

**Floogie Mitigation Project  
Bertie County, North Carolina  
DENR-EEP Contract No. D06011  
Year 4 Monitoring Report**



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Appendix A	As-Built Survey
Appendix B	2011 Profile and Cross Section Data
Appendix C	2011 Gauge Data
Appendix D	2011 Site Photos
Appendix E	Morphologic Parameters



## **1.0 SUMMARY**

This Annual Report details the monitoring activities during the 2011 growing season on the Floogie Mitigation Site. Construction of the site, including planting of trees, was completed in February 2008. The 2011 data represents results from the fourth year of hydrology and vegetation monitoring for both wetlands and streams.

The design for the Floogie Site involved stream restoration and riverine wetland restoration. After construction, it was determined that the project generated 11,149 feet of stream restoration and 25.19 acres of wetland restoration. The As-Built survey is included as **Appendix A**.

This Annual Report presents the data from nine automated hydrology monitoring stations, 18 vegetation monitoring plots, two crest gauges, two rain gauges, 20 cross sections, a minimum of 3,100 linear feet of profile survey, and photographic reference locations, as specified in the approved Restoration Plan for the site.

Weather station data from the Greens Cross Weather Station were used in conjunction with manual and tipping bucket rain gauges located on the site to document precipitation amounts. The manual gauge is used to validate observations made at the automated stations. On-site rainfall measurements correlated with readings taken at the Greens Cross Weather Station throughout the growing season.

In 2011, all hydrology monitoring gauges exceeded the seven percent hydrologic success criterion as defined in the Restoration Plan for the site. The gauges exhibited consecutive hydroperiods ranging from 13 to 20 percent of the growing season.

In 2011, vegetation monitoring documented the survival of planted woody vegetation of between 390 and 940 stems per acre with an average of 619 stems per acre. The site has achieved the interim success criterion of 320 stems per acre by the end of year three. The site as a whole is on track to meet the final success criterion of 260-planted stems per acre by the end of year five.

Several bankfull events were recorded at the site during the 2011 growing season from crest gauges. The restored stream channel has remained stable and is providing the intended habitat and hydrologic functions. All monitored cross sections and longitudinal profile for 2011 show very little adjustment in stream dimension. There are two localized areas of erosion that are in the process of stabilizing and two small beaver dams present.

## **2.0 INTRODUCTION**

### **2.1 PROJECT DESCRIPTION**

The Floogie Site is located nine miles northeast of Windsor (**Figure 1**). The property is 104 acres located immediately southwest of SR 1348 (Browns School Road) and is accessed via a farm road that runs adjacent to the channel (Flat Swamp Creek). Construction at the site was completed in February 2008. Groundwater, surface water, and rain gauges were functional beginning in March 2008.

Flat Swamp Creek has a drainage area of 1,168 acres (1.83 mi<sup>2</sup>) at the upstream end of the restoration project and 2,150 acres (3.36 mi<sup>2</sup>) at the downstream end. The wetland restoration area has a drainage area of 1,456 acres (2.28 mi<sup>2</sup>). The dominant historic land use was

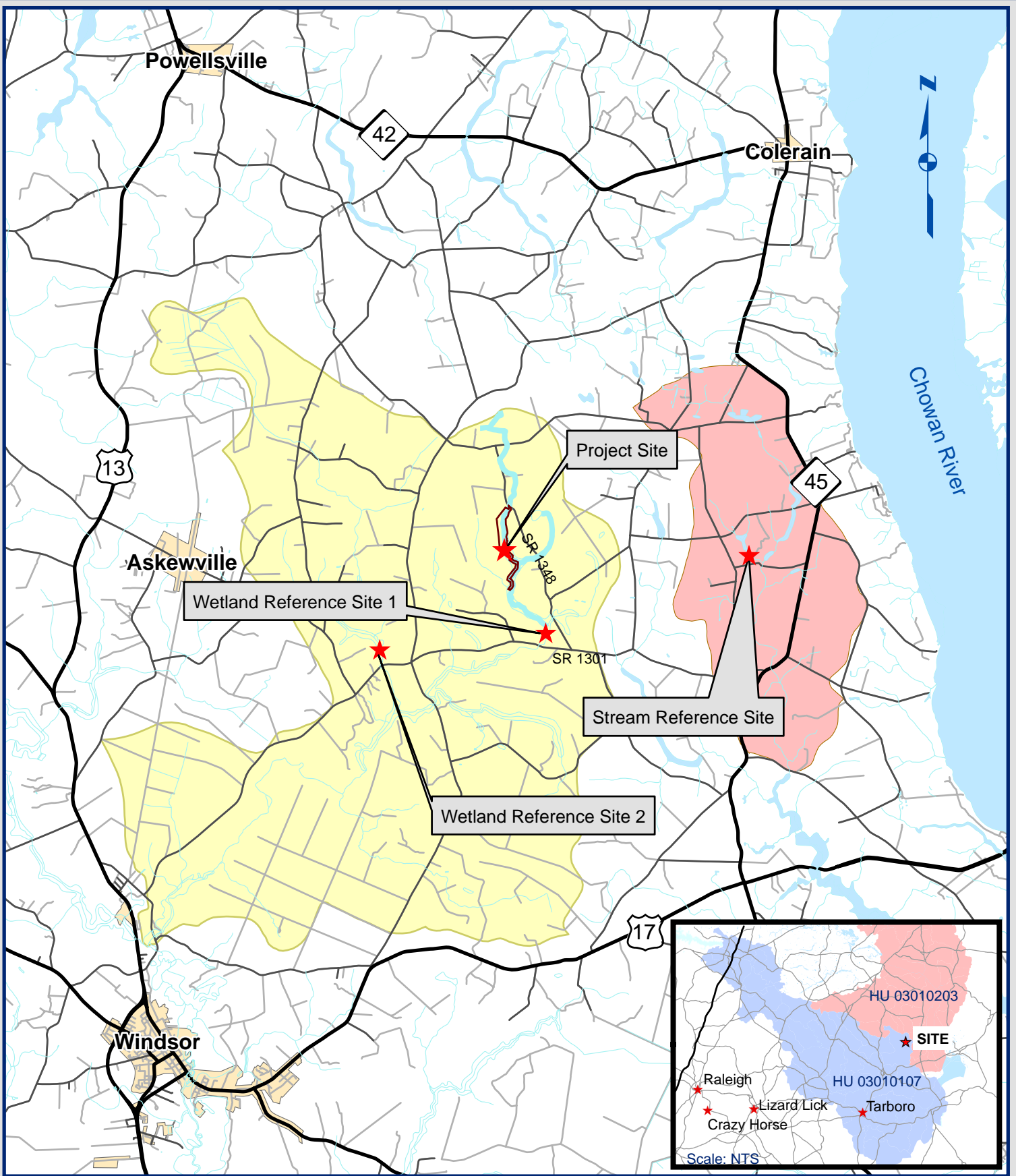




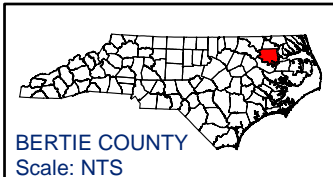


Figure 1.  
Project Vicinity Map  
Floodie Site

0 0.5 1 2 3 4 Miles

**LEGEND**

-  NCDOT Roads
-  Existing Waterbody
-  HUC 03010107160050
-  HUC 03010203090030





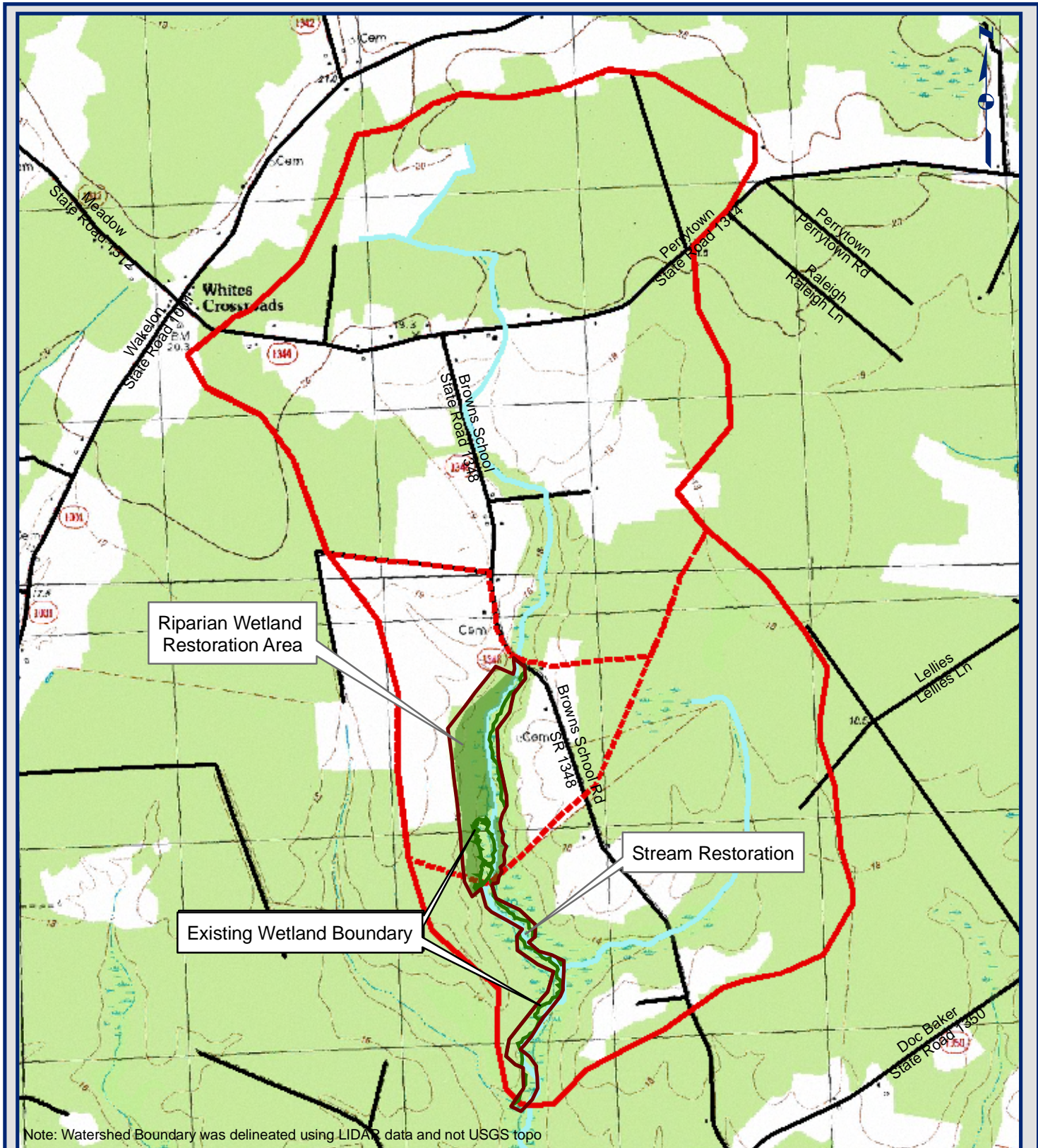







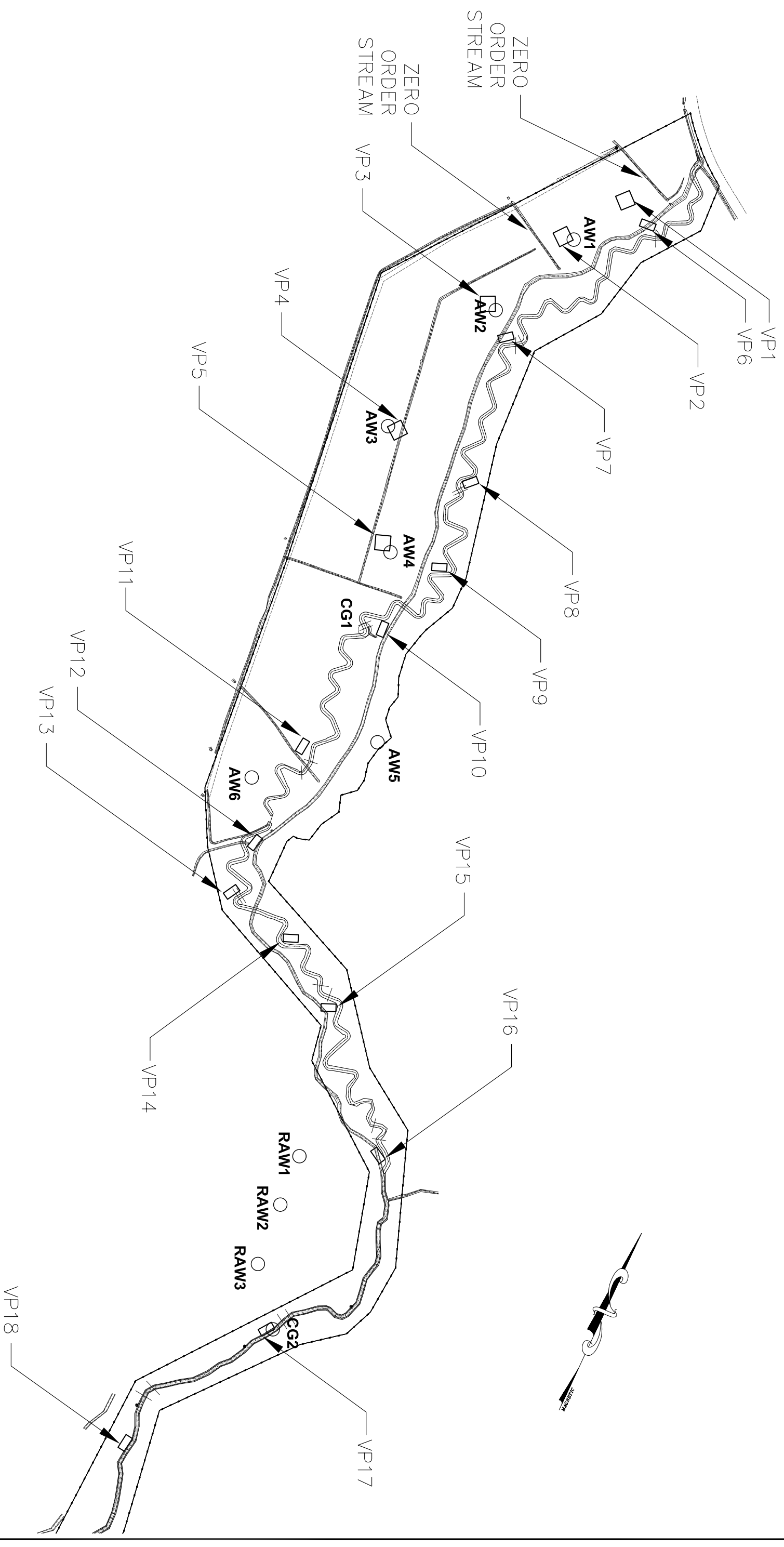
Figure 2.  
USGS Quadrangle Map  
Floodie Site

**LEGEND**

-  NCDOT Roads
-  Stream
-  Project Area
-  Potential Riverine Wetland Restoration
-  Watershed Boundary

0 1,000 2,000 4,000 Feet





Floogie  
Monitoring Overview

Figure 3



agricultural production of crops including cotton, soybeans, corn, and timber, although some areas were woodlands. Natural drainage patterns throughout the watershed had been historically altered to drain wetlands and promote agricultural production as seen on the USGS Merry Hill, NC topographic quadrangle (**Figure 2**). Numerous agricultural ditches had been constructed on the site, and streams had been channelized to route water off the site, draining areas that were once wetland. The restoration areas are protected by a conservation easement.

**2.2 PROJECT PURPOSE**

The objective of this project is to produce a minimum of 11,149 stream mitigation units (SMU) and 25.19 riverine wetland mitigation units (WMU) to the NC EEP through the full delivery process in the Lower Roanoke River 03010107 hydrologic unit, and to maximize the improvement of riparian and aquatic habitats and water quality through ecological restoration practices. Stream mitigation was provided through restoration on Flat Swamp Creek. Riverine wetland mitigation was provided through restoration. The site was identified and developed by EBX to support the NC EEP full delivery mitigation process. Monitoring of the Floogie Site is required to demonstrate successful mitigation based on the criteria found in the Restoration Plan and through a comparison to reference site conditions. The success criteria components will adhere to NC EEP and USACE guidelines. Hydrology, vegetation, and stream monitoring are conducted on an annual basis. This Annual Monitoring Report details the results of the monitoring efforts for 2011 (Year 4) at the Floogie Mitigation Site.

The as-built survey documented 11,149 linear feet of stream restoration (**Table 1**). Overbank stream flows will provide a portion of the hydrology for the wetlands. The wetland and stream restoration project will provide multiple ecological and water quality benefits within the Roanoke River Basin. Benefits include nutrient removal, sediment reduction, water storage, improved groundwater recharge, improved in-stream and riparian habitat, and restored wetland habitat. **Table 2** and **Table 3** list the project schedule and contacts, respectively.

**Table 1. Project Mitigation Structure and Objectives**

<b>Reach Name</b>	<b>As-Built Length (ft)</b>	<b>Restoration Approach</b>
<b>Stream</b>		
R1	2,800	Stream Restoration
R2	2,500	Stream Restoration
R3	2,400	Stream Restoration
R4	2,771	Stream Restoration
1A	322	Headwater Valley Restoration
1B	356	Headwater Valley Restoration
<b>Total</b>	<b>11,149</b>	
<b>Wetlands</b>		
	<b>25.19 ac</b>	Riverine Wetland Restoration

## 2.3 PROJECT HISTORY & SCHEDULE

**Table 2. Project Activity and Reporting History**

<b>Month</b>	<b>Activity</b>
October 2007	Construction Began
February 2008	Construction Completed
March 2008	Planting Completed
March 2008	Post Construction Monitoring Gauges Installed
April 2008	As-Built Report Submitted
August 2008	1st Annual Monitoring Report
September 2009	2nd Annual Monitoring Report
September 2010	3rd Annual Monitoring Report
October 2011	4th Annual Monitoring Report
September August 2012	5th Annual Monitoring Report (Scheduled)

**Table 3. Project Contacts**

<b>Contact</b>	<b>Firm Information</b>
<b>Project Manager</b> Norton Webster	EBX-Neuse 1, LLC (919) 608-9688
<b>Designer</b> Jeff Keaton, PE	WK Dickson and Co., Inc (919) 782-0495
<b>Monitoring Contractor</b> Daniel Ingram	WK Dickson and Co., Inc (919) 782-0495

## 3.0 HYDROLOGY

### 3.1 HYDROLOGIC SUCCESS CRITERIA

As stated in the Restoration Plan, the hydrology success criterion for the site is to restore the water table at the site so that it will remain within 12 inches of the soil surface for at least seven percent of the growing season continuously (approximately 16 days). The growing season is from March 22 to November 8. Based on a daily minimum temperature greater than 28 degrees Fahrenheit occurring in five of ten years, the growing season for Bertie County is 232 days long. Gauge data will be compared to reference wetland well data in growing seasons with less than normal rainfall. In periods of low rainfall, if a restoration gauge hydroperiod exceeds the reference gauge hydroperiods, and both exceed five percent of the growing season, then the gauge will be deemed successful. The results of hydrology monitoring across the wetland restoration site are presented in this annual monitoring report.

### 3.2 DESCRIPTION OF HYDROLOGY MONITORING EFFORTS

Six automated HOBO groundwater gauges, one manual rain gauge, and one tipping bucket rain gauge were installed prior to the beginning of the first growing season (**Figure 3**). Three additional automated groundwater gauges were installed in a reference wetland. Groundwater gauges were installed to a minimum depth of 40 inches below the ground surface. The monitoring protocol for the site specifies that automated monitoring stations will be downloaded and checked for malfunctions on a monthly basis. During monthly site visits, each groundwater gauge is downloaded and rainfall totals are collected from the on-site rain gauge. During the 2011 growing season, all nine automated data loggers performed as expected, and no periods of missing data were encountered. The tipping bucket rain gauge data logger malfunctioned and was replaced in May, but has still not functioned properly. Data has not been recovered for most of the growing season.



*Automated Gauges*

Automated groundwater gauges record water table elevations four times daily at 06:00, 12:00, 18:00, and 24:00. These automatic gauges employ pressure sensors that record water elevation above the bottom of the sensor (with atmospheric pressure compensation). The calibration water table depth is recorded at monthly downloads. To determine wetland hydroperiods, the automatically recorded data are compared to the calibration data to determine a standard correction factor between the calibration gauge and the automatic gauge for each location. The standard correction factor is applied to correct daily readings. The corrected daily readings are then used to determine wetland hydroperiods.

*Data Interpretation*

Wetland hydroperiods are calculated from four daily water table depth elevations. A hydroperiod is calculated if the water table is equal to or less than 12 inches below ground surface for at least 24 hours. If a gauge falls below -12 inches for four consecutive readings (24 hours) then the hydroperiod ends at the last reading within 12 inches of the ground surface. If a gauge falls below -12 inches for only one reading then maintains a reading above -12 inches for a minimum of 24 hours, the hydroperiod is calculated continuously. This methodology accounts for minor anomalies experienced by the automatic gauges.

**3.3 RESULTS OF HYDROLOGY MONITORING**

The following hydroperiod statistics were calculated for each monitoring station during the growing season: 1) most consecutive days that the water table was within 12 inches of the surface; 2) cumulative number of days that the water table was within 12 inches of the soil surface; and 3) number of times that the water table rose to within 12 inches of the soil surface (**Table 4**). Depth of groundwater for each of the monitoring gauges is shown in a graph with precipitation (**Figures 5a-5c**). These hydrographs demonstrate the reaction at each monitoring location of the groundwater level to specific rainfall events. Raw hydrograph data collected from the monitoring gauges is provided in **Appendix C**.

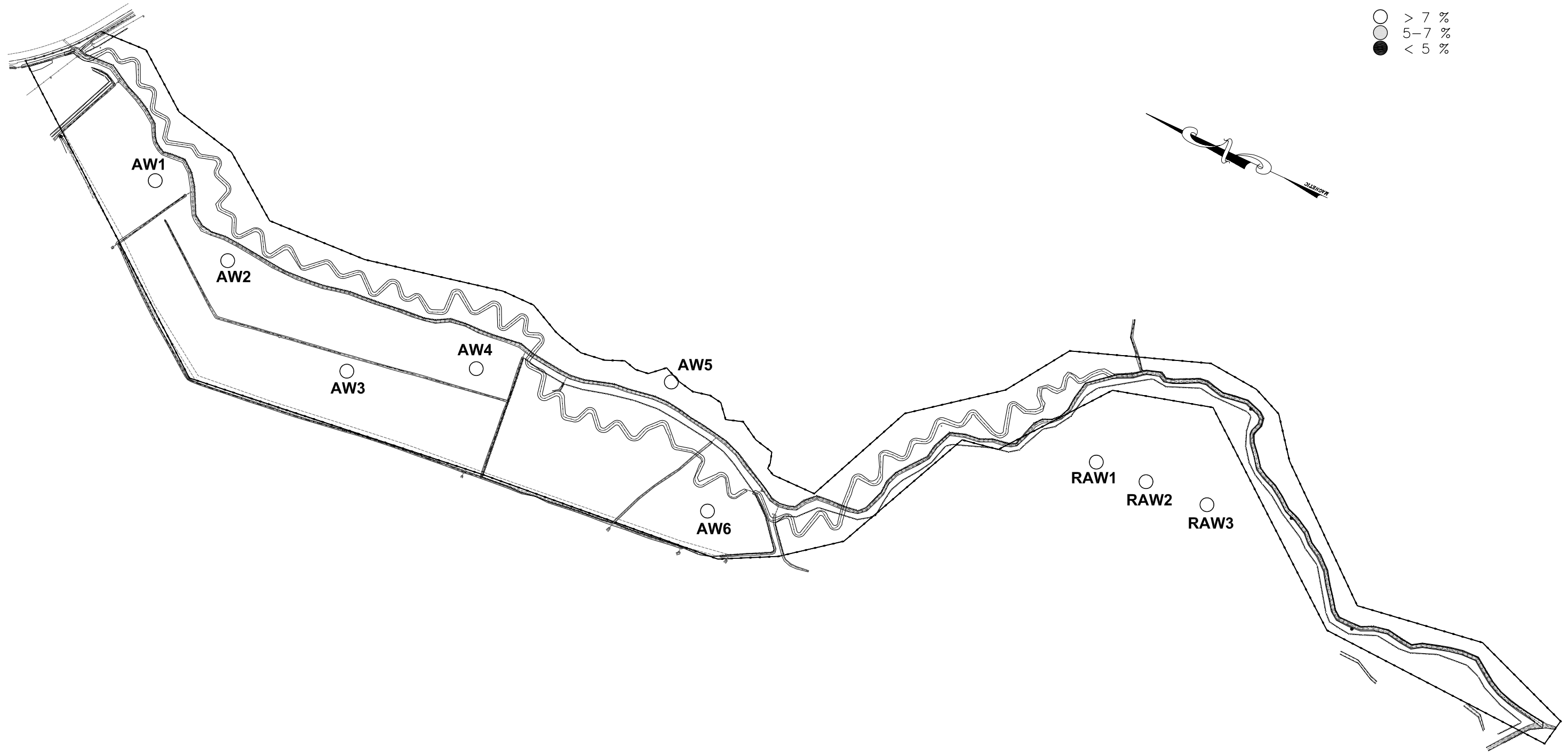
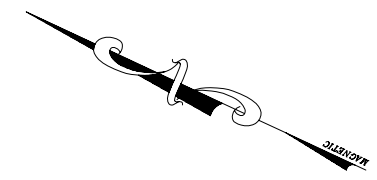
**Table 4. Hydrologic Monitoring Results**

<b>2011 Max Hydroperiod (Growing Season 22-Mar through 8-Nov, 231 days)</b>					
<b>Gauge</b>	<b>Consecutive</b>		<b>Cumulative</b>		<b>Occurrences</b>
	<b>Days</b>	<b>Percent of growing Season</b>	<b>Days</b>	<b>Percent of growing Season</b>	
<b>AW1</b>	31	13%	79	34%	11
<b>AW2</b>	34	15%	78	34%	11
<b>AW3</b>	33	14%	62	27%	7
<b>AW4</b>	34	15%	99	43%	10
<b>AW5</b>	47	20%	87	38%	7
<b>AW6</b>	44	19%	99	43%	7
<b>RAW1</b>	46	20%	58	25%	3
<b>RAW2</b>	35	15%	49	21%	5
<b>RAW3</b>	31	13%	48	21%	7

The site was designed to function as a riparian wetland system with associated wet flats. Hydrology in the riparian areas is driven primarily by over bank flooding, while precipitation is the primary hydrologic influence in wet flat areas. Model simulations performed during the design phase of the project indicate that the water table will draw down from April through July;

WETLAND HYDROPERIOD

- > 7 %
- ◐ 5-7 %
- < 5 %



Flogie  
Hydrologic Success

Figure 4

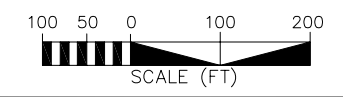


Figure 5a. Groundwater Gauges

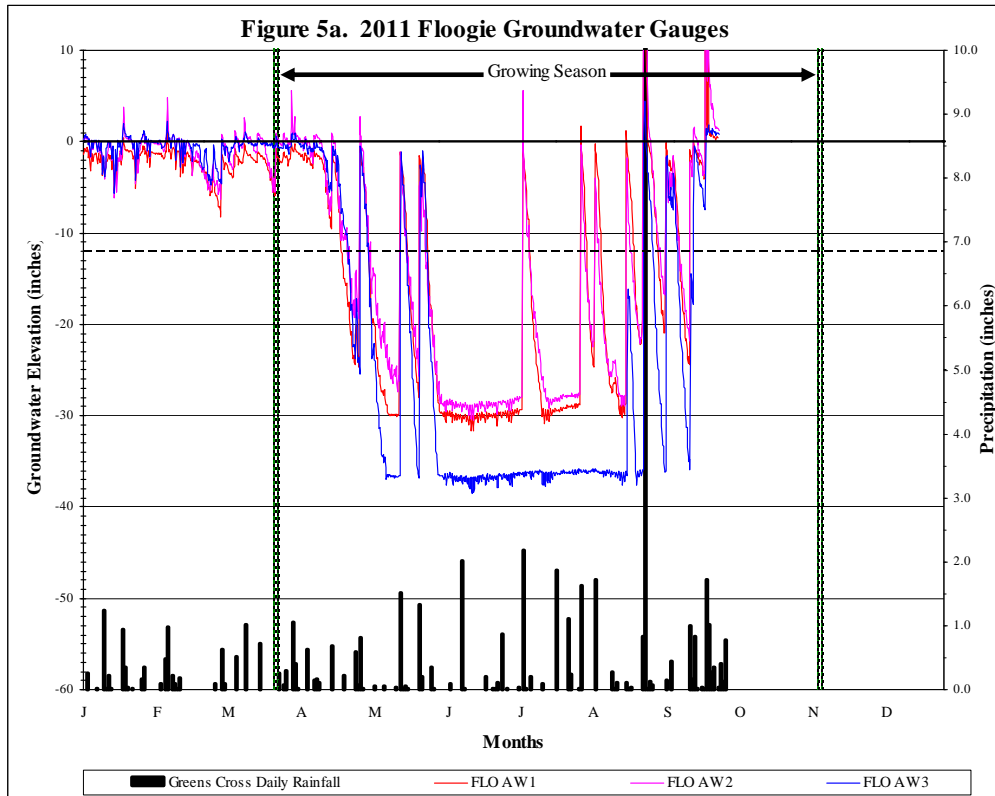


Figure 5b. Groundwater Gauges

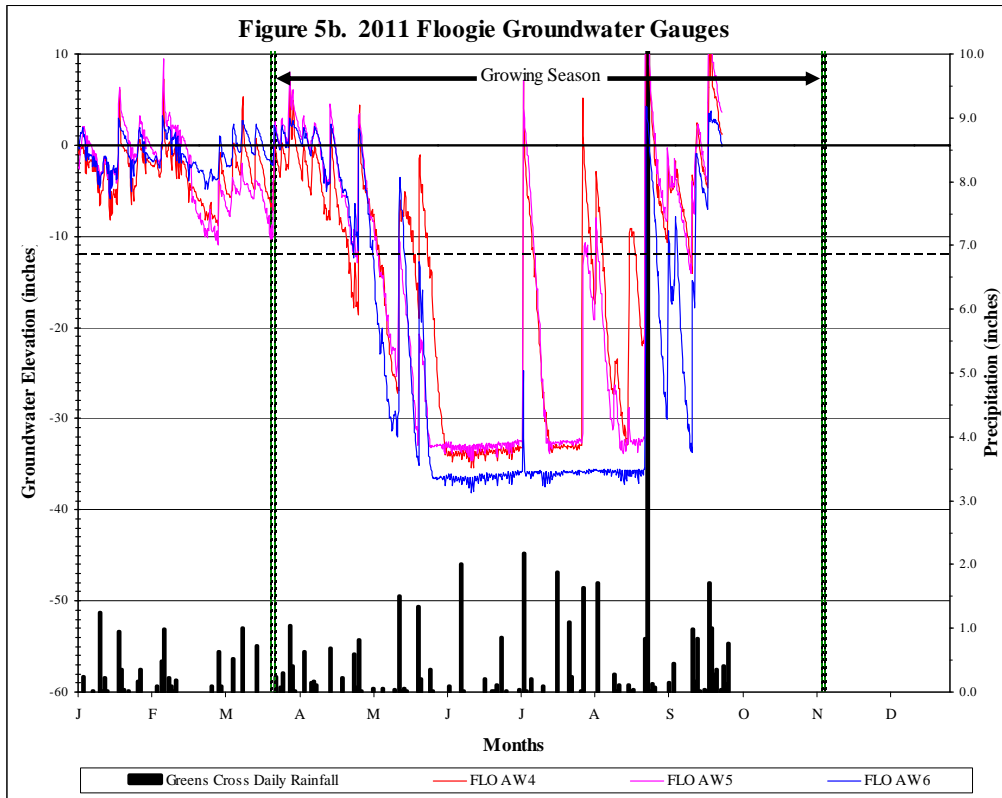
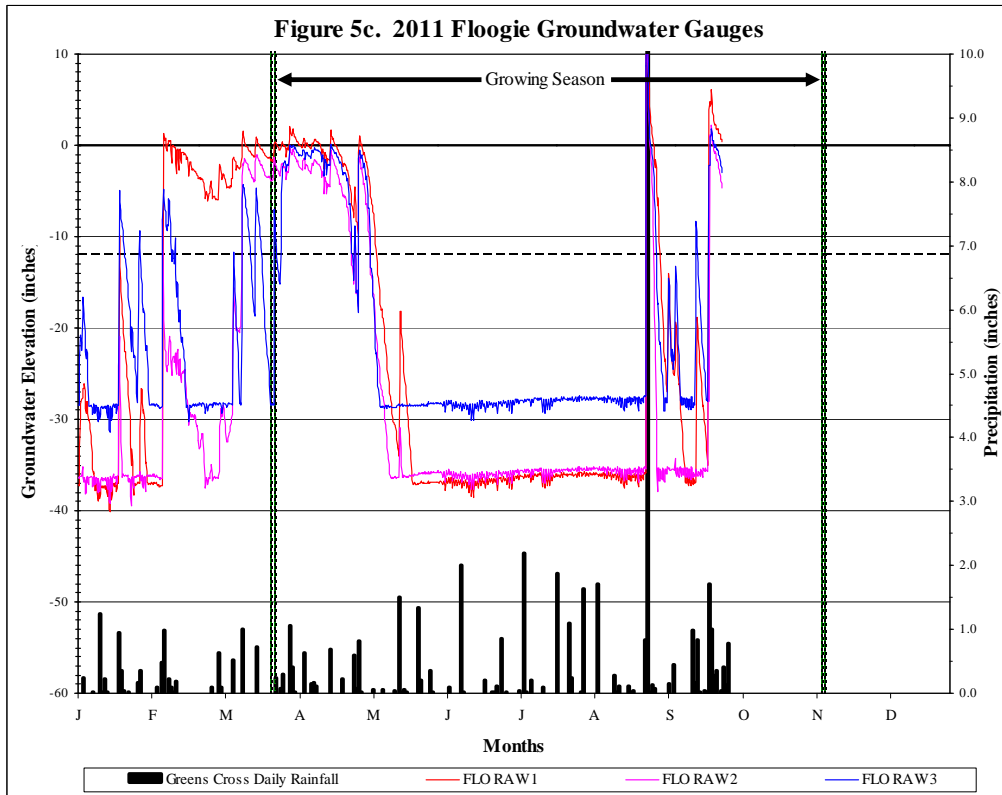


Figure 5c. Groundwater Gauges



however, the restored channel will maintain an elevated water table throughout the floodplain area year-round. The data collected for the 2011 growing season for this site indicate that it is performing as described in the Mitigation Plan, with all monitoring stations exceeding the hydrology success criterion.

### **3.3.1 Site Data**

Year 4 monitoring demonstrates that most of the site is functioning as designed, with varying degrees of wetness and saturation across the site. All six automated gauges exceeded the seven percent hydrologic success criterion during the early part of the growing season. All reference gauges also exceeded the seven percent hydrologic success criterion.

### **3.3.2 Reference Data**

The approved Mitigation Restoration Plan for the site provides that if the rainfall data for any given year during the monitoring period is not normal, the reference wetland data can be accessed to determine if there is a positive correlation between the performance of the restoration site and the natural hydrology of the reference site.

Three automated reference wells were observed during the 2011 growing season. The same hydroperiod statistics were calculated for each reference monitoring station during the growing season as were calculated for the site monitoring stations (**Table 4**). The reference wetland groundwater gauges exhibited wetland hydroperiods of 13 to 20 percent of the growing season, which exceeds the seven percent success criterion for the site. Raw data collected from the monitoring gauges is provided in Appendix C.

### **3.3.3 Climate Data**

**Table 5** and **Figure 6** compare the 2011 monthly rainfall to historical precipitation for Bertie County. Observed precipitation data were collected from an automated weather station in Greens Cross (Bertie County). The rainfall total from the Windsor weather station was within normal limits for the growing season through June, The months of July through September was above normal limits. The onsite automatic tipping bucket malfunctioned early in the season and was replaced during the month of May. Difficulty obtaining data persisted from May through September.

## **3.4 HYDROLOGIC CONCLUSIONS**

Data collected from the groundwater monitoring gauges on the Floogie Mitigation Site in 2011 indicate that all of the hydrology monitoring stations recorded hydroperiods exceeded seven percent of the growing season. Thus, all the hydrology monitoring stations meet the hydrologic success criterion for 2011.

In Windsor, the Greens Cross weather station rainfall data indicates that the 2011 growing season rainfall amounts were within normal limits for the early part of the growing season and early summer. The months of July, August, and September were above normal limits.

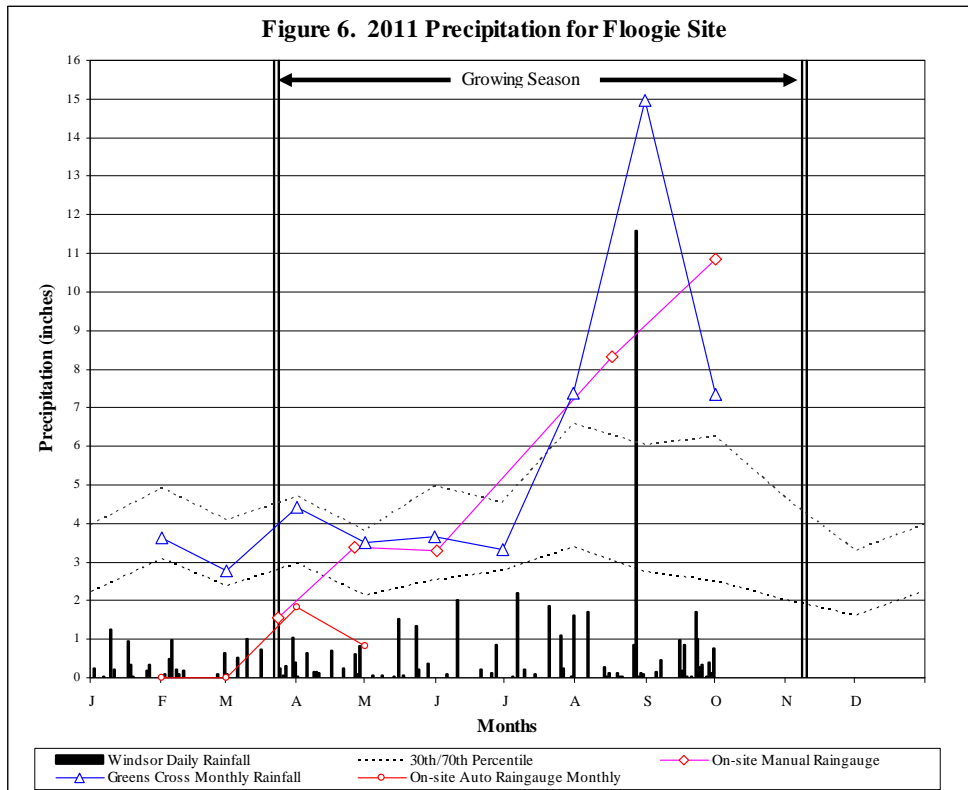
**Table 5. Comparison of Normal Rainfall to Observed Rainfall**

Month	Average	Normal Limits		Windsor Precipitation	Manual Rain Gauge Precipitation	Tipping Bucket Precipitation
		30 Percent	70 Percent			
January	4.11	3.07	4.90	3.62	---	---
February	3.37	2.38	4.07	2.78	---	---
March	3.98	2.96	4.70	4.43	1.55	1.82
April	3.00	2.12	3.82	3.50	3.39	0.83
May	3.99	2.53	4.98	3.65	3.30	---
June	3.87	2.78	4.53	3.31	---	---
July	5.37	3.39	6.59	7.38	---	---
August	4.86	2.74	6.04	14.95	8.33	---
September	5.10	2.50	6.24	7.34	10.84	---
October	3.23	2.02	4.63	---	---	---
November	2.71	1.63	3.28	---	---	---
December	3.30	2.24	3.97	---	---	---
<b>Average</b>	<b>---</b>	<b>40.30</b>	<b>51.25</b>	<b>---</b>	<b>---</b>	<b>---</b>
<b>Total</b>	<b>46.90</b>	<b>---</b>	<b>---</b>	<b>50.96</b>	<b>27.41</b>	<b>2.65</b>

Data collected through October 1

\*Tipping Bucket malfunctioned May through October

**Figure 6. Precipitation Comparison**





## 4.0 VEGETATION

### 4.1 VEGETATION SUCCESS CRITERIA

Successful establishment of vegetation in wetland restoration and riparian areas will be demonstrated by the survival of 260 planted stems following Year 5 monitoring. The site must also meet the interim success criterion of the survival of at least 320 planted stems per acre at the end of the Year 3 monitoring period. Up to 20 percent of the site species composition may be comprised of non-invasive volunteers. Remedial action may be required should volunteers present a problem or exceed 20 percent composition.

A digital image photo log will be used to subjectively evaluate the restoration site over time. A series of images over the five year monitoring period should demonstrate maturation of planted vegetation and volunteer hydrophytic species.

### 4.2 DESCRIPTION OF SPECIES AND VEGETATION MONITORING

Eighteen semi-permanent vegetation sampling plots were established within the planted restoration areas to monitor the success of planted vegetation. The wetland vegetation plots are 0.10 acres in size (Plots 1 through 5), and the riparian vegetation plots are 0.05 acres in size (Plots 6 through 18). The vegetation plots are distributed across the site, but the precise location and orientation of the plots was random (see locations on as-built drawings in **Appendix A**). The plots cover approximately two percent of the restored site. Eight tree species were planted on the Site (**Table 6**).

**Table 6. Planted Tree Species**

Common Name	Scientific Name	FAC Status
Bald Cypress	<i>Taxodium distichum</i>	OBL
Green Ash	<i>Fraxinus pennsylvanica</i>	FACW
Laurel Oak	<i>Quercus laurifolia</i>	FACW-
River Birch	<i>Betula nigra</i>	FACW
Swamp blackgum	<i>Nyssa biflora</i>	OBL
Swamp Chestnut Oak	<i>Quercus michauxii</i>	FACW-
Water Tupelo	<i>Nyssa aquatica</i>	OBL
Willow Oak	<i>Quercus phellos</i>	FACW-

All of the planted stems inside each plot were flagged with orange or pink flagging to help in locating them in the future. Each stem is tagged with a sequentially numbered aluminum tag.

### 4.3 RESULTS OF VEGETATION MONITORING

Stem counts for each of the 18 monitoring stations are presented by species in **Table 7**. Water tupelo counts may also include swamp blackgum, as these two similar species are difficult to accurately distinguish at the seedling stage. One hickory stem was recorded and most likely resulted from an errant stem included from the nursery. A few of the numbered tags have been lost or damaged, or possibly buried beside the stem. This may be due small animal theft or to tags being washed over small stems during flooding after planting. A number of the species have exhibited re-sprouting, resulting in a positive change in survival. Due to thick vegetation, some stems are "lost" and "rediscovered" in latter years, especially if stems die back and resprout. Plots along the stream channel where remnants of the channel buffer were left appear to have the largest change in stems counted (Plot 6 and Plot 7).

**Table 7. Results of 2011 Vegetation Monitoring – Planted Species by Plot**

Species	Plots																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Bald Cypress	6	10	4	22	7	9	4	12	5	9	13	4	12	10	10	3		2
Green Ash	5	9	27	3	13		7	8	4	1	3	15	7	7	4	6	2	6
Hickory		1																
Laurel Oak	2									1		1	2		1	5		
Overcup Oak	10	11	14	7	7	4	2	7	10	5	5	4	2	8	1	6	11	4
Swamp Tupelo	18	8	5	19	16	8	5	8	3	7	5	4	4	8	10	11		4
Willow Oak	10		6	4	12	4	4	7	7	24	7	7	6	7	9	9	11	8

Most of the planted stems are healthy with recent growth. Many stems have reached or exceeded 10 feet in height. The planted stems in the monitoring plots ranged from 390 to 940 stems per acre with an average of 619 stems per acre (**Table 8**). The plots have met the minimum criterion of 320 stems per acre after three years.

**Table 8. Summary of Results**

Plot #	As-Built Stems Planted	Stems Year 1	Stems Year 2	Stems Year 3	Stems Year 4	Stems per Acre Year 4
Plot 1	61	55	53	53	51	510
Plot 2	60	46	49	40	39	390
Plot 3	70	66	65	64	56	560
Plot 4	69	58	61	57	55	550
Plot 5	65	57	53	54	55	550
Plot 6	40	31	24	19	25	500
Plot 7	37	22	17	17	22	440
Plot 8	49	44	43	43	42	840
Plot 9	45	33	28	29	29	580
Plot 10	50	48	49	47	47	940
Plot 11	47	36	35	34	33	660
Plot 12	45	43	42	42	35	700
Plot 13	40	39	37	36	33	660
Plot 14	51	47	38	41	40	800
Plot 15	48	43	41	39	35	700
Plot 16	49	48	41	42	40	800
Plot 17	30	28	28	27	24	480
Plot 18	28	27	26	26	24	480
				<b>Average</b>		<b>619</b>
				<b>Range</b>		<b>390-940</b>

The most commonly found volunteer species within the plots were also monitored to determine composition and potential effect on success criteria (**Table 9**). Volunteer stems are limited in most plots and represent many species. Nearly all of the seedlings are small and do not present any competition problems at this time. The most common appear to be species having high seed production and wide dispersal and include eastern baccharis (*Baccharis halimifolia*), red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), and winged sumac (*Rhus copallina*). Within the downstream reach adjacent to the forested wetland, laurel oak (*Quercus laurifolia*) red maple, and tulip tree (*Liriodendron tulipifera*) are common volunteers.

**Table 9. Common Volunteer Woody Species**

Common Name	Scientific Name	FAC Status
Red Maple	<i>Acer rubrum</i>	FAC
Eastern Baccharis	<i>Baccharis halimifolia</i>	FAC
Common Buttonbush	<i>Cephalanthus occidentalis</i>	OBL
Coastal Sweetpepperbush	<i>Clethra alnifolia</i>	FACW
Titi	<i>Cyrilla racemiflora</i>	FACW
Persimmon	<i>Diospyros virginiana</i>	FAC
Green Ash	<i>Fraxinus pennsylvanica</i>	FACW
Privet	<i>Ligustrum sinense</i>	FAC
Sweetgum	<i>Liquidambar styraciflua</i>	FAC+
Tuliptree	<i>Liriodendron tulipifera</i>	FAC
Wax myrtle	<i>Morella cerifera</i>	FAC+
Loblolly Pine	<i>Pinus taeda</i>	FAC
Eastern Cottonwood	<i>Populus deltoides</i>	FAC+
Laurel Oak	<i>Quercus laurifolia</i>	FACW
Willow Oak	<i>Quercus phellos</i>	FACW-
Winged Sumac	<i>Rhus copallinum</i>	NI
Black Willow	<i>Salix nigra</i>	OBL
Elderberry	<i>Sambucas canadensis</i>	FACW-

A visual estimate of herbaceous vegetation cover was provided to assess the overall stability of the site (**Table 10**). The herbaceous cover is typically dense across most of the site and has increased from the previous year. Hydrophytic herbaceous vegetation is found across the entire site and includes common rush, climbing hempvine, arrowleaf tearthumb, Woolgrass (*Scirpus cyperinus*), giant cane (*Arundinaria gigantea*), threeway sedge (*Dulichium arundinaceum*), Pennsylvania smartweed (*Polygonum pensylvanicum*), and sedges (*Carex* sp.). The other frequently occurring herbaceous species are Canada goldenrod (*Solidago canadensis*), blackberry (*Rubus argutus*), deer tongue (*Dichanthelium clandestinum*), and dog fennel (*Eupatorium capillifolium*). The herbaceous vegetation does not appear to be presenting any problems with tree survival or growth at this time.

**Table 10. Estimated Herbaceous Total Percent Cover**

<b>Plot Number</b>	<b>Estimated Percent Cover 2009</b>	<b>Estimated Percent Cover 2010</b>	<b>Estimated Percent Cover 2011</b>
1	97 %	99%	99%
2	95 %	99%	99%
3	92 %	98%	99%
4	92 %	98%	99%
5	98 %	98%	99%
6	96 %	96%	98%
7	97 %	98%	98%
8	75 %	85%	95%
9	96 %	96%	96%
10	97 %	97%	97%
11	90 %	95%	98%
12	93 %	98%	98%
13	92 %	95%	95%
14	90 %	95%	96%
15	98 %	98%	98%
16	98 %	98%	99%
17	98 %	98%	98%
18	93 %	95%	95%

The invasive species Chinese privet (*Ligustrum sinense*) and Japanese honeysuckle (*Lonicera japonica*) were observed in a most of the plots. Japanese honeysuckle is common and has begun to constrict or smother some of the individual tree stems. Trumpet creeper (*Campsis radicans*) has declined in vigor. The occurrences of these species are associated with the nearby existing populations of these invasive species and are from regenerating root sprouts and seeds. These species may displace desirable vegetation and should continue to be assessed in successive monitoring years. Maintenance invasive species control is recommended in these areas.

#### **4.4 VEGETATION OBSERVATIONS & CONCLUSIONS**

Hydrophytic herbaceous plants were observed across the entire site, particularly in areas of periodic inundation. Some plots have very dense cover of common rush. The presence of these herbaceous wetland plants confirms the presence of wetland hydrology on the site.

Weedy species occur throughout the site, but density has decreased over the monitoring period. The presence of this weedy vegetation is a result of the seed bank from previous cultivation practices but has decreased. The weedy vegetation is not posing any wide spread problems for the planted stems at this time. The invasive species Chinese privet and Japanese honeysuckle were observed in a most plots, and may displace desirable vegetation in the future. Japanese honeysuckle is starting to cover some planted woody stems and smothering or strangling the planted stems. This may become a problem in the future. Invasive species should continue to be evaluated within the entire easement to ensure that these species do not become a concern for the site.

For the 2011 monitoring year, the average number of stems per acre on site is 619, and the range of stem density was 390 to 940 stems per acre. The lowest planted stem density was recorded at Plot 2 at 390 stems per acre. The site has achieved the minimum success interim criterion of 320 stems per acre after year three. The site as a whole is on track to meet the final success criterion of 260-planted stems per acre by the end of year five.

## **5.0 STREAM MONITORING**

### **5.1 STREAM SUCCESS CRITERIA**

As stated in the approved Mitigation Plan, the stream restoration success criteria for the site includes the following:

- *Bankfull Events*: Two bankfull flow events must be documented within the five-year monitoring period.
- *Cross-Sections*: There should be little change in as-built cross sections. Cross sections shall be classified using the Rosgen stream classification method and all monitored cross-sections should fall within the quantitative parameters defined for "E" or "C" type channels.
- *Longitudinal Profiles*: The longitudinal profiles should show that the bedform features are remaining stable, e.g. they are not aggrading or degrading. Bedforms observed should be consistent with those observed in "E" and "C" type channels.
- *Photo Reference Stations*: Photographs will be used to subjectively evaluate channel aggradation or degradation, bank erosion, success of riparian vegetation and effectiveness of erosion control measures.
- *Benthic Macroinvertebrates*: Sampling of benthic macroinvertebrates within the restored stream channel shall be conducted in Year 1, Year 3, and Year 5 of post-restoration monitoring.

### **5.2 STREAM MORPHOLOGY MONITORING PLAN**

The stream monitoring program will be implemented to document system development and progress toward achieving the success criteria. The monitoring program will be undertaken for five years, or until the final success criteria are achieved, whichever is longer.

#### **5.2.1 Cross Sections**

Two permanent cross sections will be installed per 1,000 linear feet of stream restoration work, with one located at a riffle and one located at a pool. Each cross section will be marked on both banks with permanent pins to establish the exact transect used. A common benchmark will be used for cross sections to facilitate easy comparison of year-to-year data. The annual cross-section survey will include points measured at all breaks in slope, including top of bank, bankfull, inner berm, edge of water, and thalweg, if the features are present. Riffle cross sections will be classified using the Rosgen stream classification system.

#### **5.2.2 Longitudinal Profile**

A longitudinal profile will be measured annually throughout the five-year monitoring period. The profile will be measured along a representative length of restored channel. Measurements will include thalweg, water surface, bankfull, and top of low bank. Each of these measurements will be taken at the head of each feature, for example, shallow, pool, and the max pool depth. The survey will be tied to a permanent benchmark.

#### **5.2.3 Hydrology**

The occurrence of bankfull events within the monitoring period will be documented by the use of a crest gauge and photographs. The two crest gauges will record the highest watermark between site visits, and the gauge will be checked monthly to document high flows. Digital images will be used to document the occurrence of debris lines and sediment deposition on the floodplain during monitoring site visits. In addition, the flow observations will be recorded for the headwater

stream restoration. These may include wrack lines, direct observations, dye tests, or other direct or indirect observations of flow.

**5.2.4 Photo Reference Stations**

Photographs will be used to subjectively evaluate channel aggradation or degradation, bank erosion, success of riparian vegetation and effectiveness of erosion control measures.

**5.3 STREAM MORPHOLOGY MONITORING RESULTS**

Overall, the channel is stable with a few areas of minor erosion. **Table 11** presents stream areas that may require further observation.

**Table 11. Stream Areas Requiring Observation**

ID	Station	Feature	Problem
1	23+00	Bed	Beaver dam partially blocking channel. Channel is stable. Beaver control is recommended.
2	73+70 to 74+40	Bed	Bed erosion likely due to improper slope at construction. Grade control is intact upstream to halt potential migration. Vegetation is beginning to stabilize. No repair needed.
3	75+00	Rock Weir	Flow piping around header rock due to improper installation. Bed has stabilized since initial failure (XS 15). No repair needed.
4	86+75	Bed	Beaver dam partially blocking channel. Channel is stable. Beaver control is recommended.

**5.3.1 Hydrology**

Bankfull events were recorded in the months of February, March, and April for Crest Gauge 1 and in the months of April and September for Crest Gauge 2 (**Table 12**). In September, Crest Gauge 1 did not have a reading due to the loss of the cork reservoir. The largest stream flow recorded on the upstream crest gauge (CG1) was 2.45 feet above bankfull elevation. The largest stream flow recorded on the downstream crest gauge (CG2) was 2.60 feet above bankfull elevation. Flow was observed in both headwater streams during the early 2011 growing season and again in late September.

**Table 12. Crest Gauge Data**

Month Recorded	Crest Gauge 1	Crest Gauge 2
January	---	---
February	2.45	0.00
March	0.70	0.00
April	0.85	0.30
May	0.00	0.00
June	0.00	0.00
July	0.00	0.00
August	0.00	0.00
September	*	2.60
October	---	---
November	---	---
December	---	---

\*No reading due to loss of cork reservoir.



### **5.3.2 Cross Sections**

Year 4 cross section monitoring data for stream stability were collected during August 2011 and compared to baseline data collected in March 2008, as well as Year 1, Year 2, and Year 3 cross section data (**Table 13; Appendix B and E**). All monitored cross sections were stable and showed little change in channel dimension between monitoring years. Cross Section 15 experienced approximately 1.5 feet of bed loss between As-Built and Year 1 monitoring. However, Cross Section 15 has been stable since Year 1 monitoring.

### **5.3.3 Longitudinal Profile**

A longitudinal profile survey was conducted in Year 4. Coastal plain swamp streams are dynamic in nature, and some channel adjustment is expected. Overall, the profile survey indicated little change to channel dimensions (**Table 13; Appendix B and E**).

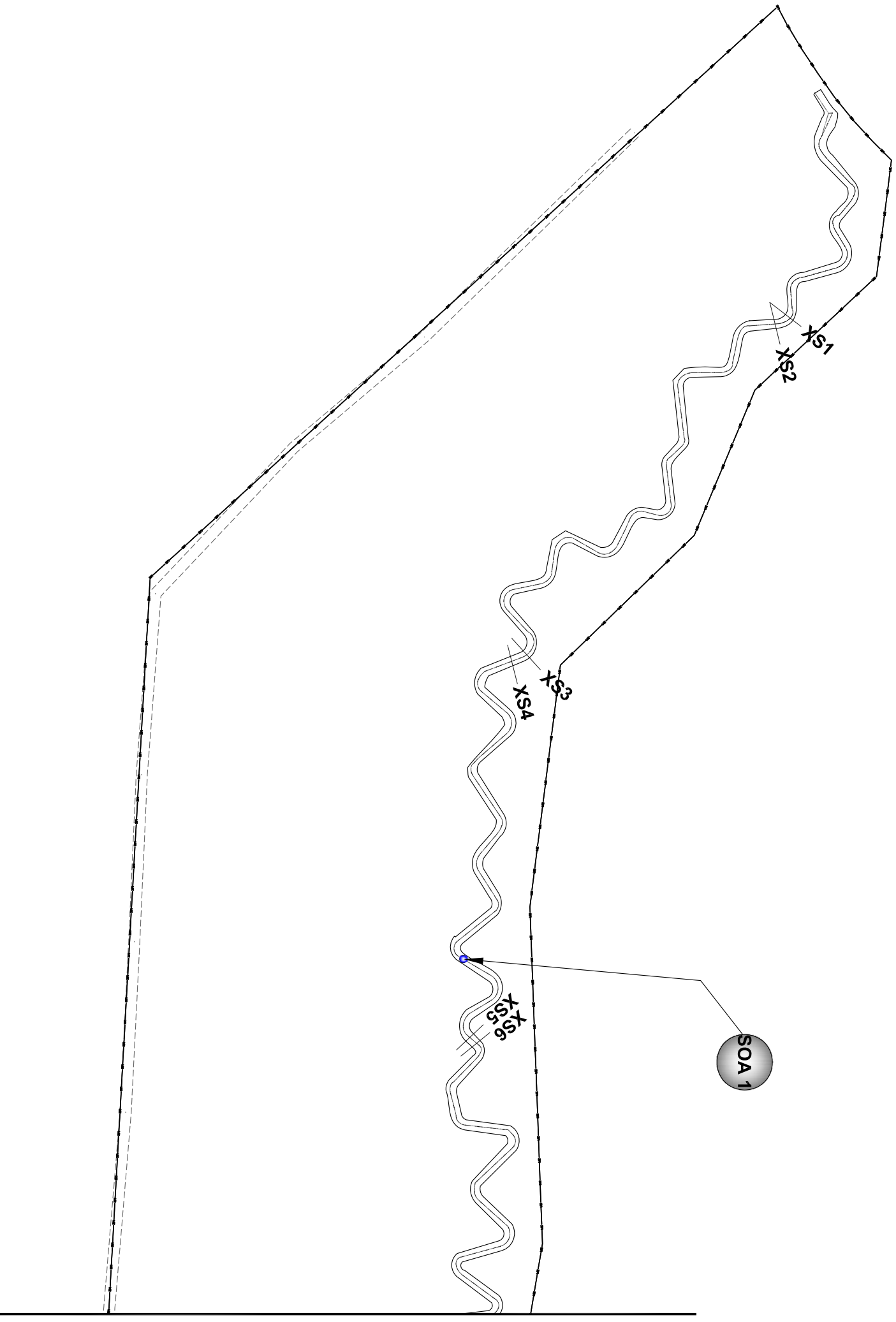
## **5.4 BENTHIC MACROINVERTEBRATE SURVEY RESULTS**

### **5.4.1 Description and Results of Benthic Monitoring**

Pre-construction monitoring was performed prior to disturbance of the existing channel in January 2008. Following restoration, Year 1 monitoring was conducted in January 2009 (**Table 13**). Additional monitoring was conducted in January of 2011 (Year 3) and will be conducted again in 2013 (Year 5). The Year 3 data collected in January of 2011 is presented in this Year 4 monitoring report.

Sampling took place at two sites along the restoration reach and one site upstream of the project area on Flat Swamp Creek. Site 1 was near the downstream end of Reach 4 (between STA 101+00 and 102+00). Site 2 was near the downstream end of Reach 2 (between STA 36+00 and 37+00). In addition to the restoration sites, one sample was taken upstream of the project area on Flat Swamp Creek. The Qual 4 sampling method outlined in Standard Operating Procedures for Benthic Macroinvertebrates (NCDWQ 2006) was utilized at all sampling locations.

A North Carolina Division of Water Quality stream habitat evaluation form was completed at each sample reach during each sampling event. At each sampling site, habitat was evaluated approximately 50 meters upstream and 50 meters downstream of where macroinvertebrates were collected.



MATCHLINE FIGURE 7B

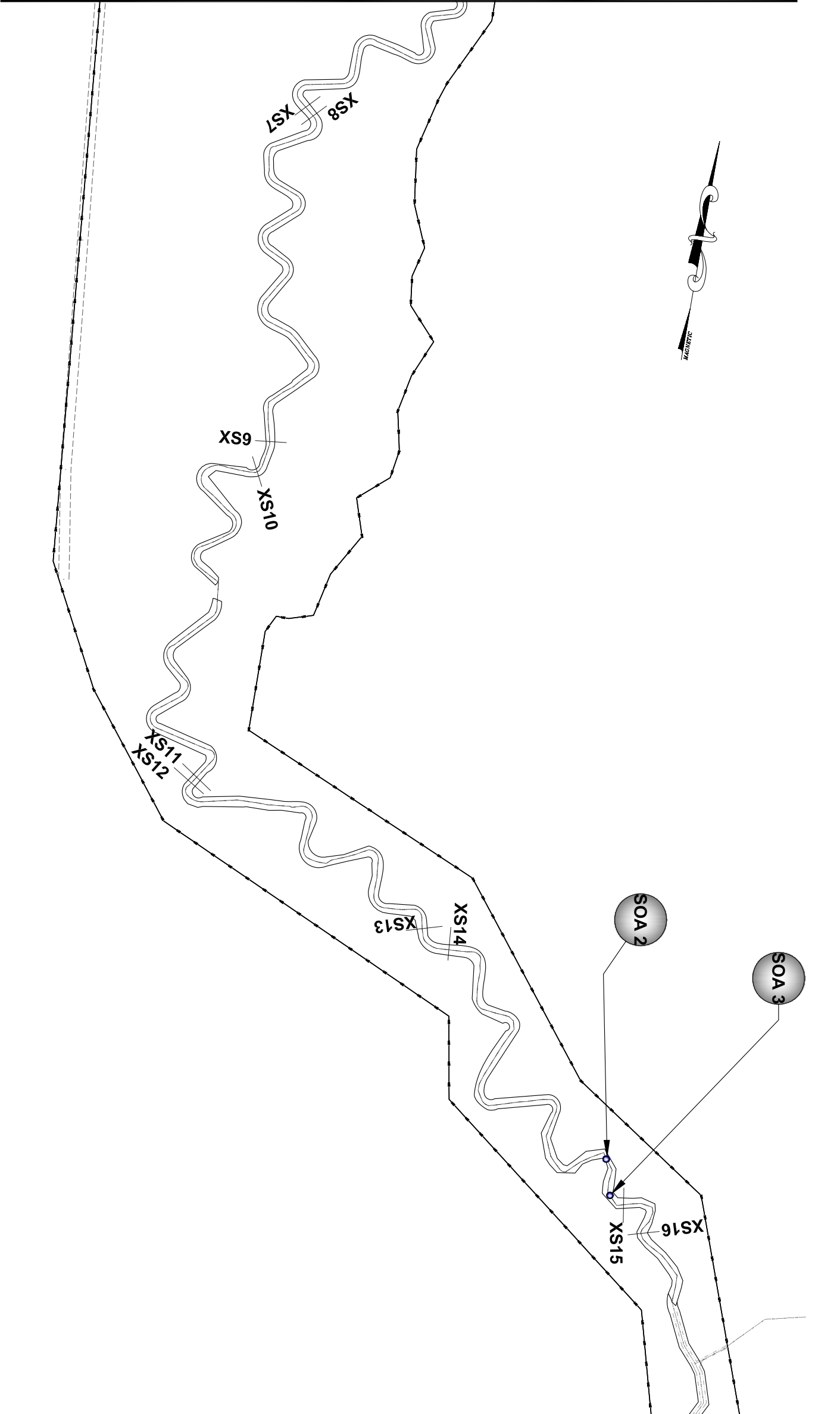
Floogie  
Stream Observation Areas

Figure 7A



SCALE (FT)

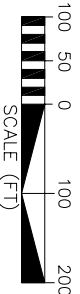
MATCHLINE FIGURE 7A



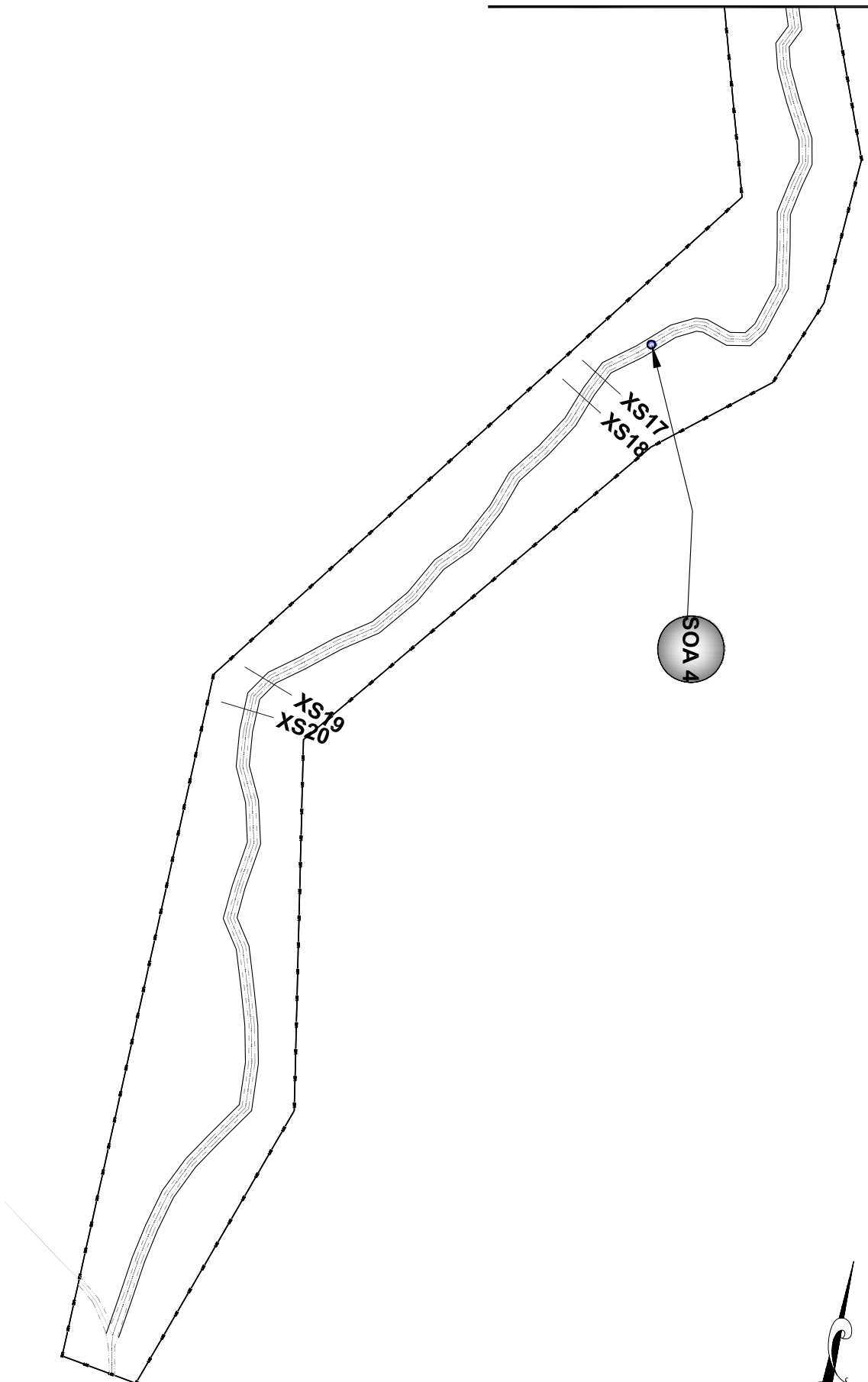
MATCHLINE FIGURE 7C

Floogie  
Stream Observation Areas

Figure 7B



MATCHLINE FIGURE 7B



Floogie  
Stream Observation Areas

Figure 7C



**Table 13. Year 3 Restoration Reach Macroinvertebrate Data**

Taxon		Site:		
		3 (Upstream)	2 (Reach 2)	1 (Reach 4)
		No.	No.	No.
<b>Order</b>	<b>TRICHOPTERA</b>			
Genus Species	Ptilostomis sp	-	-	1
<b>Order</b>	<b>DIPTERA: CHIRONOMIDAE</b>			
Genus Species	Hydrobaenus sp	-	3	-
Genus Species	Orthocladius obumbratus	2	17	18
Genus Species	Procladius sp	-	-	1
Genus Species	Conchapelopia gr	4	-	-
Genus Species	Chironomus sp	9	1	-
Genus Species	Dicrotendipes simpsoni	-	1	1
Genus Species	Glyptotendipes sp	-	-	1
Genus Species	Polypedilum tritum	2	1	-
Genus Species	Phaenopsectra sp	3	-	-
Genus Species	Tribelos sp	6	-	-
Genus Species	Paratanytarsus sp	-	1	-
<b>Order</b>	<b>OLIGOCHAETA</b>			
Genus Species	Limnodrilus hoffmeisteri	-	1	2
<b>Genus Species</b>	<b>CRUSTACEA</b>			
Genus Species	Crangonyx sp	6	32	21
Genus Species	Caecidotea forbesi	9	12	5
<b>Order</b>	<b>MOLLUSCA</b>			
Genus Species	Sphaerium sp	-	-	5
Genus Species	Pisidium sp	-	-	8
	<b>Taxa Richness</b>	<b>8</b>	<b>9</b>	<b>10</b>
	<b>EPT Taxa Richness</b>	<b>0</b>	<b>0</b>	<b>1</b>
	<b>NC Biotic Index</b>	<b>7.6</b>	<b>7.9</b>	<b>7.8</b>

#### 5.4.1 Discussion of Benthic Monitoring Results

Streams in Bertie County are in NC DWQ Swamp Region B. Streams in this area have been severely affected by drought conditions, and are not expected to have the expected invertebrate community for “natural” swamp streams (NCBI values less than 7.0 and EPT taxa richness >4). Under these difficult conditions, it is best to look at patterns, rather than to apply strict DWQ criteria.

These sites tended to converge in water/habitat quality in 2011, with the reference site becoming worse and the restored sites getting better. The presence of *Chironomus* at the reference site suggested low flow and low dissolved oxygen. The restored reaches likely have higher flow, with greater abundance of the two orthoclad species.

## **5.5 STREAM CONCLUSIONS**

In-stream structures installed within the restored stream included log vanes, bedded log structures, woody debris bundles, and root wads. Visual observations of structures throughout the 2011 growing season have indicated that most structures are stable and functioning as designed. Localized areas of elevated profile (shallows) have been colonized by wetland plant species due to low stream flow, but do not appear to be impounding water or causing increased deposition. Localized areas of erosion are present but do not present a problem to the overall stability of the project. The channel appears to be moving toward stability.

Photographs were taken throughout the monitoring season to document the evolution of the restored stream channel (**Appendix D**). Herbaceous vegetation is moderately dense to dense along the restored stream. Pools have maintained a variety of depths and habitat qualities, depending on the location and type of scour features (logs, root wads, transplants, etc.).

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

- All hydrology monitoring gauges recorded consecutive hydroperiods for at least 7 percent of the growing season for 2011.
- The restored stream channel has remained stable and is providing the intended habitat and hydrologic functions. All monitoring cross sections and longitudinal profile for 2011 showed very little adjustment in stream dimension over the previous year.
- Vegetation monitoring has documented the average number of stems per acre on the site to be 640, with the range of stem density of 340 to 940 stems per acre. All vegetation plots have achieved the interim success criterion of 320 trees per acre.
- Vegetative and stream monitoring will continue through 2012.
- Benthic macroinvertebrate monitoring indicate drier climatic conditions are showing a convergence of the restored site and the reference site due to low flow and dissolved oxygen.



# **APPENDIX A**

## **As-Built Survey**

# **APPENDIX B**

## **2011 Profile and Cross Section Data**

# **APPENDIX C**

## **2011 Gauge Data**

# **APPENDIX D**

## **2011 Site Photos**

# **APPENDIX E**

## **2011 Morphologic Parameters**

# **APPENDIX A**

## **As-Built Survey**

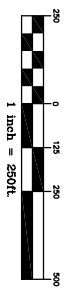


# FLOODIE MITIGATION PROJECT

## AS-BUILT PLAN SET

APRIL 2008  
 LOCATION: BERTIE COUNTY, NORTH CAROLINA

<u>SHEET INDEX</u>	
COVER / INDEX	1
STREAM PLAN & PROFILE	2
STREAM PLAN & PROFILE	3
STREAM PLAN & PROFILE	4
STREAM PLAN & PROFILE	5
STREAM PLAN & PROFILE	6
STREAM PLAN & PROFILE	7
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STREAM PLAN & PROFILE	12
STREAM PLAN & PROFILE	13
STREAM PLAN & PROFILE	14
STREAM PLAN & PROFILE	15
STREAM PLAN & PROFILE	16
STREAM PLAN & PROFILE	17
WETLAND PLANS	18
MONITORING PLANS	19
MONITORING PLANS	20



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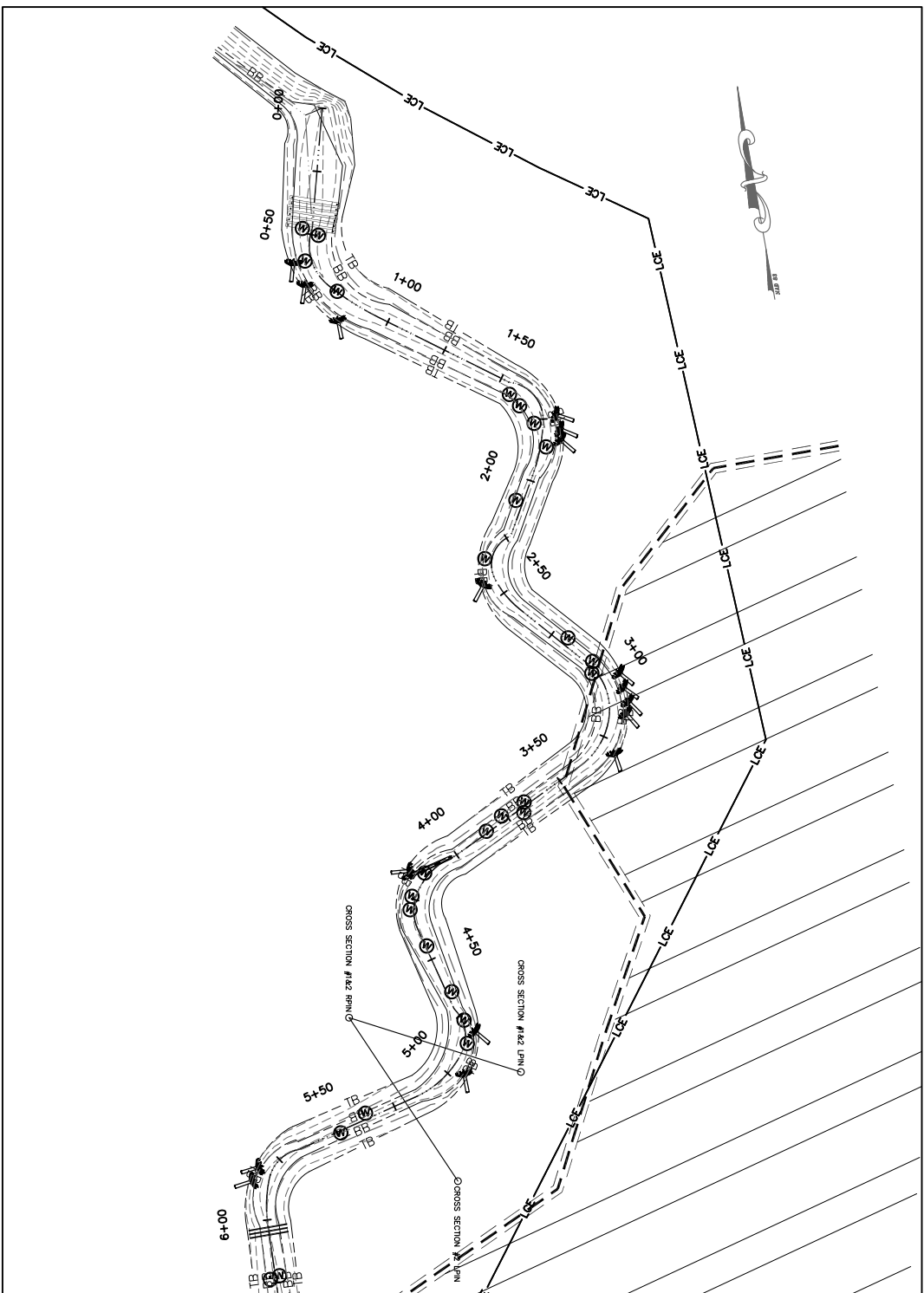
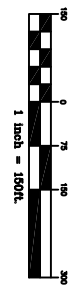
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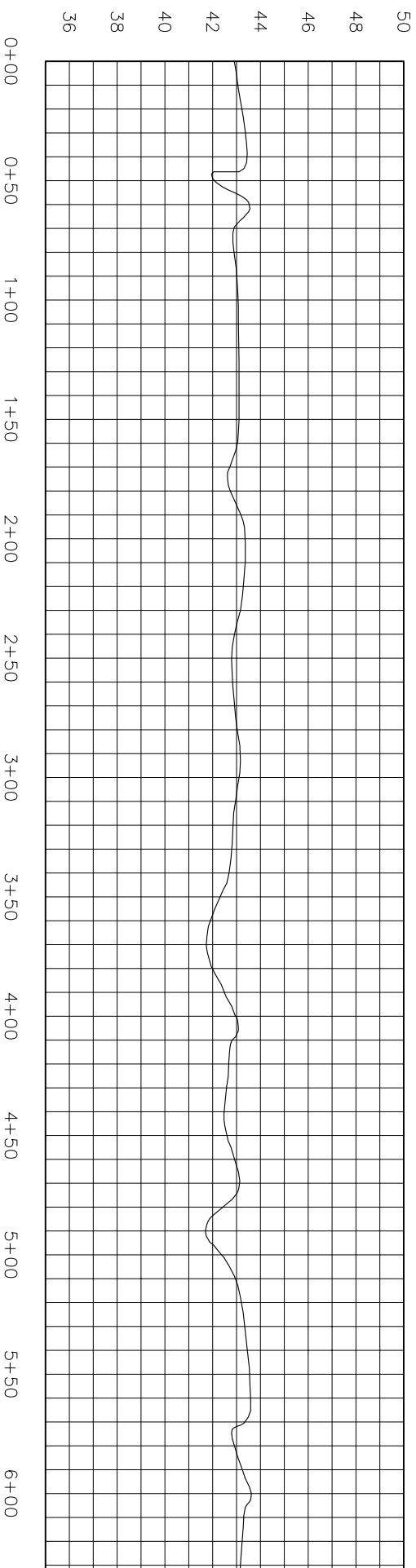
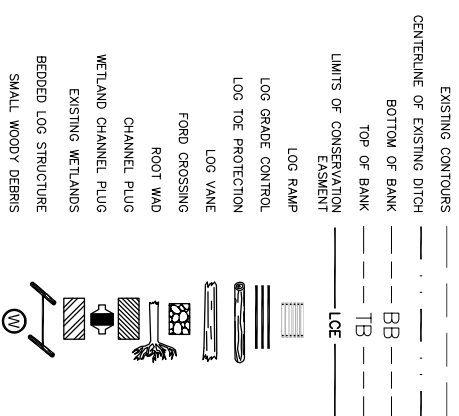
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FLOODIE AS-BUILT PLANS  
 COVER & INDEX SHEET



MATCH LINE 6+35 SEE SHEET 2



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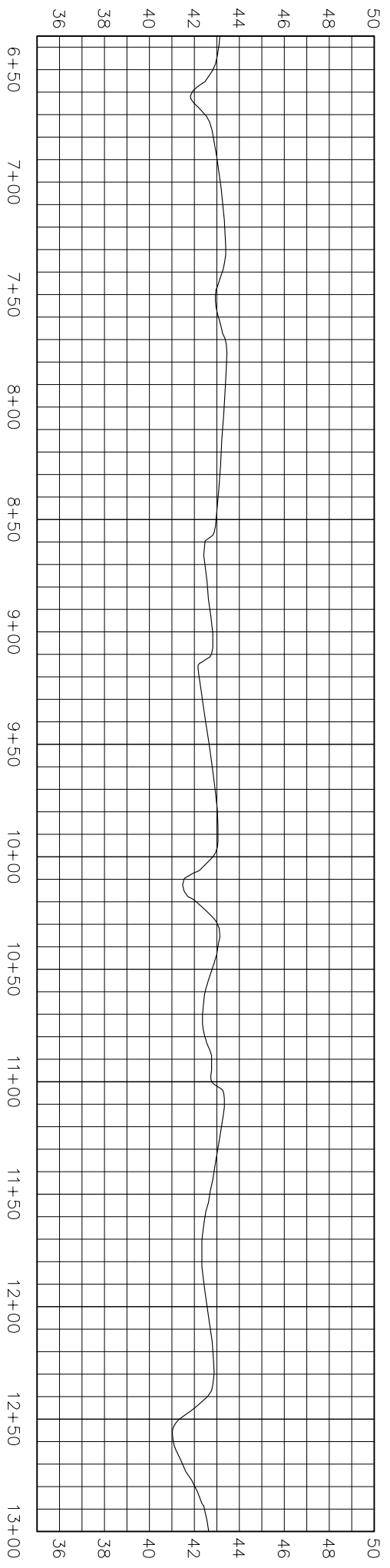
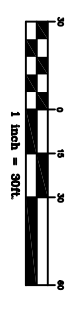
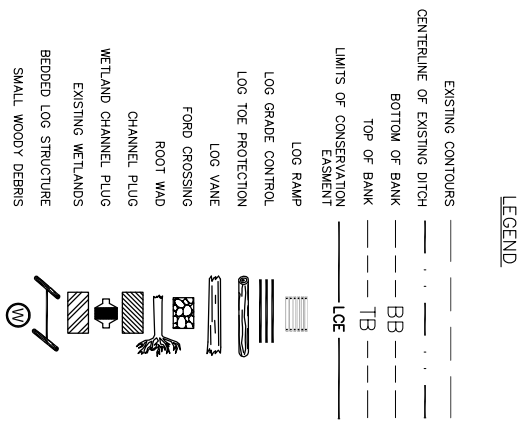
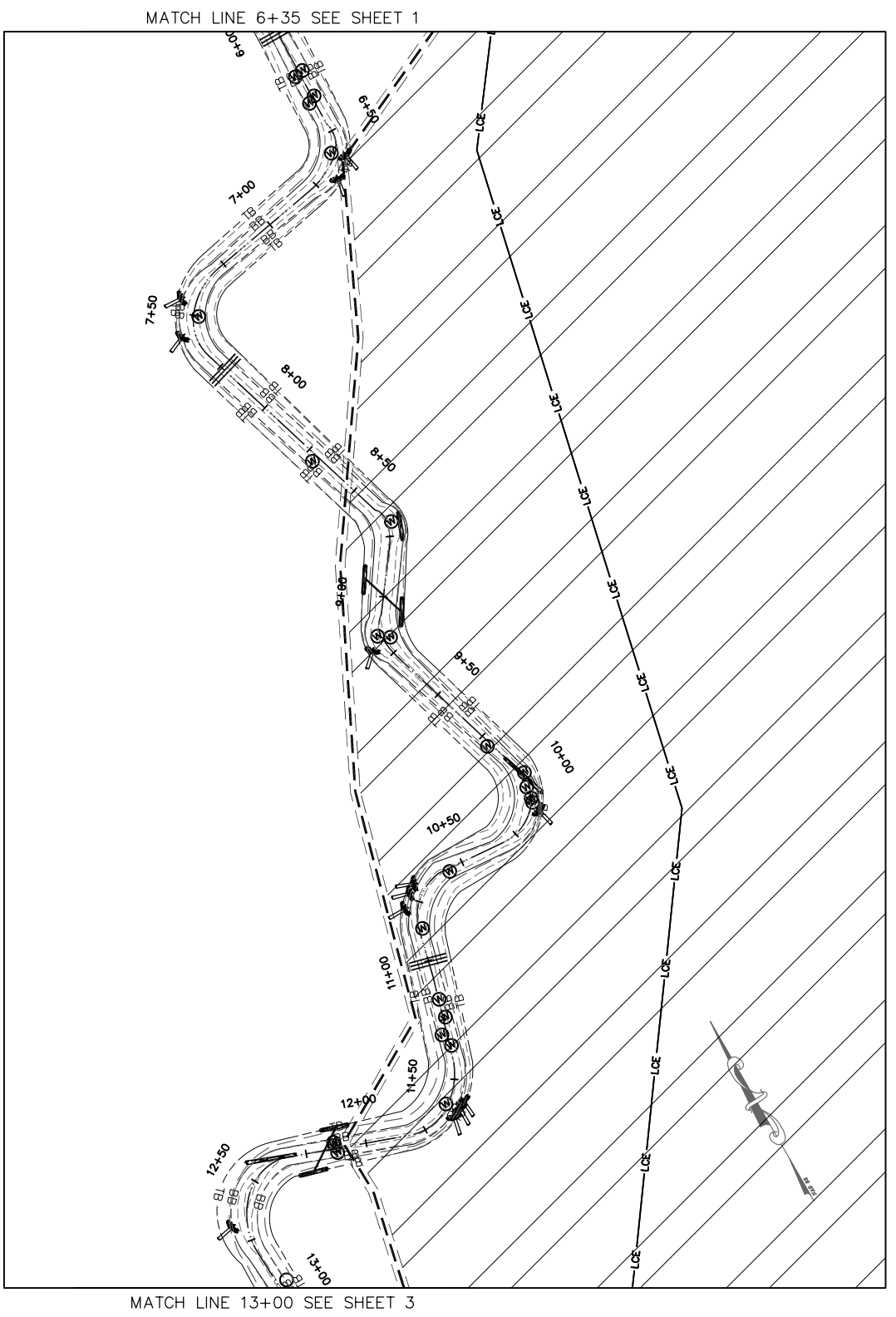
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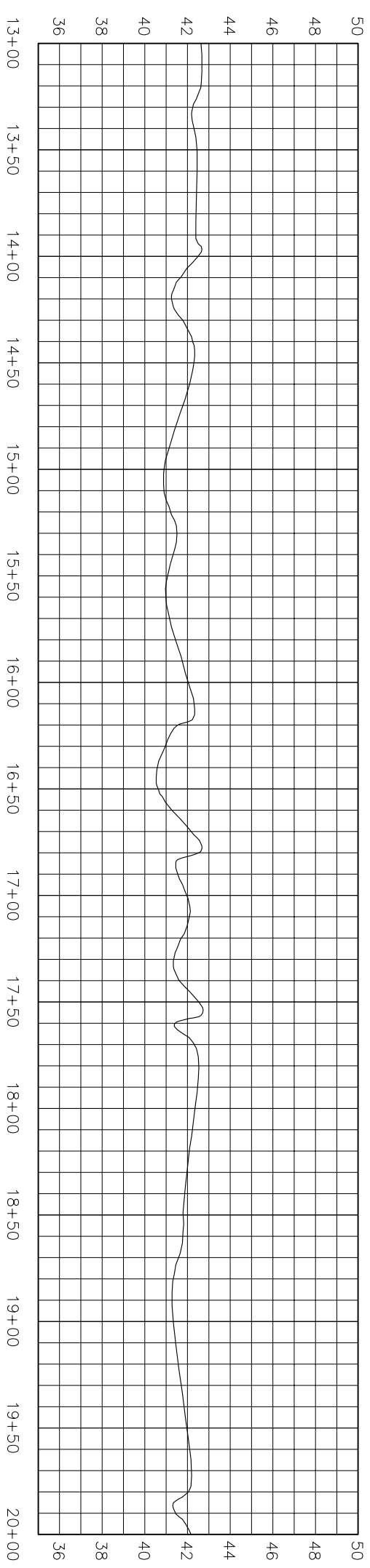
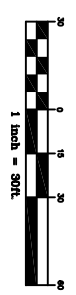
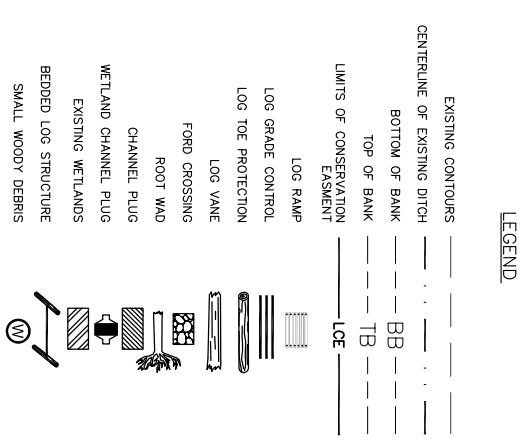
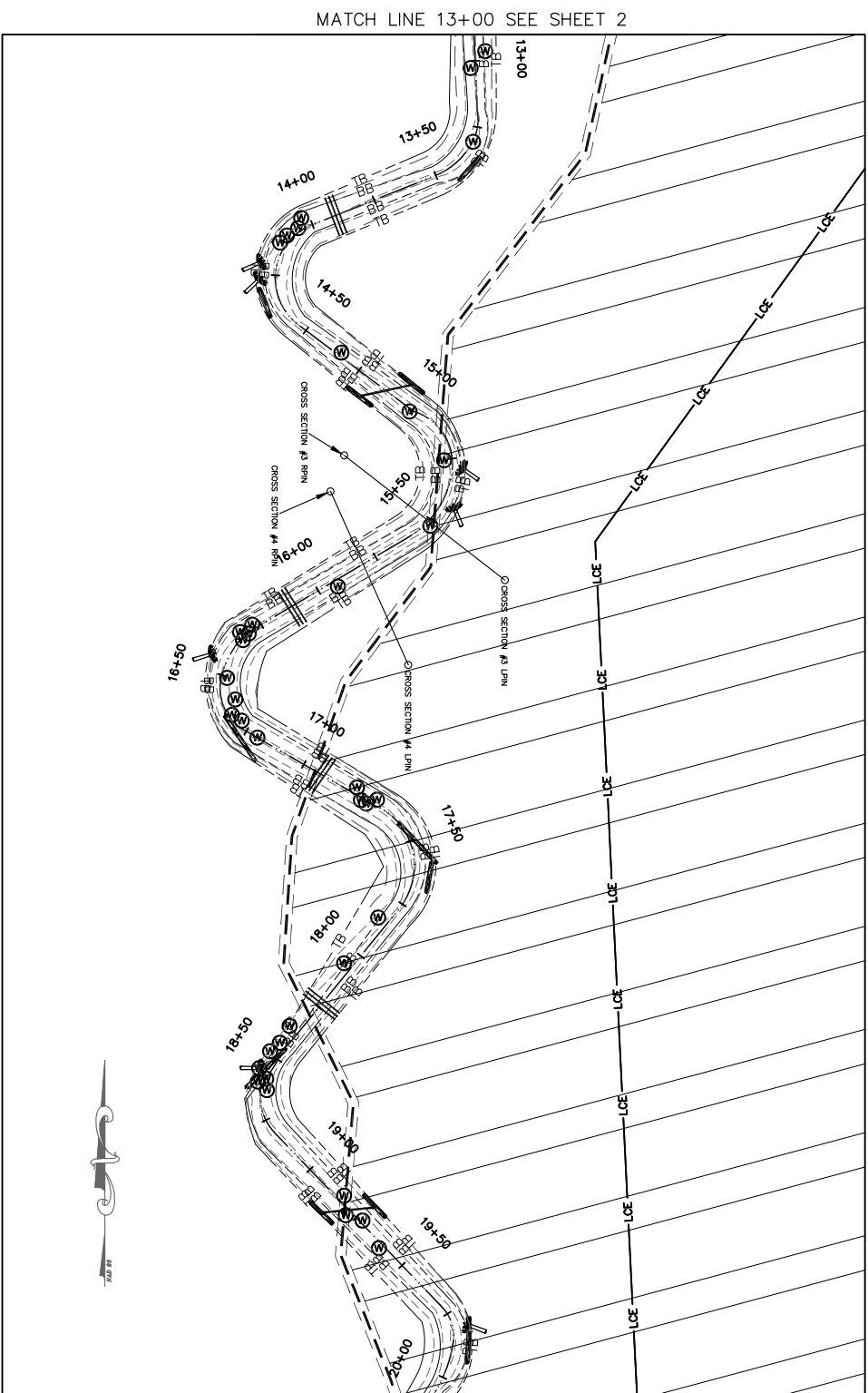
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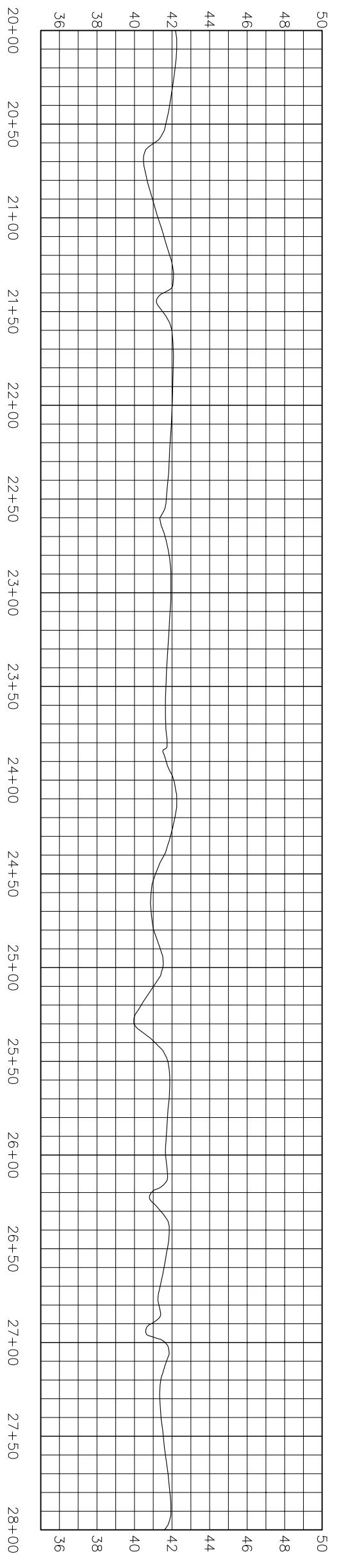
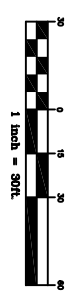


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- LEGEND**
- EXISTING CONTOURS
  - CENTERLINE OF EXISTING DITCH
  - BOTTOM OF BANK
  - TOP OF BANK
  - LIMITS OF CONSERVATION EASMENT
  - LOG RAMP
  - LOG GRADE CONTROL
  - LOG TOE PROTECTION
  - LOG VANE
  - FORD CROSSING
  - ROOT WAD
  - CHANNEL PLUG
  - WETLAND CHANNEL PLUG
  - EXISTING WETLANDS
  - BEDDED LOG STRUCTURE
  - SMALL WOODY DEBRIS



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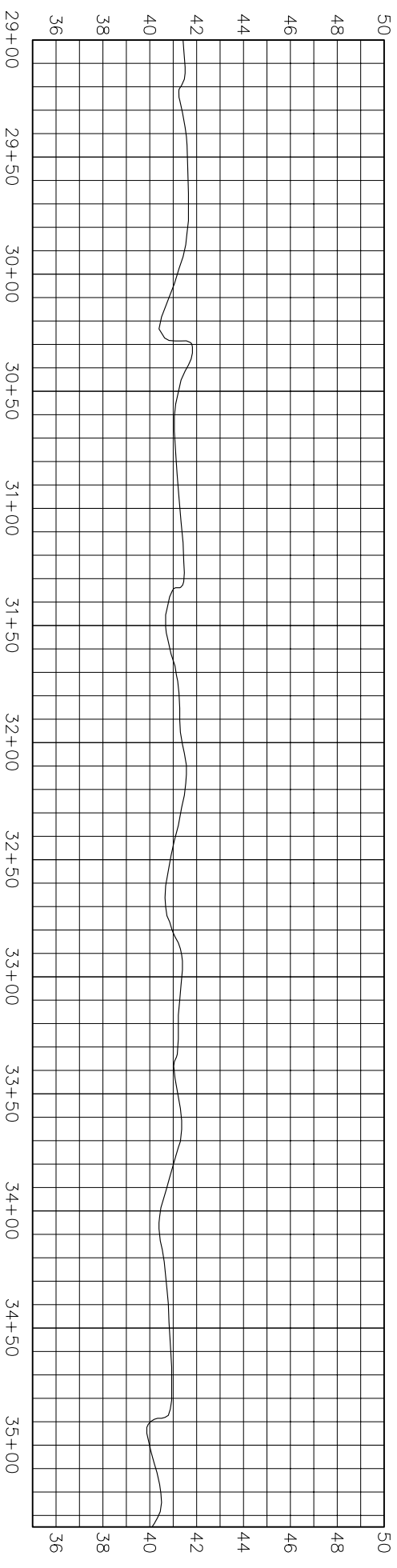
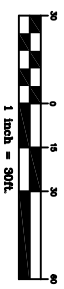
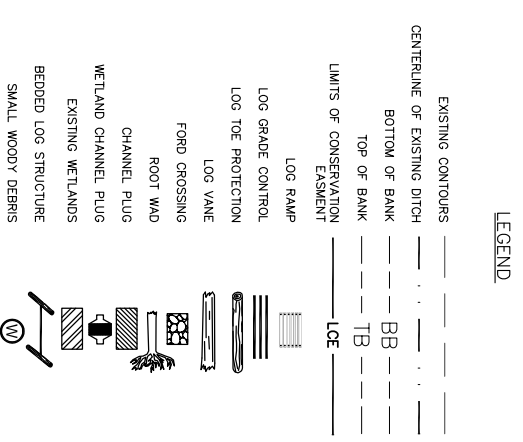
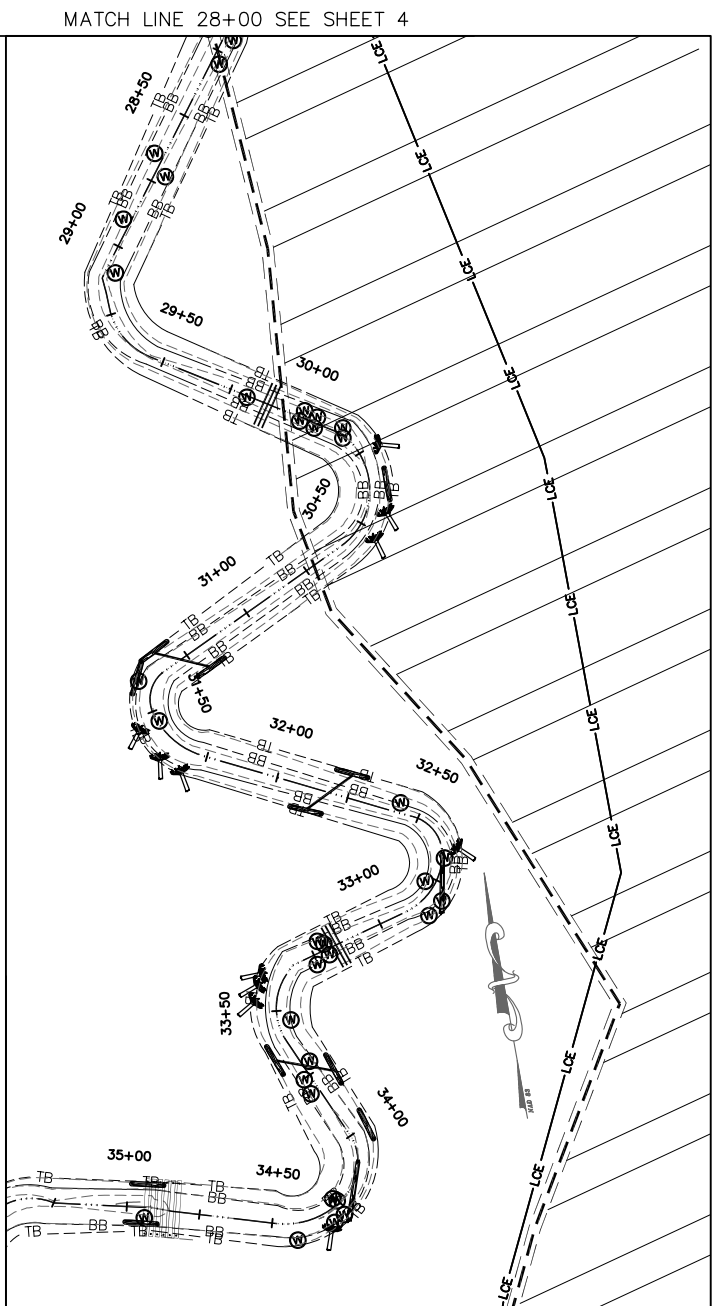
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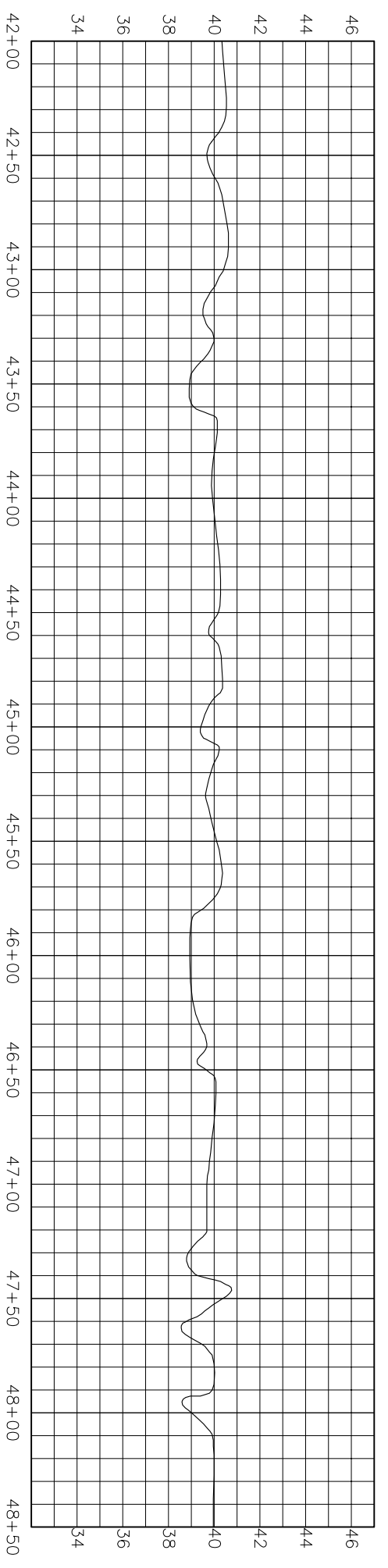
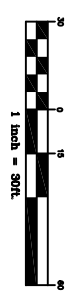
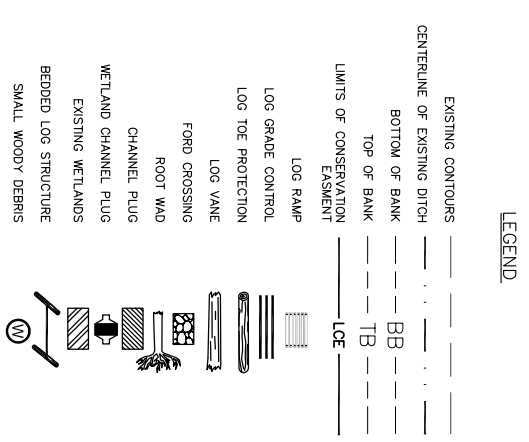
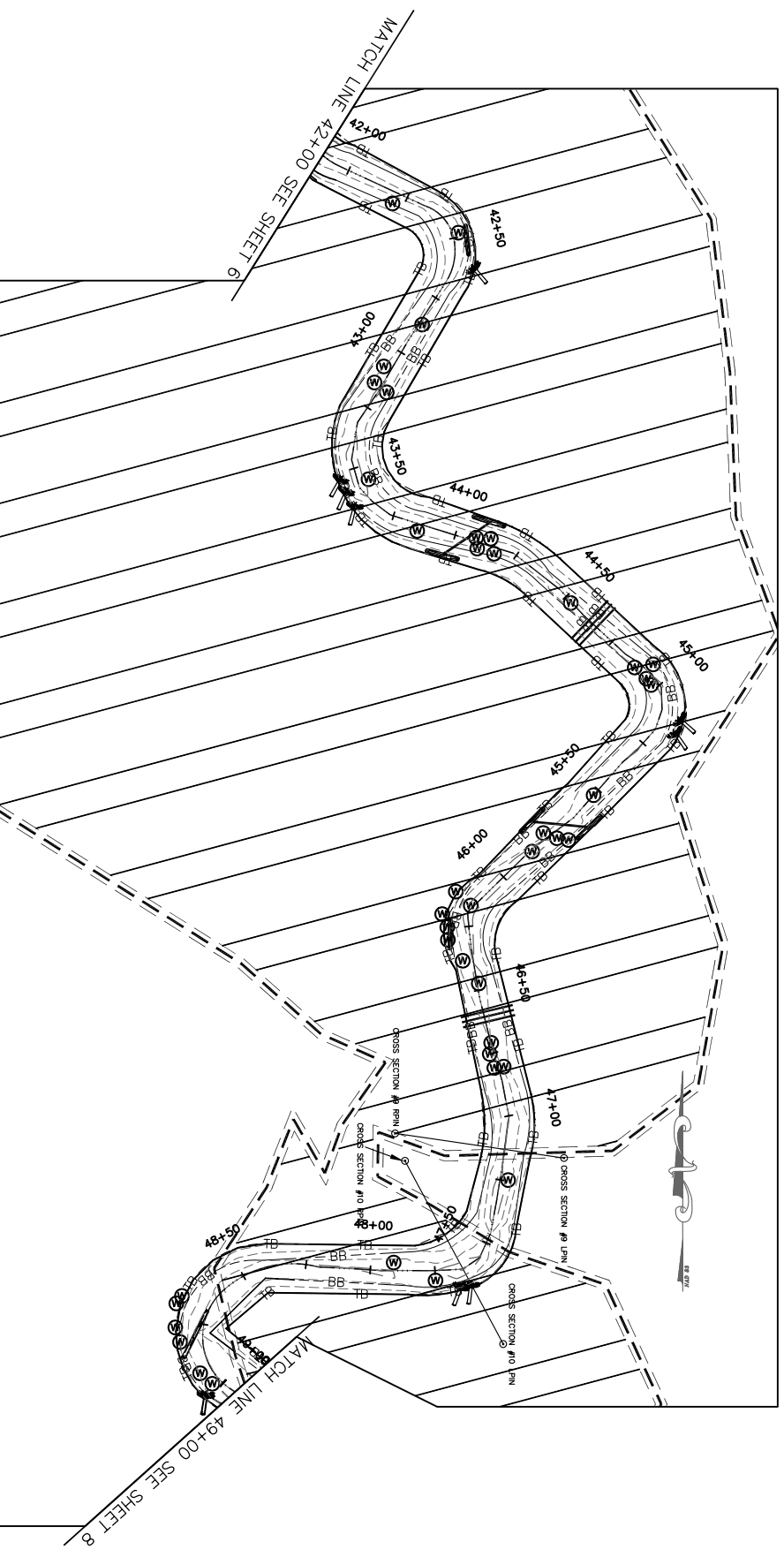
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community infrastructure consultants

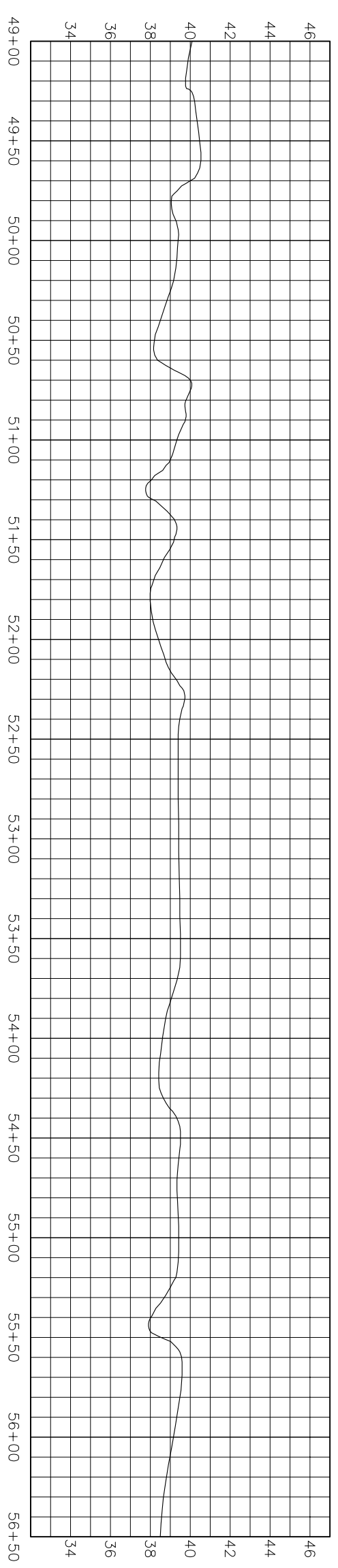
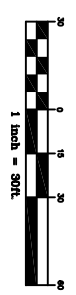
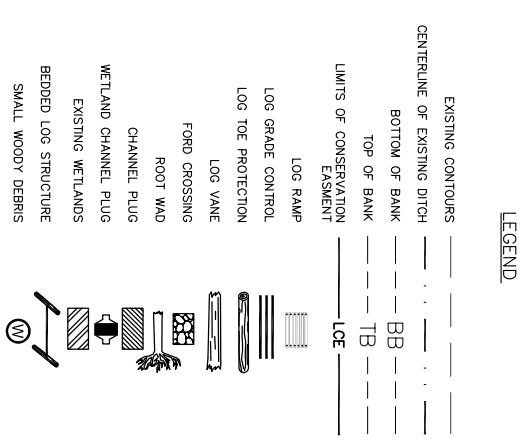
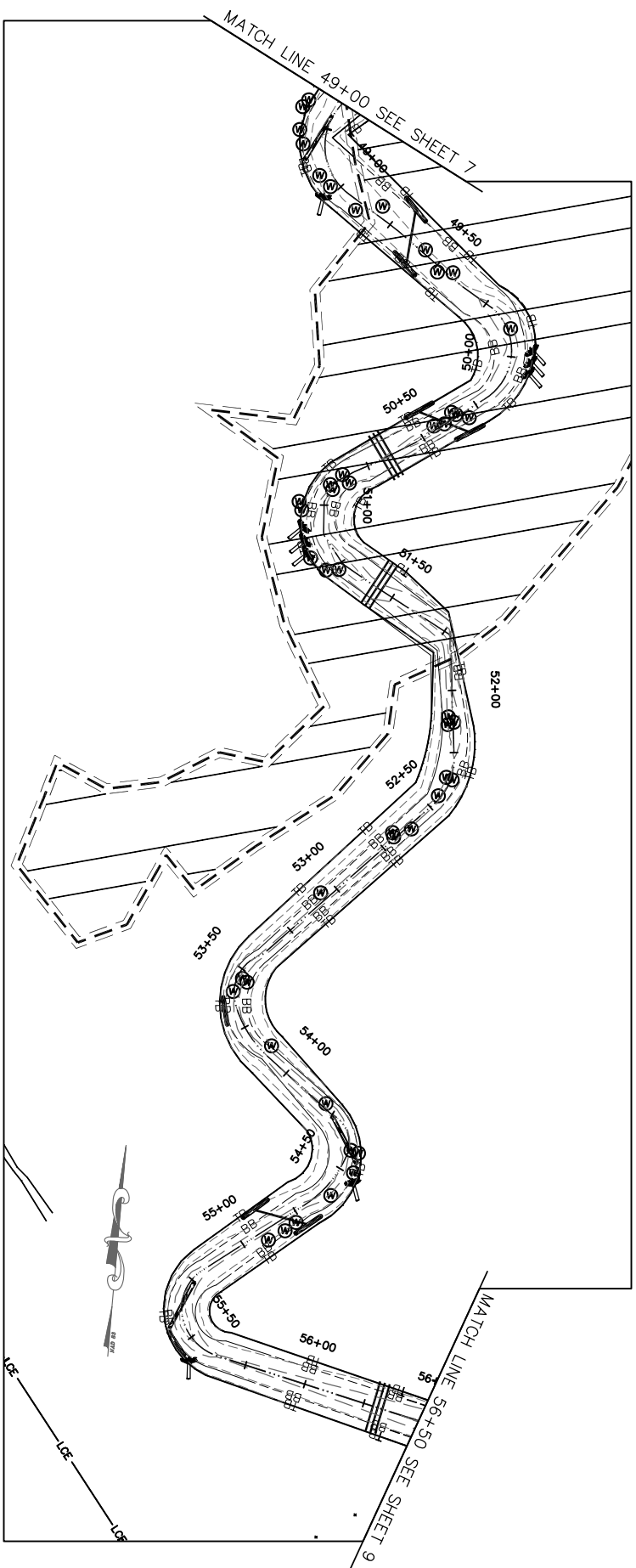
720 CORPORATE CENTER DRIVE  
RALEIGH, NC 27607  
(919) 782-0485

Office Locations:  
North Carolina  
South Carolina  
Georgia



**ENVIRONMENTAL BANK & EXCHANGE, LLC**  
FLOODIE MITIGATION PROJECT  
BERTIE COUNTY, NORTH CAROLINA

FLOODIE AS-BUILT PLANS  
STA. 42+00 TO STA. 49+00



Horizontal Scale: 1 inch = 30ft.  
Vertical Scale: 1 inch = 3ft.

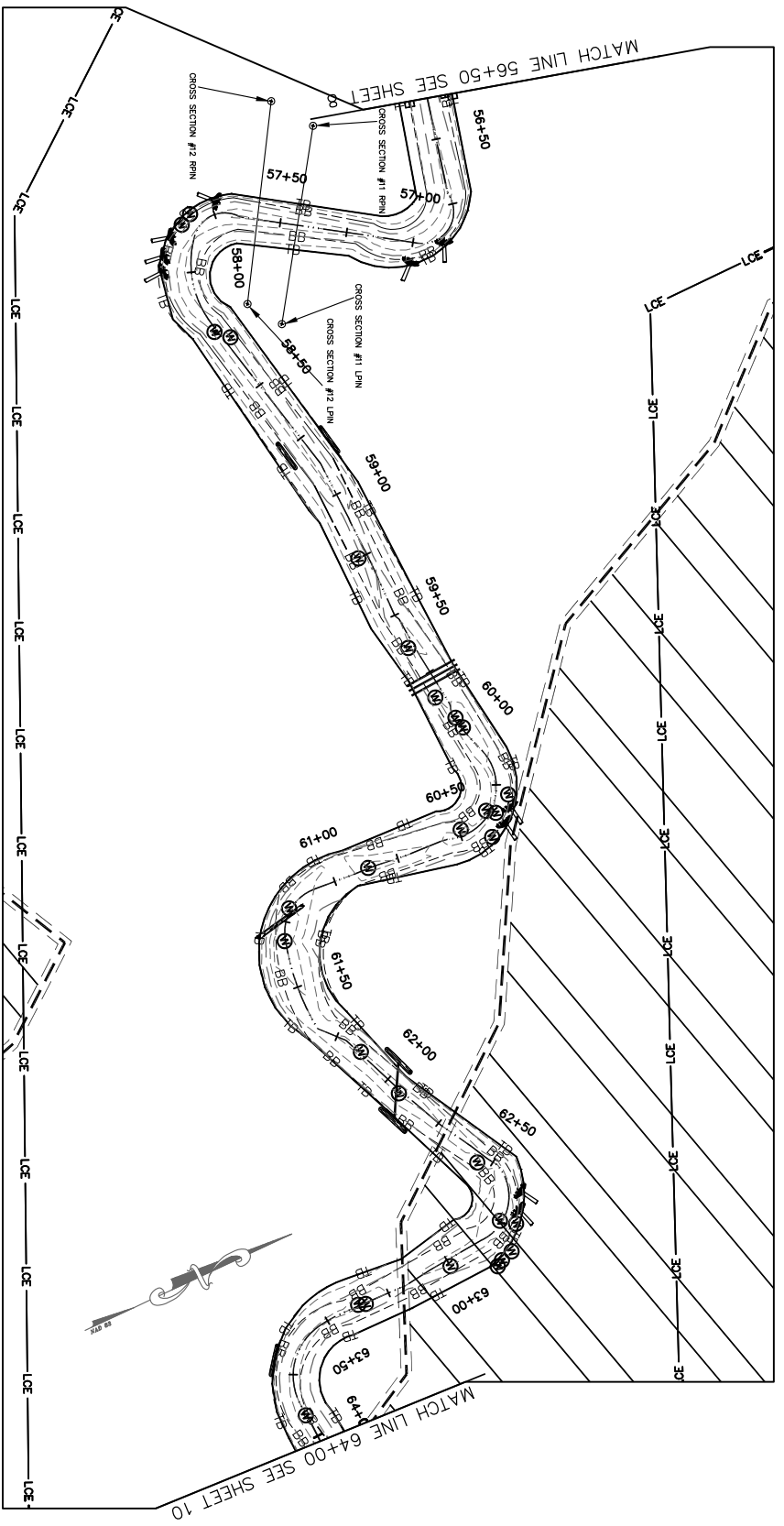
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J.L. APPROVED BY	PROJECT DATE
FILE NAME	PROJECT NUMBER
03/28/08	FOOT EXISTING

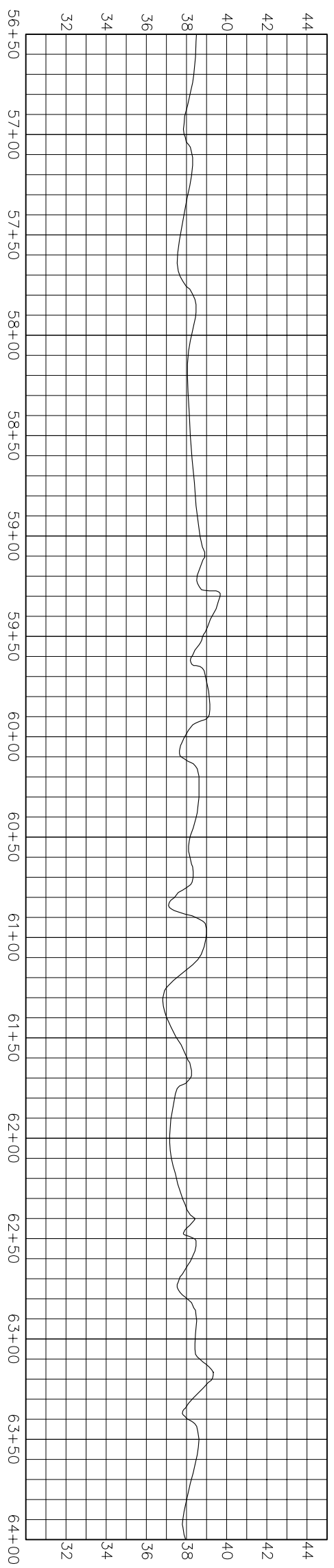
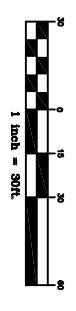


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(919) 782-0485  
Office Locations: North Carolina, Georgia, South Carolina

ENVIRONMENTAL BANK & EXCHANGE, LLC  
FLOODIE MITIGATION PROJECT  
BERTIE COUNTY, NORTH CAROLINA



- LEGEND**
- EXISTING CONTOURS
  - CENTERLINE OF EXISTING DITCH
  - BOTTOM OF BANK
  - TOP OF BANK
  - LIMITS OF CONSERVATION EASEMENT
  - LOG RAMP
  - LOG GRADE CONTROL
  - LOG TOE PROTECTION
  - LOG VANE
  - FORD CROSSING
  - ROOT WAD
  - CHANNEL PLUG
  - WETLAND CHANNEL PLUG
  - EXISTING WETLANDS
  - BEDDED LOG STRUCTURE
  - SMALL WOODY DEBRIS



Horizontal Scale: 1 inch = 30ft.  
Vertical Scale: 1 inch = 3ft.

REV. NO.	DESCRIPTION	DATE

PROJECT MANAGER	DRAWING SCALE
ALL	AS SHOWN
APPROVED BY	PROJECT DATE
FILE NAME	PROJECT NUMBER



720 CORPORATE CENTER DRIVE  
RALEIGH, NC 27607  
(919) 782-0485  
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North Carolina  
South Carolina  
Georgia

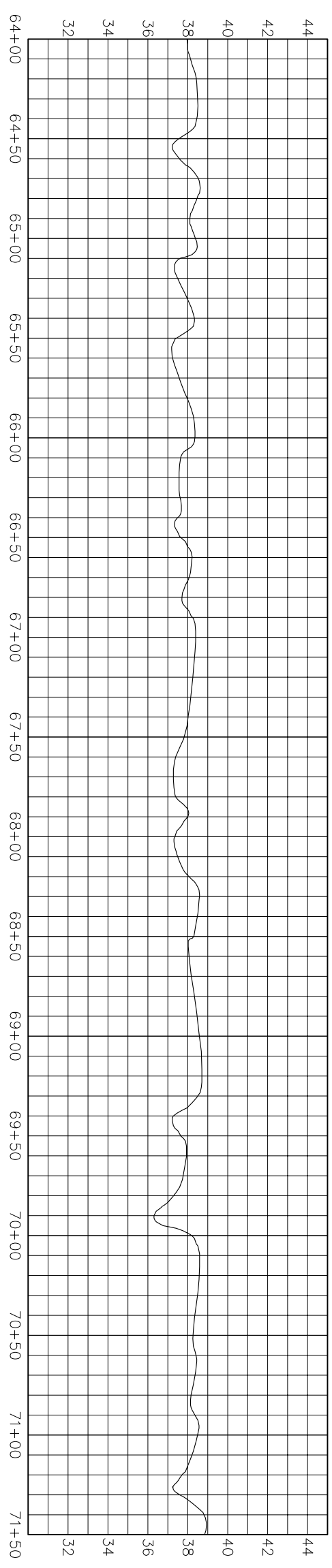
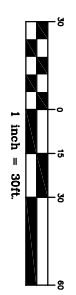
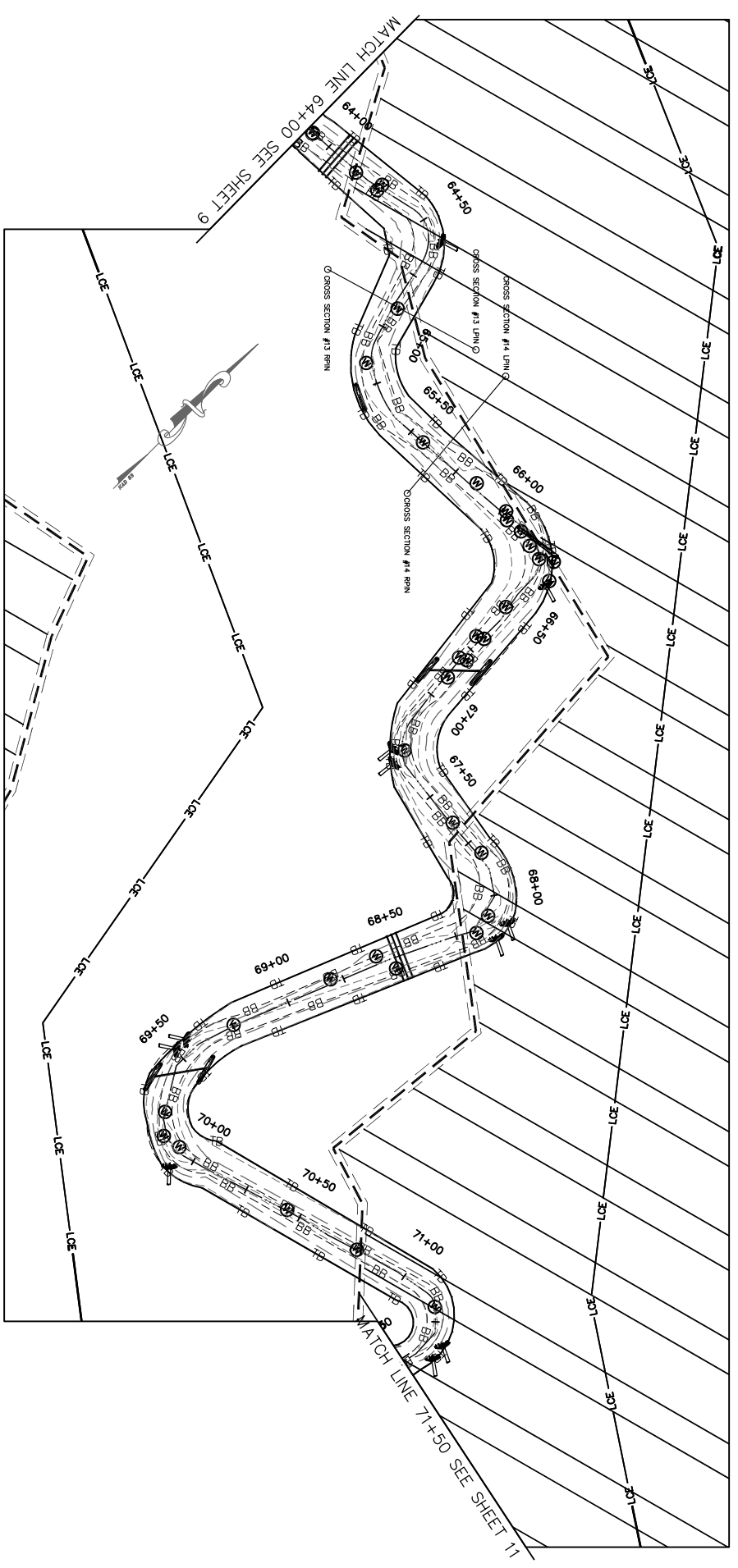
RELEASED FOR	DATE
BIDDING	
CONSTRUCTION	
RECORD DWG.	



ENVIRONMENTAL BANK & EXCHANGE, LLC  
FLOODIE MITIGATION PROJECT  
BERTIE COUNTY, NORTH CAROLINA

FLOODIE AS-BUILT PLANS  
STA. 56+50 TO STA. 64+00





Horizontal Scale: 1 inch = 30ft.  
Vertical Scale: 1 inch = 3ft.

- LEGEND**
- EXISTING CONTOURS
  - CENTERLINE OF EXISTING DITCH
  - BOTTOM OF BANK
  - TOP OF BANK
  - LIMITS OF CONSERVATION EASEMENT
  - LOG RAMP
  - LOG GRADE CONTROL
  - LOG TOE PROTECTION
  - LOG YANE
  - FORD CROSSING
  - ROOT WAD
  - CHANNEL PLUG
  - WETLAND CHANNEL PLUG
  - EXISTING WETLANDS
  - BEDDED LOG STRUCTURE
  - SMALL WOODY DEBRIS

REV. NO.	DESCRIPTION	DATE

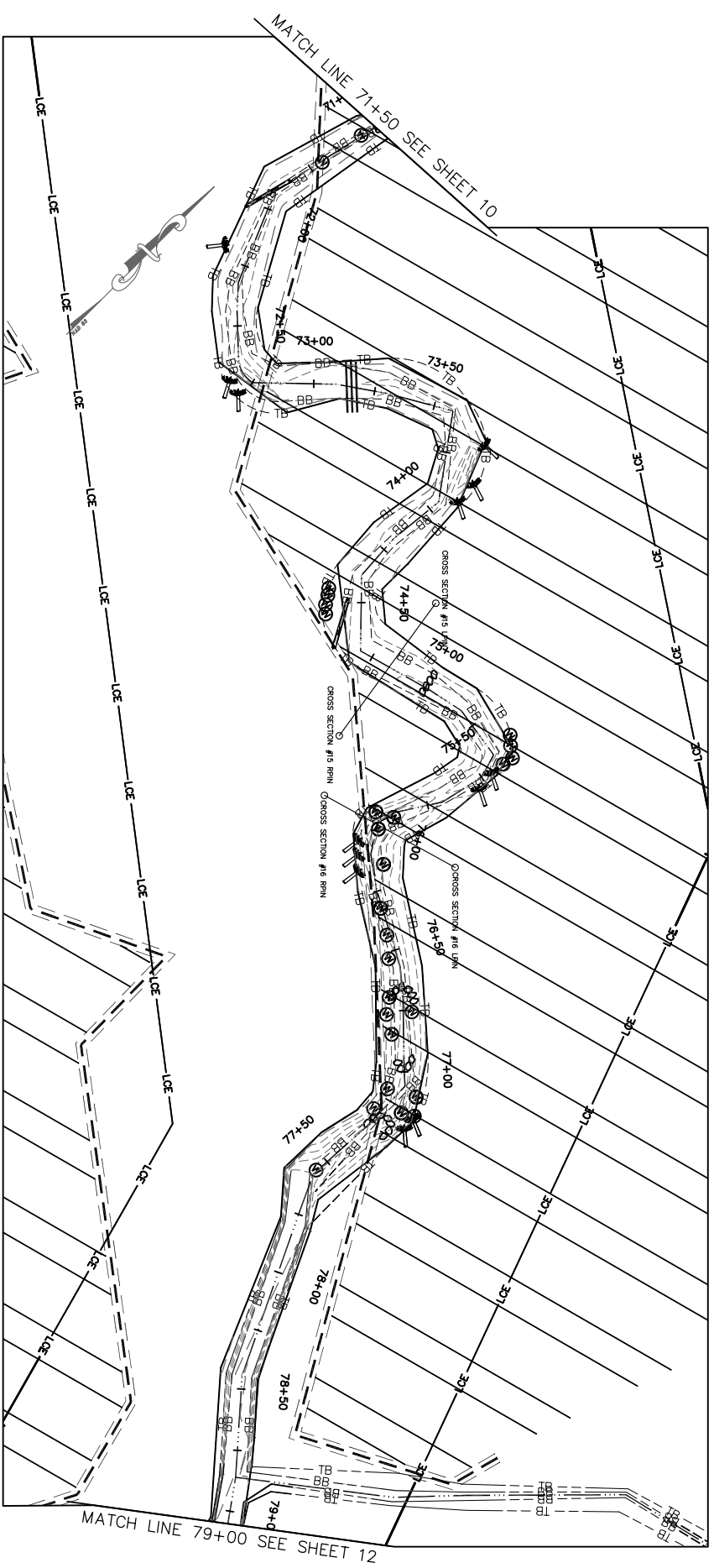
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J.L.	AS SHOWN
APPROVED BY	PROJECT DATE
	08/20/07
PROJECT NUMBER	PROJECT NUMBER
FILE NAME	FILE NAME
03/28/08	



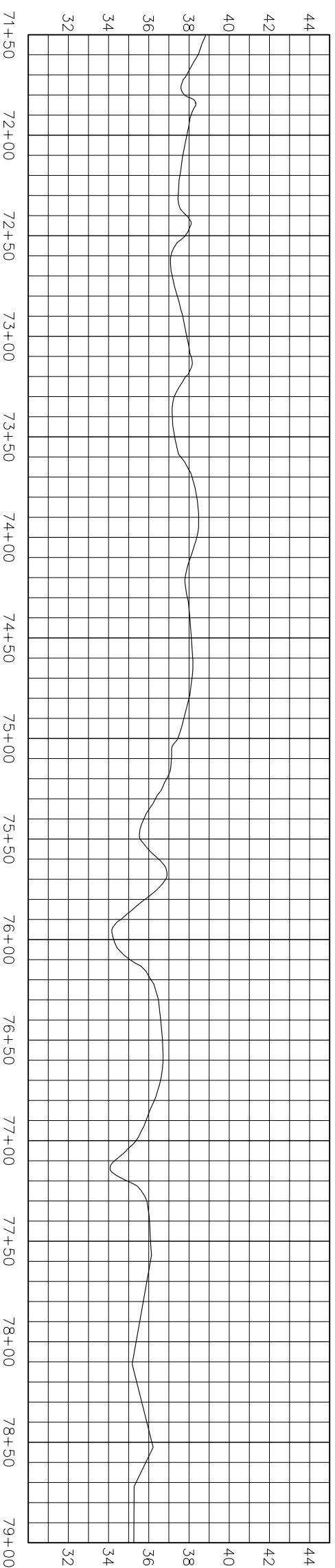
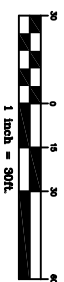
720 CORPORATE CENTER DRIVE  
RALEIGH, NC 27607  
(919) 782-0485

Office Locations:  
North Carolina  
South Carolina  
Georgia

ENVIRONMENTAL BANK & EXCHANGE, LLC  
FLOODGIE MITIGATION PROJECT  
BERTIE COUNTY, NORTH CAROLINA



- LEGEND**
- EXISTING CONTOURS
  - CENTERLINE OF EXISTING DITCH
  - BOTTOM OF BANK
  - TOP OF BANK
  - LIMITS OF CONSERVATION EASEMENT
  - LOG RAMP
  - LOG GRADE CONTROL
  - LOG TOE PROTECTION
  - LOG YANE
  - FORD CROSSING
  - ROOT WAD
  - CHANNEL PLUG
  - WETLAND CHANNEL PLUG
  - EXISTING WETLANDS
  - BEDDED LOG STRUCTURE
  - SMALL WOODY DEBRIS



Horizontal Scale: 1 inch = 30ft.  
Vertical Scale: 1 inch = 3ft.

REV. NO.	DESCRIPTION	DATE

PROJECT MANAGER	DRAWING SCALE
ALL	AS SHOWN
DESIGNED BY	PROJECT DATE
APPROVED BY	PROJECT NUMBER
FILE NAME	PROJECT LOCATION
dwg	03/28/08

**W.K. DICKSON**  
community infrastructure consultants

720 CORPORATE CENTER DRIVE  
RALEIGH, NC 27607  
(919) 782-0495

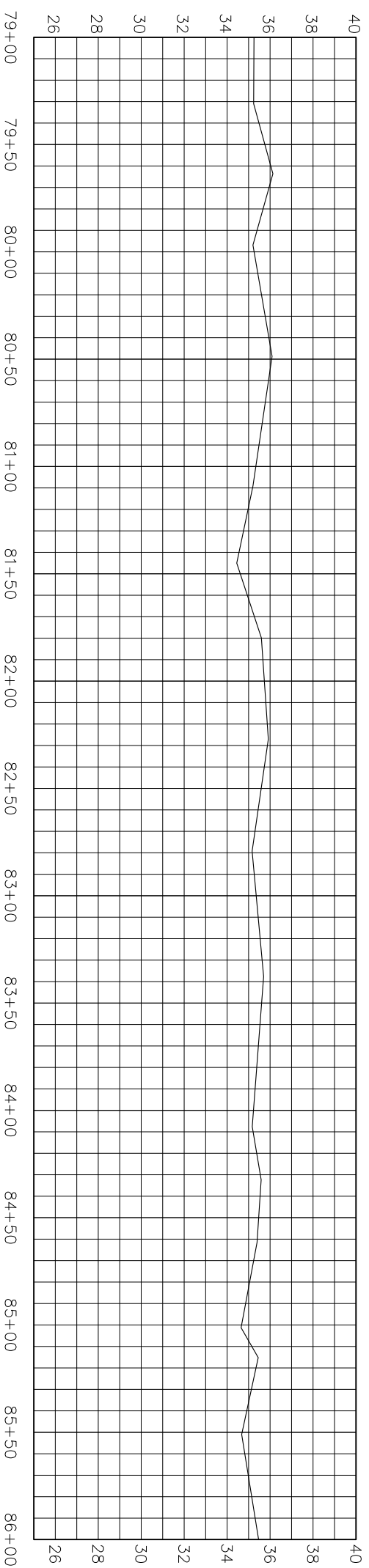
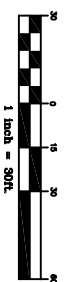
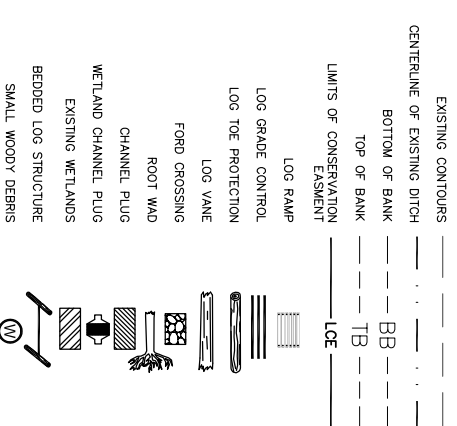
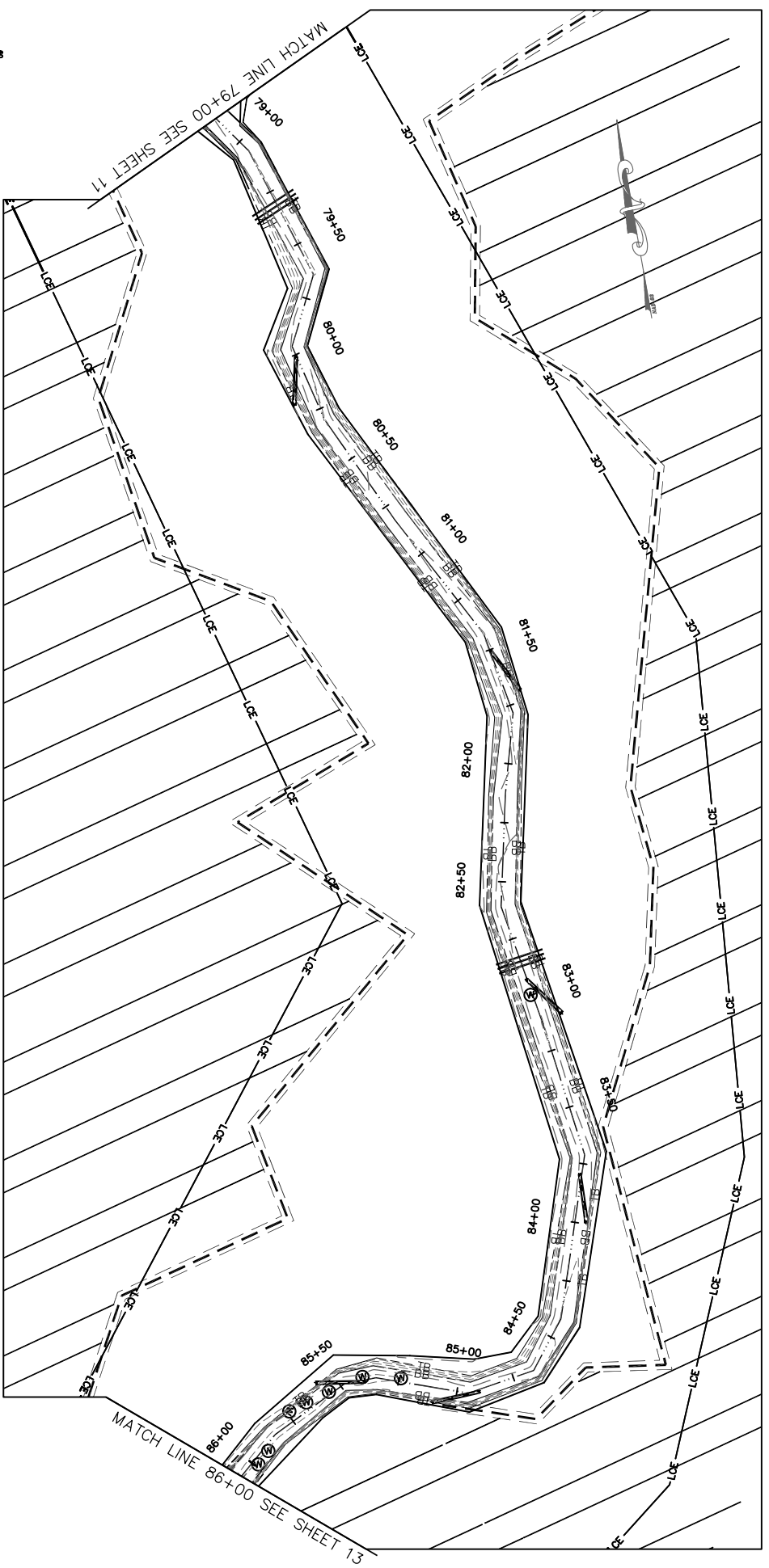
Office Locations:  
North Carolina  
Georgia  
South Carolina

RELEASED FOR	DATE
APPROVALS	
BIDDING	
CONSTRUCTION	
RECORD DWG.	



**ENVIRONMENTAL BANK & EXCHANGE, LLC**  
FLOODIE MITIGATION PROJECT  
BERTIE COUNTY, NORTH CAROLINA

FLOODIE AS-BUILT PLANS  
STA. 71+50 TO STA. 79+00



Horizontal Scale: 1 inch = 30ft.  
Vertical Scale: 1 inch = 3ft.

REV. NO.	DESCRIPTION	DATE

PROJECT MANAGER	DRAWING SCALE
ALL	AS SHOWN
APPROVED BY	PROJECT DATE
FILE NAME	PROJECT NUMBER
	PROJECT LOCATION
	FILED DATE



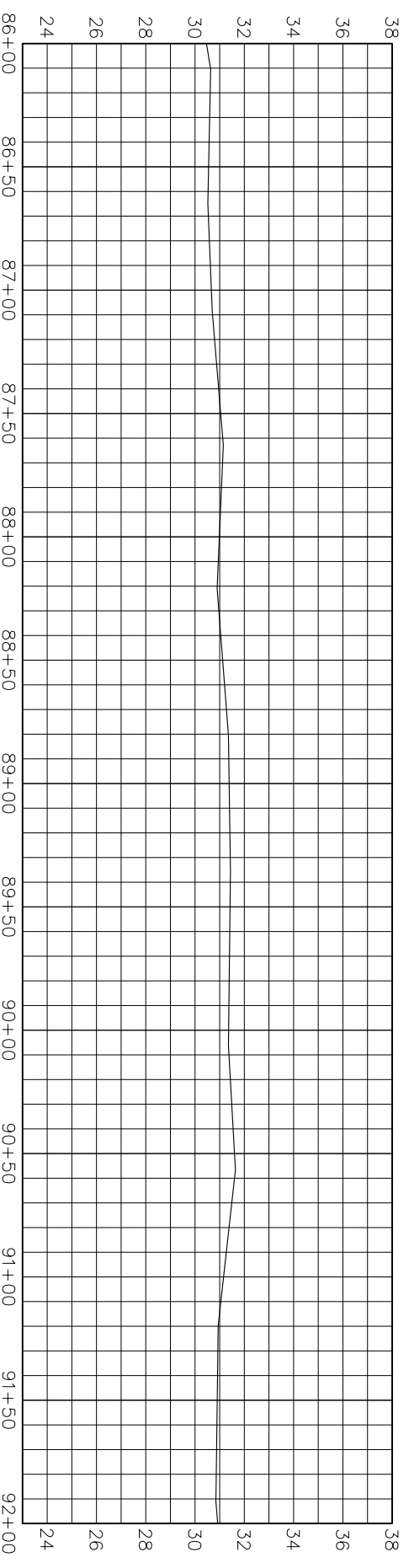
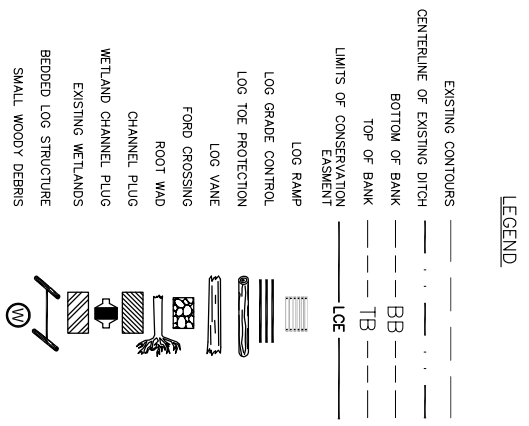
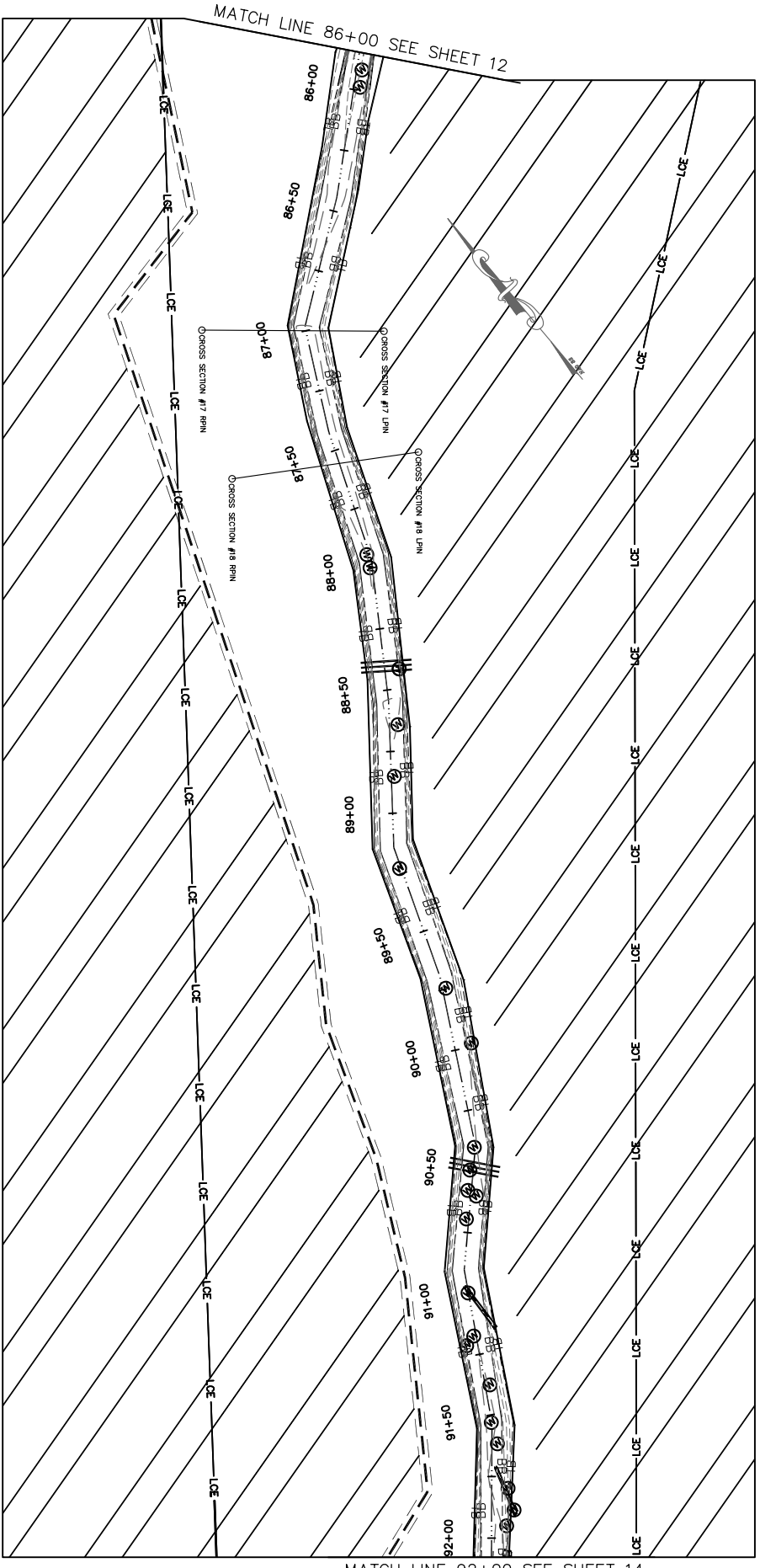
720 CORPORATE CENTER DRIVE  
RALEIGH, NC 27607  
(919) 782-0485  
Office Locations:  
North Carolina  
South Carolina  
Georgia

RELEASED FOR	DATE
BIDDING	
CONSTRUCTION	
RECORD DWG.	



ENVIRONMENTAL BANK & EXCHANGE, LLC  
FLOODIE MITIGATION PROJECT  
BERTIE COUNTY, NORTH CAROLINA

FLOODIE AS-BUILT PLANS  
STA. 79+00 TO STA. 86+00



Horizontal Scale: 1 inch = 30ft.  
Vertical Scale: 1 inch = 3ft.

REV. NO.	DESCRIPTION	DATE

PROJECT MANAGER	DRAWING SCALE
W.K. DICKSON	AS SHOWN
DESIGNED BY	PROJECT DATE
CHECKED BY	PROJECT NUMBER
APPROVED BY	PROJECT LOCATION
FILE NAME	PROJECT DATE

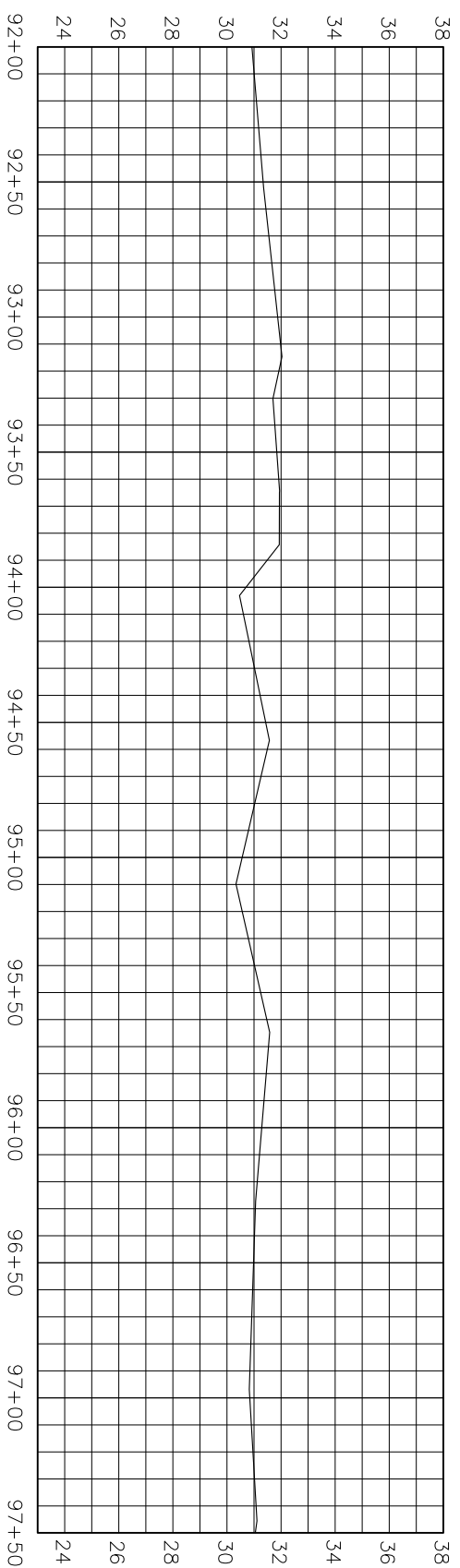
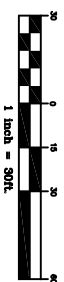
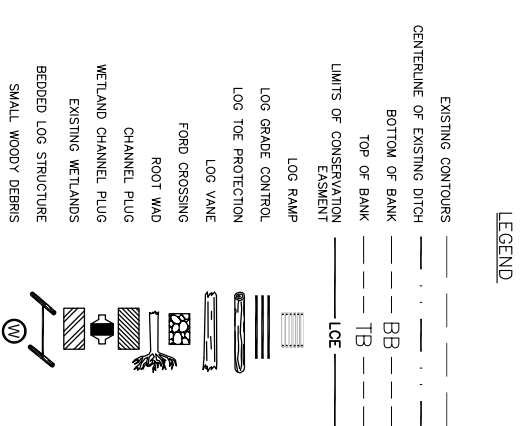
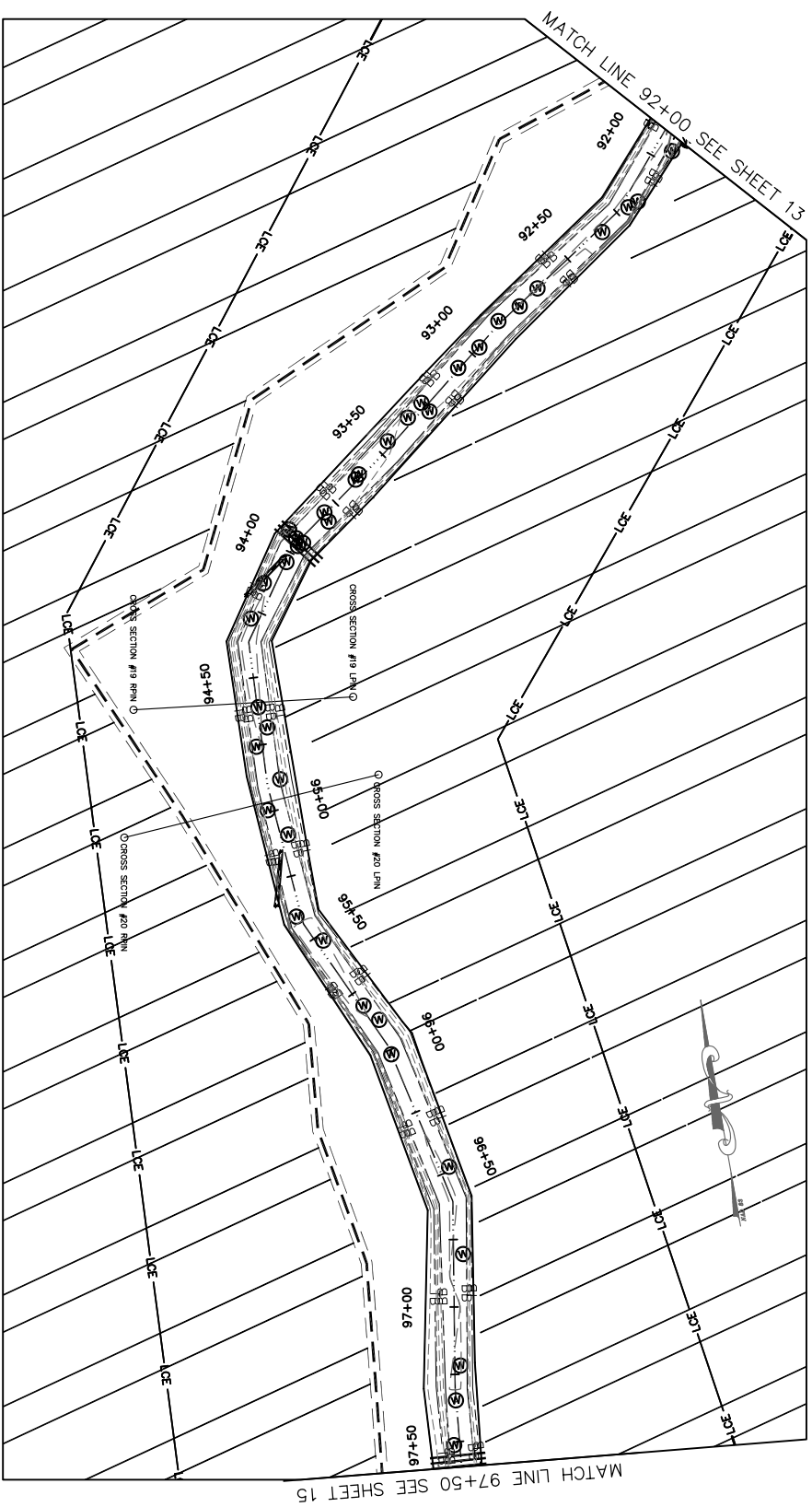


720 CORPORATE CENTER DRIVE  
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(919) 782-0495

Office Locations:  
North Carolina  
Georgia  
South Carolina

ENVIRONMENTAL BANK & EXCHANGE, LLC  
FLOODGIE MITIGATION PROJECT  
BERTIE COUNTY, NORTH CAROLINA





Horizontal Scale: 1 inch = 30ft.  
Vertical Scale: 1 inch = 3ft.

REV. NO.	DESCRIPTION	DATE

PROJECT MANAGER	DRAWING SCALE
J.L.	AS SHOWN
APPROVED BY	PROJECT DATE
PROJECT NUMBER	PROJECT LOCATION
FILE NAME	DATE PLOTTED
03/28/08	03/28/08

**W.K. DICKSON**  
community infrastructure consultants

720 CORPORATE CENTER DRIVE  
RALEIGH, NC 27607  
(919) 782-4385

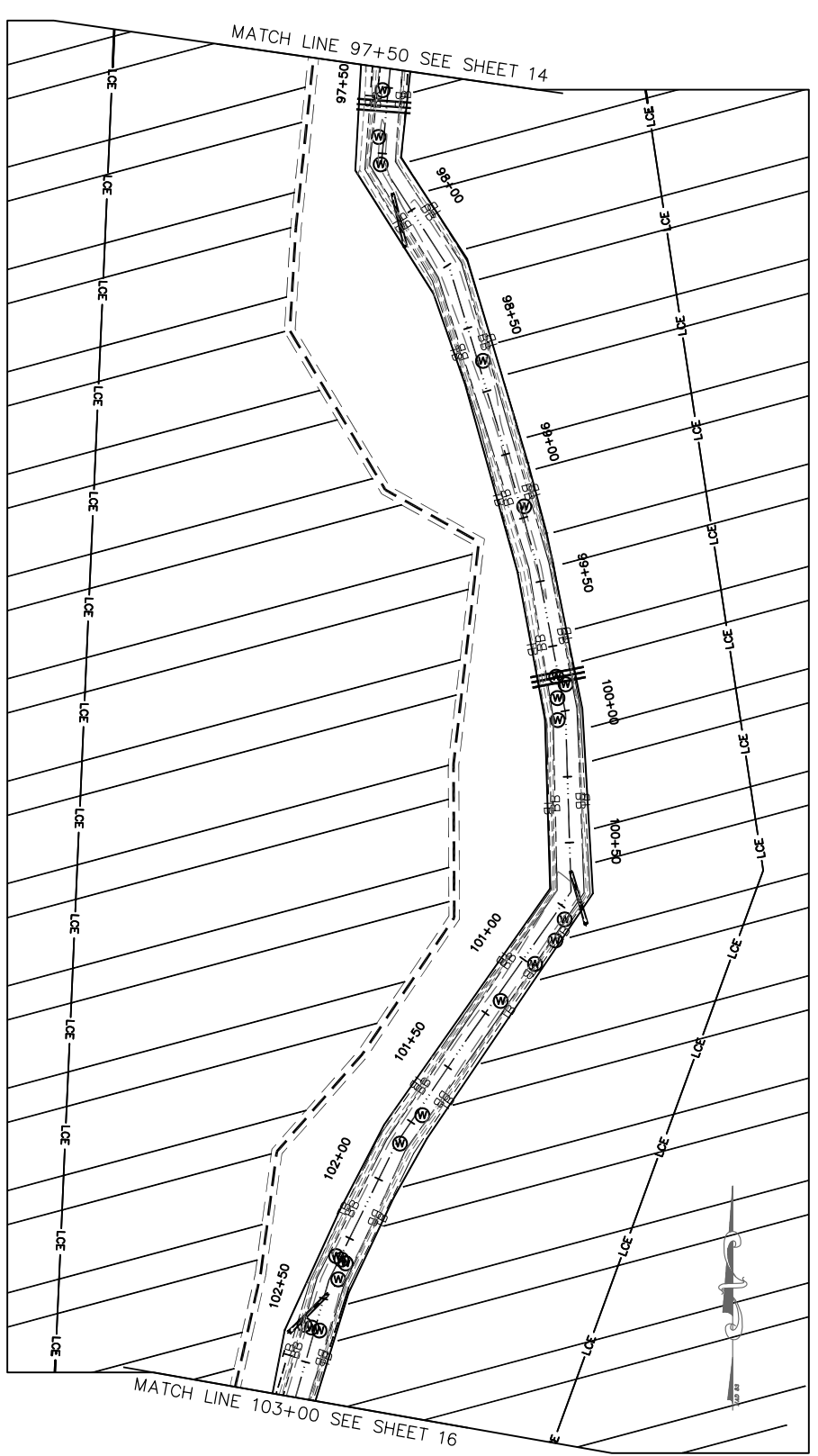
Office Locations:  
North Carolina  
Georgia  
South Carolina

RELEASED FOR	DATE
BIDDING	
CONSTRUCTION	
RECORD DWG.	

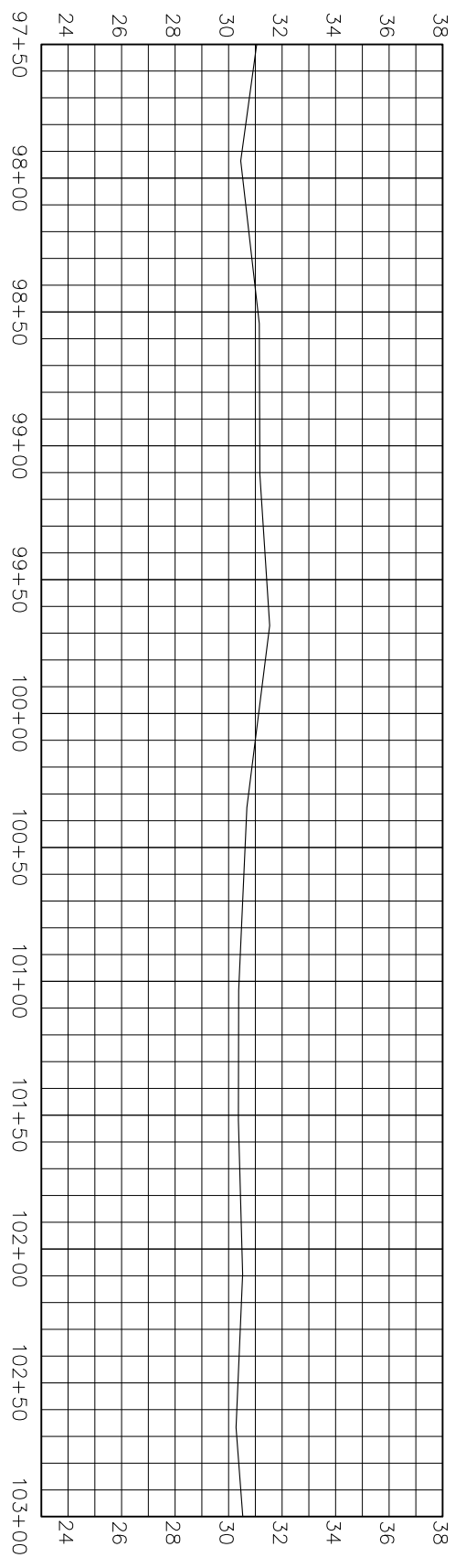
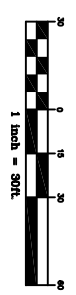


**ENVIRONMENTAL BANK & EXCHANGE, LLC**  
FLOODGIE MITIGATION PROJECT  
BERTIE COUNTY, NORTH CAROLINA

FLOODGIE AS-BUILT PLANS  
STA. 92+00 TO STA. 97+50



- LEGEND**
- EXISTING CONTOURS
  - CENTERLINE OF EXISTING DITCH
  - BOTTOM OF BANK
  - TOP OF BANK
  - LIMITS OF CONSERVATION EASMENT
  - LOG RAMP
  - LOG GRADE CONTROL
  - LOG TOE PROTECTION
  - LOG VANE
  - FORD CROSSING
  - ROOT WAD
  - CHANNEL FLUG
  - WETLAND CHANNEL FLUG
  - EXISTING WETLANDS
  - BEDDED LOG STRUCTURE
  - SMALL WOODY DEBRIS



Horizontal Scale: 1 inch = 30ft.  
Vertical Scale: 1 inch = 3ft.

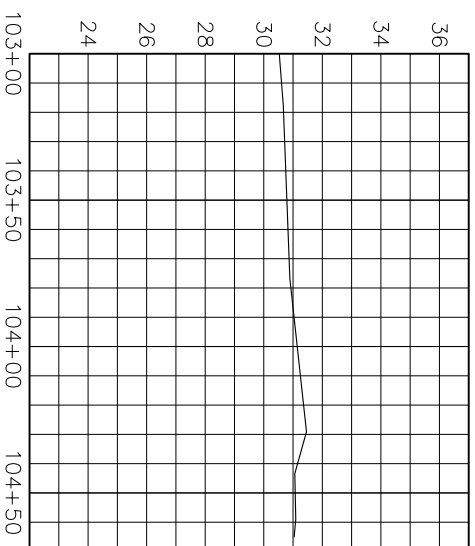
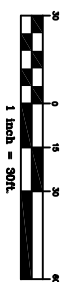
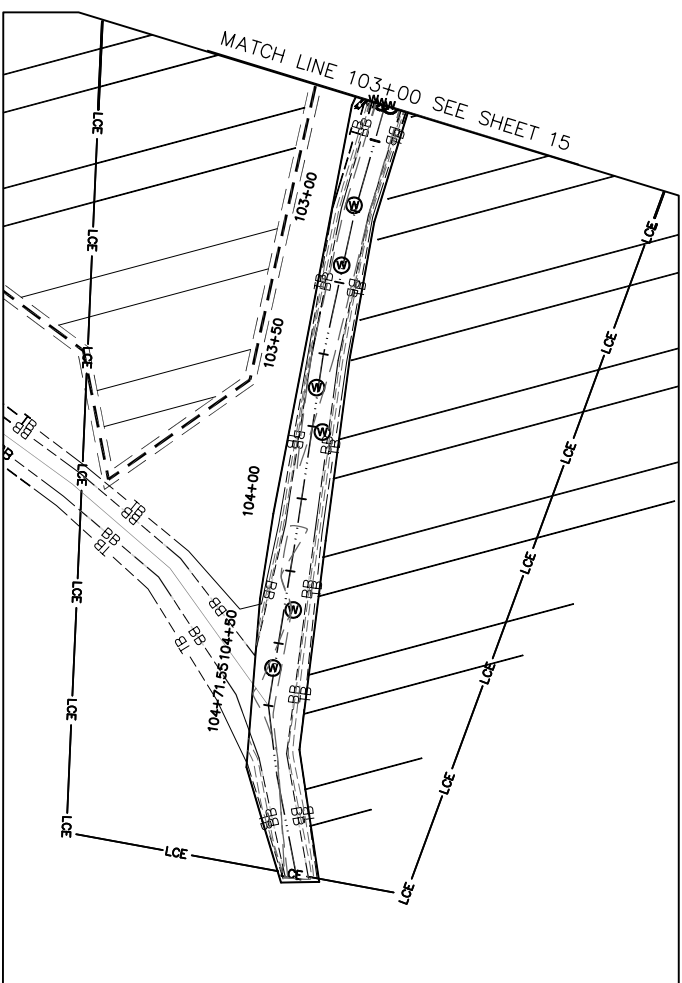
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ALL	AS SHOWN	CONSTRUCTION	
APPROVED BY	PROJECT DATE	APPROVALS	
FILE NAME	PROJECT NUMBER	BIDDING	
		RECORD DWG.	



**ENVIRONMENTAL BANK & EXCHANGE, LLC**  
FLOODGIE MITIGATION PROJECT  
BERTIE COUNTY, NORTH CAROLINA

FLOODGIE AS-BUILT PLANS  
STA. 97+50 TO STA. 103+00



Horizontal Scale: 1 inch = 30ft.  
Vertical Scale: 1 inch = 3ft.

REV. NO.	DESCRIPTION	DATE

PROJECT MANAGER	DRAWING SCALE
DESIGNED BY	PROJECT DATE
APPROVED BY	PROJECT NUMBER
FILE NAME	PROJECT LOCATION

**W.K. DICKSON**  
community infrastructure consultants

720 CORPORATE CENTER DRIVE  
RALEIGH, NC 27607  
(919) 782-4385

Office Locations:  
North Carolina  
Georgia  
South Carolina

RELEASED FOR	DATE
APPROVALS	
BIDDING	
CONSTRUCTION	
RECORD DWG.	

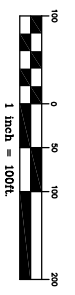
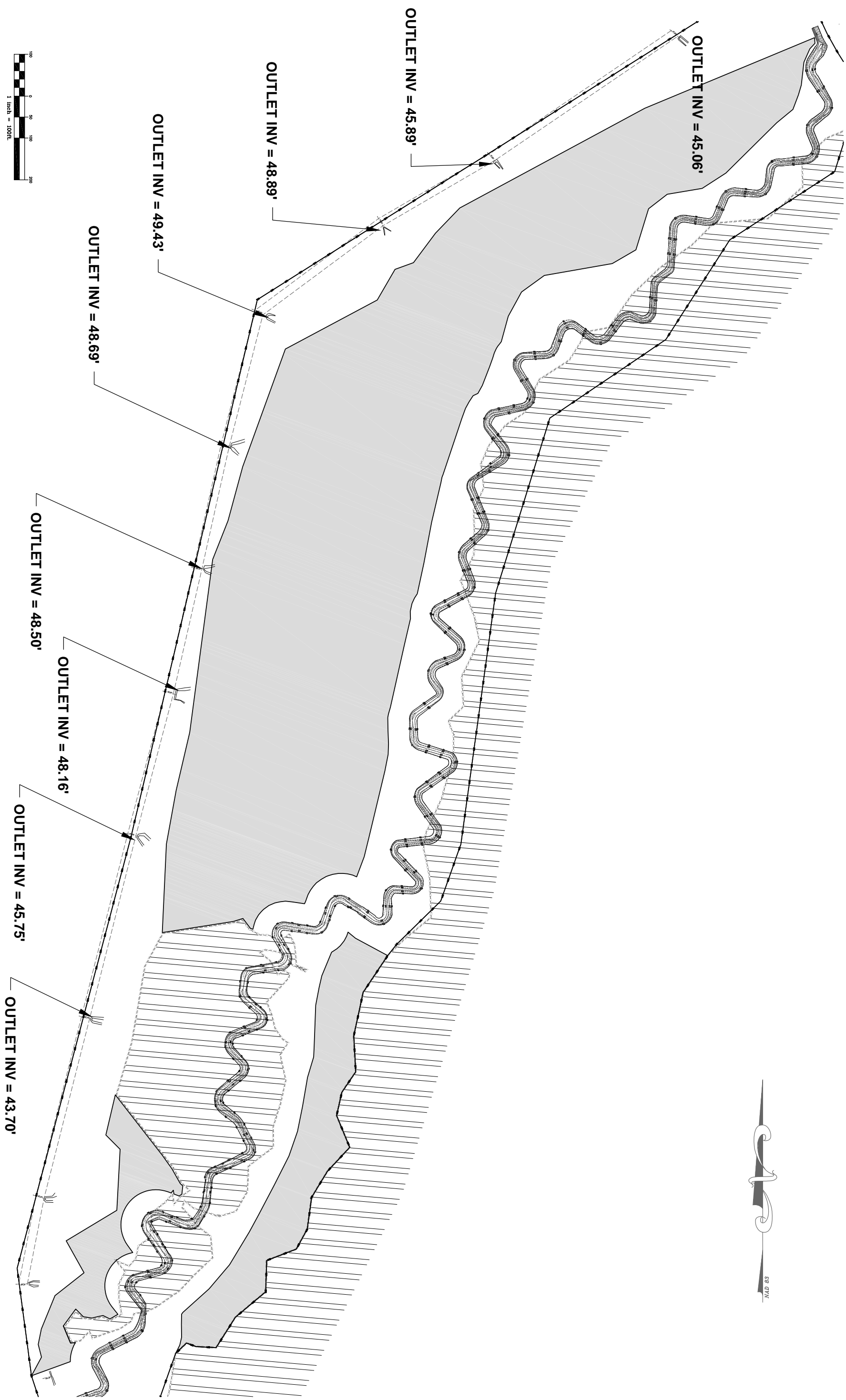


ENVIRONMENTAL BANK & EXCHANGE, LLC  
FLOODIE MITIGATION PROJECT  
BERTIE COUNTY, NORTH CAROLINA

FLOODIE AS-BUILT PLANS  
STA. 103+00 TO STA. 104+71.55

LEGEND

EXISTING CONTOURS	---
CENTERLINE OF EXISTING DITCH	— · — · —
BOTTOM OF BANK	— · — · —
TOP OF BANK	— · — · —
LIMITS OF CONSERVATION EASMENT	---
LOG RAMP	
LOG GRADE CONTROL	
LOG TOE PROTECTION	
LOG VANE	
FORD CROSSING	
ROOT WAD	
CHANNEL PLUG	
WETLAND CHANNEL PLUG	
EXISTING WETLANDS	
BEDDED LOG STRUCTURE	
SMALL WOODY DEBRIS	
	(M)



REV. NO.	DESCRIPTION	DATE

PROJECT MANAGER	DRAWING SCALE
J.L.	AS SHOWN
APPROVED BY	PROJECT DATE
	08/20/07
PROJECT NUMBER	PROJECT NUMBER
FILE NAME	FILE NAME
03/28/08	03/28/08

720 CORPORATE CENTER DRIVE	RELEASED FOR	DATE
RALEIGH, NC 27607 <td>APPROVALS</td> <td> </td>	APPROVALS	
(919) 782-0495 <td>BIDDING</td> <td> </td>	BIDDING	
Office Locations:	CONSTRUCTION	
North Carolina	RECORD DWG.	
Georgia		
South Carolina		

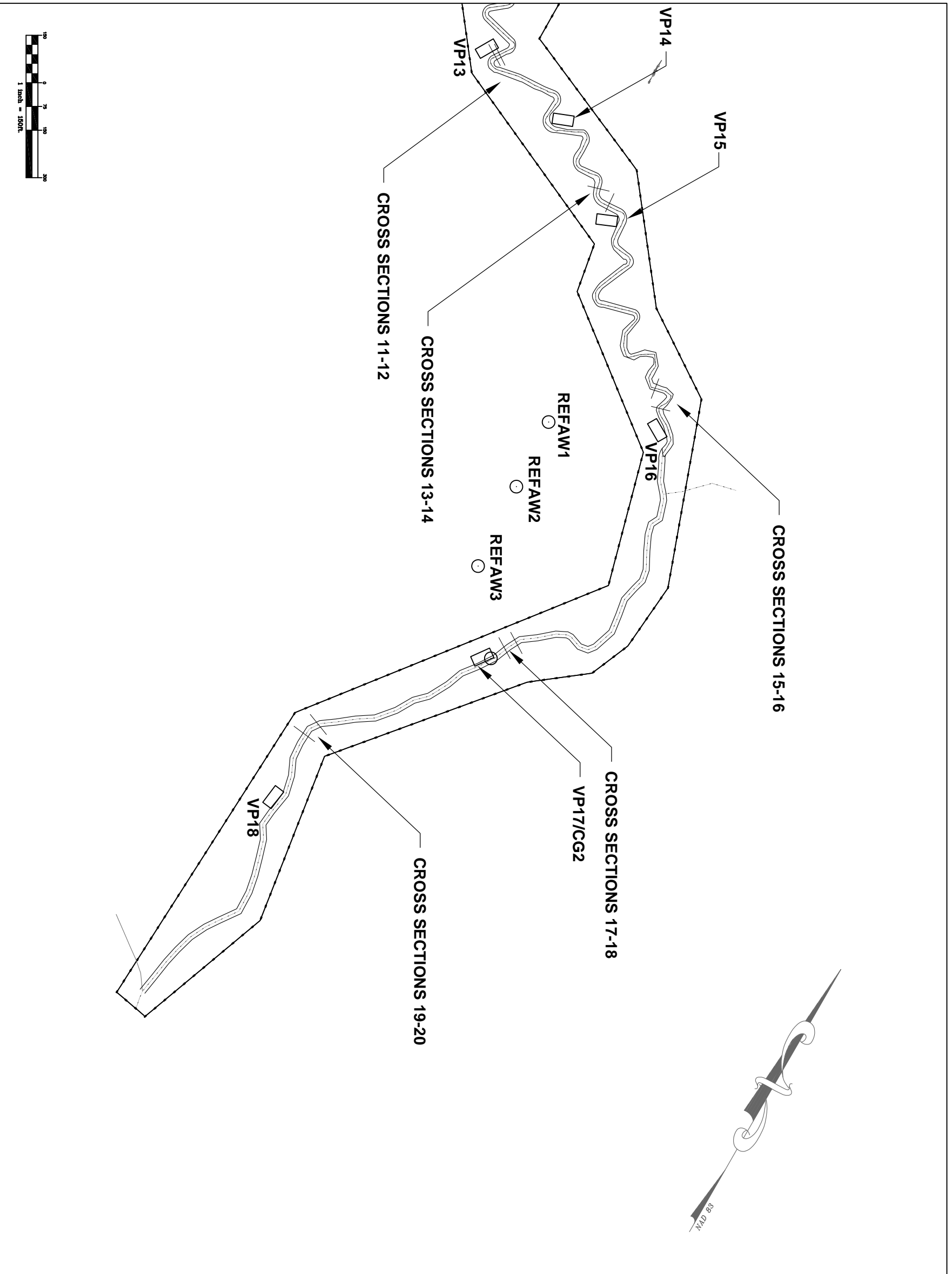


ENVIRONMENTAL BANK & EXCHANGE, LLC  
 FLOOD MITIGATION PROJECT  
 BERTIE COUNTY, NORTH CAROLINA

FLOOD AS-BUILT PLANS  
 WETLAND CONDITIONS







REV. NO.	DESCRIPTION	DATE

PROJECT MANAGER	DRAWING SCALE
J.L.	AS SHOWN
APPROVED BY	PROJECT DATE
FILE NAME	PROJECT NUMBER



720 CORPORATE CENTER DRIVE  
 RALEIGH, NC 27607  
 (919) 782-0495  
 Office Locations:  
 North Carolina  
 South Carolina  
 Georgia

RELEASED FOR	DATE
BIDDING	
CONSTRUCTION	
RECORD DWG.	



ENVIRONMENTAL BANK & EXCHANGE, LLC  
 FLOODGIE MITIGATION PROJECT  
 BERTIE COUNTY, NORTH CAROLINA

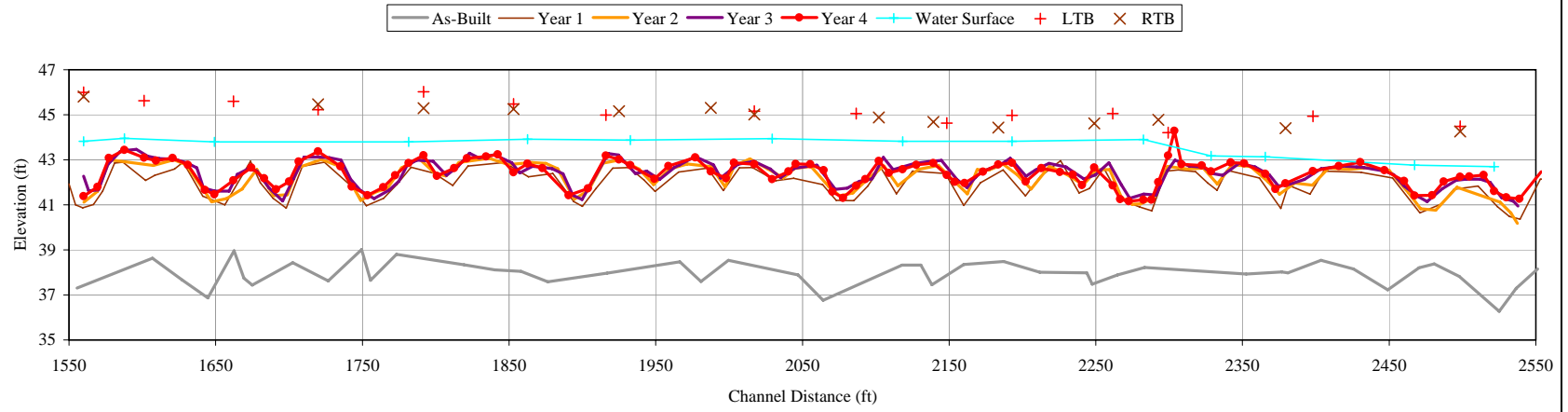
FLOODGIE AS-BUILT PLANS  
 MONITORING OVERVIEW

# **APPENDIX B**

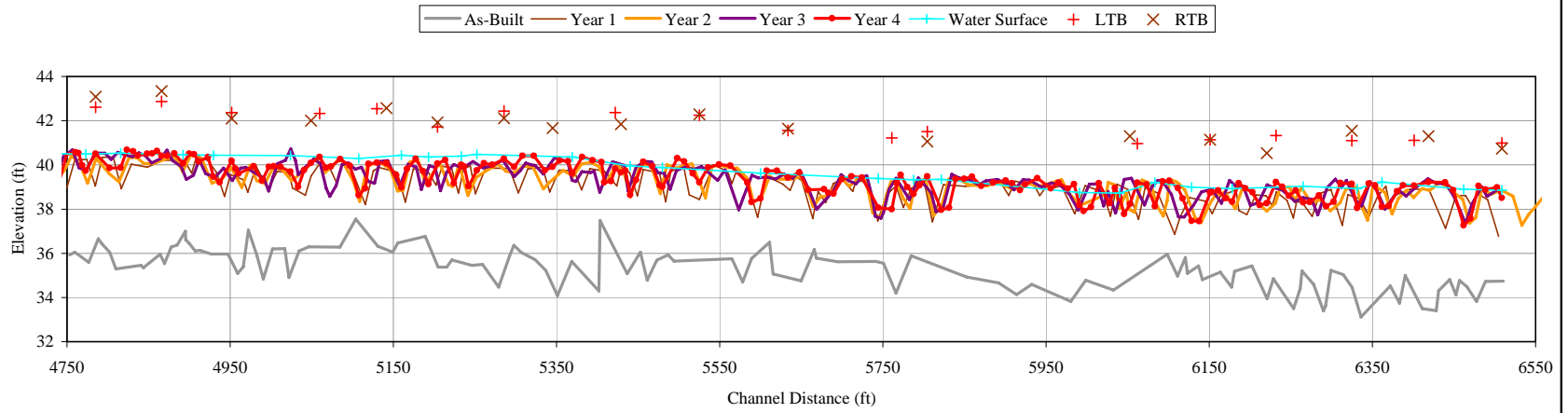
## **2011 Profile and Cross Section Data**



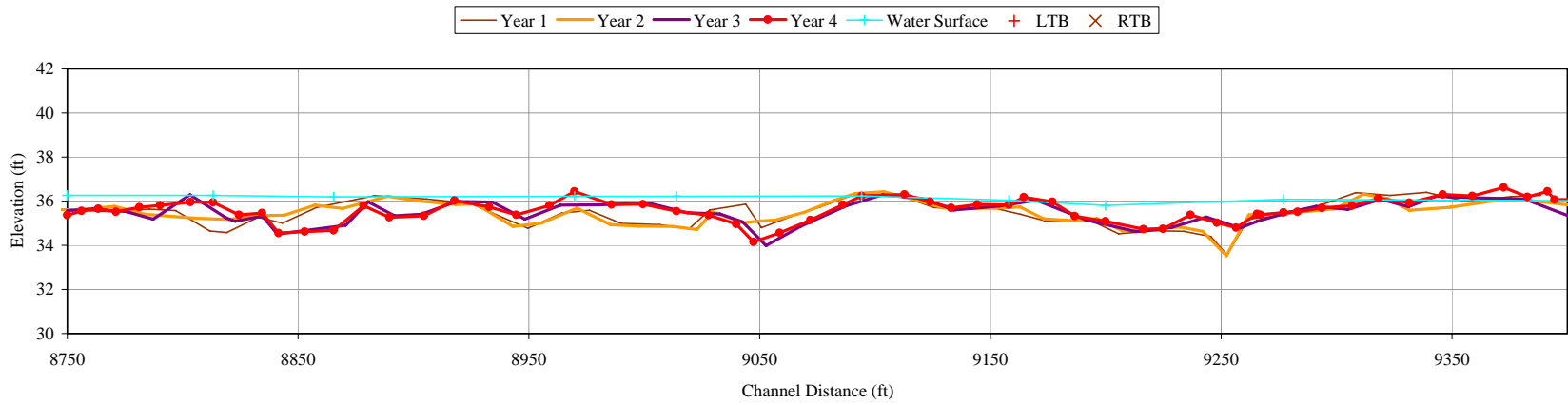
Floogie  
Reach 1-2 STA. 15+50 - STA. 25+50



Floogie  
Reach 3 STA. 47+50 - STA. 65+00



Floogie  
Reach 4 STA. 87+50 - STA. 94+50





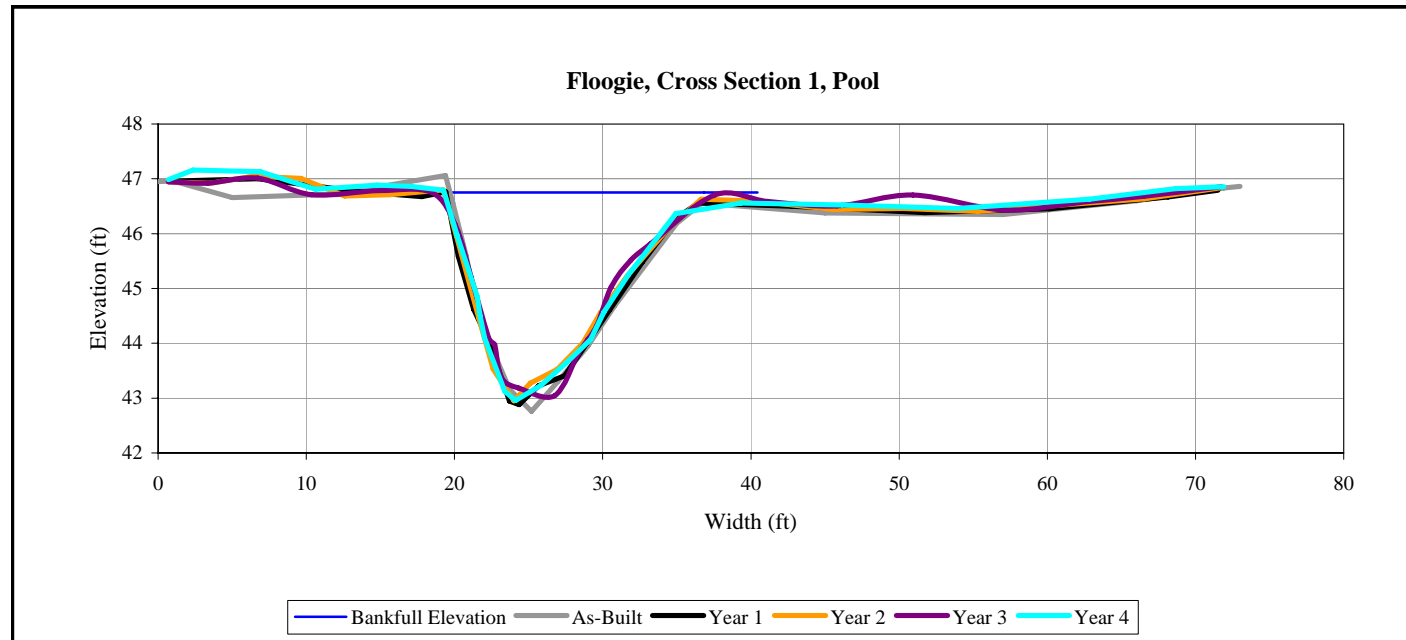




Left bank



Right bank

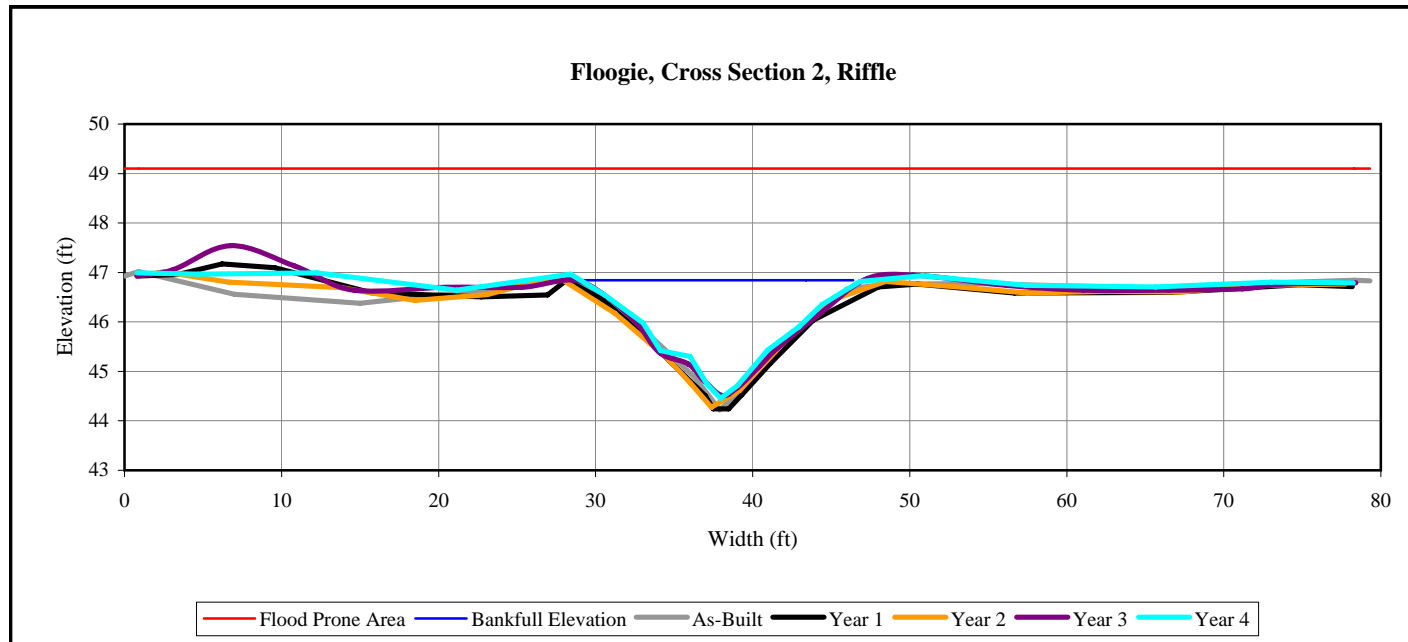




Left bank



Right bank

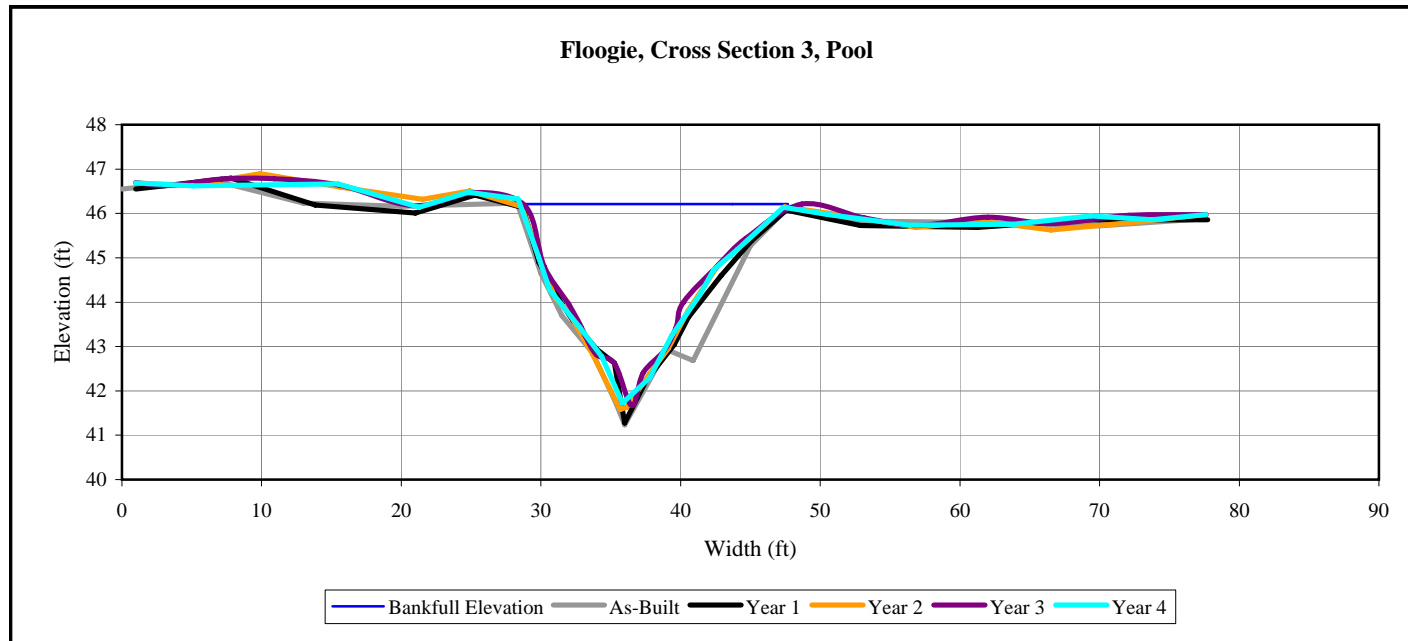




Left bank



Right bank





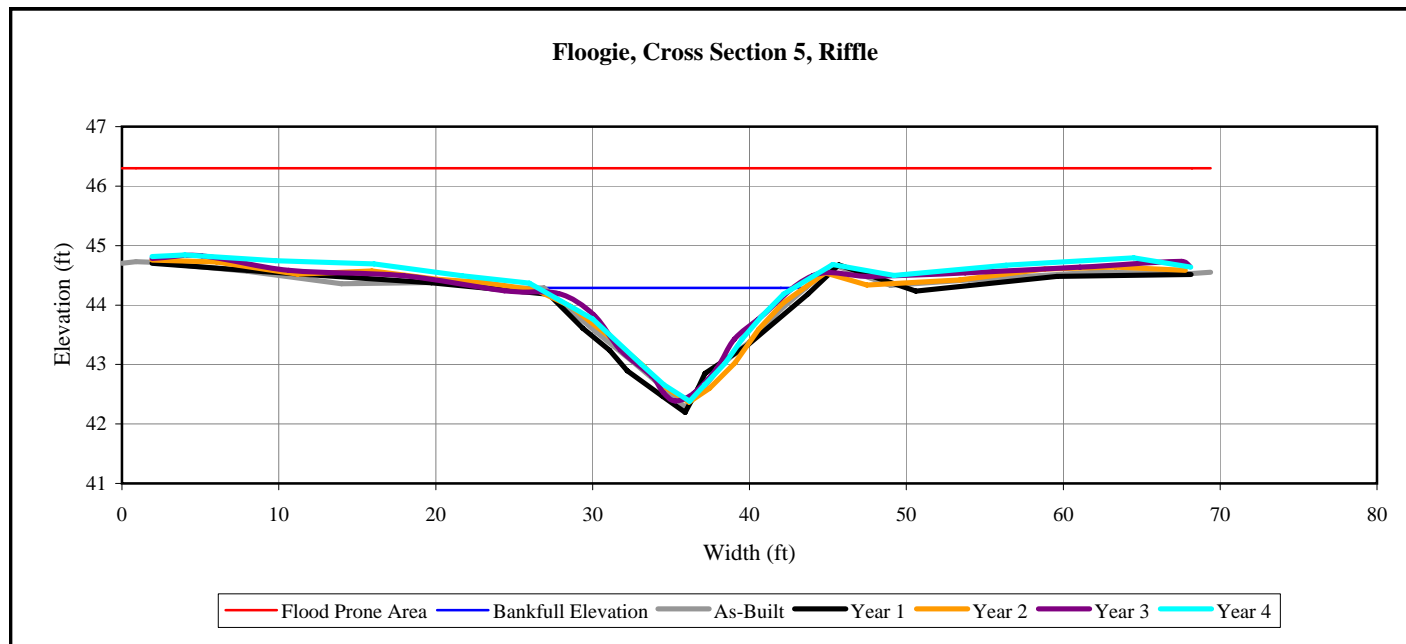




Left bank



Right bank

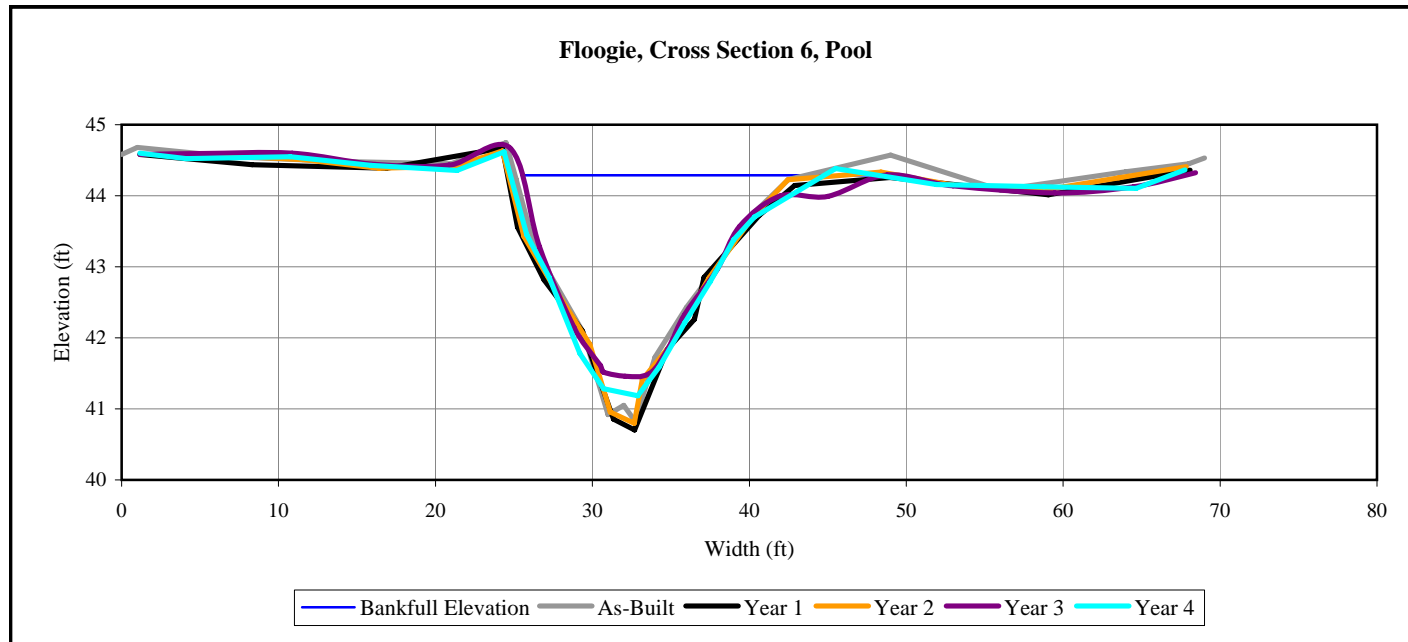




Left bank



Right bank



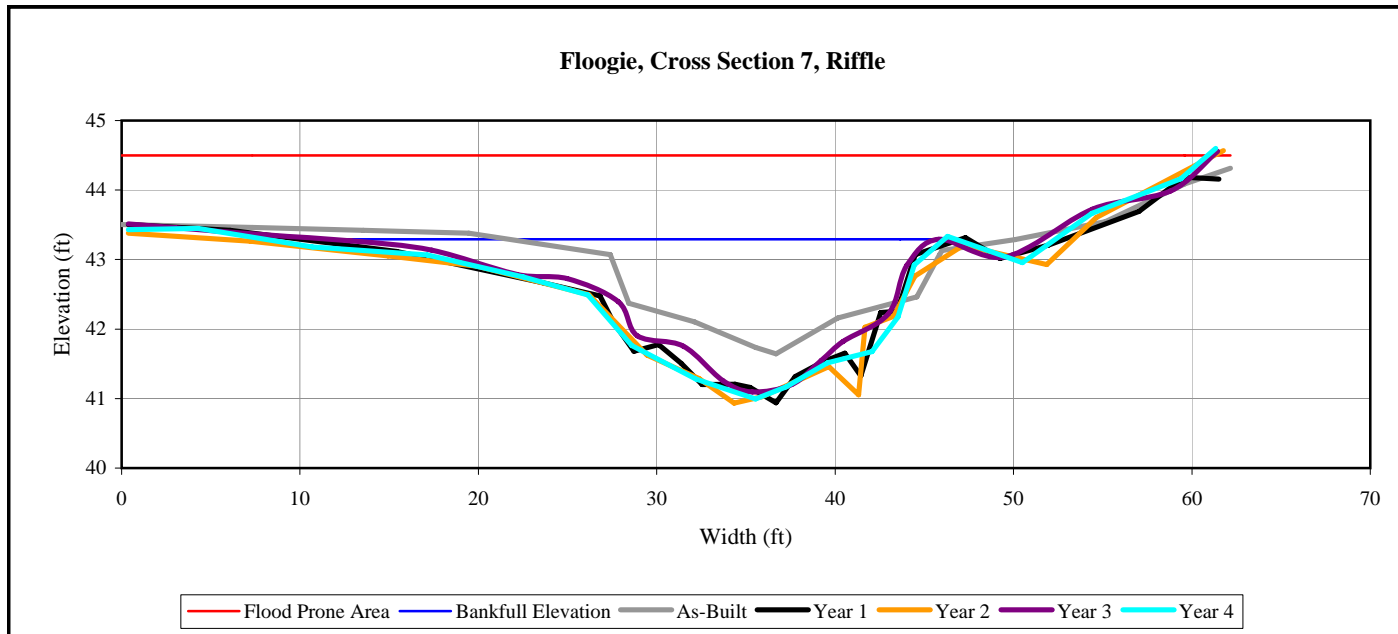




Left bank



Right bank

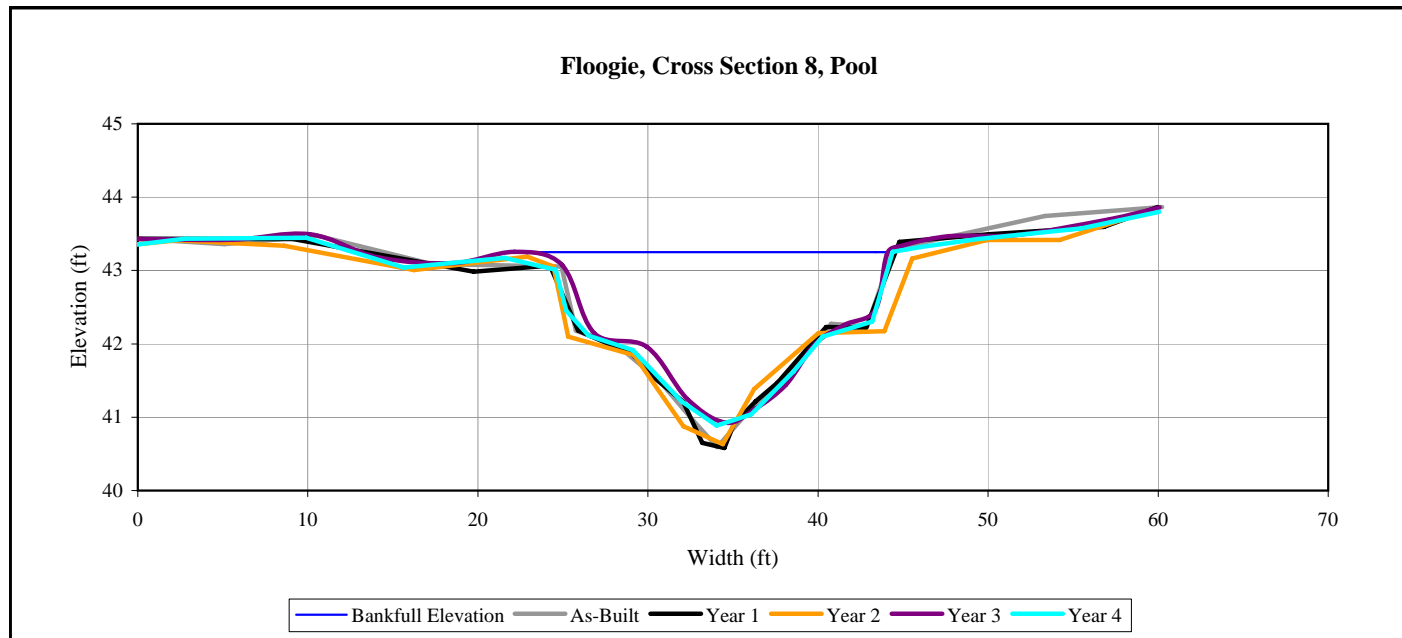




Left bank



Right bank



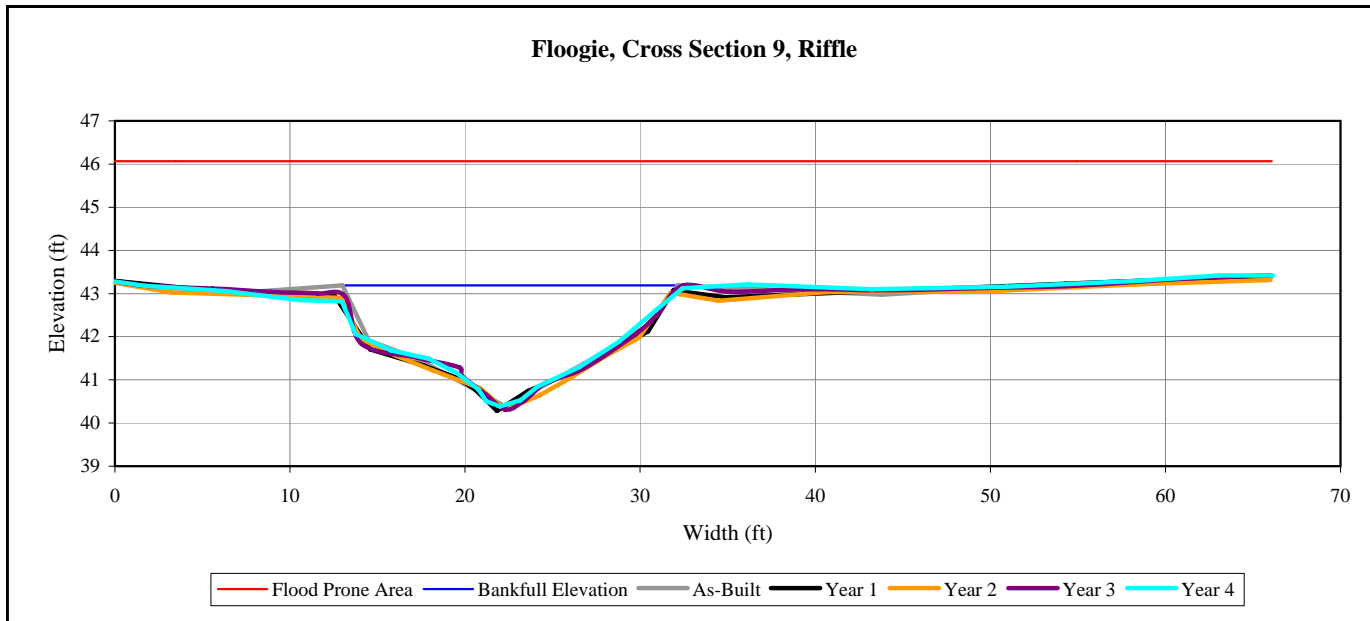




Left bank



Right bank

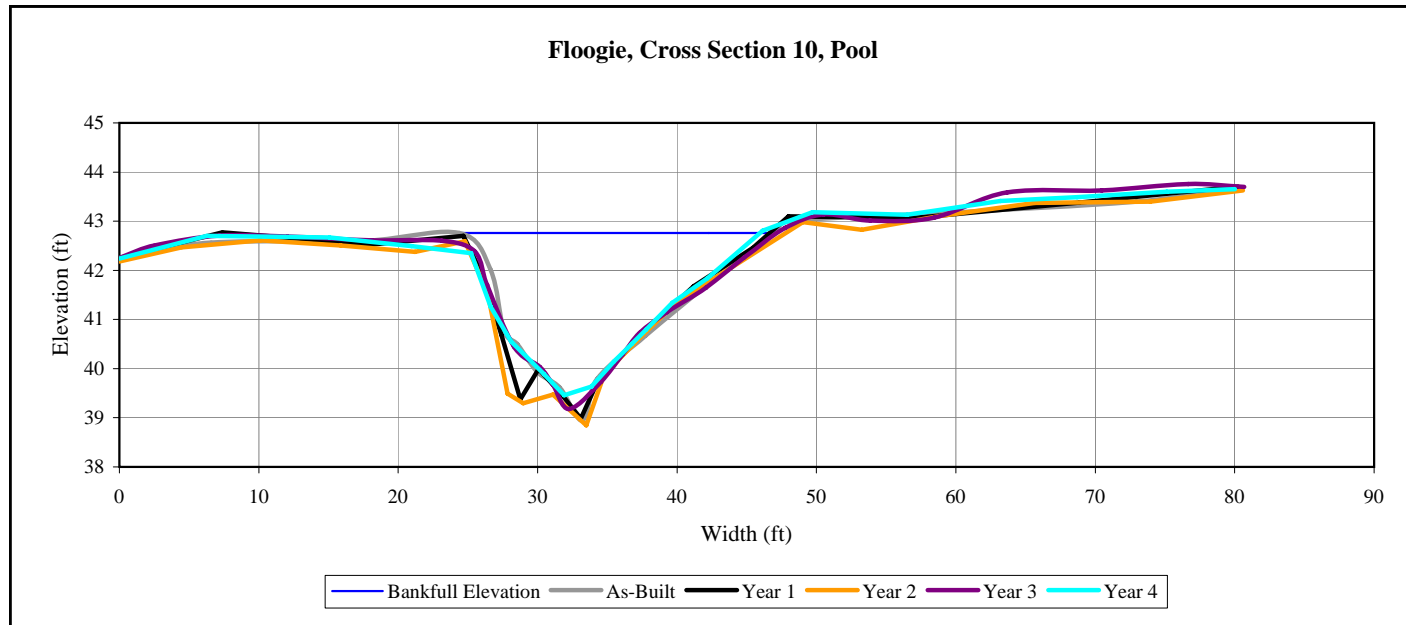




Left bank



Right bank





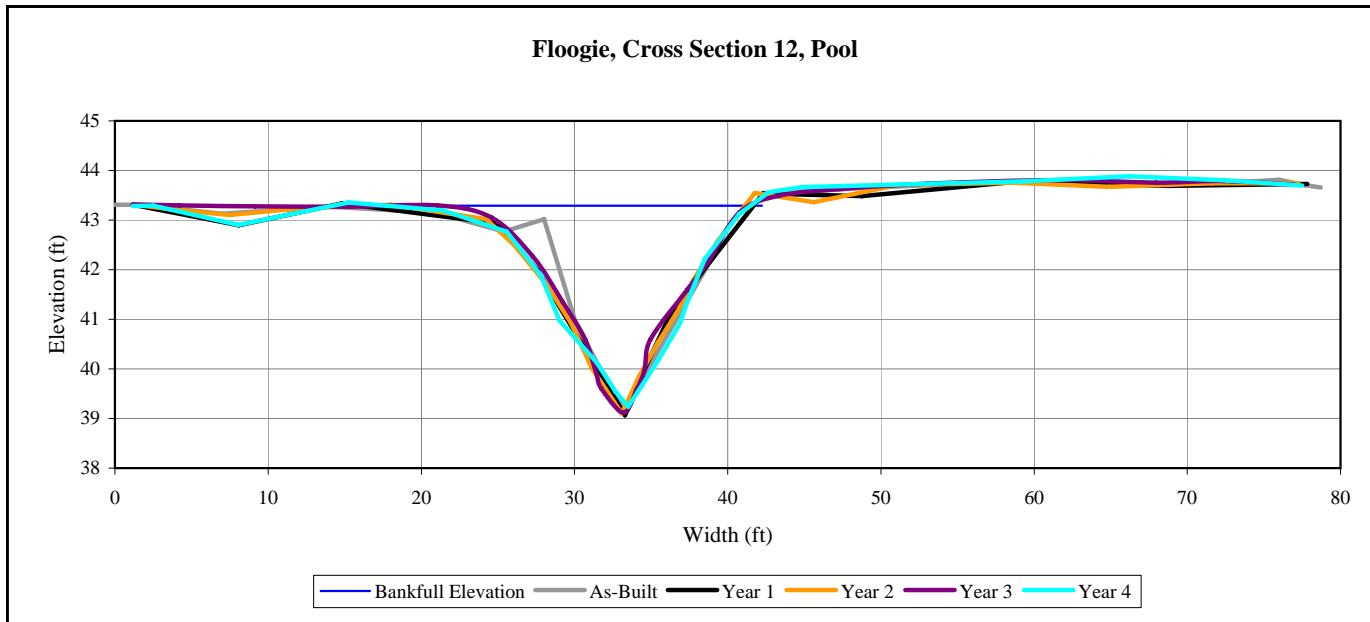




Left bank



Right bank

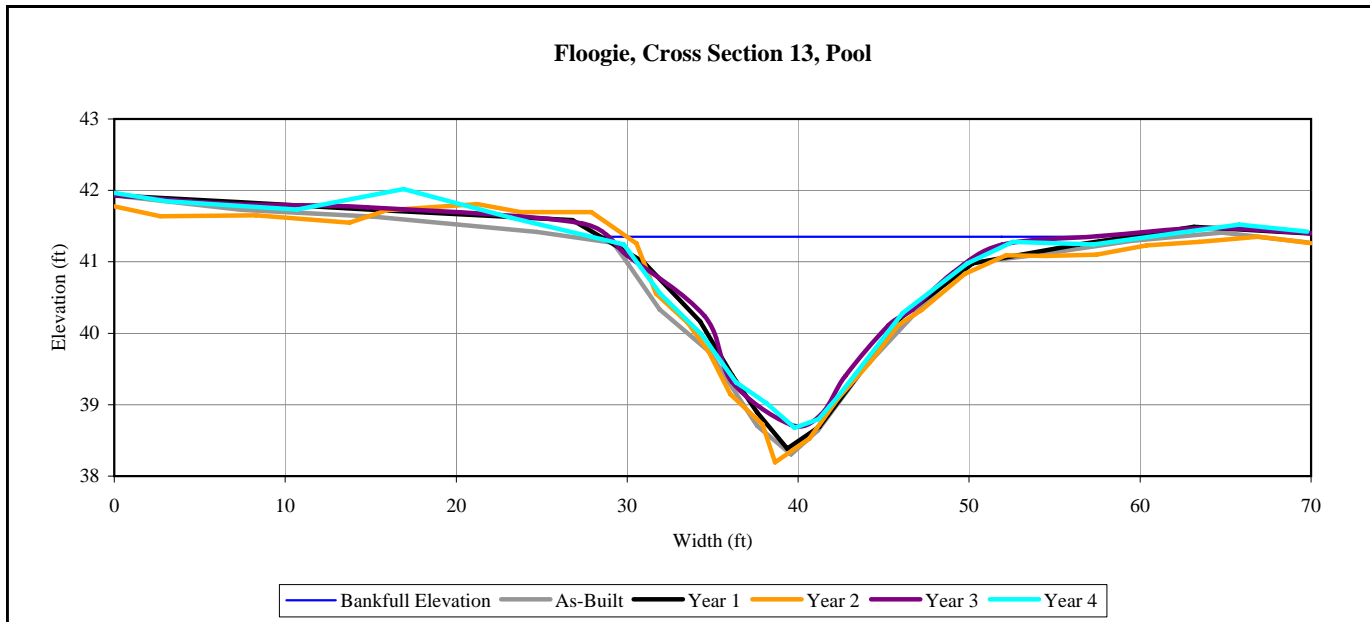




Left bank



Right bank

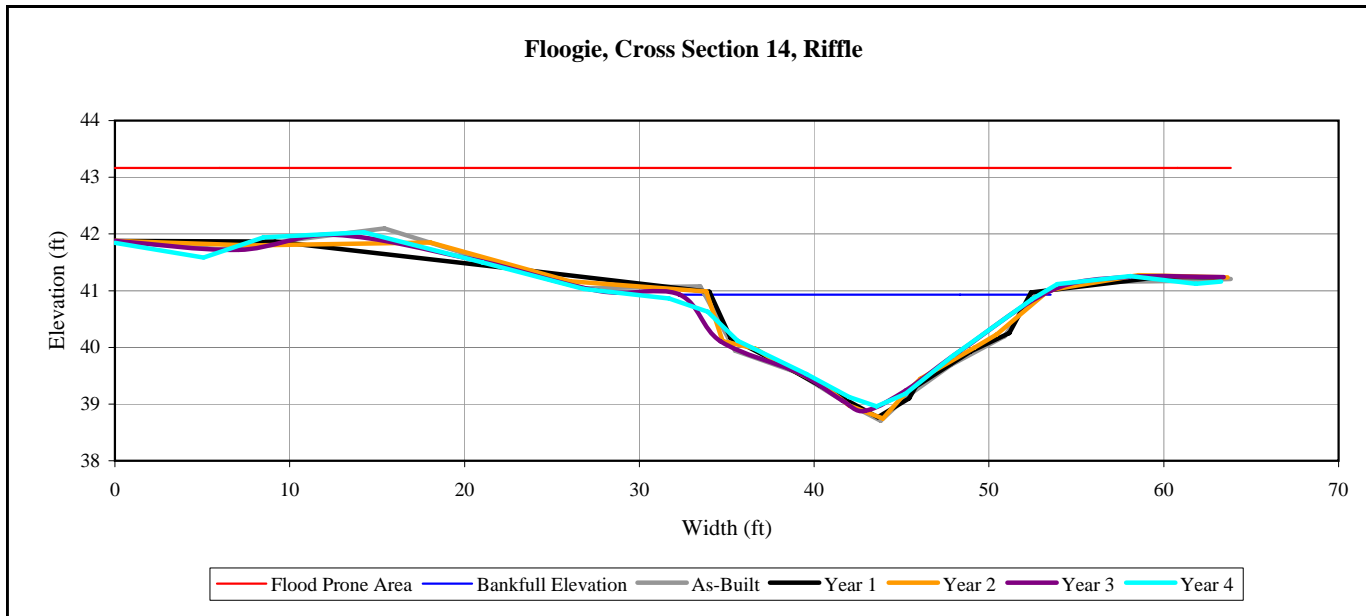




Left bank



Right bank



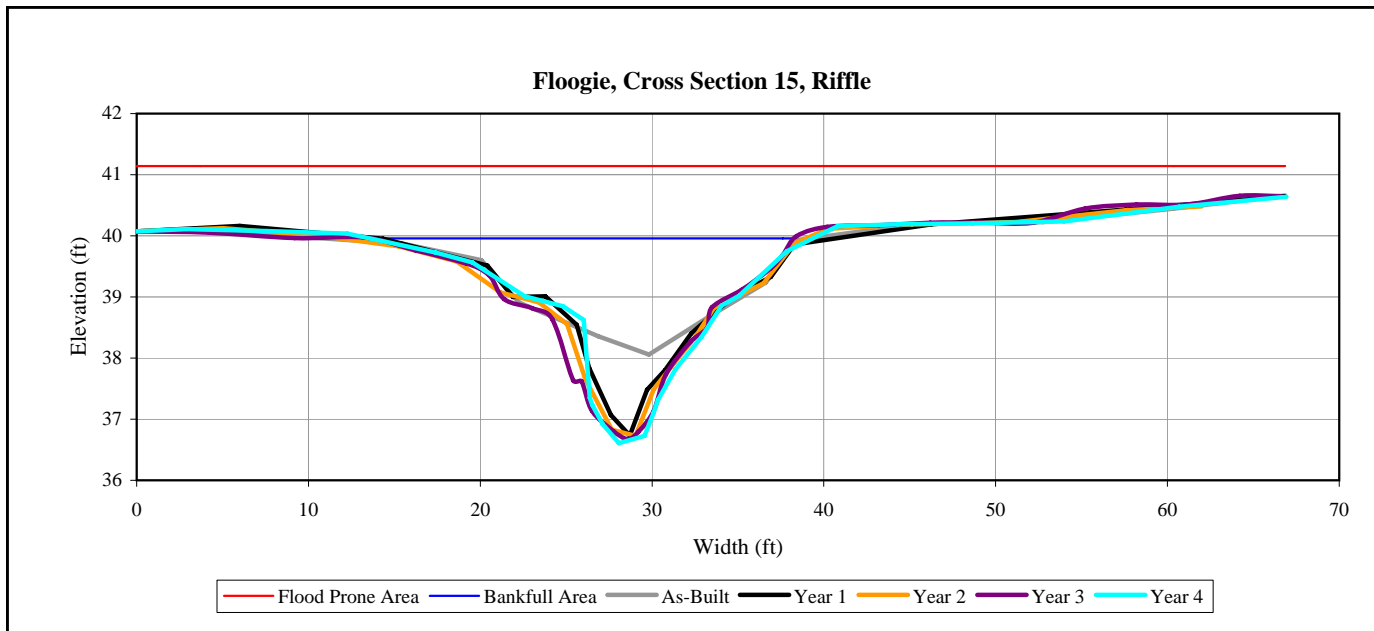




Left bank



Right bank





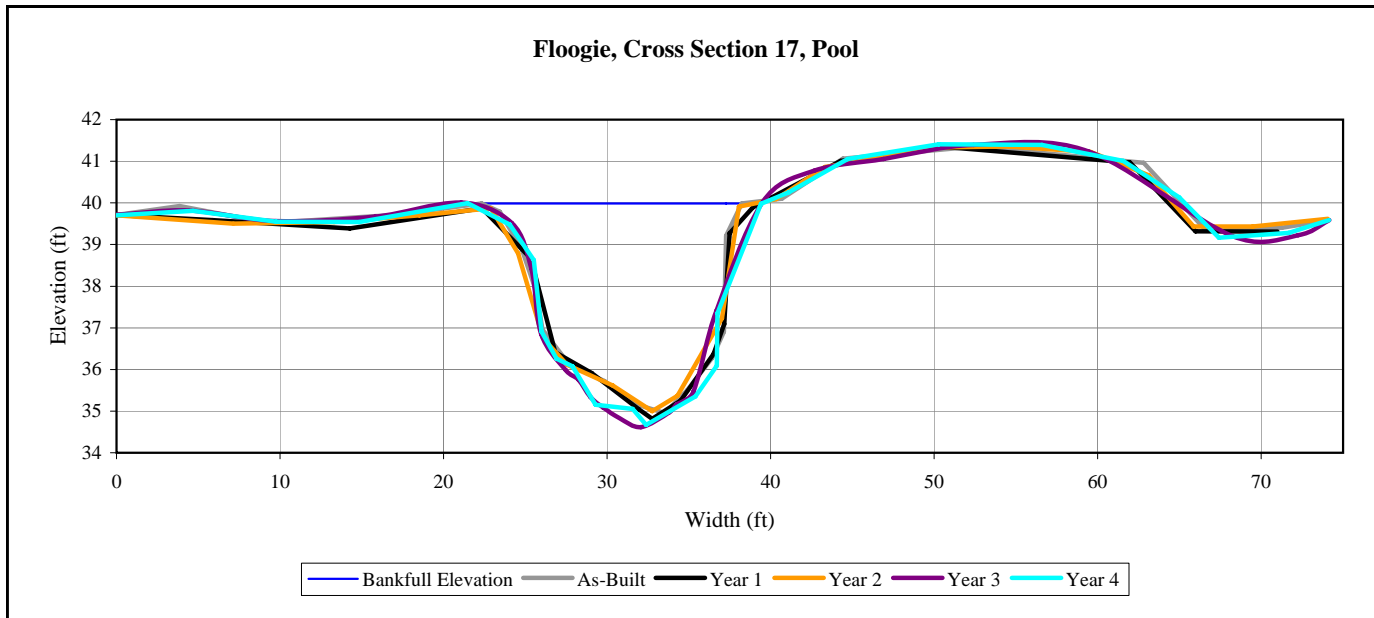




Left bank



Right bank

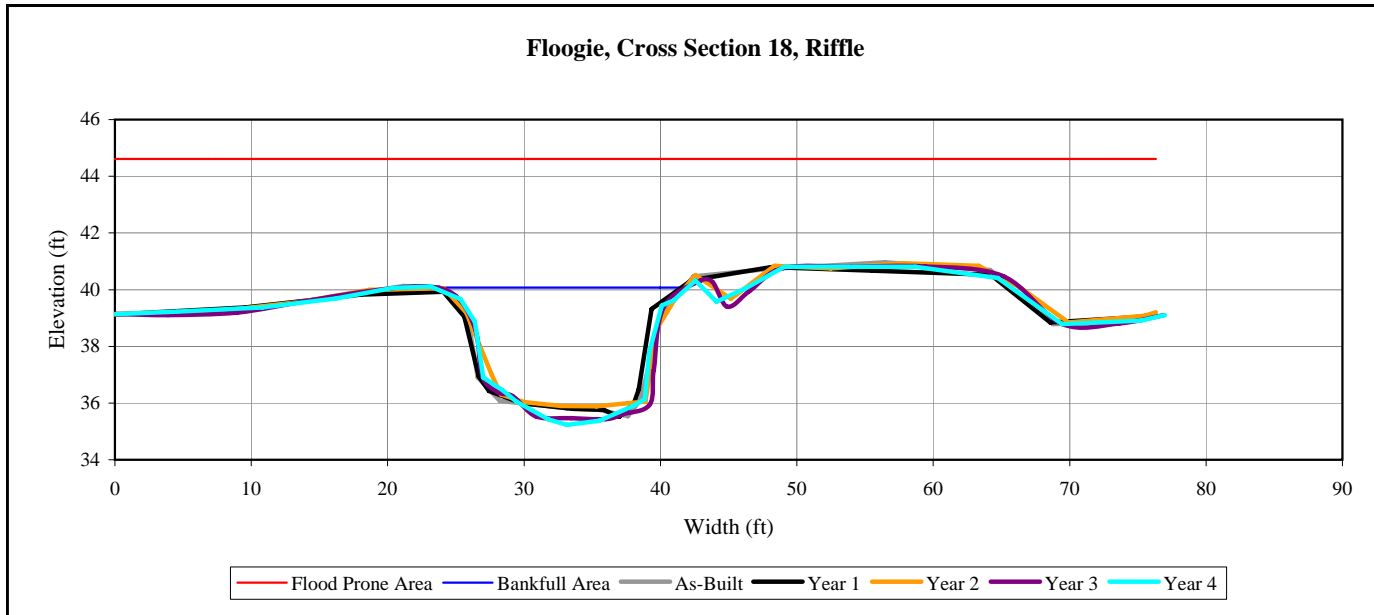




Left bank



Right bank

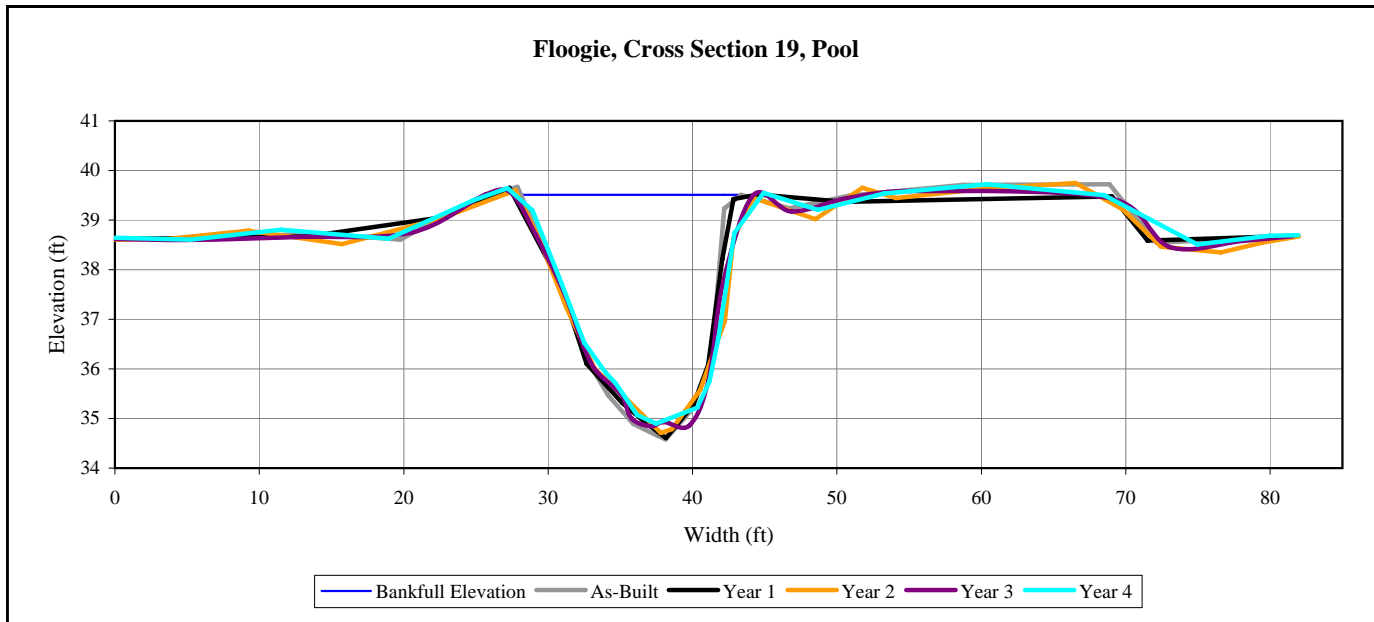




Left bank



Right bank



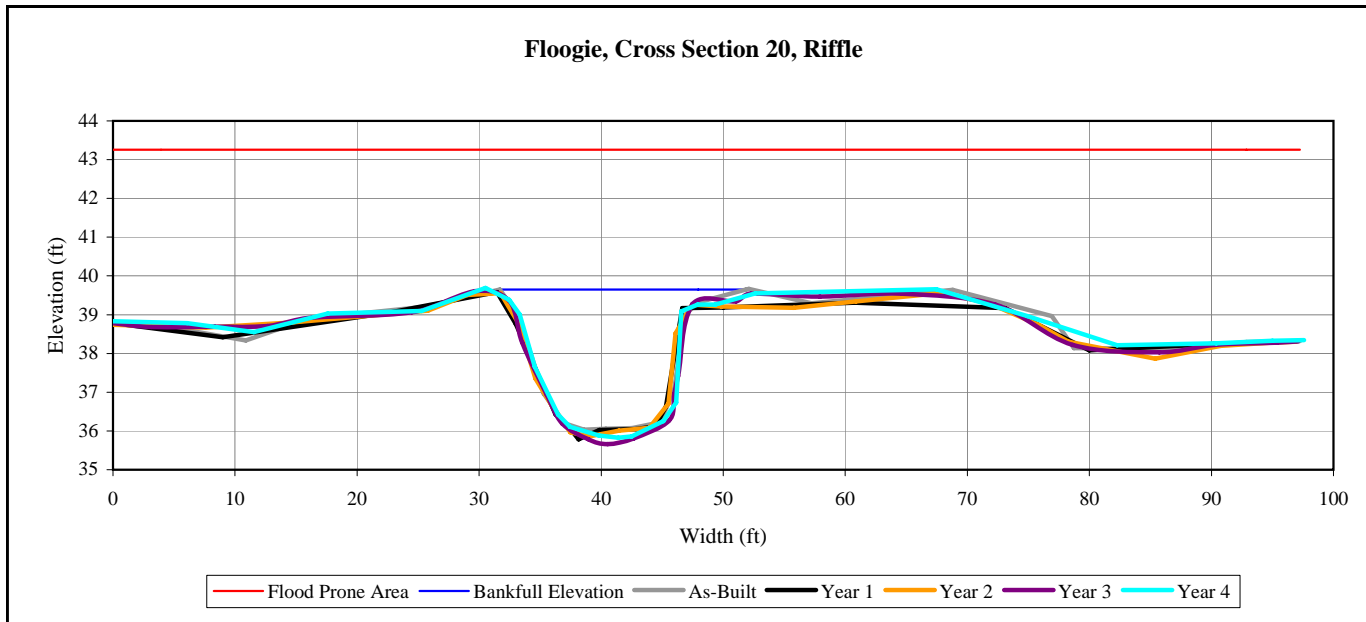




Left bank



Right bank



# **APPENDIX C**

## **2011 Gauge Data**



Date	Time	Water Level (inches)											On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mmm-yyyy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2				
1-Jan-2011	0:00:00	-1.27	0.24	0.02	-0.66	-2.36	-0.09	-37.16	-36.41	-28.47						
1-Jan-2011	6:00:00	-1.44	-0.03	-0.04	-1.04	-2.61	-0.43	-37.31	-36.56	-28.39						
1-Jan-2011	12:00:00	-0.99	0.43	0.68	-0.42	-1.90	0.27	-33.08	-36.29	-23.38						
1-Jan-2011	18:00:00	-0.79	0.44	0.56	-0.11	-0.64	1.20	-29.98	-36.24	-20.79						
2-Jan-2011	0:00:00	-0.98	0.58	0.83	-0.12	-0.21	1.42	-28.37	-36.21	-20.94						
2-Jan-2011	6:00:00	-1.05	0.31	0.44	-0.29	0.05	1.30	-27.78	-36.24	-21.58						
2-Jan-2011	12:00:00	-1.14	0.30	0.45	-0.40	0.34	1.24	-27.74	-36.27	-22.47						
2-Jan-2011	18:00:00	-0.60	0.55	0.52	0.00	1.42	1.98	-27.60	-35.16	-18.55						0.25
3-Jan-2011	0:00:00	-0.99	0.48	0.34	0.01	2.01	1.73	-26.62	-36.39	-16.68						
3-Jan-2011	6:00:00	-1.80	-0.23	-0.38	-0.94	1.48	0.83	-26.59	-36.90	-18.46						
3-Jan-2011	12:00:00	-1.10	0.33	0.29	-0.53	2.08	1.19	-26.11	-36.30	-18.93						
3-Jan-2011	18:00:00	-1.65	-0.35	-0.36	-1.27	1.37	0.35	-26.93	-36.81	-20.37						
4-Jan-2011	0:00:00	-3.19	-1.82	-1.64	-3.04	-0.29	-1.35	-28.86	-38.18	-22.57						
4-Jan-2011	6:00:00	-3.12	-1.79	-1.63	-3.20	-0.53	-1.76	-29.30	-38.07	-23.35						
4-Jan-2011	12:00:00	-1.41	0.01	0.21	-1.61	0.98	-0.25	-28.03	-36.38	-22.29						
4-Jan-2011	18:00:00	-1.26	0.10	0.10	-1.29	1.05	-0.18	-28.09	-36.27	-22.74						
5-Jan-2011	0:00:00	-1.94	-0.65	-0.44	-2.10	0.15	-1.16	-29.40	-36.92	-25.54						
5-Jan-2011	6:00:00	-2.16	-0.93	-0.74	-2.50	-0.20	-1.60	-30.17	-37.10	-28.14						
5-Jan-2011	12:00:00	-1.33	-0.10	0.21	-1.84	0.50	-0.91	-29.96	-36.32	-28.51						
5-Jan-2011	18:00:00	-1.35	-0.05	0.04	-1.83	0.19	-1.15	-30.58	-36.35	-28.59						
6-Jan-2011	0:00:00	-1.39	0.00	0.11	-1.66	0.09	-1.09	-31.04	-36.36	-28.62						
6-Jan-2011	6:00:00	-1.28	-0.05	0.04	-1.63	0.09	-1.09	-31.84	-36.23	-28.50						
6-Jan-2011	12:00:00	-1.25	0.00	0.21	-1.66	-0.04	-1.12	-32.65	-36.29	-28.62						
6-Jan-2011	18:00:00	-1.49	-0.28	-0.24	-1.82	-0.38	-1.38	-33.66	-36.42	-28.66						0.02
7-Jan-2011	0:00:00	-2.37	-1.18	-1.08	-2.87	-1.43	-2.30	-35.44	-37.43	-29.46						
7-Jan-2011	6:00:00	-2.27	-1.10	-0.91	-2.83	-1.35	-2.22	-35.94	-37.26	-29.26						
7-Jan-2011	12:00:00	-1.26	-0.12	0.17	-1.93	-0.57	-1.21	-35.71	-36.22	-28.29						
7-Jan-2011	18:00:00	-1.73	-0.50	-0.39	-2.24	-0.99	-1.74	-36.73	-36.53	-28.74						
8-Jan-2011	0:00:00	-2.25	-1.10	-0.99	-2.87	-1.73	-2.38	-37.84	-37.16	-29.34						
8-Jan-2011	6:00:00	-2.16	-1.20	-0.96	-2.91	-1.66	-2.37	-37.78	-37.05	-29.12						
8-Jan-2011	12:00:00	-1.41	-0.41	-0.07	-2.26	-0.99	-1.71	-37.03	-36.36	-28.50						
8-Jan-2011	18:00:00	-1.68	-0.77	-0.86	-2.68	-1.52	-2.06	-37.31	-36.46	-28.66						
9-Jan-2011	0:00:00	-2.67	-1.85	-1.81	-3.77	-2.60	-3.12	-38.08	-37.36	-29.47						
9-Jan-2011	6:00:00	-3.75	-3.04	-3.54	-5.20	-3.58	-4.36	-38.95	-38.09	-30.30						
9-Jan-2011	12:00:00	-2.30	-1.58	-2.35	-4.11	-2.20	-2.83	-37.28	-36.51	-28.66						
9-Jan-2011	18:00:00	-2.79	-2.32	-1.70	-4.95	-2.97	-3.60	-38.02	-37.16	-29.35						1.24
10-Jan-2011	0:00:00	-3.90	-4.08	-3.86	-6.69	-3.94	-4.65	-38.74	-37.90	-30.06						
10-Jan-2011	6:00:00	-3.47	-3.65	-3.66	-6.37	-3.52	-4.14	-38.14	-37.30	-29.49						
10-Jan-2011	12:00:00	-2.79	-2.36	-2.83	-5.45	-2.96	-3.37	-37.54	-36.69	-28.76						
10-Jan-2011	18:00:00	-2.22	-1.84	-0.70	-4.98	-2.84	-3.07	-37.36	-36.42	-28.63						0.01
11-Jan-2011	0:00:00	-2.18	-1.52	-0.60	-4.93	-2.89	-3.09	-37.33	-36.63	-28.74						
11-Jan-2011	6:00:00	-2.17	-1.47	-0.52	-4.96	-3.02	-2.96	-37.49	-36.74	-28.77						
11-Jan-2011	12:00:00	-1.73	-0.82	0.06	-4.07	-2.38	-1.92	-37.36	-36.56	-28.69						
11-Jan-2011	18:00:00	-1.39	-0.09	-0.04	-3.31	-1.35	-1.33	-37.30	-36.48	-28.66						0.22
12-Jan-2011	0:00:00	-1.52	-0.05	-0.13	-1.61	-1.53	-1.20	-37.30	-36.53	-28.58						
12-Jan-2011	6:00:00	-1.88	-0.39	-0.61	-1.79	-2.07	-1.48	-37.62	-36.74	-28.87						
12-Jan-2011	12:00:00	-1.52	-0.10	-0.12	-1.58	-1.79	-1.18	-37.24	-36.38	-28.57						
12-Jan-2011	18:00:00	-1.69	-0.38	-0.50	-1.95	-1.97	-1.50	-37.34	-36.63	-28.63						0.01
13-Jan-2011	0:00:00	-2.36	-1.16	-1.14	-2.72	-2.83	-2.32	-37.92	-37.13	-29.28						
13-Jan-2011	6:00:00	-3.03	-2.02	-1.94	-3.79	-3.63	-3.12	-38.47	-37.65	-29.86						
13-Jan-2011	12:00:00	-1.77	-0.66	-0.45	-2.72	-2.47	-1.86	-37.13	-36.33	-28.48						
13-Jan-2011	18:00:00	-2.07	-1.12	-0.69	-3.20	-2.80	-2.29	-37.48	-36.62	-28.87						
14-Jan-2011	0:00:00	-4.74	-4.30	-3.86	-6.65	-5.44	-5.14	-39.89	-39.02	-31.23						
14-Jan-2011	6:00:00	-5.41	-6.16	-5.67	-8.25	-5.77	-5.86	-40.09	-39.16	-31.44						
14-Jan-2011	12:00:00	-2.69	-3.17	-3.01	-5.28	-2.92	-2.85	-37.13	-36.27	-28.51						
14-Jan-2011	18:00:00	-2.57	-2.46	-0.85	-5.15	-3.09	-2.82	-37.45	-36.50	-28.80						
15-Jan-2011	0:00:00	-4.16	-5.36	-2.43	-7.65	-4.70	-4.65	-38.80	-37.92	-30.14						
15-Jan-2011	6:00:00	-3.89	-5.51	-3.25	-7.43	-4.22	-4.27	-38.20	-37.36	-29.58						
15-Jan-2011	12:00:00	-2.58	-3.30	-0.10	-5.68	-2.92	-2.82	-37.13	-36.39	-28.56						
15-Jan-2011	18:00:00	-1.82	-1.84	0.14	-4.78	-2.60	-2.24	-36.96	-36.02	-28.27						
16-Jan-2011	0:00:00	-1.98	-1.80	-0.27	-5.25	-2.97	-2.68	-37.24	-36.33	-28.54						
16-Jan-2011	6:00:00	-2.05	-2.16	-0.67	-5.75	-3.28	-3.03	-37.37	-36.56	-28.68						
16-Jan-2011	12:00:00	-1.85	-1.86	-0.34	-5.67	-3.11	-2.68	-37.02	-36.38	-28.41						
16-Jan-2011	18:00:00	-1.29	-0.96	0.03	-4.87	-3.01	-2.44	-36.88	-36.17	-28.27						
17-Jan-2011	0:00:00	-2.57	-1.96	-1.39	-6.27	-4.18	-3.82	-37.87	-37.19	-29.35						
17-Jan-2011	6:00:00	-2.18	-2.07	-1.12	-6.53	-3.87	-3.62	-37.50	-36.84	-28.89						
17-Jan-2011	12:00:00	-1.58	-1.16	-0.08	-5.43	-3.29	-2.79	-37.04	-36.28	-28.52						
17-Jan-2011	18:00:00	-0.92	0.30	0.60	-2.68	-1.66	-0.91	-36.91	-36.08	-28.30						0.95
18-Jan-2011	0:00:00	0.46	2.65	2.01	1.44	4.58	2.98	-36.98	-24.16	-28.46						



Date	Time	Water Level (inches)											On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mmm-yyyy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2				
18-Jan-2011	6:00:00	-0.05	3.78	1.67	6.03	6.32	2.52	-9.92	-20.97	-4.89						
18-Jan-2011	12:00:00	-0.56	0.92	1.07	4.11	6.19	2.10	-13.20	-25.90	-6.24						
18-Jan-2011	18:00:00	-0.84	0.52	0.92	1.07	4.45	1.78	-14.82	-29.10	-7.16						0.35
19-Jan-2011	0:00:00	-0.87	0.49	0.76	0.29	3.87	1.67	-16.03	-32.45	-8.01						
19-Jan-2011	6:00:00	-1.02	0.42	0.62	-0.07	3.38	1.59	-17.40	-34.65	-8.60						
19-Jan-2011	12:00:00	-0.95	0.36	0.58	-0.18	3.11	1.58	-18.49	-36.36	-8.82						
19-Jan-2011	18:00:00	-0.84	0.45	0.57	-0.06	3.07	1.58	-19.26	-35.99	-9.34						0.04
20-Jan-2011	0:00:00	-1.04	0.27	0.50	-0.23	2.81	1.30	-20.46	-36.12	-10.45						
20-Jan-2011	6:00:00	-1.19	0.09	0.24	-0.46	2.43	0.96	-21.60	-36.26	-11.52						
20-Jan-2011	12:00:00	-1.15	0.13	0.40	-0.66	2.23	0.81	-22.55	-36.28	-12.26						
20-Jan-2011	18:00:00	-1.01	0.25	0.62	-0.60	2.15	0.96	-22.63	-36.11	-12.49						
21-Jan-2011	0:00:00	-0.97	0.31	0.69	-0.48	2.12	0.74	-23.27	-36.12	-12.76						
21-Jan-2011	6:00:00	-1.01	0.14	0.33	-0.54	1.89	0.53	-24.17	-36.28	-13.64						
21-Jan-2011	12:00:00	-1.10	0.10	0.09	-0.77	1.65	0.44	-25.26	-36.29	-14.55						
21-Jan-2011	18:00:00	-1.19	0.00	0.09	-0.99	1.45	0.17	-25.79	-36.16	-15.25						0.01
22-Jan-2011	0:00:00	-1.80	-0.68	-0.57	-1.93	0.67	-0.90	-27.25	-36.74	-16.63						
22-Jan-2011	6:00:00	-1.94	-0.89	-0.68	-2.32	0.16	-1.36	-28.25	-36.88	-17.52						
22-Jan-2011	12:00:00	-1.56	-0.33	-0.09	-1.91	0.47	-1.23	-28.57	-36.47	-17.50						
22-Jan-2011	18:00:00	-1.74	-0.68	-0.42	-2.26	0.22	-1.59	-29.71	-36.66	-18.15						
23-Jan-2011	0:00:00	-3.68	-2.72	-2.44	-4.39	-1.84	-3.50	-32.69	-38.43	-20.76						
23-Jan-2011	6:00:00	-5.10	-4.66	-4.17	-6.50	-3.35	-5.04	-35.04	-39.53	-22.62						
23-Jan-2011	12:00:00	-1.87	-1.47	-0.26	-3.69	-0.34	-1.66	-33.29	-36.40	-19.92						
23-Jan-2011	18:00:00	-1.43	-1.04	-0.09	-3.66	-0.26	-1.58	-34.74	-36.24	-20.48						
24-Jan-2011	0:00:00	-2.13	-1.76	-1.03	-4.68	-1.06	-2.55	-36.86	-36.94	-21.90						
24-Jan-2011	6:00:00	-3.01	-3.44	-1.89	-6.17	-2.02	-3.43	-38.36	-37.50	-23.28						
24-Jan-2011	12:00:00	-2.04	-1.88	-0.42	-5.00	-1.09	-2.24	-37.20	-36.47	-23.02						
24-Jan-2011	18:00:00	-1.40	-1.12	-0.01	-4.41	-0.89	-1.71	-36.97	-36.22	-23.17						
25-Jan-2011	0:00:00	-1.53	-0.88	-0.18	-4.60	-1.27	-1.92	-37.30	-36.41	-24.46						
25-Jan-2011	6:00:00	-1.40	-0.52	-0.07	-4.42	-1.19	-1.69	-37.19	-36.38	-25.39						
25-Jan-2011	12:00:00	-1.31	-0.22	0.16	-3.67	-1.12	-1.57	-37.15	-36.24	-27.14						
25-Jan-2011	18:00:00	-1.13	0.14	0.28	-1.97	-0.88	-1.16	-37.00	-36.08	-28.15						0.17
26-Jan-2011	0:00:00	-1.09	0.50	0.54	-1.05	-0.46	-0.87	-36.95	-36.21	-26.37						
26-Jan-2011	6:00:00	-0.54	0.87	0.77	0.13	0.92	1.06	-36.92	-36.16	-16.77						
26-Jan-2011	12:00:00	-0.85	0.67	0.77	0.20	1.35	1.59	-36.98	-36.29	-12.85						
26-Jan-2011	18:00:00	-0.47	0.97	1.23	0.68	3.07	1.92	-37.02	-36.17	-9.39						0.35
27-Jan-2011	0:00:00	-0.71	0.57	0.80	0.61	3.21	1.72	-30.98	-35.67	-11.34						
27-Jan-2011	6:00:00	-1.43	-0.23	-0.10	-0.51	2.38	0.87	-28.00	-36.71	-13.59						
27-Jan-2011	12:00:00	-1.03	0.37	0.52	-0.37	2.63	1.17	-26.59	-36.40	-14.42						
27-Jan-2011	18:00:00	-0.98	0.28	0.47	-0.36	2.47	1.07	-26.81	-36.15	-15.14						
28-Jan-2011	0:00:00	-1.92	-0.70	-0.46	-1.38	1.34	-0.01	-28.13	-37.13	-17.10						
28-Jan-2011	6:00:00	-2.31	-1.08	-0.94	-2.00	0.79	-0.75	-29.32	-37.49	-18.32						
28-Jan-2011	12:00:00	-1.19	0.20	0.32	-0.90	1.66	0.38	-28.98	-36.33	-17.96						
28-Jan-2011	18:00:00	-1.04	0.18	0.24	-0.88	1.73	0.36	-29.90	-36.17	-18.46						
29-Jan-2011	0:00:00	-1.85	-0.74	-0.64	-1.84	0.75	-0.75	-32.05	-36.96	-20.42						
29-Jan-2011	6:00:00	-2.83	-1.78	-1.63	-3.16	-0.47	-1.94	-34.76	-37.86	-22.51						
29-Jan-2011	12:00:00	-1.35	-0.14	0.05	-1.79	0.85	-0.78	-34.72	-36.32	-21.92						
29-Jan-2011	18:00:00	-1.15	0.08	0.14	-1.48	0.94	-0.87	-35.69	-36.15	-21.99						
30-Jan-2011	0:00:00	-1.14	0.04	0.08	-1.56	0.82	-0.97	-36.85	-36.15	-22.92						
30-Jan-2011	6:00:00	-1.16	-0.14	-0.04	-1.72	0.59	-1.20	-37.03	-36.05	-24.54						
30-Jan-2011	12:00:00	-1.32	-0.14	-0.12	-1.78	0.37	-1.40	-37.12	-36.22	-26.82						
30-Jan-2011	18:00:00	-1.25	-0.06	0.00	-1.80	0.32	-1.29	-37.03	-36.20	-28.39						
31-Jan-2011	0:00:00	-1.25	-0.18	-0.12	-1.86	0.23	-1.38	-36.96	-36.14	-28.39						
31-Jan-2011	6:00:00	-1.23	-0.22	-0.09	-2.00	-0.16	-1.54	-37.08	-36.15	-28.41						
31-Jan-2011	12:00:00	-1.34	-0.18	-0.13	-2.16	-0.22	-1.59	-37.06	-36.24	-28.39						
31-Jan-2011	18:00:00	-1.26	-0.17	-0.07	-2.19	-0.28	-1.56	-36.92	-36.17	-28.35						
1-Feb-2011	0:00:00	-1.29	-0.11	0.00	-2.28	-0.46	-1.71	-36.96	-36.20	-28.42					0.00	
1-Feb-2011	6:00:00	-1.23	-0.22	0.10	-2.19	-0.56	-1.68	-36.96	-35.97	-28.26						
1-Feb-2011	12:00:00	-1.43	-0.38	-0.16	-2.38	-0.88	-1.81	-37.09	-36.28	-28.44						
1-Feb-2011	18:00:00	-1.27	-0.27	-0.01	-2.28	-0.79	-1.74	-36.85	-36.03	-28.38						
2-Feb-2011	0:00:00	-1.29	-0.30	0.04	-2.32	-1.00	-1.68	-36.97	-36.21	-28.41						
2-Feb-2011	6:00:00	-1.34	-0.06	0.22	-2.03	-0.73	-1.33	-37.03	-36.21	-28.53						
2-Feb-2011	12:00:00	-1.20	0.06	0.17	-1.72	-0.68	-1.21	-37.01	-36.30	-28.42						
2-Feb-2011	18:00:00	-1.34	-0.12	-0.27	-1.61	-0.94	-1.18	-36.95	-36.14	-28.32						0.09
3-Feb-2011	0:00:00	-1.29	-0.28	-0.31	-1.68	-1.17	-1.33	-36.98	-36.14	-28.34						
3-Feb-2011	6:00:00	-1.58	-0.51	-0.74	-2.19	-1.60	-1.86	-37.31	-36.40	-28.58						
3-Feb-2011	12:00:00	-1.52	-0.54	-0.60	-2.43	-1.69	-1.99	-37.15	-36.30	-28.50						
3-Feb-2011	18:00:00	-1.68	-0.80	-0.67	-2.88	-1.76	-2.22	-37.18	-36.34	-28.57						
4-Feb-2011	0:00:00	-1.88	-1.16	-0.63	-3.37	-2.06	-2.47	-37.39	-36.42	-28.75						
4-Feb-2011	6:00:00	-1.86	-1.18	-0.55	-3.59	-2.08	-2.48	-37.40	-36.62	-28.80						

Date	Time	Water Level (inches)											CG1	CG2	On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
		FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3								
4-Feb-2011	12:00:00	-1.62	-0.70	-0.32	-3.22	-1.64	-1.86	-37.27	-36.42	-28.66								
4-Feb-2011	18:00:00	-1.44	-0.38	-0.25	-2.89	-1.45	-1.40	-37.27	-36.45	-28.71							0.48	
5-Feb-2011	0:00:00	-1.05	0.40	0.18	-0.61	-0.09	-0.07	-37.26	-36.46	-28.72								
5-Feb-2011	6:00:00	-1.13	0.32	0.21	-0.34	0.33	0.52	-37.24	-36.52	-28.58								
5-Feb-2011	12:00:00	1.19	3.68	2.24	1.09	4.61	3.27	-37.14	-8.04	-8.00								
5-Feb-2011	18:00:00	-0.07	4.87	1.19	7.32	9.41	2.46	1.36	-17.08	-4.78							0.98	
6-Feb-2011	0:00:00	-0.39	0.96	0.86	4.57	6.71	2.13	1.18	-19.10	-5.42								
6-Feb-2011	6:00:00	-1.19	0.10	0.09	1.08	4.13	1.58	0.49	-21.38	-6.87								
6-Feb-2011	12:00:00	-0.87	0.43	0.40	0.31	3.81	1.73	0.77	-22.34	-7.02								
6-Feb-2011	18:00:00	-0.81	0.31	0.39	0.03	3.45	1.73	0.73	-22.62	-7.27								
7-Feb-2011	0:00:00	-1.61	-0.42	-0.43	-0.99	2.42	0.81	-0.25	-24.09	-8.82								
7-Feb-2011	6:00:00	-1.85	-0.57	-0.68	-1.35	2.03	0.57	-0.61	-24.76	-9.31								
7-Feb-2011	12:00:00	-0.98	0.24	0.24	-0.66	2.73	1.30	0.07	-24.15	-8.74								
7-Feb-2011	18:00:00	-0.91	0.43	0.41	-0.57	2.66	1.38	0.17	-23.97	-8.88							0.22	
8-Feb-2011	0:00:00	-0.57	0.75	0.78	0.12	3.15	2.08	0.46	-22.85	-5.90								
8-Feb-2011	6:00:00	-0.62	0.80	0.76	0.39	3.58	1.98	0.38	-20.97	-6.04								
8-Feb-2011	12:00:00	-0.89	0.51	0.44	0.26	3.31	1.76	0.53	-21.17	-7.47								
8-Feb-2011	18:00:00	-0.91	0.30	0.11	-0.09	2.92	1.56	0.50	-21.53	-8.56							0.10	
9-Feb-2011	0:00:00	-2.04	-0.83	-0.91	-1.36	1.87	0.34	-0.56	-23.49	-10.60								
9-Feb-2011	6:00:00	-3.09	-2.00	-2.01	-2.80	0.45	-1.06	-1.90	-25.17	-12.68								
9-Feb-2011	12:00:00	-1.26	-0.03	0.09	-1.15	2.13	0.77	-0.19	-23.68	-11.47								
9-Feb-2011	18:00:00	-0.95	0.31	0.30	-0.96	2.20	0.84	0.06	-23.12	-11.56							0.01	
10-Feb-2011	0:00:00	-1.07	0.26	0.29	-1.15	2.01	0.66	-0.11	-23.08	-12.33								
10-Feb-2011	6:00:00	-1.11	0.22	0.20	-0.96	1.75	0.72	-0.18	-23.18	-12.49								
10-Feb-2011	12:00:00	-0.96	0.38	0.27	-0.51	1.97	0.96	-0.24	-23.75	-12.99								
10-Feb-2011	18:00:00	-1.04	0.36	0.05	-0.21	2.14	1.40	-0.22	-22.68	-10.18							0.18	
11-Feb-2011	0:00:00	-2.63	-1.44	-1.57	-2.10	0.70	-0.43	-1.97	-24.04	-14.04								
11-Feb-2011	6:00:00	-3.81	-2.74	-2.79	-3.63	-0.51	-1.69	-3.10	-25.10	-16.66								
11-Feb-2011	12:00:00	-1.19	0.04	0.11	-1.30	1.96	0.72	-0.52	-22.84	-14.91								
11-Feb-2011	18:00:00	-0.96	0.30	0.29	-0.76	2.17	1.06	-0.34	-22.40	-15.20								
12-Feb-2011	0:00:00	-2.40	-1.12	-1.21	-2.27	0.55	-0.63	-1.62	-23.93	-17.48								
12-Feb-2011	6:00:00	-3.42	-2.40	-2.25	-3.71	-0.49	-1.96	-2.70	-25.19	-19.34								
12-Feb-2011	12:00:00	-1.16	0.01	0.12	-1.66	1.49	0.09	-0.52	-23.48	-18.00								
12-Feb-2011	18:00:00	-1.03	0.18	0.05	-1.25	1.65	0.14	-0.42	-23.42	-18.12								
13-Feb-2011	0:00:00	-2.11	-1.00	-0.86	-2.39	0.47	-1.12	-1.44	-25.04	-20.22								
13-Feb-2011	6:00:00	-2.63	-1.65	-1.40	-3.24	-0.19	-1.98	-2.00	-26.00	-21.51								
13-Feb-2011	12:00:00	-1.34	-0.22	0.04	-2.10	0.91	-0.90	-0.84	-25.00	-21.02								
13-Feb-2011	18:00:00	-1.29	-0.12	-0.03	-1.80	0.97	-0.97	-0.78	-24.81	-21.09								
14-Feb-2011	0:00:00	-1.22	-0.08	0.12	-1.76	0.87	-0.97	-0.74	-24.88	-21.85								
14-Feb-2011	6:00:00	-1.16	0.00	0.17	-1.78	0.77	-1.02	-0.73	-24.70	-22.51								
14-Feb-2011	12:00:00	-1.49	-0.20	-0.14	-2.07	0.44	-1.27	-1.07	-24.88	-23.24								
14-Feb-2011	18:00:00	-1.58	-0.42	-0.13	-2.10	0.47	-1.23	-0.96	-24.54	-23.76								
15-Feb-2011	0:00:00	-1.55	-0.50	-0.33	-2.37	0.28	-1.24	-0.92	-25.50	-26.35								
15-Feb-2011	6:00:00	-1.68	-0.80	-0.36	-2.76	0.04	-1.54	-1.19	-26.64	-28.50								
15-Feb-2011	12:00:00	-2.01	-1.11	-0.73	-3.43	-0.44	-1.82	-1.54	-27.72	-28.68								
15-Feb-2011	18:00:00	-1.87	-1.37	-0.60	-3.70	-0.40	-1.82	-1.34	-27.95	-28.45								
16-Feb-2011	0:00:00	-3.08	-2.66	-1.57	-5.14	-1.70	-3.14	-2.74	-29.68	-29.54								
16-Feb-2011	6:00:00	-3.74	-3.68	-2.19	-6.22	-2.53	-3.94	-3.32	-30.70	-30.22								
16-Feb-2011	12:00:00	-2.10	-1.61	-0.25	-4.18	-1.00	-2.11	-1.82	-29.32	-28.51								
16-Feb-2011	18:00:00	-1.94	-1.65	-0.31	-4.37	-1.03	-2.22	-1.78	-29.21	-28.46								
17-Feb-2011	0:00:00	-2.04	-1.86	-0.36	-4.71	-1.19	-2.28	-1.86	-29.46	-28.51								
17-Feb-2011	6:00:00	-2.16	-2.09	-0.44	-4.96	-1.43	-2.55	-2.14	-29.68	-28.70	2.45	0.00						
17-Feb-2011	12:00:00	-2.18	-1.56	-0.46	-4.62	-6.26	-2.24	-2.66	-29.80	-28.59								
17-Feb-2011	18:00:00	-2.04	-1.18	-0.22	-4.73	-5.87	-2.11	-2.63	-29.51	-28.42								
18-Feb-2011	0:00:00	-2.04	-0.95	-0.19	-4.62	-5.65	-1.96	-2.60	-29.61	-28.45								
18-Feb-2011	6:00:00	-2.27	-1.14	-0.18	-4.58	-5.84	-1.89	-2.65	-29.66	-28.38								
18-Feb-2011	12:00:00	-2.27	-1.76	-0.42	-5.01	-6.45	-1.94	-2.90	-29.99	-28.59								
18-Feb-2011	18:00:00	-2.18	-1.30	-0.49	-5.11	-5.99	-1.93	-2.84	-29.52	-28.42								
19-Feb-2011	0:00:00	-2.12	-1.46	-0.33	-5.03	-6.15	-1.90	-2.87	-29.76	-28.36								
19-Feb-2011	6:00:00	-2.54	-2.30	-0.51	-5.10	-6.99	-2.06	-2.95	-30.32	-28.48								
19-Feb-2011	12:00:00	-2.69	-2.80	-1.00	-5.69	-7.49	-2.23	-3.16	-30.77	-28.62								
19-Feb-2011	18:00:00	-2.65	-2.69	-2.13	-5.76	-7.39	-2.49	-3.22	-30.66	-28.39								
20-Feb-2011	0:00:00	-2.99	-2.81	-2.46	-5.86	-7.51	-2.56	-3.34	-31.38	-28.29								
20-Feb-2011	6:00:00	-3.30	-3.16	-2.61	-6.01	-7.85	-2.89	-3.59	-32.31	-28.41								
20-Feb-2011	12:00:00	-3.17	-3.35	-3.06	-6.17	-8.05	-3.03	-3.70	-33.24	-28.44								
20-Feb-2011	18:00:00	-3.19	-3.08	-3.00	-6.16	-7.77	-2.91	-3.52	-33.28	-28.23								
21-Feb-2011	0:00:00	-3.08	-2.78	-2.85	-6.06	-7.47	-2.82	-3.71	-33.04	-28.35								
21-Feb-2011	6:00:00	-3.38	-3.63	-1.89	-5.92	-8.32	-2.71	-3.55	-32.34	-28.33								
21-Feb-2011	12:00:00	-3.39	-4.05	-0.85	-6.43	-8.74	-2.78	-3.71	-32.06	-28.57								

Date	Time	Water Level (inches)															On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall	
dd-mm-yy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2									
21-Feb-2011	18:00:00	-3.31	-3.53	-1.09	-6.59	-8.23	-2.85	-3.65	-31.54	-28.36											
22-Feb-2011	0:00:00	-3.26	-3.59	-0.80	-6.40	-8.29	-2.80	-3.73	-31.56	-28.23											
22-Feb-2011	6:00:00	-3.42	-3.81	-1.04	-6.58	-8.50	-3.06	-3.90	-32.26	-28.36											
22-Feb-2011	12:00:00	-3.75	-4.19	-1.96	-6.77	-8.89	-3.25	-4.19	-33.81	-28.38											
22-Feb-2011	18:00:00	-4.63	-4.74	-2.66	-6.84	-9.44	-3.37	-4.44	-34.67	-28.38											
23-Feb-2011	0:00:00	-5.28	-5.32	-3.60	-7.58	-10.01	-4.15	-5.23	-36.33	-28.95											
23-Feb-2011	6:00:00	-4.64	-4.38	-4.24	-8.19	-9.08	-4.83	-5.87	-37.52	-29.37											
23-Feb-2011	12:00:00	-4.77	-4.72	-3.58	-7.37	-9.41	-3.94	-5.11	-36.59	-28.50											
23-Feb-2011	18:00:00	-5.41	-5.01	-3.79	-7.32	-9.70	-3.87	-5.08	-36.35	-28.30											
24-Feb-2011	0:00:00	-5.96	-5.43	-4.28	-7.79	-10.12	-4.38	-5.63	-36.78	-28.80											
24-Feb-2011	6:00:00	-5.37	-4.43	-4.72	-8.27	-9.13	-4.87	-6.16	-37.14	-29.13											
24-Feb-2011	12:00:00	-5.59	-4.71	-4.08	-7.42	-9.40	-3.90	-5.41	-36.52	-28.44											
24-Feb-2011	18:00:00	-5.49	-4.07	-4.18	-7.49	-8.77	-3.76	-5.33	-36.36	-28.40											
25-Feb-2011	0:00:00	-4.51	-3.02	-3.81	-7.28	-7.71	-3.42	-5.23	-36.44	-28.39											
25-Feb-2011	6:00:00	-3.79	-2.42	-1.86	-6.60	-7.11	-2.98	-4.50	-36.03	-28.38											
25-Feb-2011	12:00:00	-4.16	-4.36	-0.40	-6.27	-9.05	-2.58	-3.91	-35.42	-28.42											
25-Feb-2011	18:00:00	-4.67	-4.54	-1.09	-7.49	-9.23	-2.97	-4.52	-35.00	-28.45											0.09
26-Feb-2011	0:00:00	-5.57	-4.84	-1.82	-7.68	-9.53	-3.30	-4.98	-35.92	-28.26											
26-Feb-2011	6:00:00	-5.73	-4.80	-2.74	-8.14	-9.50	-3.92	-5.82	-36.71	-28.64											
26-Feb-2011	12:00:00	-5.89	-4.72	-2.92	-7.95	-9.41	-3.61	-5.64	-36.45	-28.41											
26-Feb-2011	18:00:00	-5.94	-4.46	-2.98	-7.85	-9.15	-3.46	-5.52	-36.30	-28.18											
27-Feb-2011	0:00:00	-6.07	-4.19	-3.14	-7.76	-8.89	-3.50	-5.53	-36.28	-28.24											
27-Feb-2011	6:00:00	-6.50	-5.24	-3.37	-7.78	-9.93	-3.66	-5.71	-36.34	-28.34											
27-Feb-2011	12:00:00	-7.05	-5.78	-3.96	-8.17	-10.47	-3.84	-5.99	-36.47	-28.41											
27-Feb-2011	18:00:00	-7.15	-5.07	-4.30	-8.43	-9.76	-3.74	-5.84	-36.42	-28.20											
28-Feb-2011	0:00:00	-7.11	-4.64	-4.22	-8.33	-9.33	-3.80	-5.99	-36.42	-28.34											
28-Feb-2011	6:00:00	-7.63	-5.76	-4.14	-8.26	-10.46	-3.68	-5.99	-36.34	-28.30											
28-Feb-2011	12:00:00	-8.25	-6.26	-4.52	-8.74	-10.95	-3.61	-5.92	-36.46	-28.40											
28-Feb-2011	18:00:00	-1.34	0.82	-4.60	-8.81	-3.87	-3.46	-5.77	-36.20	-28.27											0.63
1-Mar-2011	0:00:00	-1.40	0.75	0.27	-1.77	-3.94	-0.06	-2.09	-35.72	-28.29											0.00
1-Mar-2011	6:00:00	-1.75	0.45	-0.12	-0.85	-4.24	1.08	-2.09	-30.74	-28.23											
1-Mar-2011	12:00:00	-1.89	0.20	-0.44	-0.76	-4.49	0.84	-2.46	-30.05	-28.35											
1-Mar-2011	18:00:00	-2.42	-0.26	-0.49	-1.40	-4.95	0.50	-2.64	-28.82	-28.32											0.10
2-Mar-2011	0:00:00	-3.05	-0.93	-0.81	-2.19	-5.62	-0.39	-3.19	-29.33	-28.80											
2-Mar-2011	6:00:00	-2.42	-0.28	-1.50	-3.15	-4.97	-1.34	-3.78	-29.74	-29.35											
2-Mar-2011	12:00:00	-2.27	-0.35	-0.63	-2.78	-5.05	-0.79	-3.22	-28.84	-28.54											
2-Mar-2011	18:00:00	-2.37	-0.68	-0.54	-3.09	-5.37	-0.74	-3.08	-28.48	-28.16											
3-Mar-2011	0:00:00	-2.37	-0.77	-0.63	-3.58	-5.47	-1.05	-3.25	-28.79	-28.32											
3-Mar-2011	6:00:00	-2.71	-1.24	-0.62	-3.82	-5.93	-1.23	-3.47	-29.48	-28.27											
3-Mar-2011	12:00:00	-2.87	-1.62	-0.98	-4.44	-6.32	-1.54	-3.79	-30.66	-28.36											
3-Mar-2011	18:00:00	-3.31	-2.02	-1.35	-4.67	-6.71	-1.69	-3.85	-31.40	-28.27											
4-Mar-2011	0:00:00	-3.51	-2.28	-2.11	-5.15	-6.98	-2.16	-4.40	-32.37	-28.57											
4-Mar-2011	6:00:00	-3.48	-2.15	-1.35	-5.38	-6.85	-2.36	-4.73	-32.48	-28.69											
4-Mar-2011	12:00:00	-3.56	-2.58	-1.09	-5.32	-7.28	-2.26	-4.54	-32.43	-28.41											
4-Mar-2011	18:00:00	-3.51	-2.43	-1.09	-5.31	-7.12	-2.24	-4.51	-32.04	-28.32											
5-Mar-2011	0:00:00	-3.62	-2.54	-0.66	-5.31	-7.23	-2.19	-4.50	-31.74	-28.18											
5-Mar-2011	6:00:00	-3.90	-2.98	-0.55	-5.41	-7.67	-2.36	-4.70	-31.54	-28.32											
5-Mar-2011	12:00:00	-4.01	-3.12	-0.69	-5.69	-7.82	-2.42	-4.73	-31.32	-28.38											
5-Mar-2011	18:00:00	-3.86	-2.70	-0.67	-5.62	-7.40	-2.28	-4.45	-30.74	-28.28											
6-Mar-2011	0:00:00	-2.99	-1.48	-0.50	-5.57	-6.17	-2.26	-4.51	-30.35	-28.35											
6-Mar-2011	6:00:00	-2.66	-1.20	-0.04	-5.04	-5.90	-1.57	-3.70	-29.81	-28.36											
6-Mar-2011	12:00:00	-0.71	1.21	-0.26	-5.01	-3.49	-1.27	-3.59	-29.42	-28.40											
6-Mar-2011	18:00:00	-1.15	0.97	0.62	-0.83	-3.73	1.61	-1.61	-21.99	-28.34											0.52
7-Mar-2011	0:00:00	-1.33	0.69	0.39	0.25	-4.00	2.26	-1.27	-15.53	-11.66											
7-Mar-2011	6:00:00	-1.56	0.43	0.16	-0.17	-4.27	1.91	-1.43	-16.65	-13.17											
7-Mar-2011	12:00:00	-1.58	0.28	-0.13	-0.48	-4.41	1.60	-1.70	-17.86	-14.97											
7-Mar-2011	18:00:00	-1.65	0.31	-0.10	-0.75	-4.39	1.32	-1.70	-18.11	-16.00											
8-Mar-2011	0:00:00	-2.54	-0.62	-0.14	-1.14	-5.31	1.00	-1.81	-18.95	-17.61											
8-Mar-2011	6:00:00	-1.94	-0.03	-1.10	-2.45	-4.72	-0.21	-2.78	-20.26	-19.77											
8-Mar-2011	12:00:00	-2.01	-0.17	-0.44	-1.83	-4.87	0.18	-2.15	-20.00	-20.46											
8-Mar-2011	18:00:00	-2.30	-0.39	-0.31	-2.11	-5.08	-0.24	-2.20	-20.09	-21.18											
9-Mar-2011	0:00:00	-2.13	-0.36	-0.49	-2.54	-5.06	-0.70	-2.48	-20.45	-22.68											
9-Mar-2011	6:00:00	-2.39	-0.58	-0.21	-2.65	-5.27	-0.68	-2.46	-20.30	-24.32											
9-Mar-2011	12:00:00	-2.29	-0.76	-0.37	-2.99	-5.45	-0.84	-2.57	-20.54	-28.34											
9-Mar-2011	18:00:00	-2.27	-0.66	-0.20	-3.21	-5.36	-0.81	-2.51	-20.03	-28.29											
10-Mar-2011	0:00:00	-1.94	0.09	-0.07	-3.24	-4.60	-0.72	-2.33	-19.85	-28.20											
10-Mar-2011	6:00:00	-1.09	1.02	0.42	-2.19	-3.68	-0.33	-1.98	-19.36	-28.44											
10-Mar-2011	12:00:00	-0.25	2.68	0.18	-0.04	-2.01	1.68	-1.30	-13.00	-20.16											
10-Mar-2011	18:00:00	-0.48	2.01	1.06	3.85	-2.68	2.72	0.20	-3.39	-5.82											1.01

Date	Time	Water Level (inches)															On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mm-yy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2								
11-Mar-2011	0:00:00	-0.89	0.92	1.10	5.36	-3.77	2.69	1.57	-1.95	-4.30										
11-Mar-2011	6:00:00	-1.13	0.81	0.53	2.18	-3.88	2.26	1.10	-2.24	-4.60										
11-Mar-2011	12:00:00	-1.20	0.66	0.41	0.60	-4.04	2.19	0.70	-1.71	-4.72										
11-Mar-2011	18:00:00	-1.45	0.40	0.23	0.01	-4.29	1.96	0.38	-1.44	-5.19										
12-Mar-2011	0:00:00	-1.53	0.36	-0.06	-0.46	-4.34	1.65	0.02	-1.73	-6.01										
12-Mar-2011	6:00:00	-1.50	0.38	-0.18	-0.61	-4.31	1.52	-0.11	-1.86	-6.76										
12-Mar-2011	12:00:00	-1.52	0.36	-0.09	-0.81	-4.34	1.52	-0.11	-1.96	-7.05										
12-Mar-2011	18:00:00	-1.44	0.52	-0.10	-1.20	-4.17	1.34	-0.19	-1.97	-7.35										
13-Mar-2011	0:00:00	-1.41	0.37	-0.03	-1.38	-4.33	1.22	-0.24	-2.12	-7.99										
13-Mar-2011	6:00:00	-1.75	0.10	-0.03	-1.50	-4.59	1.01	-0.40	-2.30	-8.77										
13-Mar-2011	12:00:00	-1.80	-0.21	-0.34	-2.00	-4.90	0.70	-0.64	-2.69	-9.55										
13-Mar-2011	18:00:00	-1.81	-0.35	-0.28	-2.20	-5.05	0.45	-0.60	-2.63	-9.97										
14-Mar-2011	0:00:00	-1.76	-0.27	-0.36	-2.57	-4.96	0.18	-0.65	-3.00	-11.22										
14-Mar-2011	6:00:00	-1.98	-0.54	-0.36	-3.01	-5.24	0.00	-0.76	-3.14	-12.24										
14-Mar-2011	12:00:00	-2.05	-1.02	-0.54	-3.65	-5.72	-0.33	-0.89	-3.28	-13.28										
14-Mar-2011	18:00:00	-2.07	-0.94	-0.51	-4.13	-5.63	-0.78	-1.01	-3.48	-14.52										
15-Mar-2011	0:00:00	-2.06	-1.00	-0.28	-4.22	-5.69	-0.88	-1.07	-3.58	-15.70										
15-Mar-2011	6:00:00	-2.25	-1.22	-0.28	-4.30	-5.91	-0.86	-1.09	-3.57	-16.68										
15-Mar-2011	12:00:00	-2.10	-1.17	-0.51	-4.80	-5.86	-1.12	-1.36	-3.96	-17.77										
15-Mar-2011	18:00:00	-2.24	-1.10	-0.32	-4.80	-5.79	-1.00	-1.22	-3.82	-18.15										
16-Mar-2011	0:00:00	-1.35	0.79	-0.33	-4.80	-3.91	-1.09	-1.31	-3.88	-18.67										
16-Mar-2011	6:00:00	-1.11	0.93	0.46	-1.30	-3.76	0.62	-0.55	-1.76	-10.59										
16-Mar-2011	12:00:00	-1.26	0.73	0.40	0.77	-3.97	2.27	0.92	-1.16	-4.69										
16-Mar-2011	18:00:00	-1.25	0.79	0.21	0.29	-3.91	2.02	0.84	-1.08	-5.36									0.73	
17-Mar-2011	0:00:00	-1.35	0.64	0.16	-0.06	-4.05	1.84	0.62	-1.10	-6.20										
17-Mar-2011	6:00:00	-1.52	0.33	0.02	-0.35	-4.36	1.76	0.28	-1.28	-7.24										
17-Mar-2011	12:00:00	-1.59	0.28	-0.18	-0.72	-4.41	1.53	0.13	-1.52	-7.93										
17-Mar-2011	18:00:00	-1.49	0.45	-0.26	-1.04	-4.24	1.36	0.05	-1.68	-8.18										
18-Mar-2011	0:00:00	-1.56	0.42	-0.40	-1.37	-4.28	1.34	-0.01	-1.74	-9.01										
18-Mar-2011	6:00:00	-1.81	0.10	-0.09	-1.55	-4.59	1.01	-0.25	-1.96	-9.92										
18-Mar-2011	12:00:00	-1.91	-0.21	-0.22	-1.98	-4.90	0.86	-0.44	-2.15	-10.52										
18-Mar-2011	18:00:00	-1.95	-0.14	-0.18	-2.03	-4.83	0.65	-0.40	-2.04	-11.19										
19-Mar-2011	0:00:00	-1.79	-0.30	-0.13	-2.17	-5.00	0.35	-0.46	-2.22	-12.50										
19-Mar-2011	6:00:00	-2.06	-0.78	-0.13	-2.31	-5.48	0.12	-0.43	-2.45	-13.89										
19-Mar-2011	12:00:00	-2.28	-1.38	-0.42	-2.74	-6.08	-0.25	-0.73	-2.64	-15.48										
19-Mar-2011	18:00:00	-2.40	-1.34	-0.27	-3.04	-6.03	-0.50	-0.73	-2.73	-16.59										
20-Mar-2011	0:00:00	-2.59	-1.64	-0.04	-3.72	-6.33	-0.69	-0.86	-2.99	-18.21										
20-Mar-2011	6:00:00	-2.84	-2.08	-0.40	-4.35	-6.77	-1.08	-1.01	-3.26	-19.84										
20-Mar-2011	12:00:00	-3.09	-2.72	-0.49	-4.84	-7.41	-1.23	-1.16	-3.34	-20.74										
20-Mar-2011	18:00:00	-3.23	-2.42	-0.40	-5.04	-7.11	-1.35	-1.12	-3.35	-21.16										
21-Mar-2011	0:00:00	-3.14	-2.25	-0.40	-5.10	-6.94	-1.42	-1.26	-3.52	-22.32										
21-Mar-2011	6:00:00	-3.74	-3.21	-0.16	-5.13	-7.90	-1.52	-1.26	-3.47	-22.92										
21-Mar-2011	12:00:00	-4.19	-3.95	-0.45	-5.59	-8.65	-1.60	-1.46	-3.53	-23.52										
21-Mar-2011	18:00:00	-4.01	-3.28	-0.40	-5.83	-7.97	-1.57	-1.38	-3.55	-23.55										
22-Mar-2011	0:00:00	-3.75	-2.94	-0.13	-5.70	-7.64	-1.54	-1.36	-3.52	-24.82										
22-Mar-2011	6:00:00	-4.88	-4.92	-0.16	-5.73	-9.62	-1.52	-1.33	-3.42	-26.23										
22-Mar-2011	12:00:00	-5.55	-5.58	-0.64	-6.58	-10.28	-1.89	-1.62	-3.78	-28.47										
22-Mar-2011	18:00:00	-5.53	-4.56	-0.75	-6.75	-9.26	-2.02	-1.67	-3.88	-28.28										
23-Mar-2011	0:00:00	-5.30	-4.02	-0.56	-6.54	-8.72	-2.07	-1.63	-3.95	-28.41										
23-Mar-2011	6:00:00	-5.82	-5.55	-0.36	-6.45	-10.24	-1.98	-1.54	-3.89	-28.28										
23-Mar-2011	12:00:00	-5.97	-5.31	-0.63	-7.19	-10.00	-2.25	-1.76	-3.81	-28.48										
23-Mar-2011	18:00:00	-0.75	0.96	-0.33	-7.00	-3.74	-2.07	-1.66	-3.74	-28.35										
24-Mar-2011	0:00:00	-1.20	0.91	0.59	-1.02	-3.79	0.94	-0.66	-1.25	-28.41	0.70	0.00	1.55							
24-Mar-2011	6:00:00	-1.71	0.40	0.00	0.42	0.78	2.21	0.07	-1.31	-7.02								0.01		
24-Mar-2011	12:00:00	-1.67	0.33	-0.60	-0.24	2.59	1.80	0.36	-1.96	-8.76										
24-Mar-2011	18:00:00	-1.83	0.25	-0.61	-0.45	2.17	1.61	0.41	-2.07	-9.76									0.25	
25-Mar-2011	0:00:00	-1.81	0.18	-0.62	-1.01	1.93	1.25	0.10	-2.39	-11.32										
25-Mar-2011	6:00:00	-2.01	0.01	-0.62	-1.41	1.34	1.18	0.08	-2.44	-12.25										
25-Mar-2011	12:00:00	-2.16	-0.16	-0.69	-1.90	1.16	0.78	-0.14	-2.76	-13.15										
25-Mar-2011	18:00:00	-2.10	-0.18	-0.63	-2.16	0.82	0.48	-0.19	-2.76	-13.45										
26-Mar-2011	0:00:00	-2.25	-0.36	-0.62	-2.40	0.44	0.20	-0.26	-2.88	-13.99										
26-Mar-2011	6:00:00	-2.28	-0.48	-0.73	-2.88	0.13	-0.19	-0.46	-3.12	-14.76										
26-Mar-2011	12:00:00	-2.25	-0.53	-0.73	-3.16	-0.11	-0.48	-0.49	-3.34	-15.15										
26-Mar-2011	18:00:00	-1.65	0.33	-0.69	-3.47	0.31	-0.56	-0.50	-3.28	-15.12								0.08		0.07
27-Mar-2011	0:00:00	-1.20	0.87	-0.10	-1.50	1.25	0.04	-0.11	-2.16	-11.28										
27-Mar-2011	6:00:00	-1.15	0.94	-0.19	-0.12	2.66	1.65	0.06	-2.02	-5.36										
27-Mar-2011	12:00:00	-1.47	0.57	-0.27	0.24	2.92	2.13	0.34	-1.91	-3.20										
27-Mar-2011	18:00:00	-1.81	0.15	-0.43	-0.12	2.38	1.83	0.29	-1.94	-2.37								0.32		0.30
28-Mar-2011	0:00:00	-1.80	0.18	-0.69	-0.63	2.21	1.38	-0.05	-2.33	-2.19										

Date	Time	Water Level (inches)															On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mmm-yyyy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2								
28-Mar-2011	6:00:00	-1.56	0.34	-0.73	-0.97	2.17	1.25	-0.12	-2.45	-2.01										
28-Mar-2011	12:00:00	-1.57	0.37	-0.37	-0.99	2.02	1.41	0.04	-2.34	-1.81										
28-Mar-2011	18:00:00	-2.13	-0.18	-0.31	-1.17	1.17	1.35	0.01	-2.30	-1.64										
29-Mar-2011	0:00:00	-2.72	-0.90	-0.85	-1.98	0.28	0.54	-0.54	-2.99	-2.18										
29-Mar-2011	6:00:00	-2.03	0.03	-1.44	-2.76	0.93	-0.33	-1.25	-3.71	-2.88										
29-Mar-2011	12:00:00	-1.97	-0.27	-0.66	-2.04	0.67	0.39	-0.32	-2.84	-2.08										
29-Mar-2011	18:00:00	-1.93	-0.29	-0.58	-2.22	0.39	0.22	-0.40	-2.90	-2.04										
30-Mar-2011	0:00:00	-1.95	-0.18	-0.58	-2.39	0.11	-0.07	-0.36	-2.99	-2.16										
30-Mar-2011	6:00:00	0.04	1.64	-0.42	-2.67	3.19	-0.27	-0.48	-3.04	-2.16										
30-Mar-2011	12:00:00	-0.23	5.59	0.83	1.01	7.31	2.79	0.67	-1.17	-0.84										
30-Mar-2011	18:00:00	-0.95	1.45	0.88	7.17	8.01	2.92	2.10	-0.18	0.00							1.05		1.05	
31-Mar-2011	0:00:00	-0.96	0.82	0.23	5.90	5.47	2.28	1.48	-0.53	-0.06										
31-Mar-2011	6:00:00	-1.09	0.81	0.17	3.33	4.36	2.25	1.24	-0.72	-0.14										
31-Mar-2011	12:00:00	-1.03	0.85	0.11	1.20	3.92	2.04	0.98	-0.96	-0.30										
31-Mar-2011	18:00:00	-0.23	2.80	0.26	0.61	5.13	2.04	1.03	-1.01	-0.22							0.36		0.40	
1-Apr-2011	0:00:00	-0.71	1.03	0.95	4.56	6.11	2.72	1.79	-0.36	0.06								1.82		
1-Apr-2011	6:00:00	-1.01	0.82	0.30	4.94	4.81	2.30	1.49	-0.57	0.06										
1-Apr-2011	12:00:00	-1.16	0.58	0.21	2.81	4.06	2.14	1.21	-0.84	-0.18										
1-Apr-2011	18:00:00	-1.09	0.70	-0.15	1.11	3.82	1.92	0.91	-1.16	-0.43							0.01		0.02	
2-Apr-2011	0:00:00	-1.15	0.69	-0.03	0.45	3.46	1.94	0.88	-1.25	-0.28										
2-Apr-2011	6:00:00	-1.27	0.45	0.05	0.05	3.33	1.91	0.78	-1.40	-0.42										
2-Apr-2011	12:00:00	-1.33	0.20	-0.08	-0.30	2.99	1.76	0.54	-1.56	-0.62										
2-Apr-2011	18:00:00	-1.27	0.45	-0.34	-0.59	2.80	1.61	0.43	-1.80	-0.73										
3-Apr-2011	0:00:00	-1.32	0.37	-0.20	-0.99	2.54	1.50	0.43	-1.73	-0.79										
3-Apr-2011	6:00:00	-1.69	0.04	-0.25	-1.23	2.12	1.37	0.38	-1.92	-0.84										
3-Apr-2011	12:00:00	-1.65	-0.14	-0.57	-1.76	1.93	1.02	-0.01	-2.38	-1.22										
3-Apr-2011	18:00:00	-1.53	0.03	-0.52	-1.93	1.64	0.88	0.10	-2.33	-1.04										
4-Apr-2011	0:00:00	-1.40	0.21	-0.43	-2.20	1.57	0.63	-0.02	-2.46	-1.00										
4-Apr-2011	6:00:00	-1.85	-0.29	-0.40	-2.33	1.04	0.51	0.02	-2.48	-1.00										
4-Apr-2011	12:00:00	-2.07	-0.98	-0.72	-2.92	0.85	0.16	-0.19	-2.61	-1.15										
4-Apr-2011	18:00:00	-1.99	-0.69	-0.76	-3.67	0.65	-0.07	-0.29	-2.61	-1.15										
5-Apr-2011	0:00:00	-1.32	0.49	-0.36	-3.93	1.24	-0.21	-0.26	-2.74	-1.03										
5-Apr-2011	6:00:00	-1.21	0.58	0.34	-1.66	2.77	0.46	0.19	-1.68	-0.54										
5-Apr-2011	12:00:00	-1.46	0.37	-0.06	-0.05	3.19	1.97	0.59	-1.60	-0.49										
5-Apr-2011	18:00:00	-1.57	0.21	-0.52	-0.22	2.78	1.85	0.74	-1.49	-0.55							0.33		0.63	
6-Apr-2011	0:00:00	-2.27	-0.50	-0.68	-0.66	1.84	1.48	0.52	-1.68	-0.88										
6-Apr-2011	6:00:00	-1.74	-0.03	-1.33	-1.78	2.13	0.74	-0.23	-2.61	-1.54										
6-Apr-2011	12:00:00	-1.89	-0.15	-0.72	-1.65	1.79	1.24	0.31	-2.09	-0.87										
6-Apr-2011	18:00:00	-1.82	-0.10	-0.73	-2.05	1.58	0.93	0.26	-2.20	-0.81										
7-Apr-2011	0:00:00	-1.80	-0.02	-0.52	-2.25	1.30	0.66	0.24	-2.21	-0.84										
7-Apr-2011	6:00:00	-2.24	-0.74	-0.56	-2.69	0.74	0.48	0.18	-2.25	-0.90										
7-Apr-2011	12:00:00	-2.54	-1.80	-1.05	-4.04	0.38	0.00	-0.10	-2.70	-1.14										
7-Apr-2011	18:00:00	-2.49	-1.54	-1.09	-4.56	0.01	-0.32	-0.12	-2.74	-1.16										
8-Apr-2011	0:00:00	-2.46	-1.06	-0.74	-4.56	-0.27	-0.63	-0.14	-2.82	-1.18										
8-Apr-2011	6:00:00	-2.83	-1.76	-0.79	-4.70	-0.73	-0.91	-0.26	-2.92	-1.22										
8-Apr-2011	12:00:00	-2.96	-2.38	-1.15	-5.41	-0.86	-1.15	-0.41	-3.15	-1.38										
8-Apr-2011	18:00:00	-0.98	0.69	-0.98	-5.43	0.55	-1.21	-0.35	-2.94	-1.28							0.28		0.14	
9-Apr-2011	0:00:00	-1.40	0.60	-0.14	-2.19	0.45	0.23	0.10	-1.92	-0.58										
9-Apr-2011	6:00:00	-1.51	0.51	-0.69	-0.52	0.61	0.84	0.31	-1.97	-0.64										
9-Apr-2011	12:00:00	-1.64	0.26	-0.75	-0.77	0.80	1.05	0.19	-2.22	-0.72										
9-Apr-2011	18:00:00	-1.21	0.85	-0.67	-1.30	1.31	0.98	0.25	-2.04	-0.67							0.12		0.16	
10-Apr-2011	0:00:00	-1.32	0.84	0.00	-0.81	2.25	1.41	0.50	-1.52	-0.37										
10-Apr-2011	6:00:00	-1.52	0.50	-0.43	-0.04	2.50	2.09	0.60	-1.59	-0.27										
10-Apr-2011	12:00:00	-1.67	0.37	-0.63	-0.35	2.29	1.86	0.59	-1.67	-0.49										
10-Apr-2011	18:00:00	-1.57	0.40	-0.63	-0.77	2.01	1.65	0.49	-1.76	-0.56							0.09		0.12	
11-Apr-2011	0:00:00	-1.47	0.37	-0.61	-1.15	1.75	1.49	0.42	-1.88	-0.51										
11-Apr-2011	6:00:00	-1.63	0.27	-0.63	-1.37	1.51	1.25	0.35	-1.94	-0.58										
11-Apr-2011	12:00:00	-1.88	-0.16	-0.86	-1.68	1.07	1.19	0.34	-2.03	-0.57										
11-Apr-2011	18:00:00	-1.76	0.13	-0.94	-1.91	0.85	0.96	0.29	-2.10	-0.68										
12-Apr-2011	0:00:00	-1.83	0.21	-0.67	-2.01	0.46	0.78	0.31	-2.10	-0.64										
12-Apr-2011	6:00:00	-2.04	-0.42	-0.69	-2.37	0.15	0.47	0.17	-2.22	-0.68										
12-Apr-2011	12:00:00	-2.18	-0.92	-1.14	-3.28	-0.31	0.20	0.08	-2.36	-0.76										
12-Apr-2011	18:00:00	-2.51	-1.28	-1.18	-3.94	-0.87	-0.18	-0.07	-2.50	-0.84										
13-Apr-2011	0:00:00	-3.12	-1.76	-1.03	-4.38	-1.52	-0.78	-0.48	-2.84	-1.24										
13-Apr-2011	6:00:00	-2.70	-2.09	-1.70	-5.14	-1.27	-1.64	-1.02	-3.50	-1.78										
13-Apr-2011	12:00:00	-3.23	-3.02	-1.52	-5.16	-1.63	-1.26	-0.38	-2.88	-1.06										
13-Apr-2011	18:00:00	-3.55	-2.92	-2.06	-5.51	-2.20	-1.62	-0.49	-3.11	-1.29										
14-Apr-2011	0:00:00	-5.48	-4.83	-1.82	-5.72	-4.01	-2.26	-0.86	-3.51	-1.53										
14-Apr-2011	6:00:00	-4.39	-4.29	-3.30	-7.53	-2.41	-4.22	-2.62	-5.33	-3.37										

Date	Time	Water Level (inches)											On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mmm-yyyy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2				
14-Apr-2011	12:00:00	-5.42	-5.84	-2.10	-6.48	-2.85	-2.61	-0.84	-3.51	-1.54						
14-Apr-2011	18:00:00	-5.82	-5.18	-3.72	-6.91	-3.37	-3.12	-0.89	-3.75	-1.59						
15-Apr-2011	0:00:00	-7.28	-6.53	-3.79	-6.88	-4.73	-3.49	-1.19	-4.01	-1.93						
15-Apr-2011	6:00:00	-6.97	-6.93	-5.26	-8.27	-3.61	-5.05	-2.54	-5.31	-3.28						
15-Apr-2011	12:00:00	-8.29	-7.98	-4.94	-7.85	-4.07	-4.00	-1.45	-4.19	-2.11						
15-Apr-2011	18:00:00	-8.40	-6.66	-5.53	-8.17	-4.05	-4.35	-1.51	-4.50	-2.22						
16-Apr-2011	0:00:00	-8.22	-6.03	-4.90	-7.48	-3.83	-4.27	-1.60	-4.37	-2.18						
16-Apr-2011	6:00:00	-9.23	-7.58	-4.48	-7.23	-4.29	-4.11	-1.60	-4.25	-2.11						
16-Apr-2011	12:00:00	-9.56	-6.70	-5.34	-8.15	-2.86	-4.22	-1.66	-4.49	-2.18						
16-Apr-2011	18:00:00	-1.10	0.94	-4.04	-7.22	4.53	-2.88	-1.12	-3.86	-1.32						0.69
17-Apr-2011	0:00:00	-1.58	0.60	-0.49	2.13	3.61	2.33	1.74	-0.53	0.10						
17-Apr-2011	6:00:00	-1.91	0.32	-0.79	0.23	3.25	1.90	1.09	-0.92	-0.25						
17-Apr-2011	12:00:00	-2.24	-0.22	-1.17	-0.42	2.67	1.80	0.95	-1.17	-0.26						
17-Apr-2011	18:00:00	-2.25	-0.05	-1.46	-1.37	2.29	1.35	0.67	-1.49	-0.38						
18-Apr-2011	0:00:00	-2.29	-0.08	-0.97	-1.83	1.96	1.12	0.72	-1.59	-0.49						
18-Apr-2011	6:00:00	-3.36	-1.04	-0.93	-2.49	1.16	0.92	0.55	-1.60	-0.49						
18-Apr-2011	12:00:00	-4.21	-2.88	-1.93	-3.79	0.75	0.28	0.17	-2.15	-0.96						
18-Apr-2011	18:00:00	-4.20	-2.69	-3.36	-4.72	0.19	-0.12	0.06	-2.25	-0.78						
19-Apr-2011	0:00:00	-4.20	-2.70	-3.16	-4.78	-0.13	-0.44	-0.01	-2.36	-0.90						
19-Apr-2011	6:00:00	-5.58	-4.84	-1.58	-4.95	-0.86	-0.74	0.01	-2.42	-0.82						
19-Apr-2011	12:00:00	-7.64	-7.29	-2.56	-6.03	-1.65	-1.28	-0.28	-2.79	-1.24						
19-Apr-2011	18:00:00	-7.73	-6.24	-4.94	-6.75	-2.07	-1.92	-0.42	-3.08	-1.30						
20-Apr-2011	0:00:00	-7.73	-5.86	-4.74	-6.58	-2.31	-2.14	-0.52	-3.23	-1.32						
20-Apr-2011	6:00:00	-9.85	-9.08	-4.59	-6.55	-2.99	-2.41	-0.70	-3.32	-1.38						
20-Apr-2011	12:00:00	-11.89	-10.88	-6.63	-8.05	-3.88	-3.09	-0.85	-3.78	-1.87						
20-Apr-2011	18:00:00	-11.94	-9.18	-7.83	-8.70	-3.94	-3.58	-1.08	-4.24	-1.99						
21-Apr-2011	0:00:00	-12.27	-8.68	-7.35	-7.97	-4.06	-3.60	-1.04	-4.11	-1.82						
21-Apr-2011	6:00:00	-13.14	-10.25	-7.44	-8.08	-4.61	-3.88	-1.14	-4.24	-1.87						
21-Apr-2011	12:00:00	-13.98	-10.79	-8.12	-8.68	-4.85	-3.82	-1.30	-4.66	-2.14						
21-Apr-2011	18:00:00	-14.99	-10.72	-8.97	-9.10	-5.68	-4.35	-1.58	-4.94	-2.52						0.23
22-Apr-2011	0:00:00	-14.93	-10.10	-9.58	-9.57	-5.44	-5.17	-2.28	-5.63	-3.20						
22-Apr-2011	6:00:00	-15.23	-10.76	-9.51	-9.28	-5.48	-5.08	-2.11	-5.43	-2.98						
22-Apr-2011	12:00:00	-15.69	-10.66	-9.86	-9.46	-5.59	-4.95	-2.02	-5.48	-3.07						
22-Apr-2011	18:00:00	-15.68	-10.02	-10.17	-9.30	-5.56	-4.84	-1.99	-5.66	-2.92						
23-Apr-2011	0:00:00	-15.43	-9.39	-10.21	-9.13	-5.54	-4.94	-2.17	-5.69	-3.02						
23-Apr-2011	6:00:00	-16.71	-11.82	-10.09	-8.94	-6.08	-4.89	-2.11	-5.57	-2.97						
23-Apr-2011	12:00:00	-18.13	-13.32	-11.80	-10.31	-6.77	-5.28	-2.46	-6.14	-3.54						
23-Apr-2011	18:00:00	-17.75	-12.04	-13.45	-11.21	-6.73	-5.78	-2.71	-6.75	-3.84						
24-Apr-2011	0:00:00	-17.52	-11.50	-12.85	-10.44	-6.82	-5.59	-2.69	-6.72	-3.64						
24-Apr-2011	6:00:00	-19.35	-14.26	-12.93	-10.29	-7.67	-5.78	-2.84	-6.81	-3.75						
24-Apr-2011	12:00:00	-21.19	-16.58	-15.94	-12.32	-8.89	-6.60	-3.44	-7.92	-5.28						
24-Apr-2011	18:00:00	-21.06	-15.38	-18.49	-14.01	-8.92	-7.89	-4.27	-9.39	-6.54						
25-Apr-2011	0:00:00	-20.79	-14.93	-17.86	-13.18	-8.69	-7.80	-4.39	-9.52	-6.39						
25-Apr-2011	6:00:00	-22.15	-17.27	-17.84	-12.94	-9.70	-8.04	-4.55	-9.54	-6.60						
25-Apr-2011	12:00:00	-23.70	-18.99	-20.13	-14.94	-10.90	-9.20	-5.33	-11.04	-9.27						
25-Apr-2011	18:00:00	-23.72	-17.88	-22.51	-16.71	-10.75	-10.84	-6.52	-13.14	-11.85						
26-Apr-2011	0:00:00	-23.37	-17.34	-22.16	-16.35	-10.53	-10.76	-6.77	-13.25	-11.94						
26-Apr-2011	6:00:00	-24.11	-19.30	-22.18	-16.12	-11.61	-10.80	-6.94	-13.32	-11.98						
26-Apr-2011	12:00:00	-24.41	-19.29	-23.18	-17.33	-11.80	-11.85	-7.45	-14.44	-13.59	0.85	0.30	3.39			
26-Apr-2011	18:00:00	-21.19	-14.46	-23.77	-17.81	-9.25	-12.36	-7.91	-15.22	-14.80						0.60
27-Apr-2011	0:00:00	-20.17	-14.13	-17.14	-13.05	-9.34	-6.38	-4.61	-9.93	-8.77						
27-Apr-2011	6:00:00	-21.07	-15.57	-17.19	-12.87	-10.63	-6.93	-5.20	-10.77	-9.20						
27-Apr-2011	12:00:00	-23.46	-18.57	-20.38	-14.85	-12.22	-8.02	-6.62	-13.22	-12.48						
27-Apr-2011	18:00:00	-23.49	-17.44	-24.14	-17.68	-11.86	-9.88	-8.32	-16.22	-16.10						0.08
28-Apr-2011	0:00:00	-23.48	-17.24	-23.67	-17.25	-11.87	-9.52	-8.41	-15.96	-15.81						
28-Apr-2011	6:00:00	-24.69	-19.43	-23.91	-17.43	-12.91	-9.85	-8.74	-16.17	-16.06						
28-Apr-2011	12:00:00	-0.56	2.80	-25.51	-18.69	-0.56	-11.60	-9.72	-17.67	-18.25						
28-Apr-2011	18:00:00	-1.19	0.84	-0.46	0.54	3.27	1.78	-0.83	-2.18	-1.41						0.82
29-Apr-2011	0:00:00	-1.33	0.57	-0.91	4.39	3.49	1.73	1.07	-1.60	-0.67						
29-Apr-2011	6:00:00	-2.21	-0.42	-1.02	0.83	2.48	1.61	0.98	-1.36	-0.50						
29-Apr-2011	12:00:00	-2.63	-0.95	-2.25	-0.88	1.84	0.83	0.20	-2.12	-1.33						
29-Apr-2011	18:00:00	-2.42	-0.70	-3.74	-1.93	1.70	0.23	-0.02	-2.54	-1.42						0.01
30-Apr-2011	0:00:00	-2.84	-1.18	-3.45	-2.19	1.03	0.00	0.08	-2.46	-1.06						
30-Apr-2011	6:00:00	-4.08	-3.06	-3.78	-2.88	-0.03	-0.63	-0.16	-2.90	-1.21						
30-Apr-2011	12:00:00	-5.21	-5.20	-5.61	-4.04	-1.00	-1.59	-0.73	-3.65	-2.08						
30-Apr-2011	18:00:00	-5.05	-4.65	-7.28	-4.79	-1.19	-2.46	-1.02	-4.35	-2.41						
1-May-2011	0:00:00	-5.57	-5.04	-6.86	-4.60	-1.67	-2.64	-0.83	-4.20	-2.00						0.83
1-May-2011	6:00:00	-7.11	-7.22	-7.11	-4.38	-2.75	-3.12	-0.94	-4.42	-2.11						
1-May-2011	12:00:00	-8.89	-9.28	-9.20	-5.20	-3.68	-4.22	-1.58	-5.43	-3.30						

Date	Time	Water Level (inches)											On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mmm-yyyy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2				
1-May-2011	18:00:00	-9.12	-8.13	-11.50	-5.25	-3.80	-4.96	-1.82	-6.46	-3.72						
2-May-2011	0:00:00	-9.50	-8.08	-11.08	-4.74	-3.95	-4.92	-1.82	-6.42	-3.42						
2-May-2011	6:00:00	-11.53	-11.06	-11.56	-5.02	-4.93	-5.34	-2.03	-6.51	-3.67						
2-May-2011	12:00:00	-14.55	-13.19	-14.96	-6.20	-6.05	-6.34	-2.66	-7.77	-5.43						
2-May-2011	18:00:00	-14.83	-11.78	-18.09	-6.41	-5.96	-7.52	-3.24	-9.35	-6.86						
3-May-2011	0:00:00	-15.11	-11.02	-17.14	-5.82	-6.02	-7.57	-3.47	-9.64	-6.94						
3-May-2011	6:00:00	-17.30	-14.21	-17.22	-5.92	-6.95	-7.83	-3.70	-9.75	-7.14						
3-May-2011	12:00:00	-19.76	-16.66	-20.67	-7.58	-8.08	-9.26	-4.49	-11.34	-10.15						
3-May-2011	18:00:00	-19.83	-15.38	-23.73	-8.24	-7.97	-11.16	-5.63	-14.13	-13.39						
4-May-2011	0:00:00	-19.75	-14.60	-23.25	-7.49	-7.85	-11.26	-6.02	-14.32	-13.53						
4-May-2011	6:00:00	-19.35	-13.85	-22.93	-7.25	-7.77	-11.41	-6.37	-14.39	-13.74						
4-May-2011	12:00:00	-20.01	-14.73	-22.08	-7.07	-8.29	-10.39	-6.60	-14.79	-14.37						
4-May-2011	18:00:00	-20.07	-14.46	-23.88	-7.83	-8.27	-11.95	-7.28	-16.06	-16.47						0.06
5-May-2011	0:00:00	-20.31	-14.52	-24.09	-7.60	-8.48	-12.70	-7.60	-16.37	-16.90						
5-May-2011	6:00:00	-21.63	-16.96	-24.55	-7.84	-9.26	-13.47	-7.99	-16.80	-17.59						
5-May-2011	12:00:00	-23.51	-19.02	-26.38	-9.30	-10.36	-14.96	-9.18	-18.38	-19.90						
5-May-2011	18:00:00	-23.76	-18.23	-28.46	-10.18	-10.40	-16.98	-10.73	-20.45	-22.27						
6-May-2011	0:00:00	-23.65	-17.70	-28.72	-9.63	-10.09	-17.44	-11.44	-20.94	-22.86						
6-May-2011	6:00:00	-24.81	-19.80	-28.69	-9.23	-11.31	-17.37	-11.58	-20.86	-22.66						
6-May-2011	12:00:00	-25.76	-20.43	-29.90	-11.18	-12.11	-18.57	-12.89	-21.80	-24.28						
6-May-2011	18:00:00	-25.68	-19.56	-31.39	-11.42	-11.96	-19.64	-14.21	-23.20	-26.36						
7-May-2011	0:00:00	-25.63	-19.38	-31.30	-10.91	-11.86	-19.54	-14.56	-23.56	-26.79						
7-May-2011	6:00:00	-26.48	-21.40	-31.58	-10.90	-13.13	-19.66	-14.84	-23.48	-26.79						
7-May-2011	12:00:00	-27.39	-22.60	-32.67	-12.90	-14.38	-20.84	-15.78	-24.44	-28.02						
7-May-2011	18:00:00	-27.35	-21.48	-34.27	-14.40	-14.14	-22.90	-17.41	-25.92	-28.58						
8-May-2011	0:00:00	-27.27	-21.02	-34.48	-13.52	-13.99	-22.76	-17.86	-26.42	-28.65						
8-May-2011	6:00:00	-27.33	-20.82	-34.47	-13.24	-13.89	-22.33	-18.07	-26.67	-28.54						
8-May-2011	12:00:00	-27.79	-21.96	-34.24	-13.20	-14.65	-20.01	-17.96	-26.92	-28.72						
8-May-2011	18:00:00	-27.23	-20.03	-35.16	-14.33	-14.30	-21.75	-18.86	-27.39	-28.63						0.06
9-May-2011	0:00:00	-27.09	-19.82	-34.74	-13.42	-14.33	-21.63	-18.96	-27.59	-28.59						
9-May-2011	6:00:00	-28.09	-22.10	-34.50	-13.66	-15.46	-22.06	-19.19	-27.80	-28.53						
9-May-2011	12:00:00	-28.81	-23.67	-35.62	-15.66	-16.63	-23.23	-20.02	-28.44	-28.77						
9-May-2011	18:00:00	-28.77	-22.64	-37.03	-17.63	-16.31	-25.20	-21.56	-29.97	-28.68						
10-May-2011	0:00:00	-28.77	-22.17	-36.55	-17.51	-16.30	-25.39	-21.96	-30.69	-28.53						
10-May-2011	6:00:00	-29.55	-24.05	-36.46	-17.73	-17.79	-25.29	-22.12	-30.96	-28.47						
10-May-2011	12:00:00	-29.83	-24.94	-36.73	-19.32	-19.31	-26.44	-23.18	-31.90	-28.80						
10-May-2011	18:00:00	-29.90	-24.17	-36.50	-20.70	-19.03	-28.02	-24.58	-33.12	-28.51						
11-May-2011	0:00:00	-29.79	-23.66	-36.63	-21.02	-18.69	-28.15	-25.18	-33.93	-28.51						
11-May-2011	6:00:00	-30.00	-25.01	-36.50	-21.02	-19.77	-27.81	-25.38	-34.26	-28.46						
11-May-2011	12:00:00	-30.03	-25.94	-36.62	-21.80	-21.07	-28.72	-26.03	-34.97	-28.71						
11-May-2011	18:00:00	-29.85	-24.96	-36.75	-22.92	-20.79	-29.92	-27.16	-35.99	-28.71						
12-May-2011	0:00:00	-29.85	-24.46	-36.55	-23.02	-20.71	-29.96	-27.48	-36.28	-28.58						
12-May-2011	6:00:00	-29.94	-25.88	-36.63	-23.22	-21.59	-29.77	-27.82	-36.41	-28.58						
12-May-2011	12:00:00	-29.91	-26.44	-36.72	-23.85	-22.97	-30.40	-28.25	-36.48	-28.72						
12-May-2011	18:00:00	-29.96	-25.68	-36.63	-24.75	-22.70	-31.33	-29.34	-36.41	-28.66						
13-May-2011	0:00:00	-29.91	-25.26	-36.57	-25.07	-22.42	-31.14	-29.84	-36.42	-28.68						
13-May-2011	6:00:00	-29.97	-24.94	-36.78	-25.20	-22.11	-30.69	-30.24	-36.46	-28.74						
13-May-2011	12:00:00	-29.90	-25.67	-36.67	-25.08	-22.58	-29.55	-30.37	-36.39	-28.71						
13-May-2011	18:00:00	-29.82	-24.93	-36.62	-25.36	-22.57	-29.62	-30.53	-36.42	-28.71						0.04
14-May-2011	0:00:00	-29.91	-24.57	-36.66	-25.46	-22.28	-29.44	-30.64	-36.28	-28.64						
14-May-2011	6:00:00	-30.06	-26.45	-36.73	-25.55	-23.49	-29.23	-30.79	-36.36	-28.68						
14-May-2011	12:00:00	-29.91	-27.41	-36.72	-26.09	-25.39	-30.21	-31.28	-36.48	-28.76						
14-May-2011	18:00:00	-29.93	-26.50	-36.67	-26.75	-25.10	-31.80	-32.15	-36.39	-28.52						
15-May-2011	0:00:00	-29.88	-25.62	-36.58	-27.16	-24.14	-31.98	-32.83	-36.36	-28.46						
15-May-2011	6:00:00	-29.87	-26.25	-36.58	-26.52	-24.10	-29.79	-33.10	-36.35	-28.47						
15-May-2011	12:00:00	-1.11	-8.98	-36.60	-26.91	-13.73	-29.17	-33.59	-36.33	-28.39						
15-May-2011	18:00:00	-1.44	-1.14	-13.32	-10.11	-10.25	-7.63	-34.00	-36.32	-28.35						1.51
16-May-2011	0:00:00	-1.93	-1.49	-1.12	-5.97	-10.64	-3.51	-25.06	-31.60	-28.44						
16-May-2011	6:00:00	-2.53	-3.16	-1.84	-6.41	-11.74	-4.28	-18.24	-30.94	-28.53						
16-May-2011	12:00:00	-3.25	-5.62	-3.43	-7.32	-13.29	-5.38	-18.19	-33.15	-28.45						
16-May-2011	18:00:00	-3.51	-5.64	-4.81	-8.35	-13.51	-7.03	-20.58	-35.10	-28.47						0.01
17-May-2011	0:00:00	-3.98	-6.06	-4.71	-8.02	-13.65	-7.22	-21.47	-35.94	-28.38						
17-May-2011	6:00:00	-5.05	-8.08	-5.24	-7.30	-14.77	-7.72	-22.02	-36.30	-28.54						
17-May-2011	12:00:00	-6.68	-10.37	-7.11	-7.67	-16.13	-8.89	-23.06	-36.30	-28.56						
17-May-2011	18:00:00	-7.34	-9.89	-9.44	-7.81	-16.34	-11.19	-24.83	-36.16	-28.50						0.06
18-May-2011	0:00:00	-7.85	-9.80	-9.79	-5.11	-16.42	-12.19	-25.82	-36.28	-28.50						
18-May-2011	6:00:00	-9.60	-12.02	-10.29	-5.70	-17.72	-13.32	-26.41	-36.29	-28.51						
18-May-2011	12:00:00	-11.36	-13.32	-13.10	-7.65	-18.62	-15.28	-27.13	-36.30	-28.52						
18-May-2011	18:00:00	-12.11	-12.65	-15.79	-8.10	-18.69	-17.66	-28.38	-36.30	-28.48						0.01



Date	Time	Water Level (inches)											On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mmm-yyyy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2				
19-May-2011	0:00:00	-12.91	-12.68	-15.78	-7.29	-18.92	-18.75	-29.23	-36.27	-28.42						
19-May-2011	6:00:00	-14.47	-14.03	-16.50	-7.32	-19.77	-19.56	-29.95	-36.34	-28.56						
19-May-2011	12:00:00	-16.50	-15.75	-18.55	-8.54	-21.03	-20.86	-30.72	-36.34	-28.60						
19-May-2011	18:00:00	-16.61	-14.80	-20.94	-8.76	-20.98	-22.86	-31.75	-36.15	-28.40						
20-May-2011	0:00:00	-17.16	-14.79	-20.74	-7.89	-21.13	-23.11	-32.71	-36.14	-28.32						
20-May-2011	6:00:00	-18.51	-16.67	-21.27	-7.92	-22.12	-23.43	-33.48	-36.22	-28.59						
20-May-2011	12:00:00	-20.22	-18.39	-23.35	-9.72	-24.21	-24.54	-34.34	-36.26	-28.51						
20-May-2011	18:00:00	-20.37	-17.57	-25.86	-10.53	-24.34	-26.68	-35.66	-36.10	-28.46						
21-May-2011	0:00:00	-20.72	-17.60	-26.16	-9.34	-24.33	-27.15	-36.66	-36.12	-28.42						
21-May-2011	6:00:00	-21.84	-19.77	-26.41	-9.34	-25.54	-27.44	-37.08	-36.10	-28.51						
21-May-2011	12:00:00	-23.30	-21.28	-28.50	-11.64	-27.93	-28.53	-37.13	-36.21	-28.52						
21-May-2011	18:00:00	-23.43	-20.48	-30.93	-12.95	-28.16	-30.79	-36.98	-36.10	-28.46						
22-May-2011	0:00:00	-23.78	-20.18	-31.51	-11.96	-27.98	-31.53	-36.90	-35.97	-28.41						
22-May-2011	6:00:00	-24.72	-22.34	-31.96	-11.97	-28.93	-31.70	-37.02	-36.06	-28.41						
22-May-2011	12:00:00	-25.97	-23.75	-33.64	-14.16	-31.01	-32.42	-37.16	-36.15	-28.59						
22-May-2011	18:00:00	-26.34	-23.15	-35.48	-15.83	-31.18	-33.70	-37.12	-36.08	-28.42						
23-May-2011	0:00:00	-26.31	-22.55	-36.12	-15.26	-30.82	-34.22	-37.09	-36.05	-28.44						
23-May-2011	6:00:00	-26.99	-24.15	-36.33	-15.10	-31.22	-34.10	-37.06	-36.04	-28.45						
23-May-2011	12:00:00	-28.01	-25.67	-36.80	-16.91	-32.87	-34.40	-37.19	-36.10	-28.51						
23-May-2011	18:00:00	-1.47	-4.82	-36.74	-19.00	-21.79	-35.14	-36.98	-35.91	-28.42						1.33
24-May-2011	0:00:00	-2.04	-4.37	-4.41	-1.47	-20.74	-12.78	-37.00	-35.97	-28.48						
24-May-2011	6:00:00	-2.85	-7.00	-2.50	-1.09	-21.26	-13.38	-37.01	-35.92	-28.46						
24-May-2011	12:00:00	-3.81	-9.82	-4.41	-3.30	-22.81	-15.49	-37.01	-35.97	-28.54						
24-May-2011	18:00:00	-3.08	-6.82	-6.10	-5.28	-22.29	-19.40	-36.82	-35.80	-28.39						0.20
25-May-2011	0:00:00	-1.68	-2.66	-2.88	-4.37	-21.31	-18.81	-36.92	-35.81	-28.34						
25-May-2011	6:00:00	-2.30	-4.96	-0.99	-4.35	-21.73	-15.84	-37.03	-35.94	-28.47						
25-May-2011	12:00:00	-3.06	-8.20	-2.72	-6.09	-24.15	-17.59	-37.04	-35.90	-28.46						
25-May-2011	18:00:00	-3.30	-7.46	-4.52	-7.18	-23.68	-21.86	-36.95	-35.84	-28.36						
26-May-2011	0:00:00	-3.57	-7.62	-4.48	-6.95	-23.65	-22.86	-37.04	-35.97	-28.54						
26-May-2011	6:00:00	-5.28	-11.19	-4.94	-7.18	-25.35	-23.40	-36.96	-35.78	-28.41						
26-May-2011	12:00:00	-7.65	-13.91	-8.16	-8.76	-28.11	-25.12	-36.98	-35.97	-28.48						
26-May-2011	18:00:00	-8.18	-13.61	-11.92	-10.23	-28.16	-28.47	-37.04	-36.00	-28.51						
27-May-2011	0:00:00	-8.66	-13.11	-12.25	-9.67	-27.97	-29.74	-37.00	-35.79	-28.41						
27-May-2011	6:00:00	-11.09	-15.58	-12.62	-9.64	-28.91	-30.12	-37.04	-35.93	-28.38						
27-May-2011	12:00:00	-14.34	-17.79	-16.87	-11.92	-31.16	-31.02	-37.07	-35.93	-28.53						
27-May-2011	18:00:00	-15.09	-17.15	-20.41	-13.24	-31.88	-32.96	-36.82	-35.74	-28.11						
28-May-2011	0:00:00	-15.75	-16.97	-20.47	-12.44	-31.69	-34.09	-36.98	-35.93	-28.36						
28-May-2011	6:00:00	-17.71	-19.13	-20.88	-12.28	-32.32	-34.28	-36.97	-35.94	-28.32						
28-May-2011	12:00:00	-17.97	-19.07	-23.41	-14.63	-33.09	-34.83	-36.91	-35.85	-28.26						
28-May-2011	18:00:00	-18.06	-18.38	-24.01	-14.21	-32.99	-35.41	-36.86	-35.92	-28.21						0.36
29-May-2011	0:00:00	-18.59	-18.44	-24.12	-13.70	-33.17	-35.48	-36.85	-35.76	-28.14						
29-May-2011	6:00:00	-19.88	-20.54	-24.48	-13.91	-32.99	-35.76	-36.91	-35.86	-28.29						
29-May-2011	12:00:00	-21.78	-22.47	-26.50	-16.41	-33.04	-36.13	-36.92	-35.90	-28.29						
29-May-2011	18:00:00	-22.20	-21.69	-28.89	-19.12	-33.07	-36.57	-36.86	-35.82	-28.23						0.01
30-May-2011	0:00:00	-22.33	-21.23	-29.67	-19.19	-33.08	-36.49	-36.83	-35.78	-28.28						
30-May-2011	6:00:00	-23.58	-23.62	-29.82	-18.95	-33.08	-36.58	-36.84	-35.91	-28.26						
30-May-2011	12:00:00	-25.28	-25.31	-31.77	-20.81	-32.96	-36.58	-36.89	-35.87	-28.30						
30-May-2011	18:00:00	-25.43	-24.53	-33.86	-22.90	-32.99	-36.48	-36.90	-35.86	-28.16						
31-May-2011	0:00:00	-25.52	-23.97	-34.23	-23.18	-32.95	-36.54	-36.88	-35.85	-28.17						
31-May-2011	6:00:00	-26.84	-26.42	-34.54	-23.25	-33.04	-36.44	-36.88	-35.84	-28.21						
31-May-2011	12:00:00	-28.34	-27.59	-36.42	-24.57	-32.84	-36.66	-36.88	-35.88	-28.26						
31-May-2011	18:00:00	-28.62	-26.58	-36.43	-26.34	-32.90	-36.54	-36.84	-35.64	-28.14						
1-Jun-2011	0:00:00	-28.74	-26.21	-36.51	-26.91	-32.92	-36.52	-36.91	-35.80	-28.16						
1-Jun-2011	6:00:00	-29.43	-27.94	-36.62	-27.17	-32.97	-36.63	-37.06	-35.88	-28.32	0.00	0.00	3.30			
1-Jun-2011	12:00:00	-29.72	-28.68	-36.56	-28.65	-32.93	-36.44	-36.88	-35.91	-28.30						
1-Jun-2011	18:00:00	-29.73	-28.17	-36.57	-29.00	-32.84	-36.39	-36.78	-35.90	-28.30						
2-Jun-2011	0:00:00	-29.59	-27.59	-36.60	-29.07	-32.95	-36.31	-36.70	-35.70	-28.17						
2-Jun-2011	6:00:00	-29.76	-28.67	-36.58	-29.82	-32.90	-36.45	-36.84	-35.90	-28.33						
2-Jun-2011	12:00:00	-29.75	-28.64	-36.64	-30.59	-33.14	-36.42	-36.84	-35.91	-28.29						
2-Jun-2011	18:00:00	-30.00	-28.85	-36.66	-31.32	-33.27	-36.75	-37.10	-36.21	-28.46						
3-Jun-2011	0:00:00	-30.11	-28.91	-36.79	-31.65	-32.85	-36.72	-37.12	-36.32	-28.51						
3-Jun-2011	6:00:00	-29.64	-28.53	-36.97	-31.60	-32.79	-36.26	-36.78	-35.88	-28.14						
3-Jun-2011	12:00:00	-29.59	-28.44	-36.54	-32.18	-33.61	-36.26	-36.70	-35.76	-28.09						
3-Jun-2011	18:00:00	-30.41	-29.31	-36.28	-33.39	-33.88	-37.12	-37.46	-36.58	-28.90						
4-Jun-2011	0:00:00	-30.71	-29.57	-37.28	-34.04	-32.77	-37.35	-37.79	-36.86	-29.18						
4-Jun-2011	6:00:00	-29.60	-28.36	-37.64	-33.24	-32.61	-36.22	-36.61	-35.75	-28.00						
4-Jun-2011	12:00:00	-29.46	-28.29	-36.55	-33.51	-33.11	-36.15	-36.50	-35.64	-27.90						
4-Jun-2011	18:00:00	-29.94	-28.82	-36.33	-34.06	-33.14	-36.63	-36.98	-36.06	-28.47						
5-Jun-2011	0:00:00	-29.99	-28.82	-36.80	-34.16	-32.86	-36.57	-36.96	-36.05	-28.48						

Date	Time	Water Level (inches)														On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mm-yy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2							
5-Jun-2011	6:00:00	-29.73	-28.52	-36.75	-33.95	-32.53	-36.38	-36.77	-35.79	-28.26									
5-Jun-2011	12:00:00	-29.47	-28.19	-36.54	-33.54	-33.03	-36.07	-36.42	-35.50	-27.90									
5-Jun-2011	18:00:00	-29.93	-28.73	-36.20	-34.02	-33.21	-36.50	-36.85	-36.04	-28.29									0.09
6-Jun-2011	0:00:00	-30.07	-28.80	-36.74	-34.14	-32.87	-36.66	-36.96	-36.12	-28.35									
6-Jun-2011	6:00:00	-29.67	-28.47	-36.87	-33.74	-32.60	-36.20	-36.50	-35.75	-28.15									
6-Jun-2011	12:00:00	-29.53	-28.25	-36.54	-33.56	-33.46	-36.07	-36.41	-35.66	-27.93									
6-Jun-2011	18:00:00	-30.36	-29.07	-36.37	-34.40	-33.81	-36.92	-37.19	-36.36	-28.75									
7-Jun-2011	0:00:00	-30.69	-29.44	-37.16	-34.72	-32.97	-37.33	-37.58	-36.78	-29.11									
7-Jun-2011	6:00:00	-29.79	-28.61	-37.63	-33.78	-32.91	-36.36	-36.65	-35.87	-28.17									
7-Jun-2011	12:00:00	-29.79	-28.53	-36.66	-33.66	-33.27	-36.26	-36.55	-35.75	-28.17									
7-Jun-2011	18:00:00	-30.17	-28.95	-36.63	-34.08	-33.49	-36.79	-37.06	-36.22	-28.58									
8-Jun-2011	0:00:00	-30.45	-29.22	-37.02	-34.17	-33.04	-37.03	-37.25	-36.52	-28.86									
8-Jun-2011	6:00:00	-29.88	-28.64	-37.22	-33.72	-32.90	-36.51	-36.65	-35.91	-28.34									
8-Jun-2011	12:00:00	-29.78	-28.49	-36.75	-33.54	-33.33	-36.36	-36.58	-35.84	-28.06									
8-Jun-2011	18:00:00	-30.23	-28.94	-36.60	-33.96	-33.44	-36.76	-37.07	-36.26	-28.64									
9-Jun-2011	0:00:00	-30.47	-29.14	-37.05	-34.14	-33.10	-36.88	-37.22	-36.47	-28.71									
9-Jun-2011	6:00:00	-29.97	-28.71	-37.17	-33.69	-32.97	-36.52	-36.71	-35.93	-28.36									
9-Jun-2011	12:00:00	-29.87	-28.64	-36.81	-33.60	-33.23	-36.39	-36.61	-35.97	-28.32									
9-Jun-2011	18:00:00	-30.19	-28.98	-36.76	-33.92	-33.44	-36.81	-37.00	-36.20	-28.57									
10-Jun-2011	0:00:00	-30.38	-29.14	-37.08	-34.16	-32.80	-36.91	-37.18	-36.52	-28.87									
10-Jun-2011	6:00:00	-29.81	-28.66	-37.14	-33.50	-32.90	-36.33	-36.60	-35.75	-28.14									
10-Jun-2011	12:00:00	-29.90	-28.60	-36.54	-33.57	-33.53	-36.38	-36.73	-35.94	-28.27									
10-Jun-2011	18:00:00	-30.47	-29.12	-36.61	-34.12	-33.75	-36.93	-37.28	-36.48	-28.86									2.01
11-Jun-2011	0:00:00	-30.72	-29.54	-37.23	-34.47	-33.07	-37.17	-37.57	-36.92	-29.11									
11-Jun-2011	6:00:00	-30.00	-28.78	-37.52	-33.70	-32.87	-36.55	-36.78	-36.15	-28.44									
11-Jun-2011	12:00:00	-29.95	-28.67	-36.88	-33.52	-33.33	-36.39	-36.79	-35.94	-28.30									
11-Jun-2011	18:00:00	-30.38	-29.01	-36.69	-33.98	-33.43	-36.82	-37.10	-36.36	-28.72									0.01
12-Jun-2011	0:00:00	-30.38	-29.08	-37.06	-34.08	-32.90	-36.79	-37.26	-36.52	-28.77									
12-Jun-2011	6:00:00	-29.96	-28.62	-37.17	-33.58	-32.86	-36.33	-36.73	-35.96	-28.32									
12-Jun-2011	12:00:00	-29.82	-28.56	-36.69	-33.48	-33.25	-36.26	-36.66	-35.91	-28.17									
12-Jun-2011	18:00:00	-30.24	-28.98	-36.60	-33.90	-33.67	-36.79	-37.07	-36.27	-28.62									
13-Jun-2011	0:00:00	-30.60	-29.33	-37.05	-34.34	-33.01	-37.17	-37.52	-36.68	-29.00									
13-Jun-2011	6:00:00	-30.03	-28.86	-37.54	-33.76	-33.05	-36.58	-36.90	-36.04	-28.45									
13-Jun-2011	12:00:00	-30.09	-28.85	-36.86	-33.69	-33.98	-36.49	-36.94	-36.05	-28.40									
13-Jun-2011	18:00:00	-30.91	-29.74	-36.87	-34.64	-34.22	-37.42	-37.79	-37.01	-29.32									
14-Jun-2011	0:00:00	-31.08	-29.96	-37.74	-34.78	-32.98	-37.60	-38.02	-37.13	-29.43									
14-Jun-2011	6:00:00	-30.01	-28.80	-37.95	-33.75	-32.98	-36.54	-36.86	-36.10	-28.36									
14-Jun-2011	12:00:00	-30.01	-28.88	-36.87	-33.62	-34.09	-36.49	-36.94	-36.16	-28.40									
14-Jun-2011	18:00:00	-31.13	-29.85	-36.70	-34.78	-34.59	-37.60	-37.97	-37.16	-29.43									
15-Jun-2011	0:00:00	-31.69	-30.42	-37.93	-35.39	-33.16	-38.08	-38.50	-37.66	-30.08									
15-Jun-2011	6:00:00	-30.11	-28.94	-38.47	-33.80	-32.95	-36.57	-36.89	-36.04	-28.47									
15-Jun-2011	12:00:00	-29.99	-28.76	-36.90	-33.62	-34.66	-36.39	-36.79	-36.02	-28.38									
15-Jun-2011	18:00:00	-31.63	-30.44	-36.74	-35.42	-34.19	-38.01	-38.51	-37.68	-30.08									
16-Jun-2011	0:00:00	-31.16	-29.91	-38.36	-34.90	-32.86	-37.70	-38.11	-37.29	-29.56									
16-Jun-2011	6:00:00	-29.97	-28.66	-38.01	-33.59	-32.91	-36.32	-36.77	-35.92	-28.35									
16-Jun-2011	12:00:00	-30.02	-28.71	-36.69	-33.69	-33.35	-36.36	-36.84	-36.00	-28.26									
16-Jun-2011	18:00:00	-30.41	-29.13	-36.73	-34.04	-33.37	-36.76	-37.21	-36.44	-28.71									
17-Jun-2011	0:00:00	-30.41	-29.12	-37.08	-34.13	-32.98	-36.87	-37.24	-36.44	-28.81									
17-Jun-2011	6:00:00	-29.95	-28.70	-37.21	-33.64	-32.84	-36.40	-36.77	-35.97	-28.30									
17-Jun-2011	12:00:00	-29.77	-28.67	-36.79	-33.56	-33.82	-36.26	-36.73	-35.84	-28.20									
17-Jun-2011	18:00:00	-30.71	-29.54	-36.57	-34.35	-33.52	-37.12	-37.56	-36.89	-29.11									
18-Jun-2011	0:00:00	-30.59	-29.26	-37.45	-34.23	-32.79	-36.94	-37.36	-36.68	-28.94									
18-Jun-2011	6:00:00	-29.81	-28.59	-37.27	-33.53	-32.78	-36.24	-36.64	-35.92	-28.18									
18-Jun-2011	12:00:00	-29.69	-28.46	-36.57	-33.32	-32.96	-36.06	-36.49	-35.85	-27.96									
18-Jun-2011	18:00:00	-30.03	-28.80	-36.54	-33.69	-33.57	-36.33	-36.83	-36.16	-28.28									
19-Jun-2011	0:00:00	-30.48	-29.25	-36.72	-34.02	-32.80	-36.85	-37.25	-36.56	-28.80									
19-Jun-2011	6:00:00	-29.89	-28.61	-37.20	-33.46	-32.68	-36.25	-36.72	-36.00	-28.20									
19-Jun-2011	12:00:00	-29.63	-28.42	-36.56	-33.36	-33.11	-36.03	-36.40	-35.73	-27.98									
19-Jun-2011	18:00:00	-30.17	-28.90	-36.40	-33.86	-33.31	-36.55	-36.91	-36.26	-28.42									
20-Jun-2011	0:00:00	-30.26	-28.97	-36.90	-33.92	-32.89	-36.58	-37.03	-36.35	-28.59									
20-Jun-2011	6:00:00	-29.88	-28.76	-36.99	-33.59	-33.17	-36.16	-36.73	-36.03	-28.33									
20-Jun-2011	12:00:00	-30.03	-28.96	-36.67	-33.80	-33.88	-36.45	-36.85	-36.15	-28.48									
20-Jun-2011	18:00:00	-30.75	-29.63	-36.79	-34.60	-33.75	-37.24	-37.58	-36.88	-29.17									0.20
21-Jun-2011	0:00:00	-30.72	-29.52	-37.60	-34.42	-32.87	-37.14	-37.45	-36.82	-29.08									
21-Jun-2011	6:00:00	-29.88	-28.65	-37.50	-33.58	-32.63	-36.26	-36.62	-35.94	-28.29									
21-Jun-2011	12:00:00	-29.59	-28.37	-36.58	-33.35	-33.28	-35.97	-36.34	-35.73	-28.05									
21-Jun-2011	18:00:00	-30.20	-29.00	-36.37	-33.90	-33.43	-36.55	-36.96	-36.23	-28.63									
22-Jun-2011	0:00:00	-30.33	-29.18	-36.96	-34.02	-32.98	-36.79	-37.16	-36.56	-28.75									
22-Jun-2011	6:00:00	-29.93	-28.76	-37.18	-33.64	-32.67	-36.32	-36.68	-36.06	-28.32									

Date	Time	Water Level (inches)											On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mmm-yyyy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2				
22-Jun-2011	12:00:00	-29.70	-28.41	-36.82	-33.35	-32.98	-36.07	-36.44	-35.84	-28.04						
22-Jun-2011	18:00:00	-29.97	-28.78	-36.48	-33.64	-33.17	-36.36	-36.67	-36.09	-28.35						
23-Jun-2011	0:00:00	-30.06	-28.90	-36.80	-33.70	-32.83	-36.45	-36.86	-36.15	-28.46						
23-Jun-2011	6:00:00	-29.85	-28.59	-36.91	-33.46	-32.78	-36.10	-36.59	-35.90	-28.23						
23-Jun-2011	12:00:00	-29.87	-28.52	-36.66	-33.45	-33.17	-36.10	-36.48	-35.79	-28.12						
23-Jun-2011	18:00:00	-30.23	-28.89	-36.56	-33.80	-33.32	-36.45	-36.88	-36.16	-28.51						0.01
24-Jun-2011	0:00:00	-30.20	-29.10	-36.88	-33.89	-32.97	-36.69	-36.97	-36.28	-28.66						
24-Jun-2011	6:00:00	-29.82	-28.64	-37.09	-33.53	-32.85	-36.20	-36.58	-35.93	-28.22						
24-Jun-2011	12:00:00	-29.76	-28.59	-36.66	-33.40	-33.01	-36.18	-36.47	-35.92	-28.15						
24-Jun-2011	18:00:00	-30.00	-28.74	-36.60	-33.60	-33.20	-36.44	-36.72	-36.05	-28.33						0.01
25-Jun-2011	0:00:00	-30.25	-28.90	-36.86	-33.87	-32.95	-36.52	-36.85	-36.33	-28.58						
25-Jun-2011	6:00:00	-29.88	-28.56	-36.99	-33.53	-32.85	-36.21	-36.59	-35.96	-28.27						
25-Jun-2011	12:00:00	-29.70	-28.59	-36.68	-33.33	-34.06	-36.12	-36.46	-35.76	-28.14						
25-Jun-2011	18:00:00	-31.08	-29.69	-36.52	-34.62	-34.18	-37.40	-37.81	-36.99	-29.41						0.11
26-Jun-2011	0:00:00	-31.11	-29.82	-37.83	-34.66	-32.85	-37.36	-37.75	-37.14	-29.38						
26-Jun-2011	6:00:00	-29.72	-28.59	-37.84	-33.35	-32.60	-36.12	-36.41	-35.81	-28.12						
26-Jun-2011	12:00:00	-29.63	-28.38	-36.51	-33.30	-32.86	-36.06	-36.35	-35.58	-27.99						
26-Jun-2011	18:00:00	-29.83	-28.61	-36.33	-33.52	-32.93	-36.20	-36.54	-35.96	-28.26						
27-Jun-2011	0:00:00	-29.76	-28.56	-36.62	-33.48	-32.66	-36.28	-36.50	-35.84	-28.18						
27-Jun-2011	6:00:00	-29.63	-28.37	-36.63	-33.33	-33.07	-36.01	-36.38	-35.79	-28.02						
27-Jun-2011	12:00:00	-29.95	-28.67	-36.40	-33.63	-33.29	-36.30	-36.67	-36.09	-28.35						
27-Jun-2011	18:00:00	-30.19	-28.88	-36.80	-33.81	-33.07	-36.69	-36.86	-36.24	-28.54						0.86
28-Jun-2011	0:00:00	-30.11	-28.74	-36.94	-33.78	-32.72	-36.50	-36.84	-36.15	-28.40						
28-Jun-2011	6:00:00	-29.77	-28.44	-36.81	-33.29	-32.65	-36.08	-36.42	-35.78	-28.06						
28-Jun-2011	12:00:00	-29.61	-28.30	-36.49	-33.24	-32.80	-35.89	-36.26	-35.66	-27.91						
28-Jun-2011	18:00:00	-29.90	-28.59	-36.36	-33.60	-32.95	-36.26	-36.60	-35.93	-28.28						
29-Jun-2011	0:00:00	-29.99	-28.60	-36.68	-33.70	-32.65	-36.36	-36.73	-35.99	-28.21						
29-Jun-2011	6:00:00	-29.61	-28.42	-36.78	-33.39	-32.66	-36.04	-36.47	-35.81	-27.99						
29-Jun-2011	12:00:00	-29.52	-28.37	-36.52	-33.33	-33.16	-36.00	-36.47	-35.75	-28.03						
29-Jun-2011	18:00:00	-29.95	-28.89	-36.40	-33.80	-33.34	-36.40	-36.86	-36.28	-28.51						0.01
30-Jun-2011	0:00:00	-30.21	-29.10	-36.93	-33.96	-32.69	-36.60	-37.10	-36.40	-28.75						
30-Jun-2011	6:00:00	-29.49	-28.36	-37.10	-33.38	-32.57	-35.96	-36.42	-35.74	-28.03						
30-Jun-2011	12:00:00	-29.53	-28.40	-36.52	-33.24	-33.28	-35.85	-36.36	-35.69	-27.92						
30-Jun-2011	18:00:00	-30.27	-29.00	-36.39	-33.94	-33.79	-36.70	-37.08	-36.42	-28.69						
1-Jul-2011	0:00:00	-30.66	-29.49	-37.11	-34.38	-32.62	-37.05	-37.51	-36.87	-29.12						
1-Jul-2011	6:00:00	-29.47	-28.29	-37.57	-33.20	-32.62	-35.95	-36.30	-35.75	-27.94						
1-Jul-2011	12:00:00	-29.46	-28.23	-36.42	-33.28	-33.07	-35.91	-36.38	-35.63	-27.94						
1-Jul-2011	18:00:00	-29.90	-28.74	-36.38	-33.78	-33.85	-36.36	-36.78	-36.14	-28.38						
2-Jul-2011	0:00:00	-30.71	-29.49	-36.88	-34.49	-32.65	-37.17	-37.61	-37.04	-29.29						
2-Jul-2011	6:00:00	-29.60	-28.31	-37.69	-33.36	-32.51	-36.01	-36.36	-35.85	-28.04						
2-Jul-2011	12:00:00	-29.40	-28.11	-36.50	-33.10	-33.11	-35.82	-36.16	-35.52	-27.88						
2-Jul-2011	18:00:00	-29.87	-28.61	-36.22	-33.72	-33.08	-36.36	-36.70	-36.11	-28.39						
3-Jul-2011	0:00:00	-29.99	-28.68	-36.73	-33.77	-32.57	-36.45	-36.79	-36.09	-28.44						
3-Jul-2011	6:00:00	-29.42	-28.11	-36.88	-33.28	-32.50	-35.89	-36.19	-35.63	-27.96						
3-Jul-2011	12:00:00	-29.39	-28.06	-36.30	-33.18	-32.47	-35.86	-36.25	-35.69	-27.81						
3-Jul-2011	18:00:00	-29.45	-28.11	-36.39	-33.23	-32.80	-35.98	-36.28	-35.63	-27.85						
4-Jul-2011	0:00:00	-29.70	-28.34	-36.38	-33.51	-32.65	-36.16	-36.54	-35.82	-28.23						
4-Jul-2011	6:00:00	-29.46	-28.17	-36.62	-33.30	-32.32	-35.94	-36.31	-35.81	-28.05						
4-Jul-2011	12:00:00	-29.23	-27.88	-36.33	-32.96	-32.74	-35.65	-36.14	-35.42	-27.76						
4-Jul-2011	18:00:00	-29.69	-28.28	-36.13	-33.39	-32.90	-36.09	-36.48	-35.81	-28.16						0.03
5-Jul-2011	0:00:00	-29.79	-28.37	-36.51	-33.62	-32.44	-36.21	-36.60	-36.05	-28.29						
5-Jul-2011	6:00:00	-29.28	-27.92	-36.62	-33.10	-32.47	-35.74	-36.13	-35.58	-27.91						
5-Jul-2011	12:00:00	-29.36	-28.01	-36.15	-33.17	-32.44	-35.76	-36.11	-35.54	-27.92						
5-Jul-2011	18:00:00	-29.31	-28.07	-36.28	-33.20	-32.45	-35.89	-36.19	-35.62	-27.92						
6-Jul-2011	0:00:00	-29.28	-28.08	-36.32	-33.24	-32.51	-35.83	-36.22	-35.61	-27.91						
6-Jul-2011	6:00:00	-29.29	-27.94	-36.39	-33.23	-32.36	-35.74	-36.18	-35.60	-27.96						
6-Jul-2011	12:00:00	-29.36	-27.98	-36.28	-33.16	-31.61	-35.70	-36.29	-35.63	-27.91						
6-Jul-2011	18:00:00	1.92	5.64	-36.25	7.03	7.13	-24.75	-36.34	-35.88	-28.03						2.18
7-Jul-2011	0:00:00	-1.56	-0.72	-36.43	4.04	4.01	-32.20	-36.50	-35.91	-28.15						
7-Jul-2011	6:00:00	-2.10	-2.24	-36.66	0.24	2.95	-35.40	-36.20	-35.58	-27.90						
7-Jul-2011	12:00:00	-2.87	-3.90	-36.28	-1.32	1.94	-35.82	-36.04	-35.48	-27.74						
7-Jul-2011	18:00:00	-3.66	-4.50	-36.08	-2.51	1.30	-36.18	-36.40	-35.80	-28.10						0.01
8-Jul-2011	0:00:00	-4.21	-5.18	-36.57	-3.27	0.65	-36.28	-36.38	-35.87	-28.09						
8-Jul-2011	6:00:00	-5.41	-7.54	-36.56	-4.60	-0.34	-35.94	-36.20	-35.50	-27.78						
8-Jul-2011	12:00:00	-7.27	-10.23	-36.19	-5.47	-1.06	-35.80	-36.11	-35.55	-27.74						
8-Jul-2011	18:00:00	-8.30	-10.44	-36.15	-5.92	-1.22	-35.90	-36.17	-35.48	-27.80						
9-Jul-2011	0:00:00	-8.53	-10.36	-36.13	-5.58	-1.76	-36.06	-36.36	-35.80	-27.94						
9-Jul-2011	6:00:00	-8.48	-9.16	-36.31	-6.35	-3.20	-35.83	-36.18	-35.62	-27.80						
9-Jul-2011	12:00:00	-11.46	-12.66	-36.21	-7.62	-4.46	-35.92	-36.02	-35.54	-27.73						

Date	Time	Water Level (inches)											On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mmm-yyyy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2				
9-Jul-2011	18:00:00	-12.71	-13.11	-36.08	-7.95	-5.24	-36.32	-36.64	-36.02	-28.26						0.2
10-Jul-2011	0:00:00	-13.87	-13.58	-36.62	-8.67	-5.60	-36.60	-36.91	-36.32	-28.52						
10-Jul-2011	6:00:00	-15.56	-14.64	-36.99	-9.75	-7.52	-35.80	-36.12	-35.55	-27.78						
10-Jul-2011	12:00:00	-18.03	-16.79	-36.22	-11.42	-8.41	-35.76	-35.99	-35.46	-27.78						
10-Jul-2011	18:00:00	-19.01	-16.97	-36.09	-11.22	-8.93	-36.19	-36.38	-35.86	-28.08						
11-Jul-2011	0:00:00	-19.56	-17.09	-36.54	-11.62	-9.55	-36.34	-36.66	-36.12	-28.18						
11-Jul-2011	6:00:00	-20.16	-17.69	-36.72	-12.69	-11.80	-35.82	-36.00	-35.46	-27.70						
11-Jul-2011	12:00:00	-21.59	-19.32	-36.27	-14.42	-11.84	-35.88	-36.07	-35.48	-27.61						
11-Jul-2011	18:00:00	-21.91	-18.59	-36.20	-13.58	-12.03	-35.83	-35.98	-35.49	-27.64						
12-Jul-2011	0:00:00	-22.40	-18.98	-36.08	-13.96	-13.46	-35.86	-36.08	-35.56	-27.72						
12-Jul-2011	6:00:00	-23.25	-20.01	-36.10	-15.77	-15.91	-35.95	-36.22	-35.61	-27.85						
12-Jul-2011	12:00:00	-24.23	-21.41	-36.25	-17.92	-15.95	-35.86	-36.05	-35.46	-27.76						
12-Jul-2011	18:00:00	-24.69	-21.20	-36.10	-18.51	-15.73	-36.03	-36.26	-35.67	-27.98						
13-Jul-2011	0:00:00	-24.73	-20.91	-36.36	-18.53	-17.90	-35.82	-36.04	-35.44	-27.68						
13-Jul-2011	6:00:00	-25.77	-22.56	-36.03	-20.39	-19.18	-36.06	-36.16	-35.67	-27.92						
13-Jul-2011	12:00:00	-26.23	-23.18	-36.40	-21.70	-19.12	-35.85	-35.95	-35.43	-27.73						
13-Jul-2011	18:00:00	-26.43	-22.77	-36.12	-22.14	-19.63	-35.70	-35.84	-35.28	-27.61						
14-Jul-2011	0:00:00	-26.95	-22.92	-35.91	-22.71	-21.29	-35.88	-36.12	-35.60	-27.82						
14-Jul-2011	6:00:00	-27.59	-24.26	-36.24	-23.92	-23.95	-35.94	-36.10	-35.54	-27.80						
14-Jul-2011	12:00:00	-28.16	-25.18	-36.21	-25.07	-25.93	-35.77	-35.99	-35.37	-27.67						
14-Jul-2011	18:00:00	-29.81	-26.09	-36.03	-27.21	-25.89	-37.02	-37.37	-36.78	-29.00						0.1
15-Jul-2011	0:00:00	-30.13	-25.82	-37.46	-27.71	-25.59	-37.35	-37.46	-36.83	-29.22						
15-Jul-2011	6:00:00	-29.22	-25.70	-37.64	-27.09	-27.91	-35.95	-36.11	-35.49	-27.80						
15-Jul-2011	12:00:00	-29.43	-26.70	-36.20	-28.02	-29.73	-35.89	-36.17	-35.58	-27.87						
15-Jul-2011	18:00:00	-30.60	-27.34	-36.26	-29.81	-29.89	-37.17	-37.42	-36.86	-29.07						
16-Jul-2011	0:00:00	-30.85	-27.33	-37.48	-30.36	-29.08	-37.44	-37.58	-37.04	-29.36						
16-Jul-2011	6:00:00	-29.34	-27.06	-37.75	-29.31	-31.04	-35.83	-36.07	-35.40	-27.76						
16-Jul-2011	12:00:00	-29.40	-27.94	-36.16	-30.11	-32.66	-35.92	-36.08	-35.52	-27.85						
16-Jul-2011	18:00:00	-30.37	-28.37	-36.20	-31.49	-32.62	-36.97	-37.12	-36.50	-28.89						
17-Jul-2011	0:00:00	-30.51	-28.04	-37.16	-31.89	-32.11	-37.16	-37.31	-36.63	-28.96						
17-Jul-2011	6:00:00	-29.47	-28.16	-37.34	-31.25	-32.59	-35.96	-36.19	-35.58	-27.84						
17-Jul-2011	12:00:00	-29.34	-28.06	-36.26	-31.96	-33.51	-35.92	-36.04	-35.50	-27.81						
17-Jul-2011	18:00:00	-30.18	-29.12	-36.13	-33.10	-33.82	-36.78	-37.01	-36.34	-28.66						
18-Jul-2011	0:00:00	-30.57	-29.25	-37.06	-33.56	-32.59	-37.08	-37.27	-36.65	-28.96						
18-Jul-2011	6:00:00	-29.31	-28.18	-37.38	-32.87	-32.56	-36.02	-36.13	-35.50	-27.74						
18-Jul-2011	12:00:00	-29.27	-28.13	-36.26	-33.10	-33.10	-35.82	-36.08	-35.43	-27.70						
18-Jul-2011	18:00:00	-29.82	-28.66	-36.12	-33.68	-33.31	-36.45	-36.60	-35.97	-28.22						
19-Jul-2011	0:00:00	-30.03	-28.86	-36.70	-33.77	-32.74	-36.70	-36.77	-36.23	-28.52						
19-Jul-2011	6:00:00	-29.55	-28.38	-36.92	-33.22	-32.65	-36.16	-36.14	-35.64	-27.90						
19-Jul-2011	12:00:00	-29.40	-28.13	-36.38	-32.99	-32.57	-36.04	-36.19	-35.58	-27.82						
19-Jul-2011	18:00:00	-29.41	-28.24	-36.24	-33.11	-32.83	-36.03	-36.22	-35.57	-27.84						
20-Jul-2011	0:00:00	-29.59	-28.43	-36.22	-33.26	-32.84	-36.25	-36.31	-35.84	-28.02						
20-Jul-2011	6:00:00	-29.59	-28.46	-36.52	-33.23	-32.59	-36.26	-36.28	-35.75	-27.99						
20-Jul-2011	12:00:00	-29.16	-28.04	-36.49	-32.86	-32.59	-35.82	-36.00	-35.43	-27.72						
20-Jul-2011	18:00:00	-29.28	-28.08	-36.20	-32.98	-32.74	-35.92	-35.99	-35.40	-27.69						1.87
21-Jul-2011	0:00:00	-29.51	-28.34	-36.18	-33.17	-32.72	-36.12	-36.18	-35.69	-27.93						
21-Jul-2011	6:00:00	-29.47	-28.40	-36.33	-33.18	-32.61	-36.18	-36.24	-35.70	-27.86						
21-Jul-2011	12:00:00	-29.41	-28.22	-36.49	-33.18	-32.56	-36.02	-36.17	-35.66	-27.88						
21-Jul-2011	18:00:00	-29.29	-28.07	-36.34	-33.10	-32.67	-35.95	-36.06	-35.50	-27.81						
22-Jul-2011	0:00:00	-29.47	-28.28	-36.32	-33.21	-32.87	-36.08	-36.23	-35.63	-27.94						
22-Jul-2011	6:00:00	-29.55	-28.42	-36.26	-33.28	-32.75	-36.28	-36.35	-35.82	-27.97						
22-Jul-2011	12:00:00	-29.52	-28.23	-36.45	-33.17	-32.48	-36.14	-36.29	-35.72	-28.00						
22-Jul-2011	18:00:00	-29.12	-27.84	-36.34	-32.91	-32.53	-35.85	-35.87	-35.45	-27.58						
23-Jul-2011	0:00:00	-29.17	-27.86	-36.03	-33.02	-32.79	-35.91	-36.01	-35.48	-27.68						
23-Jul-2011	6:00:00	-29.41	-28.12	-36.12	-33.24	-32.60	-36.18	-36.32	-35.75	-27.92						
23-Jul-2011	12:00:00	-29.29	-27.92	-36.38	-33.14	-32.37	-35.96	-36.11	-35.56	-27.79						
23-Jul-2011	18:00:00	-29.03	-27.65	-36.15	-32.87	-32.39	-35.72	-35.90	-35.42	-27.58						
24-Jul-2011	0:00:00	-29.09	-27.72	-36.00	-32.94	-32.57	-35.72	-35.95	-35.44	-27.63						
24-Jul-2011	6:00:00	-29.22	-27.98	-36.10	-33.06	-32.60	-35.97	-36.13	-35.58	-27.80						
24-Jul-2011	12:00:00	-29.17	-27.88	-36.36	-33.11	-32.50	-35.89	-36.17	-35.64	-27.85						
24-Jul-2011	18:00:00	-29.17	-27.89	-36.18	-33.04	-32.48	-35.84	-36.04	-35.44	-27.80						
25-Jul-2011	0:00:00	-29.10	-27.84	-36.15	-33.08	-32.69	-35.92	-36.08	-35.46	-27.85						
25-Jul-2011	6:00:00	-29.23	-28.07	-36.22	-33.27	-32.45	-35.94	-36.22	-35.62	-27.91						
25-Jul-2011	12:00:00	-28.83	-27.78	-36.34	-32.99	-32.59	-35.76	-36.00	-35.36	-27.69						
25-Jul-2011	18:00:00	-29.00	-27.83	-36.16	-33.10	-32.61	-35.92	-36.07	-35.54	-27.81						1.1
26-Jul-2011	0:00:00	-29.01	-27.90	-36.16	-33.09	-32.57	-35.91	-36.16	-35.66	-27.88						
26-Jul-2011	6:00:00	-28.99	-27.84	-36.27	-33.08	-32.53	-35.86	-36.02	-35.49	-27.72						
26-Jul-2011	12:00:00	-28.89	-27.75	-36.12	-33.03	-32.67	-35.83	-36.02	-35.55	-27.64						
26-Jul-2011	18:00:00	-29.12	-27.93	-36.13	-33.26	-32.55	-35.96	-36.12	-35.76	-27.90						0.24

Date	Time	Water Level (inches)														On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mmm-yyyy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2							
27-Jul-2011	0:00:00	-28.95	-27.77	-36.34	-33.12	-32.62	-35.95	-36.06	-35.54	-27.79									
27-Jul-2011	6:00:00	-28.97	-27.94	-36.20	-33.10	-32.38	-35.86	-36.11	-35.50	-27.82									
27-Jul-2011	12:00:00	-28.76	-27.57	-36.20	-32.86	-32.75	-35.66	-35.90	-35.34	-27.55									
27-Jul-2011	18:00:00	-29.17	-27.98	-35.97	-33.17	-32.90	-36.07	-36.23	-35.61	-27.99									
28-Jul-2011	0:00:00	-29.12	-27.92	-36.26	-33.33	-32.61	-36.06	-36.26	-35.61	-27.98									
28-Jul-2011	6:00:00	-28.97	-27.83	-36.40	-33.17	-32.61	-35.94	-36.10	-35.57	-27.86									
28-Jul-2011	12:00:00	-29.00	-27.88	-36.24	-33.21	-32.36	-36.00	-36.17	-35.55	-27.80									
28-Jul-2011	18:00:00	-28.67	-27.64	-36.21	-32.85	-32.51	-35.79	-35.92	-35.28	-27.55									
29-Jul-2011	0:00:00	-28.92	-27.82	-35.90	-32.99	-32.80	-35.85	-35.94	-35.49	-27.70									
29-Jul-2011	6:00:00	-29.21	-28.08	-36.06	-33.47	-32.72	-36.18	-36.30	-35.74	-28.03									
29-Jul-2011	12:00:00	-29.10	-27.93	-36.45	-33.32	-32.33	-36.09	-36.22	-35.74	-27.94									
29-Jul-2011	18:00:00	-28.67	-27.71	-36.36	-32.93	-32.42	-35.66	-35.82	-35.25	-27.58									
30-Jul-2011	0:00:00	-28.82	-27.71	-35.91	-32.99	-32.74	-35.83	-35.99	-35.45	-27.68									
30-Jul-2011	6:00:00	-29.06	-28.08	-36.16	-33.34	-32.20	-36.13	-36.20	-35.75	-28.02									
30-Jul-2011	12:00:00	-28.65	-27.58	-36.37	-32.78	-32.38	-35.61	-35.74	-35.19	-27.46									
30-Jul-2011	18:00:00	-28.73	-27.72	-35.80	-32.92	-32.35	-35.82	-35.81	-35.39	-27.62									0.02
31-Jul-2011	0:00:00	-28.82	-27.69	-35.92	-32.99	-32.38	-35.84	-35.84	-35.39	-27.64									
31-Jul-2011	6:00:00	-23.36	-27.65	-36.01	-32.92	-32.65	-35.76	-35.80	-35.31	-27.56									
31-Jul-2011	12:00:00	1.66	-6.06	-35.94	-19.26	-32.55	-35.86	-36.19	-35.57	-27.88									
31-Jul-2011	18:00:00	-0.79	-0.33	-36.13	5.15	-31.69	-35.94	-36.02	-35.57	-27.79									1.63
1-Aug-2011	0:00:00	-1.51	-2.09	-36.15	1.08	-13.19	-35.97	-36.10	-35.54	-27.82									
1-Aug-2011	6:00:00	-2.28	-4.42	-36.20	-0.67	-11.87	-35.84	-35.88	-35.37	-27.66									
1-Aug-2011	12:00:00	-3.55	-7.95	-36.07	-1.98	-11.13	-35.82	-35.77	-35.28	-27.60									
1-Aug-2011	18:00:00	-4.16	-8.55	-36.00	-2.94	-10.65	-35.95	-36.02	-35.57	-27.76									
2-Aug-2011	0:00:00	-4.99	-8.99	-36.10	-3.66	-11.66	-36.06	-36.22	-35.58	-27.86									
2-Aug-2011	6:00:00	-6.96	-12.02	-36.25	-5.40	-12.29	-35.98	-36.14	-35.56	-27.80									
2-Aug-2011	12:00:00	-9.18	-14.20	-36.22	-6.18	-11.39	-35.64	-35.80	-35.22	-27.58									
2-Aug-2011	18:00:00	-10.25	-14.00	-35.94	-6.48	-11.00	-35.83	-36.11	-35.58	-27.81									
3-Aug-2011	0:00:00	-11.01	-13.88	-36.28	-6.61	-12.95	-35.84	-36.04	-35.49	-27.79									
3-Aug-2011	6:00:00	-13.93	-16.02	-36.20	-8.64	-14.09	-36.02	-36.22	-35.60	-27.92									
3-Aug-2011	12:00:00	-16.62	-17.61	-36.36	-9.60	-13.81	-35.59	-36.00	-35.36	-27.75									
3-Aug-2011	18:00:00	-17.05	-17.24	-36.10	-9.03	-13.76	-35.70	-35.89	-35.36	-27.60									
4-Aug-2011	0:00:00	-17.79	-17.48	-36.02	-9.40	-15.63	-35.72	-35.96	-35.40	-27.62									
4-Aug-2011	6:00:00	-19.53	-19.34	-36.07	-11.74	-16.58	-35.94	-36.14	-35.63	-27.87									
4-Aug-2011	12:00:00	-21.03	-20.54	-36.20	-13.01	-16.72	-35.70	-35.94	-35.38	-27.64									
4-Aug-2011	18:00:00	-21.60	-20.19	-36.04	-12.53	-16.71	-35.67	-35.99	-35.31	-27.64									
5-Aug-2011	0:00:00	-22.07	-20.18	-35.96	-12.76	-17.77	-35.76	-36.08	-35.45	-27.73									
5-Aug-2011	6:00:00	-23.00	-21.38	-36.12	-14.82	-19.21	-35.83	-36.04	-35.51	-27.81									
5-Aug-2011	12:00:00	-23.83	-22.43	-36.03	-16.76	-19.10	-35.50	-35.80	-35.22	-27.52									
5-Aug-2011	18:00:00	-24.38	-21.92	-35.84	-17.20	-19.15	-35.71	-36.08	-35.50	-27.76									
6-Aug-2011	0:00:00	-24.65	-21.89	-36.07	-17.49	-17.47	-35.72	-36.05	-35.48	-27.82									
6-Aug-2011	6:00:00	-24.41	-21.59	-36.13	-15.81	-7.90	-35.48	-35.86	-35.31	-27.63									
6-Aug-2011	12:00:00	-0.27	-3.98	-35.86	-2.91	-8.84	-35.68	-35.93	-35.33	-27.58									
6-Aug-2011	18:00:00	-0.98	-4.67	-36.03	-4.33	-9.50	-35.71	-35.99	-35.33	-27.66									1.71
7-Aug-2011	0:00:00	-1.41	-5.60	-35.98	-4.72	-10.91	-35.70	-36.02	-35.37	-27.69									
7-Aug-2011	6:00:00	-2.17	-7.85	-36.01	-5.88	-12.80	-35.80	-36.17	-35.56	-27.79									
7-Aug-2011	12:00:00	-3.42	-11.04	-36.08	-7.28	-12.74	-35.86	-36.23	-35.61	-27.90									
7-Aug-2011	18:00:00	-3.62	-10.55	-36.21	-6.77	-12.82	-35.67	-36.00	-35.22	-27.67									
8-Aug-2011	0:00:00	-4.23	-10.73	-36.09	-7.09	-14.62	-35.72	-36.17	-35.44	-27.75									
8-Aug-2011	6:00:00	-6.15	-13.34	-36.21	-9.12	-16.33	-35.89	-36.25	-35.60	-27.84									
8-Aug-2011	12:00:00	-8.52	-15.60	-36.33	-10.68	-16.31	-35.64	-35.95	-35.42	-27.68									
8-Aug-2011	18:00:00	-9.23	-15.34	-36.15	-10.13	-16.31	-35.72	-36.00	-35.36	-27.68									
9-Aug-2011	0:00:00	-9.98	-15.50	-36.18	-10.31	-17.91	-35.83	-36.24	-35.58	-27.87									
9-Aug-2011	6:00:00	-12.36	-17.21	-36.32	-12.45	-19.72	-35.91	-36.16	-35.55	-27.92									
9-Aug-2011	12:00:00	-15.31	-18.80	-36.28	-13.84	-19.70	-35.62	-35.87	-35.21	-27.64									
9-Aug-2011	18:00:00	-15.90	-18.53	-36.04	-13.40	-20.51	-35.60	-35.89	-35.31	-27.52									
10-Aug-2011	0:00:00	-17.00	-19.44	-36.04	-14.24	-21.32	-36.18	-36.52	-35.87	-28.18									
10-Aug-2011	6:00:00	-18.27	-20.52	-36.66	-16.16	-23.66	-35.71	-36.00	-35.42	-27.63									
10-Aug-2011	12:00:00	-20.13	-22.11	-36.24	-18.82	-23.63	-35.62	-35.92	-35.32	-27.63									
10-Aug-2011	18:00:00	-20.88	-21.80	-36.06	-19.48	-23.95	-35.79	-36.20	-35.61	-27.80									
11-Aug-2011	0:00:00	-21.68	-22.24	-36.26	-20.24	-24.62	-36.25	-36.54	-36.04	-28.21									
11-Aug-2011	6:00:00	-22.11	-23.24	-36.60	-20.97	-26.35	-35.59	-36.00	-35.36	-27.62									
11-Aug-2011	12:00:00	-23.19	-24.17	-36.09	-22.52	-26.96	-35.53	-35.74	-35.19	-27.44									
11-Aug-2011	18:00:00	-24.13	-24.00	-35.96	-23.48	-26.84	-35.94	-36.26	-35.64	-27.80									
12-Aug-2011	0:00:00	-24.51	-23.78	-36.28	-23.80	-27.32	-35.78	-36.24	-35.62	-27.78									
12-Aug-2011	6:00:00	-25.04	-24.68	-36.31	-24.36	-29.03	-35.65	-36.11	-35.49	-27.68									
12-Aug-2011	12:00:00	-25.68	-25.53	-36.08	-25.31	-30.05	-35.55	-35.88	-35.27	-27.50									
12-Aug-2011	18:00:00	-26.52	-25.38	-35.96	-26.33	-30.01	-36.12	-36.49	-35.88	-28.10									
13-Aug-2011	0:00:00	-26.90	-25.22	-36.57	-26.80	-30.01	-36.28	-36.67	-36.00	-28.18									

Date	Time	Water Level (inches)															On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mmm-yyyy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2								
13-Aug-2011	6:00:00	-26.70	-25.77	-36.66	-26.73	-31.04	-35.64	-35.96	-35.43	-27.62										
13-Aug-2011	12:00:00	-27.17	-25.67	-36.12	-27.24	-31.24	-35.72	-35.98	-35.44	-27.70										
13-Aug-2011	18:00:00	-27.47	-25.29	-36.18	-27.32	-30.71	-35.96	-36.30	-35.74	-27.99										0.28
14-Aug-2011	0:00:00	-27.38	-24.76	-36.43	-27.06	-26.96	-35.91	-36.20	-35.60	-27.86										
14-Aug-2011	6:00:00	-26.57	-23.97	-36.33	-25.06	-26.25	-35.66	-35.99	-35.44	-27.61										
14-Aug-2011	12:00:00	-26.35	-24.21	-36.14	-23.72	-26.98	-35.61	-35.98	-35.33	-27.61										
14-Aug-2011	18:00:00	-26.49	-24.20	-36.16	-23.90	-27.28	-35.88	-36.28	-35.63	-27.86										0.02
15-Aug-2011	0:00:00	-26.54	-24.23	-36.33	-23.67	-26.98	-36.21	-36.58	-35.94	-28.33										
15-Aug-2011	6:00:00	-25.89	-23.92	-36.69	-23.39	-28.88	-35.70	-36.10	-35.37	-27.76										
15-Aug-2011	12:00:00	-26.81	-25.53	-36.15	-24.84	-30.15	-35.60	-35.93	-35.24	-27.64										
15-Aug-2011	18:00:00	-27.55	-25.64	-36.20	-26.02	-30.76	-36.22	-36.60	-35.97	-28.26										0.11
16-Aug-2011	0:00:00	-27.90	-25.80	-36.80	-26.63	-30.63	-36.40	-36.78	-36.12	-28.44										
16-Aug-2011	6:00:00	-27.68	-26.49	-36.86	-26.75	-32.45	-35.71	-36.02	-35.40	-27.73										
16-Aug-2011	12:00:00	-28.32	-27.71	-36.10	-27.81	-33.19	-35.56	-35.81	-35.32	-27.54										
16-Aug-2011	18:00:00	-29.22	-27.58	-36.01	-28.92	-33.52	-36.28	-36.54	-36.02	-28.22										
17-Aug-2011	0:00:00	-29.79	-27.77	-36.66	-29.66	-32.60	-36.79	-37.00	-36.41	-28.68										
17-Aug-2011	6:00:00	-28.98	-27.89	-37.10	-29.24	-32.37	-35.71	-36.08	-35.48	-27.72										
17-Aug-2011	12:00:00	-28.77	-27.84	-36.16	-29.97	-33.45	-35.66	-35.95	-35.40	-27.72										
17-Aug-2011	18:00:00	-29.88	-28.90	-36.22	-31.44	-33.83	-36.73	-37.09	-36.44	-28.77	0.00	0.00				8.33				
18-Aug-2011	0:00:00	-30.24	-28.83	-37.26	-31.94	-32.26	-37.18	-37.51	-36.81	-29.14										
18-Aug-2011	6:00:00	-28.76	-27.76	-37.59	-30.78	-32.48	-35.72	-36.05	-35.40	-27.73										
18-Aug-2011	12:00:00	-28.87	-27.90	-36.14	-31.50	-33.26	-35.72	-36.08	-35.57	-27.81										
18-Aug-2011	18:00:00	-29.60	-28.67	-36.14	-32.54	-33.56	-36.63	-36.88	-36.22	-28.59										
19-Aug-2011	0:00:00	-29.88	-28.96	-37.04	-32.88	-32.45	-36.82	-37.15	-36.58	-28.75										
19-Aug-2011	6:00:00	-28.86	-27.75	-37.20	-32.18	-32.33	-35.72	-36.04	-35.44	-27.64										
19-Aug-2011	12:00:00	-28.75	-27.74	-36.06	-32.81	-32.86	-35.70	-36.06	-35.44	-27.72										
19-Aug-2011	18:00:00	1.24	-11.45	-36.10	-27.04	-28.99	-36.14	-36.50	-35.93	-28.15										0.12
20-Aug-2011	0:00:00	-1.03	-1.79	-36.60	-15.68	-28.72	-36.27	-36.64	-35.92	-28.11										
20-Aug-2011	6:00:00	-1.16	-3.89	-25.30	-9.70	-30.94	-35.65	-36.05	-35.37	-27.57										
20-Aug-2011	12:00:00	-2.03	-7.50	-16.11	-9.09	-32.33	-35.66	-36.14	-35.50	-27.66										
20-Aug-2011	18:00:00	-3.09	-8.74	-17.18	-9.22	-32.49	-36.30	-36.74	-36.06	-28.39										0.02
21-Aug-2011	0:00:00	-3.59	-9.34	-16.90	-9.13	-32.39	-36.33	-36.73	-36.12	-28.36										
21-Aug-2011	6:00:00	-4.23	-11.07	-16.95	-10.04	-32.42	-35.74	-36.06	-35.52	-27.70										
21-Aug-2011	12:00:00	-5.22	-12.12	-21.13	-9.59	-32.80	-35.70	-36.18	-35.58	-27.82										
21-Aug-2011	18:00:00	-6.05	-12.17	-22.93	-9.55	-32.78	-36.02	-36.38	-35.80	-28.03										
22-Aug-2011	0:00:00	-6.59	-12.29	-23.23	-9.58	-32.47	-35.98	-36.30	-35.69	-27.91										
22-Aug-2011	6:00:00	-7.38	-13.02	-23.61	-10.66	-32.27	-35.64	-36.04	-35.42	-27.56										
22-Aug-2011	12:00:00	-9.62	-14.58	-26.41	-11.78	-32.92	-35.67	-36.02	-35.32	-27.55										
22-Aug-2011	18:00:00	-11.07	-15.42	-29.25	-12.16	-32.60	-36.39	-36.74	-36.10	-28.30										
23-Aug-2011	0:00:00	-11.54	-15.18	-30.61	-11.96	-32.30	-35.88	-36.32	-35.70	-27.84										
23-Aug-2011	6:00:00	-13.57	-16.42	-31.02	-13.74	-32.24	-35.67	-36.12	-35.52	-27.63										
23-Aug-2011	12:00:00	-15.85	-17.60	-34.14	-14.99	-33.13	-35.64	-36.00	-35.39	-27.61										
23-Aug-2011	18:00:00	-17.30	-18.38	-36.09	-15.89	-33.71	-36.48	-36.94	-36.21	-28.48										
24-Aug-2011	0:00:00	-18.32	-19.02	-37.00	-17.00	-32.11	-37.15	-37.46	-36.89	-29.14										
24-Aug-2011	6:00:00	-18.00	-18.75	-37.59	-17.08	-32.32	-35.54	-36.06	-35.24	-27.57										
24-Aug-2011	12:00:00	-19.74	-20.12	-36.03	-19.17	-32.73	-35.80	-36.16	-35.54	-27.80										
24-Aug-2011	18:00:00	-20.47	-20.04	-36.20	-19.78	-32.87	-36.08	-36.53	-35.85	-28.12										
25-Aug-2011	0:00:00	-20.83	-20.02	-36.56	-20.21	-32.30	-36.27	-36.72	-36.05	-28.27										
25-Aug-2011	6:00:00	-21.13	-20.91	-36.72	-20.60	-32.31	-35.65	-36.10	-35.38	-27.74										
25-Aug-2011	12:00:00	-22.02	-22.08	-36.18	-22.07	-32.59	-35.65	-36.05	-35.42	-27.66										
25-Aug-2011	18:00:00	-22.28	-21.45	-36.00	-21.63	-32.61	-35.96	-36.37	-35.72	-27.92										
26-Aug-2011	0:00:00	-22.09	-21.44	-36.43	-21.46	-32.20	-36.16	-36.61	-35.93	-28.16										
26-Aug-2011	6:00:00	-21.95	-21.62	-36.60	-21.74	-32.06	-35.65	-36.08	-35.32	-27.57										
26-Aug-2011	12:00:00	-19.52	-20.15	-36.12	-20.76	-32.13	-35.44	-35.89	-35.22	-27.45										
26-Aug-2011	18:00:00	-10.44	-14.26	-35.92	-12.90	-35.95	-35.52	-35.96	-35.32	-27.50										0.84
27-Aug-2011	0:00:00	11.40	16.94	-35.95	12.12	29.02	-16.03	-35.90	-35.45	-27.43										
27-Aug-2011	6:00:00	30.01	36.50	0.41	29.37	29.81	4.32	15.22	9.27	8.73										
27-Aug-2011	12:00:00	30.52	37.14	4.47	30.06	25.81	4.10	17.60	13.51	16.24										
27-Aug-2011	18:00:00	24.91	31.36	4.20	25.09	20.78	3.03	14.78	10.74	13.32										
28-Aug-2011	0:00:00	15.35	21.80	0.42	18.25	16.47	2.30	11.52	7.28	8.96										11.59
28-Aug-2011	6:00:00	9.85	15.72	-0.43	13.28	13.88	1.64	8.11	3.85	4.44										
28-Aug-2011	12:00:00	4.57	11.37	-1.95	10.26	11.05	0.62	6.18	1.94	2.50										
28-Aug-2011	18:00:00	0.58	6.85	-3.32	7.52	8.85	-0.73	4.26	0.37	0.95										0.02
29-Aug-2011	0:00:00	-0.37	3.15	-3.42	5.69	7.37	-1.63	3.06	-0.66	0.05										
29-Aug-2011	6:00:00	-0.37	1.68	-4.05	5.10	5.75	-1.94	2.51	-1.20	0.06										
29-Aug-2011	12:00:00	-0.74	0.82	-5.52	3.86	4.65	-3.07	1.96	-2.50	-0.34										
29-Aug-2011	18:00:00	-1.01	0.57	-6.33	2.58	3.87	-3.81	1.26	-4.00	-0.96										0.13
30-Aug-2011	0:00:00	-1.43	0.16	-6.62	1.46	3.65	-4.04	0.66	-5.72	-1.64										
30-Aug-2011	6:00:00	-1.39	-0.38	-6.68	1.19	2.90	-4.51	0.43	-8.78	-2.12										



Date	Time	Water Level (inches)											On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mmm-yyyy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2				
30-Aug-2011	12:00:00	-2.22	-1.60	-8.68	0.43	1.34	-5.83	-0.18	-14.37	-3.49						
30-Aug-2011	18:00:00	-3.38	-2.75	-10.68	-1.31	0.61	-7.45	-1.67	-18.40	-5.72						0.08
31-Aug-2011	0:00:00	-3.98	-3.36	-11.76	-2.19	1.34	-8.46	-2.47	-21.28	-7.33						
31-Aug-2011	6:00:00	-3.43	-3.18	-12.55	-1.61	0.34	-8.16	-1.55	-23.24	-8.58						
31-Aug-2011	12:00:00	-4.94	-5.40	-14.37	-2.59	-2.03	-10.39	-2.53	-29.76	-12.28						
31-Aug-2011	18:00:00	-7.10	-6.69	-17.48	-4.73	-3.11	-12.82	-5.12	-35.62	-15.63						
1-Sep-2011	0:00:00	-8.24	-7.72	-19.20	-5.74	-1.64	-14.35	-6.64	-37.88	-17.36						
1-Sep-2011	6:00:00	-7.28	-7.17	-20.30	-4.31	-2.57	-13.83	-5.75	-35.38	-17.31						
1-Sep-2011	12:00:00	-9.21	-9.27	-20.60	-5.02	-4.23	-16.51	-7.75	-35.36	-19.47						
1-Sep-2011	18:00:00	-11.06	-9.99	-22.99	-6.42	-4.46	-18.81	-10.58	-36.75	-21.26						
2-Sep-2011	0:00:00	-11.58	-9.90	-24.68	-6.63	-3.68	-19.48	-12.00	-36.81	-21.76						
2-Sep-2011	6:00:00	-11.59	-10.28	-24.85	-6.16	-4.51	-19.26	-12.31	-35.43	-21.60						
2-Sep-2011	12:00:00	-13.70	-11.69	-25.03	-6.58	-5.36	-21.52	-14.57	-35.68	-23.56						
2-Sep-2011	18:00:00	-14.78	-11.92	-27.10	-7.36	-5.68	-22.96	-16.72	-36.47	-24.72						
3-Sep-2011	0:00:00	-15.19	-11.64	-28.44	-7.58	-4.96	-23.44	-18.10	-36.60	-25.23						
3-Sep-2011	6:00:00	-15.15	-12.12	-28.74	-7.31	-6.19	-23.12	-18.23	-35.32	-25.16						
3-Sep-2011	12:00:00	-17.54	-14.34	-28.71	-8.34	-7.22	-25.40	-20.38	-35.57	-27.84						
3-Sep-2011	18:00:00	-18.68	-14.81	-31.20	-9.04	-7.47	-27.16	-22.63	-36.74	-29.05						
4-Sep-2011	0:00:00	-18.95	-14.69	-32.84	-9.23	-6.79	-27.64	-23.66	-36.86	-29.07						
4-Sep-2011	6:00:00	-18.51	-14.86	-33.27	-9.17	-7.99	-27.06	-23.32	-35.40	-27.61						
4-Sep-2011	12:00:00	-20.29	-16.64	-33.33	-10.31	-8.27	-28.68	-24.89	-35.48	-27.69						
4-Sep-2011	18:00:00	-20.87	-16.62	-35.11	-10.07	-8.30	-29.82	-26.15	-35.93	-28.17						
5-Sep-2011	0:00:00	-20.89	-16.35	-36.09	-9.93	-8.26	-30.07	-26.94	-35.97	-28.17						
5-Sep-2011	6:00:00	-20.93	-16.80	-36.18	-10.70	-0.28	-29.83	-27.04	-35.25	-27.66						
5-Sep-2011	12:00:00	-0.15	-1.59	-36.04	-2.25	-1.63	-9.34	-15.14	-35.36	-16.77						
5-Sep-2011	18:00:00	-0.71	-1.76	-1.77	-2.89	-2.18	-10.11	-14.04	-35.39	-14.54						0.15
6-Sep-2011	0:00:00	-0.95	-1.96	-1.54	-3.22	-3.32	-10.81	-15.49	-35.38	-15.37						
6-Sep-2011	6:00:00	-1.70	-3.99	-2.19	-4.50	-4.59	-13.05	-17.93	-35.61	-18.44						
6-Sep-2011	12:00:00	-2.58	-6.66	-4.39	-5.22	-4.53	-16.45	-20.52	-35.58	-22.02						
6-Sep-2011	18:00:00	-2.60	-5.96	-6.14	-5.00	-4.58	-17.11	-22.02	-35.54	-23.02						
7-Sep-2011	0:00:00	-2.71	-5.68	-6.09	-4.96	-3.45	-17.41	-22.86	-35.42	-23.65						
7-Sep-2011	6:00:00	-2.03	-3.35	-6.40	-3.81	-4.60	-15.54	-23.77	-35.44	-22.33						
7-Sep-2011	12:00:00	-2.94	-5.32	-5.01	-4.84	-4.73	-16.33	-24.36	-35.45	-23.46						
7-Sep-2011	18:00:00	-3.19	-5.15	-6.88	-4.80	-4.13	-17.12	-24.90	-35.48	-24.55						0.45
8-Sep-2011	0:00:00	-2.88	-3.50	-7.23	-4.19	-4.40	-14.71	-25.15	-35.57	-22.59						
8-Sep-2011	6:00:00	-3.25	-4.85	-6.03	-4.60	-1.47	-15.32	-25.06	-35.34	-23.46						
8-Sep-2011	12:00:00	-1.77	-1.56	-7.50	-1.69	-2.63	-7.80	-23.70	-34.24	-14.20						
8-Sep-2011	18:00:00	-1.71	-1.77	-3.44	-2.76	-3.83	-8.34	-19.30	-35.86	-13.23						
9-Sep-2011	0:00:00	-2.61	-2.96	-4.04	-3.48	-3.75	-9.36	-20.14	-36.27	-15.16						
9-Sep-2011	6:00:00	-2.61	-3.66	-5.48	-2.59	-4.96	-9.87	-20.70	-35.28	-16.57						
9-Sep-2011	12:00:00	-4.26	-6.95	-6.44	-3.31	-5.11	-12.99	-23.11	-35.28	-20.12						
9-Sep-2011	18:00:00	-5.21	-6.74	-8.90	-4.01	-5.43	-14.37	-25.03	-35.97	-21.75						
10-Sep-2011	0:00:00	-6.14	-7.17	-9.70	-4.76	-5.27	-15.21	-26.24	-36.41	-22.93						
10-Sep-2011	6:00:00	-6.33	-8.49	-10.65	-4.93	-6.27	-15.82	-26.15	-35.39	-23.92						
10-Sep-2011	12:00:00	-8.29	-10.82	-12.16	-5.54	-6.33	-19.08	-27.53	-35.22	-27.48						
10-Sep-2011	18:00:00	-9.30	-10.31	-15.38	-5.63	-6.85	-20.08	-28.86	-35.58	-27.94						
11-Sep-2011	0:00:00	-10.31	-10.48	-15.84	-6.18	-6.81	-20.89	-30.29	-36.28	-28.48						
11-Sep-2011	6:00:00	-11.17	-11.79	-16.83	-6.39	-8.14	-21.20	-30.18	-35.33	-27.50						
11-Sep-2011	12:00:00	-14.24	-14.18	-18.33	-6.91	-8.49	-23.62	-31.52	-35.43	-27.73						
11-Sep-2011	18:00:00	-15.17	-14.12	-21.28	-7.25	-8.20	-24.97	-33.28	-36.10	-28.48						
12-Sep-2011	0:00:00	-15.42	-13.47	-22.32	-7.00	-8.37	-24.97	-34.24	-36.04	-28.36						
12-Sep-2011	6:00:00	-15.96	-14.36	-22.34	-7.68	-9.19	-24.86	-34.38	-35.36	-27.63						
12-Sep-2011	12:00:00	-17.53	-16.00	-23.08	-8.09	-9.82	-26.62	-35.47	-35.36	-27.74						
12-Sep-2011	18:00:00	-18.49	-16.05	-25.00	-8.24	-9.99	-28.08	-36.83	-36.21	-28.42						
13-Sep-2011	0:00:00	-18.90	-16.12	-26.24	-8.54	-9.68	-28.54	-37.01	-36.33	-28.65						
13-Sep-2011	6:00:00	-18.78	-16.52	-26.86	-8.85	-10.96	-28.03	-35.92	-35.28	-27.63						
13-Sep-2011	12:00:00	-20.40	-18.39	-26.98	-10.06	-11.62	-29.54	-35.96	-35.38	-27.81						
13-Sep-2011	18:00:00	-21.44	-18.54	-29.08	-9.99	-11.87	-30.93	-36.90	-36.20	-28.53						
14-Sep-2011	0:00:00	-21.89	-18.48	-30.70	-10.20	-11.50	-31.42	-37.24	-36.54	-28.95						
14-Sep-2011	6:00:00	-21.51	-18.92	-31.32	-10.98	-12.71	-30.66	-36.04	-35.45	-27.73						
14-Sep-2011	12:00:00	-22.87	-20.37	-31.29	-11.96	-13.49	-31.84	-36.19	-35.44	-27.84						
14-Sep-2011	18:00:00	-23.83	-20.38	-33.43	-12.03	-13.71	-33.25	-36.92	-36.21	-28.62						
15-Sep-2011	0:00:00	-24.33	-20.38	-34.54	-12.35	-13.04	-33.58	-37.26	-36.57	-28.95						
15-Sep-2011	6:00:00	-23.51	-20.52	-35.04	-12.80	-14.08	-32.72	-35.98	-35.22	-27.55						
15-Sep-2011	12:00:00	-24.43	-21.89	-34.71	-14.12	-3.92	-33.72	-35.94	-35.33	-27.55						
15-Sep-2011	18:00:00	-0.85	-2.34	-35.98	-3.24	-5.77	-14.88	-37.03	-36.33	-28.66						0.99
16-Sep-2011	0:00:00	-1.61	-2.06	-17.61	-4.36	-6.44	-15.16	-37.12	-36.41	-28.74						
16-Sep-2011	6:00:00	-1.55	-2.58	-14.43	-4.15	-7.37	-15.90	-36.52	-35.90	-28.22						
16-Sep-2011	12:00:00	-2.12	-3.68	-15.31	-4.51	-7.63	-17.28	-36.80	-36.16	-28.30						

Date	Time	Water Level (inches)											On-site Manual Raingauge	On-site Auto RG Daily	On-site Auto Raingauge Monthly	Windsor Daily Rainfall
dd-mm-yy	hh:mm:ss	FLO AW1	FLO AW2	FLO AW3	FLO AW4	FLO AW5	FLO AW6	FLO RAW1	FLO RAW2	FLO RAW3	CG1	CG2				
16-Sep-2011	18:00:00	-2.34	-3.90	-17.04	-4.71	-2.36	-17.84	-36.96	-36.20	-28.41						0.17
17-Sep-2011	0:00:00	-0.50	0.44	-17.86	-1.84	-0.07	-5.31	-36.95	-36.24	-19.80						
17-Sep-2011	6:00:00	0.21	1.33	-7.24	-0.30	-0.37	-0.99	-36.74	-35.39	-8.35						
17-Sep-2011	12:00:00	-0.57	1.62	-0.45	1.94	-0.14	-0.90	-19.50	-36.08	-9.46						
17-Sep-2011	18:00:00	-0.98	1.00	-0.50	2.51	1.35	-1.23	-18.79	-36.15	-11.08						0.84
18-Sep-2011	0:00:00	-1.17	0.43	-0.84	1.70	2.27	-1.63	-20.20	-36.17	-12.84						
18-Sep-2011	6:00:00	-0.89	0.52	-1.14	1.22	2.11	-1.84	-21.19	-35.72	-14.13						
18-Sep-2011	12:00:00	-1.11	0.25	-1.47	0.55	1.67	-2.50	-22.55	-35.90	-15.79						
18-Sep-2011	18:00:00	-1.32	0.10	-2.11	-0.18	1.13	-2.92	-23.72	-35.98	-16.63						0.02
19-Sep-2011	0:00:00	-1.75	-0.29	-2.32	-0.99	1.41	-3.46	-24.76	-36.28	-17.71						
19-Sep-2011	6:00:00	-1.23	0.02	-2.89	-0.91	0.51	-3.20	-24.74	-35.50	-18.25						
19-Sep-2011	12:00:00	-1.71	-0.95	-2.95	-1.66	-0.22	-4.09	-26.11	-35.66	-20.64						
19-Sep-2011	18:00:00	-2.03	-0.89	-3.96	-2.14	-1.09	-4.45	-27.31	-35.92	-21.54						
20-Sep-2011	0:00:00	-2.61	-1.67	-4.08	-2.82	-0.73	-5.23	-28.58	-36.32	-22.48						
20-Sep-2011	6:00:00	-1.98	-1.26	-4.92	-2.41	-1.47	-4.74	-28.38	-35.38	-22.50						
20-Sep-2011	12:00:00	-2.17	-1.34	-4.57	-2.75	-1.85	-4.86	-29.29	-35.49	-23.53						
20-Sep-2011	18:00:00	-2.34	-1.48	-4.71	-3.11	-2.29	-5.12	-30.18	-35.60	-24.38						0.03
21-Sep-2011	0:00:00	-2.48	-1.60	-5.00	-3.27	-2.48	-5.32	-30.84	-35.66	-24.92						
21-Sep-2011	6:00:00	-2.64	-2.25	-5.16	-3.71	-3.39	-5.50	-31.19	-35.33	-26.23						
21-Sep-2011	12:00:00	-3.65	-3.66	-5.72	-4.33	-3.37	-6.42	-32.51	-35.58	-27.88						
21-Sep-2011	18:00:00	-3.63	-3.15	-7.04	-4.18	-3.80	-6.52	-33.40	-35.54	-27.75						0.01
22-Sep-2011	0:00:00	-4.09	-3.48	-6.99	-4.65	-3.27	-7.08	-34.67	-35.75	-28.05						
22-Sep-2011	6:00:00	-3.97	-3.40	-7.52	-4.29	4.64	-6.43	-35.10	-35.39	-27.54						
22-Sep-2011	12:00:00	13.62	17.73	-7.34	6.41	14.96	3.54	1.73	-13.74	-2.20						
22-Sep-2011	18:00:00	6.76	13.56	1.41	11.43	11.71	2.74	3.91	-28.05	-2.14						1.71
23-Sep-2011	0:00:00	2.15	8.95	0.72	8.01	10.61	2.55	4.80	1.14	-2.17						
23-Sep-2011	6:00:00	1.36	6.61	0.76	7.17	14.24	3.53	4.30	0.86	0.90						
23-Sep-2011	12:00:00	12.21	17.12	1.02	12.33	14.42	3.75	4.60	1.00	1.12						
23-Sep-2011	18:00:00	6.29	13.38	1.83	10.89	11.72	2.86	6.07	2.22	1.78						1.01
24-Sep-2011	0:00:00	2.05	8.91	1.13	7.99	9.88	2.62	4.68	1.05	1.30						
24-Sep-2011	6:00:00	0.71	6.02	0.90	6.48	9.08	2.46	3.64	0.20	0.58						
24-Sep-2011	12:00:00	1.12	6.25	0.89	6.07	9.07	2.86	3.22	-0.08	0.53						
24-Sep-2011	18:00:00	0.77	5.61	1.22	6.20	8.43	2.67	2.69	-0.52	0.17						0.28
25-Sep-2011	0:00:00	0.52	4.03	1.17	5.55	7.85	2.43	2.27	-0.90	-0.30						
25-Sep-2011	6:00:00	1.25	3.55	0.78	5.15	7.49	2.91	2.39	-0.65	0.08						
25-Sep-2011	12:00:00	0.89	4.15	1.44	5.35	7.65	2.74	2.22	-0.95	-0.01						
25-Sep-2011	18:00:00	0.53	3.52	1.19	5.19	7.16	2.44	1.84	-1.42	-0.32						0.35
26-Sep-2011	0:00:00	0.45	2.61	1.20	4.77	6.64	2.38	1.69	-1.62	-0.55						
26-Sep-2011	6:00:00	0.49	2.20	0.93	4.43	5.98	2.51	1.79	-1.61	-0.45						
26-Sep-2011	12:00:00	0.51	1.86	1.06	3.66	5.13	2.20	1.76	-2.01	-0.61						
26-Sep-2011	18:00:00	0.22	1.47	1.02	2.76	4.83	1.70	1.31	-2.52	-1.06						
27-Sep-2011	0:00:00	0.33	1.59	0.72	2.46	4.69	1.55	1.32	-2.72	-1.18						
27-Sep-2011	6:00:00	0.47	1.53	0.90	2.00	4.41	1.36	1.31	-2.96	-1.32						
27-Sep-2011	12:00:00	0.49	1.40	0.93	1.73	4.04	0.96	1.12	-3.40	-1.77						
27-Sep-2011	18:00:00	0.37	1.45	0.88	1.46	3.86	0.46	0.70	-3.90	-2.14						0.03
28-Sep-2011	0:00:00	0.43	1.47	0.95	1.27	3.68	0.12	0.61	-4.14	-2.44						
28-Sep-2011	6:00:00		1.17	0.81	1.16		-0.12	0.37	-4.68	-3.02	0.00	2.60				
28-Sep-2011	12:00:00															
28-Sep-2011	18:00:00															0.40
29-Sep-2011	0:00:00															
29-Sep-2011	6:00:00															
29-Sep-2011	12:00:00															
29-Sep-2011	18:00:00															0.13
30-Sep-2011	0:00:00															
30-Sep-2011	6:00:00															
30-Sep-2011	12:00:00															
30-Sep-2011	18:00:00															0.77
1-Oct-2011	0:00:00														10.84	

# **APPENDIX D**

## **2011 Site Photos**



**Appendix D**  
**2011 Site Photos – Floogie Vegetation Plot Photos**



SOA #1 - Station 23+00, beaver activity in channel



SOA #2 - Station 73+70, minor headcut with erosion



**Appendix D**  
**2011 Site Photos – Floogie Vegetation Plot Photos**



SOA #3 - Station 75+00, stable but non- functional rock grade control



SOA #4 - Station 86+75, beaver dam



**Appendix D**  
**2011 Site Photos – Floogie Vegetation Plot Photos**



Station 30+50, sparsely vegetated areas are becoming more densely vegetation and more stable.

Station 79+50, minor erosion



Station 68+20, stable and functional root wad



**Appendix D**  
**2011 Site Photos – Floogie Vegetation Plot Photos**



Station 27+00, stable and functional log vane



Station 69+60, stable and functional log vane



**Appendix D**  
**2011 Site Photos – Floogie Vegetation Plot Photos**



Vegetation Plot #1



Vegetation Plot #2



**Appendix D**  
**2011 Site Photos – Floogie Vegetation Plot Photos**



Vegetation Plot #3



Vegetation Plot #4



**Appendix D**  
**2011 Site Photos – Floogie Vegetation Plot Photos**



Vegetation Plot #5



Vegetation Plot #6



**Appendix D**  
**2011 Site Photos – Floogie Vegetation Plot Photos**



Vegetation Plot #7



Vegetation Plot #8



**Appendix D**  
**2011 Site Photos – Floogie Vegetation Plot Photos**



Vegetation Plot #9



Vegetation Plot #10



**Appendix D**  
**2011 Site Photos – Floogie Vegetation Plot Photos**



Vegetation Plot #11



Vegetation Plot #12



**Appendix D**  
**2011 Site Photos – Floogie Vegetation Plot Photos**



Vegetation Plot #13



Vegetation Plot #14



**Appendix D**  
**2011 Site Photos – Floogie Vegetation Plot Photos**



Vegetation Plot #15



Vegetation Plot #16



**Appendix D**  
**2011 Site Photos – Floogie Vegetation Plot Photos**



Vegetation Plot #17



Vegetation Plot #18





# **APPENDIX E**

## **2011 Morphologic Parameters**



Parameter	Cross Section 1 Pool						Cross Section 2 Riffle						Cross Section 3 Pool						Cross Section 4 Riffle					
Dimension	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5
BF Width (ft)	16.8	16.9	17.2	18.9	19.8		16.4	19.0	20.4	18.6	17.8		19.3	18.8	18.8	20.0	18.9		22.4	19.9	20.3	16.9	17.6	
Floodprone Width (ft)	73.0	70.8	70.9	71.0	71.0		79.3	77.4	76.9	77.6	77.6		77.5	76.8	76.4	77.0	77.0		72.7	65.1	67.5	71.3	17.6	
BF Cross Sectional Area (ft <sup>2</sup> )	34.1	33.9	33.5	34.6	32.6		18.7	21.3	22.6	20.9	19.4		49.0	41.2	42.0	40.7	42.1		26.2	22.4	21.9	19.2	20.0	
BF Mean Depth (ft)	2.0	2.0	1.9	1.8	1.6		1.1	1.1	1.1	1.1	1.1		2.5	2.2	2.2	2.0	2.2		1.2	1.1	1.1	1.1	1.1	
BF Max Depth (ft)	3.8	3.7	3.7	3.7	3.6		2.4	2.5	2.5	2.3	2.4		4.9	4.8	4.6	4.5	4.5		2.9	2.6	2.5	2.2	2.3	
Width/Depth Ratio	8.3	8.4	8.9	10.3	12.0		14.5	17.0	18.4	16.5	16.3		7.6	8.6	8.5	9.8	8.5		19.2	17.6	18.8	14.8	15.6	
Entrenchment Ratio	4.3	3.0	4.1	3.8	3.6		4.8	4.1	3.8	4.2	4.4		4.0	4.1	4.1	3.9	4.1		3.2	3.3	3.3	4.2	4.0	
Wetted Perimeter(ft)	18.9	18.9	19.2	20.9	21.8		17.2	19.7	21.1	19.2	18.5		22.2	21.6	21.2	22.4	21.1		23.3	20.6	21.1	17.5	18.4	
Hydraulic radius (ft)	1.8	1.8	1.7	1.7	1.5		1.1	1.1	1.1	1.1	1.0		2.2	1.9	2.0	1.8	2.0		1.1	1.1	1.0	1.1	1.1	
Parameter	Cross Section 5 Riffle						Cross Section 6 Pool						Cross Section 7 Riffle						Cross Section 8 Pool					
Dimension	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5
BF Width (ft)	16.7	16.5	16.9	18.3	17.4		17.4	18.1	17.7	23.4	20.8		18.5	20.3	17.7	18.7	19.5		19.2	20.0	20.9	21.8	27.2	
Floodprone Width (ft)	69.4	66.2	65.9	66.2	66.2		69.0	66.9	61.3	67.3	67.3		62.2	61.1	57.6	59.7	59.7		60.2	60.0	59.4	60.1	60.1	
BF Cross Sectional Area (ft <sup>2</sup> )	16.4	15.8	15.4	13.7	16.0		28.8	29.7	29.7	30.0	33.4		16.7	19.3	17.3	17.5	24.9		26.0	26.4	27.6	27.8	29.8	
BF Mean Depth (ft)	1.0	1.0	0.9	0.7	0.9		1.7	1.6	1.7	1.3	1.6		0.9	0.9	1.0	0.9	1.3		1.4	1.3	1.3	1.3	1.1	
BF Max Depth (ft)	2.0	2.0	1.9	1.8	2.0		3.4	3.4	3.4	2.8	3.2		1.4	1.7	1.6	1.6	2.1		2.5	2.5	2.4	2.3	2.1	
Width/Depth Ratio	17.0	17.1	18.4	24.4	18.8		10.5	11.1	10.6	18.3	12.9		20.4	21.4	18.1	19.9	15.3		14.1	15.2	15.9	17.1	24.8	
Entrenchment Ratio	4.2	4.0	3.9	3.6	3.8		4.0	3.7	3.5	2.9	3.2		3.4	3.0	3.3	3.2	3.1		3.1	3.0	2.8	2.8	2.2	
Wetted Perimeter(ft)	17.2	17.0	17.3	18.8	17.8		19.0	19.7	19.3	24.6	22.1		18.9	21.2	18.7	19.1	20.3		20.2	20.9	22.0	22.7	27.7	
Hydraulic radius (ft)	1.0	0.9	0.9	0.7	0.9		1.5	1.5	1.5	1.2	1.5		0.9	0.9	0.9	0.9	1.2		1.3	1.3	1.3	1.2	1.1	
Parameter	Cross Section 9 Riffle						Cross Section 10 Pool						Cross Section 11 Riffle						Cross Section 12 Pool					
Dimension	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5
BF Width (ft)	19.0	19.1	18.6	18.8	18.5		22.5	21.7	22.1	23.4	19.1		19.4	19.8	19.3	19.4	19.9		13.0	15.8	16.2	20.8	26.2	
Floodprone Width (ft)	66.1	66.0	66.0	65.9	65.9		80.5	80.2	80.6	80.7	80.7		77.9	74.8	68.8	74.9	74.9		78.7	76.7	76.1	75.9	75.9	
BF Cross Sectional Area (ft <sup>2</sup> )	32.7	29.5	29.0	28.4	25.4		40.1	40.1	41.1	36.8	30.5		21.5	24.1	23.6	23.8	23.2		25.7	27.4	28.8	32.5	36.6	
BF Mean Depth (ft)	1.7	1.5	1.6	1.5	1.4		1.8	1.8	1.9	1.6	1.6		1.1	1.2	1.2	1.1	0.9		2.0	1.7	1.8	1.6	1.4	
BF Max Depth (ft)	2.9	2.7	2.6	2.6	2.4		3.8	3.7	3.7	3.4	2.9		2.7	2.8	2.7	2.7	2.6		3.9	3.9	3.9	4.2	4.1	
Width/Depth Ratio	11.1	12.4	12.0	12.4	13.5		12.7	11.8	11.9	14.8	11.9		17.5	16.3	15.8	18.1	28.2		6.6	9.2	9.2	13.3	18.8	
Entrenchment Ratio	3.5	3.4	3.5	3.5	3.6		3.6	3.7	3.7	3.5	4.2		4.0	3.8	3.6	3.6	2.9		6.1	4.8	4.7	3.6	2.9	
Wetted Perimeter(ft)	20.1	20.1	19.6	19.9	19.4		24.2	23.8	24.2	24.6	20.1		20.5	20.6	20.1	21.6	26.4		15.3	17.7	18.1	22.9	28.1	
Hydraulic radius (ft)	1.6	1.5	1.5	1.4	1.3		1.7	1.7	1.7	1.5	1.5		1.1	1.2	1.2	1.1	0.9		1.7	1.5	1.6	1.4	1.3	

Parameter	Cross Section 13 Pool						Cross Section 14 Riffle						Cross Section 15 Riffle						Cross Section 16 Pool					
Dimension	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5
BF Width (ft)	19.7	19.2	18.5	22.8	22.5		18.8	18.4	19.6	19.8	19.5		17.5	17.0	18.9	18.0	17.6		19.7	23.9	23.6	23.1	22.5	
Floodprone Width (ft)	69.8	70.0	70.0	70.0	70.0		63.8	63.3	63.6	63.4	63.3		66.8	66.8	62.0	66.6	66.9		60.8	60.7	60.6	60.8	60.7	
BF Cross Sectional Area (ft <sup>2</sup> )	26.4	23.9	23.4	27.2	28.7		24.3	24.0	24.8	23.4	24.7		15.9	18.4	21.9	22.6	21.2		49.7	48.5	62.6	55.2	51.2	
BF Mean Depth (ft)	1.3	1.2	1.3	1.2	1.3		1.3	1.3	1.3	1.1	0.9		0.9	1.1	1.2	1.3	1.2		2.5	2.0	2.1	2.4	2.3	
BF Max Depth (ft)	2.7	2.6	2.6	2.5	2.6		2.2	2.2	2.3	2.0	2.1		1.5	2.8	2.9	2.9	3.0		5.0	5.0	4.8	4.6	4.4	
Width/Depth Ratio	14.7	15.5	14.7	19.1	17.6		14.6	14.1	15.5	18.7	28.6		19.3	15.7	16.2	14.3	14.6		7.8	11.8	10.6	9.7	9.9	
Entrenchment Ratio	3.5	3.6	3.8	3.1	3.1		3.4	3.4	3.2	3.0	2.4		3.8	3.9	3.3	3.7	3.8		3.1	2.5	2.6	2.6	2.7	
Wetted Perimeter(ft)	20.4	19.9	19.4	23.5	23.1		19.5	19.1	20.4	21.3	27.0		17.9	18.2	20.1	19.3	19.4		22.3	26.3	25.6	25.3	25.0	
Hydraulic radius (ft)	1.3	1.2	1.2	1.2	1.2		1.2	1.3	1.2	1.1	0.9		0.9	1.0	1.1	1.2	1.1		2.2	1.8	2.1	2.2	2.1	
Parameter	Cross Section 17 Pool						Cross Section 18 Riffle						Cross Section 19 Pool						Cross Section 20 Riffle					
Dimension	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5
BF Width (ft)	15.9	16.5	15.3	18.4	18.2		18.0	17.0	17.6	19.7	19.0		15.2	15.1	16.2	16.7	17.0		13.6	14.4	15.1	14.9	15.1	
Floodprone Width (ft)	74.1	71.0	74.4	74.1	74.1		76.3	76.1	76.3	76.9	77.0		81.6	81.9	82.0	81.6	81.9		97.2	96.9	96.9	97.1	97.6	
BF Cross Sectional Area (ft <sup>2</sup> )	51.1	49.9	50.3	55.8	56.0		56.5	51.7	53.3	59.3	58.4		46.3	45.0	46.6	47.7	46.3		32.5	35.0	36.6	39.7	37.2	
BF Mean Depth (ft)	3.2	3.0	3.3	3.0	3.1		3.1	3.0	3.0	3.0	3.1		3.0	3.0	2.9	2.9	2.7		2.4	2.4	2.4	2.7	2.5	
BF Max Depth (ft)	5.0	5.1	4.9	5.4	5.3		4.5	4.4	4.2	4.7	4.9		4.9	4.8	4.7	4.7	4.6		3.0	3.4	3.4	3.6	3.4	
Width/Depth Ratio	5.0	5.5	4.7	6.1	5.9		5.7	5.6	5.8	6.6	6.2		5.0	5.1	5.7	5.8	6.3		5.7	5.9	6.3	5.6	6.2	
Entrenchment Ratio	4.7	4.3	4.9	4.0	4.1		4.2	4.5	4.3	3.9	4.0		5.4	5.4	5.0	4.9	4.8		7.1	6.7	6.4	6.5	6.4	
Wetted Perimeter(ft)	20.6	20.8	19.3	22.6	22.9		22.2	21.3	21.5	24.4	23.6		19.3	18.8	19.5	20.1	20.3		16.1	17.1	17.8	17.7	18.3	
Hydraulic radius (ft)	2.5	2.4	2.6	2.5	2.4		2.5	2.4	2.5	2.4	2.5		2.4	2.4	2.4	2.4	2.3		2.0	2.1	2.1	2.2	2.0	





