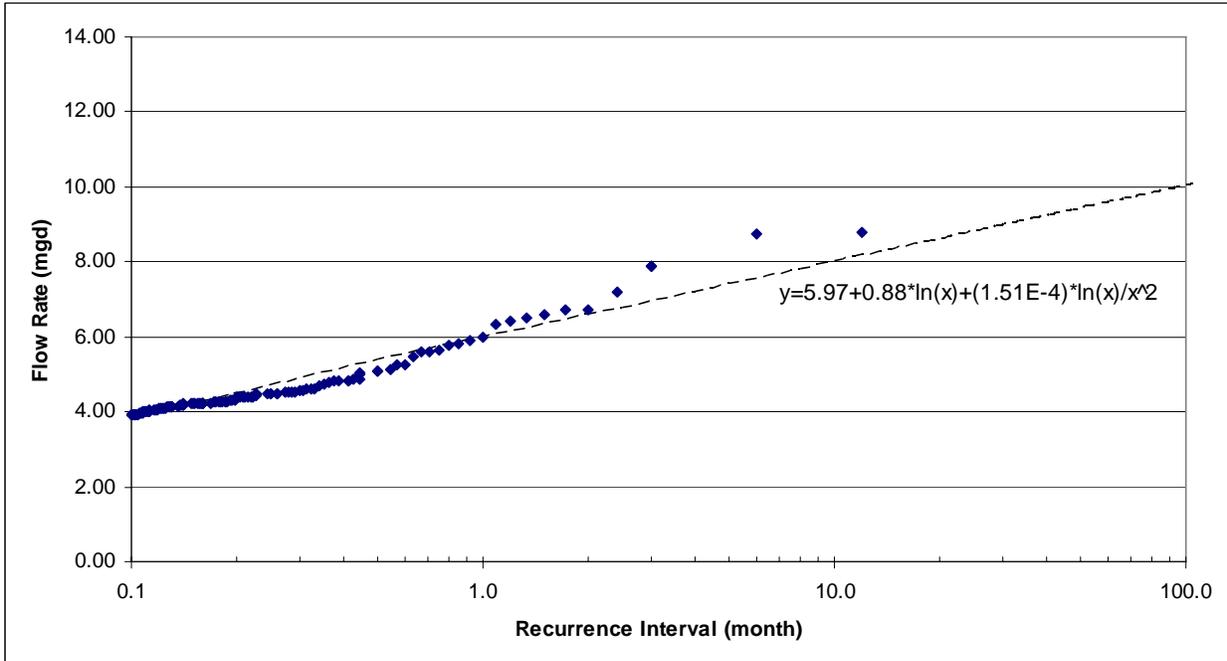


Figure ACSC-8 Flow Rates at Different Recurrence Intervals ((site: ACSC-1)

# Regional Optimization Master Plan Final Report

## Appendix H - Flow and Depth Figures

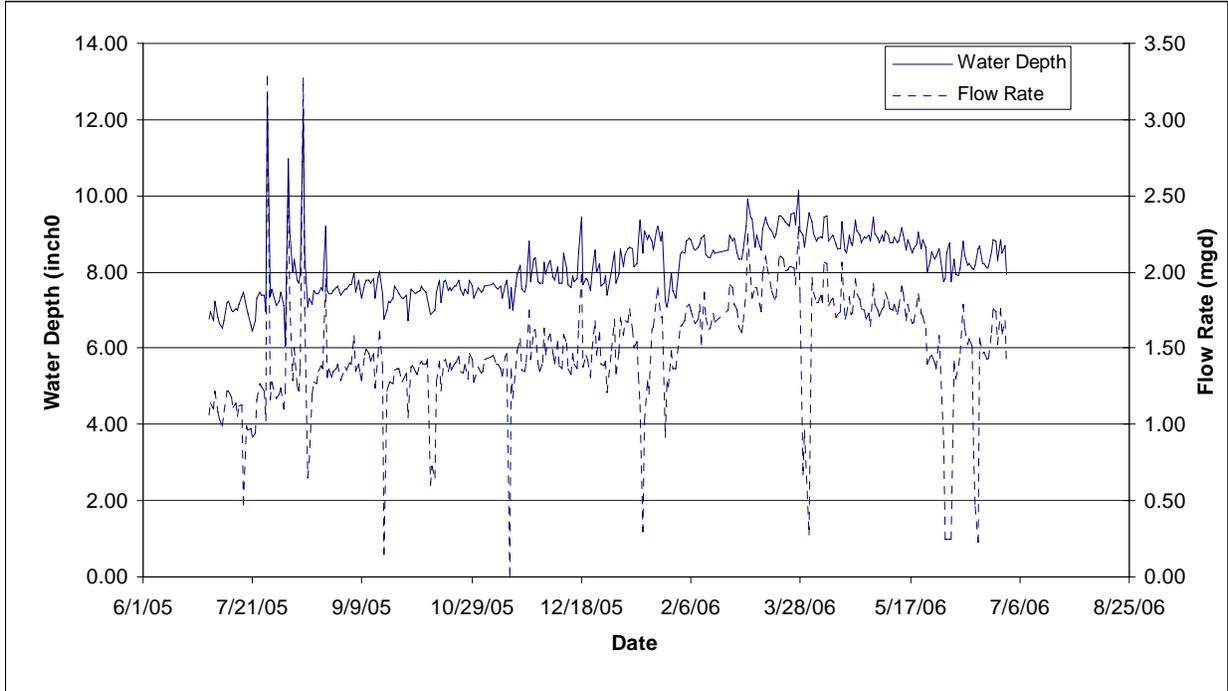


Figure AV-1 Daily Peak Water Depths and Flow Rates (site: AV-1).

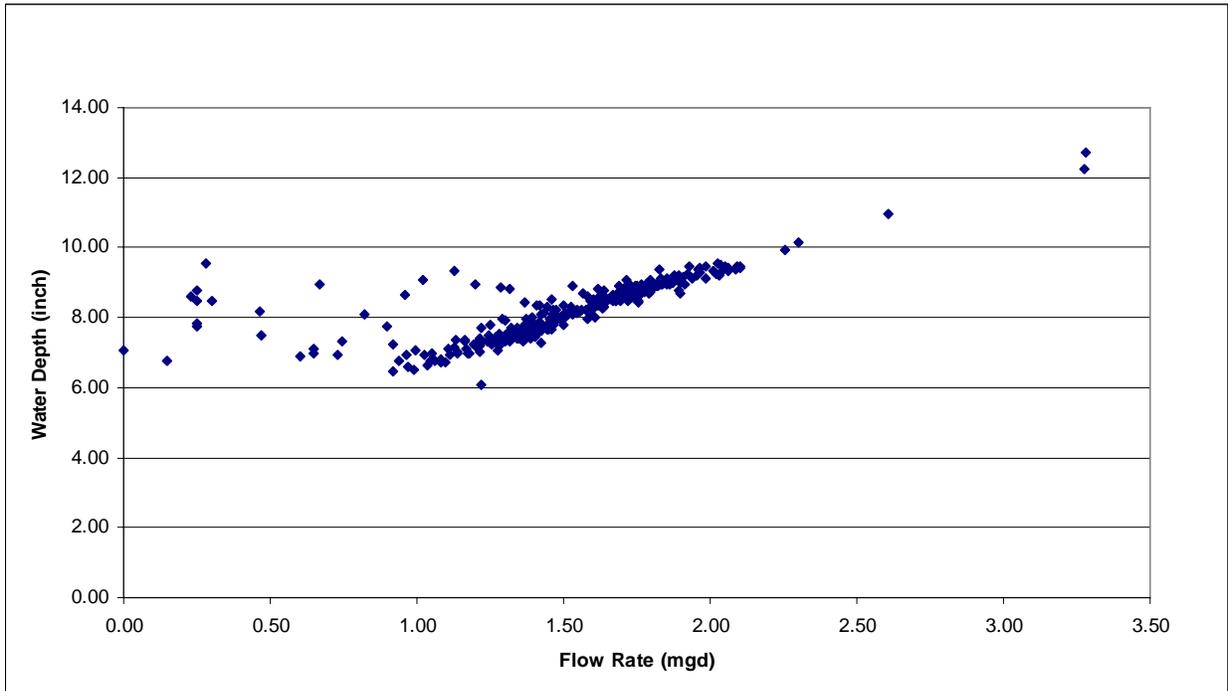


Figure AV-2 Correlation between Daily Peak Water Depths and Flow Rates (site: AV-1)

# Regional Optimization Master Plan Final Report

## Appendix H - Flow and Depth Figures

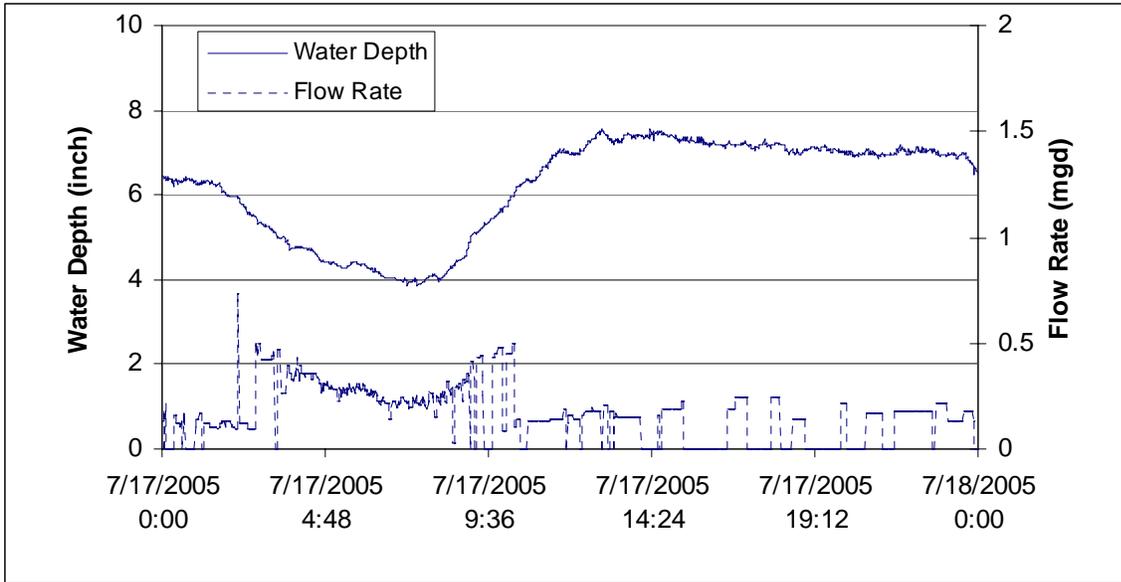


Figure AV-3 One Example of Questionable Data Points (site: AV-1)

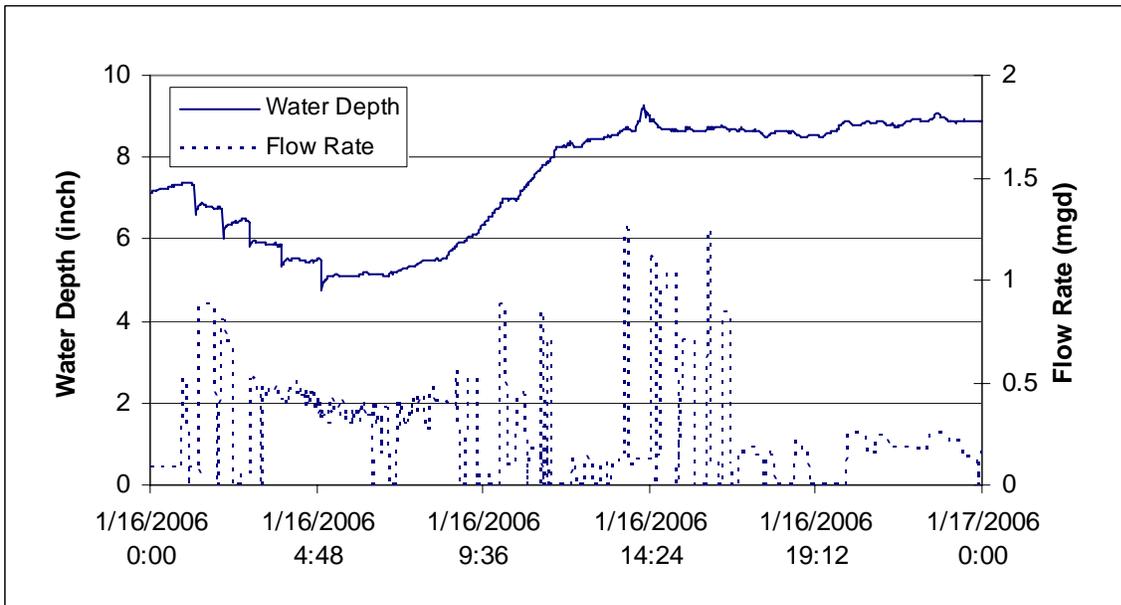


Figure AV-4 Another Example of Questionable Data Points (site: AV-1)

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## Appendix H - Flow and Depth Figures

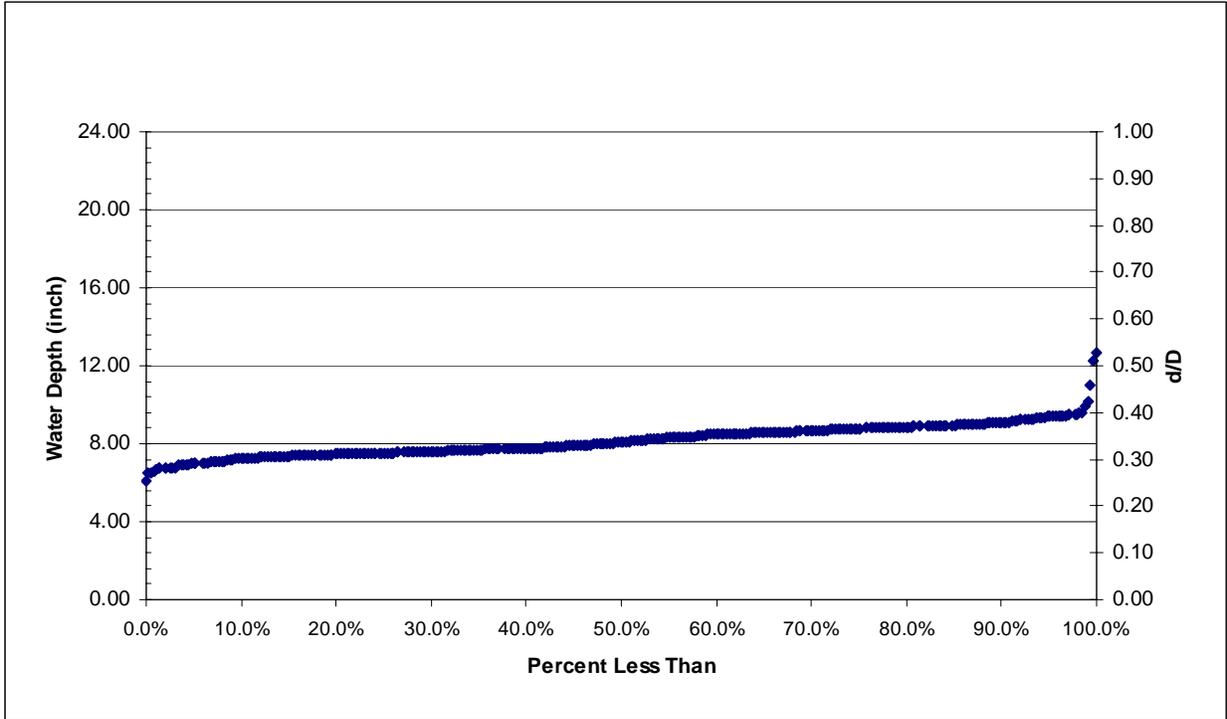


Figure AV-5 Historical Percentile Values of Water Depth (site: AV-1)

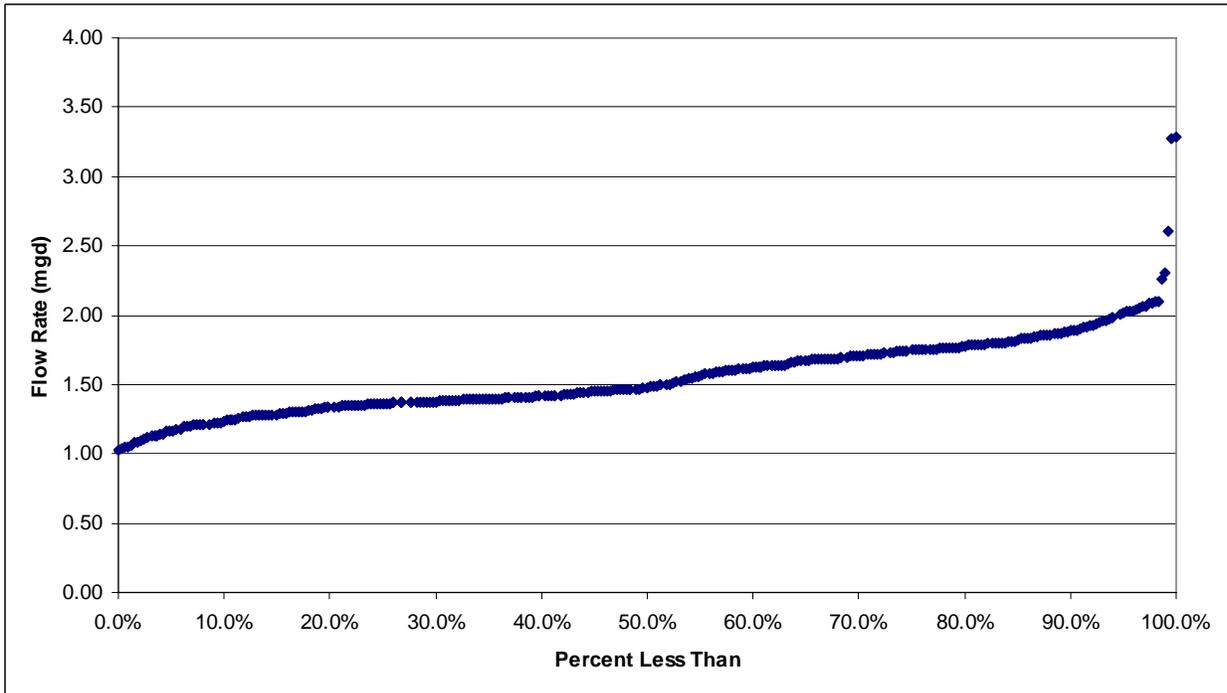


Figure AV-6 Historical Percentile Values of Flow Rates (site: AV-1)

# Regional Optimization Master Plan Final Report

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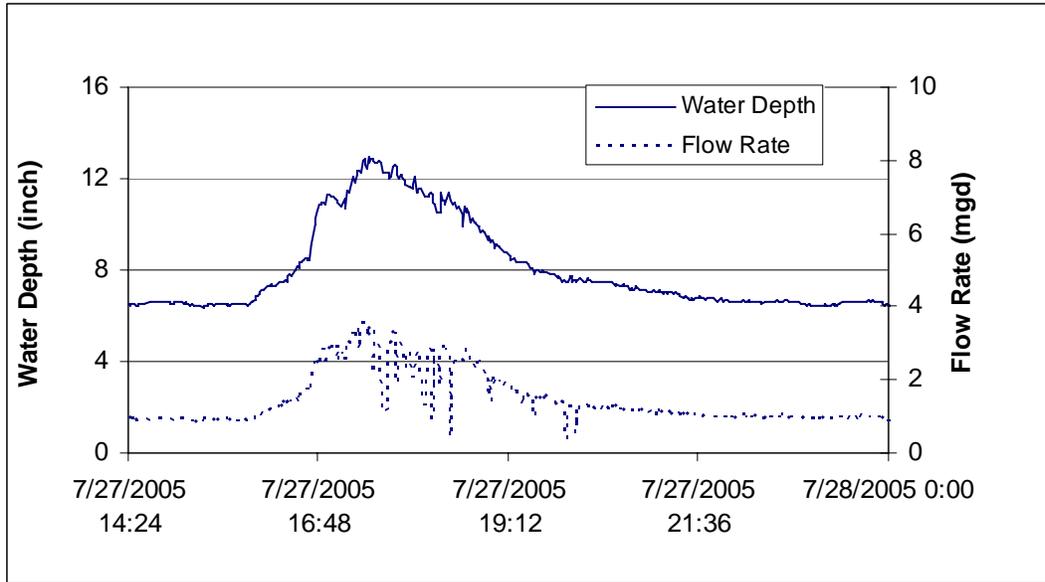


Figure AV-7 One-minute Data Points with the Maximum Water Depth and Flow Rate (site: AV-1)

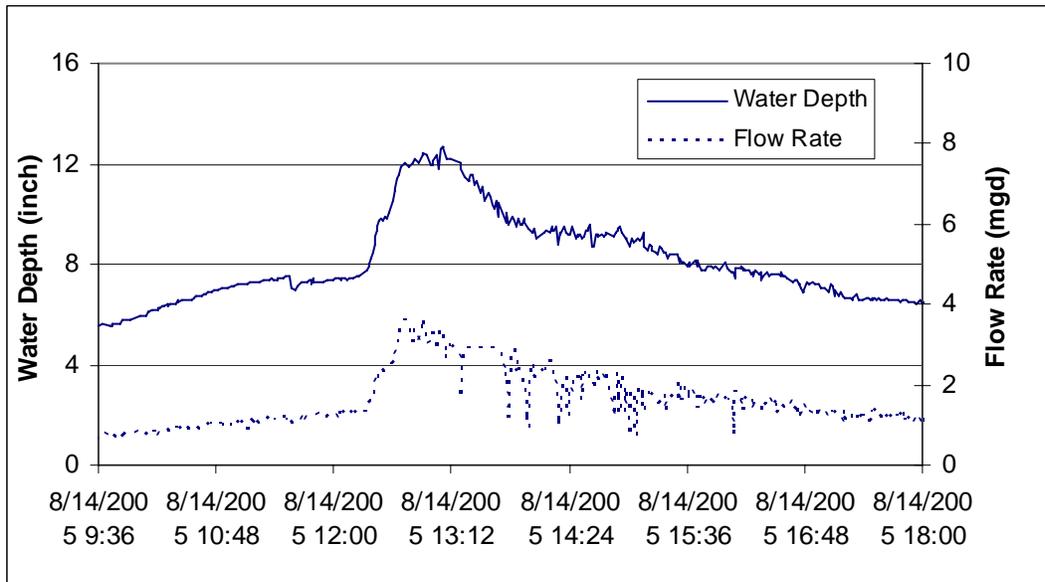


Figure AV-8 One-minute Data Points with the Second Maximum Water Depth and Flow Rate (site: AV-1)

# Regional Optimization Master Plan Final Report

## Appendix H - Flow and Depth Figures

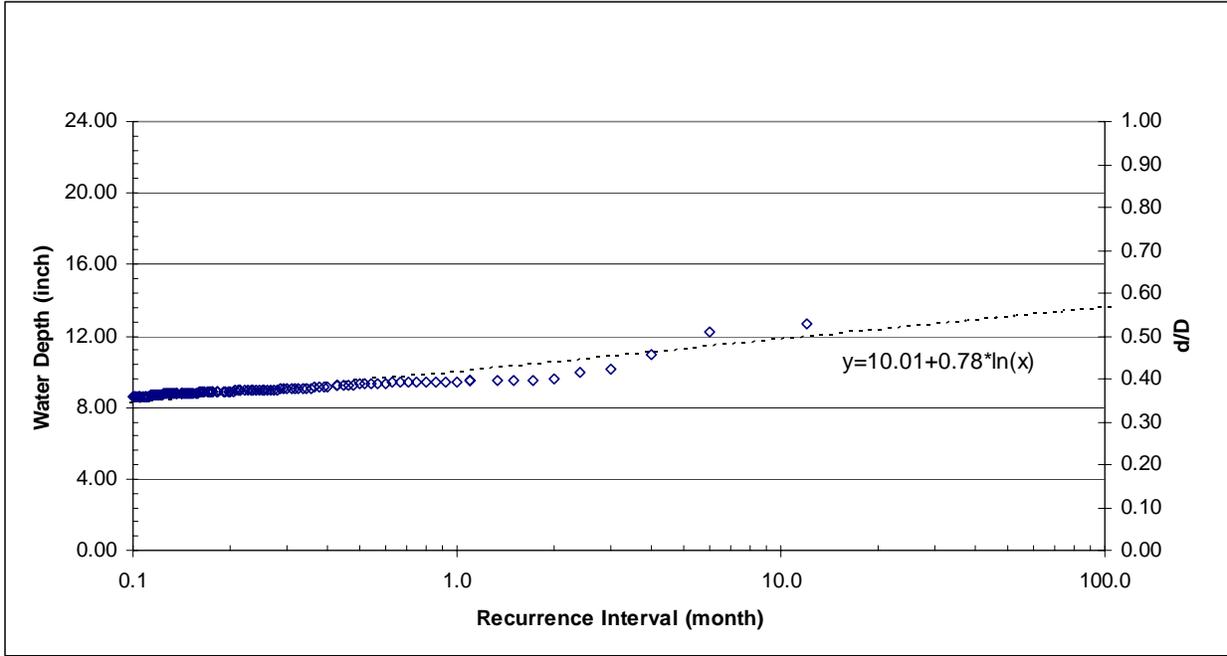


Figure AV-9 Water Depths at Different Recurrence Intervals (site: AV-1)

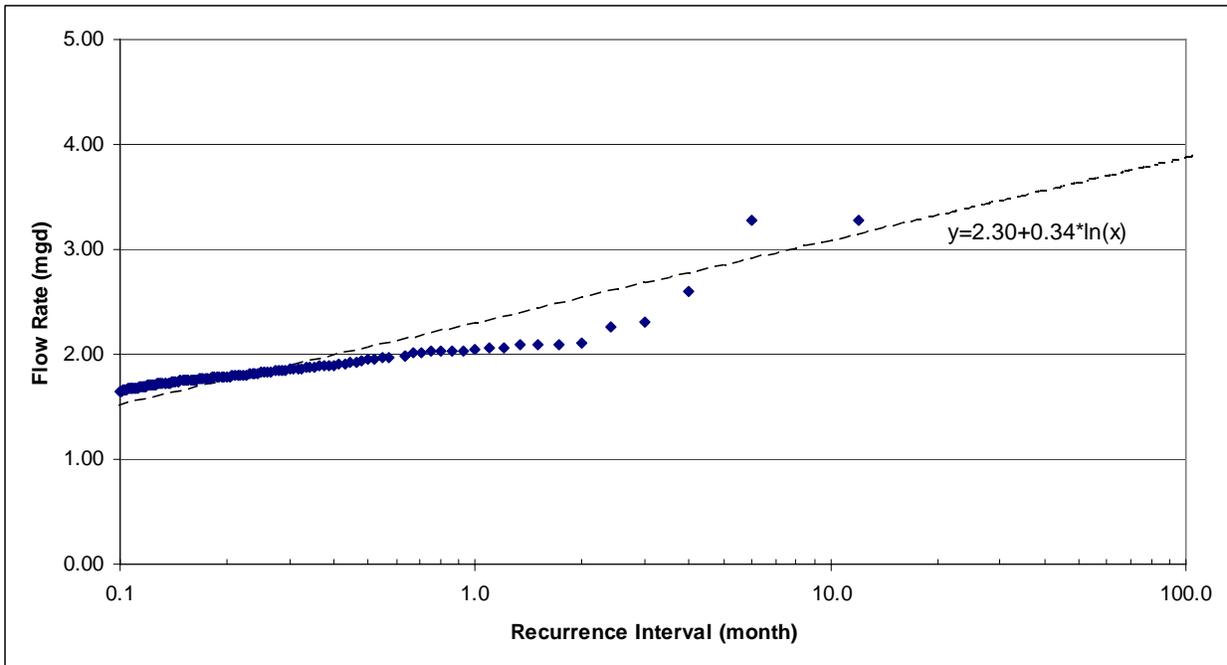


Figure AV-10 Flow Rates at Different Recurrence Intervals (site: AV-1)

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## Appendix H - Flow and Depth Figures

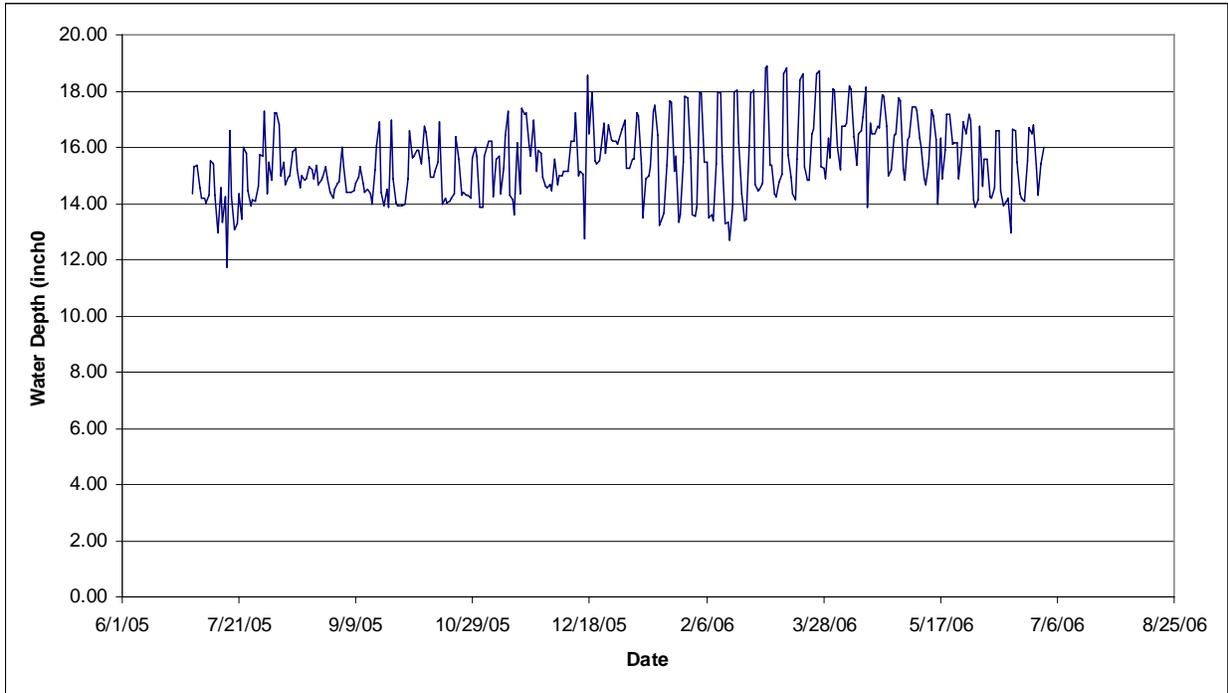


Figure CDO-1-1 Daily Peak Water Depths (site: CDO-1)

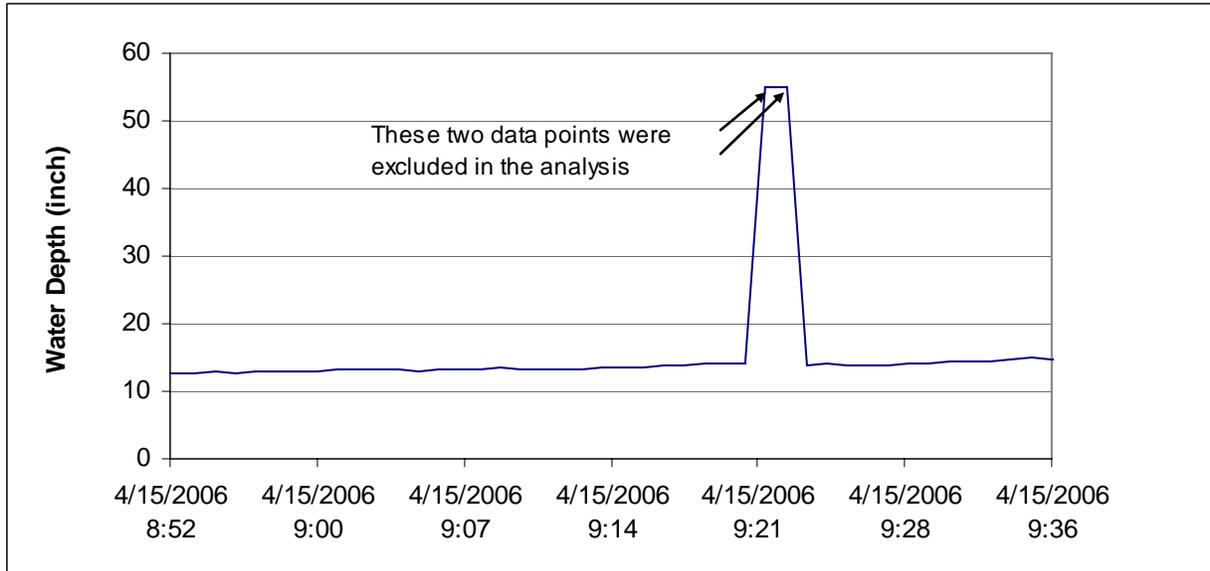


Figure CDO-1-2 Two Questionable One-minute Data Points Excluded in the Analysis (site: CDO-1)

# Regional Optimization Master Plan Final Report

## Appendix H - Flow and Depth Figures

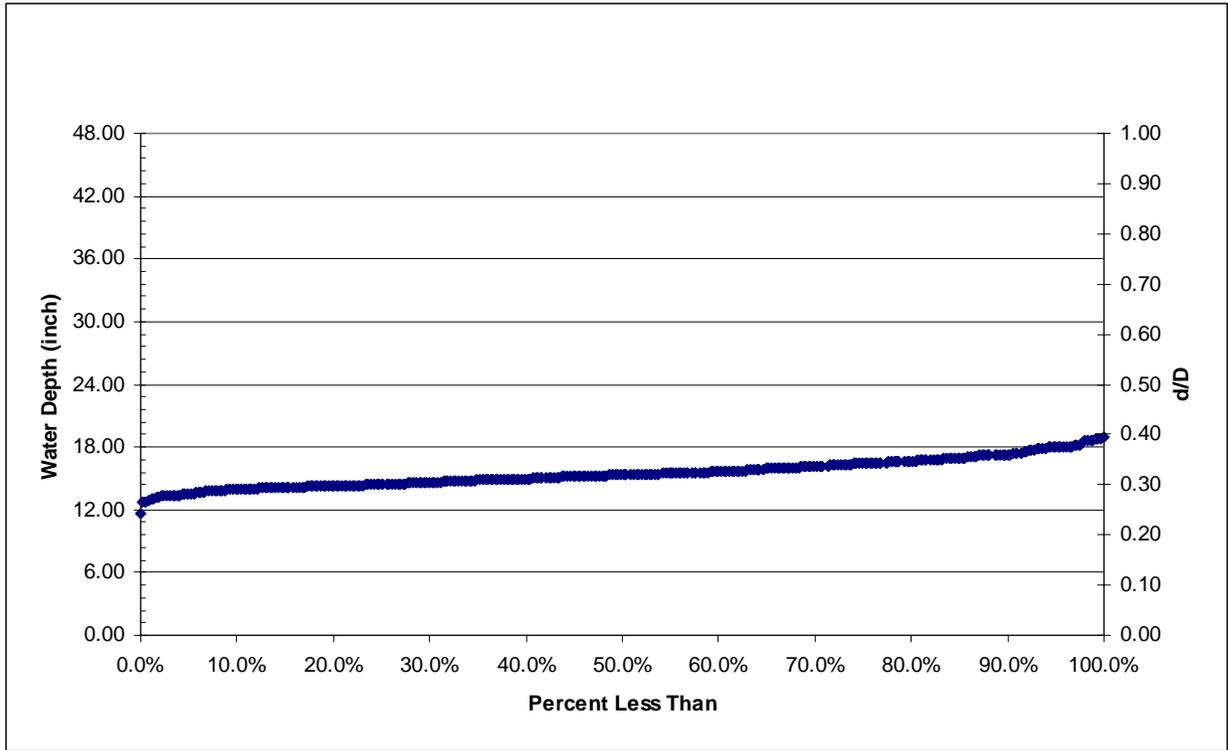


Figure CDO-1-3 Historical Percentile Values of Water Depth (site: CDO-1)

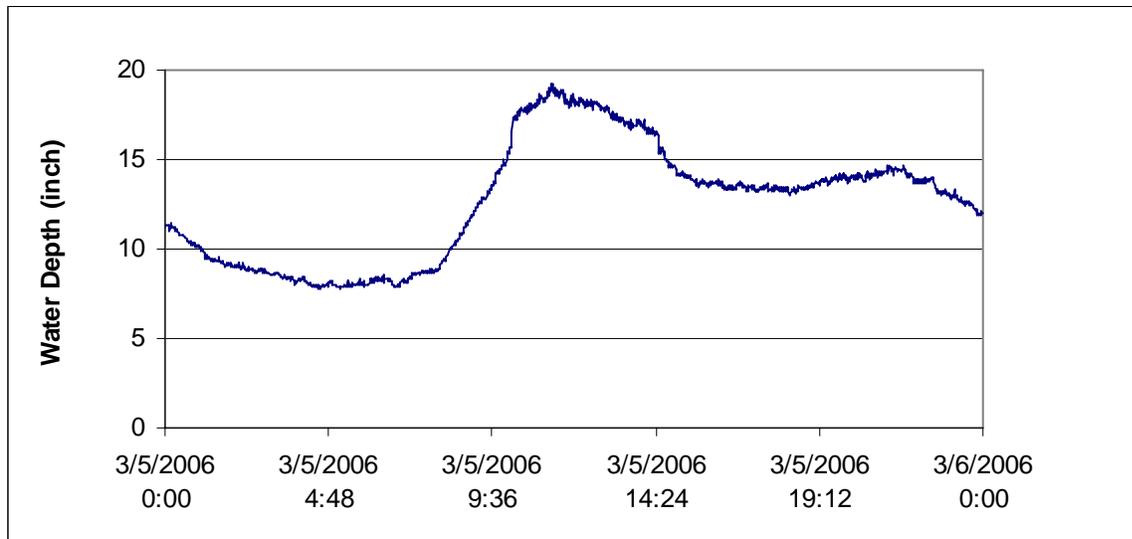


Figure CDO-1-4 One-minute Data Points with the Maximum Water Depth (site: CDO-1)

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## Appendix H - Flow and Depth Figures

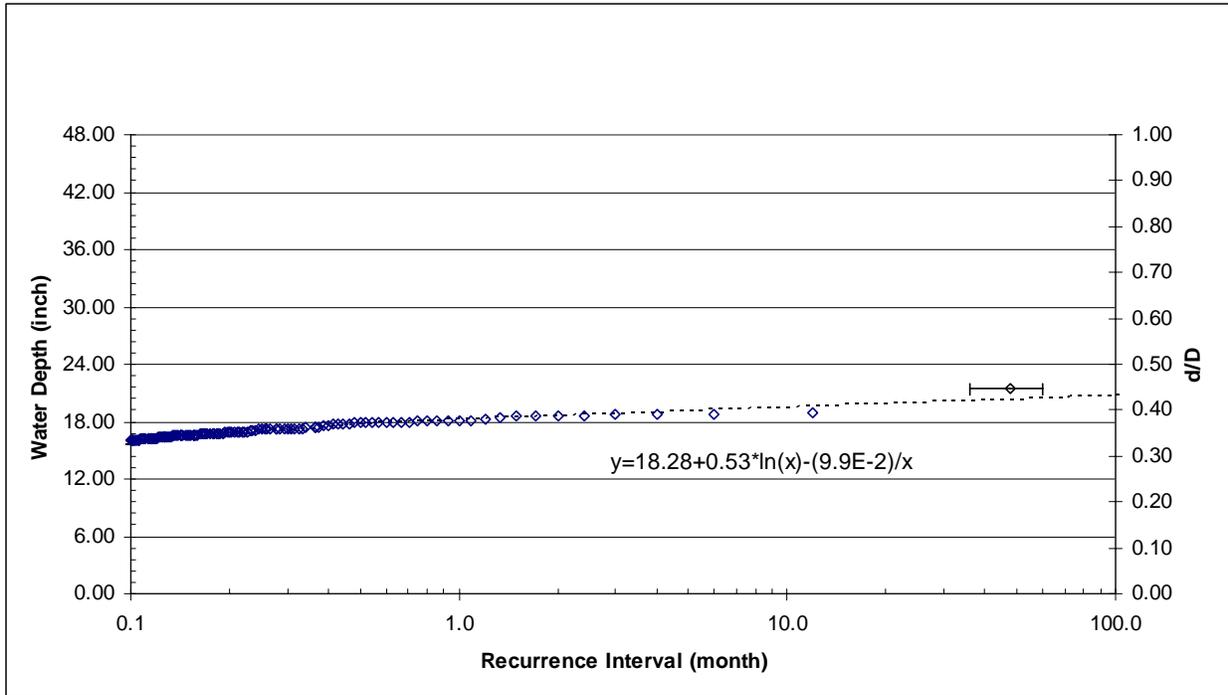


Figure CDO-1-5 Water Depths at Different Recurrence Intervals (site: AV-1)

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## Appendix H - Flow and Depth Figures

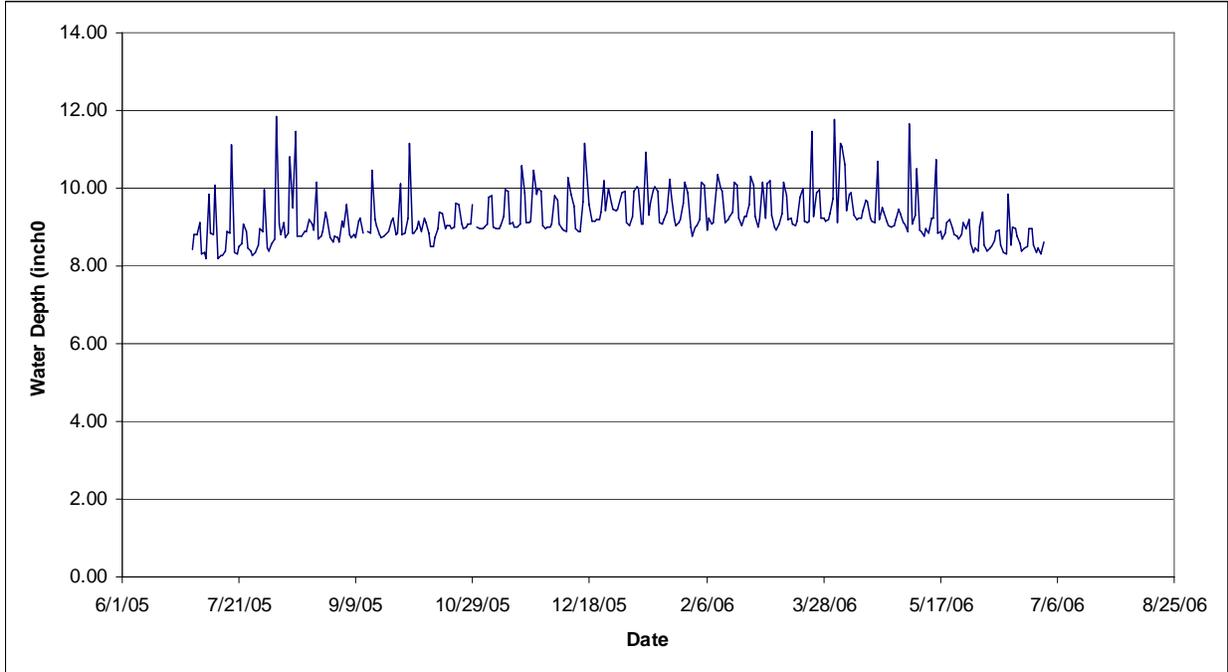


Figure CDO-2-1 Daily Peak Water Depths (site: CDO-2)

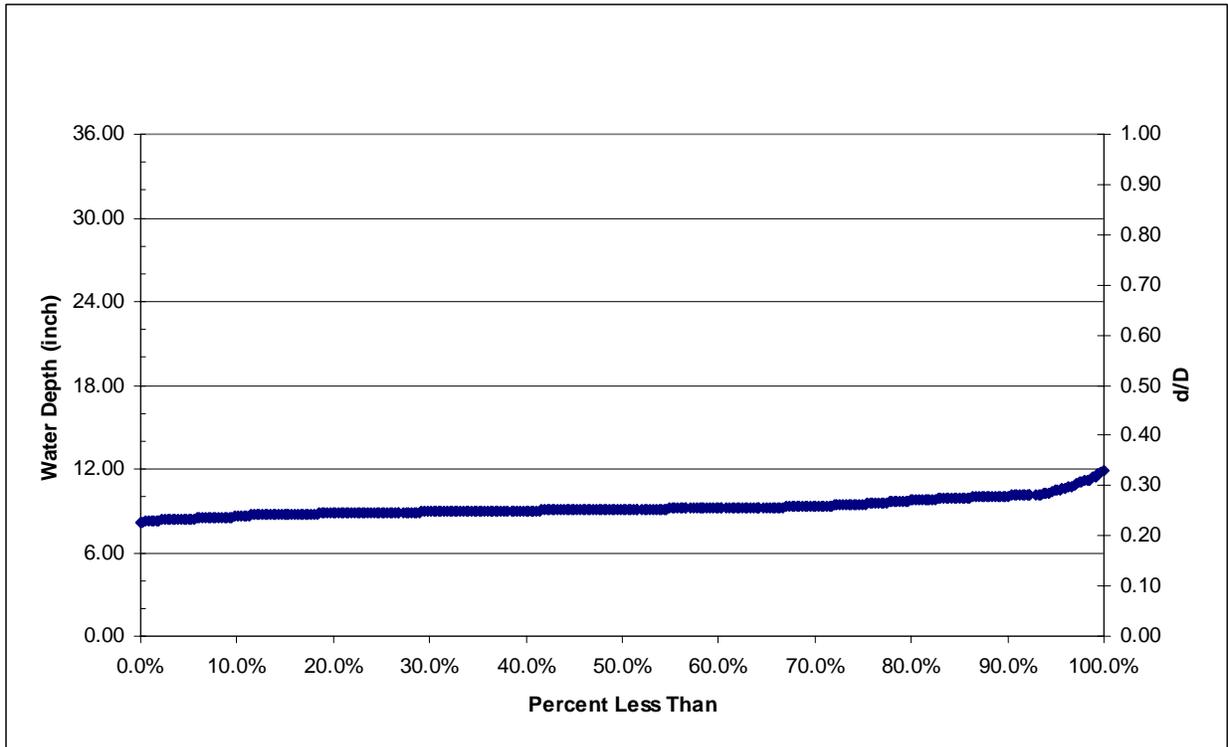


Figure CDO-2-2 Historical Percentile Values of Water Depth (site: CDO-2)

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## Appendix H - Flow and Depth Figures

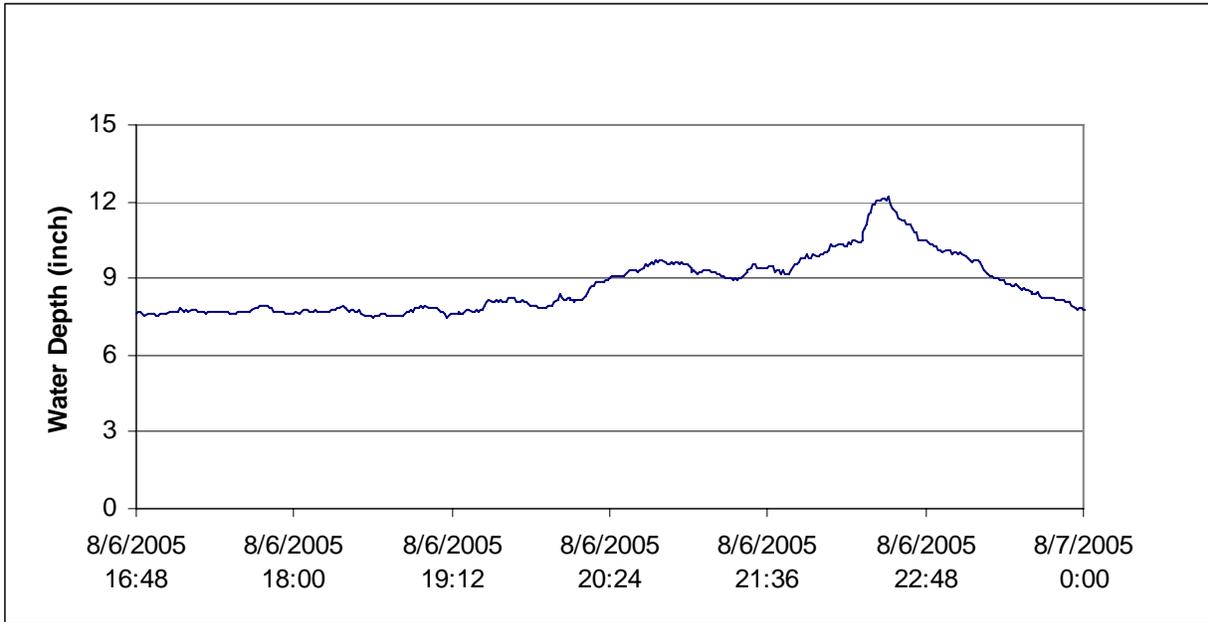


Figure CDO-2-3 One-minute Data Points with the Maximum Water Depth (site: CDO-2)

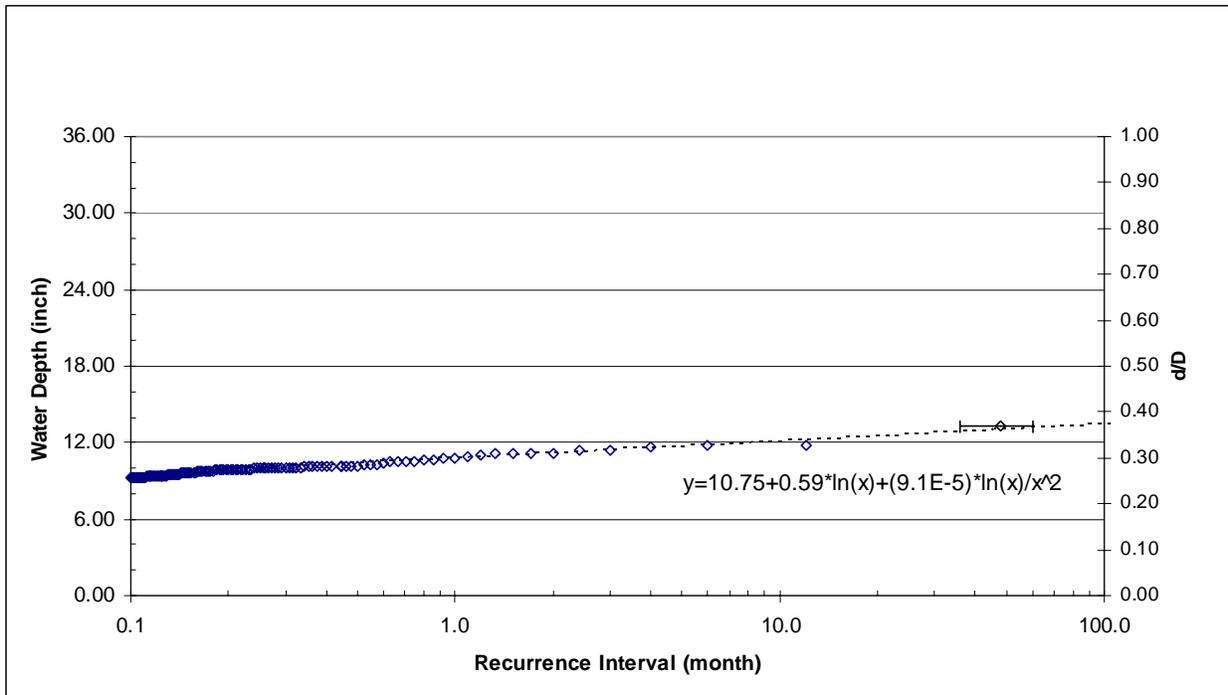


Figure CDO-2-4 Water Depths at Different Recurrence Intervals (site: CDO-2)

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## Appendix H - Flow and Depth Figures

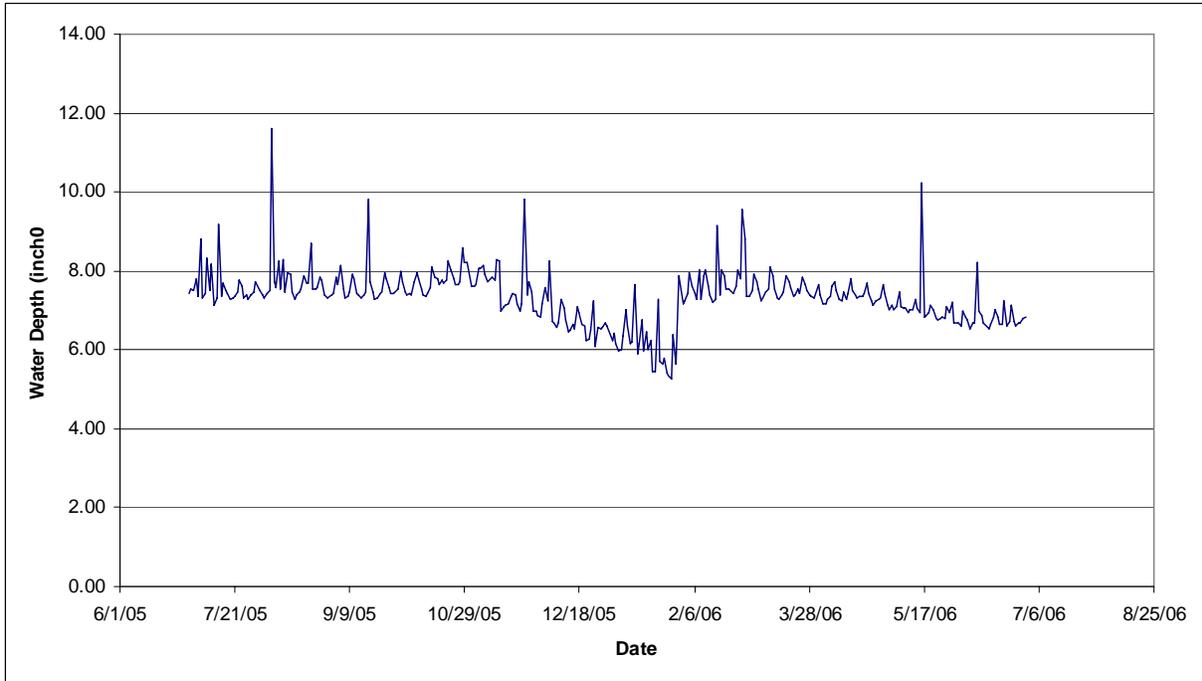


Figure CDO-3-1 Daily Peak Water Depths (site: CDO-3)

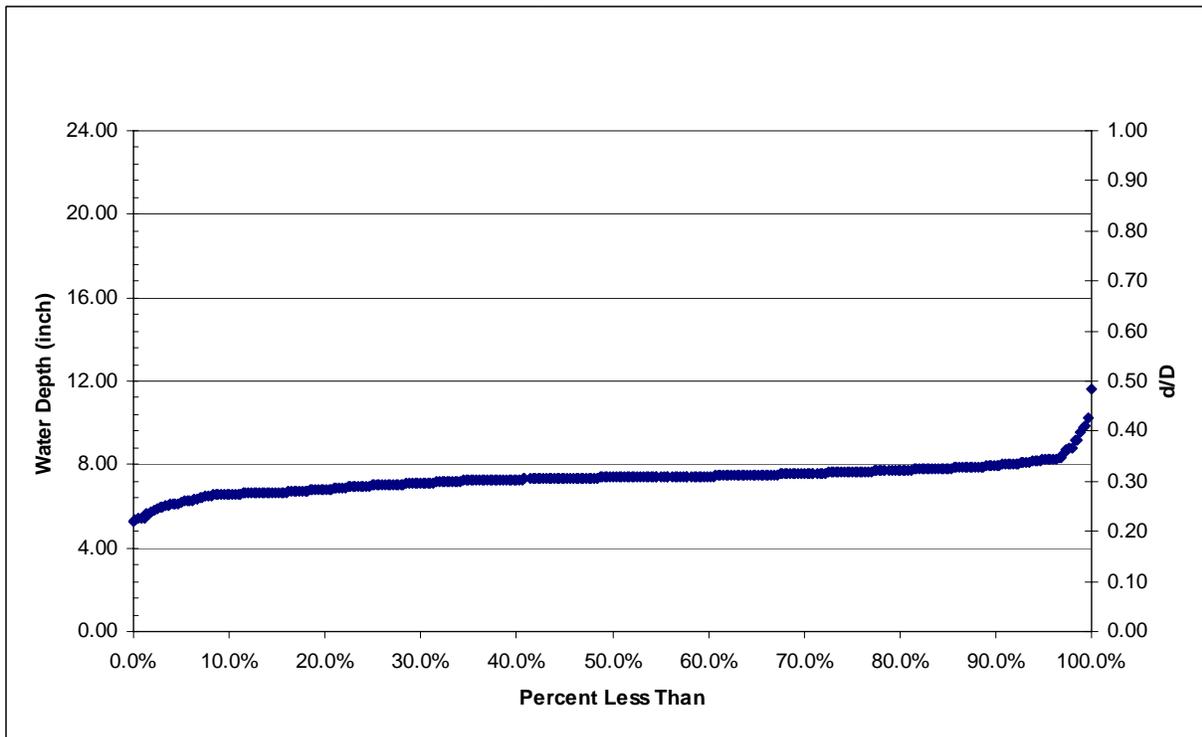


Figure CDO-3-2 Historical Percentile Values of Water Depth (site: CDO-3)

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## Appendix H - Flow and Depth Figures

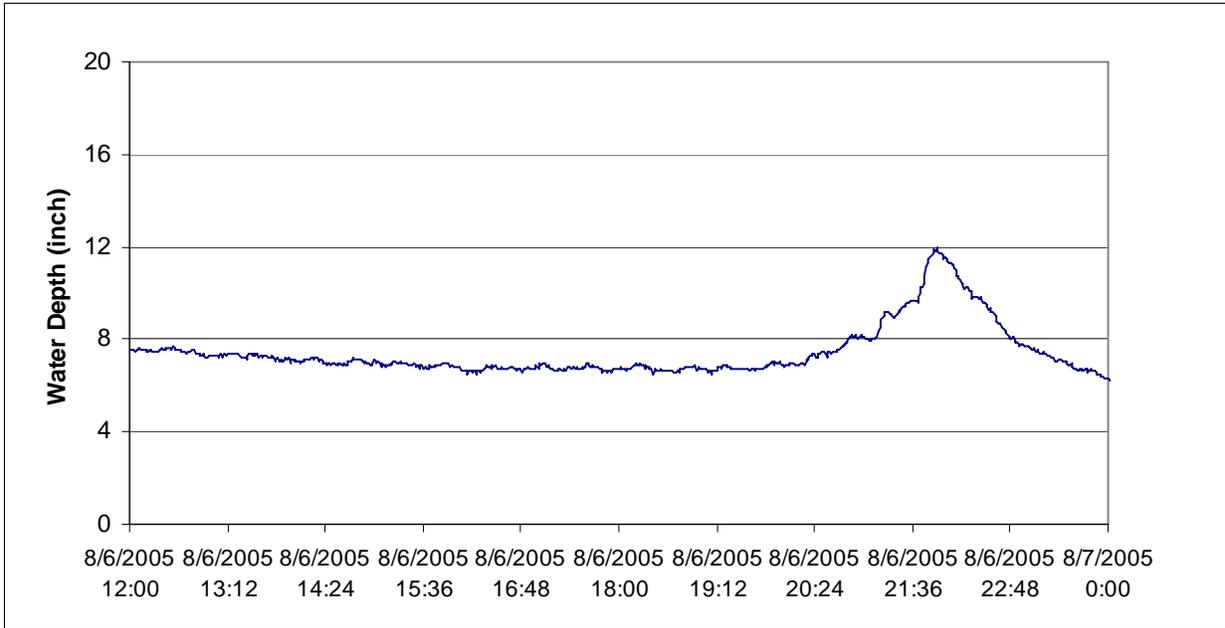


Figure CDO-3-3 One-minute Data Points with the Maximum Water Depth (site: CDO-3)

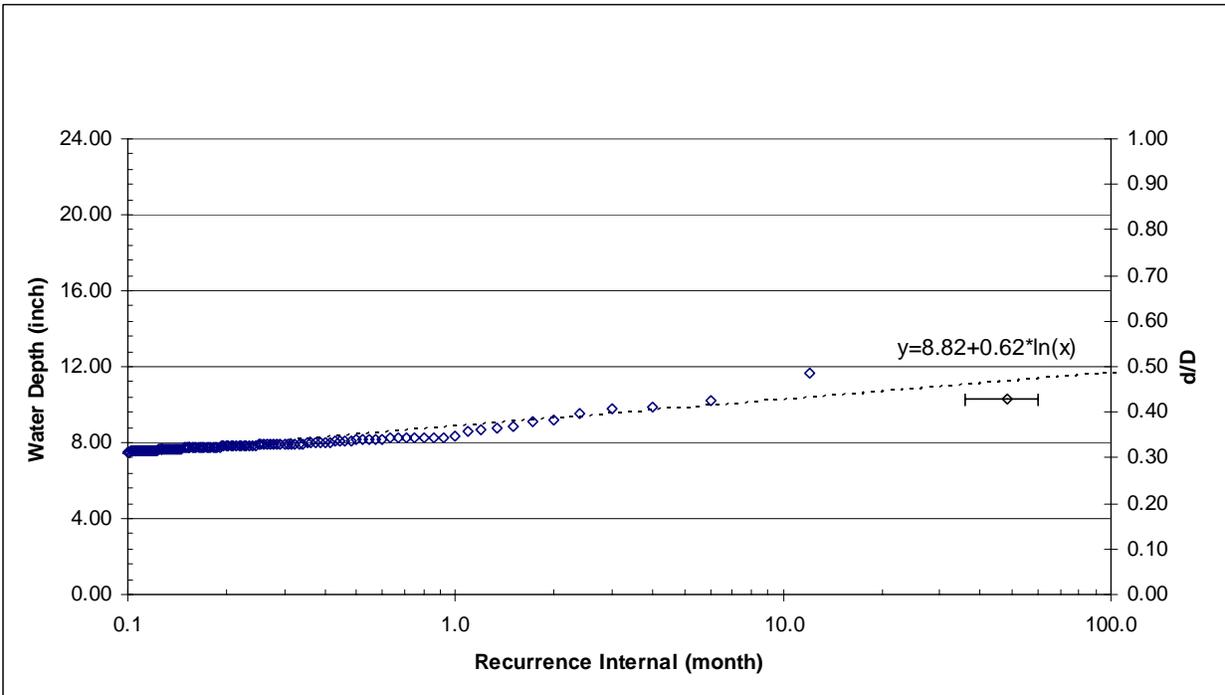


Figure CDO-3-4 Water Depths at Different Recurrence Intervals (site: CDO-3)

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## Appendix H - Flow and Depth Figures

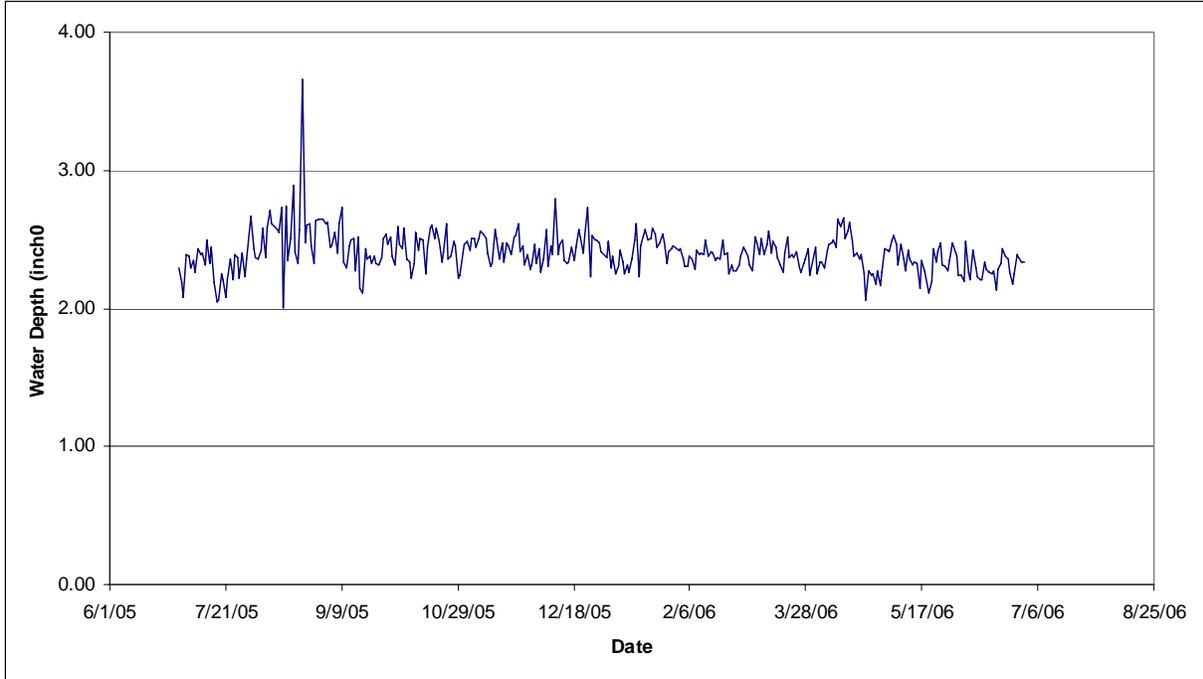


Figure CW-1-1 Daily Peak Water Depths (site: CW-1)

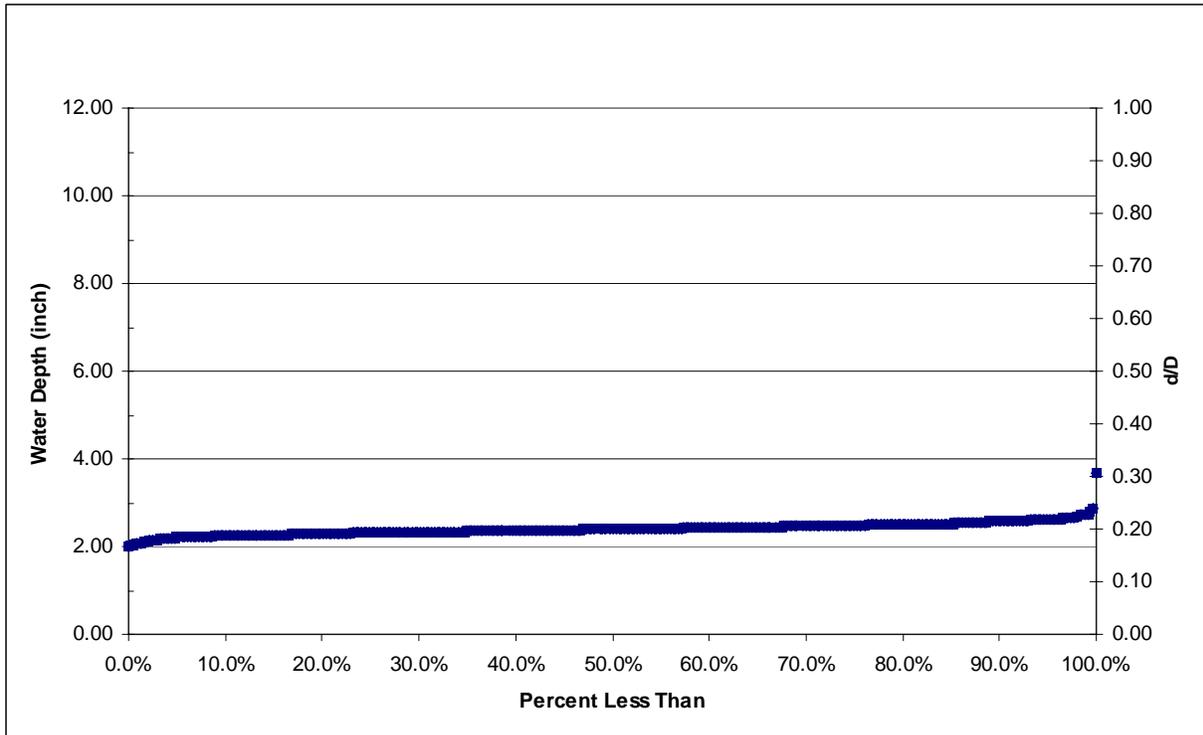


Figure CW-1-2 Historical Percentile Values of Water Depth (site: CW-1)

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## Appendix H - Flow and Depth Figures

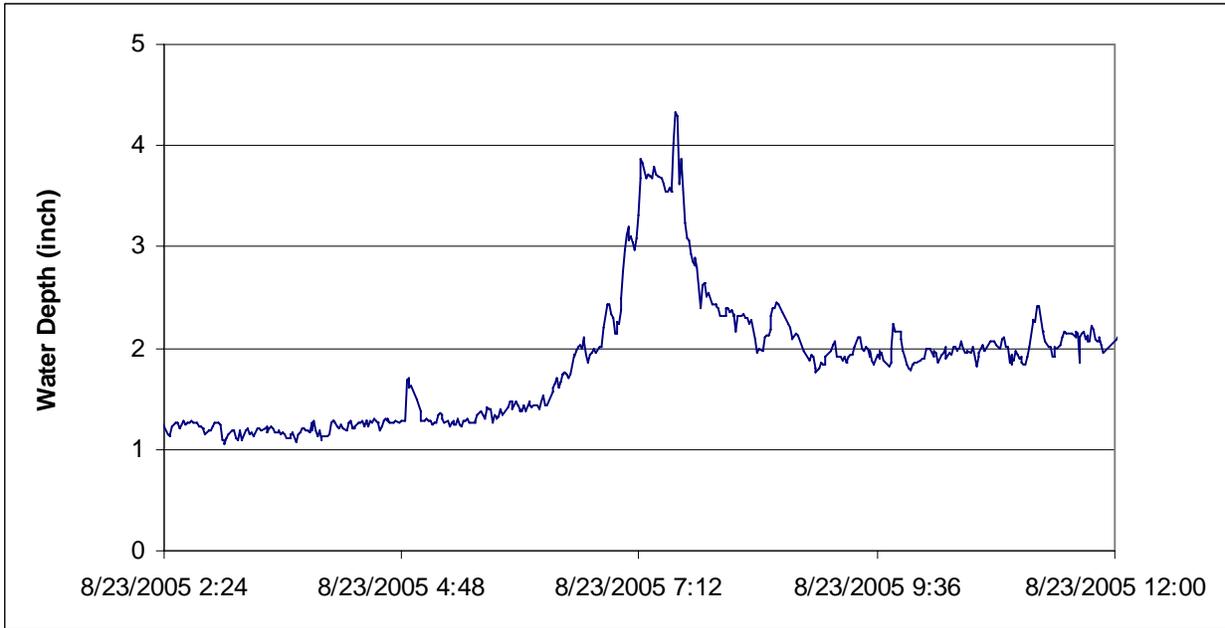


Figure CW-1-3 One-minute Data Points with the Maximum Water Depth (site: CW-1)

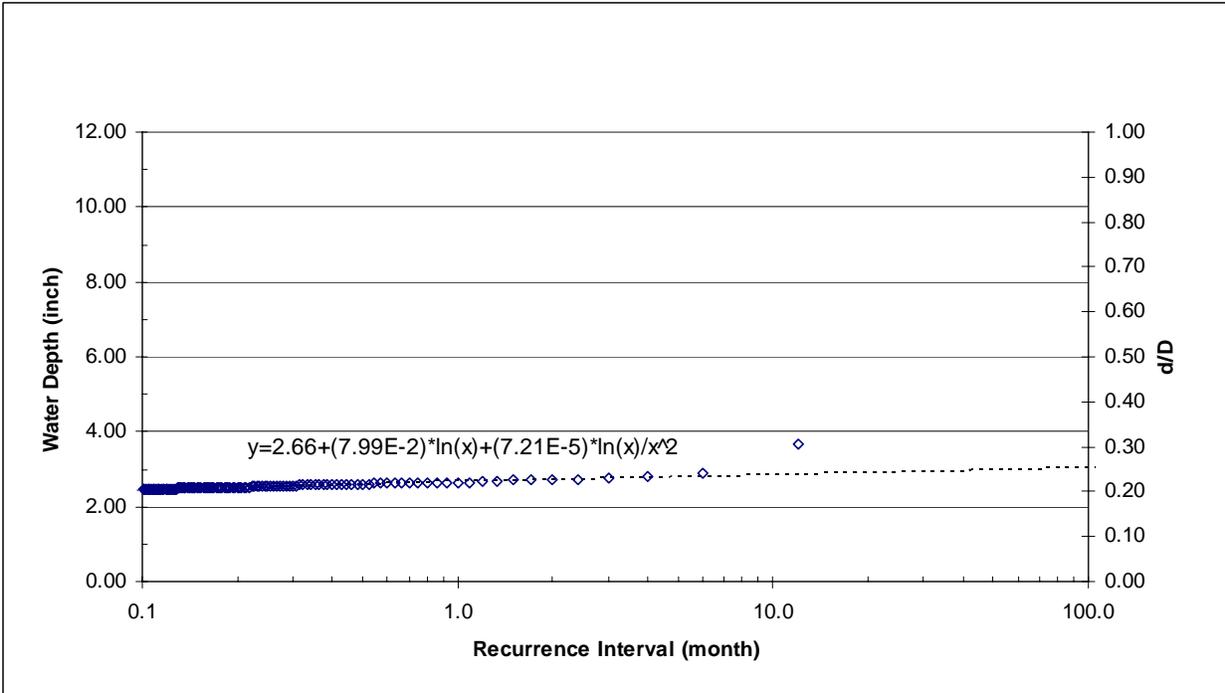


Figure CW-1-4 Water Depths at Different Recurrence Intervals (site: CW-1)

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## Appendix H - Flow and Depth Figures

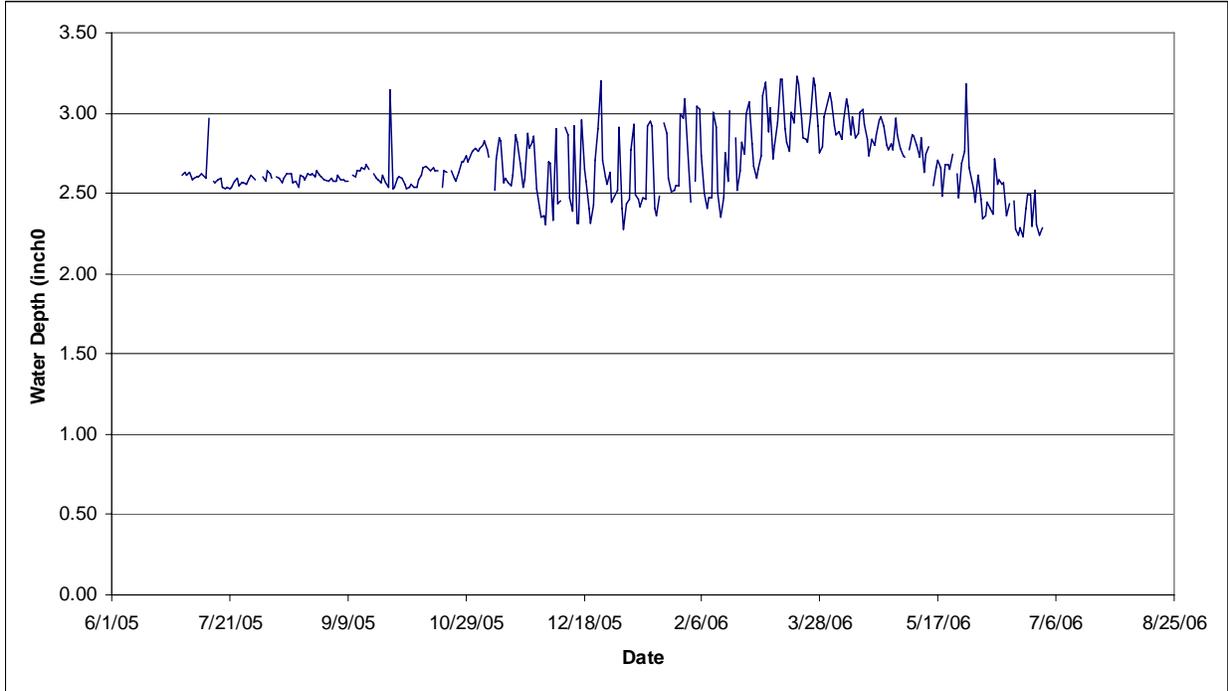


Figure Dove-1 Daily Peak Water Depths (site: Dove Mtn)

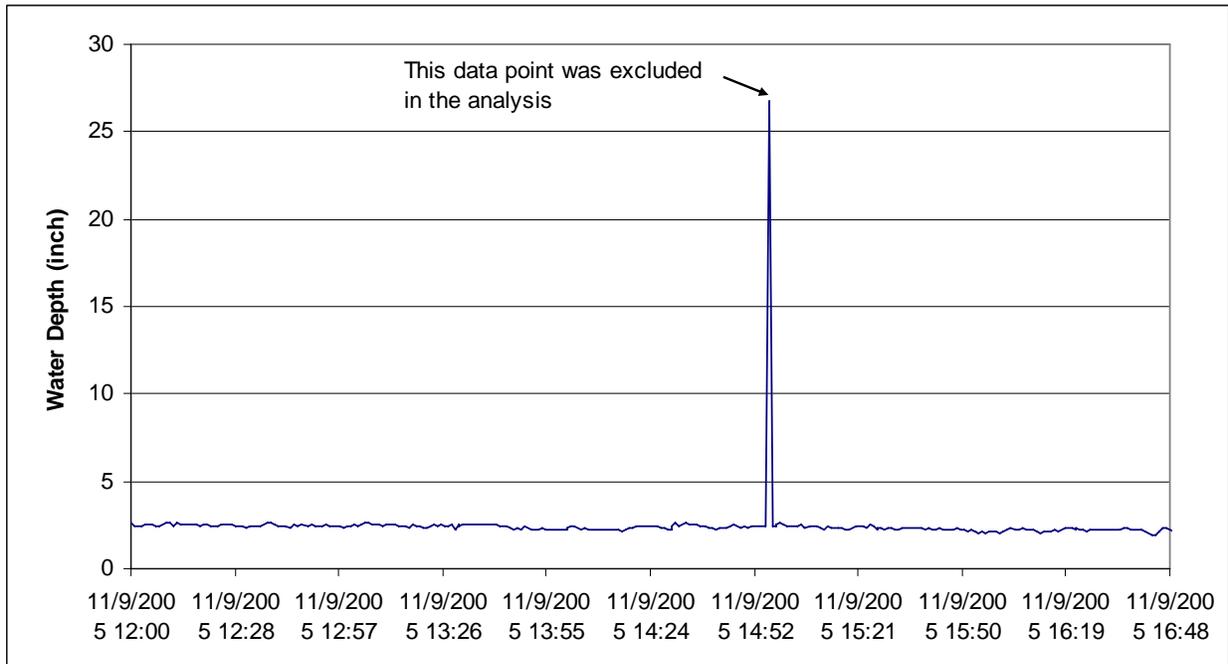


Figure Dove-2 One Example of Questionable 1-minute Data Point (site: Dove Mtn)

## Regional Optimization Master Plan Final Report

### Appendix H - Flow and Depth Figures

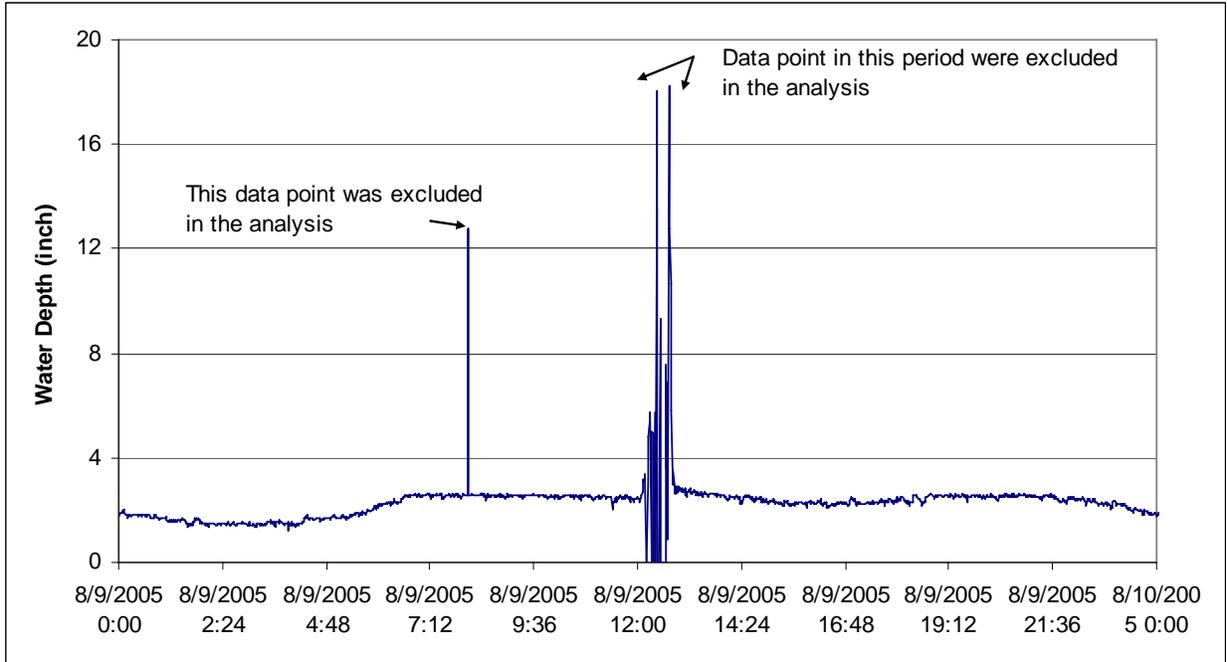


Figure Dove-3 Another Example of Questionable 1-minute Data Points (site: Dove Mtn)

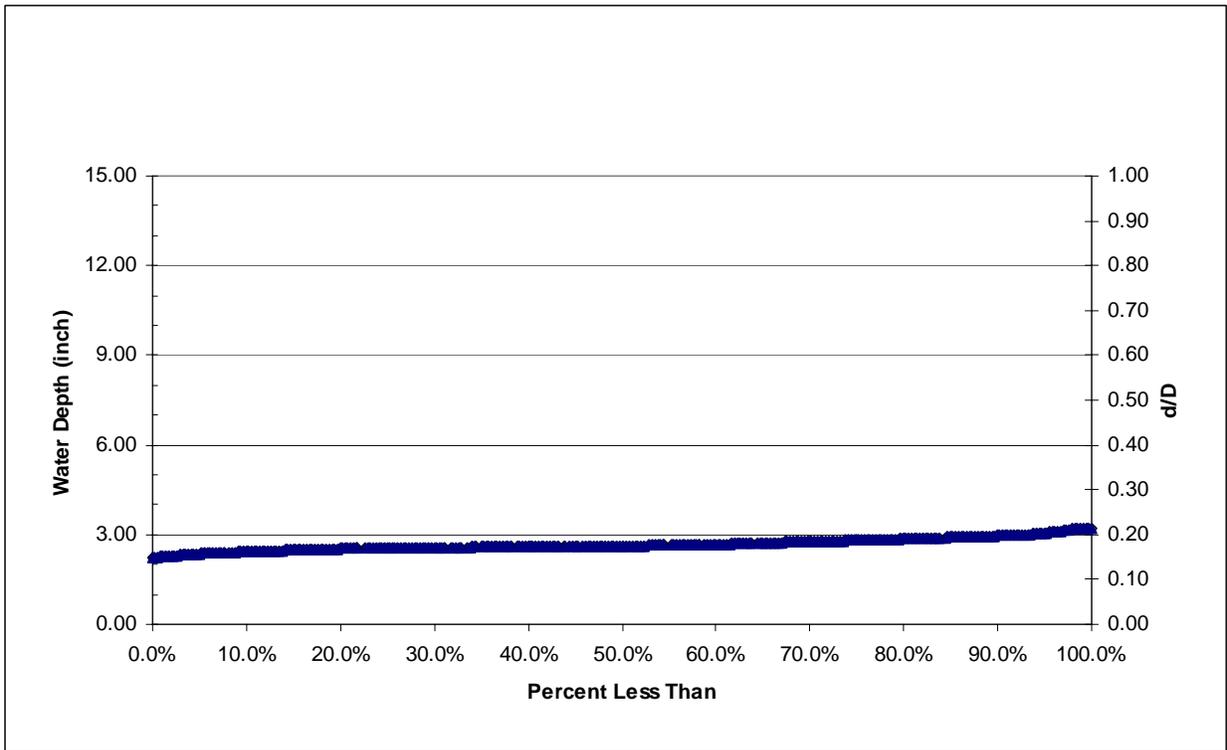


Figure Dove-4 Historical Percentile Values of Water Depth (site: Dove Mtn)

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## Appendix H - Flow and Depth Figures

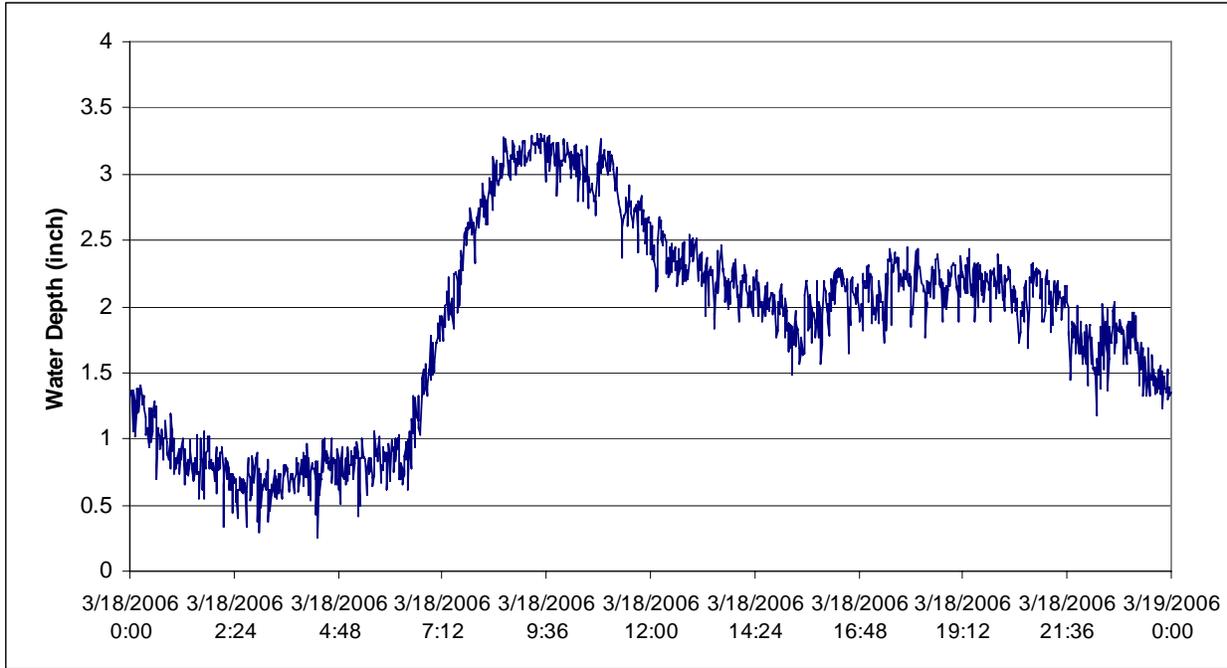


Figure Dove-5 One-minute Data Points with the Maximum Water Depth (site: Dove Mtn)

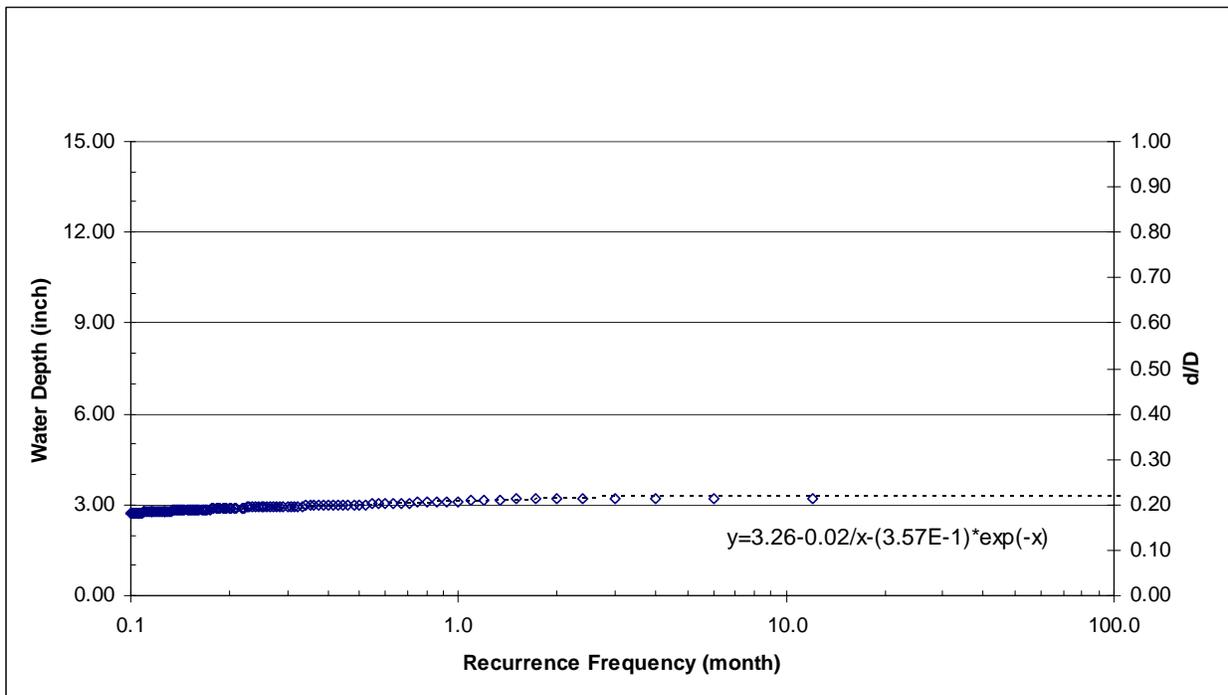


Figure Dove-6 Water Depths at Different Recurrence Intervals (site: Dove Mtn)

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## Appendix H - Flow and Depth Figures

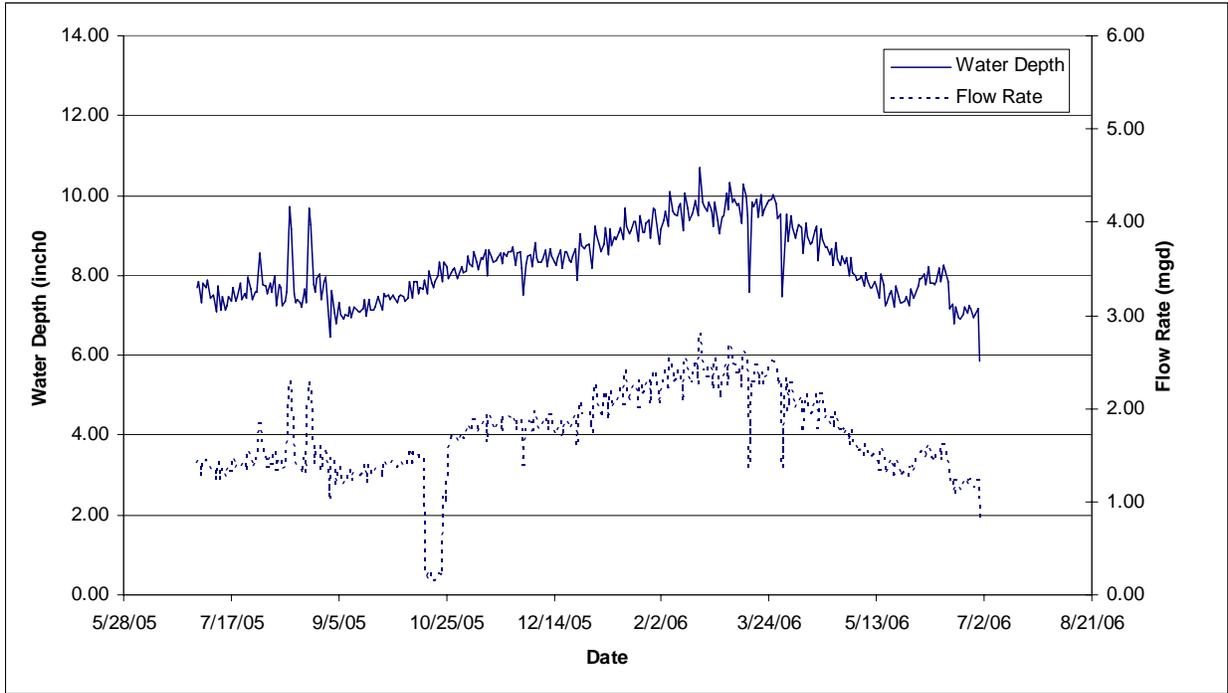


Figure GV-1-1 Daily Peak Water Depths and Flow Rates (site: GV-1)

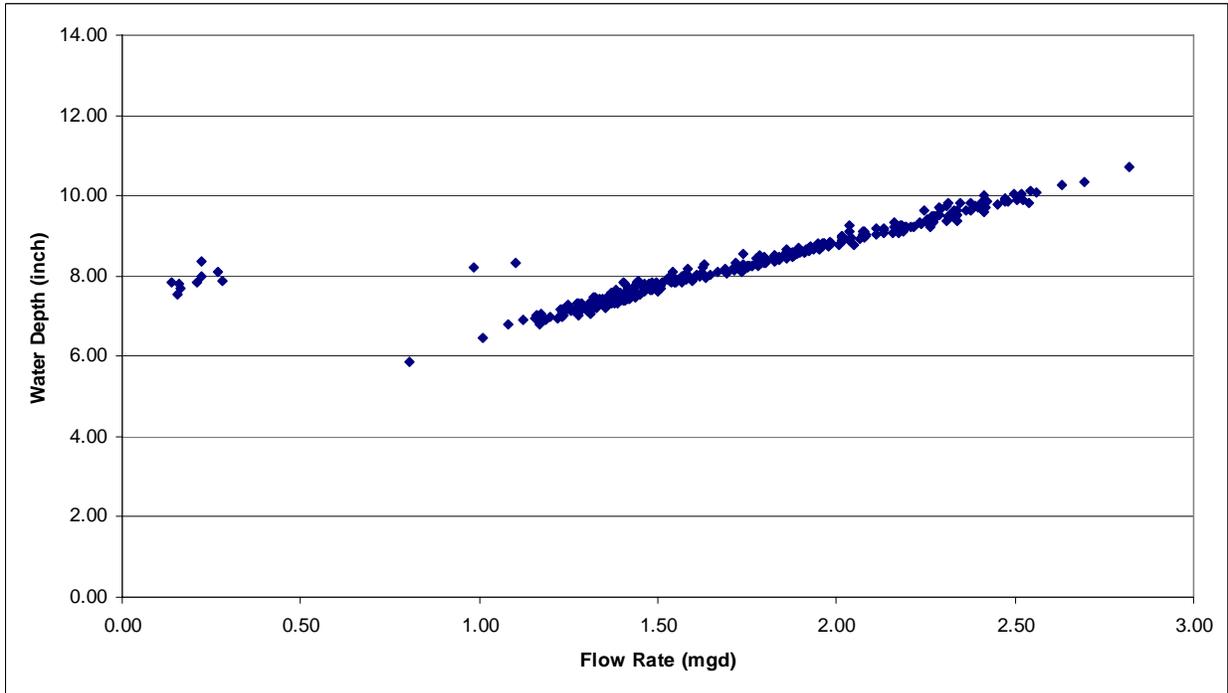


Figure GV-1-2 Correlation between Daily Peak Water Depths and Flow Rates (site: GV-1)

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### Appendix H - Flow and Depth Figures

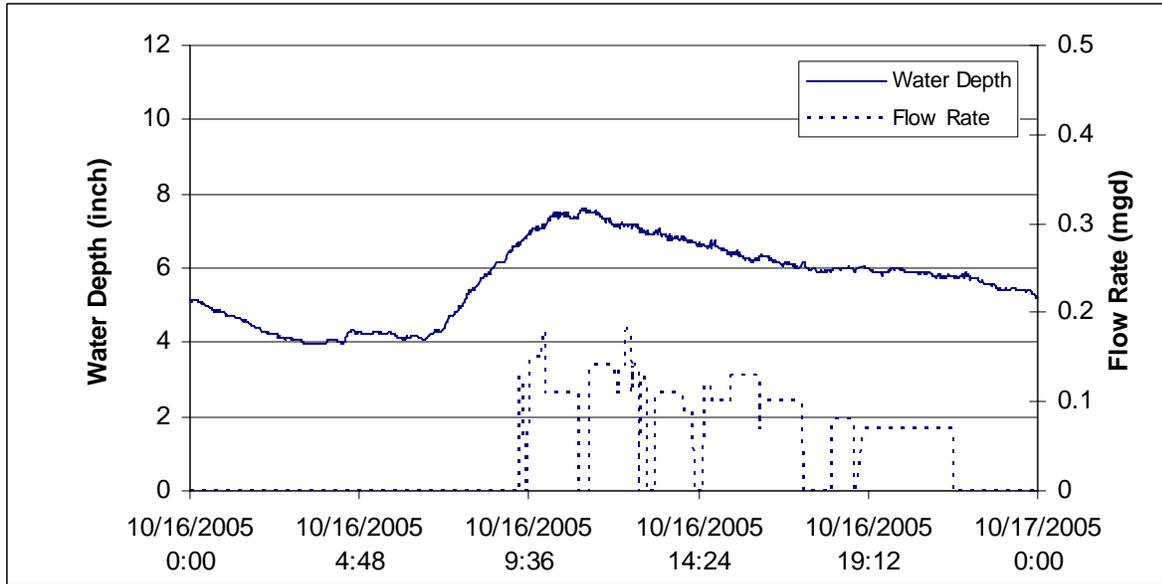


Figure GV-1-3 An example of Questionable 1-minute Data Points (site: GV-1)

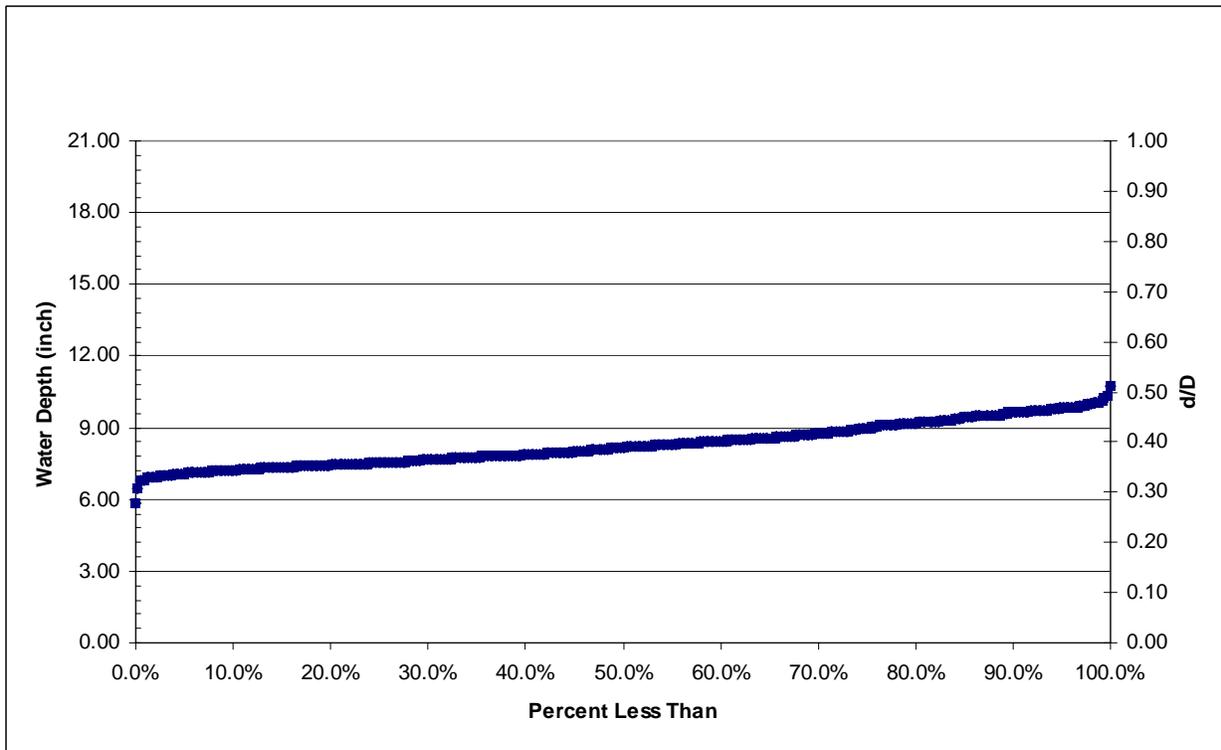


Figure GV-1-4 Historical Percentile Values of Water Depth (site: GV-1)

# Regional Optimization Master Plan Final Report

## Appendix H - Flow and Depth Figures

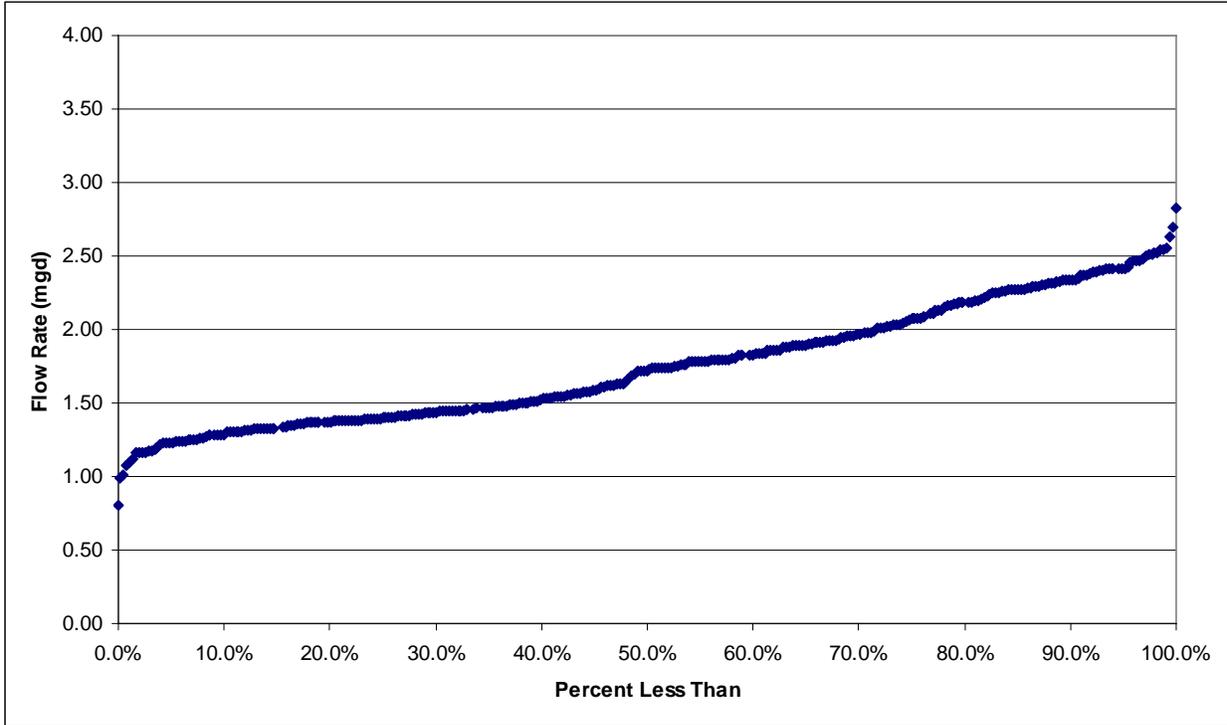


Figure GV-1-5 Historical Percentile Values of Flow Rates (site: GV-1)

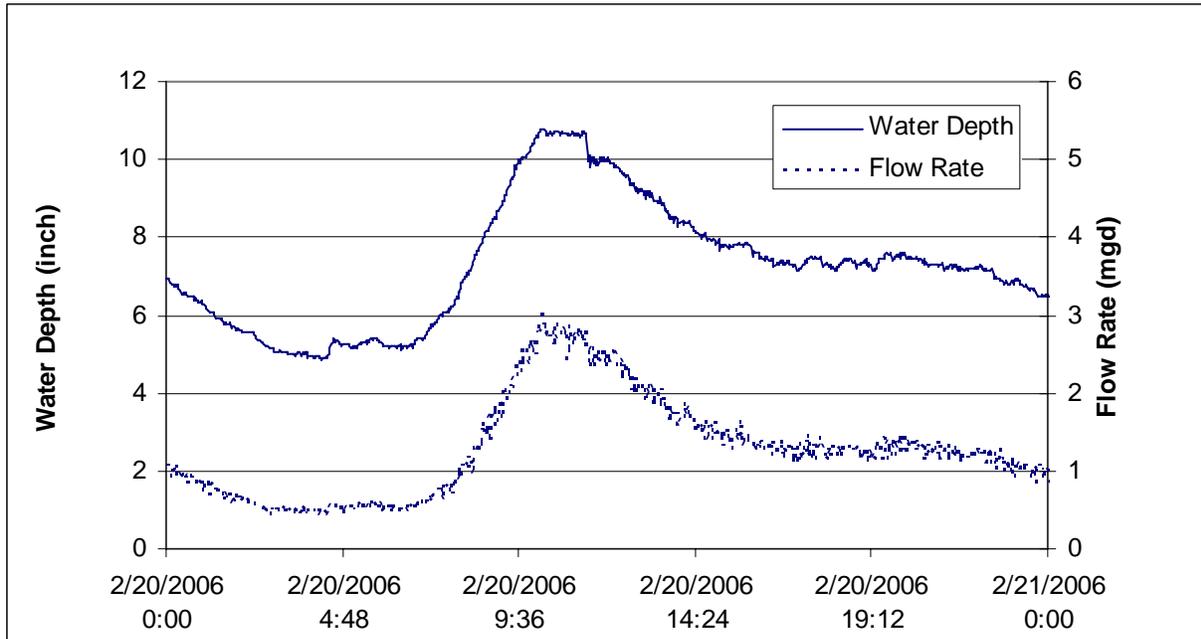


Figure GV-1-6 One-minute Data Points with the Maximum Water Depth and Flow Rate (site: GV-1).

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## Appendix H - Flow and Depth Figures

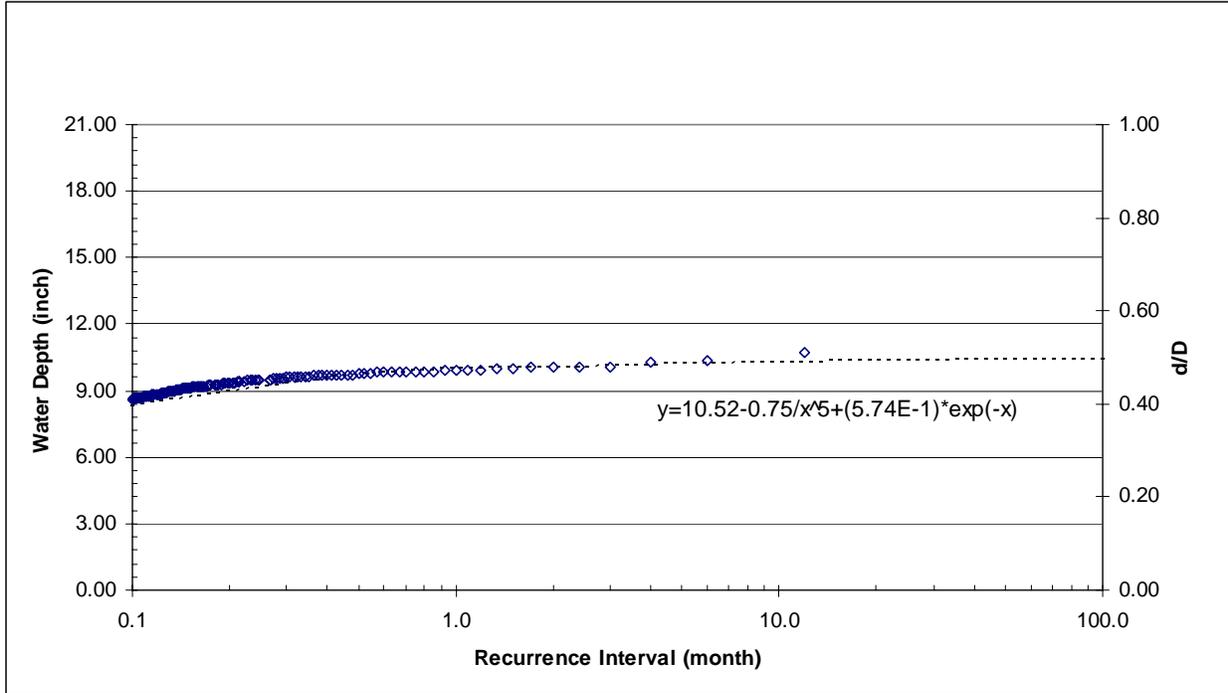


Figure GV-1-7 Water Depths at Different Recurrence Intervals (site: GV-1)

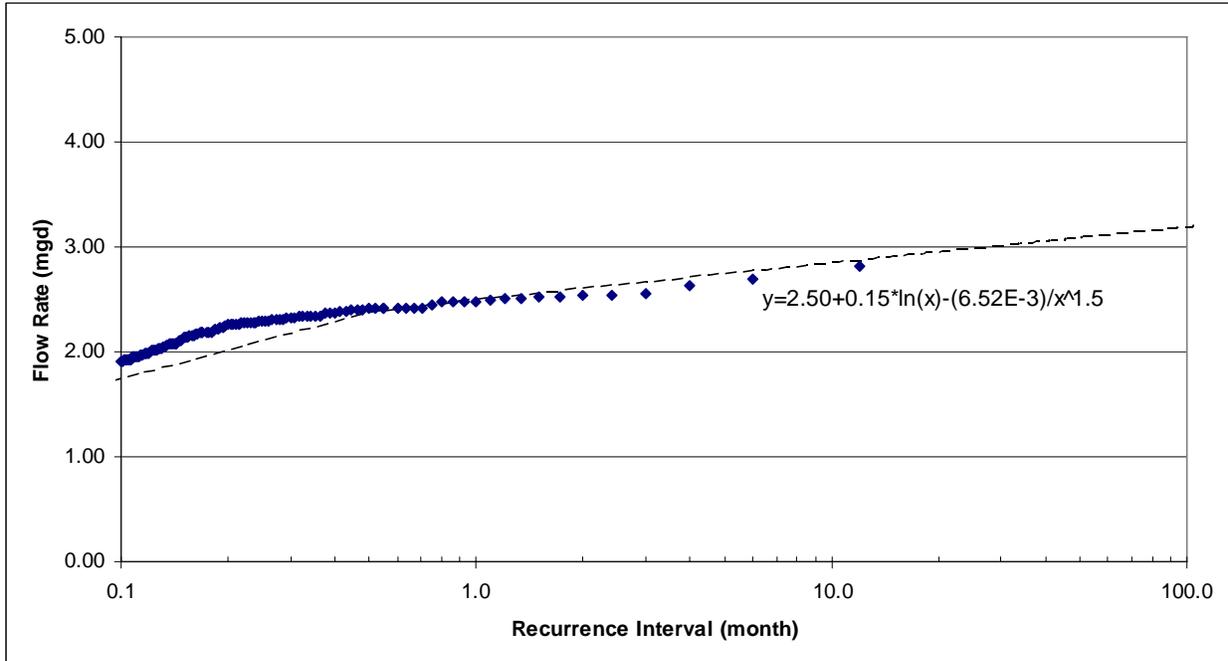


Figure GV-1-8 Flow Rates at Different Recurrence Intervals (site: GV-1)

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## Appendix H - Flow and Depth Figures

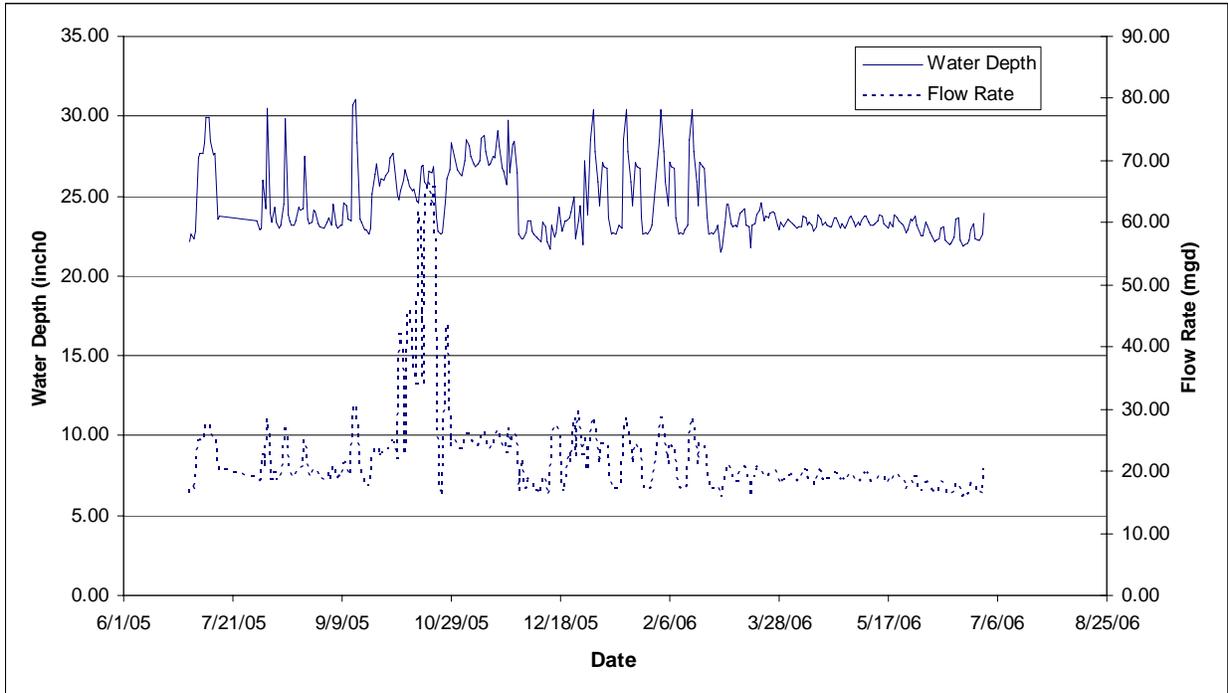


Figure NRI-1-1 Daily Peak Water Depths and Flow Rates (site: NRI-1).

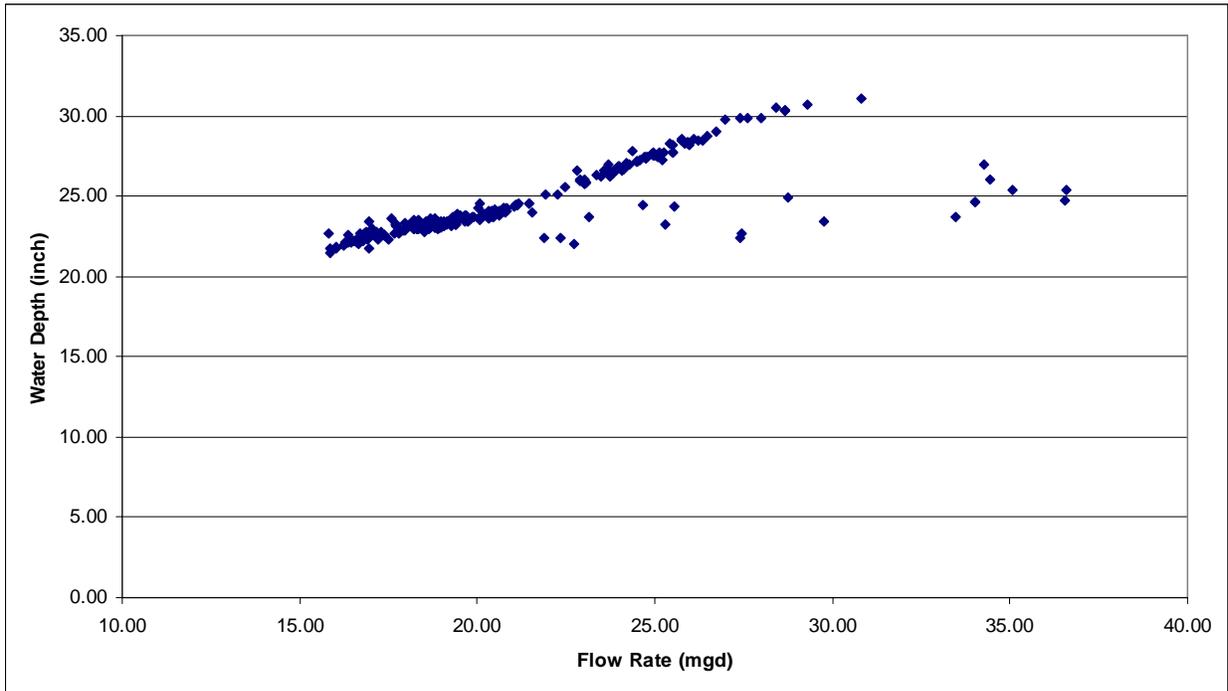


Figure NRI-1-2 Correlation between Water Depths and Flow Rates (site: NRI-1).

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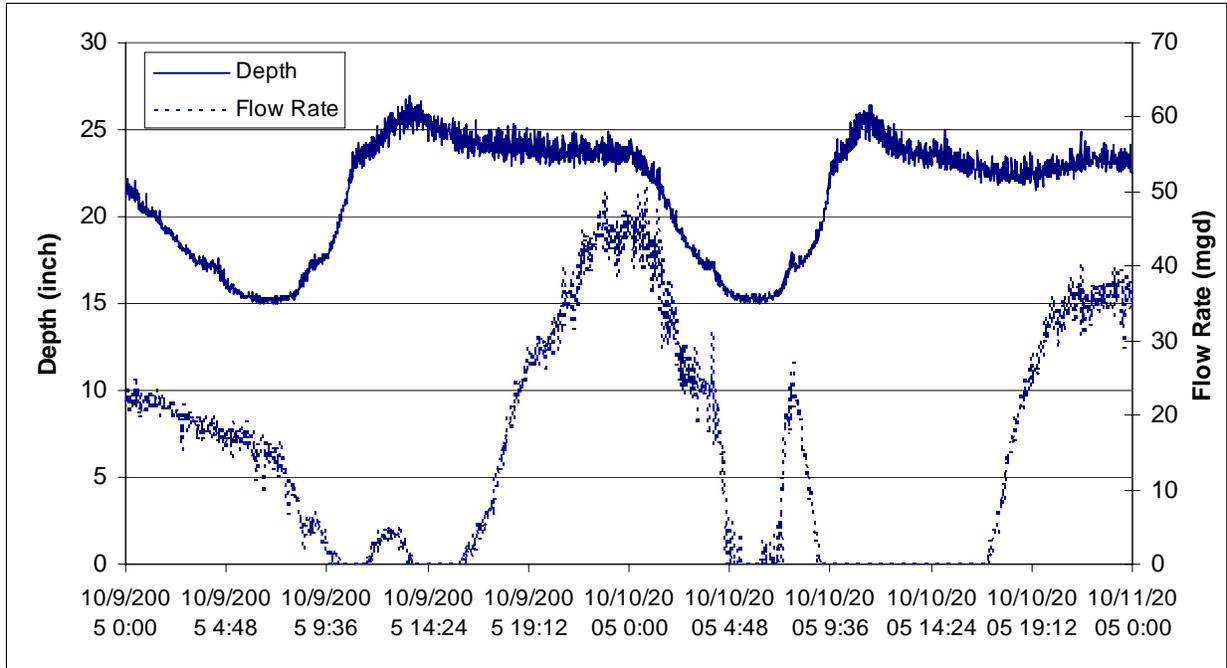


Figure NRI-1-3 An Example of Questionable Data Points (site: NRI-1)

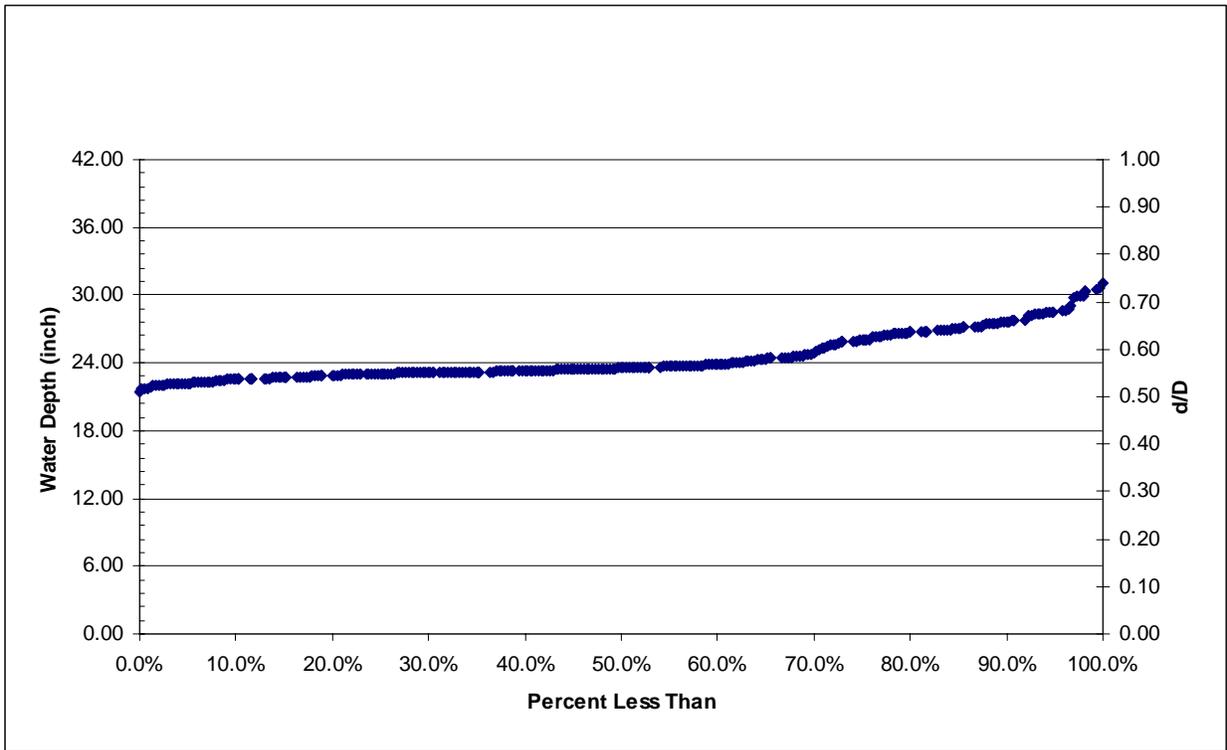


Figure NRI-1-4 Historical Percentile Values of Water Depth (site: NRI-1)

# Regional Optimization Master Plan Final Report

## Appendix H - Flow and Depth Figures

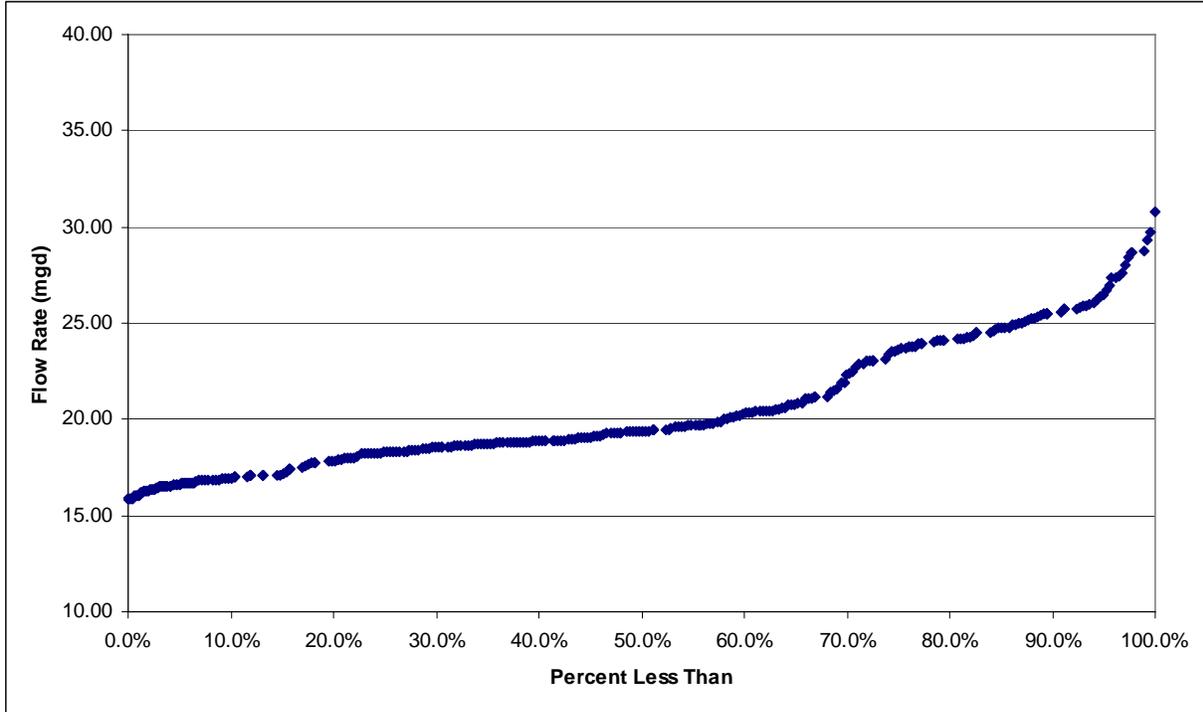


Figure NRI-1-5 Historical Percentile Values of Flow Rate (site: NRI-1)

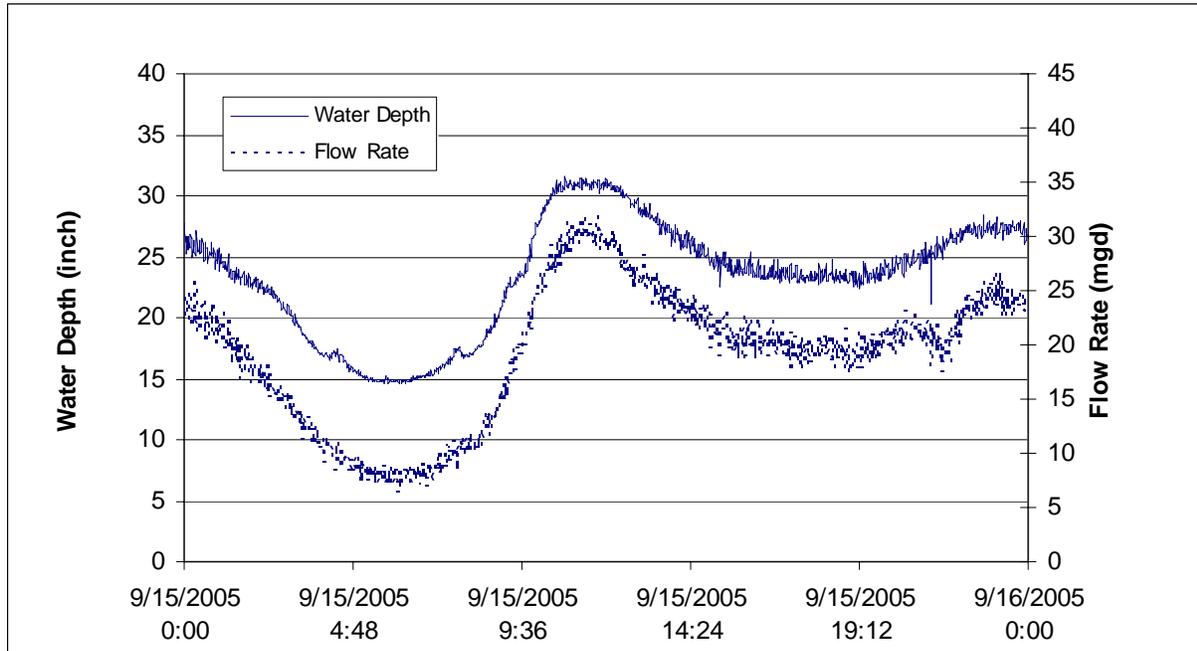


Figure NRI-1-6 One-minute Data Points with the Maximum Flow Rate and Water Depth (site: NRI-1).

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## Appendix H - Flow and Depth Figures

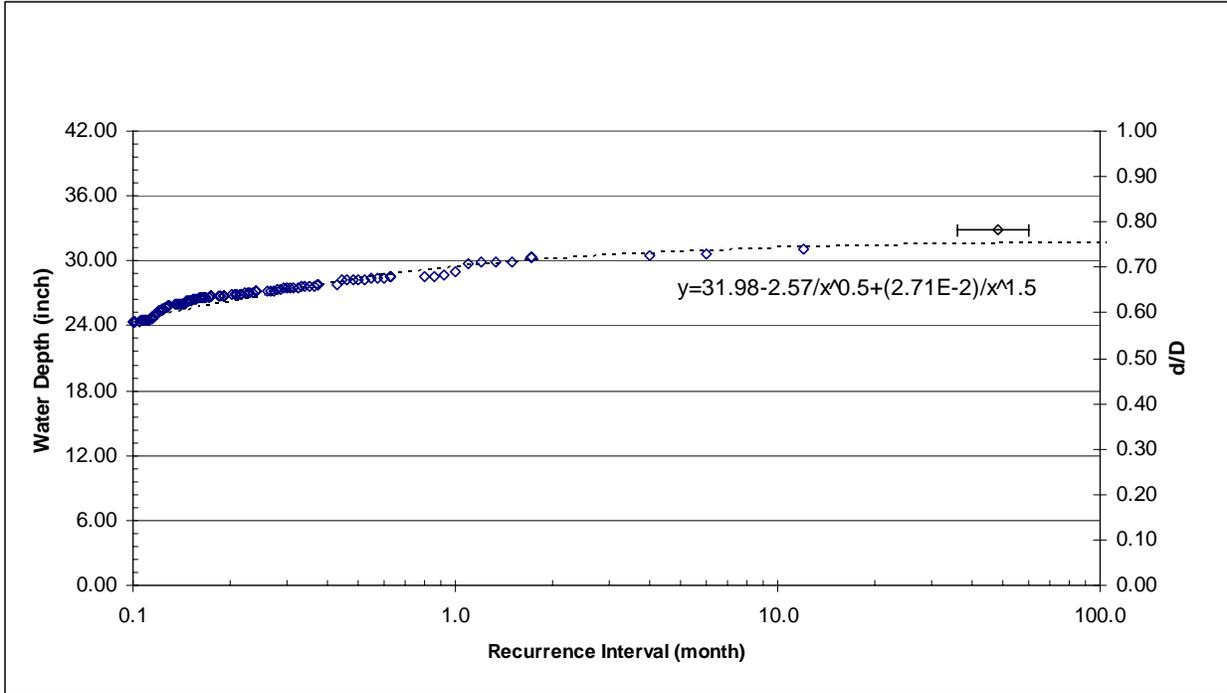


Figure NRI-1-7 Water Depths at Different Recurrence Intervals (site: NRI-1).

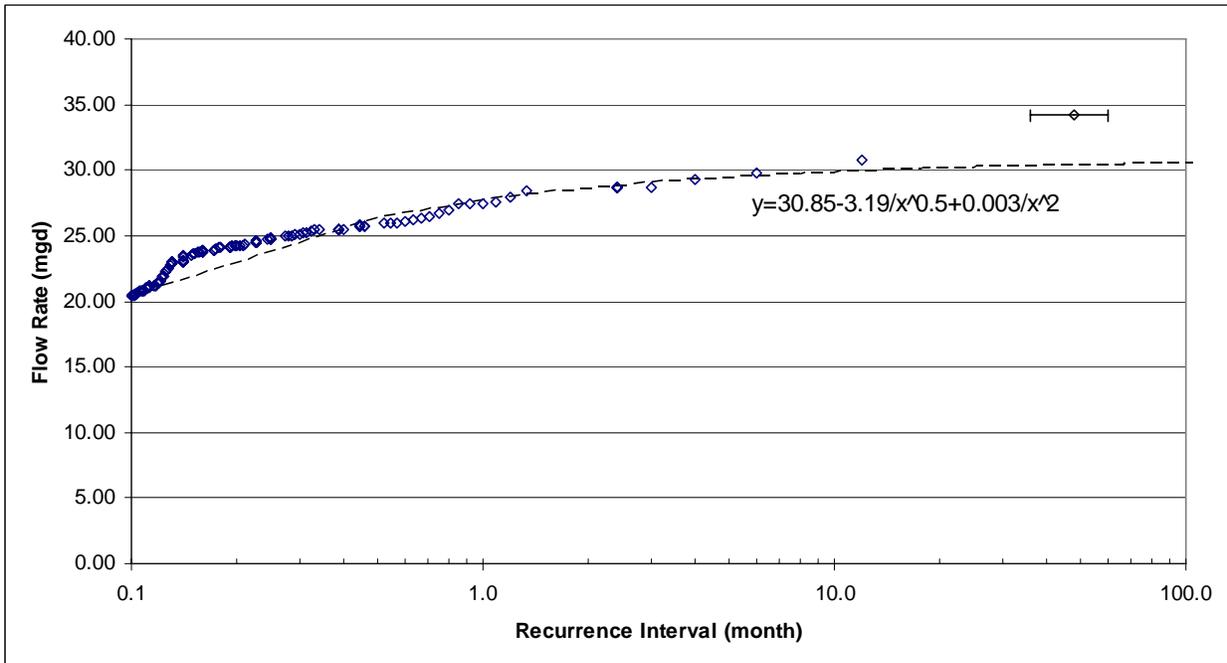


Figure NRI-1-8 Flow Rates at Different Recurrence Intervals (site: NRI-1).

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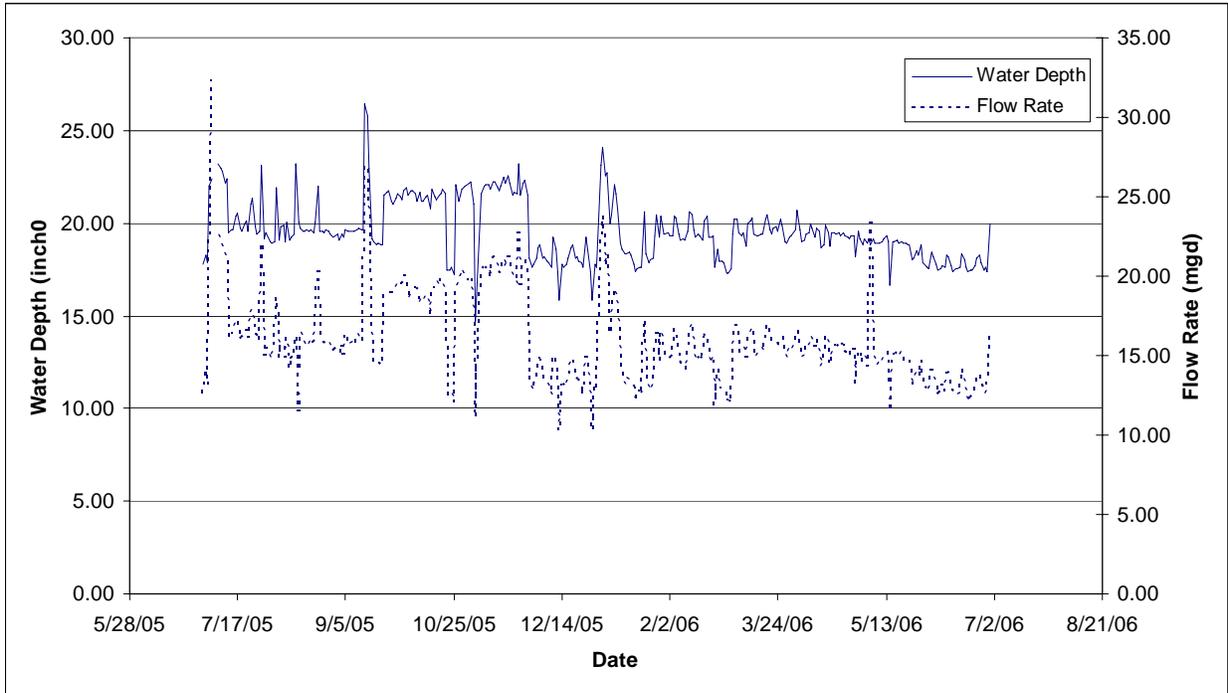


Figure NRI-2-1 Daily Peak Water Depths and Flow Rates (site: NRI-2)

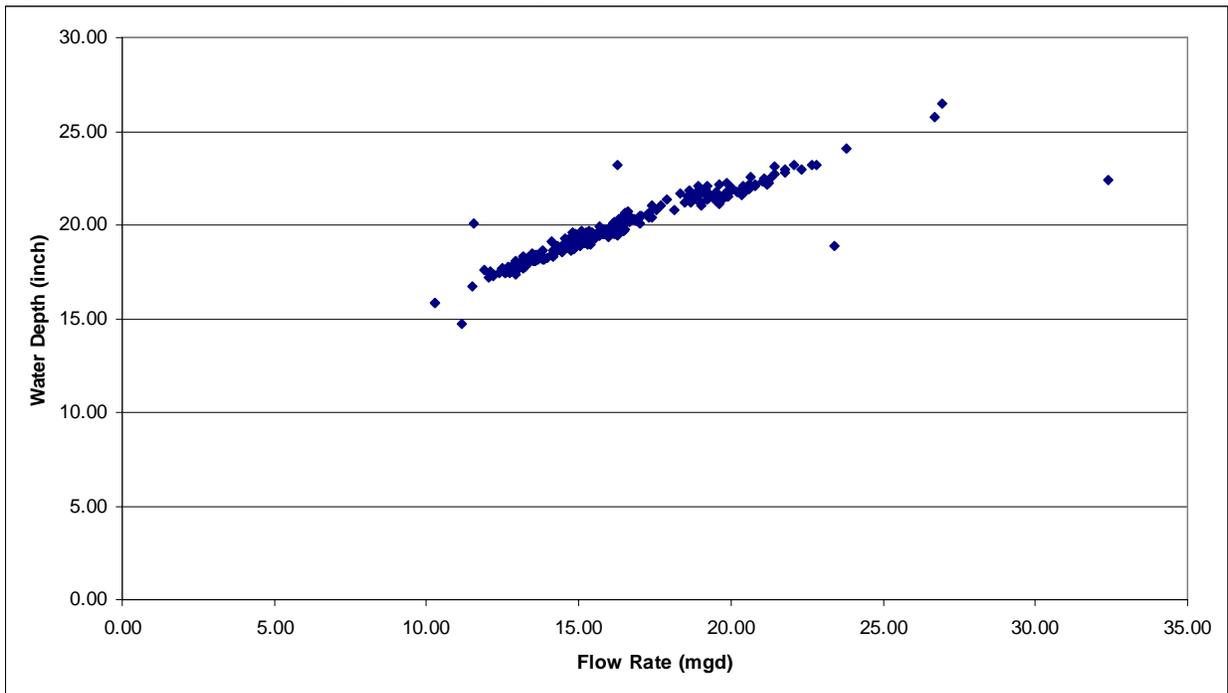


Figure NRI-2-2 Correlation between Daily Peak Water Depths and Flow Rates (site: NRI-2)

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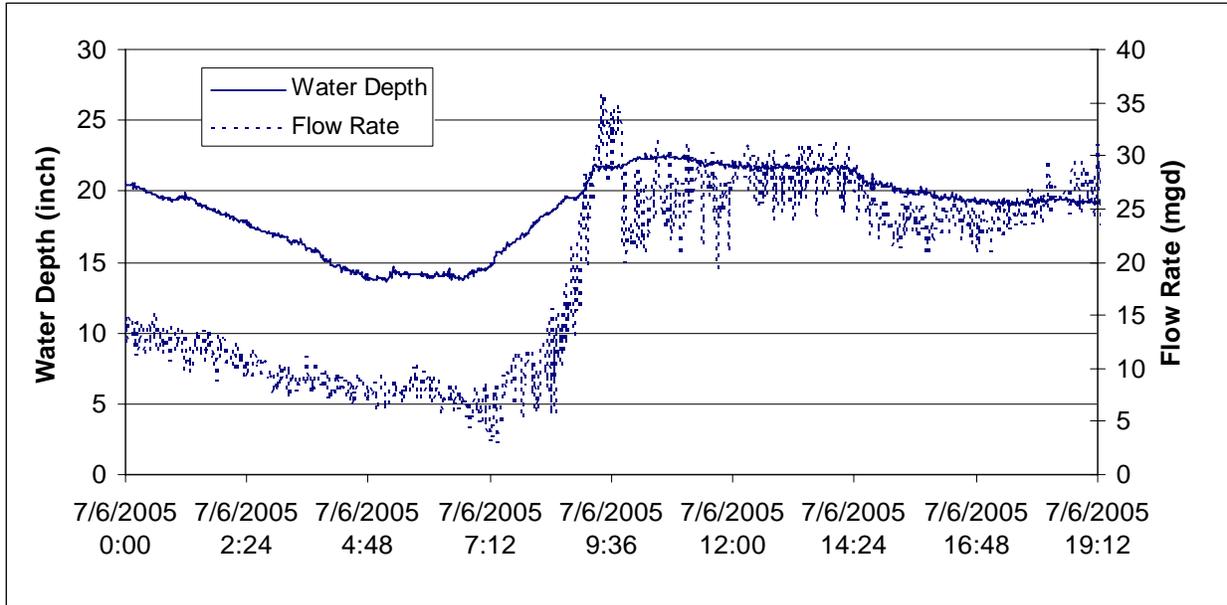


Figure NRI-2-3 One-minute Data Points with the Maximum Flow Rate (site: NRI-2)

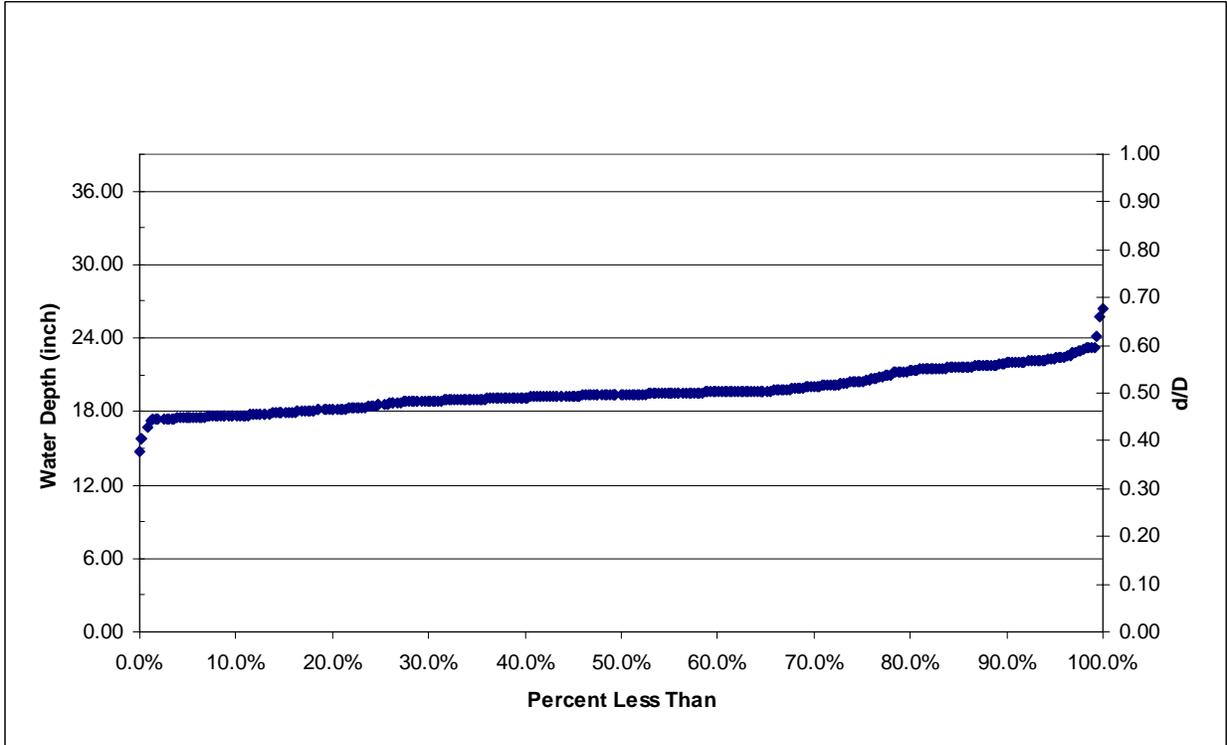


Figure NRI-2-4 Historical Percentile Values of Water Depth (site: NRI-2)

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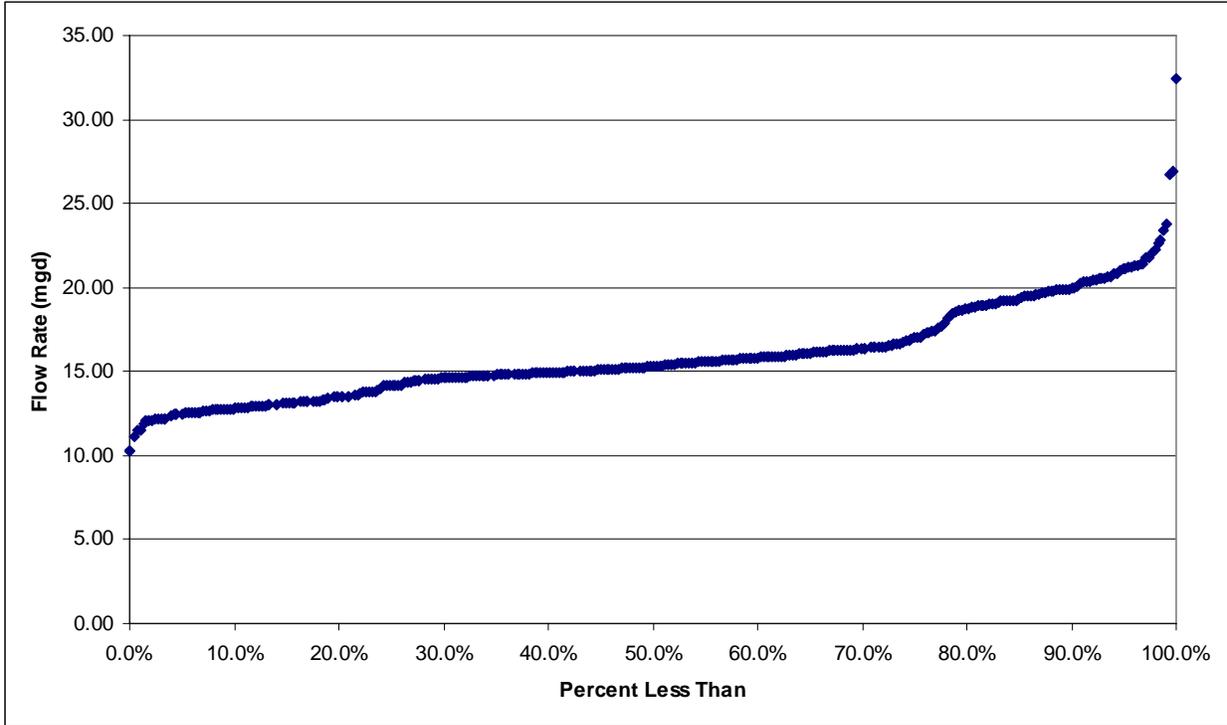


Figure NRI-2-5 Historical Percentile Values of Flow Rate (site: NRI-2)

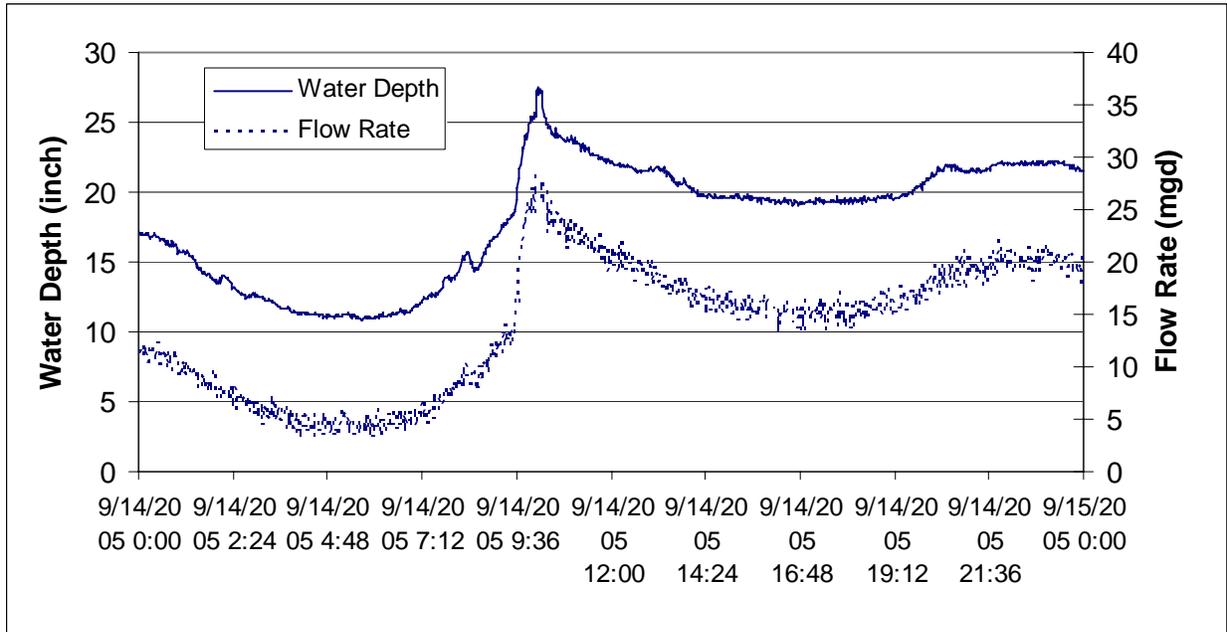


Figure NRI-2=6 One-minute Data Points with the Maximum Water Depth (NRI-2)

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## Appendix H - Flow and Depth Figures

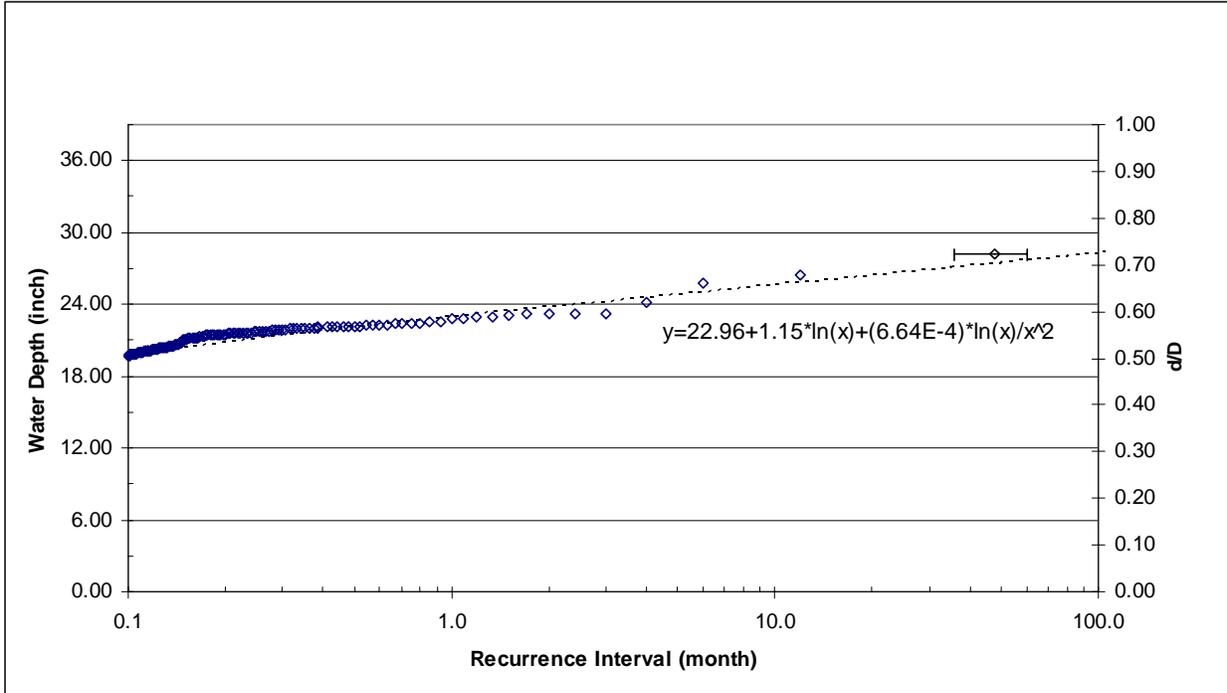


Figure NRI-2-7 Water Depth at Different Recurrence Intervals (site: NRI-2)

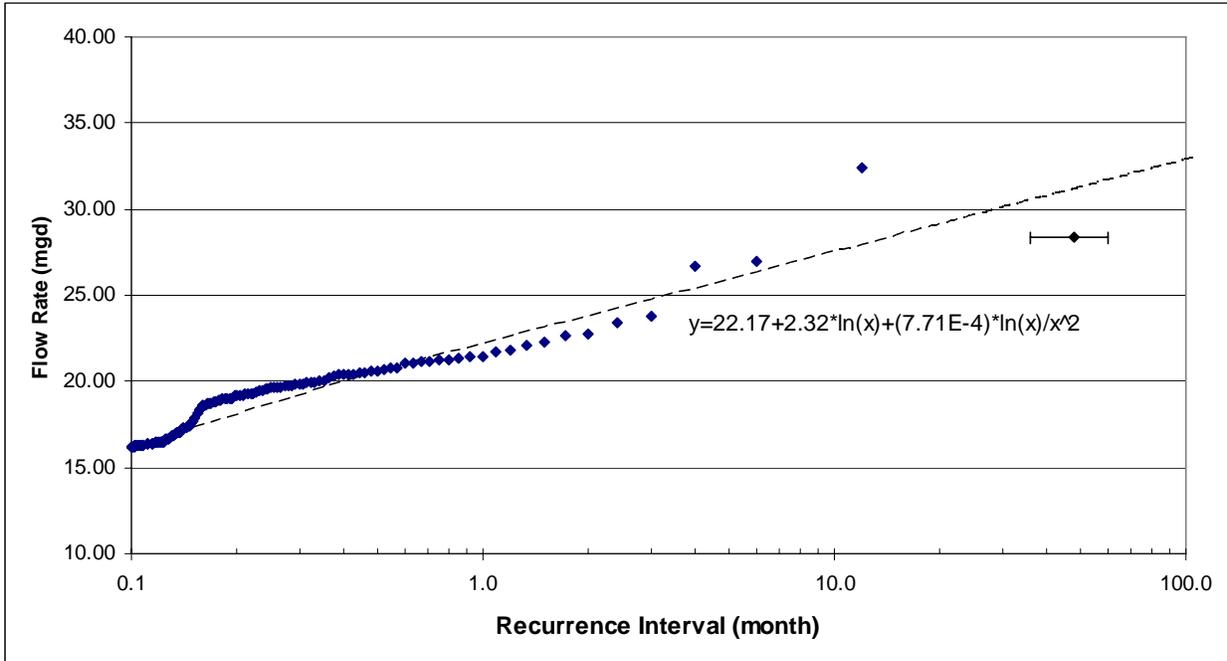


Figure NRI-2-8 Flow Rates at Different Recurrence Intervals (site: NRI-2)

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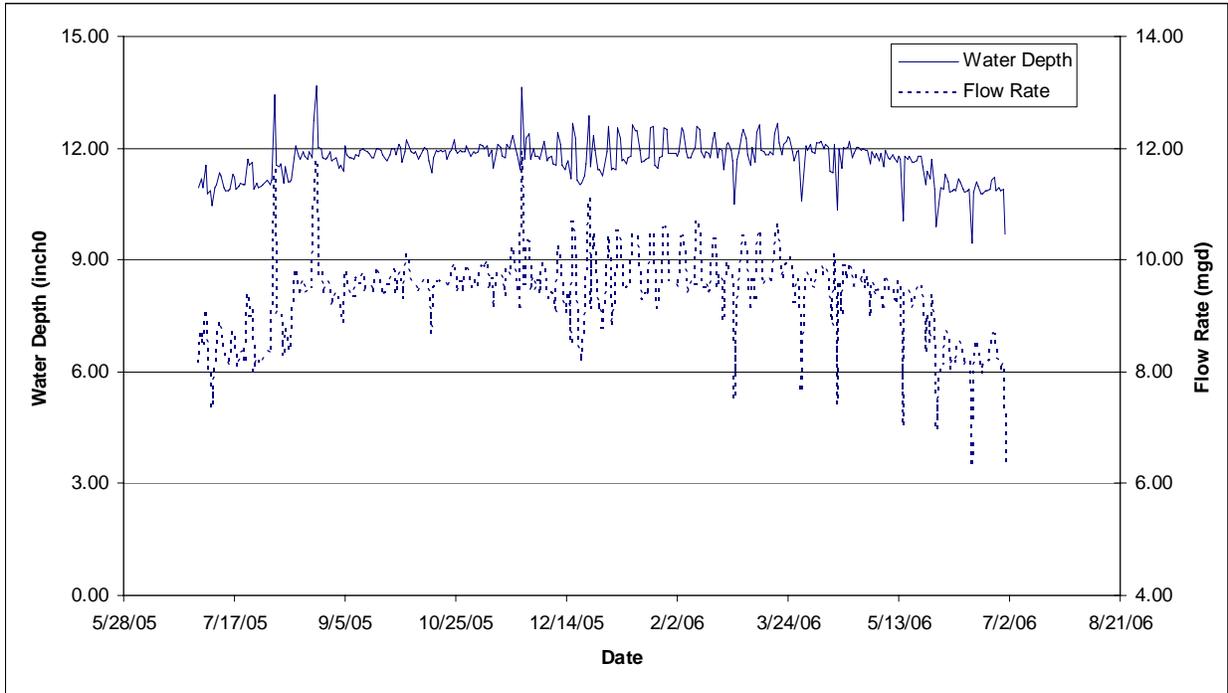


Figure NRI-3-1 Daily Peak Water Depths and Flow Rates (site: NRI-3)

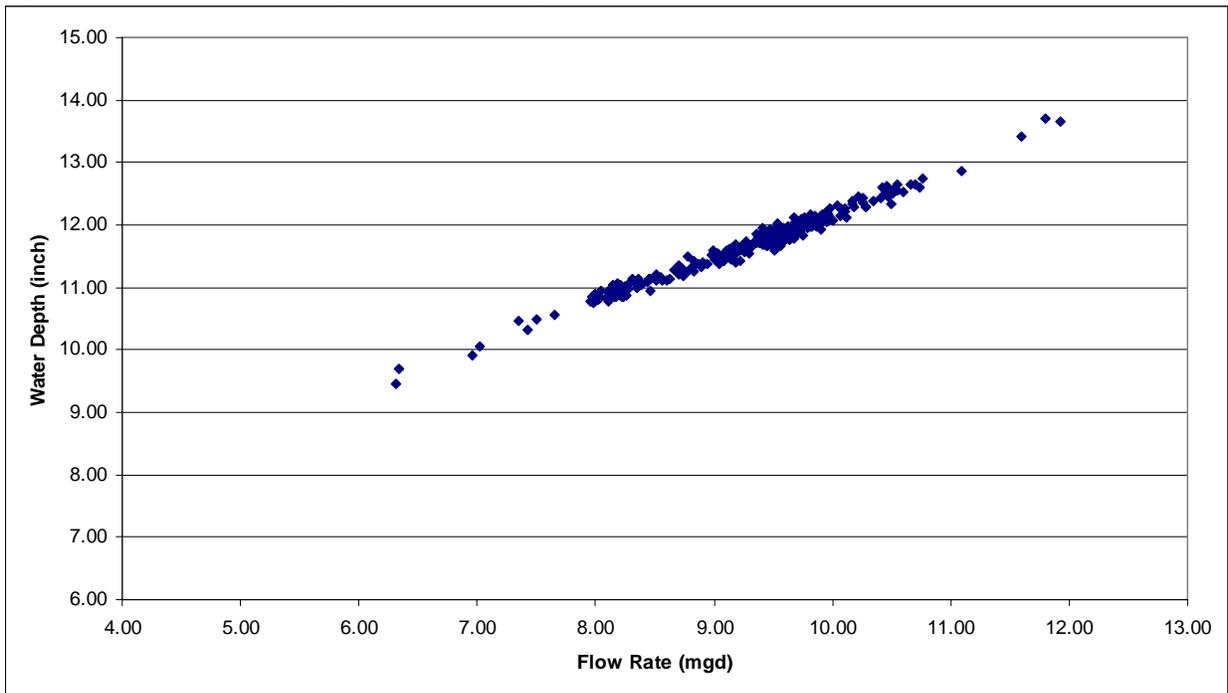


Figure NRI-3-2 Correlation between Daily Peak Water Depths and Flow Rates (site: NRI-3)

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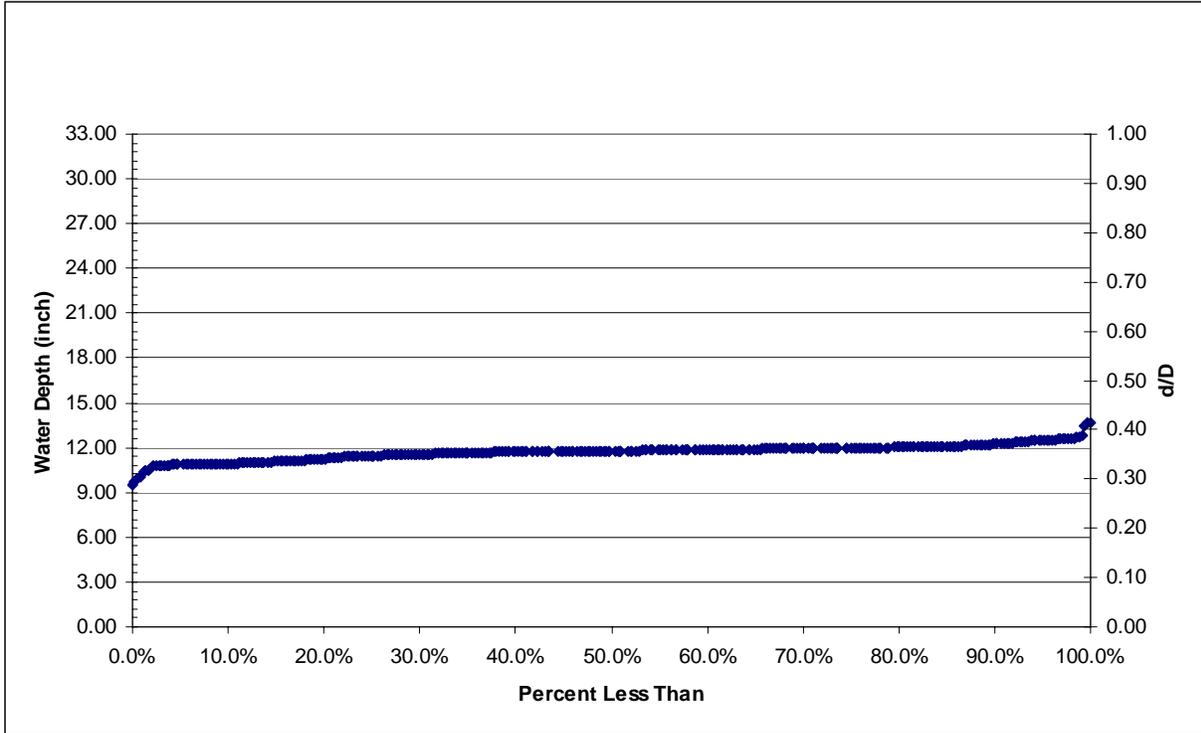


Figure NRI-3-3 Historical Percentile Values of Water Depth (site: NRI-3)

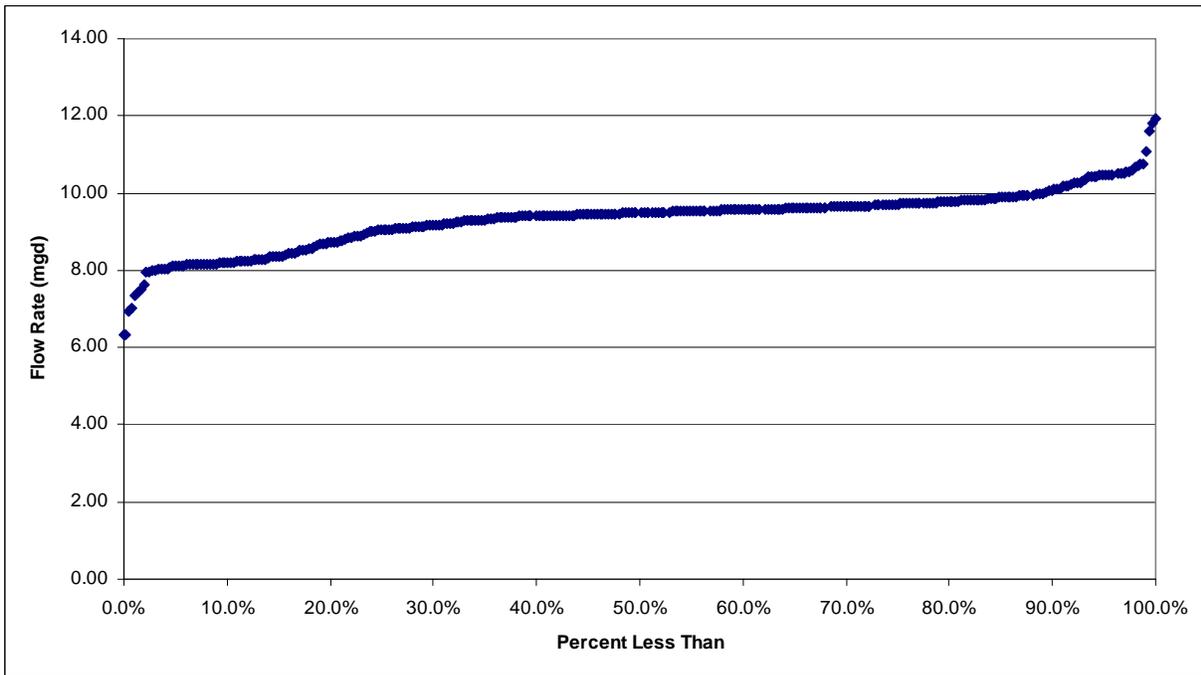


Figure NRI-3-4 Historical Percentile Values of flow Rate (site: NRI-3)

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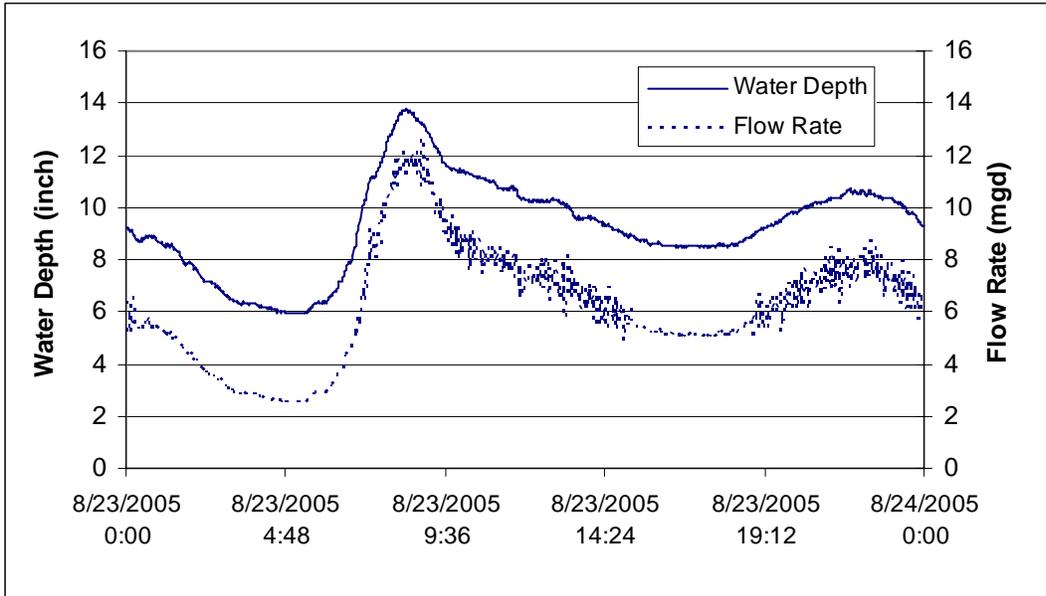


Figure NRI-3-5 One-minute Data Points with the Maximum Water Depth and Second Maximum Flow Rate (site: NRI-3)

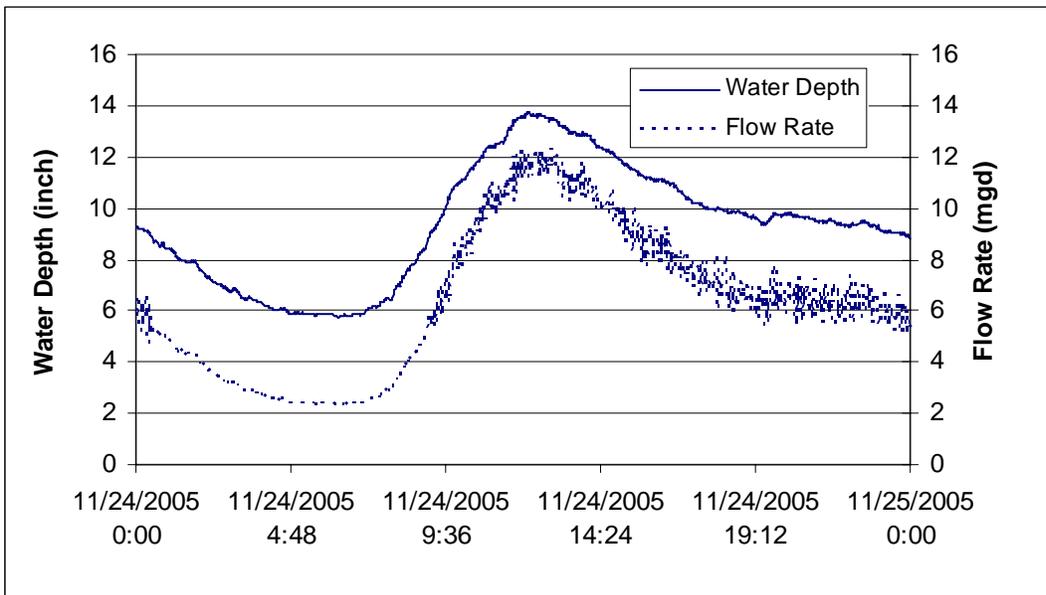


Figure NRI-3-6 One-minute Data Points with the Second Maximum Water Depth and Maximum Flow Rate (site: NRI-3)

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## Appendix H - Flow and Depth Figures

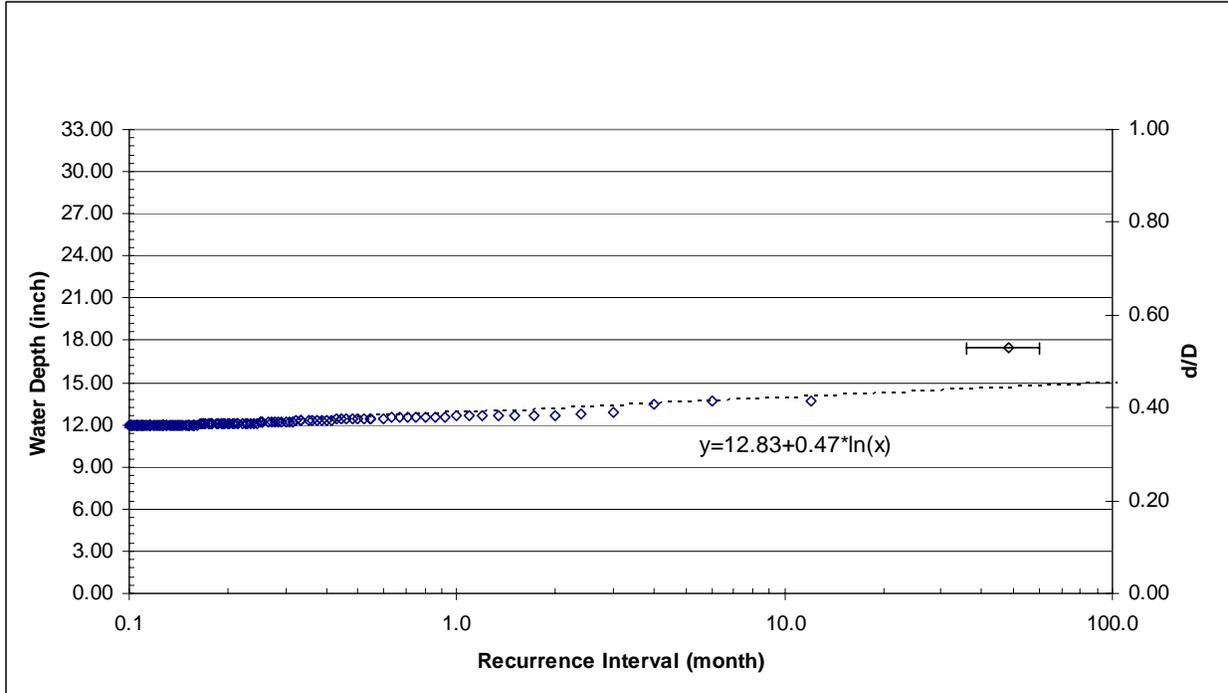


Figure NRI-3-7 Water Depths at Different Recurrence Intervals (site: NRI-3)

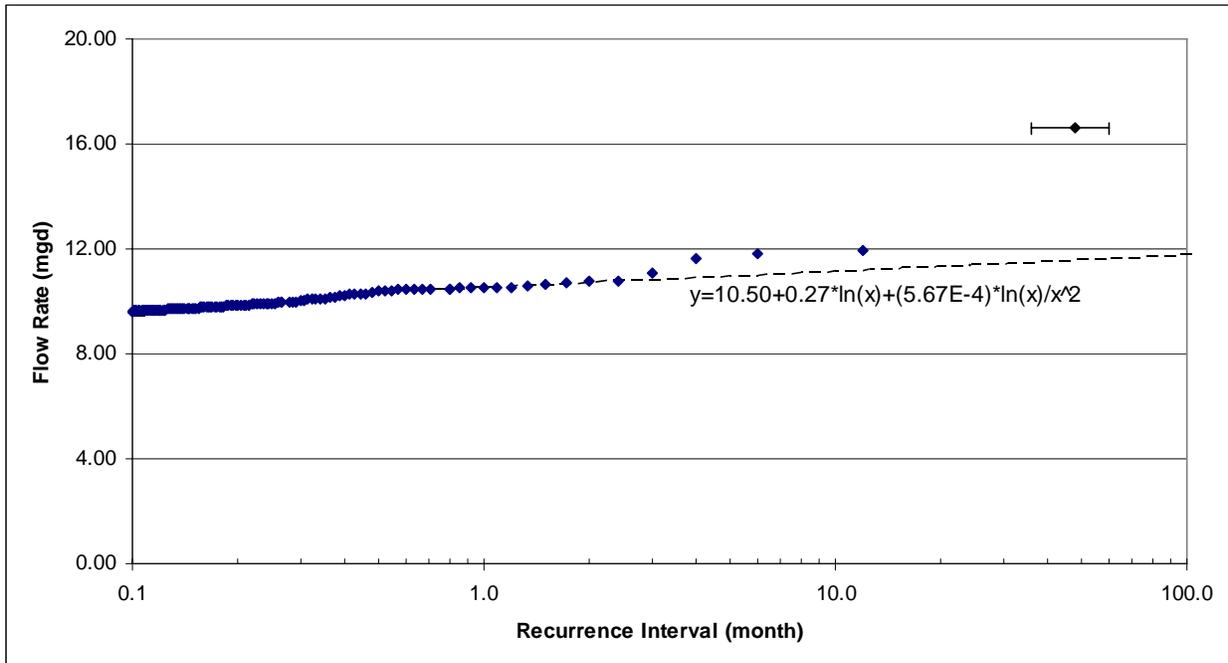


Figure NRI-3-8 Flow Rates at Different Recurrence Intervals (site: NRI-3)

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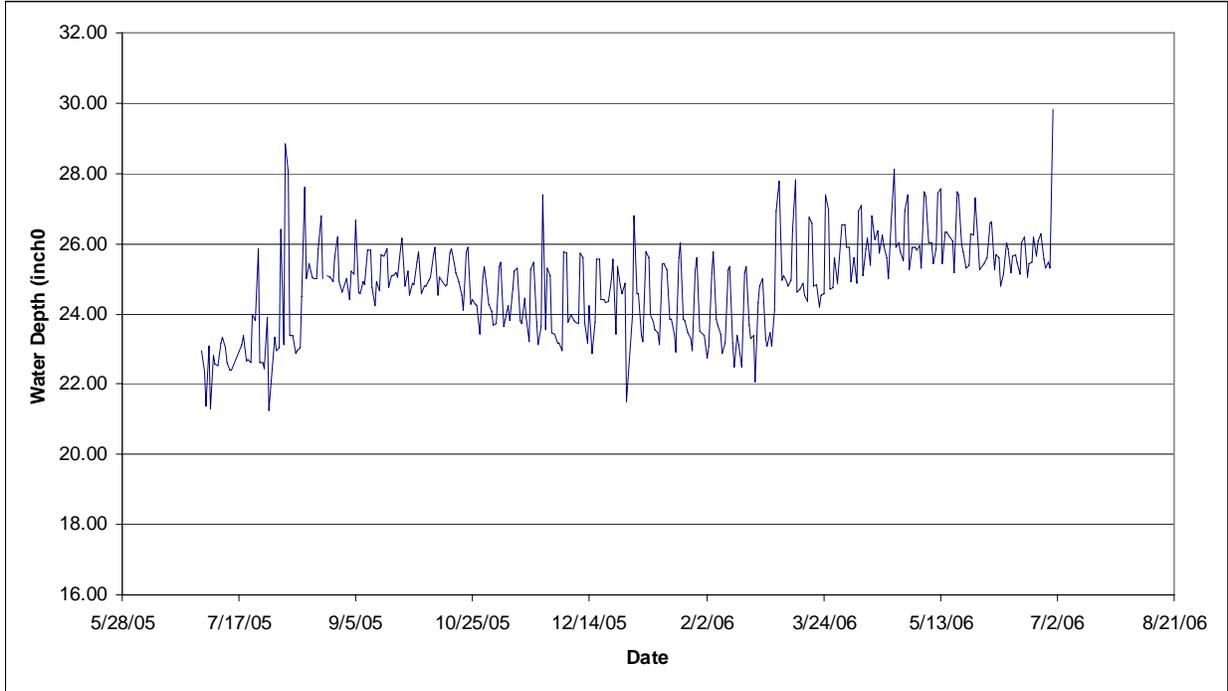


Figure NWO-1-1 Daily Peak Water Depths (site: NWO-1).

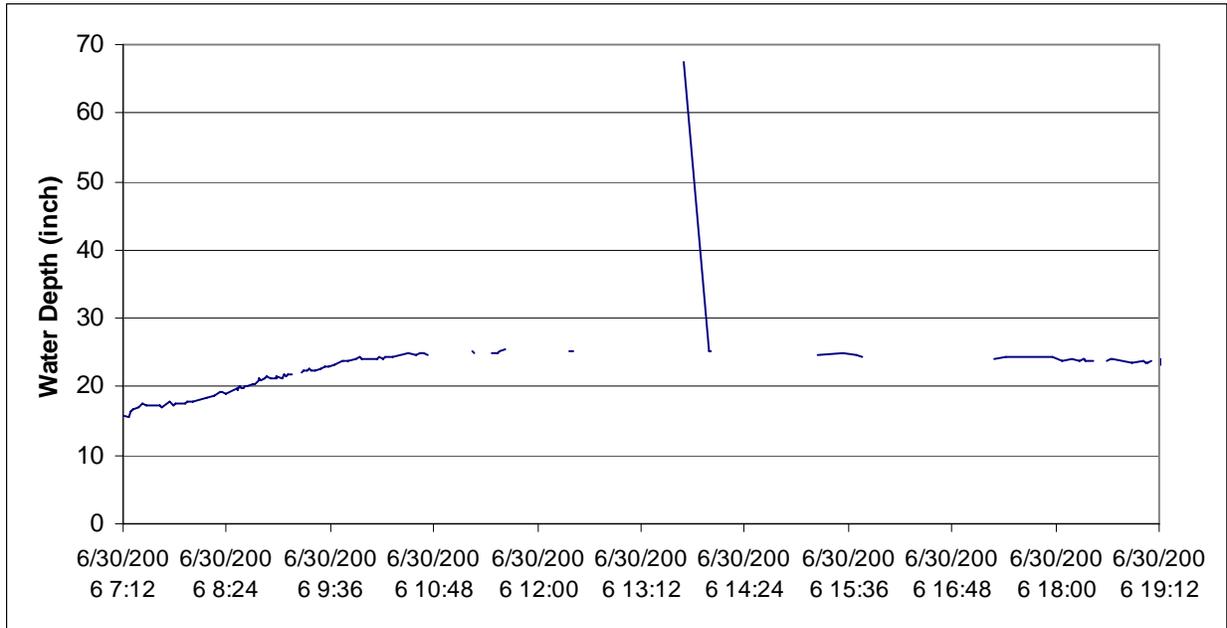


Figure NWO-1-2 Questionable 1-minute Data Points (site: NOW-1)

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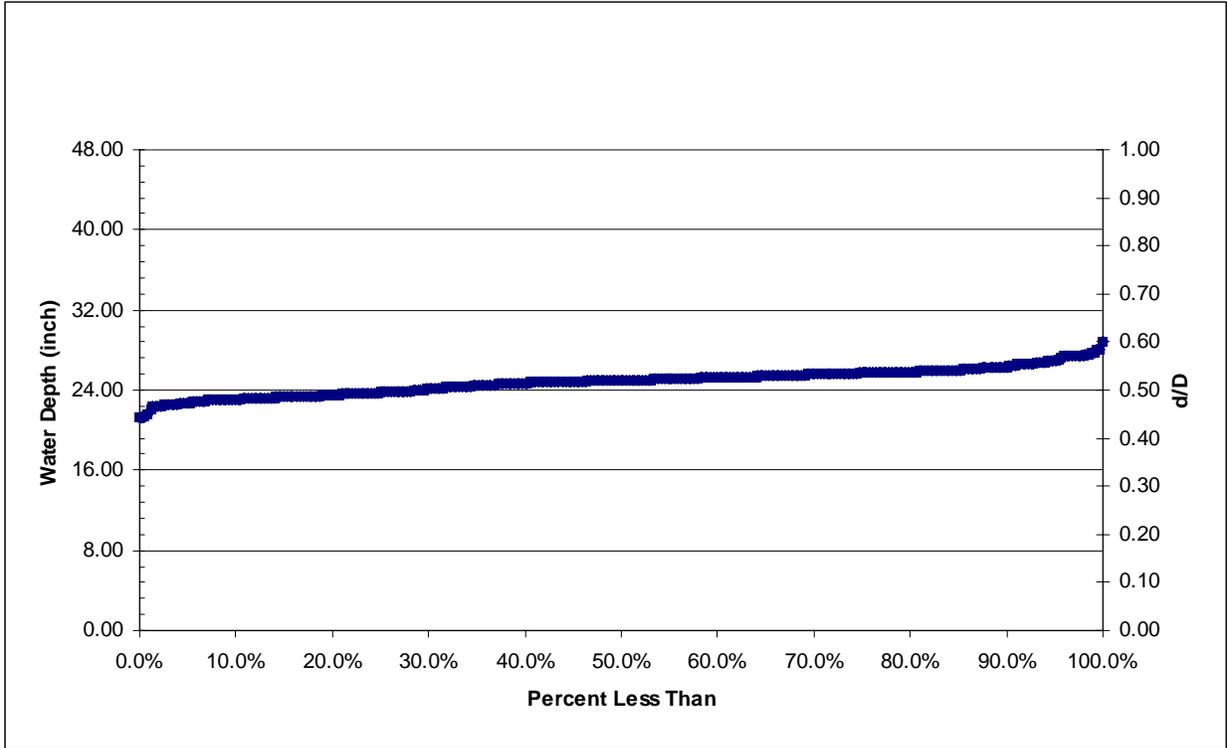


Figure NWO-1-3 Historical Percentile Values of Water Depth (site: NOW-1).

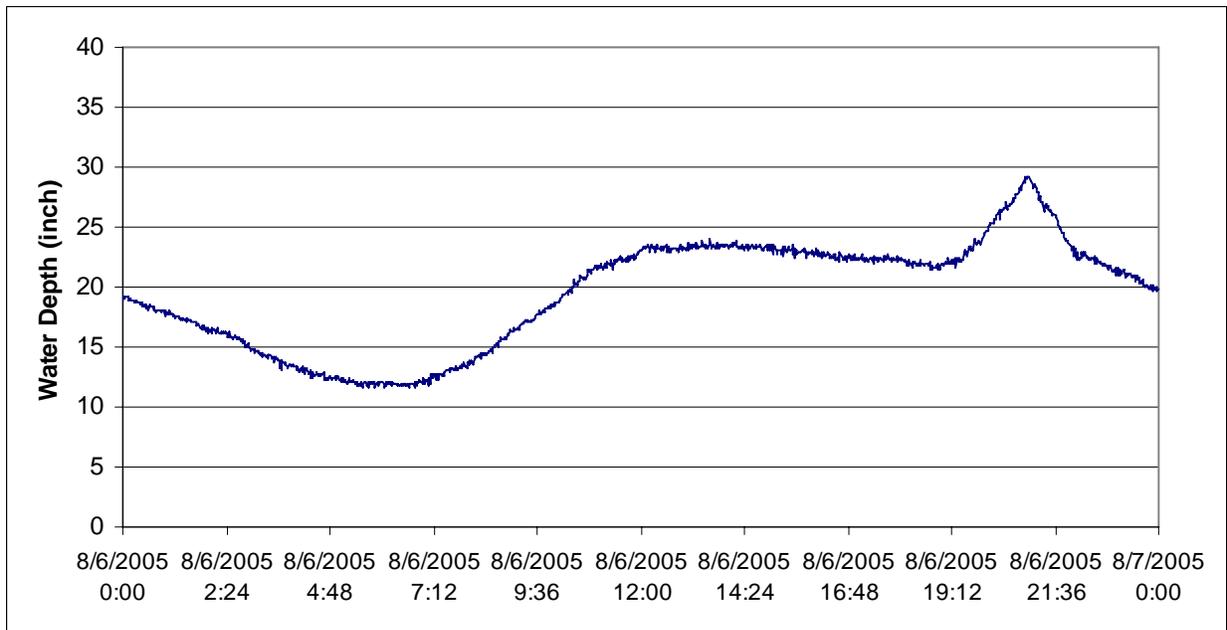


Figure NWO-1-4 One-minute Data Points with the Maximum Water Depth (site: NOW-1).

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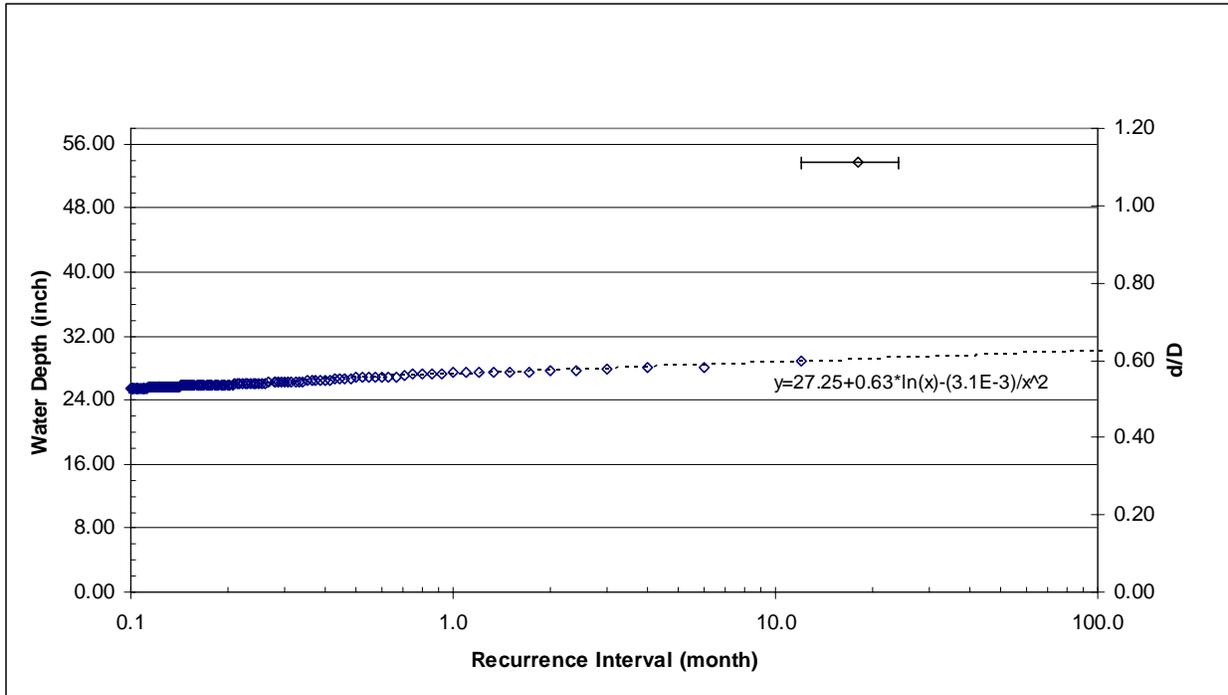


Figure NWO-1-5 Water Depths at Different Recurrence Intervals (site: NOW-1).

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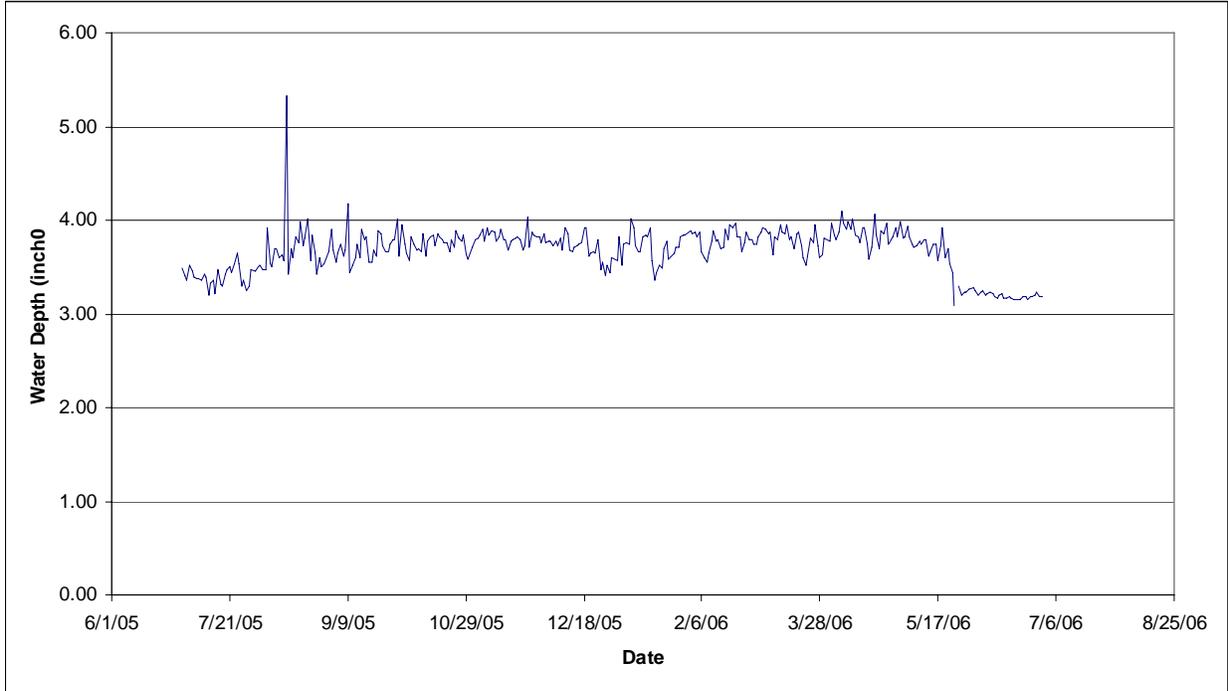


Figure PONT-1-1 Daily Peak Water Depths (site: PONT-1).

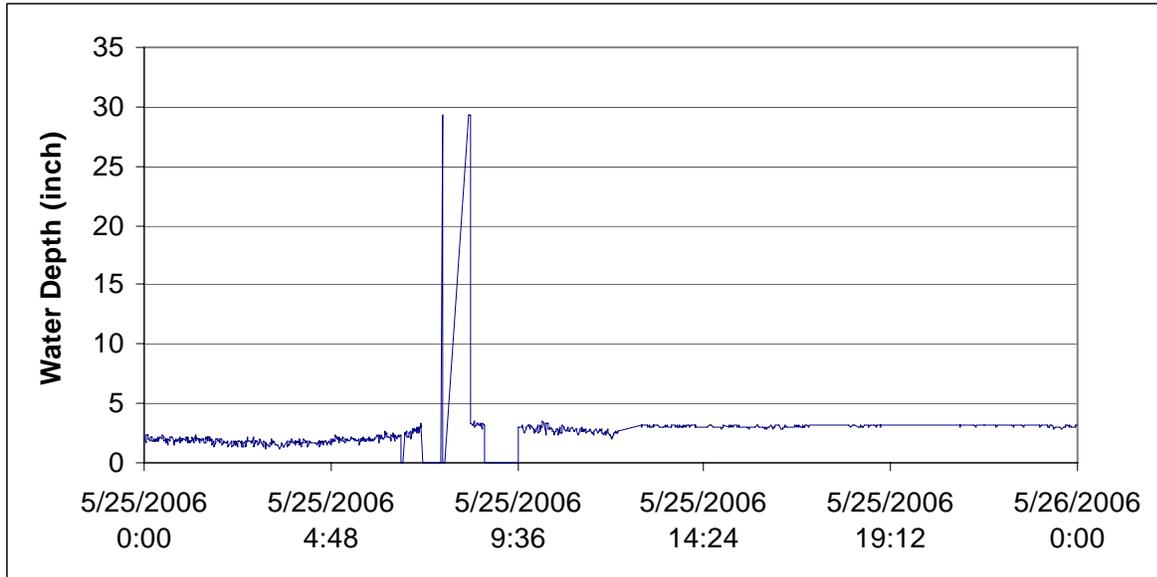


Figure PONT-1-2 Questionable 1-minute Data Points (already excluded in Figure PONT-1-1) (site: PONT-1).

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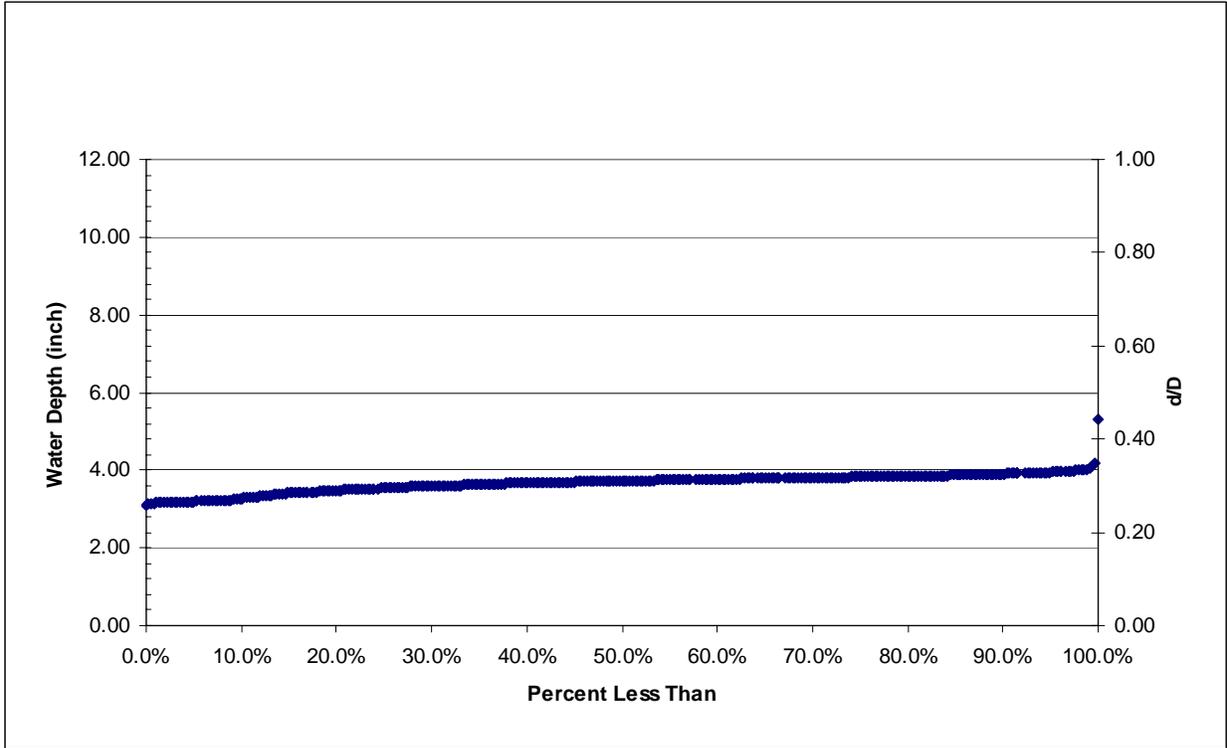


Figure PONT-1-3 Historical Percentile Values of Water Depth (site: PONT-1).

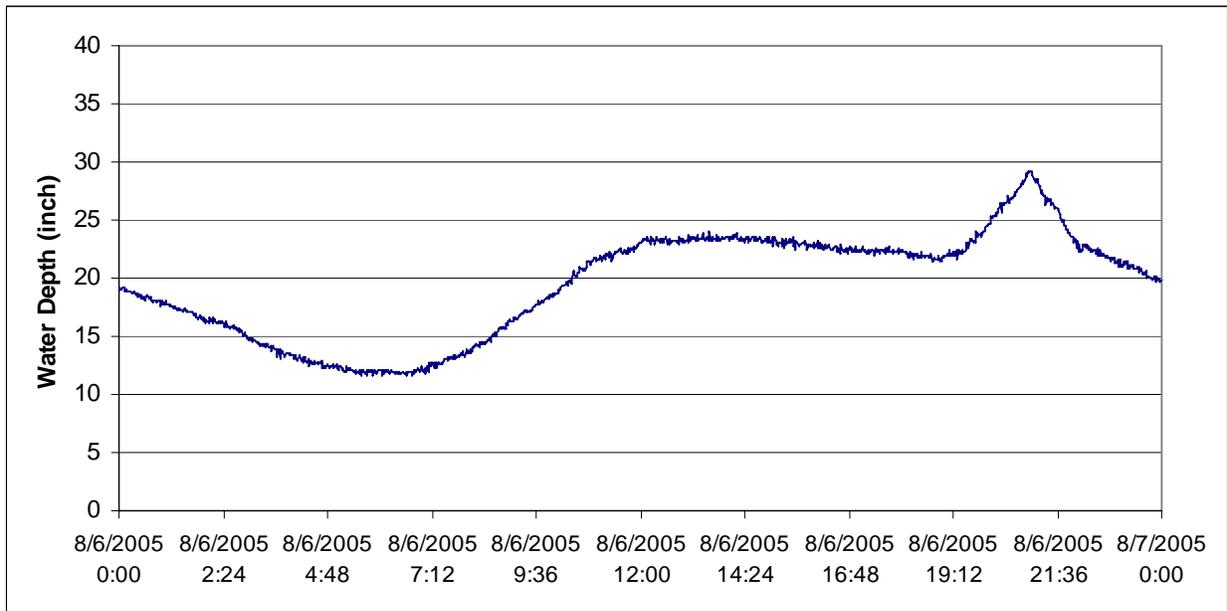


Figure PONT-1-4 One-minute Data Points with the Maximum Water Depth (site: PONT-1).

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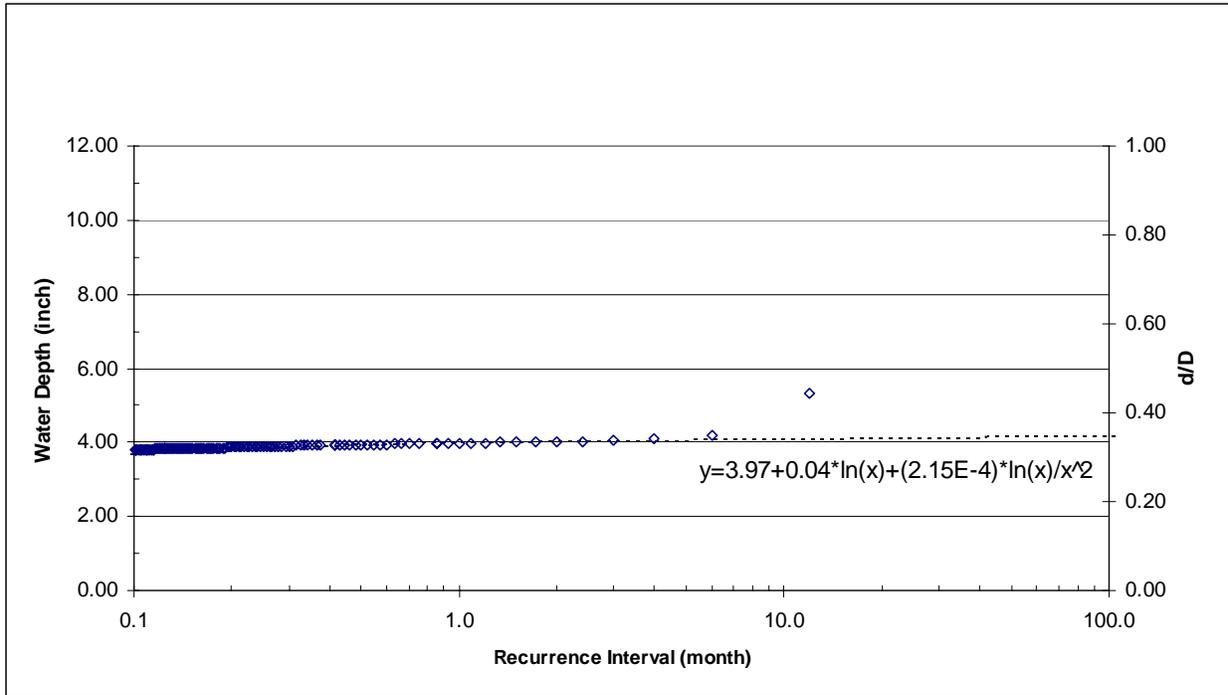


Figure PONT-1-5 Water Depths at Different Recurrence Intervals (site: PONT-1).

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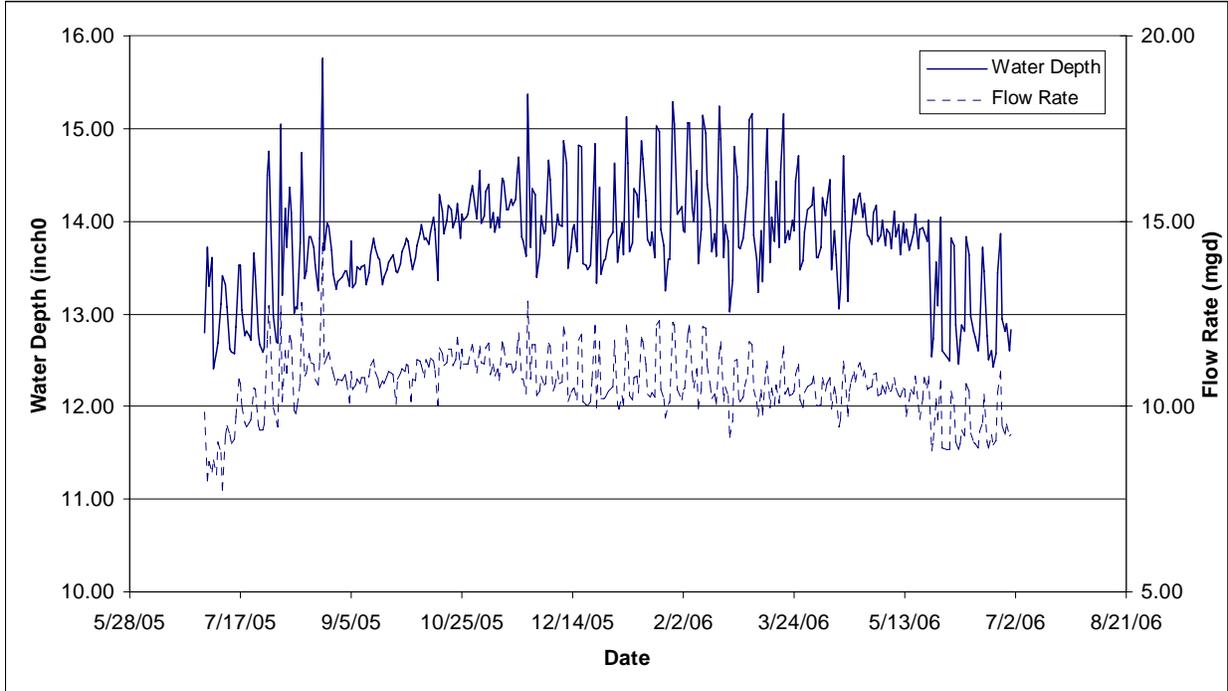


Figure PTI-1-1 Daily Peak Water Depths and Flow Rates (site: PTI-1-1).

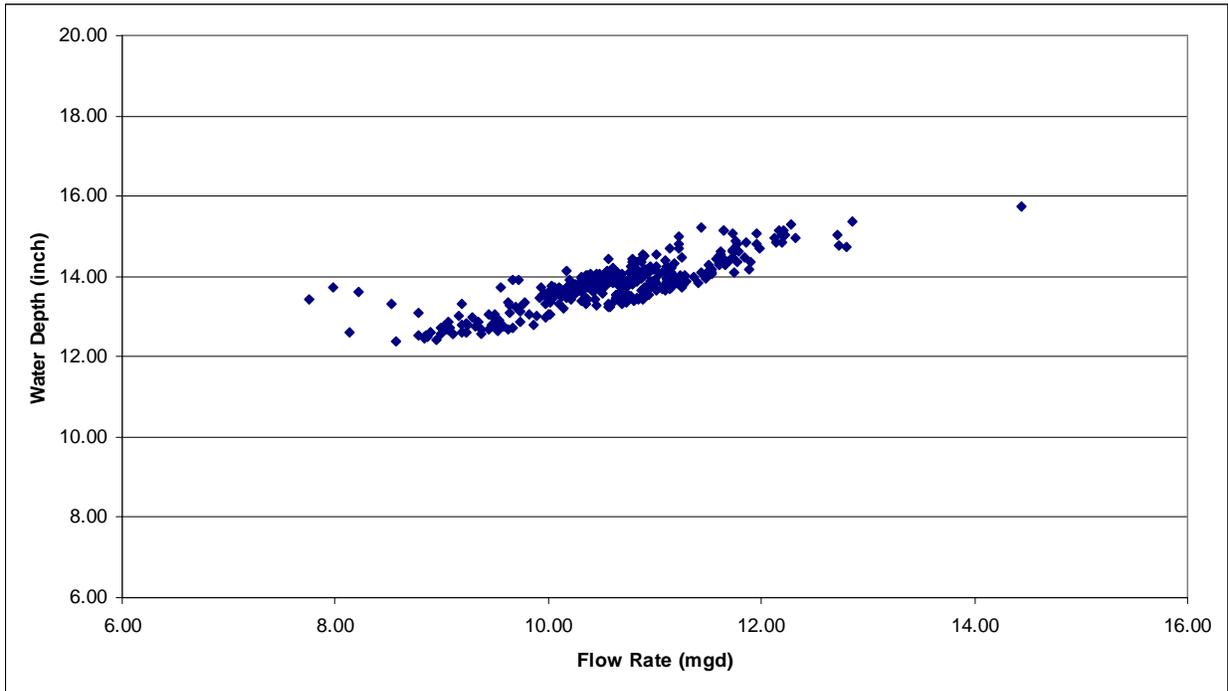


Figure PTI-1-2 Correlation between Daily Peak Water Depths and Flow Rates (site: PTI-1).

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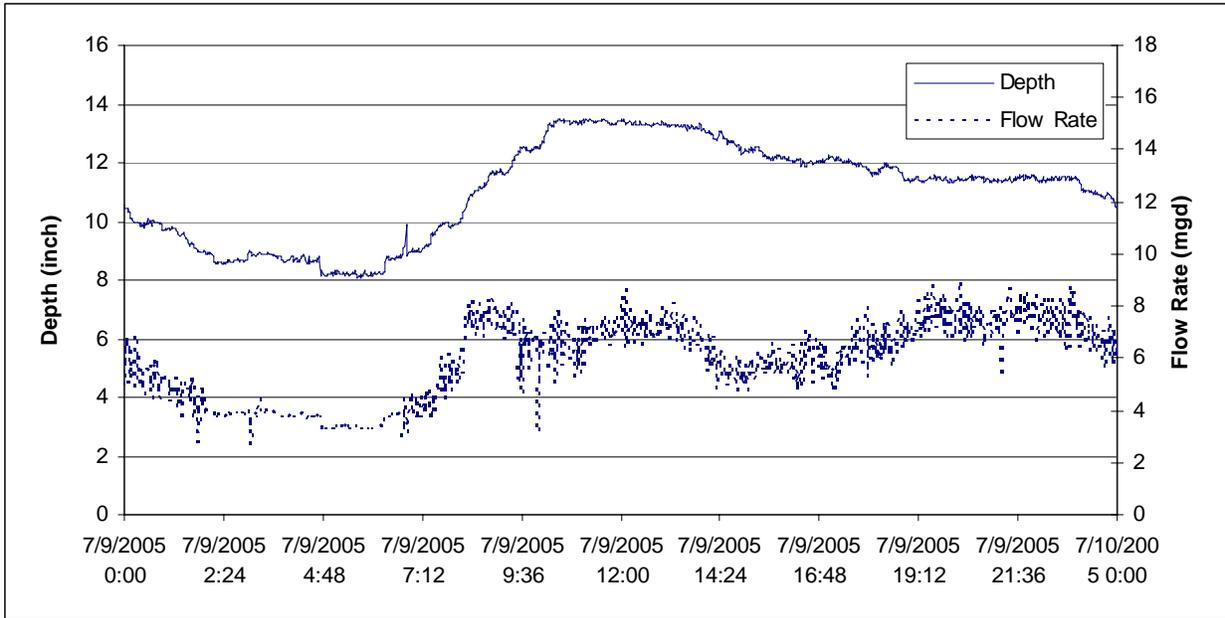


Figure PTI-1-3 One-minute Data Points with Relatively Low Flow Rate Readings (site: PTI-1)

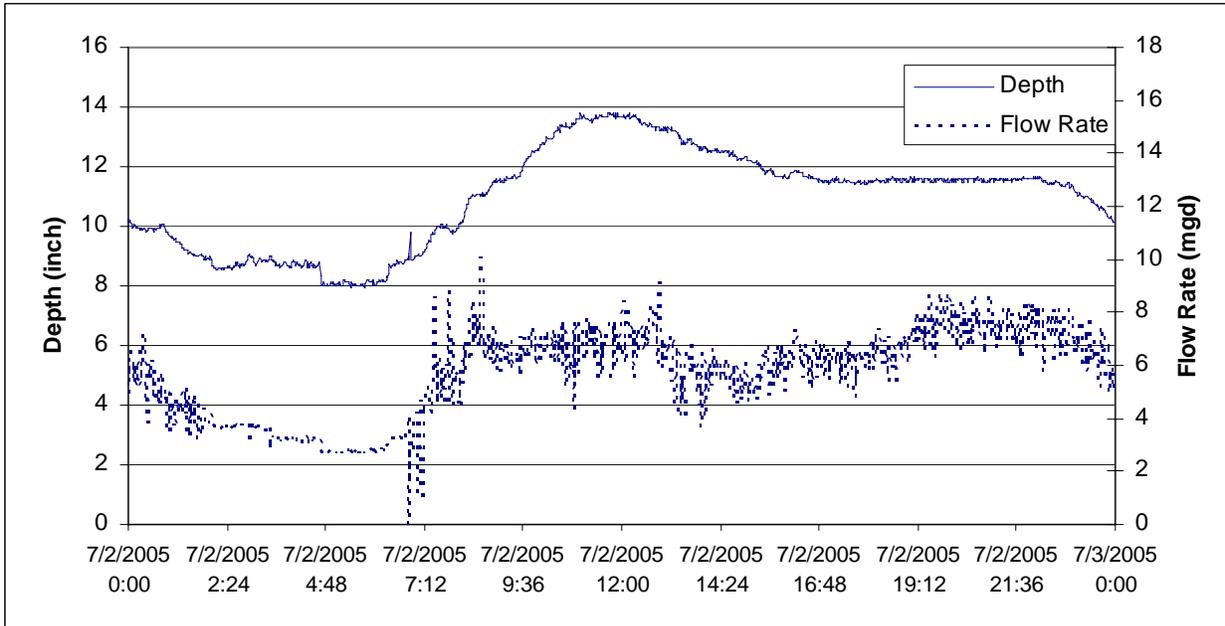


Figure PTI-1-4 One-minute Data Points with Relatively Low Flow Rate Readings (site: PTI-1).

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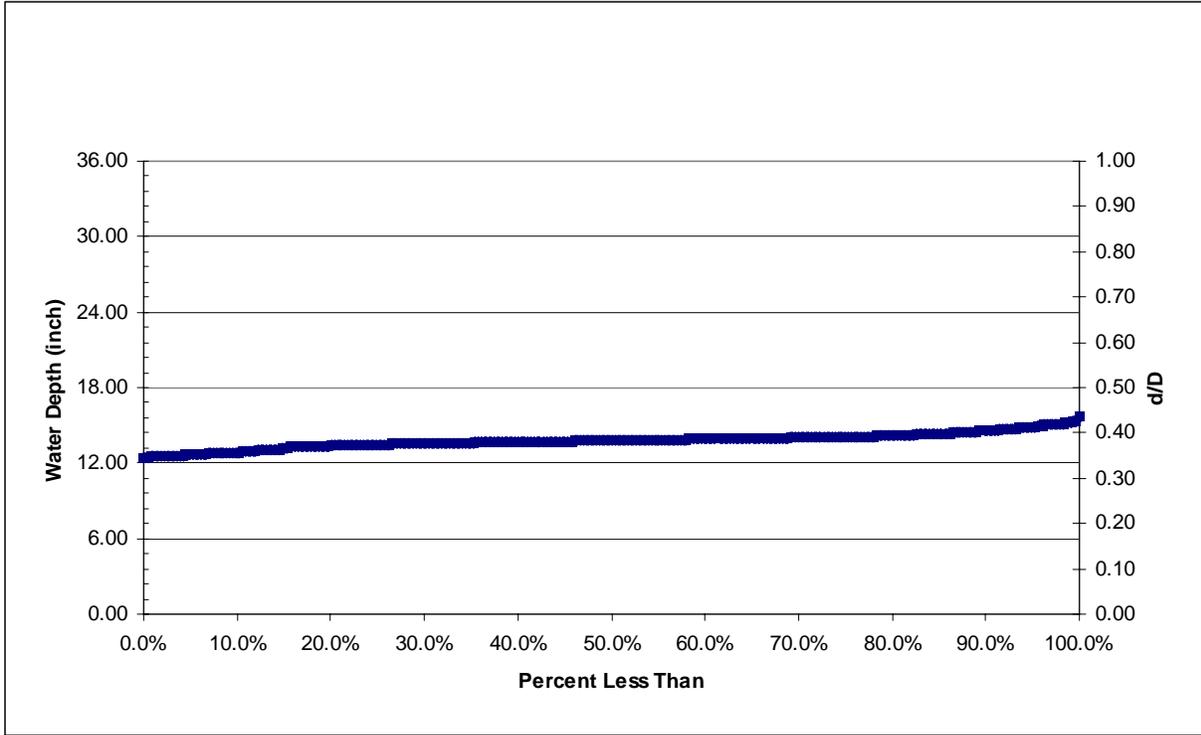


Figure PTI-1-5 Historical Percentile Values of Water Depth (site: PTI-1).

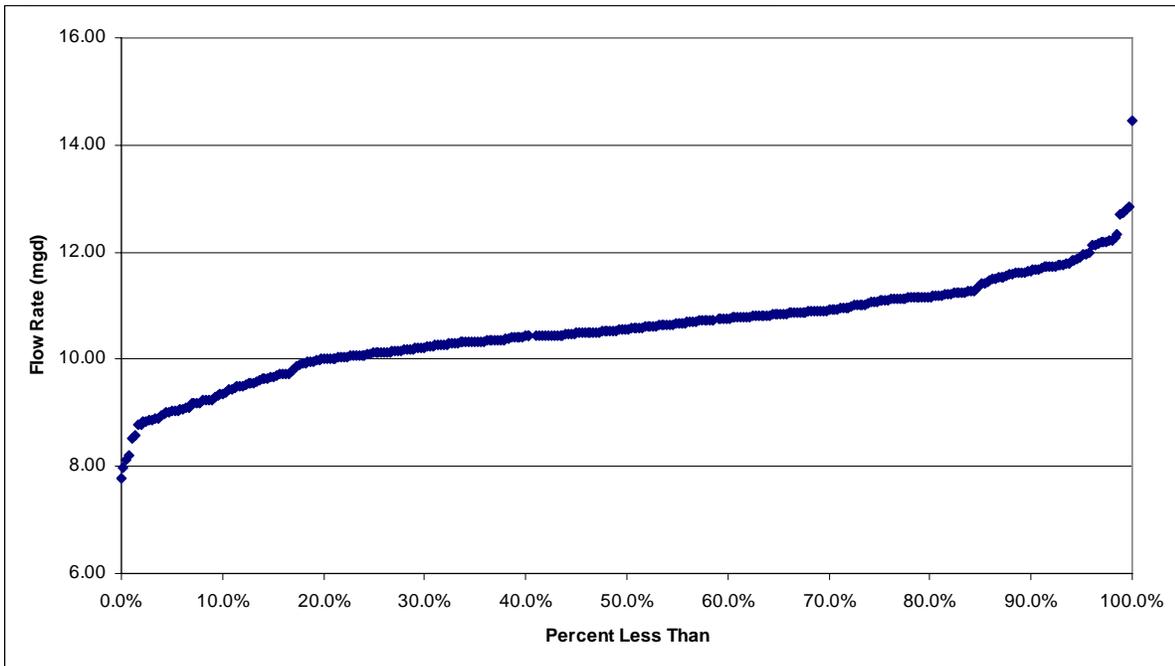


Figure PTI-1-6 Historical Percentile Values of Flow Rate (site: PTI-1).

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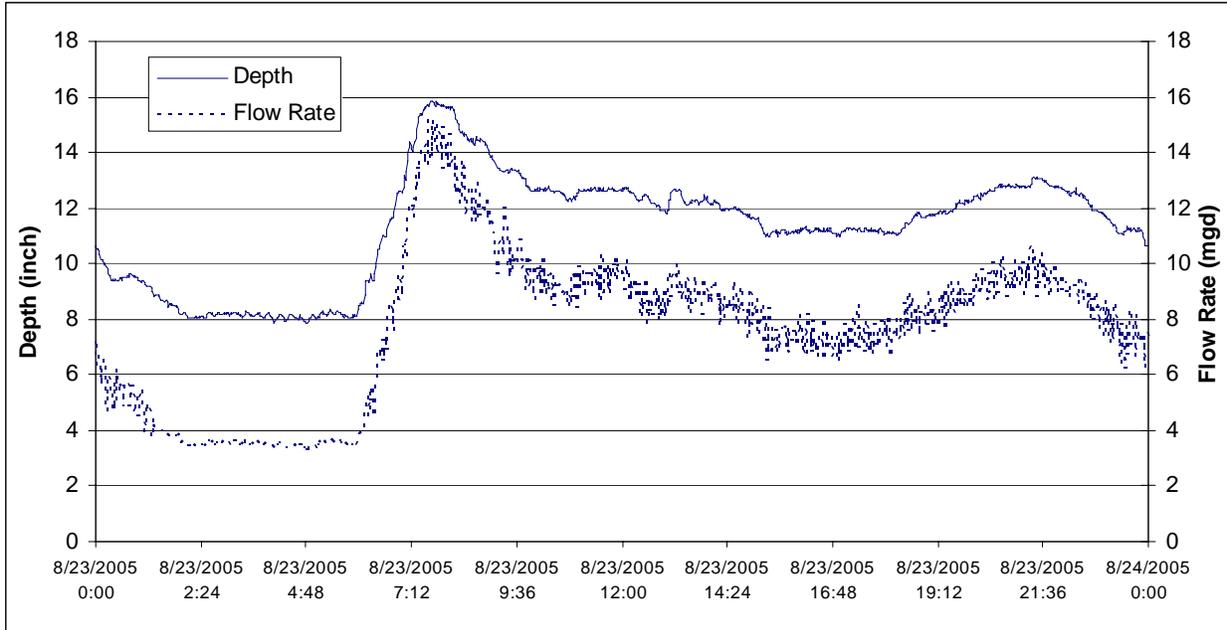


Figure PTI-1-7 One-minute Data Points with the Maximum Water Depth and Flow Rate (site: PTI-1).

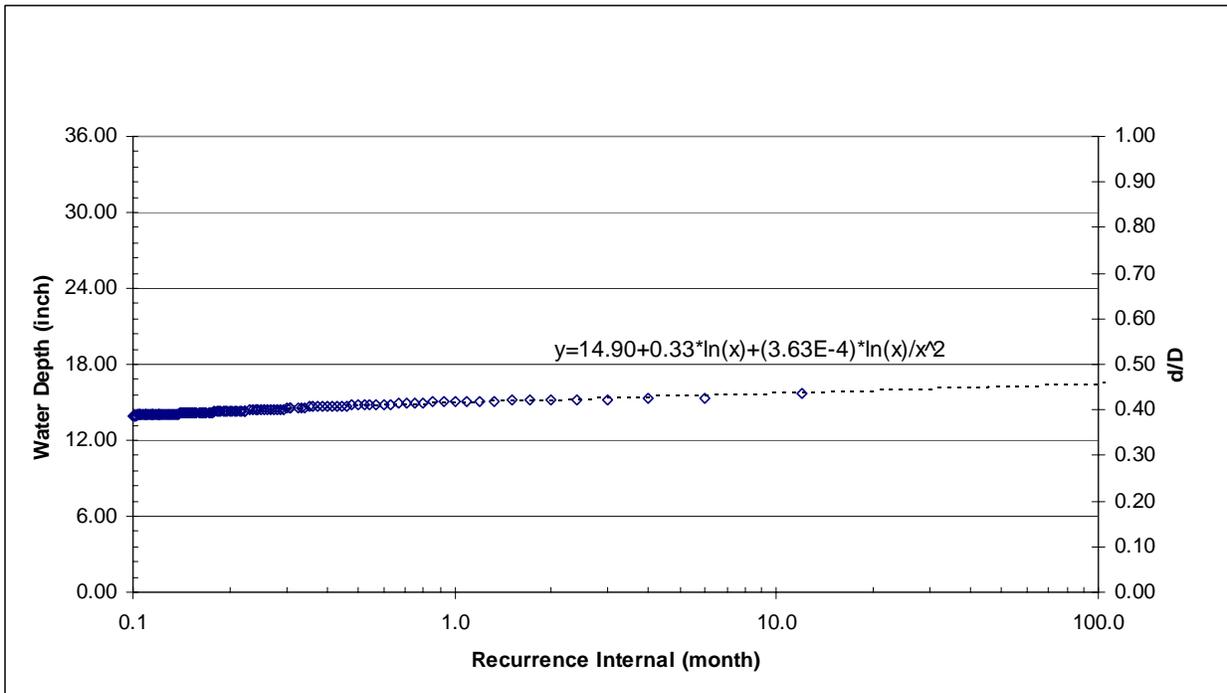


Figure PTI-1-8 Water Depths at Different Recurrence Intervals (site: PTI-1).

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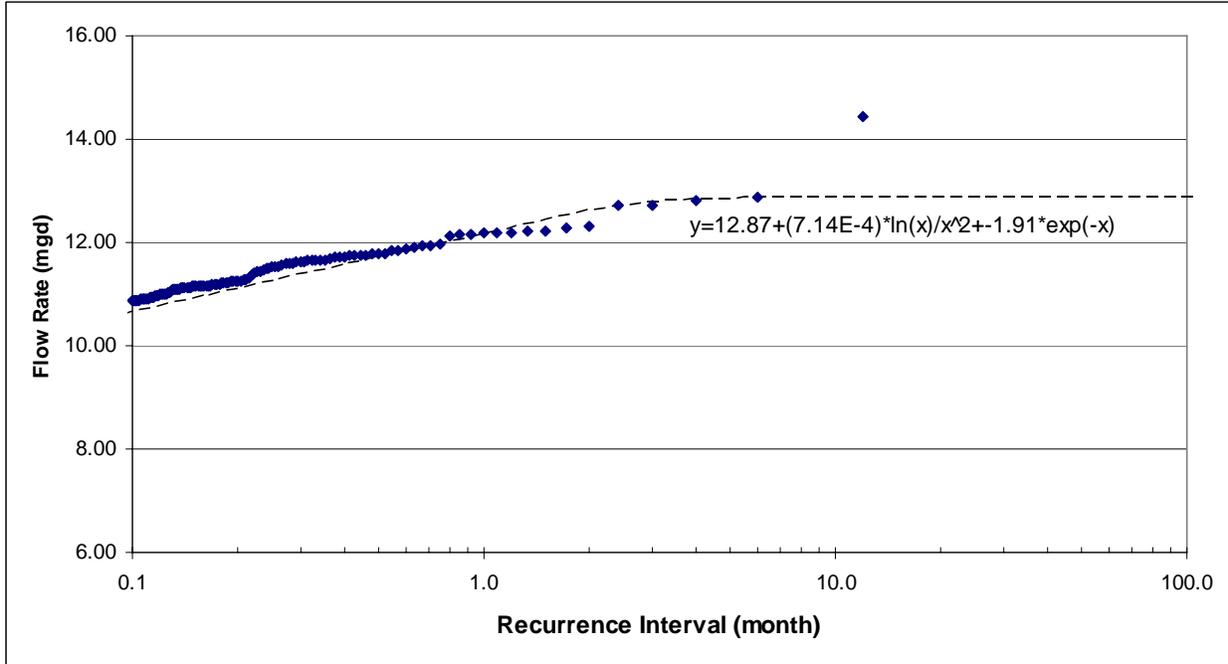


Figure PTI-1-9 Flow Rates at Different Recurrence Intervals (site: PTI-1).

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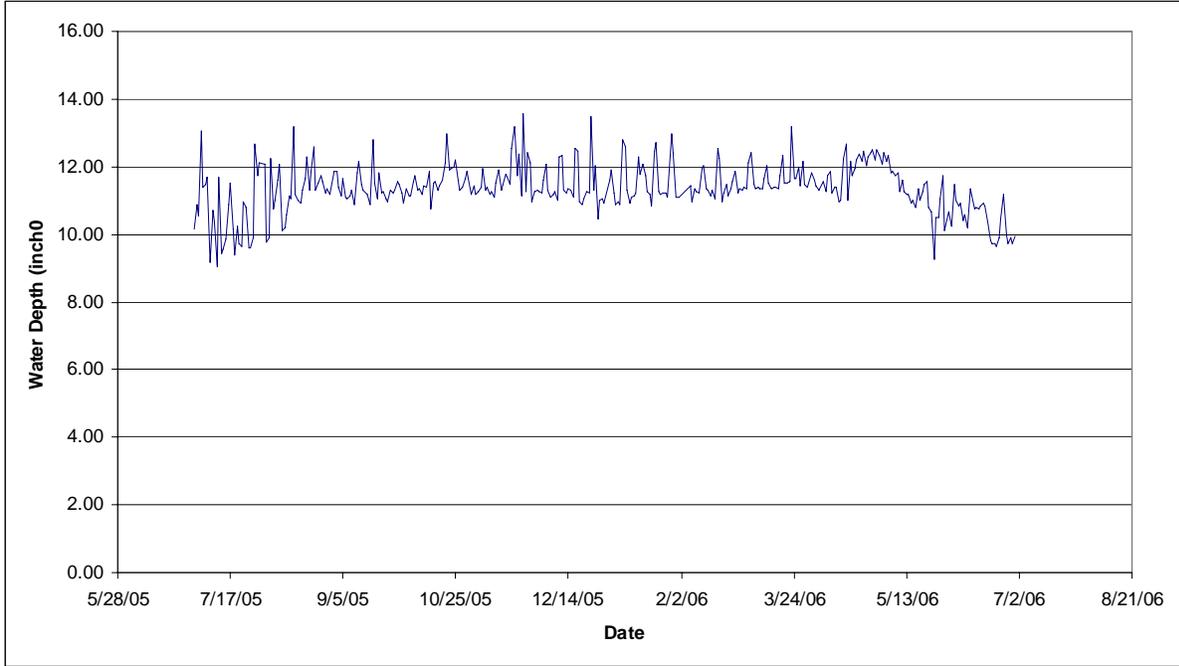


Figure PTI-2-1 Daily Peak Water Depths (site: PTI-2).

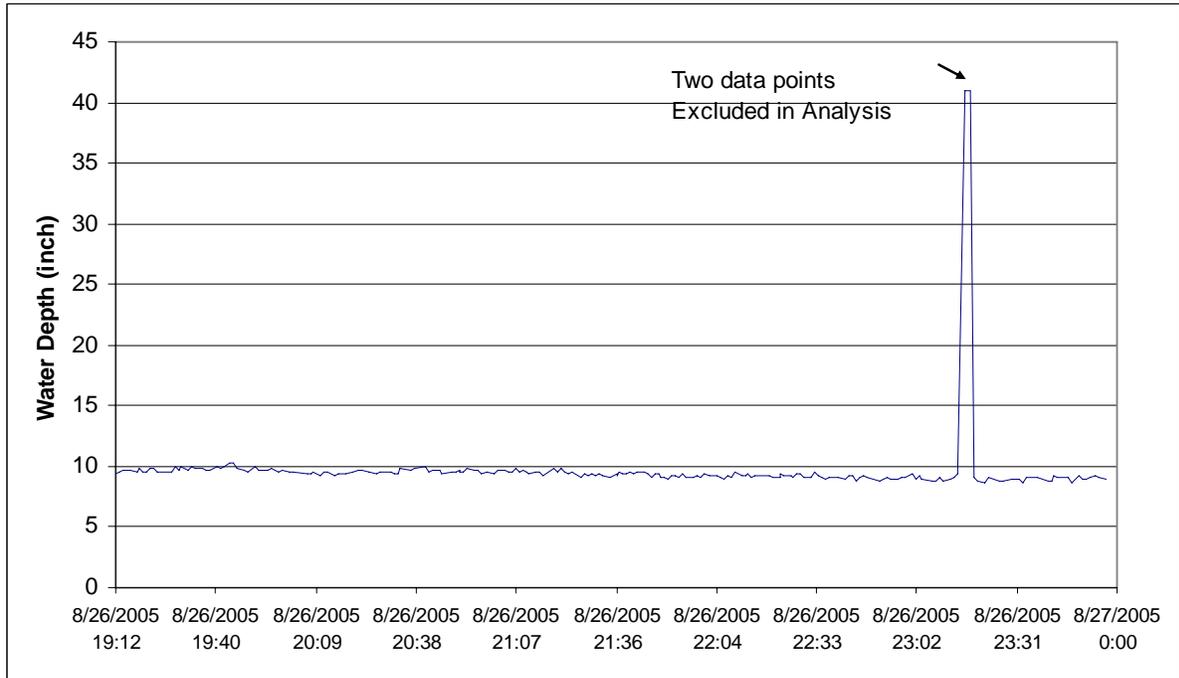


Figure PTI-2-2 Questionable Data Points Excluded from Analysis (site: PRI-2).

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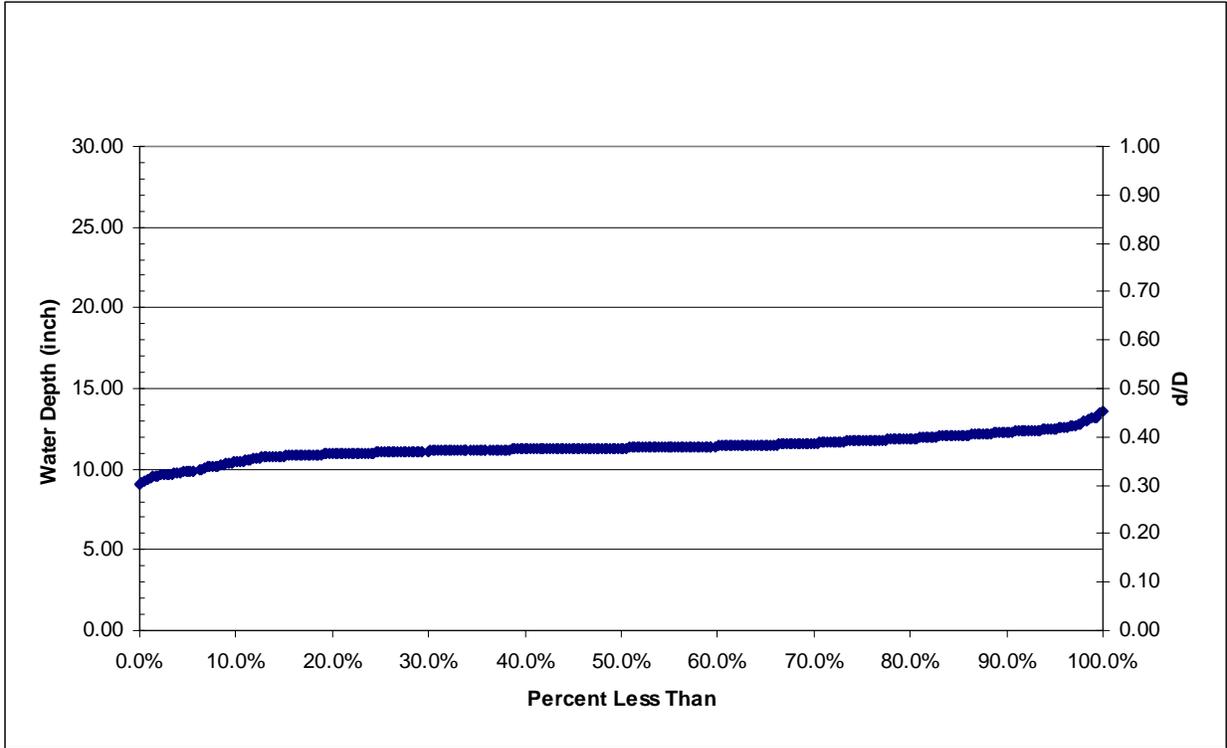


Figure PTI-2-3 Historical Percentile Values of Water Depth (site: PTI-2).



Figure PTI-2-4 One-minute Data Points with the Maximum Water Depth (site: PTI-2).

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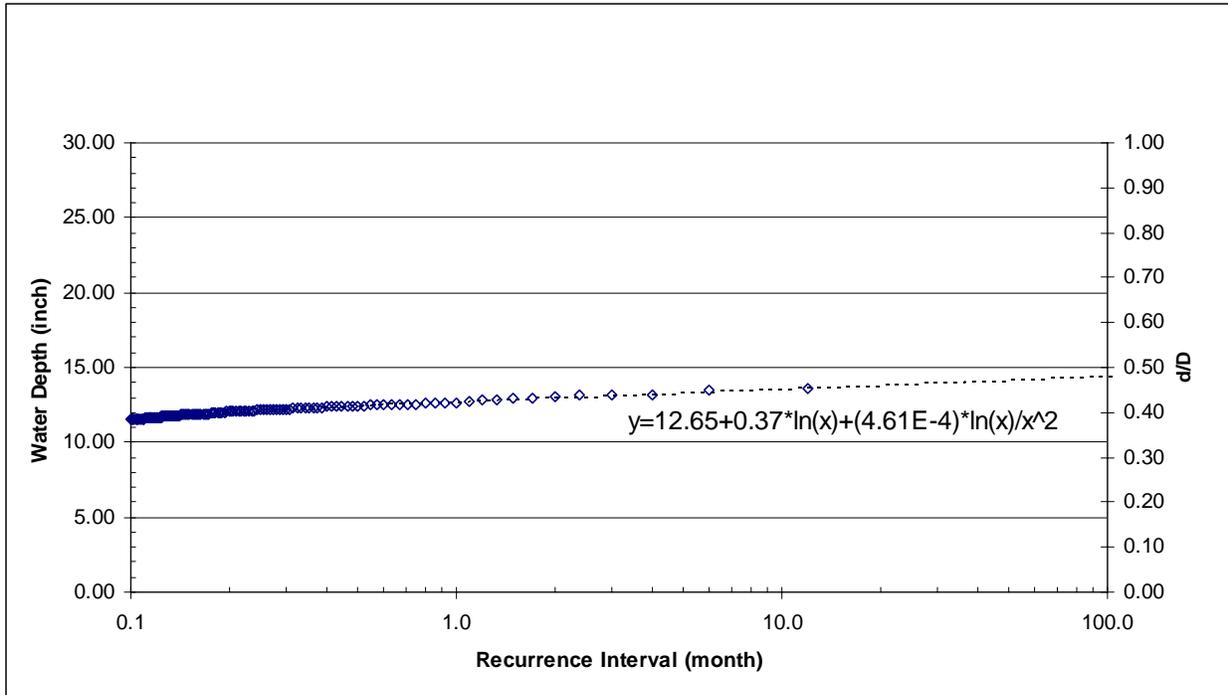


Figure PTI-2-5 Water Depths at Different Recurrence Intervals (site: PTI-2-5).

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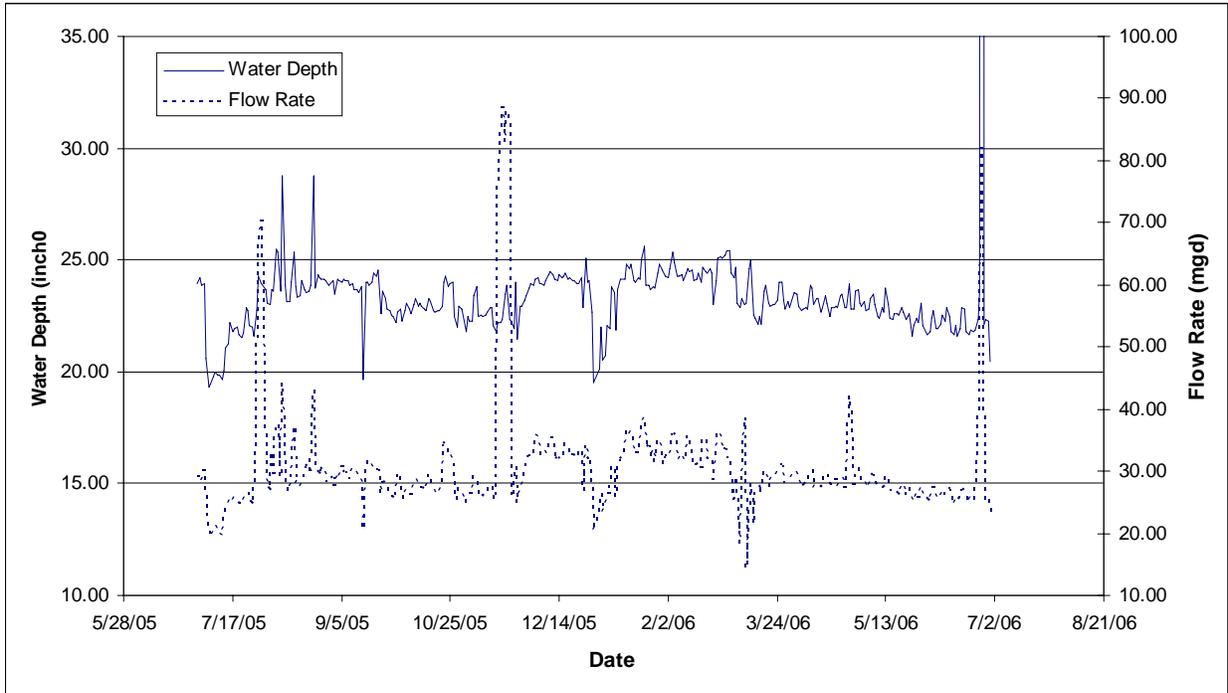


Figure SCE-1-1 Daily Peak Water Depths and Flow Rates (site: SCE-1).

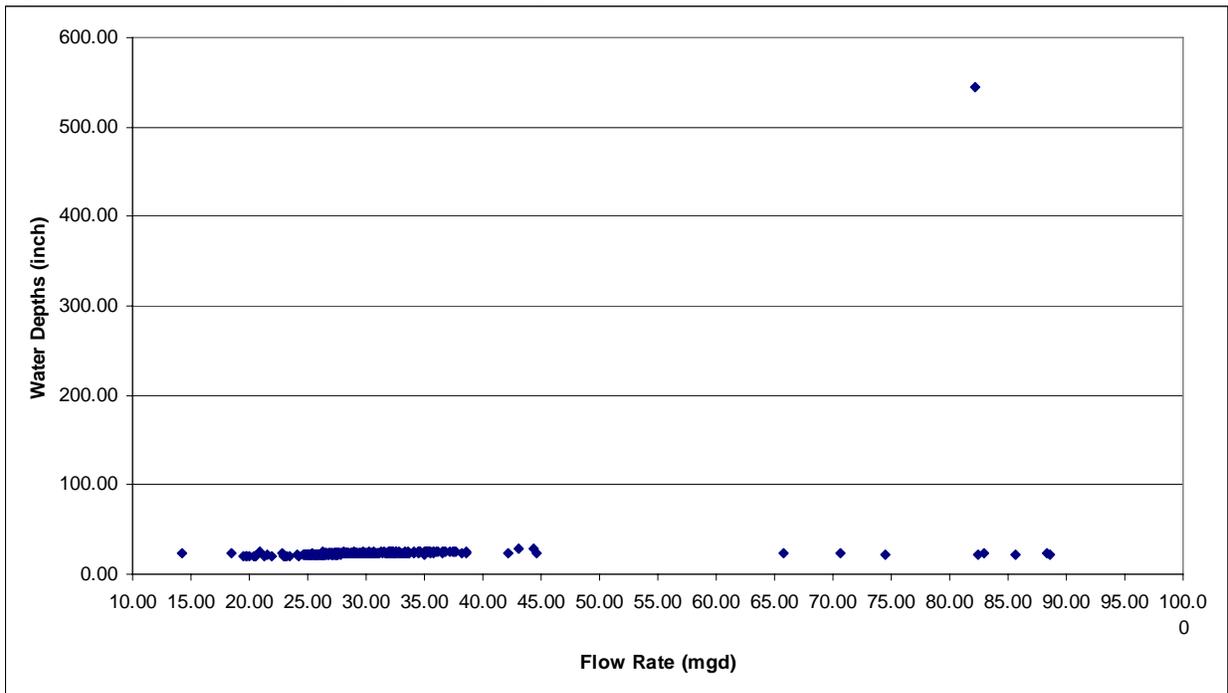


Figure SCE-1-2 Correlation between Daily Peak Water Depths and Flow Rates (site: SCE-1).

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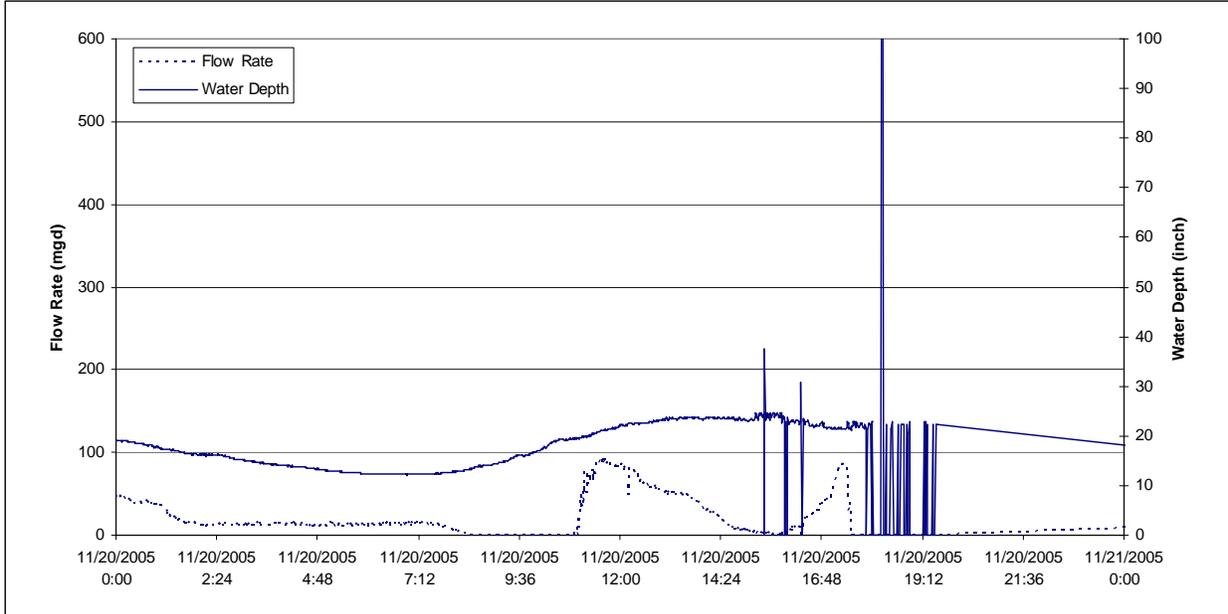


Figure SCE-1-3 Questionable 1-minute Flow Rate and Water Depth Data Points (site: SCE-1).

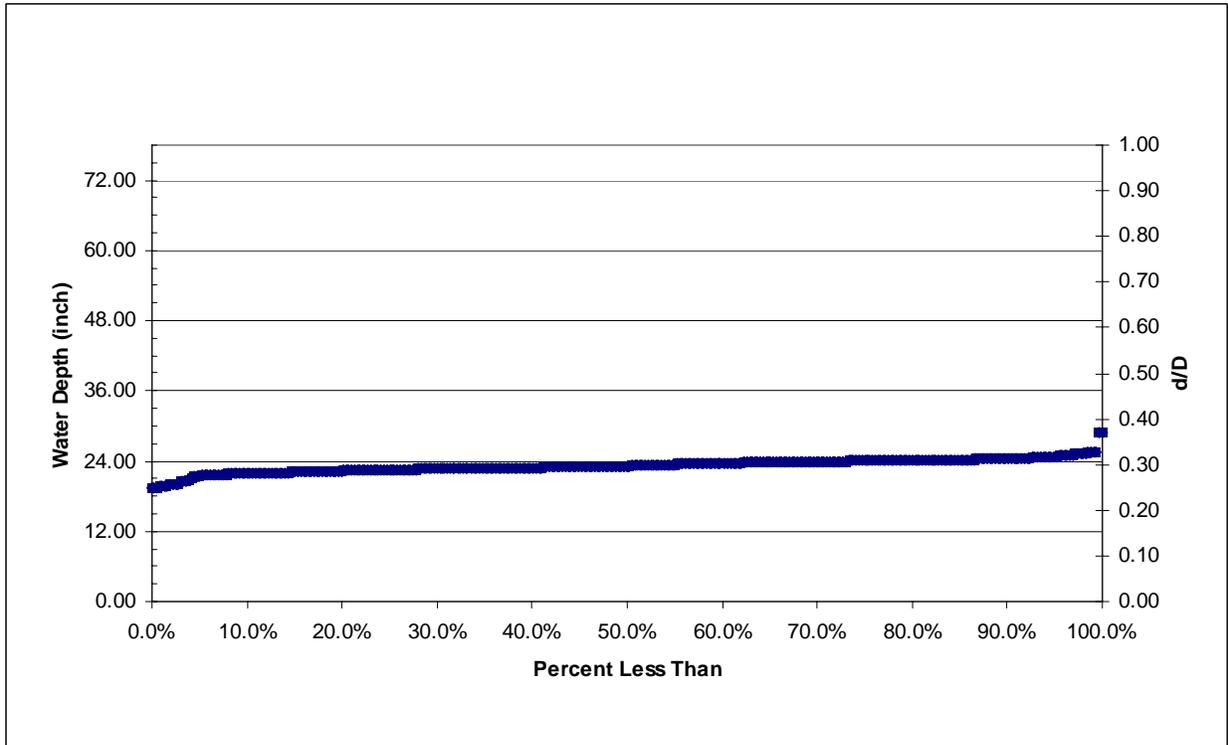


Figure SCE-1-4 Historical Percentile Values of Water Depth (site: SCE-1).

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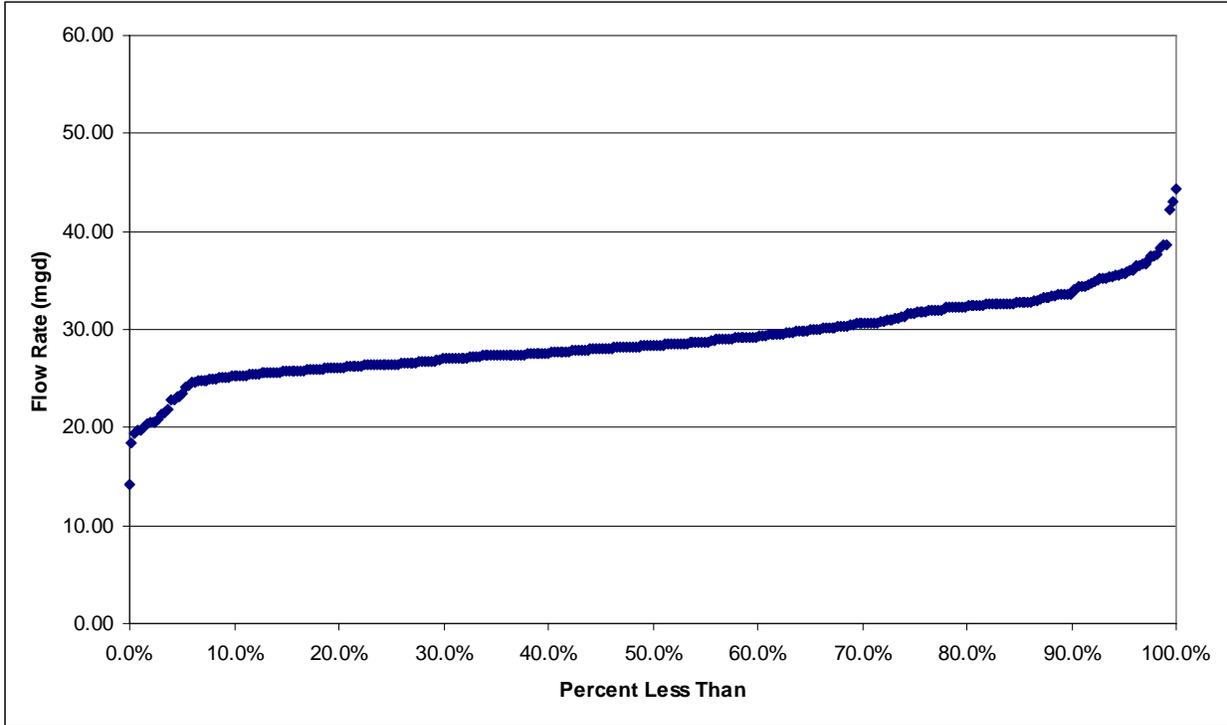


Figure SCE-1-5 Historical Percentile Values of Flow Rate (site: SCE-1).

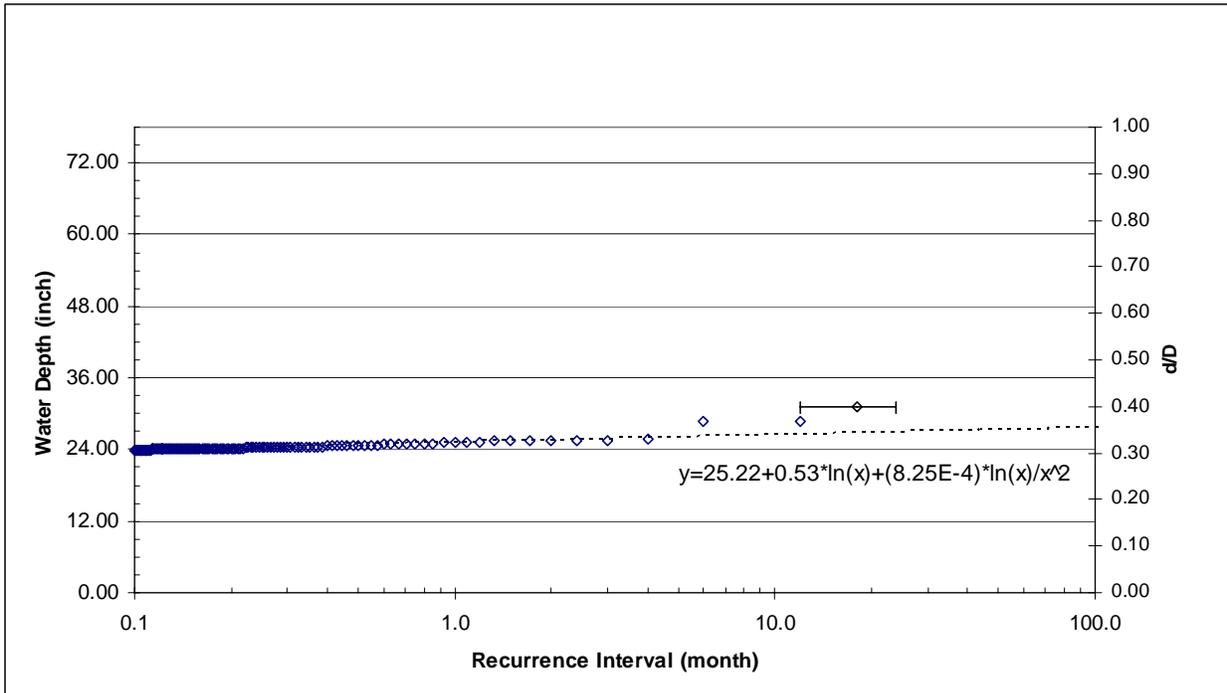


Figure SCE1-6 Water Depths at Different Recurrence Intervals (site: SCE-1).

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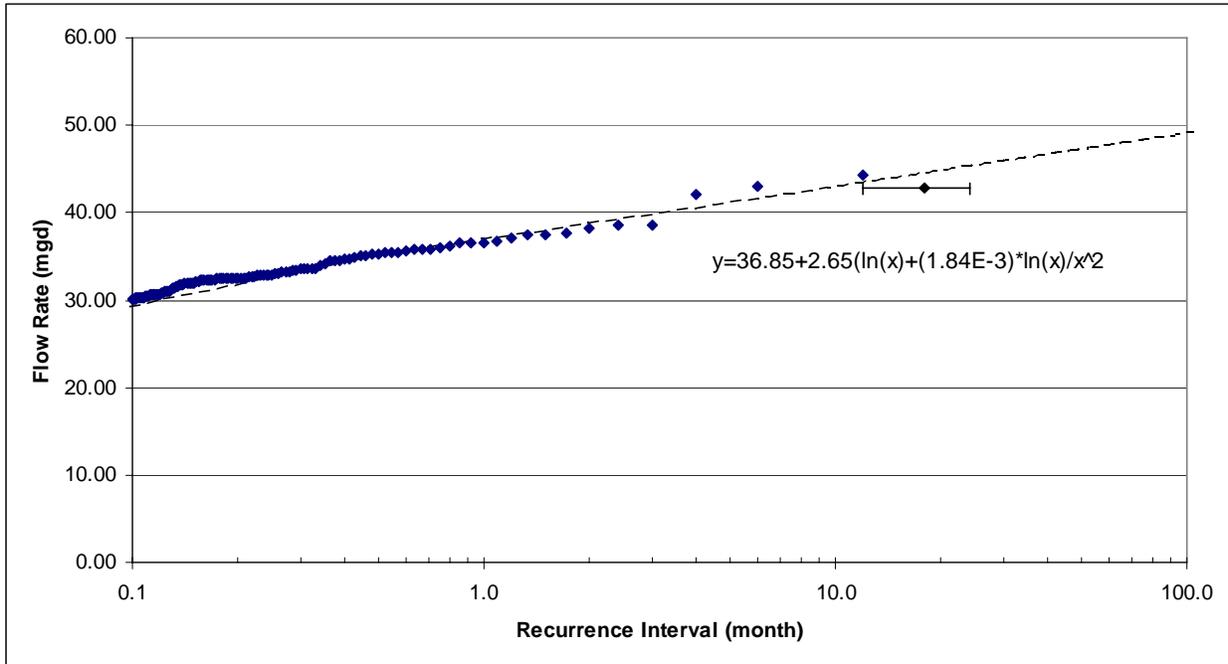


Figure SCE-1-7 Flow Rates at Different Recurrence Intervals (site: SCE-1).

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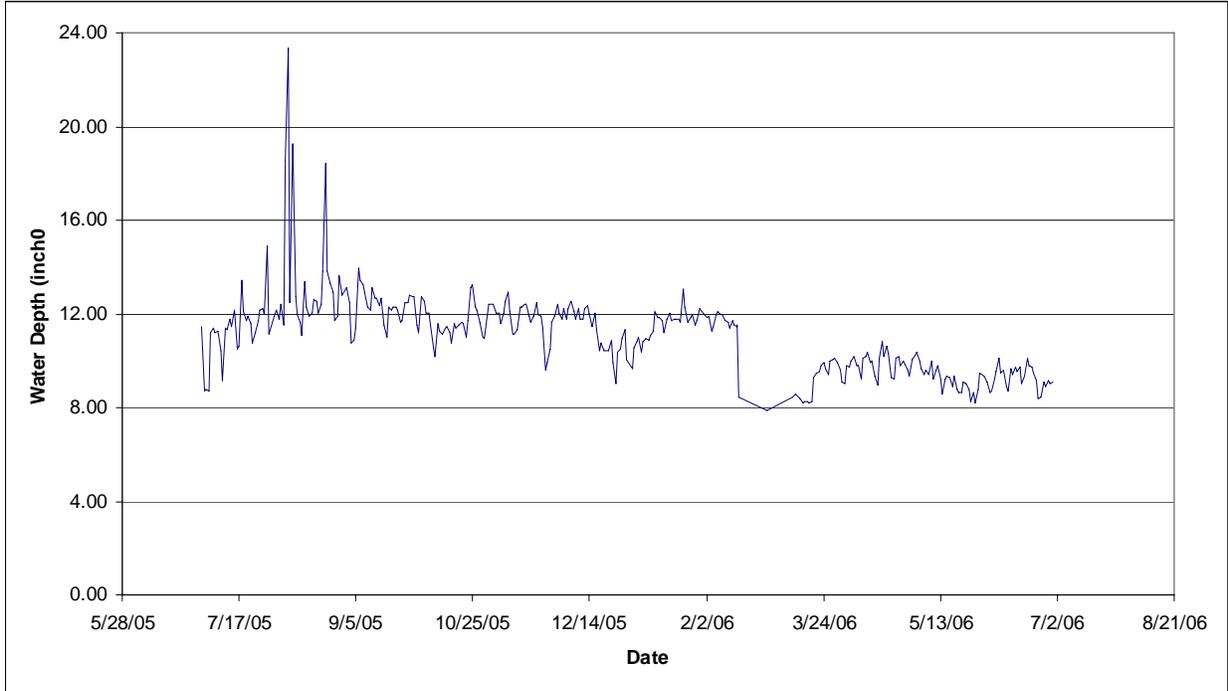


Figure SCE-2-1 Daily Peak Water Depths (site: SCE-2).

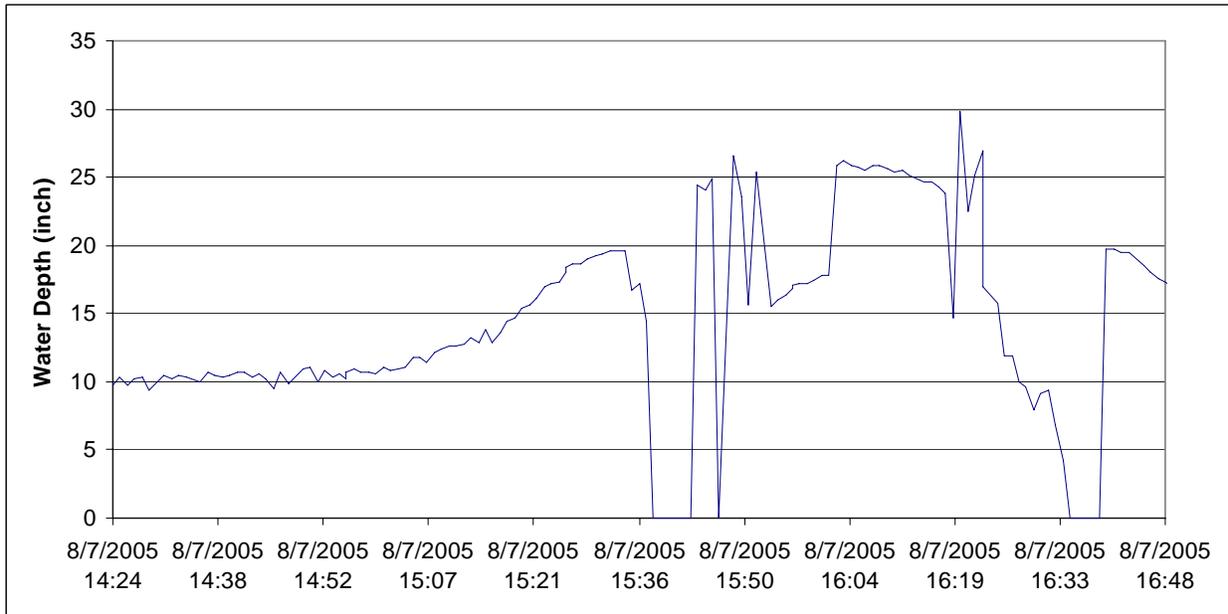


Figure SCE-2-2 Questionable 1-minute Data Points (site: SCE-2).

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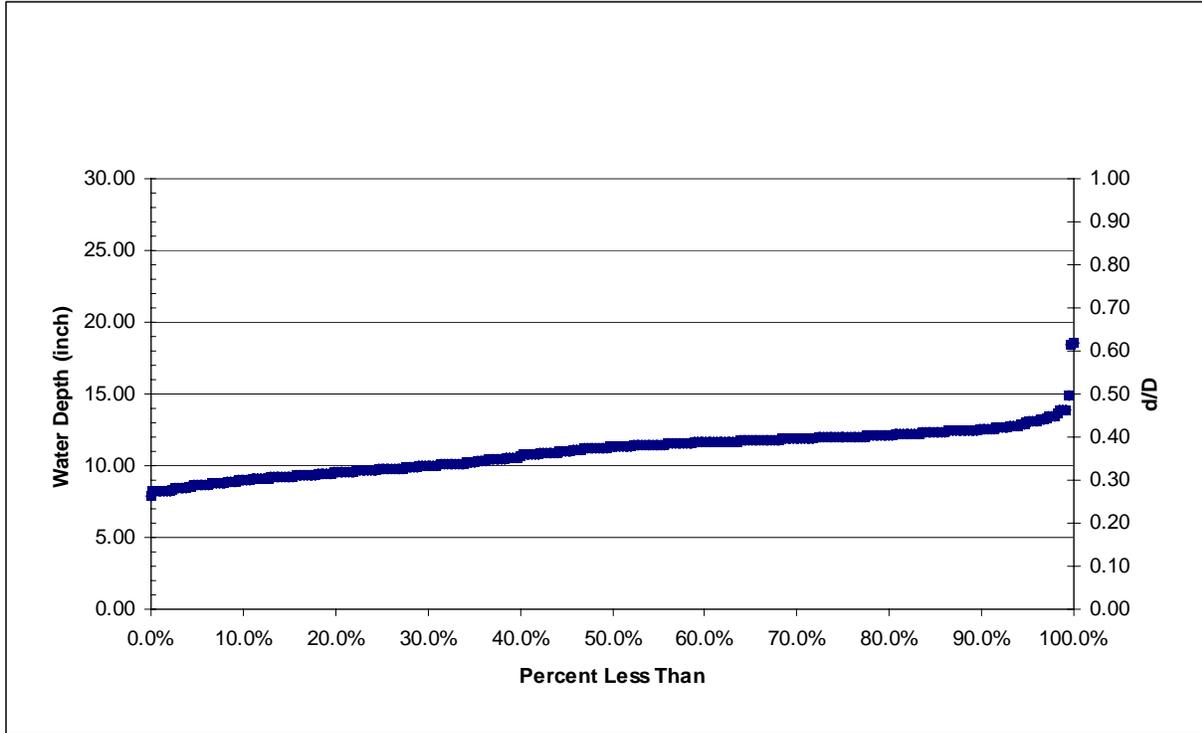


Figure SCE-2-3 Historical Percentile Values of Water Depth (site: SCE-2).

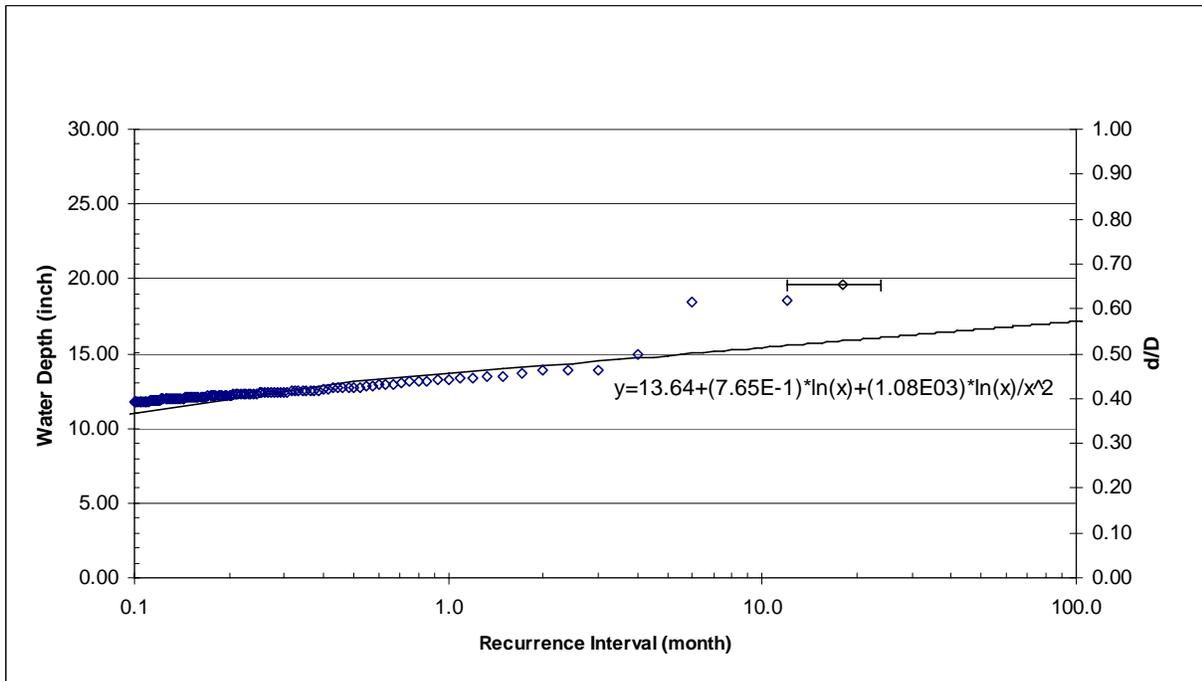


Figure SCE-2-4 Water Depths at Different Recurrence Intervals (site: SCE-2).

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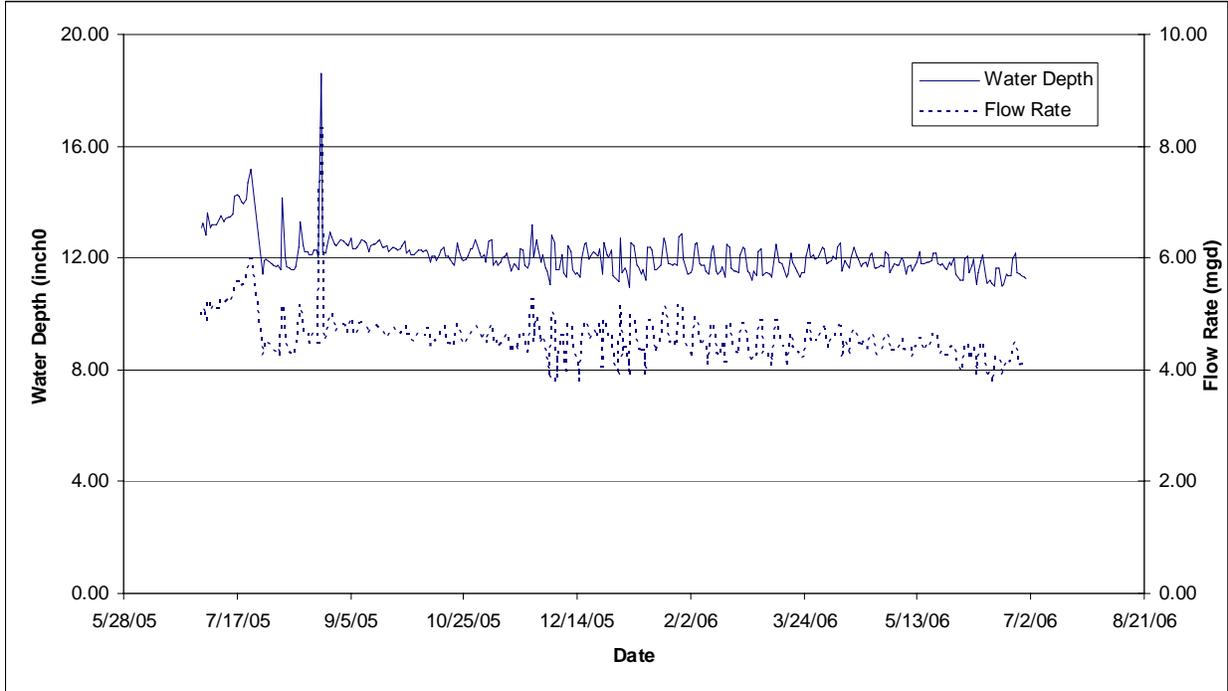


Figure SCI-1-1 Daily Peak Water Depths and Flow Rates (site: SCI-1).

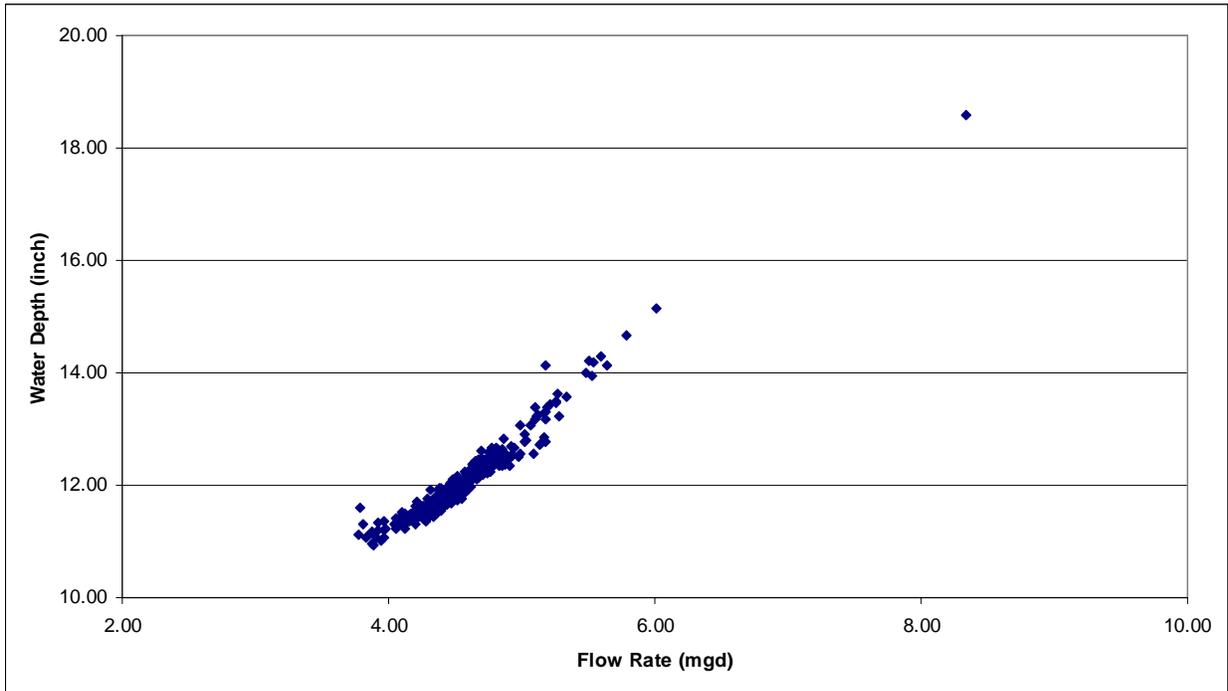


Figure SCI-1-2 Correlation between Daily Peak Water Depths and Flow Rates (site: SCI-1).

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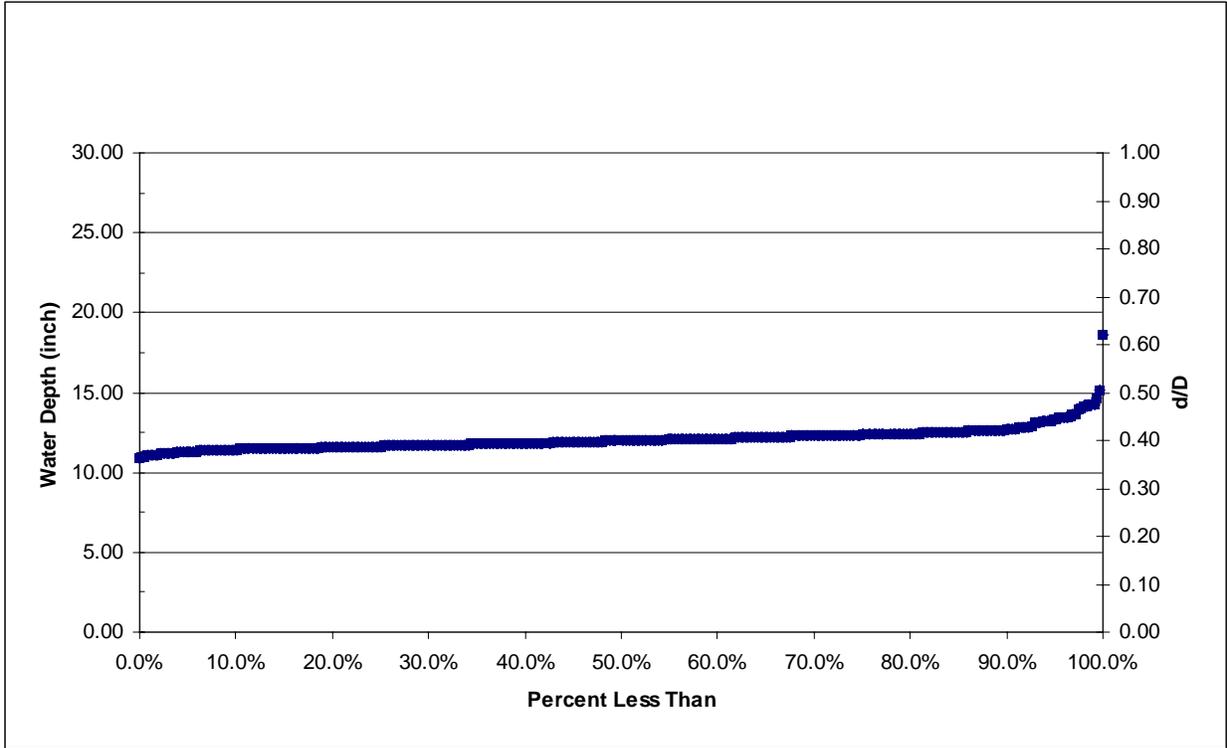


Figure SCI-1-3 Historical Percentile Values of Water Depth (site: SCI-1).

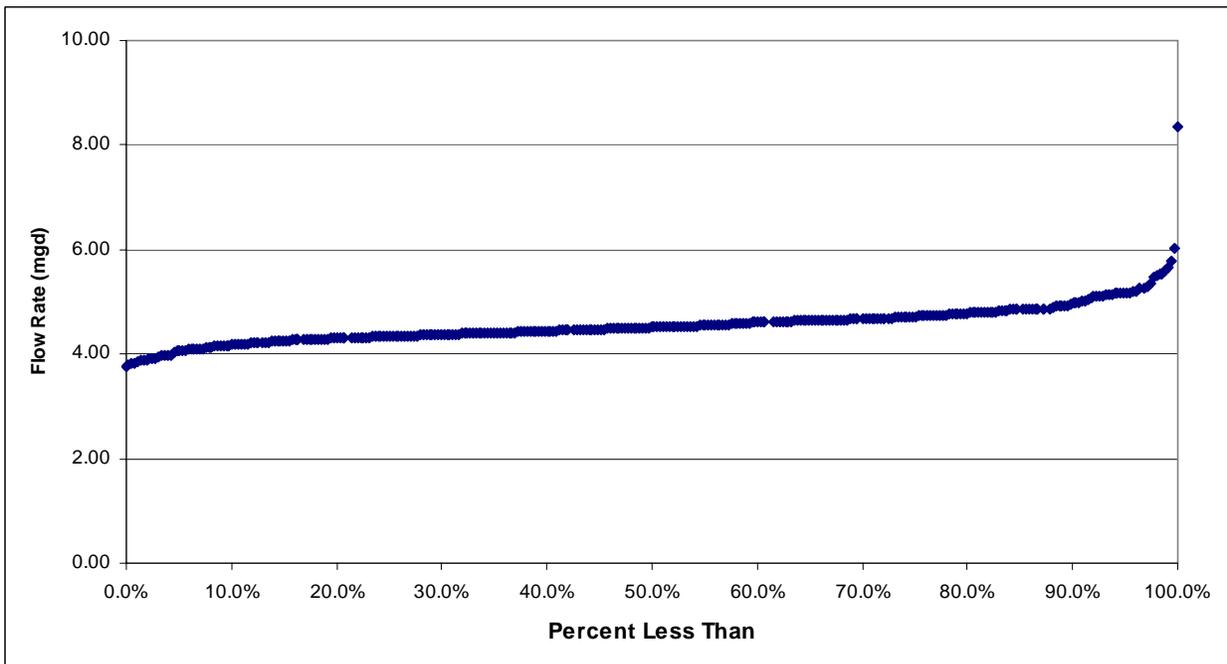


Figure SCI-1-4 Historical Percentile Values of Flow Rate (site: SCI-1).

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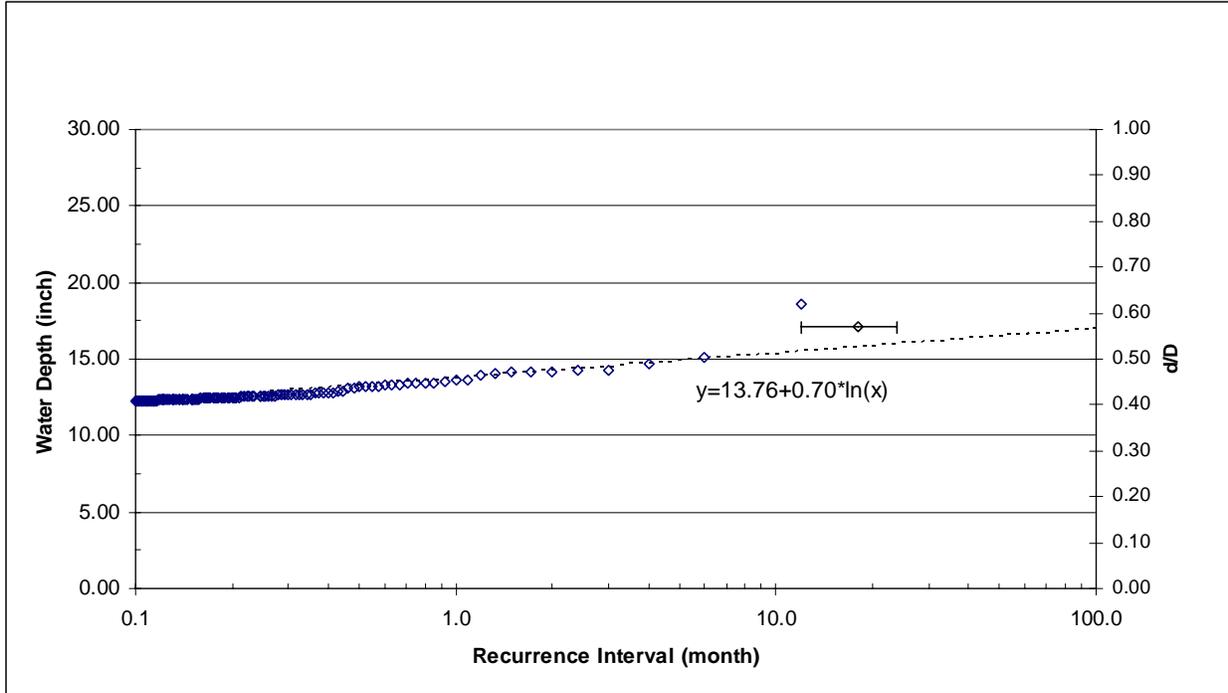


Figure SCI-1-5 Water Depths at Different Recurrence Intervals (site: SCI-1).

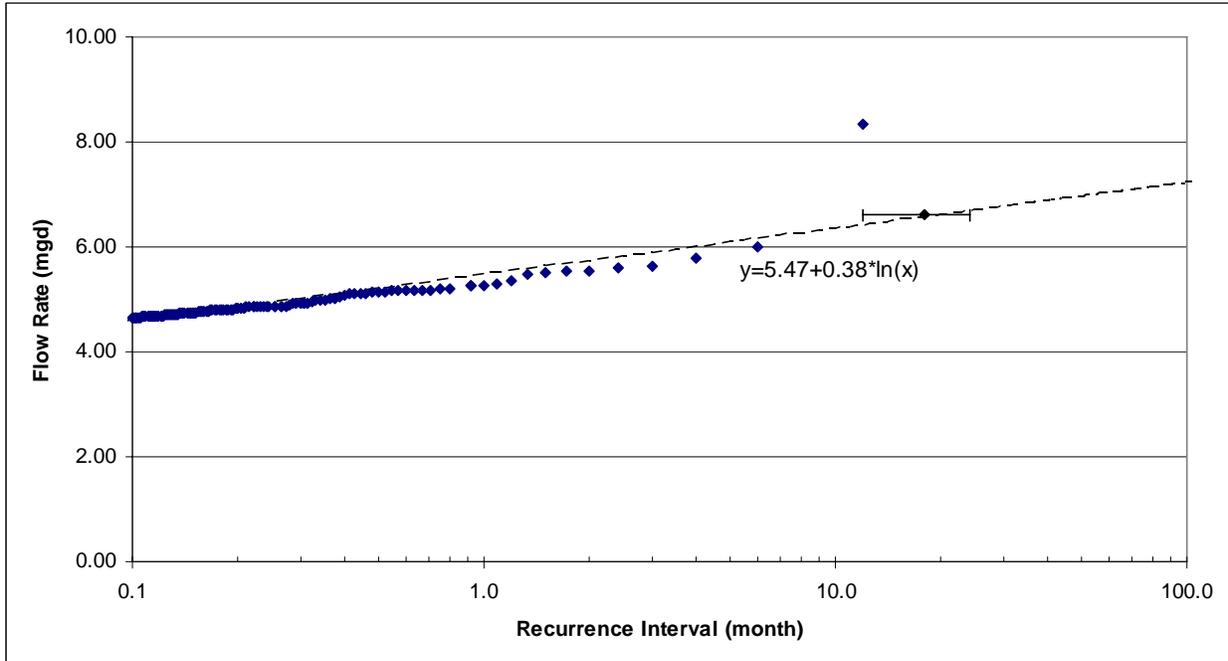


Figure SCI-1-6 Flow Rates at Different Recurrence Intervals (site: SCI-1).

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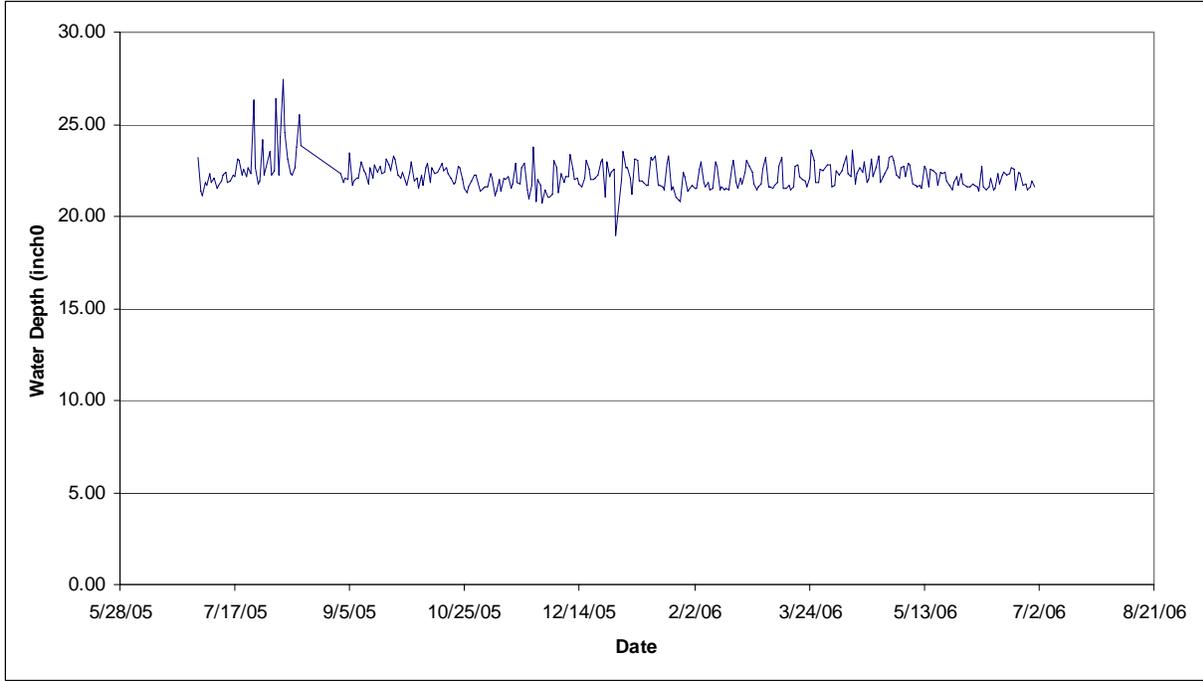


Figure SEI-1-1 Daily Peak Water Depths (site: SEI-1).

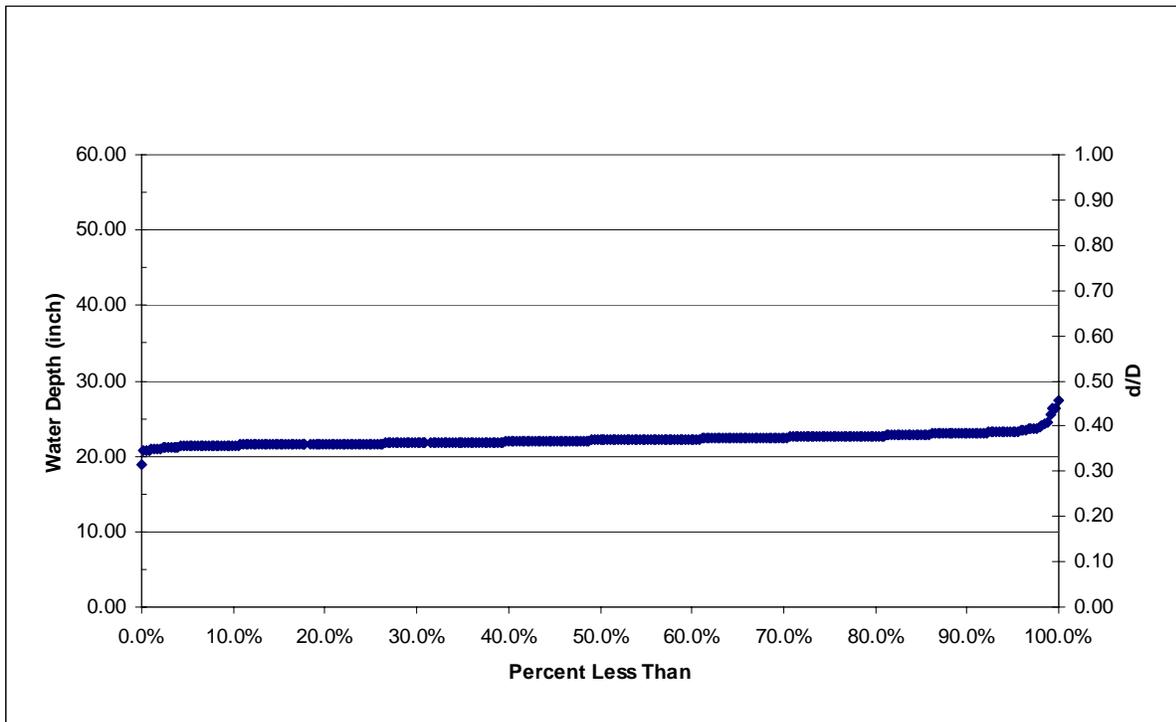


Figure SEI-1-2 Historical Percentile Values of Water Depth (SEI-1).

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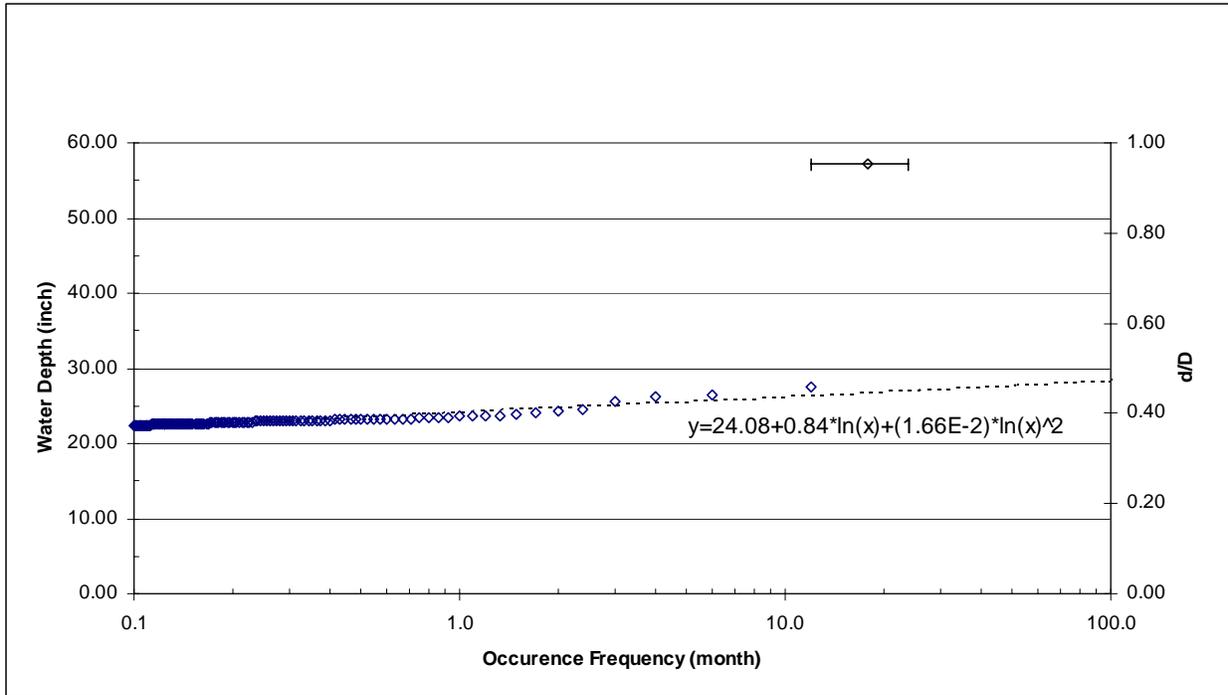


Figure SEI-1-3 Water Depths at Different Recurrence Intervals (site: SEI-1).

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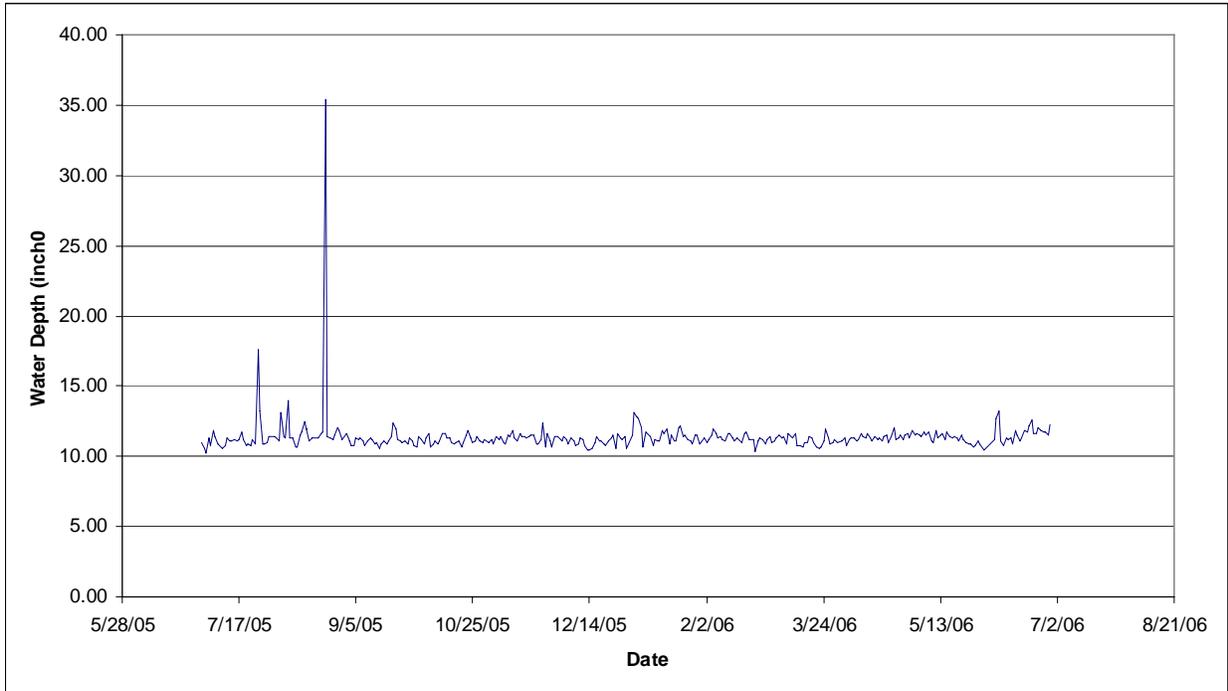


Figure SEI-2-1 Daily Water Depths (site: SEI-2).

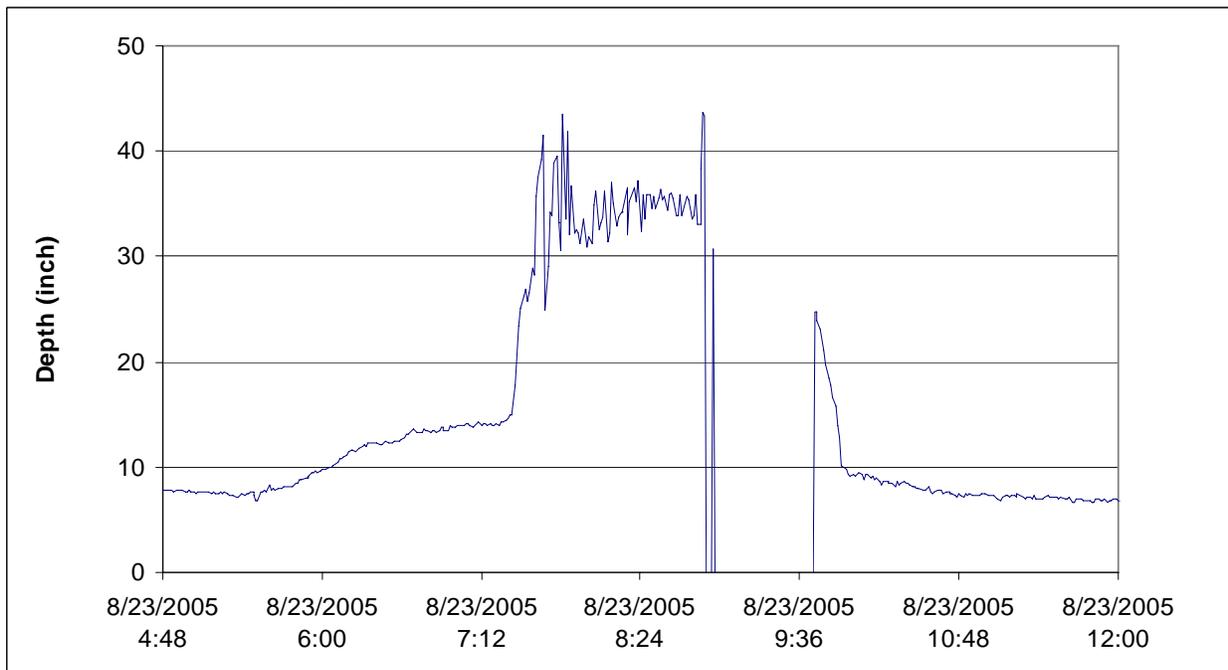


Figure SEI-2-2 One-minute Data with the Maximum Water Depth (site: SEI-2).

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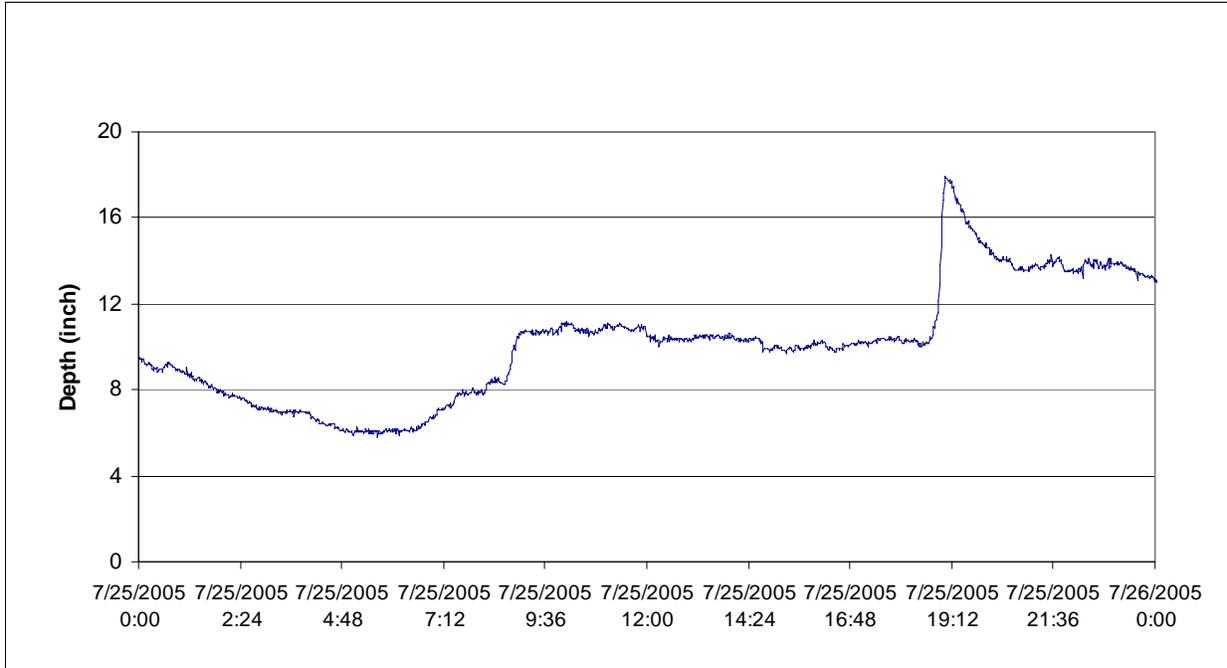


Figure SEI-2-3 One-minute Data with the Second Maximum Water Depth (site: SEI-2).

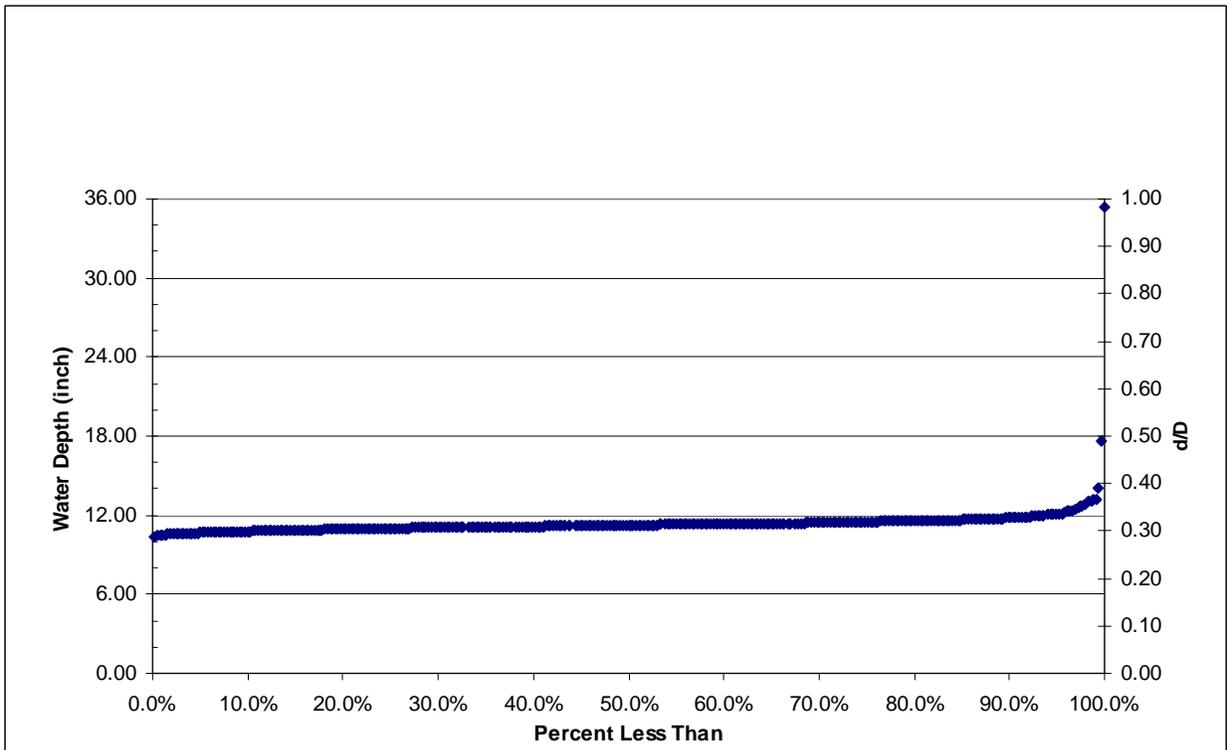


Figure SEI-2-4 Historical Percentile Values of Water Depths (site: SEI-2).

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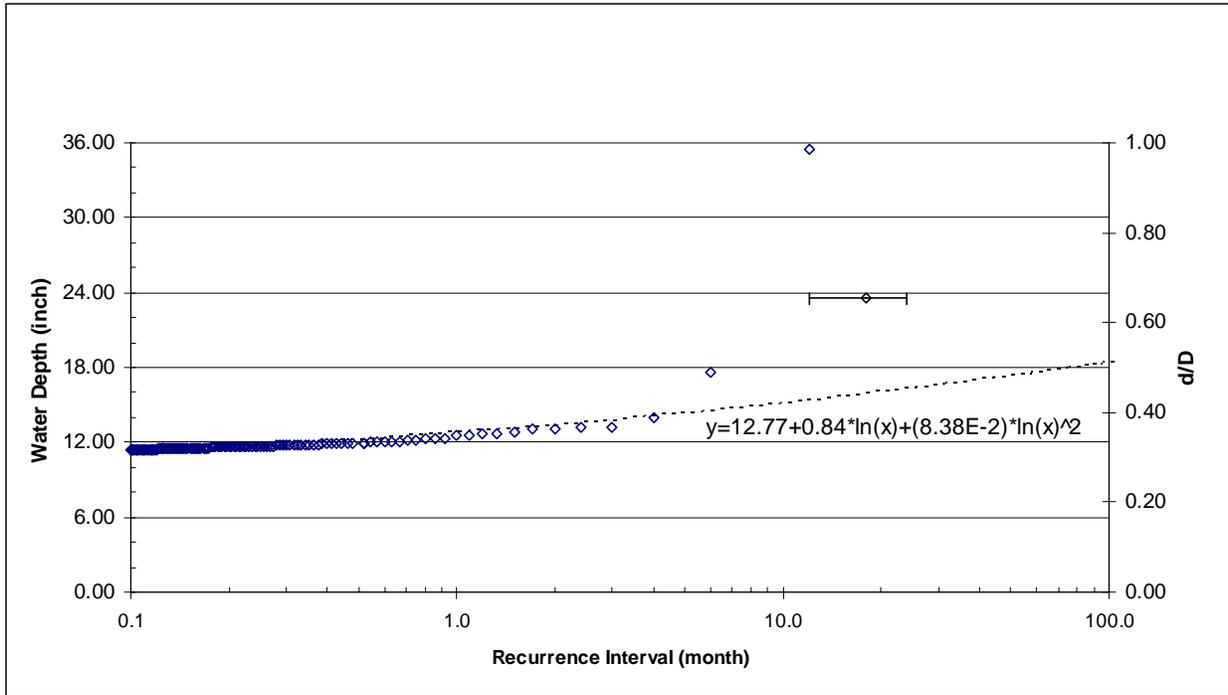


Figure SEI-2-5 Water Depths at Different Recurrence Intervals (site: SEI-2).

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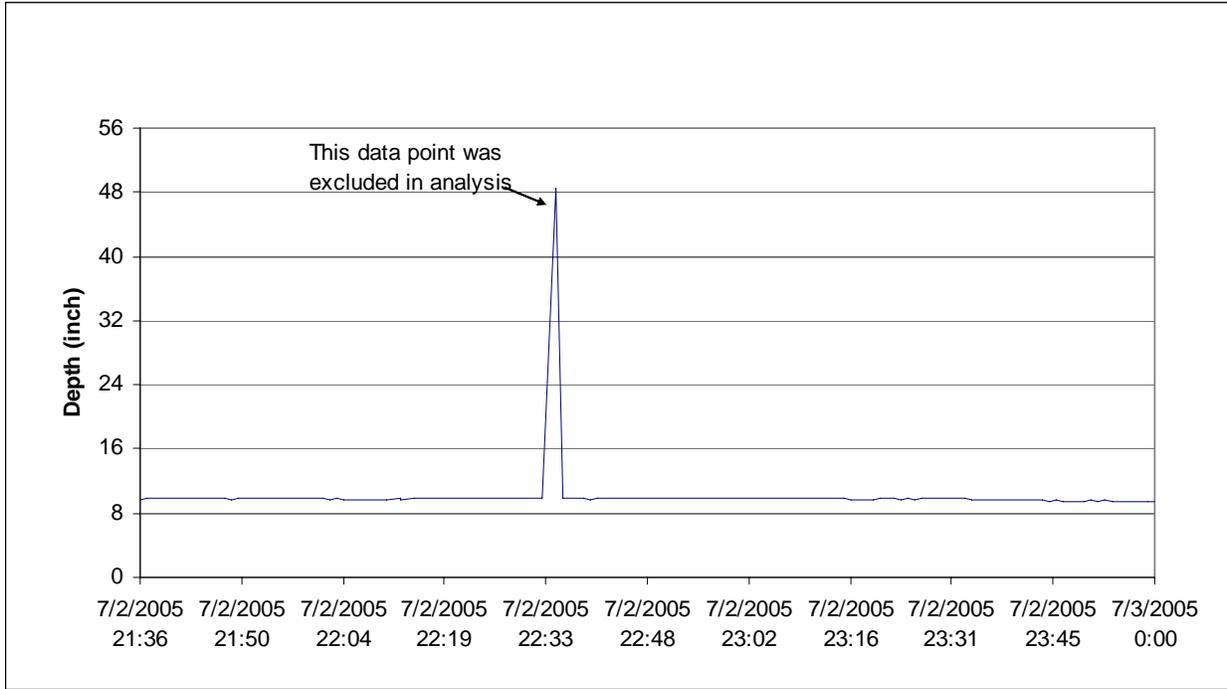


Figure SEI-3-1 An Example of Questionable 1-minute Data Points (site: SEI-3).

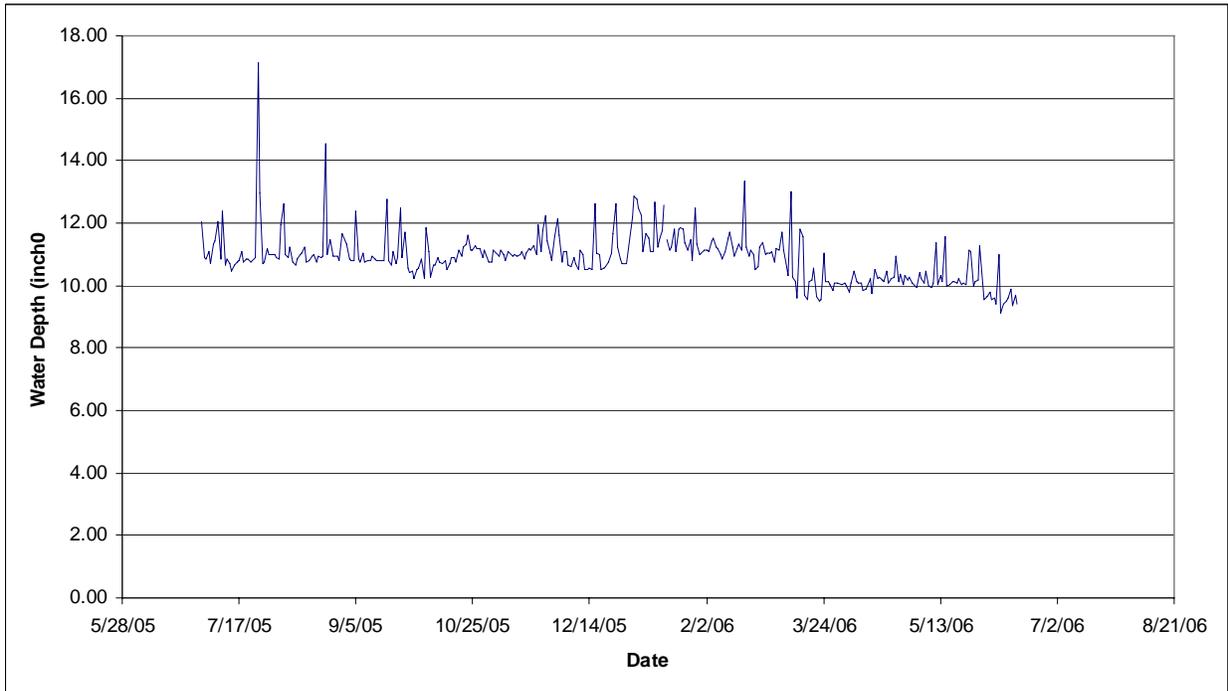


Figure SEI-3-2 Daily Peak Water Depths (site: SEI-3).

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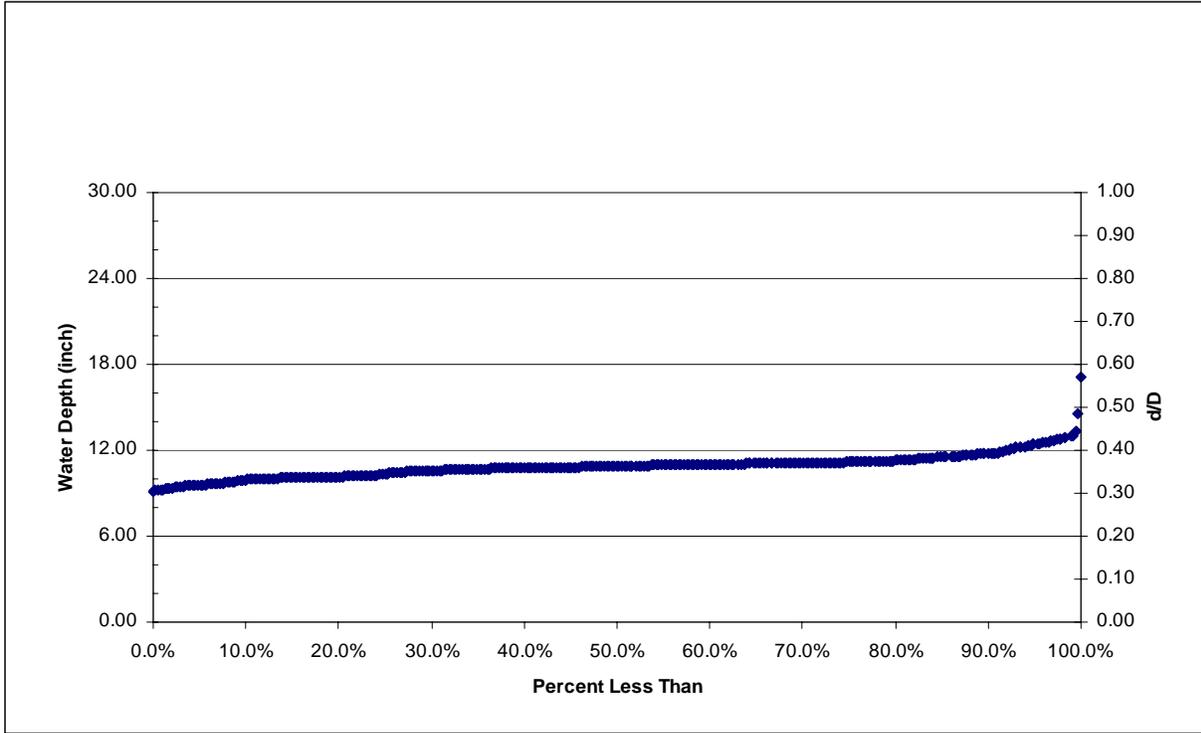


Figure SEI-3-3 Historical Percentile Values of Water Depth (site: SEI-3).

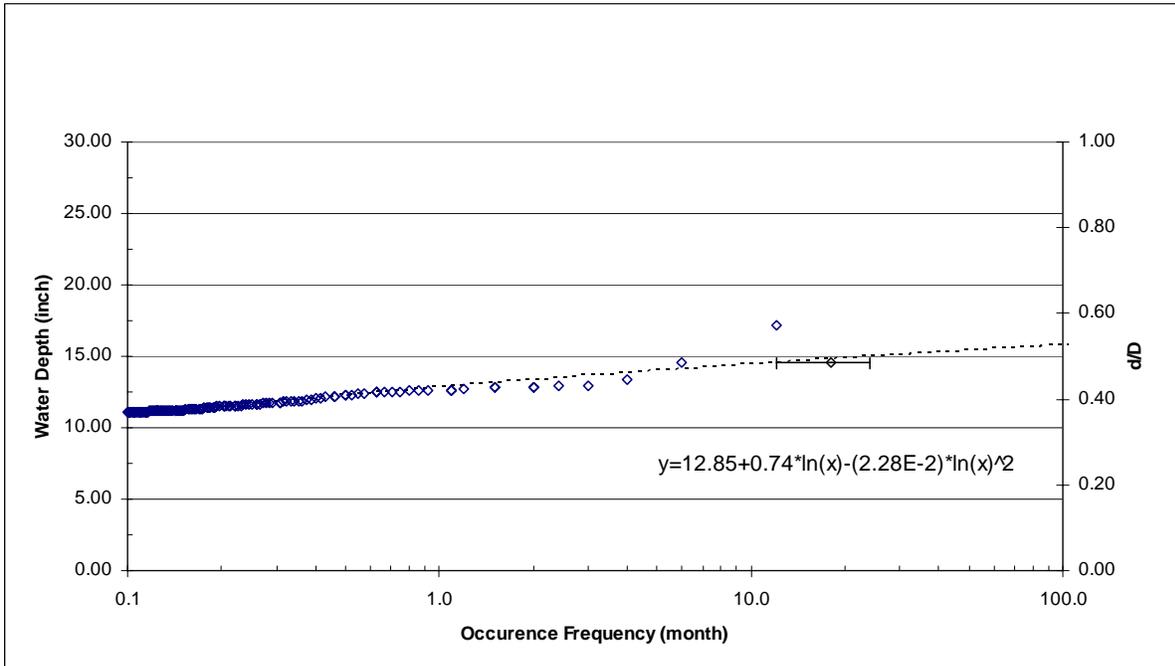


Figure SEI-3-4 Water Depths at Different Recurrence Intervals (site: SEI-3).

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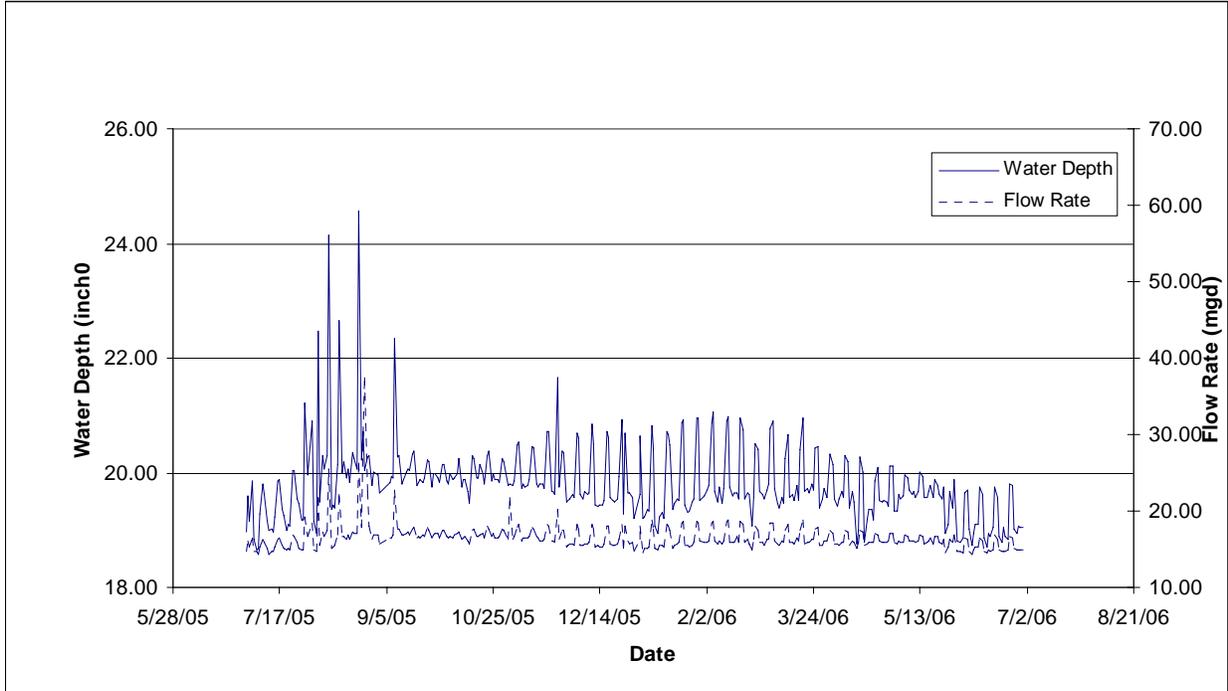


Figure SRC-1-1 Daily Peak Values of Water Depth and Flow Rate (site: SRC-1).

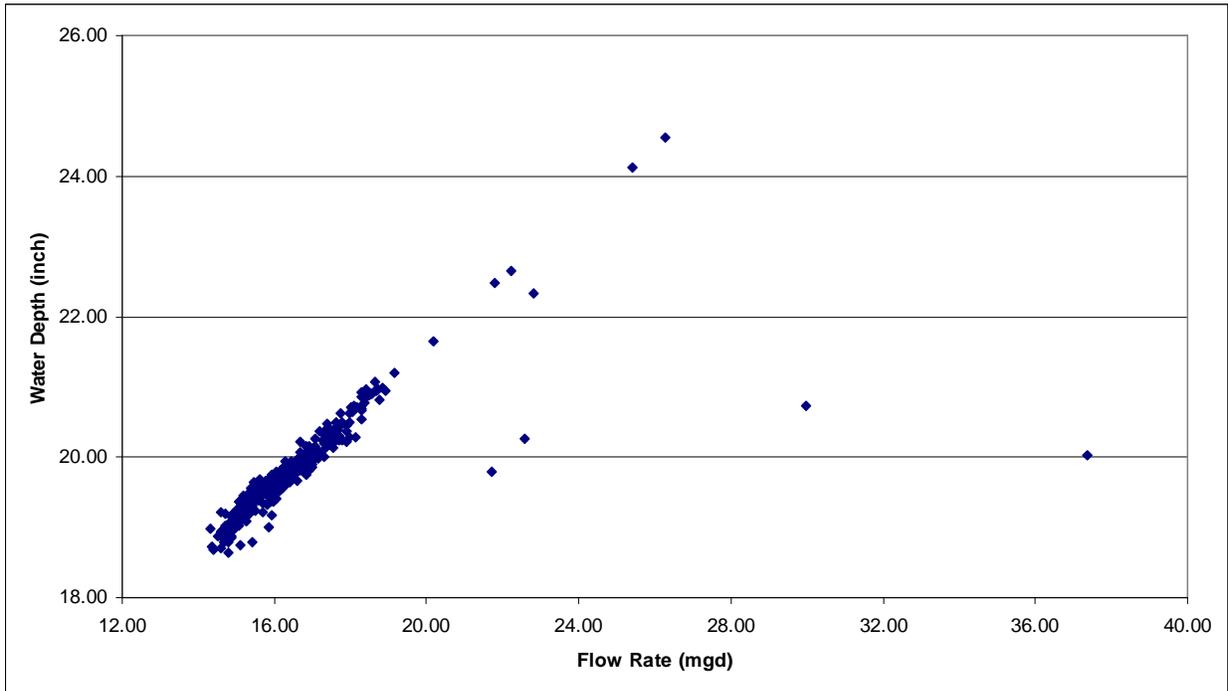


Figure SRC-1-2 Correlation between Daily Peak Water Depths and Flow Rates (site: SRC-1).

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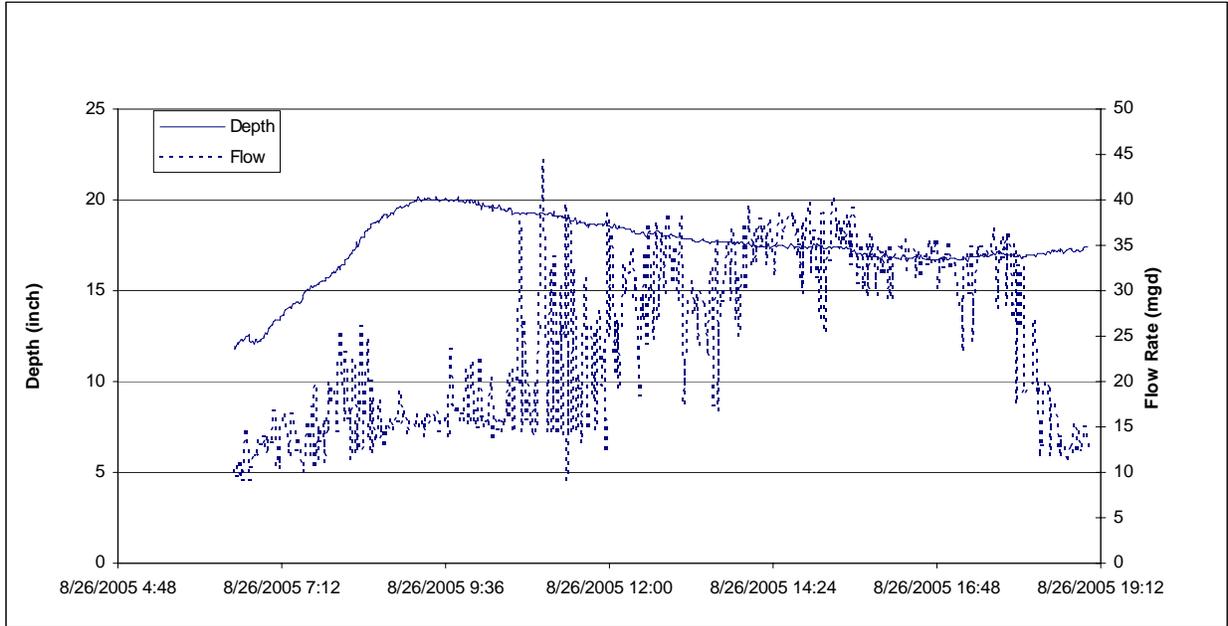


Figure SRC-1-3 An Example Questionable 1-minute Flow Rate Data Points (site: SRC-1).

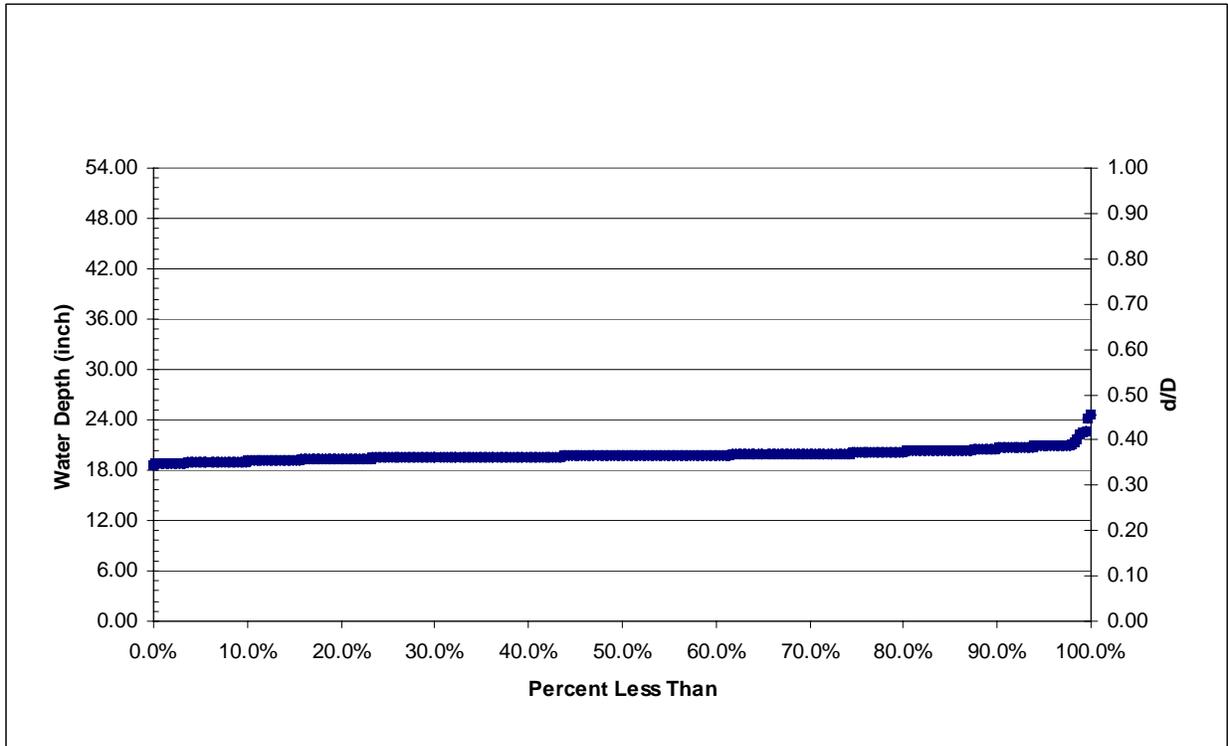


Figure SRC-1-4 Historical Percentile Values of Water Depth (site SRC-1).

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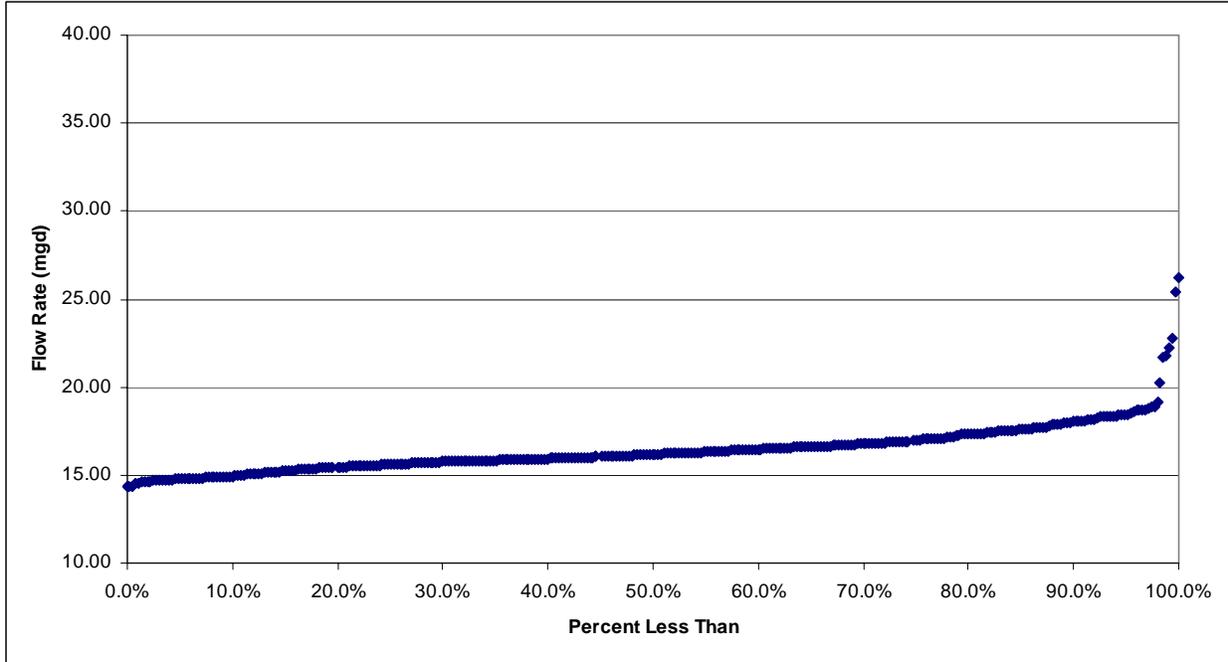


Figure SRC-1-5 Historical Percentile Values of Flow Rate (site: SRC-1).

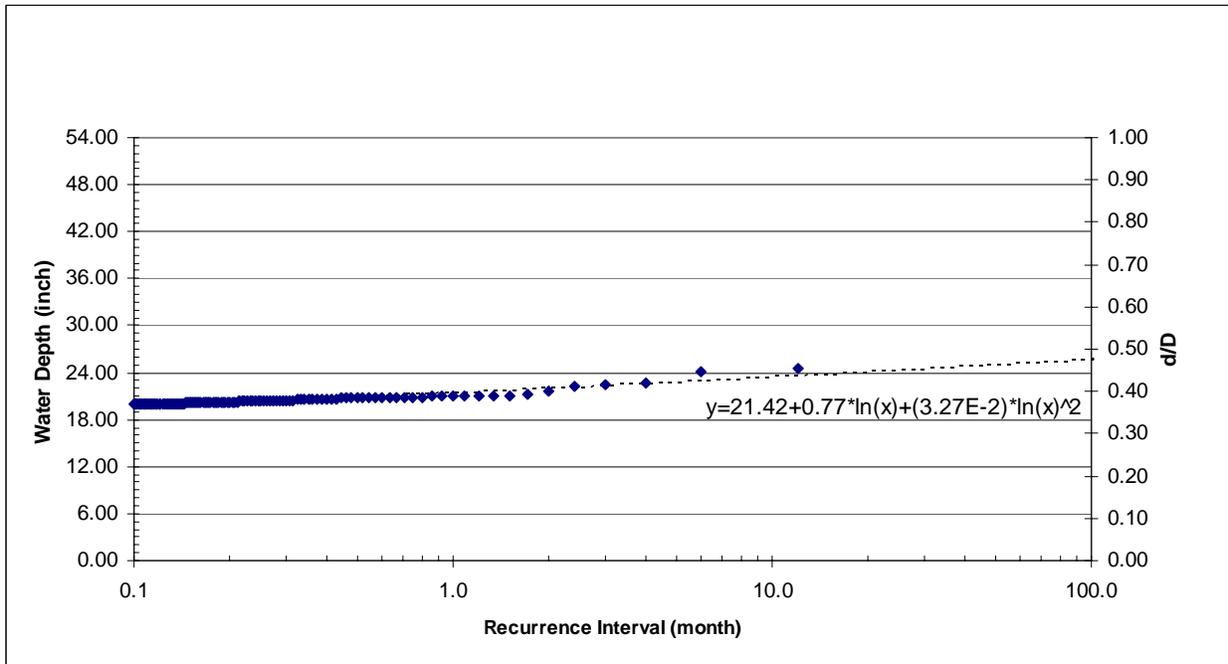


Figure SRC-1-6 Water Depths at Different Recurrence Intervals (site: SRC-1).

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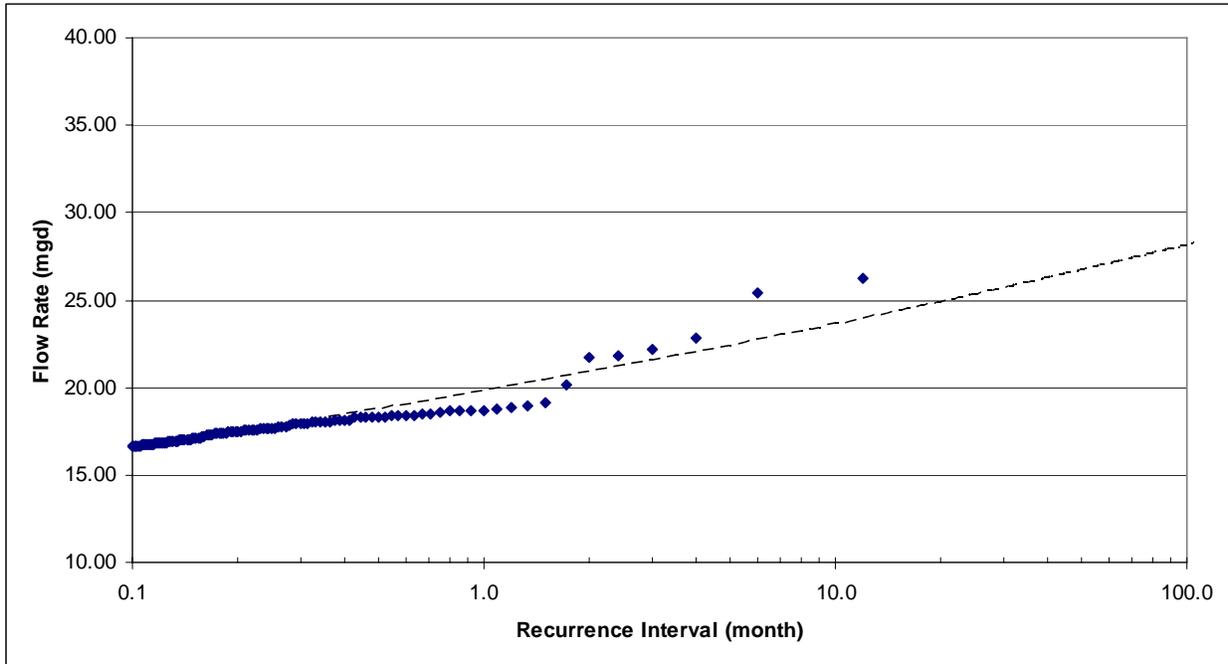


Figure SRC-1-7 Flow Rates at Different Recurrence Intervals (site: SRC-1).

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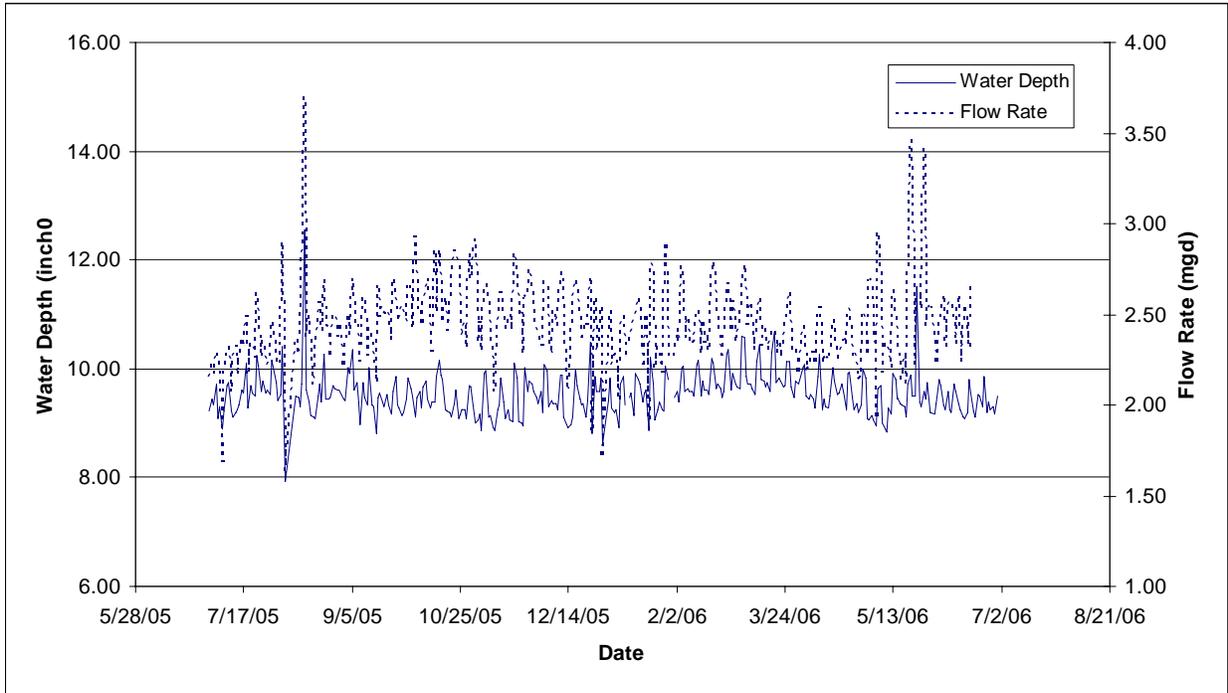


Figure SRW-1-1 Daily Peak Water Depths and Flow Rates (site: SRW-1).

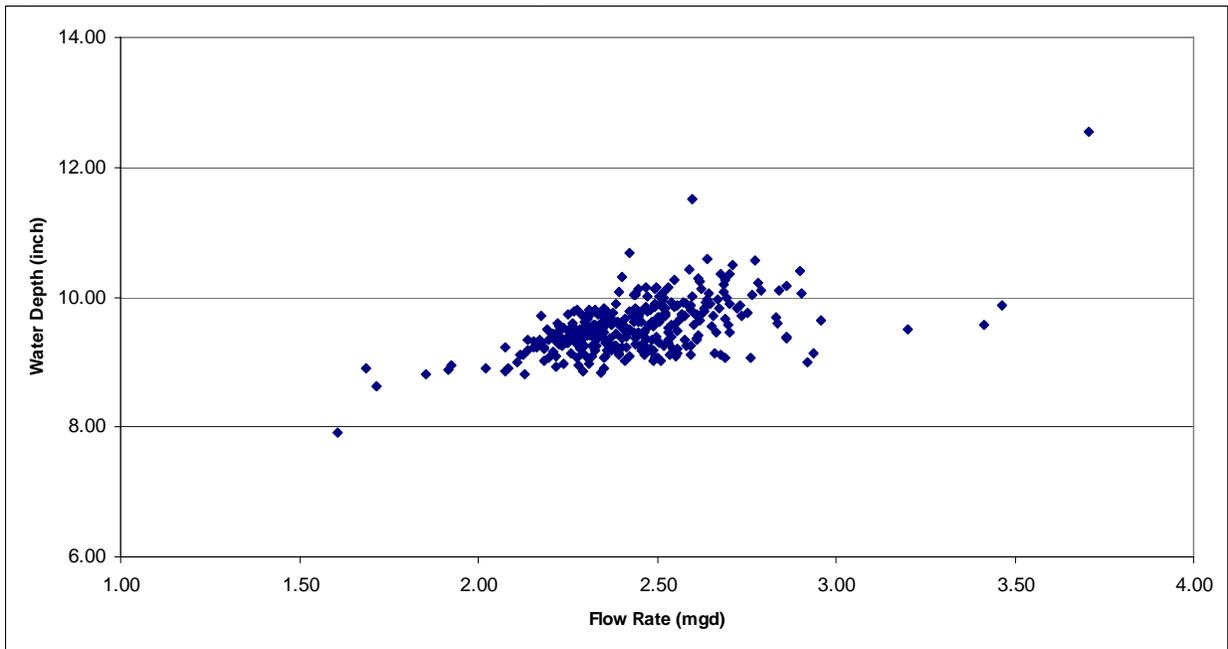


Figure SRW-1-1 Correlation between Daily Peak Water Depths and Flow Rates (site: SRW-1).

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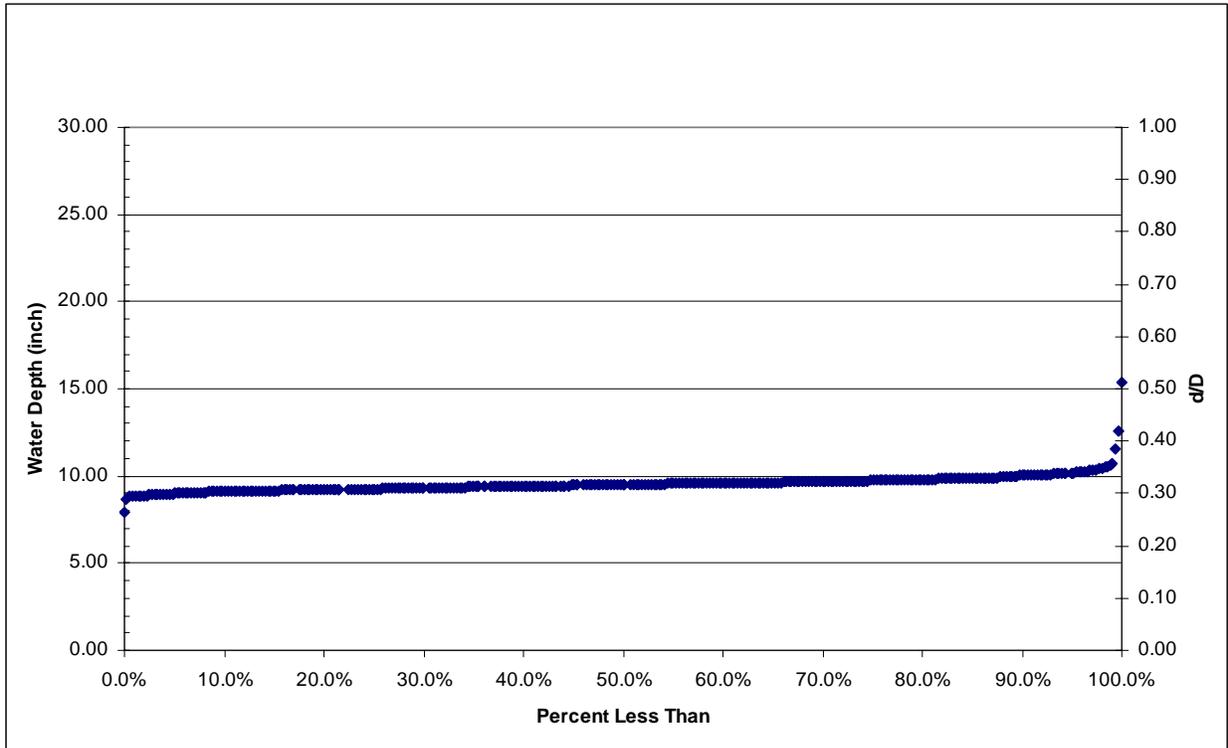


Figure SRW-1-3 Historical Percentile Values of Water Depth (site: SRW-1).

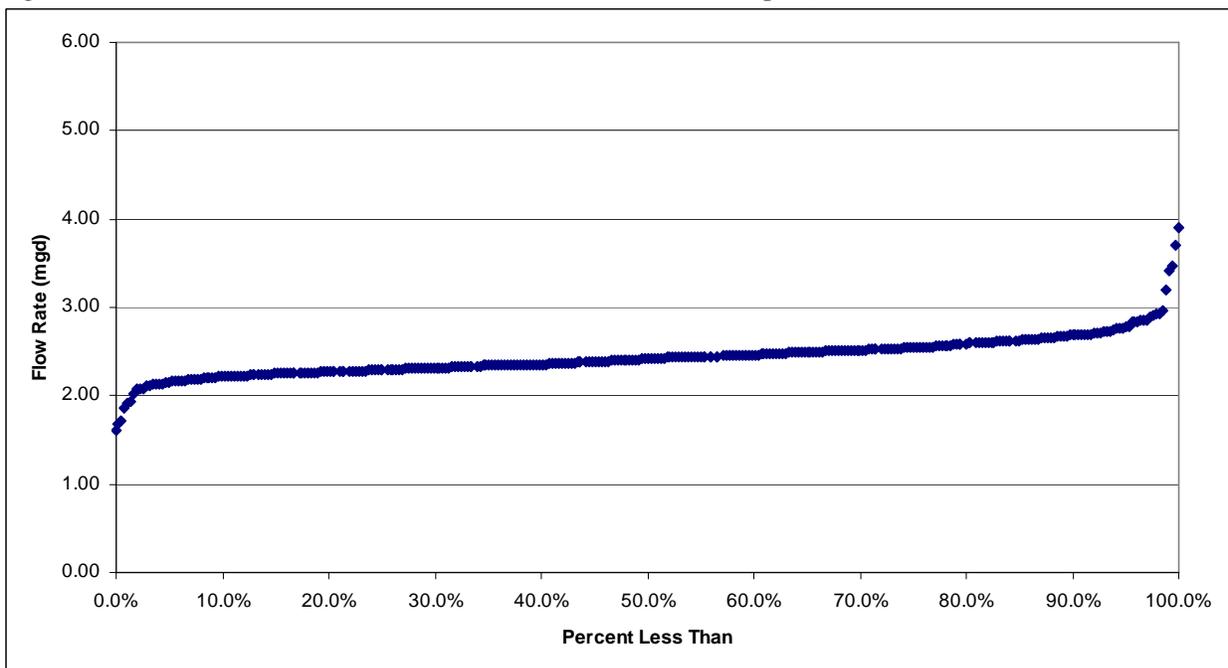


Figure SRW-1-4 Historical Percentile Values of Flow Rates (site: SRW-1).

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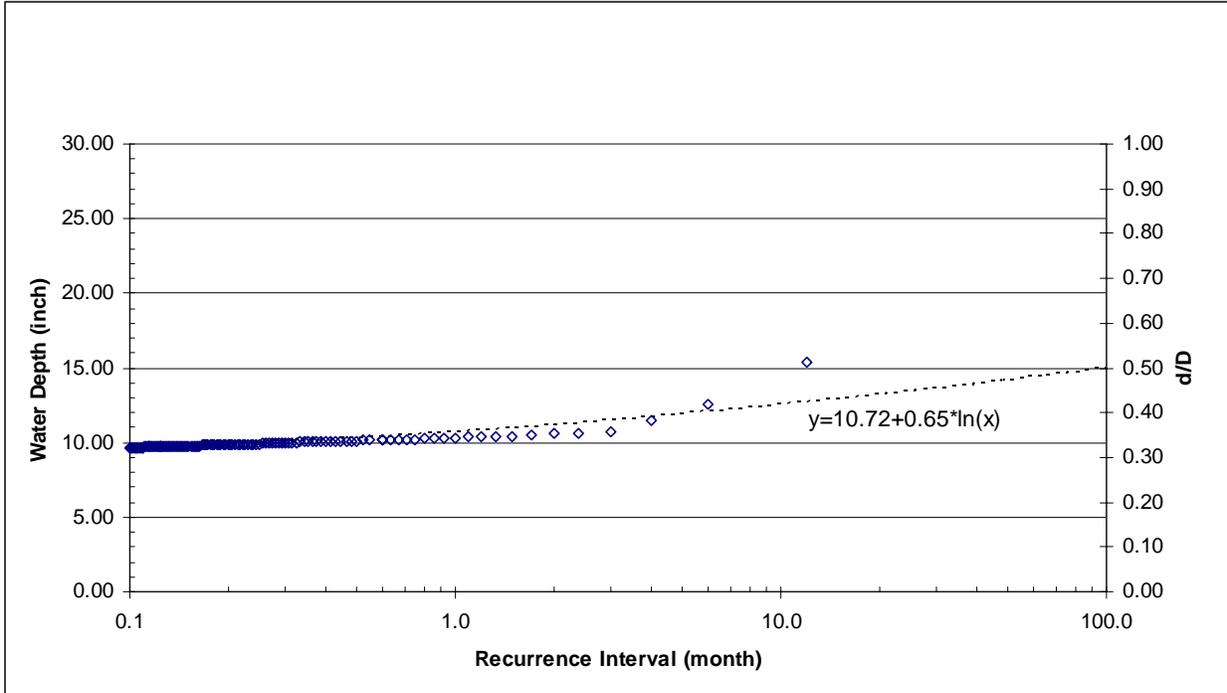


Figure SRW-1-5 Water Depths at Different Recurrence Intervals (site: SRW-1).

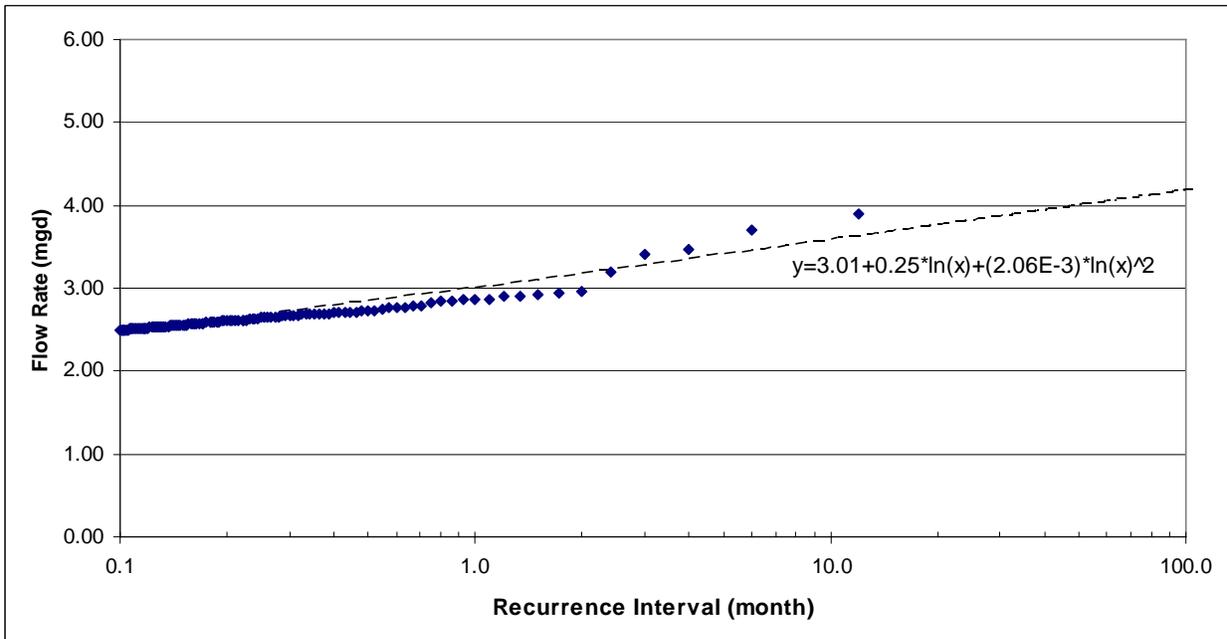


Figure SRW-1-6 Flow Rates at Different Recurrence Intervals (site: SRW-1).

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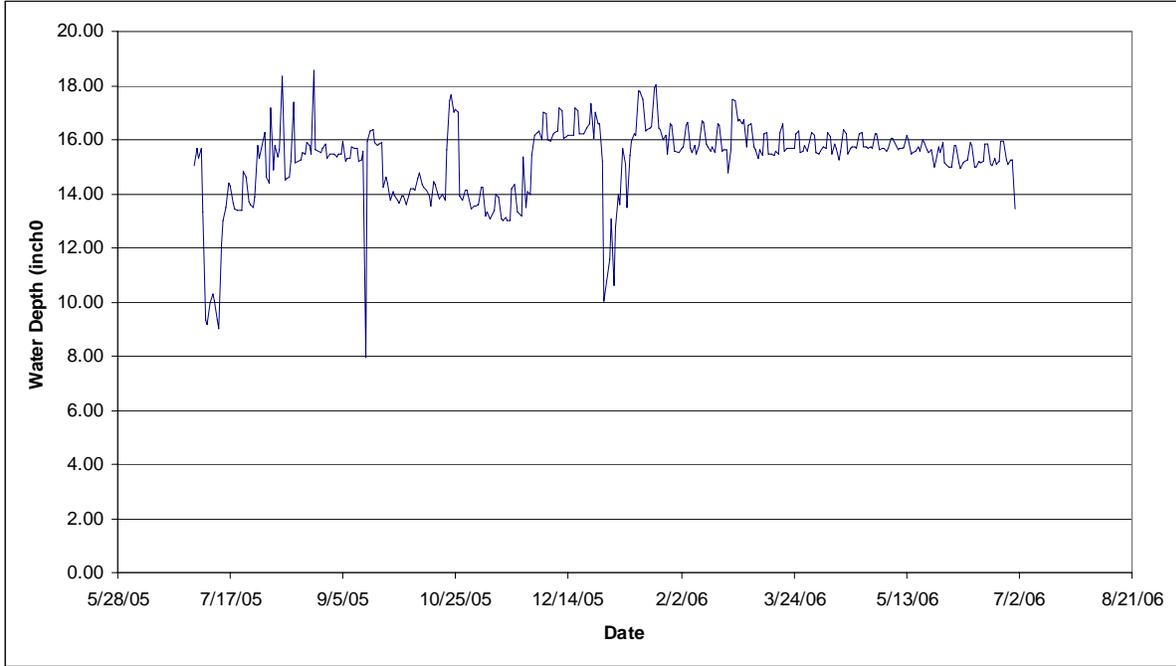


Figure SRWN-1-1 Daily Peak Water Depths (site: SRWN-1).

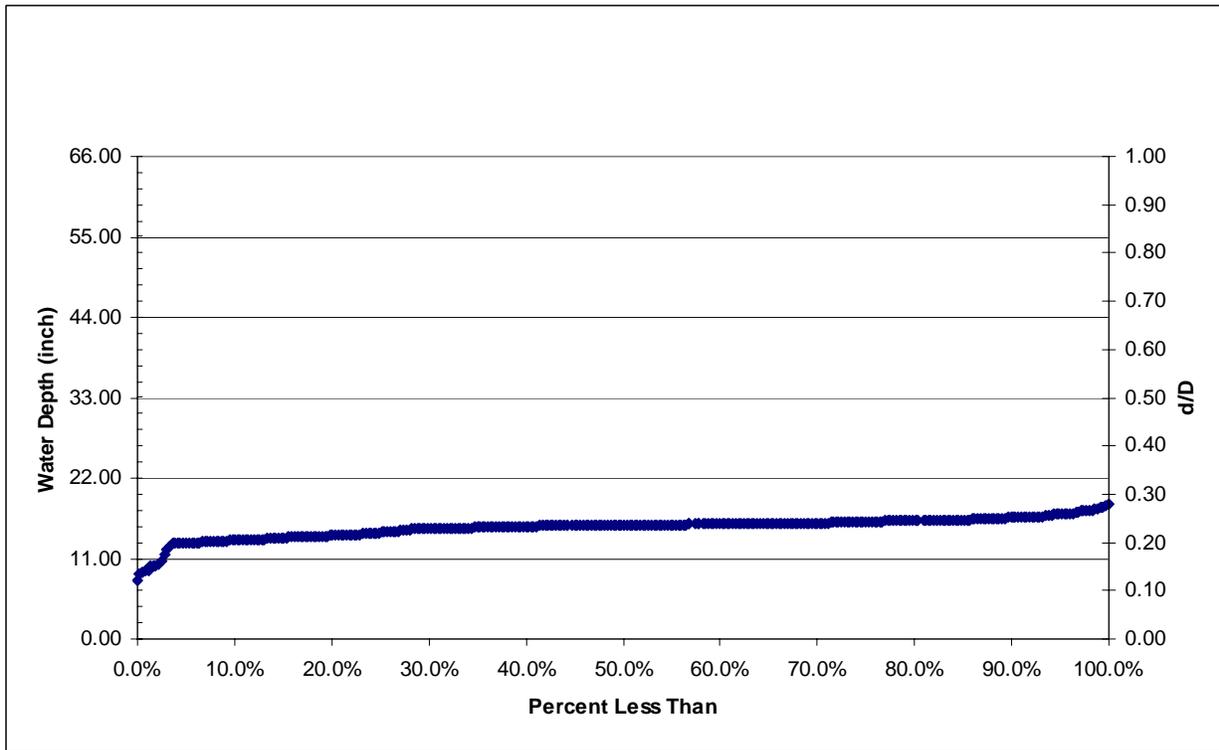


Figure SRWN-1-2 Historical Percentile Values of Water Depth (site: SRWN-1).

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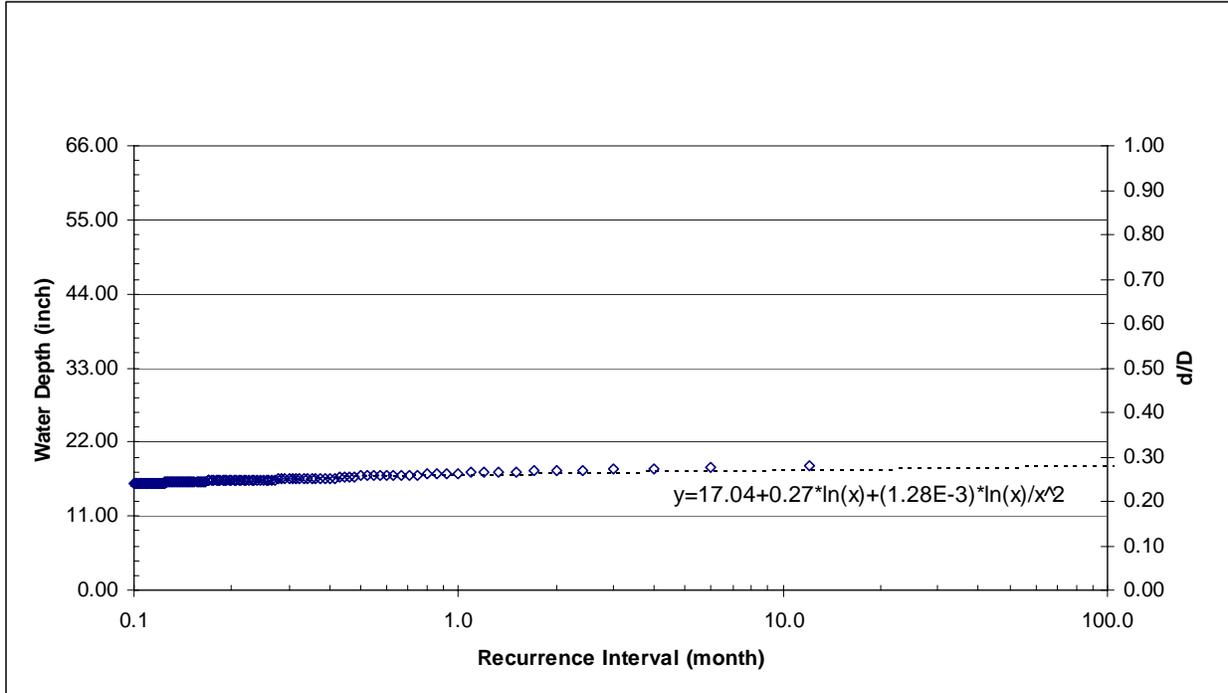


Figure SRWN-1-3 Water Depths at Different Recurrence Intervals (site: SRWN-1).

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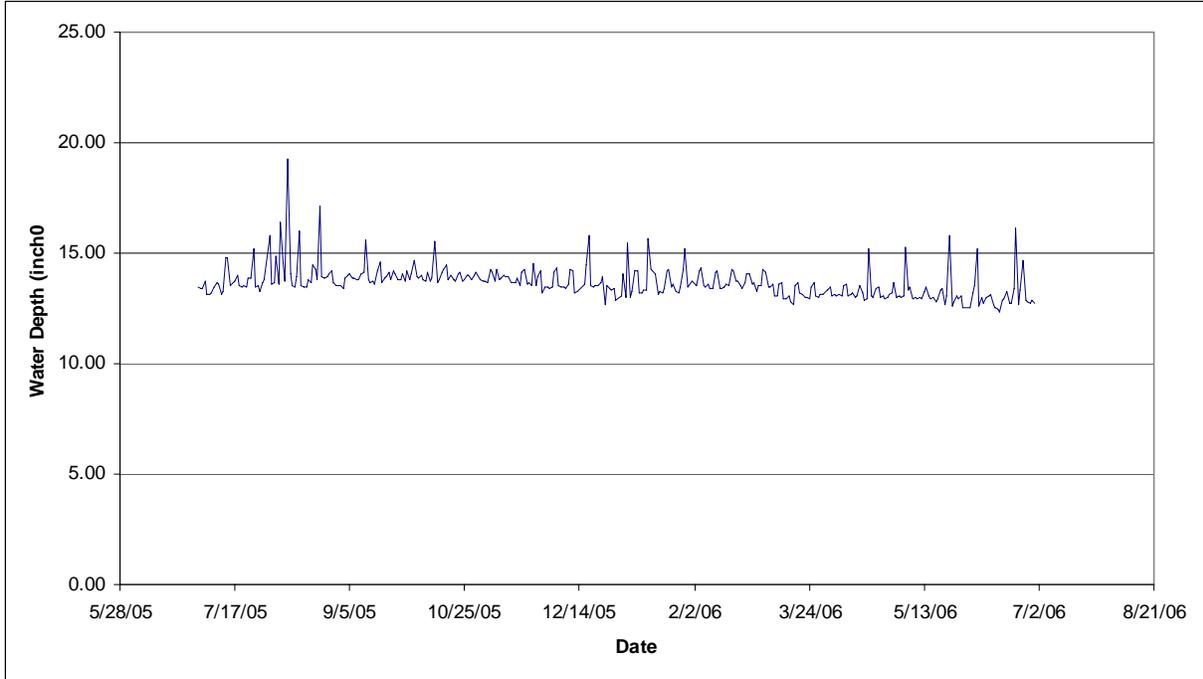


Figure SRWS-1-1 Daily Peak Water Depths (site: SRWS-1).

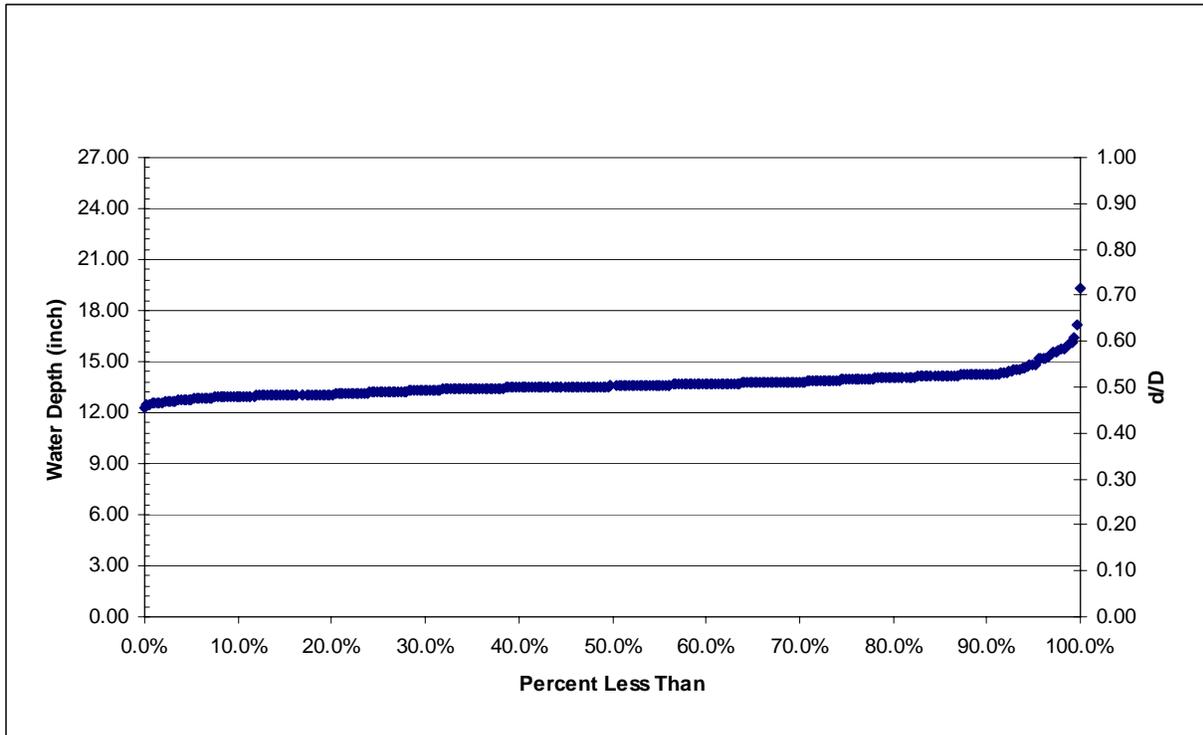


Figure SRWS-1-2 Historical Percentile Values of Water Depth (site: SRWS-1).

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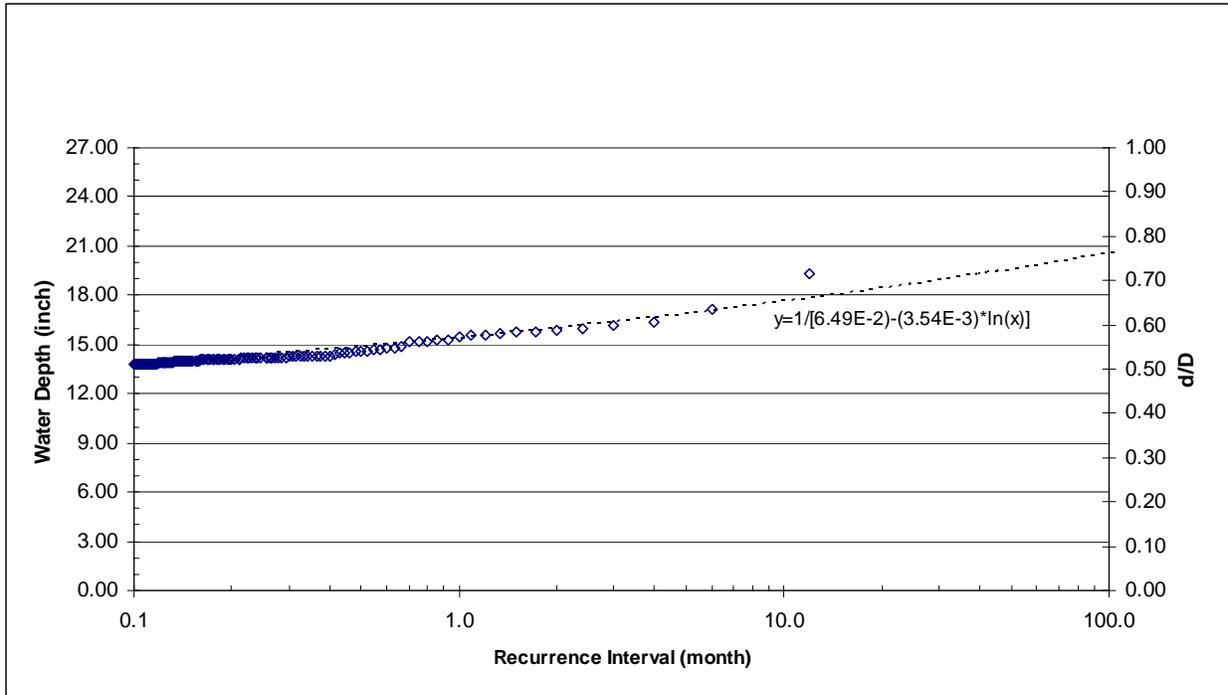


Figure SRWS-1-3 Water Depths at Different Recurrence Intervals (site: SRWS-1).

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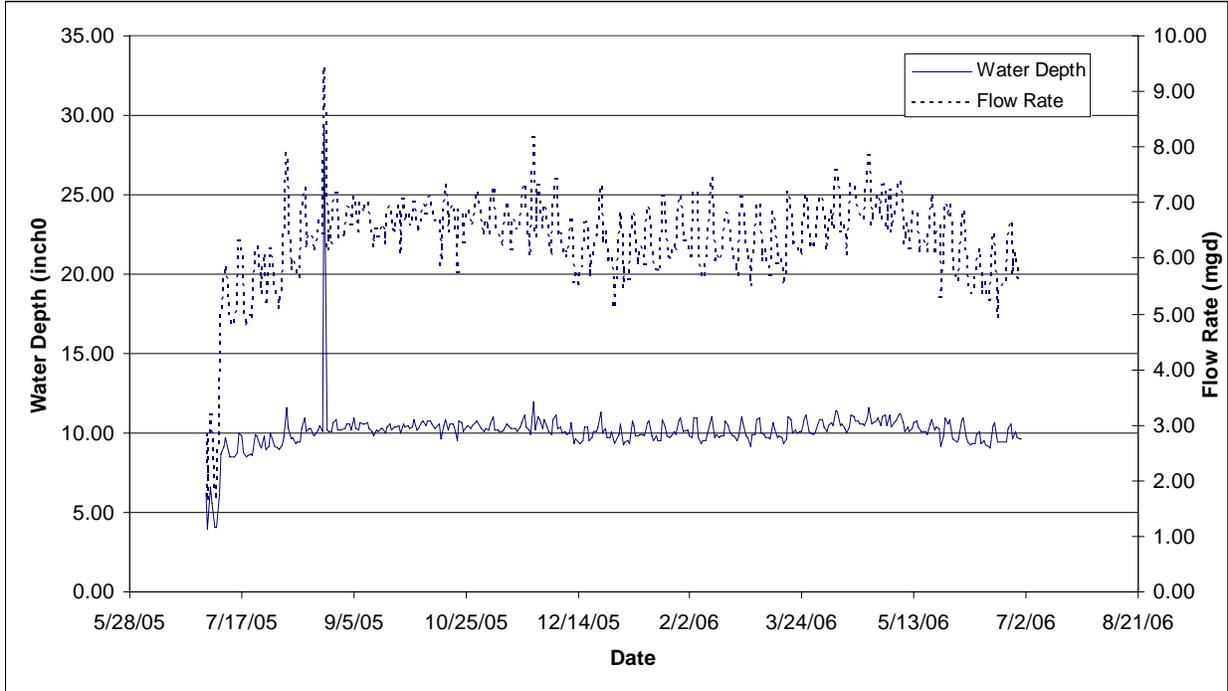


Figure SWI-1-1 Daily Peak Water Depths and Flow Rates (site: SWI-1).

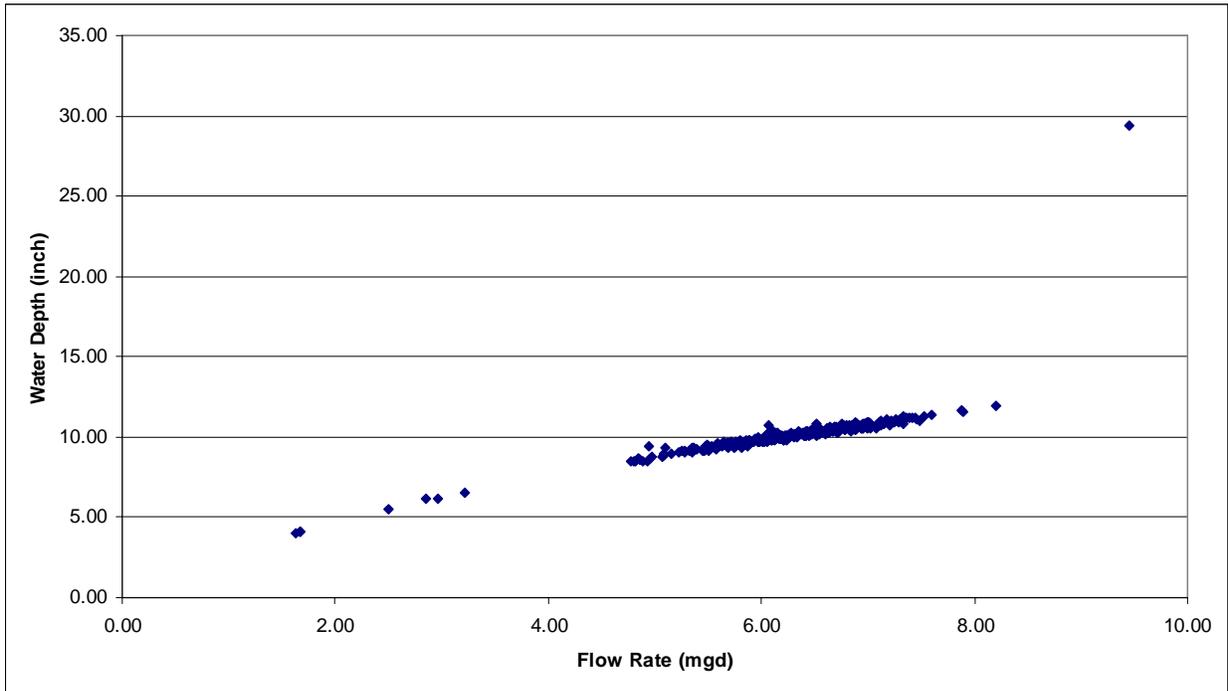


Figure SWI-1-2 Correlation between Daily Peak Water Depths and Flow Rates (site: SWI-1).

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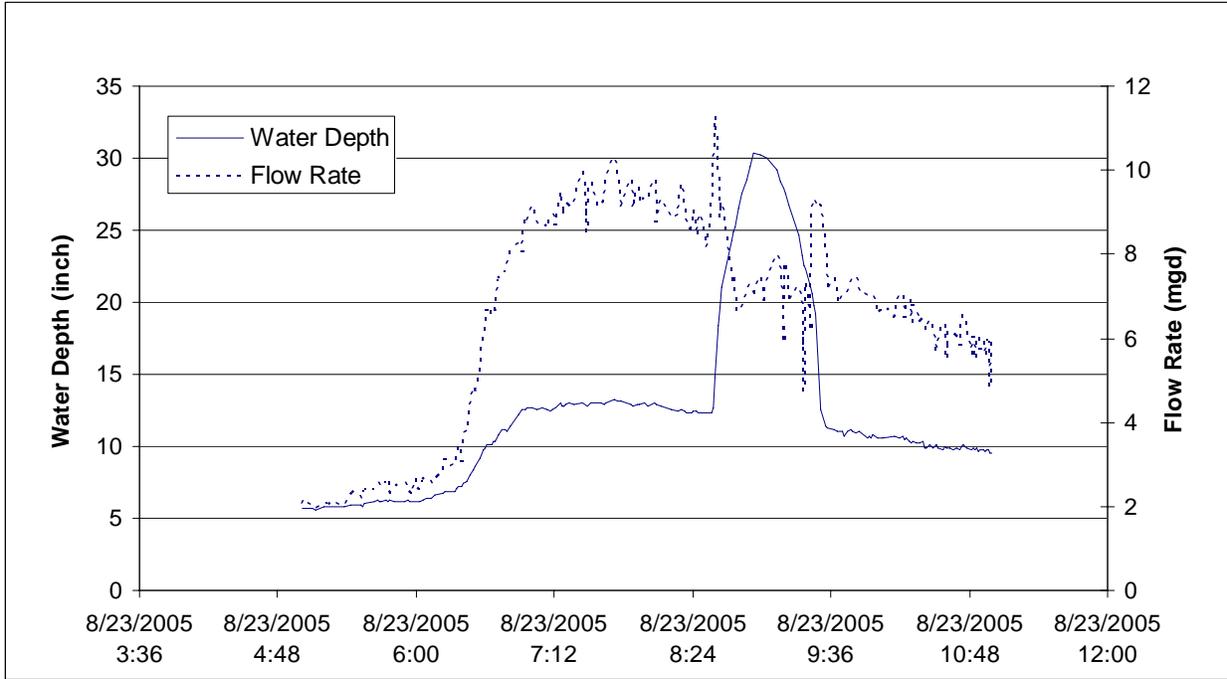


Figure SWI-1-3 One-minute Data Points with the Maximum Water Depth and Flow Rate (site: SWI-1).

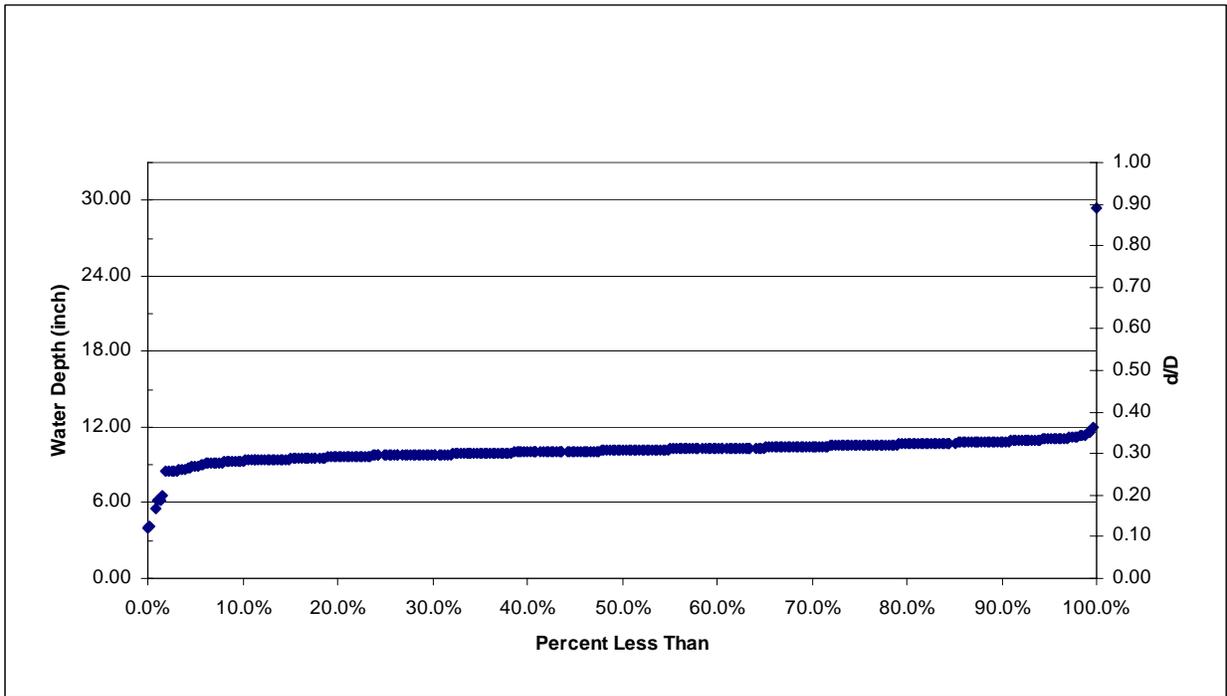


Figure SWI-1-4 Historical Percentile Values of Water Depth (site: SWI-1).

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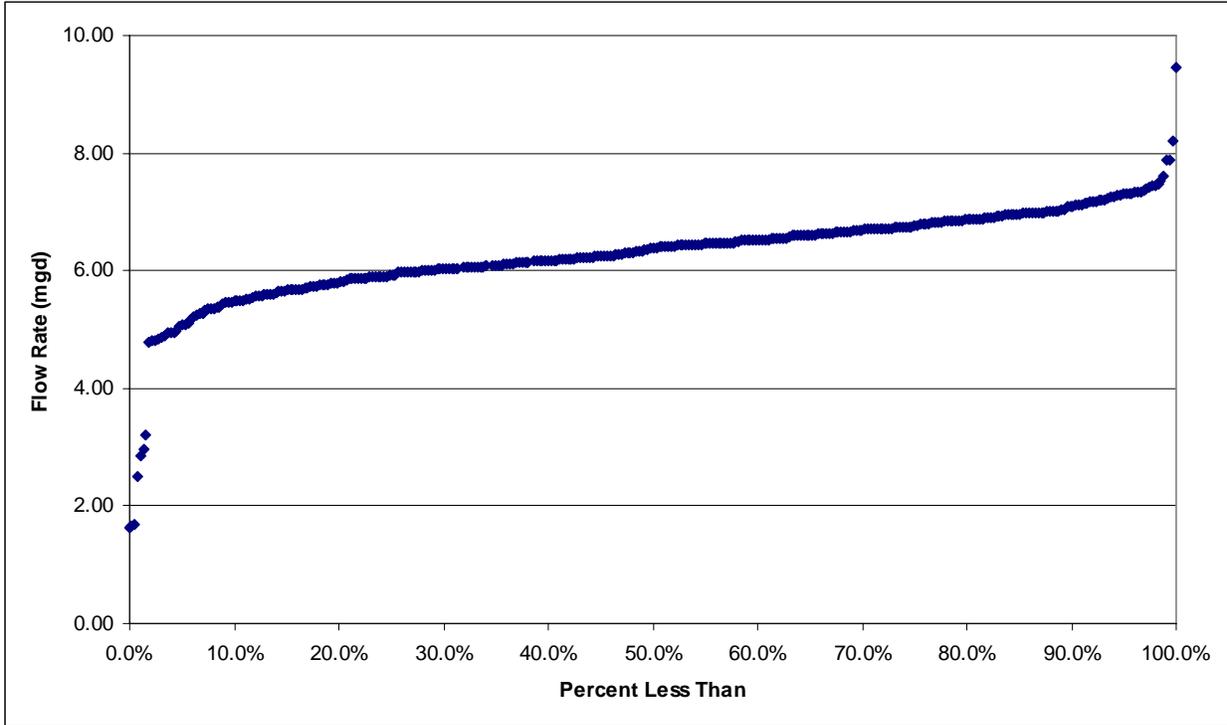


Figure SWI-1-5 Historical Percentile Values of Flow Rate (site: SWI-1).

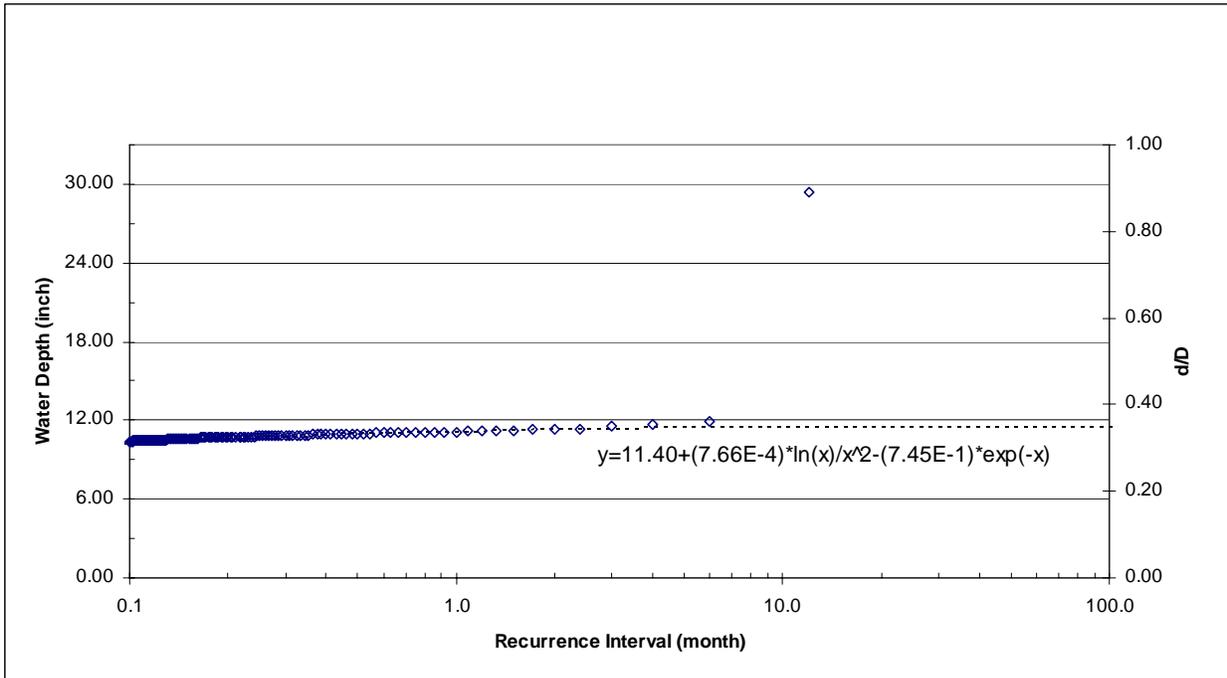


Figure SWI-1-6 Water Depths at Different Recurrence Intervals (site: SWI-1).

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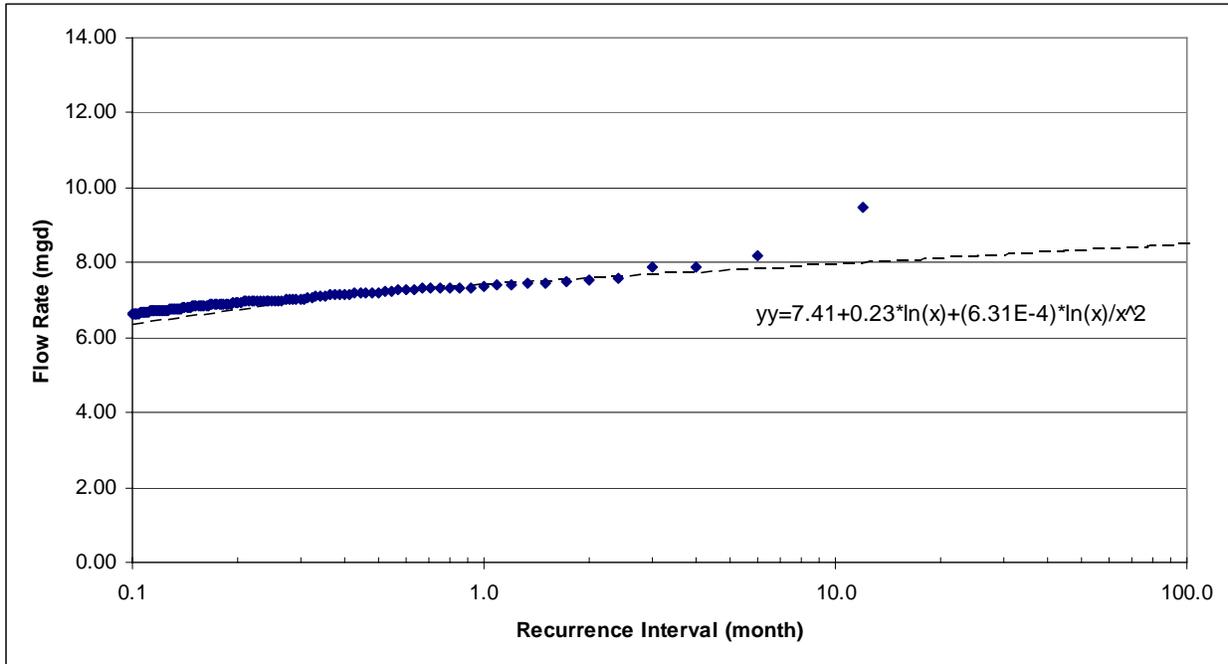


Figure SWI-1-7 Flow Rates at Different Recurrence Intervals (site: SWI-1).

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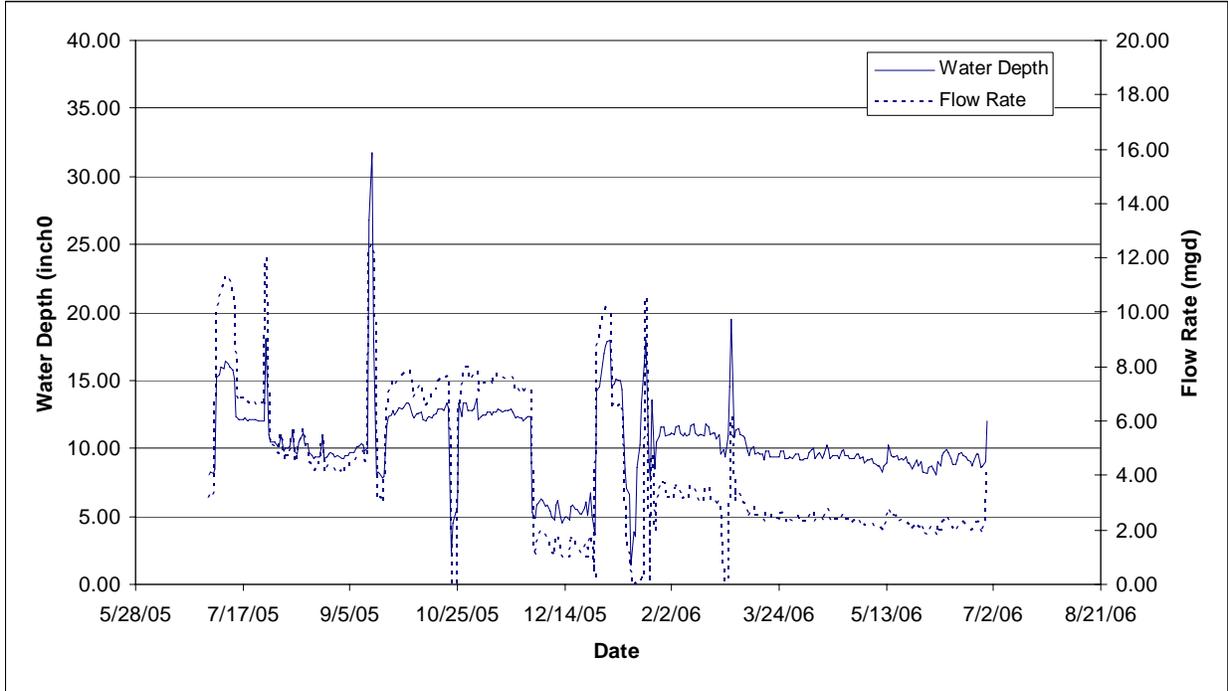


Figure TUCDIV-1 Daily Peak Water Depths and Flow Rates (site: TUCDIV).

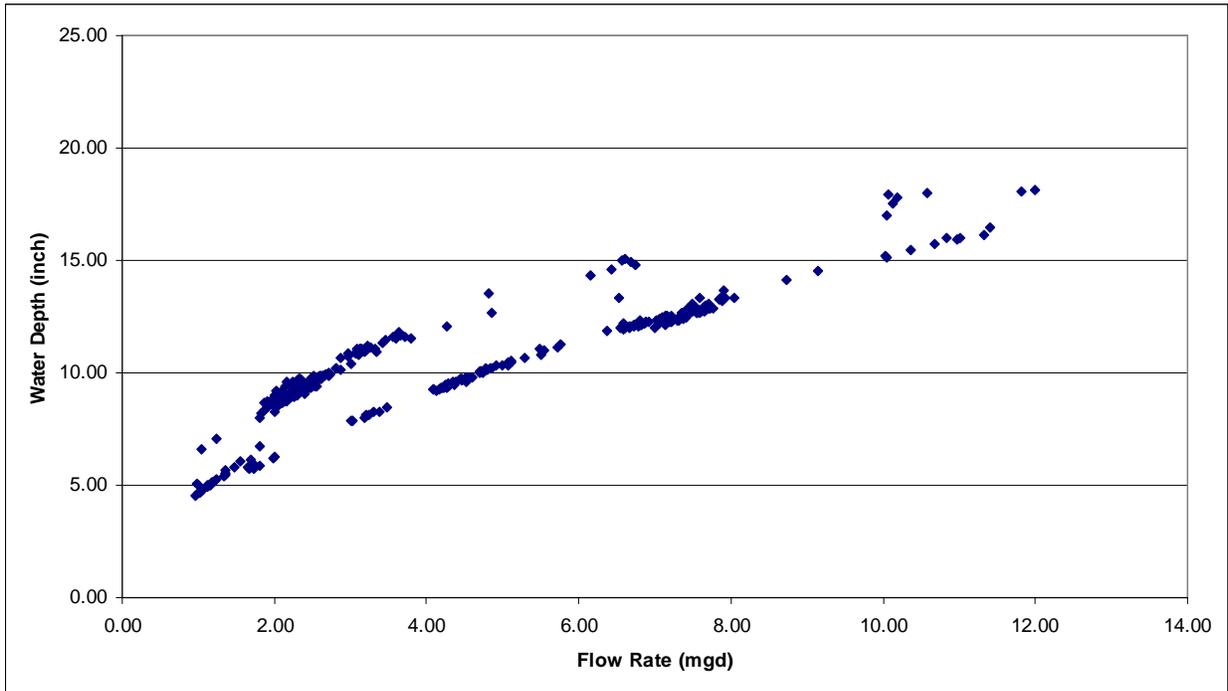


Figure TUCDIV-2 Correlation between Water Depths and flow Rates (site: TUCDIV).

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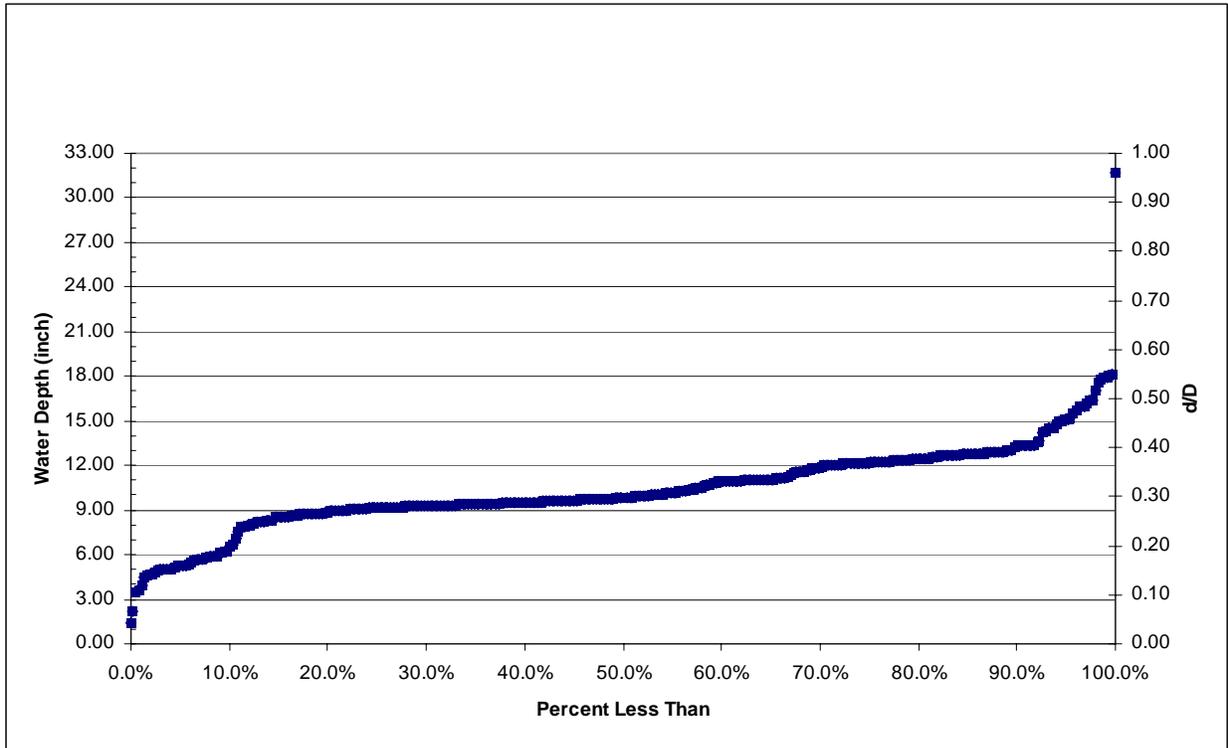


Figure TUCDIV-3 Historical Percentile Values of Water Depth (site: TUCDIV).

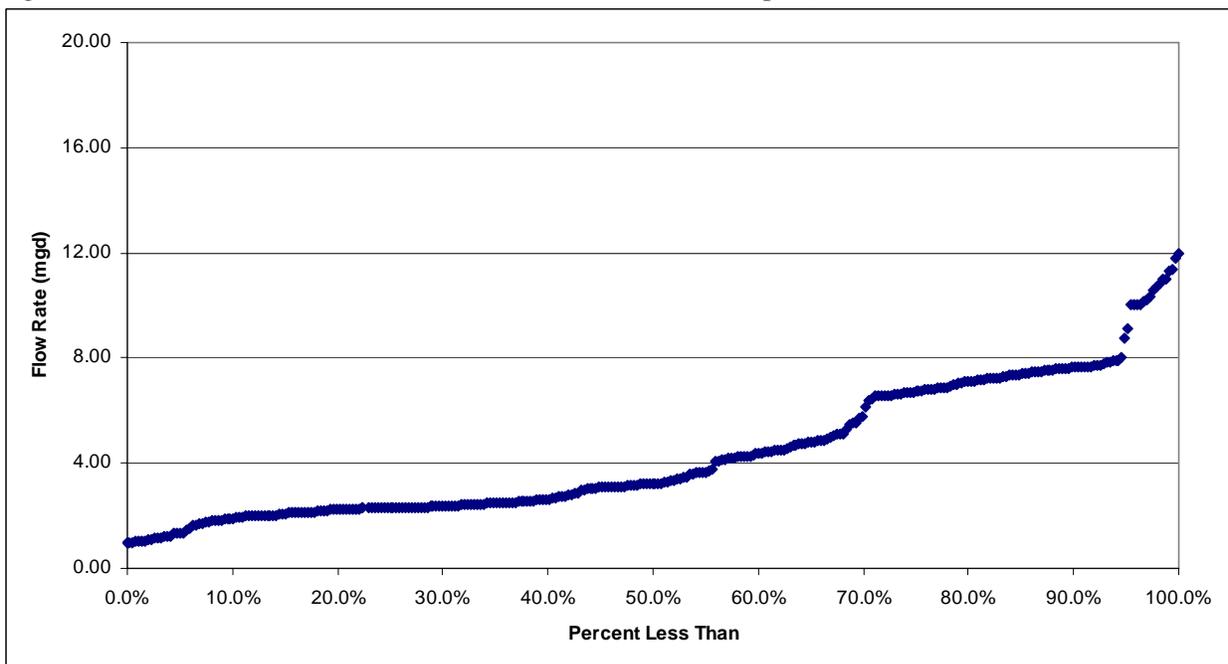


Figure TUCDIV-4 Historical Percentile Values of Flow Rate (site: TUCDIV).

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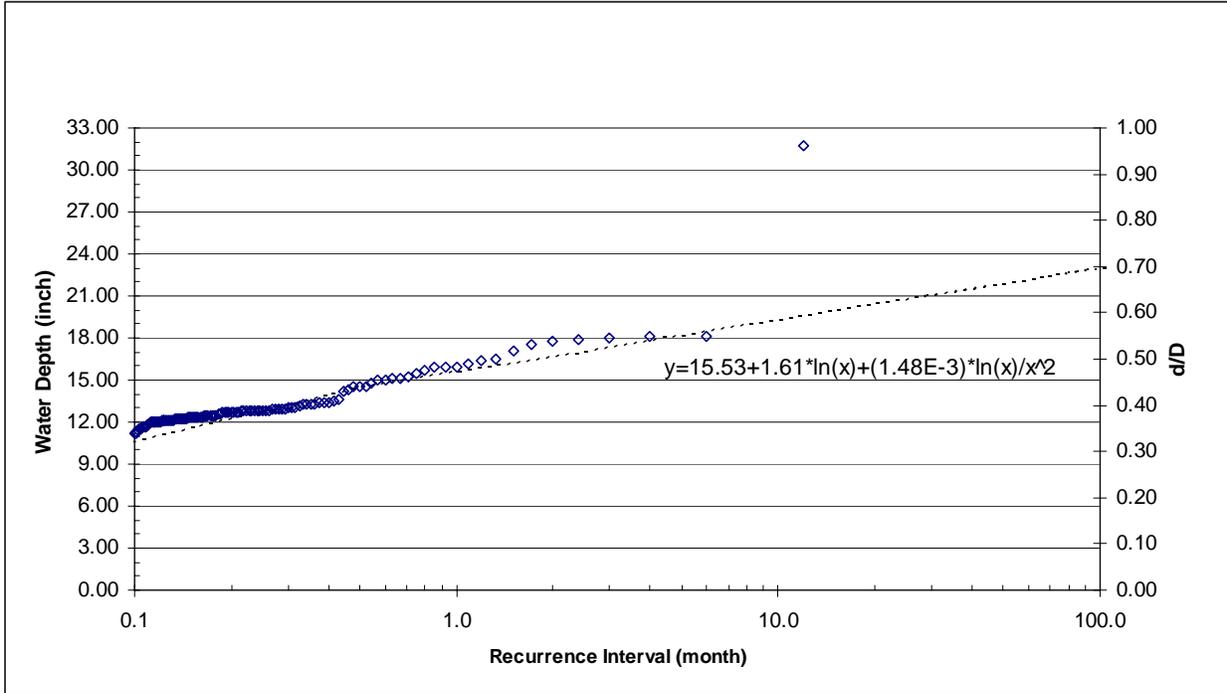


Figure TUCDIV-5 Water Depths at Different Recurrence Intervals (site: TUCDIV).

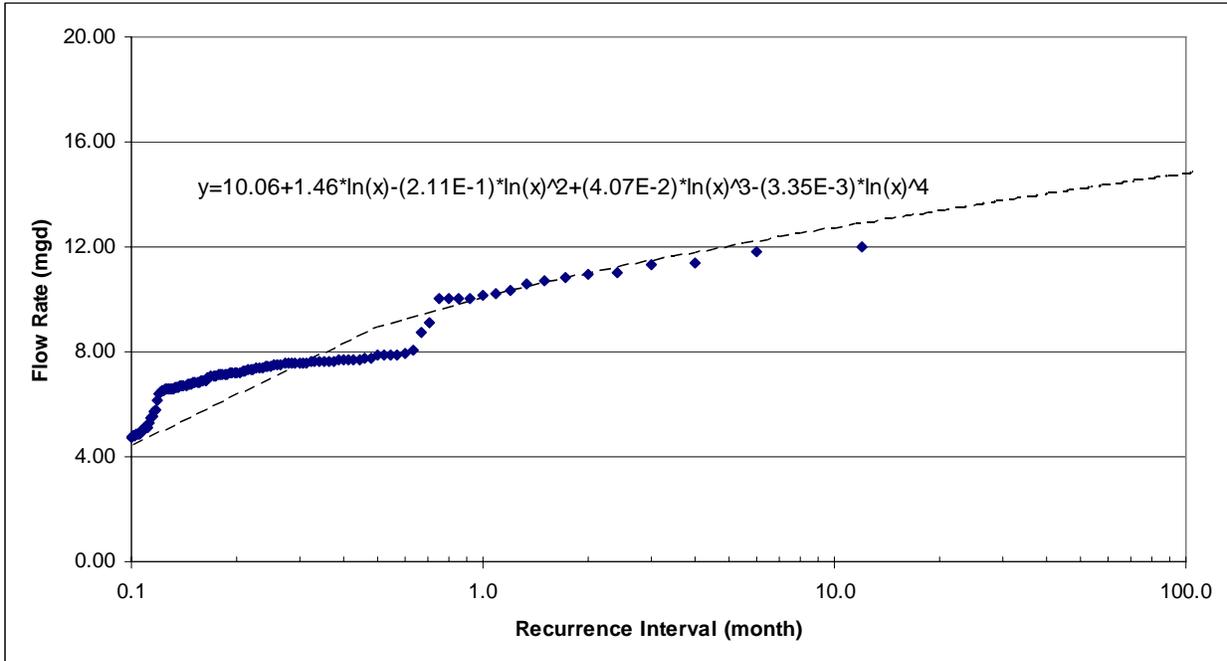


Figure TUCDIV-6 Flow Rates at Different Recurrence Intervals (site: TUCDIV).