

**Gregory Mitigation Project  
Halifax County, North Carolina**

**Year 3 Monitoring Report**



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## **1.0 SUMMARY**

This Annual Report details the monitoring activities during the 2007 growing season on the Gregory Mitigation Site. Construction of the site, including planting of trees, was completed in January 2005. The 2007 data represents results from the third year of monitoring for both wetlands and streams. Restoration of the Gregory site involved the restoration of a "small stream swamp" with associated "bottomland hardwood" and "cypress swamp" communities as described by Schafale and Weakley (1990). Restoration of the site involved the restoration of one stable meandering channel across the hydric farm fields on the site. The channel was designed and constructed using natural channel design techniques. Restoration also involved raising the local water table by filling the drainage ditches on-site and scarification of the fields and breaking of the local plow pan to provide increased surface storage of water. After construction, it was determined that 6,757 feet of stream and 85.8 acres of wetland hydrology were restored. Appendix A contains the As-Built survey for the Gregory Site.

This Annual Report presents the data from hydrology monitoring stations, vegetation monitoring stations, and stream monitoring, as required by the approved Restoration Plan for the site. Three of the hydrologic stations are equipped with manual groundwater gauges and ten stations are equipped with automated gauges and a manual calibration gauge.

In 2007, one of 13 hydrology monitoring gauges recorded a hydroperiod of at least 12.5 percent of the growing season. Of the remaining twelve gauges, two exhibited hydroperiods greater than 11 percent of the growing season. The western gauges (AW1, AW2, AW5, AW8, and AW10) exhibited conditions drier than expected likely due to topographical differences and the extreme drought occurring in 2007. Drought conditions affected both the mitigation site and the reference site, resulting in shorter than normal hydroperiods. It is important to note that the hydrology of the targeted restored wetland system (Coastal Plain, small stream swamp) is highly variable across a given site, supporting the ecological and functional diversity that makes these systems so valuable.

Weather station data from the Enfield weather station were used in conjunction with a manual rain gauge located on the site to document precipitation amounts. The manual gauge is used to validate observations made at the automated station. Below normal rainfall in the month of March resulted in reduced hydroperiods during the early part of the growing season, and an increasing rainfall deficit during the year contributed to continued dryness observed at groundwater gauges.

This Annual Report documents vegetation survivability based on seven vegetation-monitoring plots, as specified in the approved Restoration Plan for this site. Three monitoring plots 1/10th of an acre in size and four 25 foot x 100 foot plots were used to predict survivability of the woody vegetation planted on site. Three of the plots are located adjacent to the newly constructed streambed to monitor the vegetation adjacent to the stream bank. The vegetation monitoring indicated a survivability range of 410 stems per acre to 600 stems per acre with an average of 552 stems per acre. Overall, the site has met the initial vegetation survival criteria of 320 stems per acre surviving after the third growing season as specified in the Restoration Plan for the site.

The restored stream channel has remained stable and is providing the intended habitat and hydrologic functions. Three bankfull events were recorded during the year. All monitored cross sections show very little adjustment in stream dimension, and it was concluded that the site remains on track to achieve the stream success criteria specified in the Restoration Plan for the site.

## **2.0 INTRODUCTION**

### **2.1 PROJECT**

The Gregory wetland and stream restoration site is located near the town of Halifax in Halifax County, North Carolina (Figure 1 and Figure 2). The site has a past history of agricultural use consisting primarily of row crop agriculture. Ditches on the site were used to increase subsurface drainage when the land was under agricultural production. Construction of the site, including planting of trees, was completed in January 2005. Groundwater, surface water, and rain gauges were functional beginning February 1, 2005. The 2007 monitoring season represents the third year of monitoring for the site. Appendix A contains the As-Built Survey for the Gregory Site.

### **2.2 PROJECT PURPOSE**

The Gregory site involved the restoration of a "small stream swamp" with associated "bottomland hardwood" and "cypress swamp" communities as described by Schafale and Weakley (1990). Monitoring of the Gregory Site is required to demonstrate successful restoration based on the criteria found in the Restoration Plan. Hydrologic, vegetation, and stream monitoring are conducted on an annual basis. This Annual Report details the results of the monitoring efforts for 2007 (Year 3) at the Gregory Mitigation Site. Table 1 details the project history and schedule.

**Table 1 Project History and Schedule**

Project History	
<b>June 2004</b>	<b>Approved Restoration Plan</b>
<b>January 2005</b>	<b>Construction Completed</b>
<b>February 2005</b>	<b>Post-restoration Monitoring Begins</b>
<b>November 2005</b>	<b>1st Annual Monitoring Report</b>
<b>November 2006</b>	<b>2nd Annual Monitoring Report</b>
<b>November 2007</b>	<b>3rd Annual Monitoring Report</b>
<b>November 2008 (scheduled)</b>	<b>4th Annual Monitoring Report</b>
<b>November 2009 (scheduled)</b>	<b>5th Annual Monitoring Report</b>

## **3.0 HYDROLOGY**

### **3.1 SUCCESS CRITERIA**

The hydrologic success criteria for this site requires that for each normal year of rainfall within the monitoring period, the groundwater table remain within 12 inches of the soil surface continuously for at least 12.5 percent of the growing season (28 consecutive days). The approved Restoration Plan specifies that data are collected from eight automated and four manual groundwater gauges. In 2007, data were collected from ten automated and three manual groundwater gauges to document the hydrologic conditions.

The day counts are based on the growing season for Halifax County. At the time of the Restoration Plan preparation the NRCS did not publish temperature data in the Wetlands Determination Tables (WETS) for Halifax County, therefore the growing season was determined by averaging the beginning and ending dates from two east/west adjacent counties, Warren and Bertie. NRCS calculates that the Warren County growing season is 219 days, beginning on March 30 and ending November 4. The Bertie County growing season is 231 days, beginning on March 22 and ending November 8. The average of the two growing seasons used for success criteria for the Gregory site is 225 days, beginning on March 26 and ending November 6.

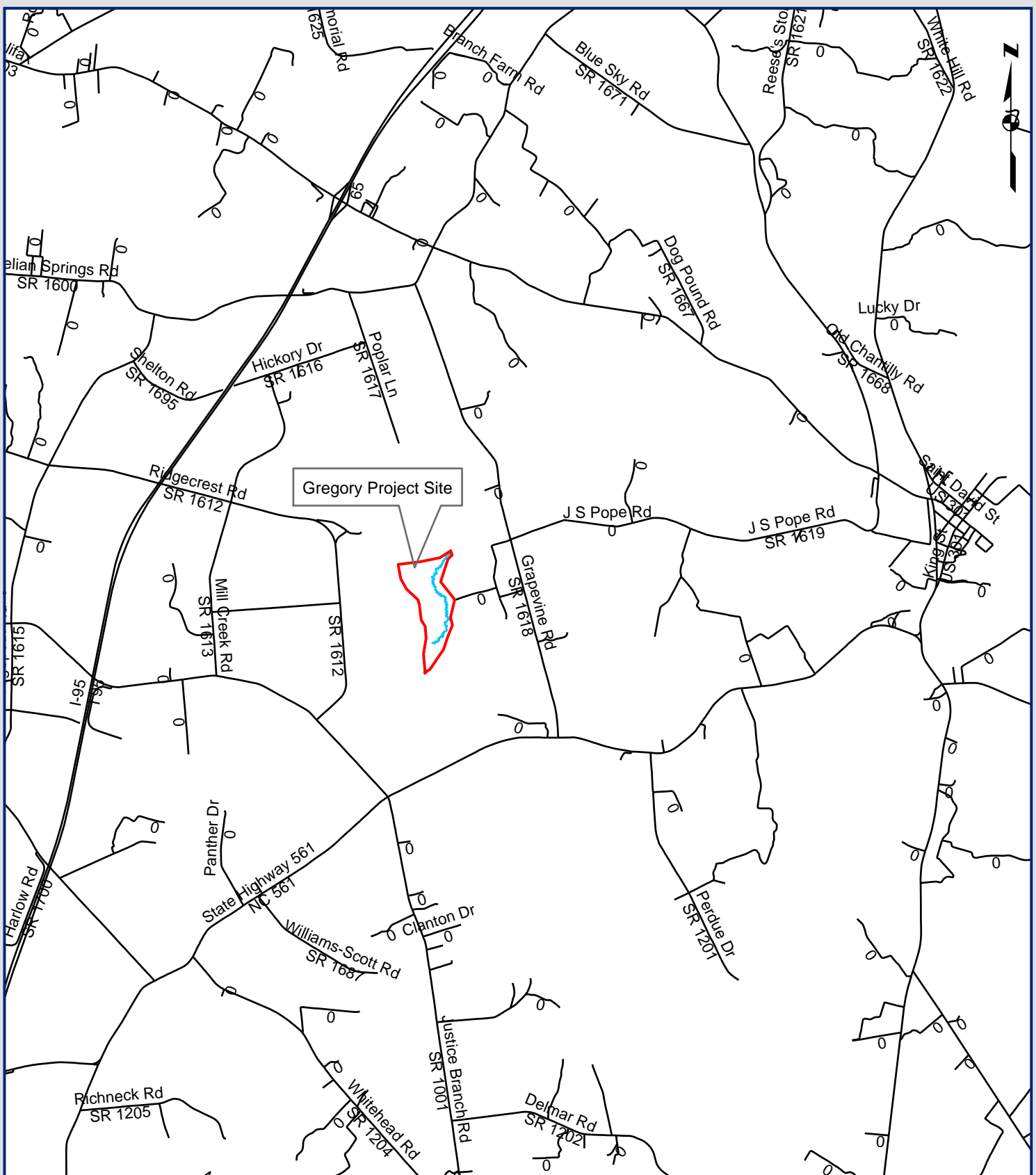
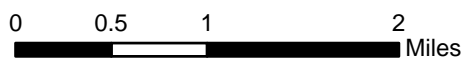
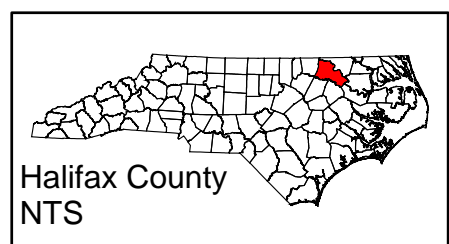
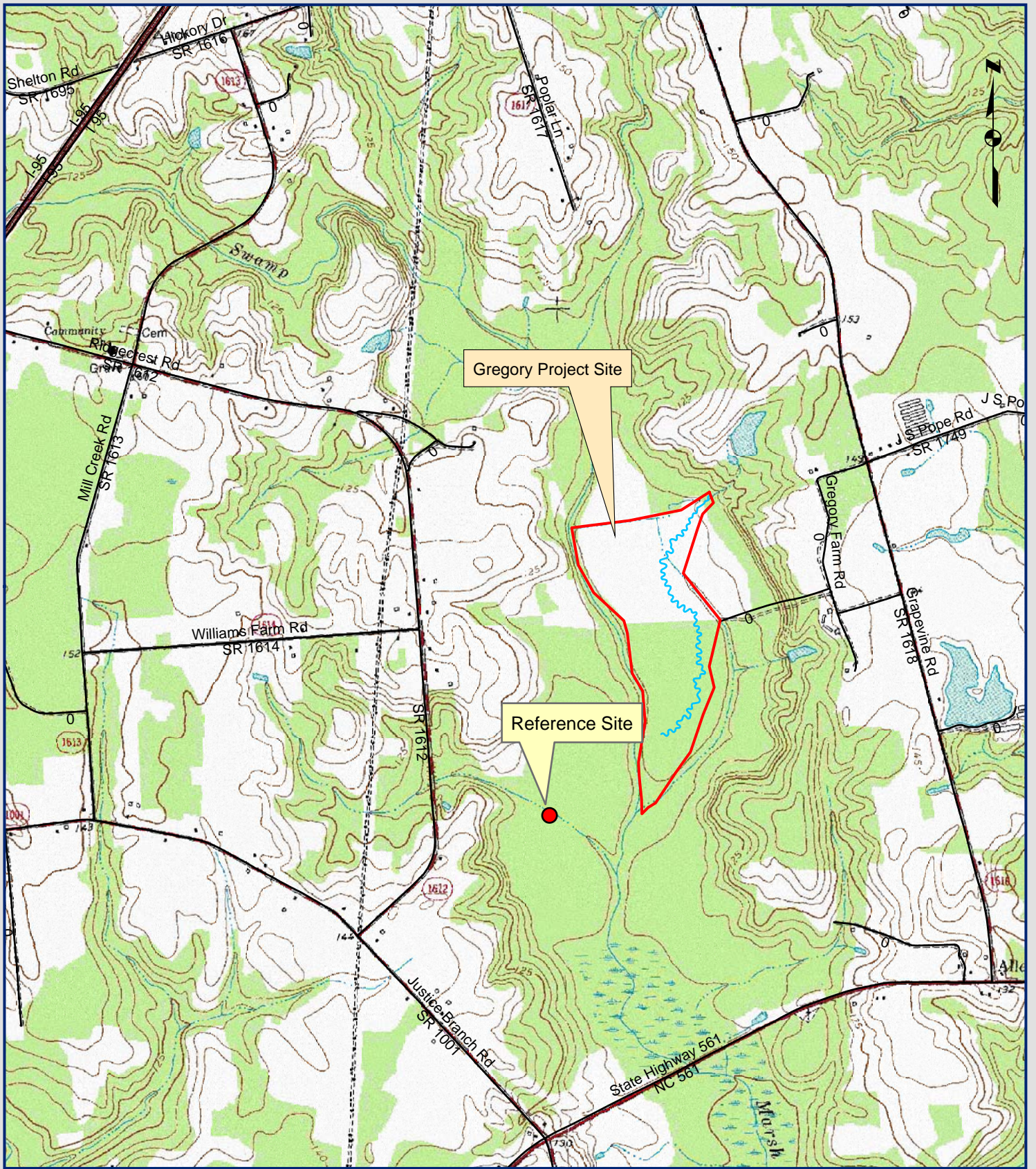


Figure 1. Gregory Site  
Halifax County  
Vicinity Map



- Legend**
- Streams
  - Roads
  - Gregory Site





Gregory Project Site

Reference Site



Figure 2. Gregory Site  
Halifax County  
USGS Map

0 500 1,000 2,000 3,000 4,000  
Feet

- Reference\_Sites
- Streams
- Roads
- Gregory Site

### **3.2 DESCRIPTION OF HYDROLOGIC MONITORING EFFORTS**

Four manual groundwater gauges, eight automated Infinities groundwater gauges, and two manual stream crest gauges were installed prior to the beginning of the first growing season (Figure 3). Manual gauge 11 was replaced with automated gauge 11, and automated gauge 13 was added prior to the 2007 growing season, for a total of ten automated and three manual gauges. Groundwater gauges, both manual and automated, were installed to a minimum depth of at least 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, manual and automated groundwater gauges are read and rainfall totals are collected from the on-site rain gauge. During the 2007 monitoring year, a malfunction due to low batteries in the calculators used to collect automated gauge data resulted in data loss from January 1 to February 18, 2007 for all automated gauges. Gaps in data occur in automated gauge 12 and reference gauges 2 and 4. It is likely that dry conditions caused these wells to fill with dried mud resulting in faulty readings. All other gauges worked well throughout the 2007 monitoring season.

#### *Automated Gauges*

Automatic groundwater gauges record water table elevations twice daily at 08:00 and 20:00 (8:00 AM and 8:00 PM). Infinities gauges employ pressure sensors that record water elevation above the bottom of the sensor (with atmospheric pressure compensation). Remote Data Systems gauges use a capacitive probe to directly measure depth of the water from a “zero” point (ground surface). Immediately adjacent to each automatic gauge is a manual calibration gauge. 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 used to determine wetland hydroperiods.

#### *Manual Gauges*

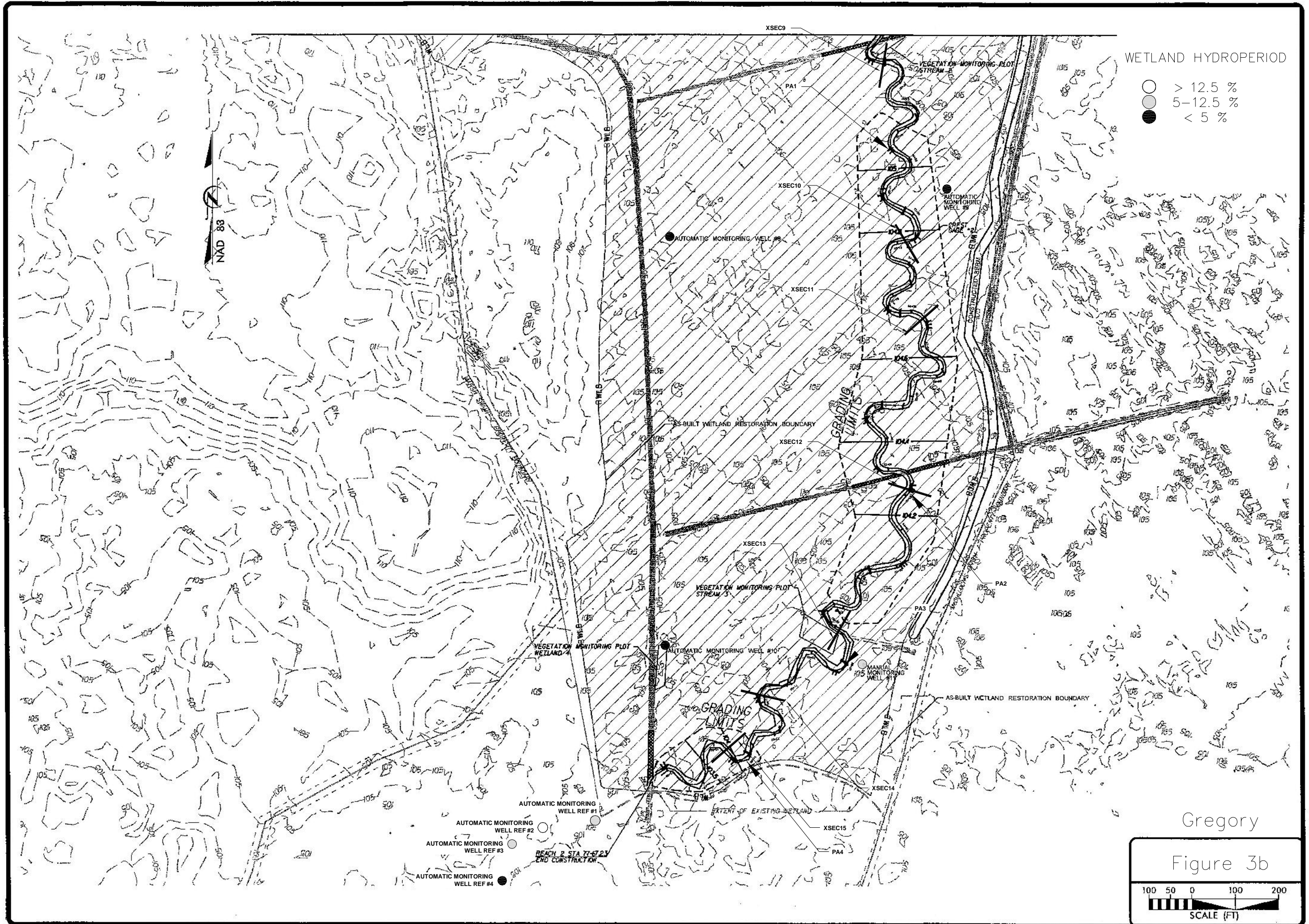
Water table depths are recorded monthly in manual groundwater wells. To calculate wetland hydroperiods, interpolations are made between monthly readings by correlating twice daily automatic gauge readings. Each manual gauge is correlated to an automatic gauge based on proximity, landscape position, and the relationship of their groundwater depth readings (i.e. if their readings are separated by a consistent value). Once the appropriate automatic gauge has been selected, a correction factor is calculated for each monthly gauge reading. This correction factor typically varies by several inches on a monthly basis. A daily rate of change between monthly correction factors is calculated to determine the daily correction factor. The daily correction factor is then applied to the automatic gauge readings to calculate an estimated daily water table depth for the manual gauge. These daily readings are used to determine wetland hydroperiods.

#### *Data Interpretation*

Wetland hydroperiods are calculated from twice daily water table depth recordings from automatic gauges. A wetland hydroperiod is defined as when the water table is equal to or less than 12 inches below ground surface for at least 24 hours. If a water table falls below 12 inches for two consecutive readings (24 hours), then the wetland hydroperiod ends at the last reading within 12 inches. If a water table falls below -12 inches for only one reading then maintains a reading above -12 inches for a minimum of 24 hours then the wetland hydroperiod is calculated continuously. This methodology accounts for minor technical malfunctions occasionally experienced by the automatic gauges.







WETLAND HYDROPERIOD

- > 12.5 %
- 5-12.5 %
- < 5 %

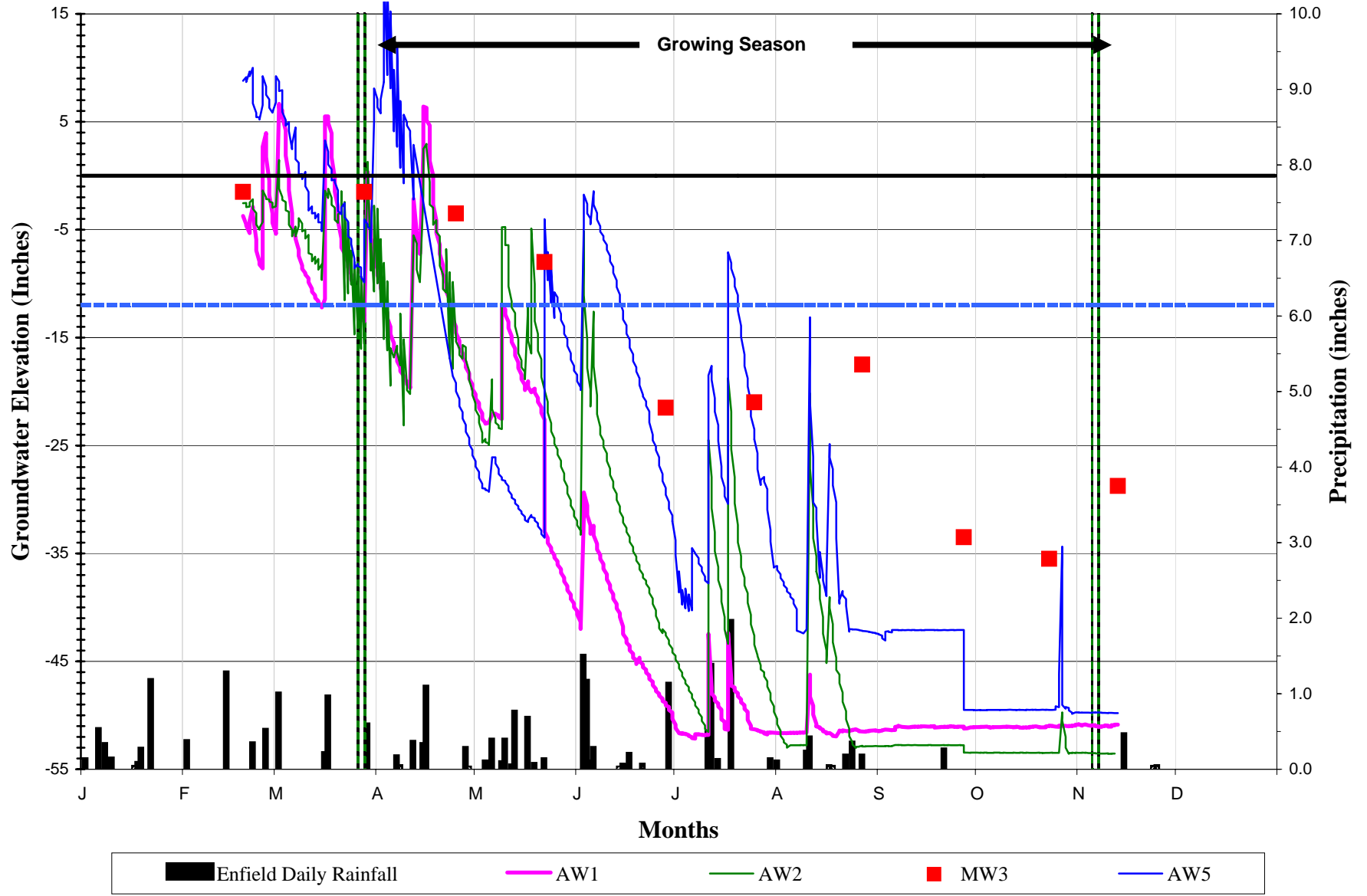
Gregory

Figure 3b

100 50 0 100 200

SCALE (FT)

Figure 4A. 2007 Gregory Groundwater Gauges



**Figure 4B. 2007 Gregory Groundwater Gauges**

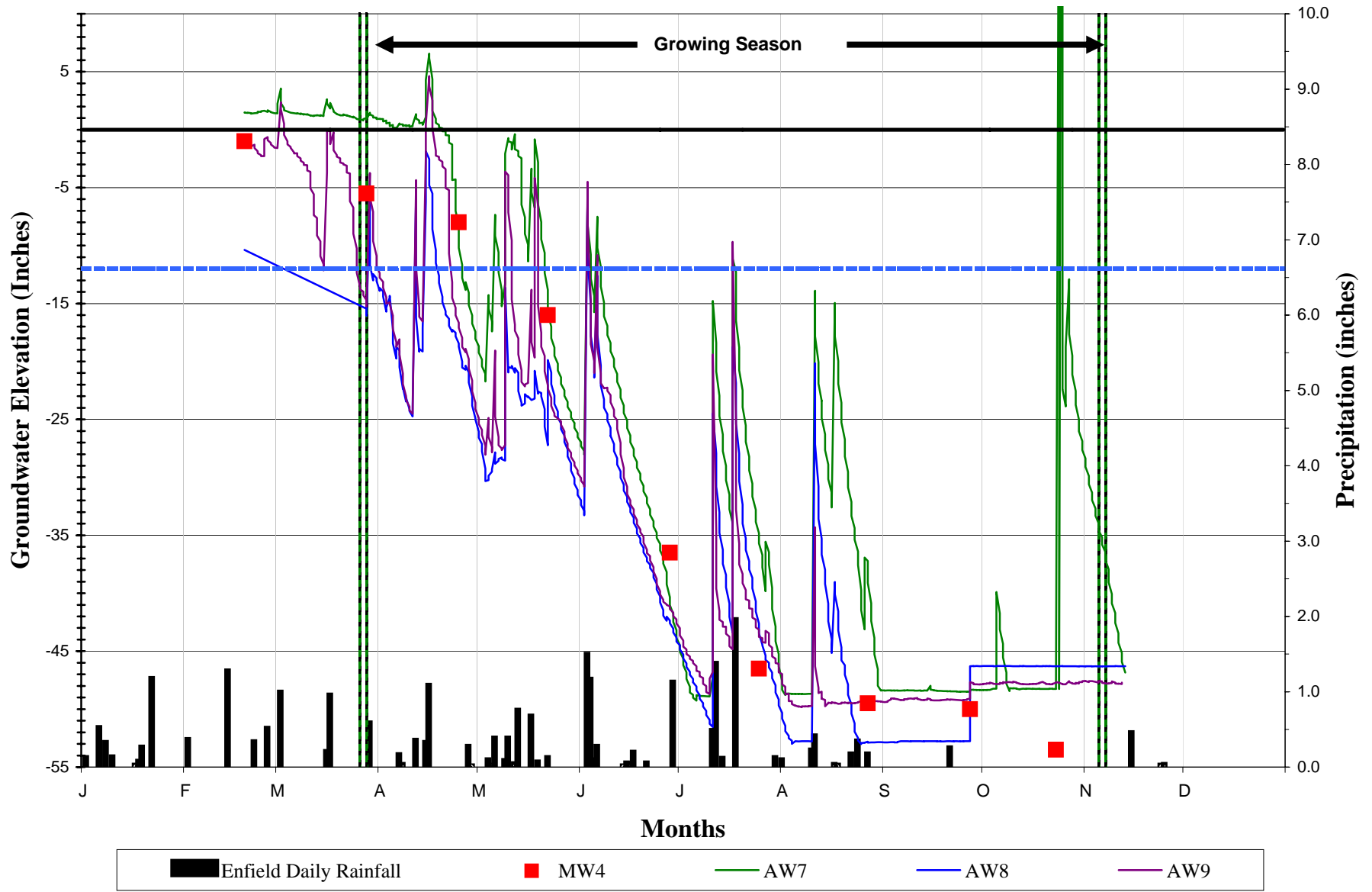


Figure 4C. 2007 Gregory Groundwater Gauges

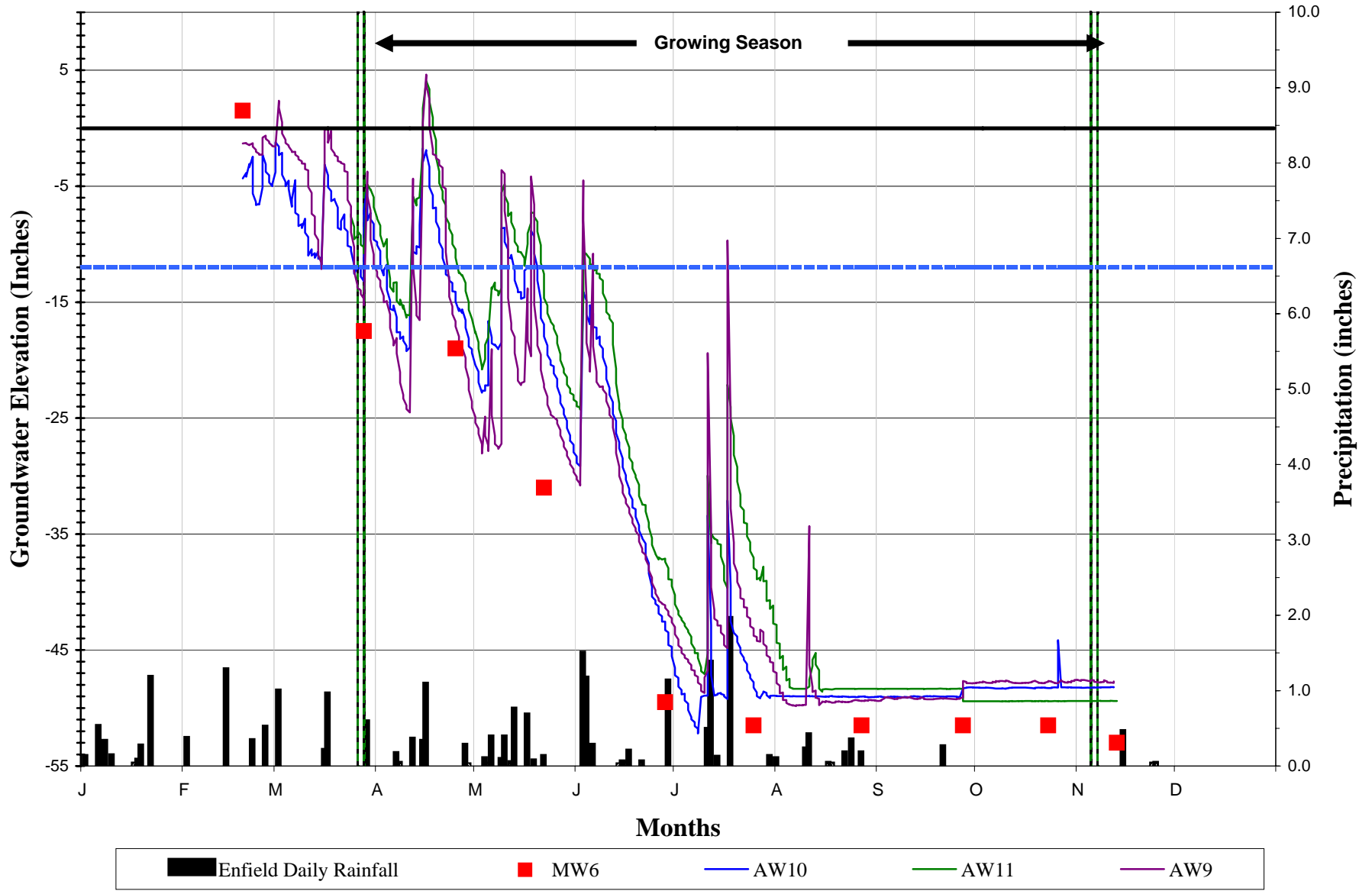


Figure 4D. 2007 Gregory Groundwater Gauges

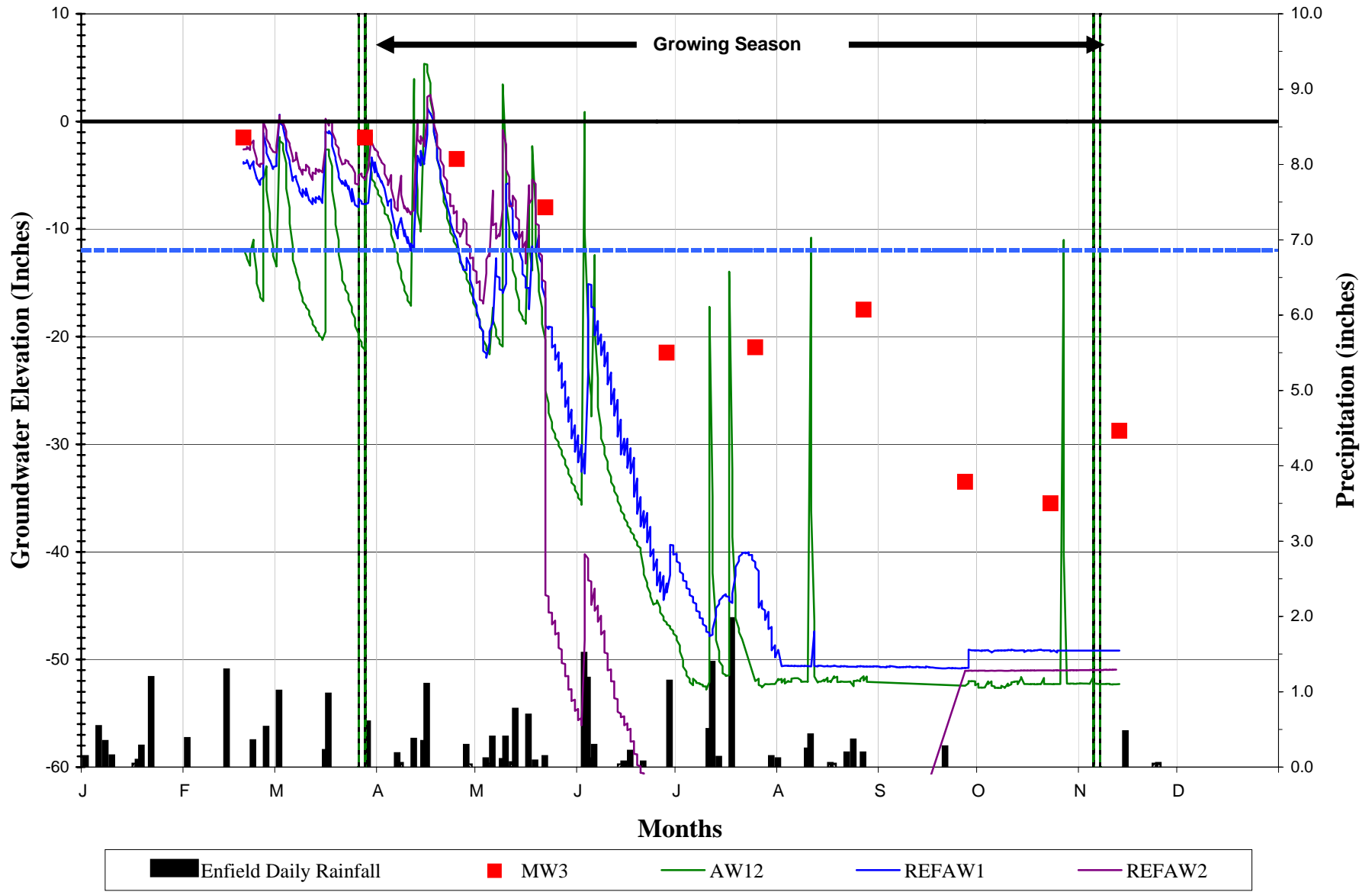
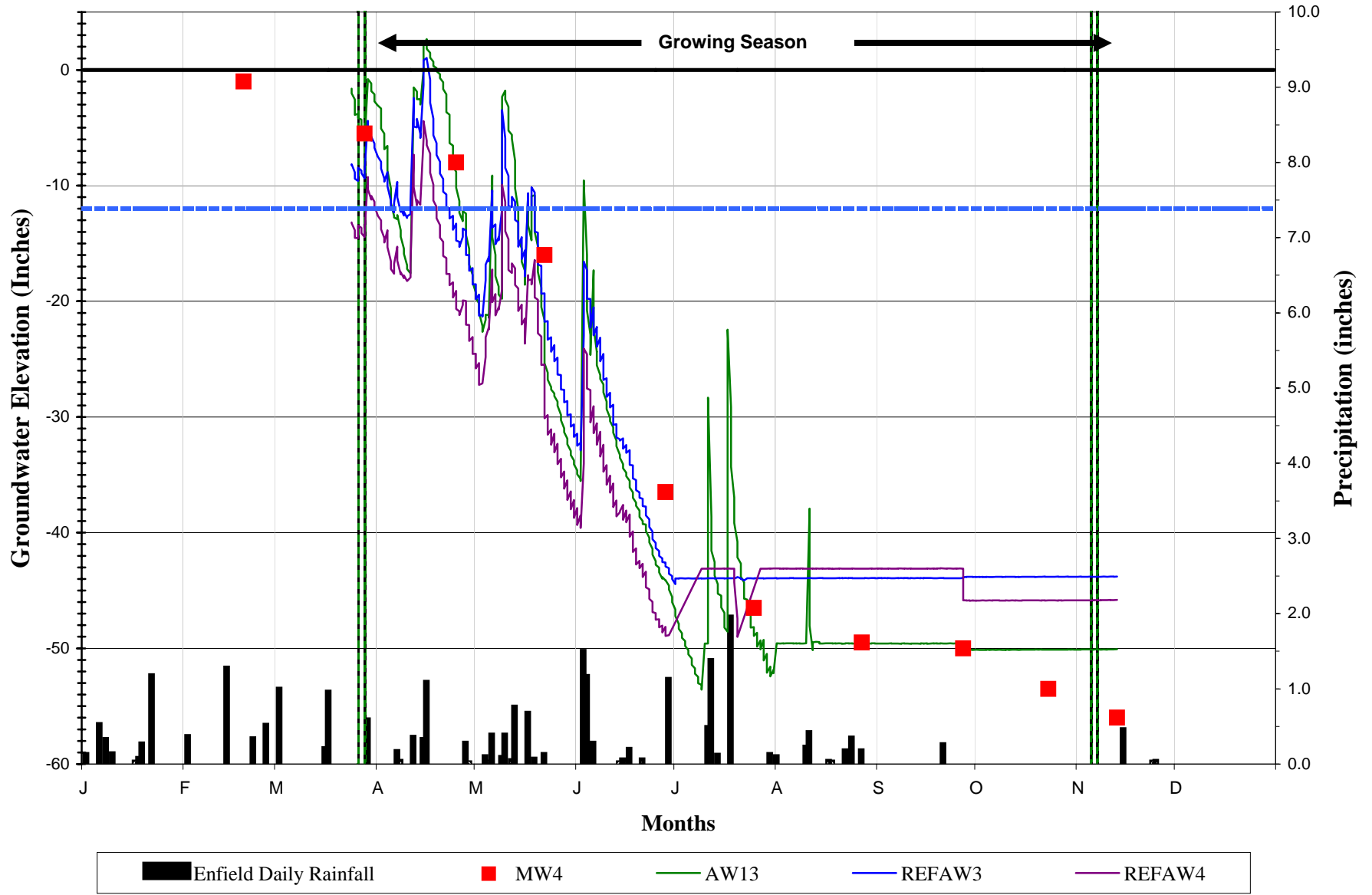


Figure 4E. 2007 Gregory Groundwater Gauges



### 3.3 RESULTS OF HYDROLOGIC MONITORING

#### 3.3.1 Site Data

The following hydroperiod statistics were calculated for each monitoring station during the growing season: 1) most consecutive days that the water table was within twelve inches of the soil surface; 2) cumulative number of days that the water table was within twelve inches of the soil surface; and 3) number of times that the water table rose to within twelve inches of the soil surface. The results of these calculations are presented in Table 2. Figure 4a through 4e provides graphs of the water depth for each of the monitoring gauges on the site. This graph illustrates the reaction at each monitoring location of the groundwater level to specific rainfall events. Raw hydrograph data collected from the monitoring gauges are provided in Appendix C.

As stated in the approved Restoration Plan, to meet the hydrologic success criteria, the monitoring data must show that for each normal year of rainfall within the monitoring period, the site has been inundated or saturated within 12 inches of the soil surface for a minimum of 12.5 percent of the growing season (28 consecutive days). The Gregory restoration site again experienced lower than normal rainfall and drought conditions consistent with state-wide trends. Monitoring has thus far demonstrated that much of the site is being impacted by persistent and worsening drought conditions. Gauges AW7, MW3, and MW4 were the only gauges that exceeded the 12.5 percent hydrologic success criteria.. Gauges AW1, AW2, AW5, AW9, AW10, AW11, AW12, and AW13 exhibited saturated conditions early in the growing season but not of great duration. Gauges AW8 and MW6 exhibited the least amount of cumulative saturation. AW8 performed the poorest of all gauges. Throughout the site, the only significant consecutive hydroperiods occurred in March and April and no significant consecutive hydroperiods have been recorded since May 2007, except in June at AW5.

**Table 2 Hydrologic Monitoring Results**

2007 Max Hydroperiod (Growing Season 26-Mar through 6-Nov, 225 days)					
Gauge	Consecutive		Cumulative		Occurrences
	Days	Percent of growing Season	Days	Percent of growing Season	
AW1	12	5%	17	8%	2
AW2	13	6%	28	12%	5
MW3	38	17%	80	36%	7
MW4	31	14%	43	19%	6
AW5	16	7%	35	16%	5
MW6	2	1%	2	1%	1
AW7	31	14%	47	21%	5
AW8	4	2%	6	3%	3
AW9	8	4%	15	7%	5
AW10	11	5%	23	10%	4
AW11	14	6%	76	34%	4
AW12	14	6%	39	17%	4
AW13	15	7%	35	16%	5



### 3.3.2 Reference Data

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

Two additional reference automated wells were installed prior to the 2007 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 3). Reference well RAW2 exceeded the 12.5 percent wetland hydroperiod established as success criteria for the site due to long consecutive hydroperiods recorded in March and April. Reference wells RAW3 and RAW4 were below 7 percent wetland hydroperiod and RAW4 exhibited a low cumulative wetland hydroperiod. The reference wells are located within the floodplain for Marsh Swamp near the southern end of the restoration site. Beaver activity in Marsh Swamp typically keeps the floodplain in this area inundated for much of the growing season; however, as an indication of drought conditions, no wetland hydroperiods were recorded for this area after May 2007.

**Table 3 Reference Hydrologic Monitoring Results**

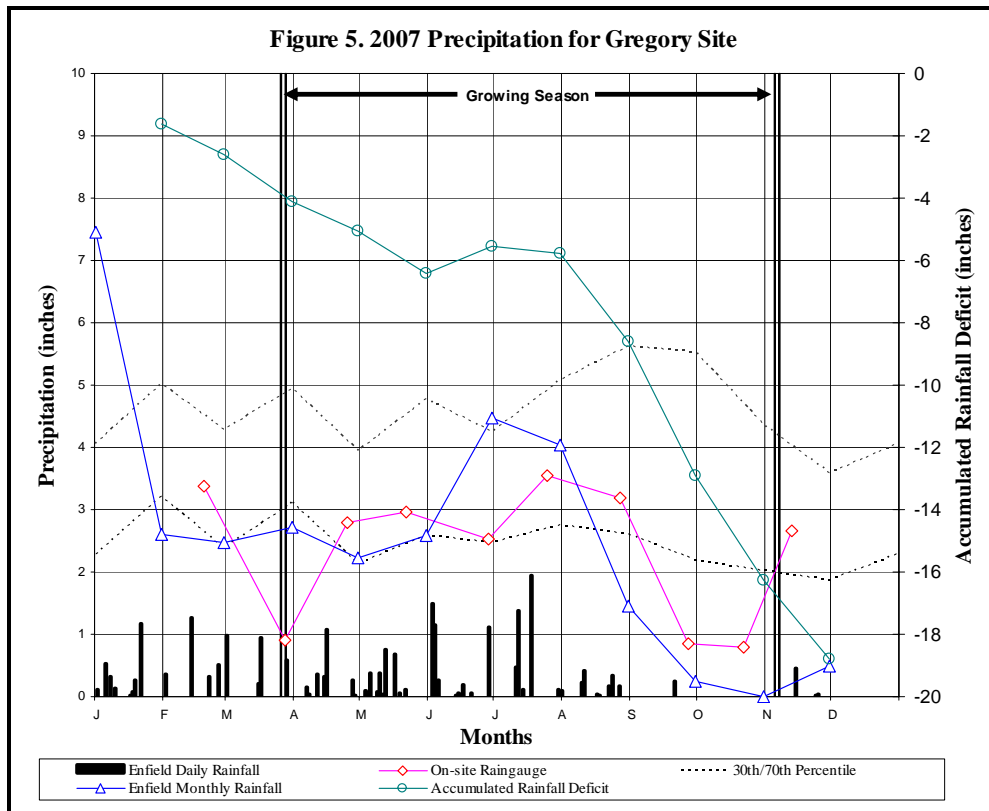
2007 Max Hydroperiod (Growing Season 26-Mar through 6-Nov, 225 days)					
Gauge	Consecutive		Cumulative		Occurrences
	Days	Percent of Growing Season	Days	Percent of Growing Season	
RAW1	15	7%	36	16%	4
RAW2	34	15%	46	22%	2
RAW3	14	6%	33	15%	4
RAW4	8	4%	12	5%	3

### 3.3.3 Climate Data

Figure 5 is a comparison of the 2007 monthly rainfall to historical precipitation for Halifax County (NRCS WETS Tables). Observed precipitation data were collected from an automated weather station in Enfield and an on-site manual rain gauge. No on-site gauge data was recorded for January, and February data is the cumulative rainfall for both months. The rainfall total from the Enfield weather station does not correlate well with data collected from the on-site manual rain gauge in March, June and August. The on-site gauge recorded much lower rainfall in March and June and much higher rainfall in August. In February, April, and May, the on-site gauge recorded slightly higher rainfall totals than the Enfield weather station. Enfield and on-site data indicates that monthly rainfall amounts for the area were below average for the majority of the 2007 growing season. Rainfall amounts were well below the normal limits in March and September and at the low end of the normal limits in May, June, July, and August. The accumulated rainfall deficit increased steadily from -1.62 inches in January to -18.79 inches in November.

**Table 4 Halifax County Rainfall and 2007 Year Observed Rainfall**

Month	Average	Normal Limits		Enfield Precipitation	On-Site Precipitation	Accumulated Rainfall Deficit
		30 Percent	70 Percent			
January	4.23	3.20	5.01	2.61	---	-1.62
February	3.47	2.37	4.29	2.47	3.37	-2.62
March	4.22	3.12	4.95	2.72	0.91	-4.12
April	3.16	2.14	3.94	2.22	2.80	-5.06
May	3.94	2.58	4.77	2.59	2.96	-6.41
June	3.62	2.48	4.25	4.47	2.53	-5.56
July	4.25	2.76	5.07	4.03	3.55	-5.78
August	4.26	2.60	5.62	1.45	3.18	-8.59
September	4.58	2.19	5.52	0.25	0.84	-12.92
October	3.33	2.01	4.35	0.00	0.80	-16.25
November	3.04	1.86	3.59	0.50	2.66	-18.79
Total	31.15	21.25	37.90	23.31	23.60	---



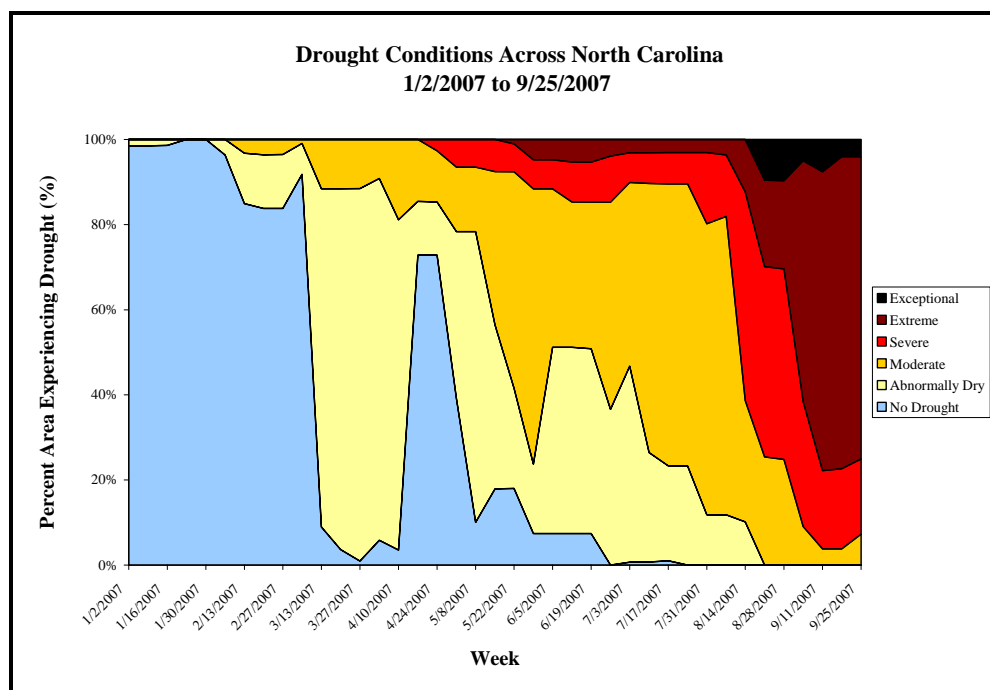
**Figure 5 2007 Precipitation Chart**

### 3.4 HYDROLOGIC CONCLUSIONS

#### 3.4.1 Drought Conditions

The entire state of North Carolina experienced increasingly severe drought conditions throughout 2007, with some areas experiencing the lowest average stream flows on record. The first signs of drought began in February in the western part of the state. By early spring, abnormally dry conditions had spread across the state, and the western edge of the state began to see “moderate” drought conditions. From late spring through the summer, conditions steadily worsened. By August, 98% of North Carolina’s land area was designated as being in either “severe”, “extreme”, or “exceptional” drought. Additionally, lowest-ever average stream flows were recorded at 13 monitoring stations in August, including 9 in central North Carolina, two in the mountains, and two on the coastal plain. Nearly the entire state was categorized as experiencing “extreme” drought in September, with the southwest portion of the state categorized as experiencing “exceptional” drought. Figure 6 depicts the increasing severity of the drought throughout the year.

The Gregory restoration site experienced drought conditions consistent with state-wide trends. Precipitation levels at the Enfield monitoring station, near the Gregory site, fluctuated within the low end and slightly below the normal range from January to May. Rainfall levels were slightly above normal in June, and within the normal range in July. The site received 1.45 inches of rain in August, which is 2.81 inches below average. In September, precipitation levels reached just 0.25 inches which is 4.33 inches below average. The accumulated rainfall deficit—the difference between the long-term average and the observed monthly precipitation levels, aggregated monthly—began at -1.62 inches in January and increased to -6.41 inches in May. The deficit began to recover in June, then increased steadily through the summer, and dropped to -18.79 inches by the end of November. Persistent and worsening drought conditions severely impacted the wetland hydroperiods at the Gregory restoration site.



**Figure 6 Drought Conditions Across North Carolina**

### **3.4.2 Hydrologic Conclusion**

Data collected from the groundwater monitoring gauges on the Gregory Mitigation Site document that three of thirteen hydrology monitoring stations (AW7, MW3, and MW4) recorded a hydroperiod of at least 12.5 percent of the growing season. The remaining gauges recorded hydroperiods below 8.0 percent of the growing season. The only significant consecutive hydroperiods occurred in March and April and no significant consecutive hydroperiods were recorded after May 2007 in the wetland mitigation site or the reference site, except in AW5. Monitoring demonstrated that both the mitigation and reference sites are being impacted by persistent and worsening drought conditions.

Rainfall data indicates that March was unusually dry compared to normal rainfall totals. This is the first month of the growing season and is historically the period when the water table is closest to the surface for the longest continuous period. Drought conditions worsened significantly in the September through November period.

Based on the results from the mitigation site monitoring wells relative to the reference site monitoring wells and the abnormal drought conditions, it is concluded that most of the site is performing as designed. As was observed in 2006, the western limit of wetland restoration (AW1, AW2, AW5, AW8, and AW10) was drier than expected. Minor topographical differences between the elevated western portion and lower eastern portion of the site, combined with drought, are likely playing a role in short hydroperiods being recorded at these wells.

## **4.0 VEGETATION**

### **4.1 VEGETATION SUCCESS CRITERIA**

The interim measure of vegetative success for the Gregory Mitigation Plan is the survival of at least 320 3-year old planted trees per acre at the end of Year 3 of the monitoring period. The final vegetative success criteria will be the survival of 260 5-year old planted trees per acre at the end of Year 5 of the monitoring period as specified in the Restoration Plan for the site.

Up to 20% of the site species composition may be comprised of invaders. Remedial action may be required should these (i.e. loblolly pine, red maple, sweet gum, etc.) present a problem and exceed 20% composition.

### **4.2 DESCRIPTION OF SPECIES AND VEGETATION MONITORING**

The following monitoring protocol was designed to predict vegetative survivability. Seven plots were established on the Gregory Mitigation Site, to monitor approximately 0.65% of the site. The three stream bank vegetation monitoring plots were designed to be 1/10th of an acre in size, or 50' x 87.5' dimensionally. Four other plots are designed to be 25 feet x 100 feet dimensionally. The plots were randomly located and randomly oriented within the wetland restoration area.

Plot construction involved using metal fence posts at each of the four corners to clearly and permanently establish the area that was to be sampled. Then ropes were hung connecting all four corners to help in determining if trees close to the plot boundary were inside or outside of the plot. Trees right on and just outside of the plot boundary that appear to have greater than 50% of their canopy inside the boundary were counted as inside the plot. A piece of white PVC pipe ten feet tall was placed over the metal post on one corner to facilitate visual location of each plot throughout the five-year monitoring period.

All of the planted stems inside the plot were flagged with orange flagging and marked with a 3 foot tall piece of half inch PVC to mark them as the planted stems (vs. any colonizers) and to help in locating them in the future. Each stem was then tagged with a permanent numbered aluminum tag.

**Table 5 Planted Tree Species**

ID	Scientific Name	Common Name	FAC Status
1	<i>Nyssa biflora</i>	Swamp Tupelo	OBL
2	<i>Nyssa sylvatica</i>	Blackgum	FAC
3	<i>Quercus lyrata</i>	Overcup Oak	OBL
4	<i>Quercus michauxii</i>	Swamp Chestnut Oak	FACW-
5	<i>Quercus phellos</i>	Coastal Willow Oak	FACW-
6	<i>Quercus laurifolia</i>	Laurel Oak	FACW
7	<i>Taxodium distichum</i>	Bald Cypress	OBL
8	<i>Fraxinus pennsylvanica</i>	Green Ash	FACW

### 4.3 RESULTS OF VEGETATION MONITORING

The following tables present stem counts for each monitoring plot. Each planted tree species is identified across the top row, and each plot is identified down the left column. The numbers on the top row correlate to the ID column of the previous table. Trees are flagged in the field on a quarterly basis before the flags degrade. Flags are utilized, because they will not interfere with the growth of the tree. Volunteer species are also flagged during this process.

**Table 6 Vegetation Monitoring Plot Species Composition**

Plot	1	2	3	4	5	6	7	8	Total	Stems/acre
G1	7	1	10	2	2	1	0	10	33	574
G2	0	7	5	11	2	5	0	4	34	592
G3	0	4	4	2	20	3	0	7	40	697
G4	7	0	0	0	0	0	23	0	30	522
GS-1	0	2	15	0	6	1	0	17	41	410
GS-2	0	3	21	4	12	2	0	5	47	470
GS-3	18	0	0	0	0	0	42	0	60	600

Average Stems/Acre: 552  
Range of Stems: 410-600

Few reductions in planted trees species occurred between 2006 and 2007. There was one significant reduction in bald cypress from seven planted stems in 2006 to one planted stem in 2007 at the G4 plot.

Volunteer species will also be monitored throughout the five-year monitoring period. Below is a table of the most commonly found woody volunteer species. Few volunteer woody species were observed in most of the vegetation plots, but were deemed too small to tally. If these trees persist into the next growing season, they will be flagged and added to the overall stems per acre

assessment of the site. Sweetgum (*Liquidambar styraciflua*) is the most common volunteer, though Red Maple (*Acer rubrum*) and River Birch (*Betula nigra*) were also observed.

The following tree species were identified as volunteers within in the Wetland Restoration Area:

**Table 7 Volunteer Tree Species**

ID	Scientific Name	Common Name	FAC Status
A	<i>Liquidambar styraciflua</i>	Sweetgum	FAC+
B	<i>Acer rubrum</i>	Red Maple	FAC
C	<i>Betula nigra</i>	River Birch	FACW

#### 4.4 GENERAL VEGETATION OBSERVATIONS AND CONCLUSIONS

After construction of the mitigation site, a permanent ground cover seed mixture of Virginia wild rye (*Elymus virginicus*), switch grass (*Panicum virgatum*), and fox sedge (*Carex vulpinoidea*) was broadcast on the site at a rate of 10 pounds per acre. These species are present on the site. Hydrophytic herbaceous vegetation, including rush (*Juncus effusus*), spike-rush (*Eleocharis obtusa*), Boxseed (*Ludwigia* sp.), and sedge (*Carex* sp.), are observed across the site, particularly in areas of periodic inundation. The presence of these herbaceous wetland plants helps to confirm the presence of wetland hydrology on the site.

There are quite a few weedy species occurring on the site, though none seem to be posing any problems for the woody or herbaceous hydrophytic vegetation. The majority of weedy species are annuals and seem to pose very little threat to survivability on site. Commonly seen weedy vegetation includes ragweed (*Ambrosia artemisiifolia*) and wild dill (*Foeniculum vulgare*). Any threatening weedy vegetation found in the future will be documented and discussed in quarterly reports.

#### 4.5 VEGETATION CONCLUSIONS

The site was planted in nonriverine wet hardwoods and coastal plain swamp species in February 2005. There were seven vegetation-monitoring plots established throughout the planting areas. The site has met the minimum success interim criteria of 320 trees per acre by the end of Year 3 and is on track to meet the final success criteria of 260 trees per acre by the end of Year 5 as specified in the Restoration Plan for the site.

### 5.0 STREAM MONITORING

#### 5.1 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 (see Appendix C).
  - **Benthic Macroinvertebrate:** Sampling of benthic macroinvertebrates within the restored stream channel shall be conducted for the first three years of post-restoration monitoring. No success criteria are applied to the sampling data that will be collected.

## **5.2 STREAM MORPHOLOGY MONITORING PLAN**

To document the stated success criteria, the following monitoring program was instituted following construction completion on the Gregory Site:

*Bankfull Events:* Two crest gauges were installed on the site to document bankfull events. The gauges are checked each month, and record the highest out-of-bank flow event that occurred during the previous month. See site plan for gauge locations (Figure 3).

*Cross-sections:* Two permanent cross-sections were installed per 1,000 linear feet of stream restoration work, with one of the locations being a riffle cross-section and one location being a pool cross-section. A total of 14 permanent cross-sections were established across the mitigation site. Each cross-section was marked on both banks with permanent pins to establish the exact transect used. Permanent cross-section pins were surveyed and located relative to a common benchmark to facilitate easy comparison of year-to-year data. The annual cross-section surveys include points measured at all breaks in slope, including top of bank, bankfull, inner berm, edge of water, and thalweg. Riffle cross-sections are classified using the Rosgen stream classification system. Permanent cross-sections for 2007 (Year 3) were surveyed in September 2007.

*Longitudinal Profiles:* A complete longitudinal profile will be completed for each restoration and enhancement level I reach. The longitudinal survey will take place in Years 1, 3, and 5.

*Photo Reference Stations:* Photographs are used to visually document restoration success. Reference stations are marked with wooden stakes and Global Positioning Satellite (GPS) coordinates have been determined for each location. Reference photos are taken at each permanent cross-section from both stream banks. The survey tape is centered in the photographs of the bank, and the water line is located in the lower edge of the frame with as much of the bank as possible included in each photo. In-stream structures (e.g., rock vanes, cross vanes, and constructed riffles) are also photographed. Photo reference stations will be photographed at least once per year for at least five years following construction.

*Benthic Macroinvertebrates:* Benthic macroinvertebrate data will be collected from the reference reach (upstream of project reach) and within the project reach. Pre-restoration data were collected on September 15, 2004, prior to initiation of stream restoration practices upstream of the restoration reach. Post-restoration sampling will begin at least one year after construction activities have been completed, and annually thereafter for a total of three years. Sampling will be conducted each year between September and October to be consistent with the pre-construction sampling. Sample collection follows protocols described in the standard operating procedures of the Biological Assessment Unit of the North Carolina Division of Water Quality (NCDWQ). The Qual-4 collection method is used for the collection of macroinvertebrate samples, and a North Carolina-certified laboratory performs the identification of the macroinvertebrate samples. The metrics calculated include total and Ephemeroptera, Plecoptera, and Trichoptera (EPT) taxa richness, EPT abundance and biotic index values.

### 5.3 STREAM MORPHOLOGY MONITORING RESULTS

Year 3 cross-section monitoring data for stream stability were collected during September 2007 and compared to baseline data collected in February and September 2006. Permanent cross-sections document the stream dimension at 15 locations (Appendix B). The cross-sections show that there has been very little adjustment to stream dimension since construction. All monitored cross-sections fell within the quantitative parameters defined for "E" or "C" type channels.

In-stream structures installed within the restored stream included constructed riffles, log vanes, log weirs, and root wads. Visual observations of structures throughout the past growing season were limited due to stagnant flows. Stagnant flows were the result of abundant vegetation in the channel, resulting from the persistent drought conditions, and minor aggradation toward the downstream direction. Log vanes placed in meander pool areas have provided scour to keep pools deep and provide cover for fish; however many log vanes were hard to find due to channel vegetation and stagnant flows. Log weirs placed in riffle areas have maintained riffle elevations in some locations and provided a downstream scour hole that provides habitat. Bank scour downstream of the log weirs was minimized through the use of notches in the logs that keep the stream flow centered. Root wads placed on the outside of meander bends have provided bank stability and in-stream cover for fish and other aquatic organisms. The constructed riffles were all installed on the upper end of the site where slopes are significantly higher than the lower end. Some minor piping of water around structures and localized erosion has been observed and will be monitored over the coming years to determine whether maintenance action is needed. Table 8 provides a summary of areas requiring continued observation.

**Table 8 Stream Areas Requiring Observation**

Station	Feature	Problem Area
Throughout		Vegetation in channel, stagnant flow
17+75	Root wad	Erosion behind root wad
37+80	RB	Bank Failure
42+00	Root Wad	Erosion behind root wad
43+50	Root Wad	Root wad failure

All structural problem areas are minor and localized and no corrective actions are recommended at this time. Vegetation in the channel includes abundant cattail and other weeds and grasses. This vegetation is causing stagnant flows and sediment accumulation. Corrective action should be taken to reduce vegetation in the channel.

Photographs were taken during the monitoring season to document the evolution of the restored stream channel (Appendix D). The most observable change to the stream during 2007 has been the rapid growth of native hydrophytic vegetation along the restored stream banks, floodplain, and in the stream channel.

#### 5.3.1 Longitudinal Profile

A longitudinal profile survey was conducted in Year 3 (Appendix B). The previous profile and cross sections indicated there has been very little adjustment to the stream profile or dimension since construction.



### 5.3.2 Hydrology

During 2007, bankfull events on the site were documented during at least four site visits through the use of the on-site crest gauges and visual evidence of out-of-bank flow. The largest stream flow documented by the downstream crest gauge (CG2) was a flow that occurred during May and was approximately 3.4 feet above the bankfull stage at the crest gauge. The largest stream flow documented by the upstream crest gauge (CG1) was a flow that occurred during February and was approximately 0.4 feet above the bankfull stage at the crest gauge. High crest gauge readings for CG2 are likely the result of beaver activity in the Marsh Swamp downstream of the gauge. Stream monitoring data is provided in Appendix C.

**Table 9 Crest Gauge Data**

Month	CG1	CG2
Janurary	0.4	0.8
February	0	0
March	0	0.6
April	0	3.4
May	0	0
June	0	0
July	0	0
August	0	0
September	0	0
October	0	0
November	0	0.7

### 5.4 STREAM CONCLUSIONS

Overall the Gregory stream mitigation site is functioning as designed. There are in-channel vegetation problems that are restricting flow and causing sediment accumulation throughout the stream, but the vegetation can be treated and eliminated. Other problems are minor and localized. The profile and cross-section data indicates that little change has occurred since the Gregory stream was built. Four significant bankfull events occurred in the early part of 2007. Bankfull events are more prevalent at CG2 likely due to beaver activity in the Marsh Swamp. It was concluded that the site is on tract to achieve the stream success criteria specified in the Restoration Plan for the site.

### 5.5 BENTHIC MACROINVERTEBRATE SURVEY RESULTS

Benthic macroinvertebrates were collected at one station along the restoration reach in September 2007. Two restoration reach stations were sampled in 2006, however, due to dry conditions in the channel, only one station was sampled in the downstream portion of the restoration reach in 2007. Macroinvertebrates were also sampled in the Marsh Swamp reference reach. The North Carolina Division of Water Quality (NCDWQ) Qual-4 collection method was utilized. In addition to benthic sampling, NCDWQ habitat assessment forms were completed at each monitoring station. Benthic macroinvertebrate samples were preserved in alcohol and later identified to the lowest possible taxonomic level by an aquatic ecologist. Table 10 lists the taxa encountered, relative abundance, and tolerance values for the restoration reach. Table 11 lists the taxa collected in the reference reach. The NCDWQ Standard Operating Procedures for Benthic Macroinvertebrates (2006) assigns tolerance values for common macroinvertebrates in North Carolina. Tolerance

values range from 0 to 10 with low scores indicating species that are intolerant to pollution, excess sediments, or other disturbances.

Overall, the majority of taxa collected at the Gregory site and reference reach are tolerant species. Species in the reference and restoration reaches indicate no flow or stagnant flow conditions. Species collected in the restoration reach were much smaller in size than those collected in the reference reach. The size difference is likely due to intermittent flow conditions experienced at the restoration reach due to the extreme drought in the summer of 2007. *Elliptio complanata*, a fairly common mussel species complex in the Roanoke Basin, is abundant in the reference reach. Several *E. complanata* shells were found at the downstream end of the restoration reach where it enters the Marsh Swamp and this mussel species may be migrating into the restoration reach.

*Restoration Reach*

The restoration reach received a habitat score of 74 out of 100 possible points. *Caenis* spp. was the only EPT taxa collected. This mayfly, with a tolerance rating of 7.4, is one of the most tolerant ephemeroptera species. *Caenis* spp is typically found in stagnant flow conditions. It was difficult to locate significant flow at riffles or ripples in the channel and kicknet samples had to be taken in slow moving water. The majority of macroinvertebrates collected were tolerant and immature indicating that the drought may be causing a significant benthic disturbance in this reach (Table 10).

*Reference Reach*

The reference reach received a habitat score of 89 out of 100 possible points. Flow was sparse in the reference reach due to the drought, making it difficult to conduct good kicknet samples. The macroinvertebrates collected were mature, indicating the presence of water throughout the summer drought. The unnamed tributary reference reach in Marsh Swamp drains considerably more area than the restoration reach and more in channel hydrology was observed there. Several mussel species were abundant in the reference reach (Table 11). The majority of taxa collected are species indicative of stagnant flow, swamp-stream conditions.

**Table 10. Restoration Reach Macroinvertebrate Data September 2007**

Order	Family	Genus Species	Tolerance Value	No.
Odonata	Libellulidae	<i>Erythemis simplicicollis</i>	9.7	1
Odonata	Libellulidae	<i>Pachydiplax longipennis</i>	9.9	3
Odonata	Calipterygidae	<i>Calipteryx</i> spp	7.8	3
Odonata	Coanagrionidae	<i>Enallagma</i> spp	8.9	19
Ephemeroptera	Caenidae	<i>Caenis</i> spp	7.4	5
Hemiptera	Corixidae		9	1
Diptera	Culcidae	<i>Anopheles</i> spp	8.6	9
Total Number of Organisms				41
Total Number of Taxa				7
Total Number of EPT				5

**Table 11. Reference Reach Macroinvertebrate Data September 2007.**

Order	Family	Genus Species	Tolerance Value	No.
Unionoida	Unionidae	<i>Elliptio complanata</i>	N/A	Abundant
Unionoida	Unionidae	<i>Elliptio</i> spp. Lance elliptio complex	N/A	Abundant
Veneroida	Corbiculidae	<i>Corbicula</i> spp	N/A	Abundant
Gastropoda	Viviparidae	<i>Campeloma decisum</i>	6.5	6
Odonata	Macromiidae	<i>Macromia</i> spp	6.2	1
Odonata	Corduliidae	<i>Tetragoneuria</i> spp	8.6	5
Odonata	Gomphidae	<i>Gomphus</i> spp	5.8	5
Odonata	Libellulidae	<i>Pachydiplax longipennis</i>	9.9	2
Odonata	Aeshnidae	<i>Basiaeschna janata</i>	7.4	1
Megaloptera	Sialidae	<i>Sialis</i> spp	7.2	5
Hemiptera	Corixidae		9	8
Coleoptera	Dytiscidae	<i>Coptotomus</i> spp	9.3	1
Coleoptera	Haliplidae	<i>Halipus</i> spp	8.7	5
Total Number of Organisms				39
Total Number of Taxa				13
Total Number of EPT				0

## 6.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

- Hydrologic monitoring has shown that despite the extreme drought, wetland hydrology is being achieved throughout the site. Three of thirteen gauges recorded shorter than expected hydroperiods of less than 4.0 percent including AW8, AW9, and AW10. All other gauges recorded hydroperiods of at least five percent with AW7, MW3 and MW4 recording above 12.5 percent. The range of hydroperiods recorded at the mitigation site in 2007 was similar to the range recorded in the reference wetland site. Based on the results of the past three years of groundwater monitoring and the drought conditions of the past several years, it was concluded that overall the site is performing as designed.
- The restored stream channel has remained stable and is providing the intended habitat and hydrologic functions. All monitored cross sections and profiles for 2007 show little adjustment in stream dimension. Vegetation, including cattails, is growing in the channel throughout the Gregory site, reducing flows and increasing sediment accumulation and treatment of in-channel vegetation problems is recommended. Based on the results of the monitoring over the last three years, it was concluded that the site is on track to achieve the stream success criteria specified in the Restoration Plan for the site.
- Vegetation monitoring efforts have calculated the average number of stems per acre on site to be 552, which is a survival rate of greater than 82% based on the initial planting count of 672 stems per acre. At an average of 552 stems per acre, the site has achieved the interim vegetative success criteria of 320 stems per acre at the end of Year 3 as specified in the Restoration Plan for the site.
- Monitoring of vegetation, stream stability, and hydrology of this site will continue through 2009.

# **APPENDIX A**

## **As-Built Survey**

**GREGORY SITE**

**PROJECT: 170**

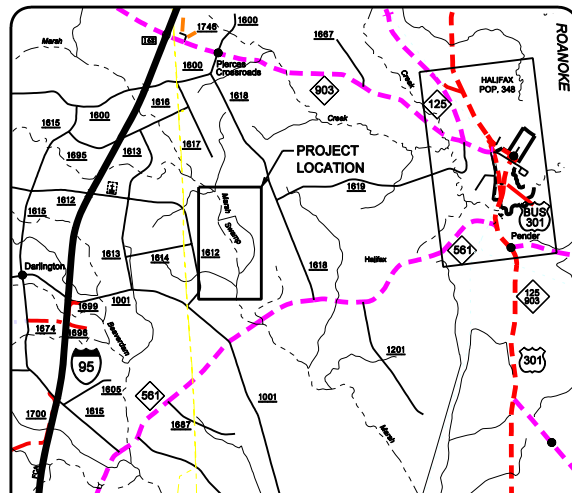
WETLAND & STREAM RESTORATION PROJECT  
 EBX NEUSE - I, LLC  
 GREGORY SITE

**HALIFAX COUNTY**

**LOCATION: OFF NCSR 561 NEAR HALIFAX**

**TYPE OF WORK: AS-BUILT**

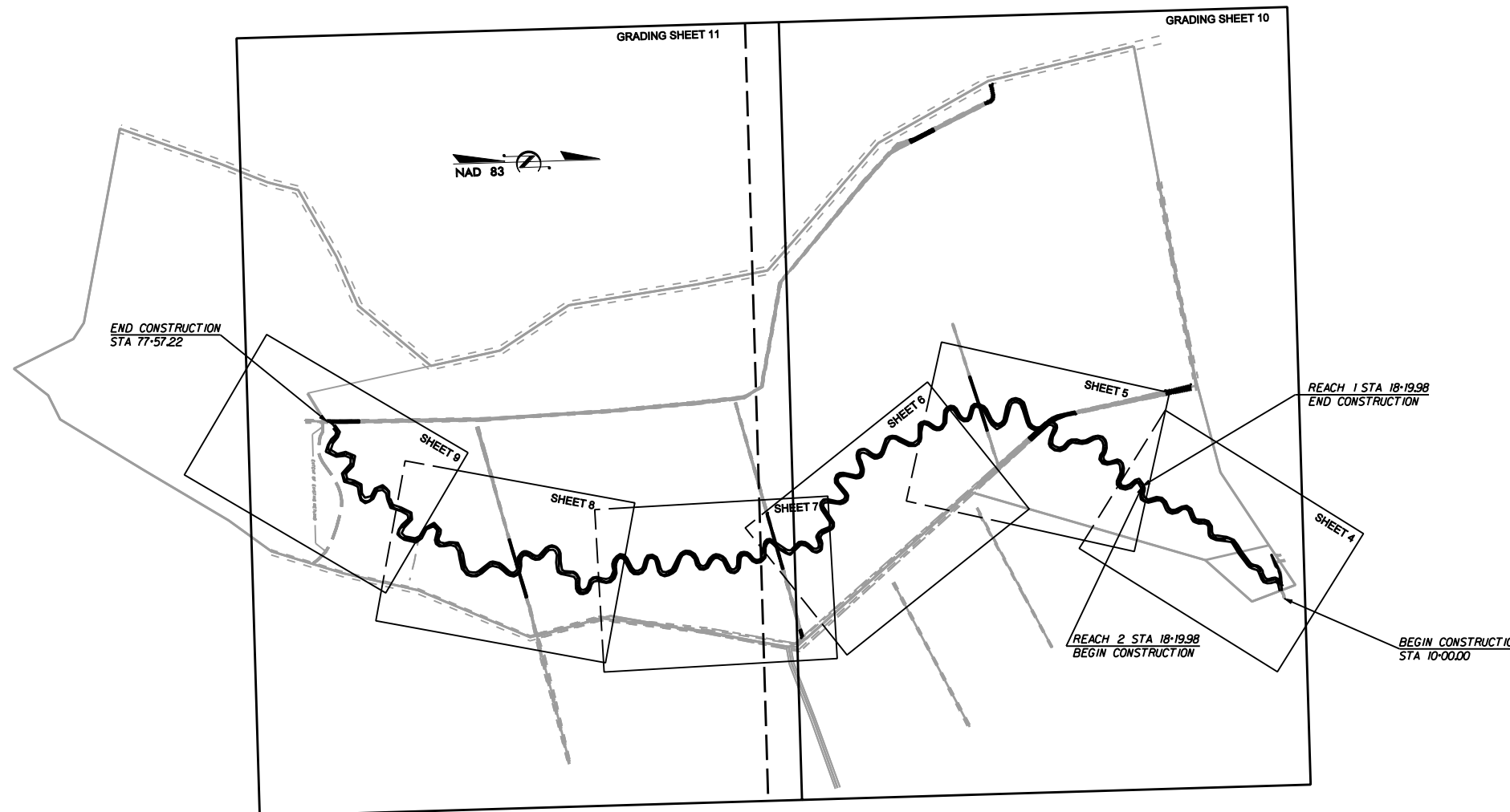
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NC	170	1	12
NO.	DATE	CHECKED BY	APPROVED BY
1	05/05/05	JOHN HUTTON	KEVIN TWEEDY
1	05/10/05	DANIEL TAYLOR	DANIEL TAYLOR



**VICINITY MAP**

**INDEX OF SHEETS**

- 1 ..... TITLE SHEET
- 1-A ..... SYMBOLOGY - BUCK ENGINEERING VEGETATION SELECTION, AND STANDARD SPECIFICATIONS
- 1-B ..... SYMBOLOGY - NCDOT
- 2 TO 2-B ..... STRUCTURE DETAILS
- 4 TO 9 ..... AS-BUILT PLANS VIEWS
- 10-11 ..... AS-BUILT GRADING PLANS



**GRAPHIC SCALES**

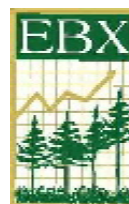


**PROJECT SUMMARY**

AS-BUILT STREAM LENGTH = 6757 FEET  
 AS-BUILT RESTORED WETLAND = 85.8 AC

**PREPARED FOR THE OFFICE OF:**

**EBX NEUSE - I, LLC**  
 220 CHATHAM BUSINESS DRIVE  
 PITTSBORO, NC 27312



**EBX CONTACT:**  
**TARA DISY ALLDEN**  
 PROJECT MANAGER

**PREPARED IN THE OFFICE OF:**

**BUCK ENGINEERING**  
8000 Regency Parkway Suite 200  
 Cary, North Carolina 27511  
 Phone: 919-463-5488  
 Fax: 919-463-5490

JAN. 2005  
**COMPLETION DATE:**

**JOHN HUTTON**  
 PROJECT MANAGER

**KEVIN TWEEDY, PE**  
 PROJECT ENGINEER

**PROJECT ENGINEER**

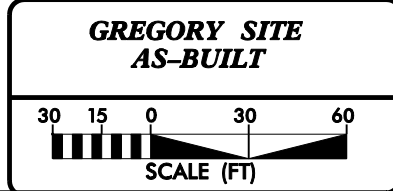
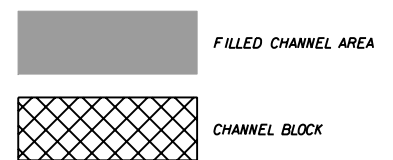
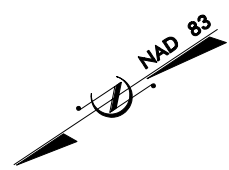
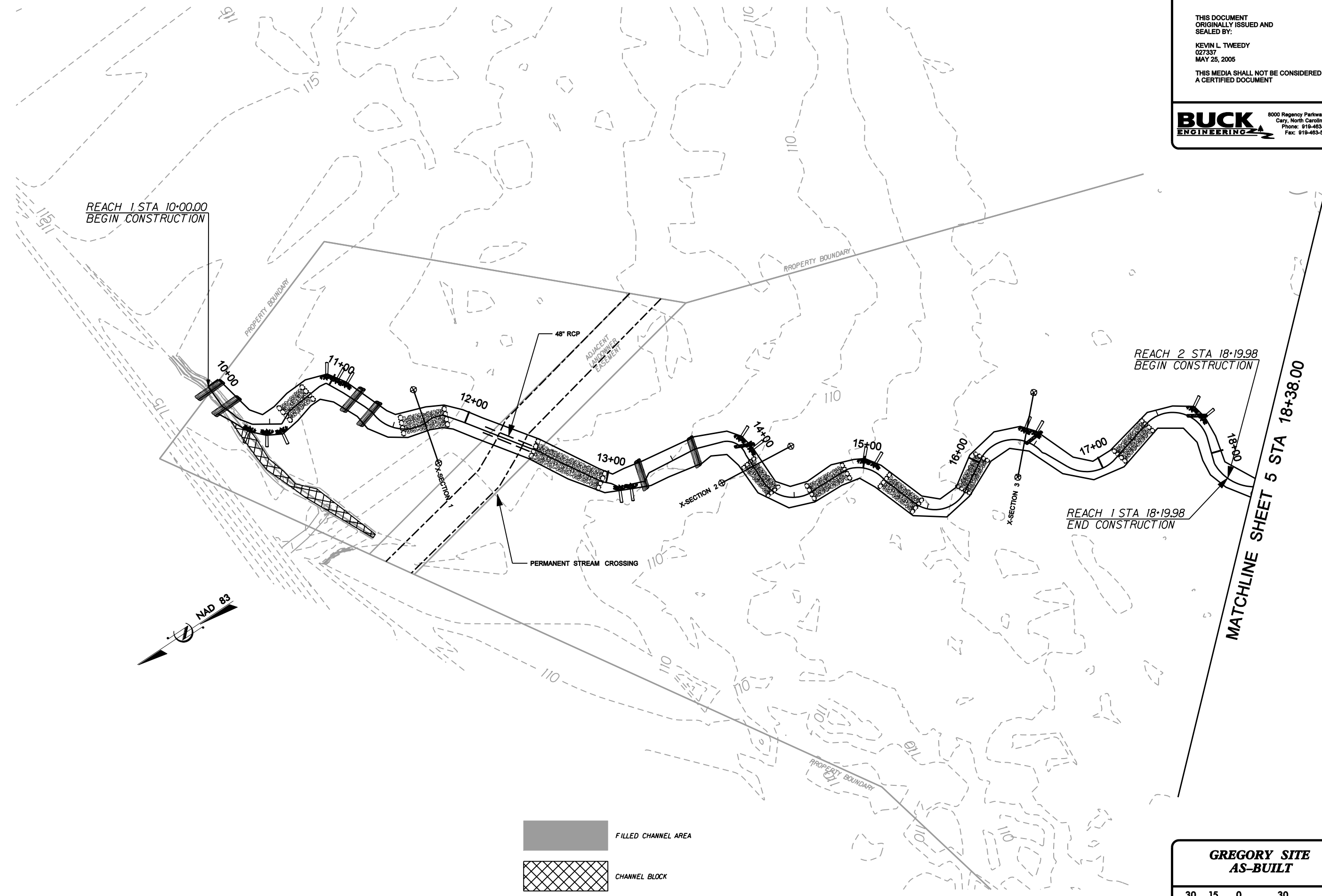
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KEVIN L. TWEEDY  
 027337  
 MAY 25, 2005


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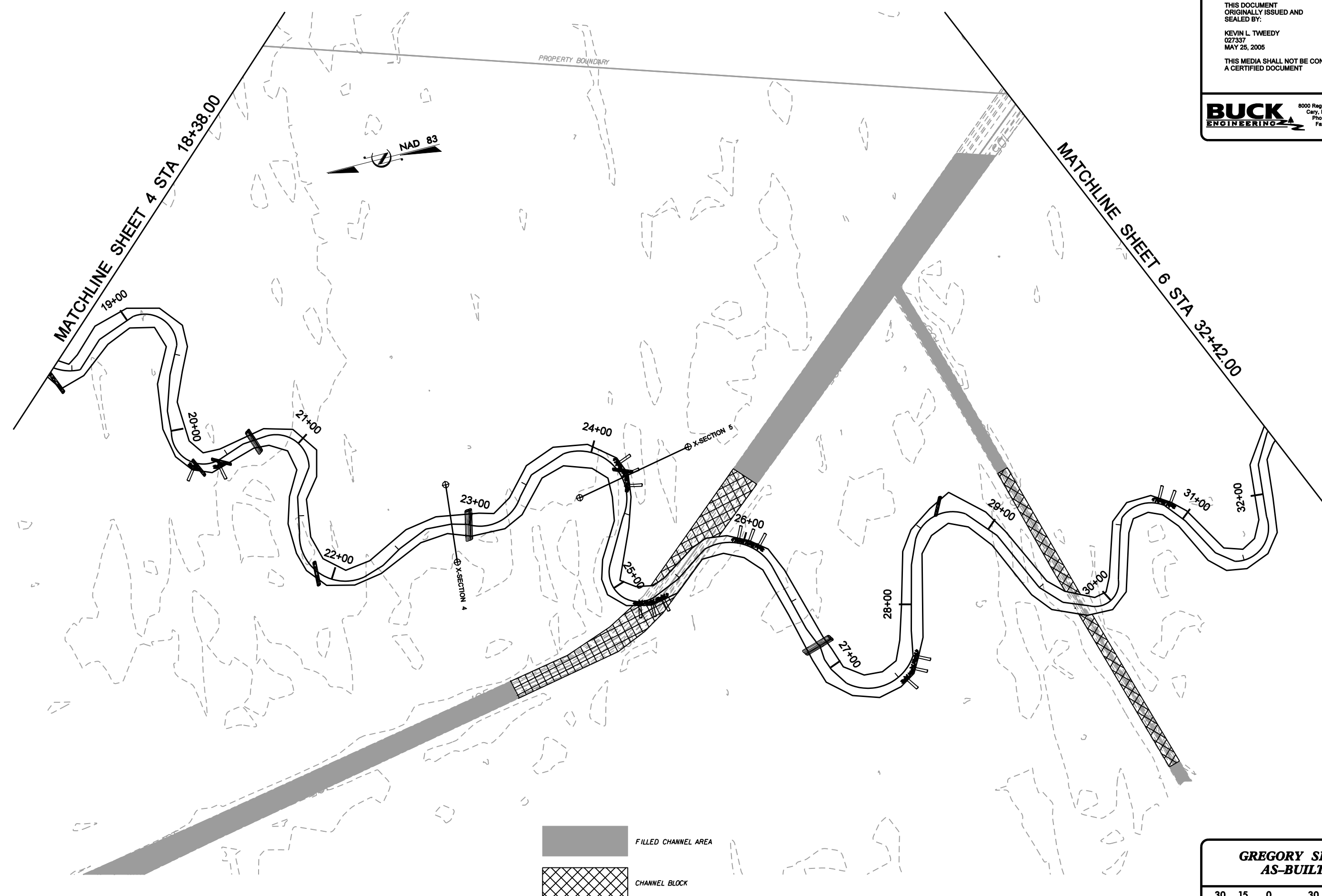
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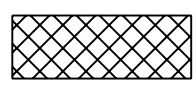
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<small>8000 Regency Parkway Suite 200 Cary, North Carolina 27511 Phone: 919-463-5488 Fax: 919-463-5490</small>	



	FILLED CHANNEL AREA
	CHANNEL BLOCK

**GREGORY SITE  
AS-BUILT**



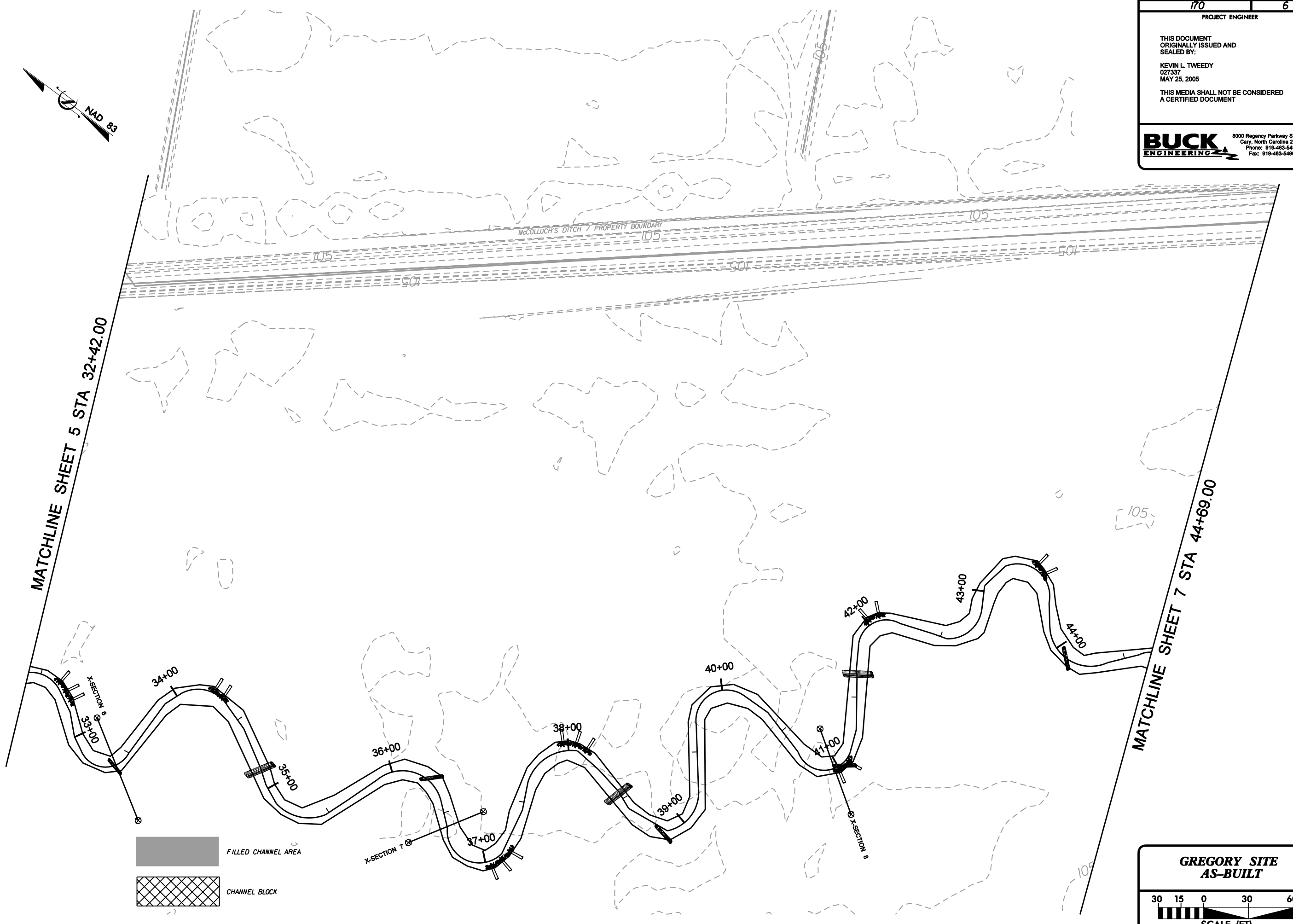
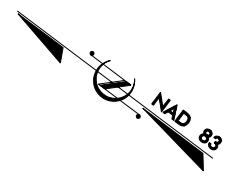
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**BUCK**  
ENGINEERING

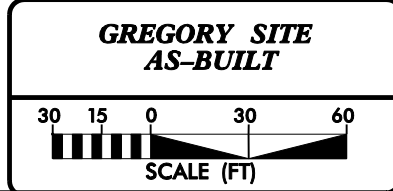
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Cary, North Carolina 27511  
Phone: 919-463-5488  
Fax: 919-463-5490



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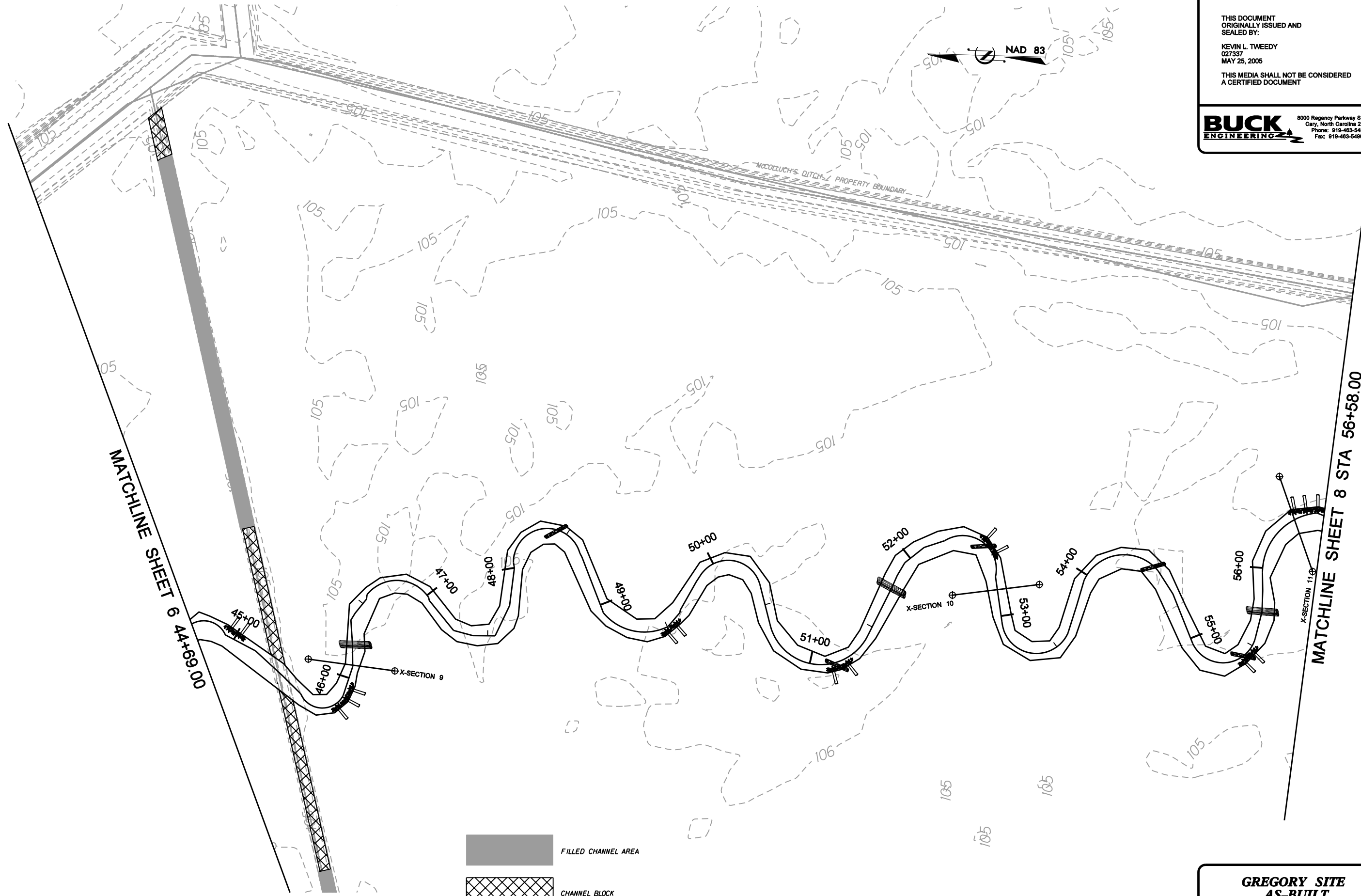
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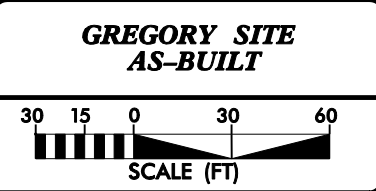


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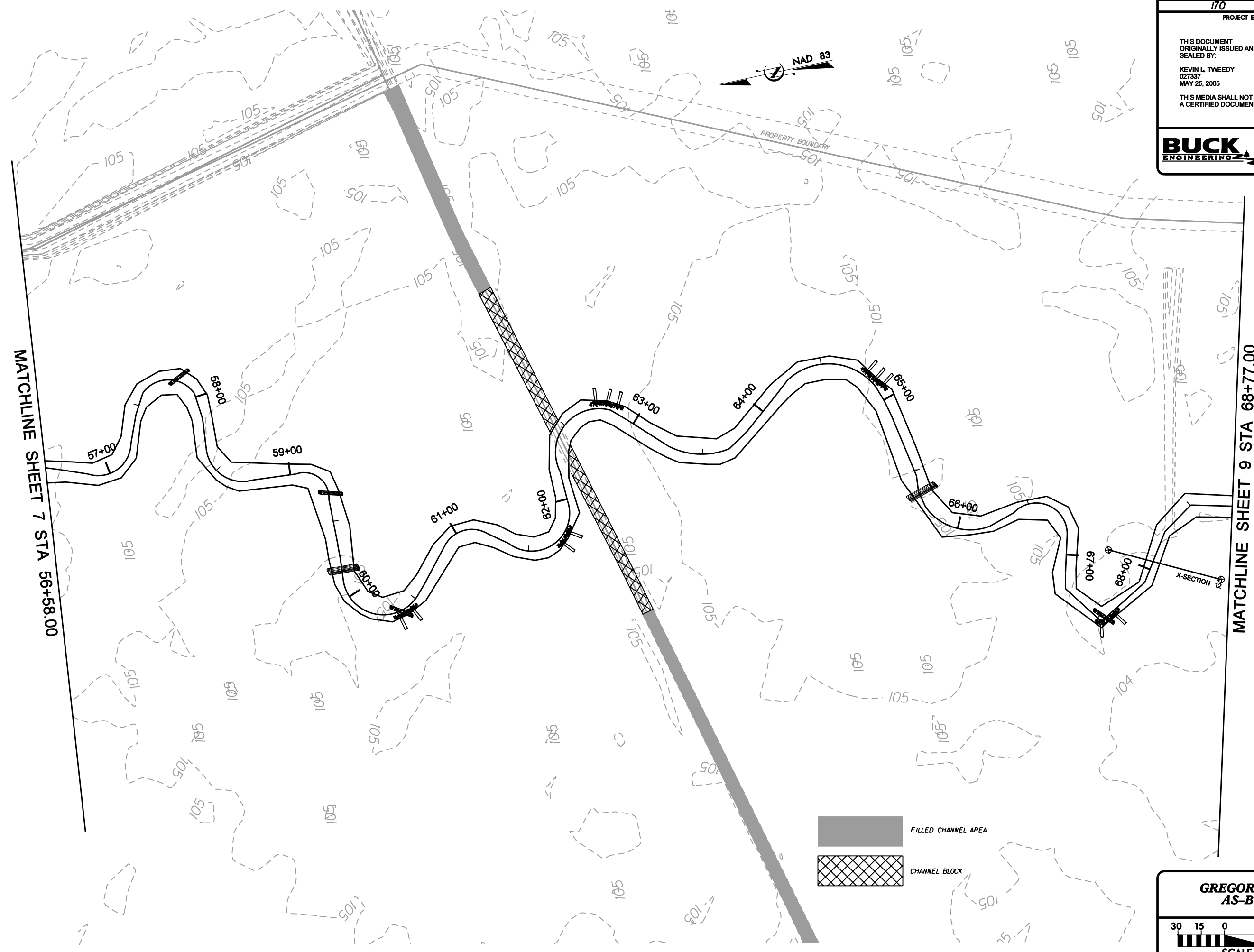
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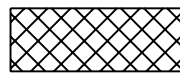
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MATCHLINE SHEET 7 STA 56+58.00

MATCHLINE SHEET 9 STA 68+77.00



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**GREGORY SITE  
AS-BUILT**



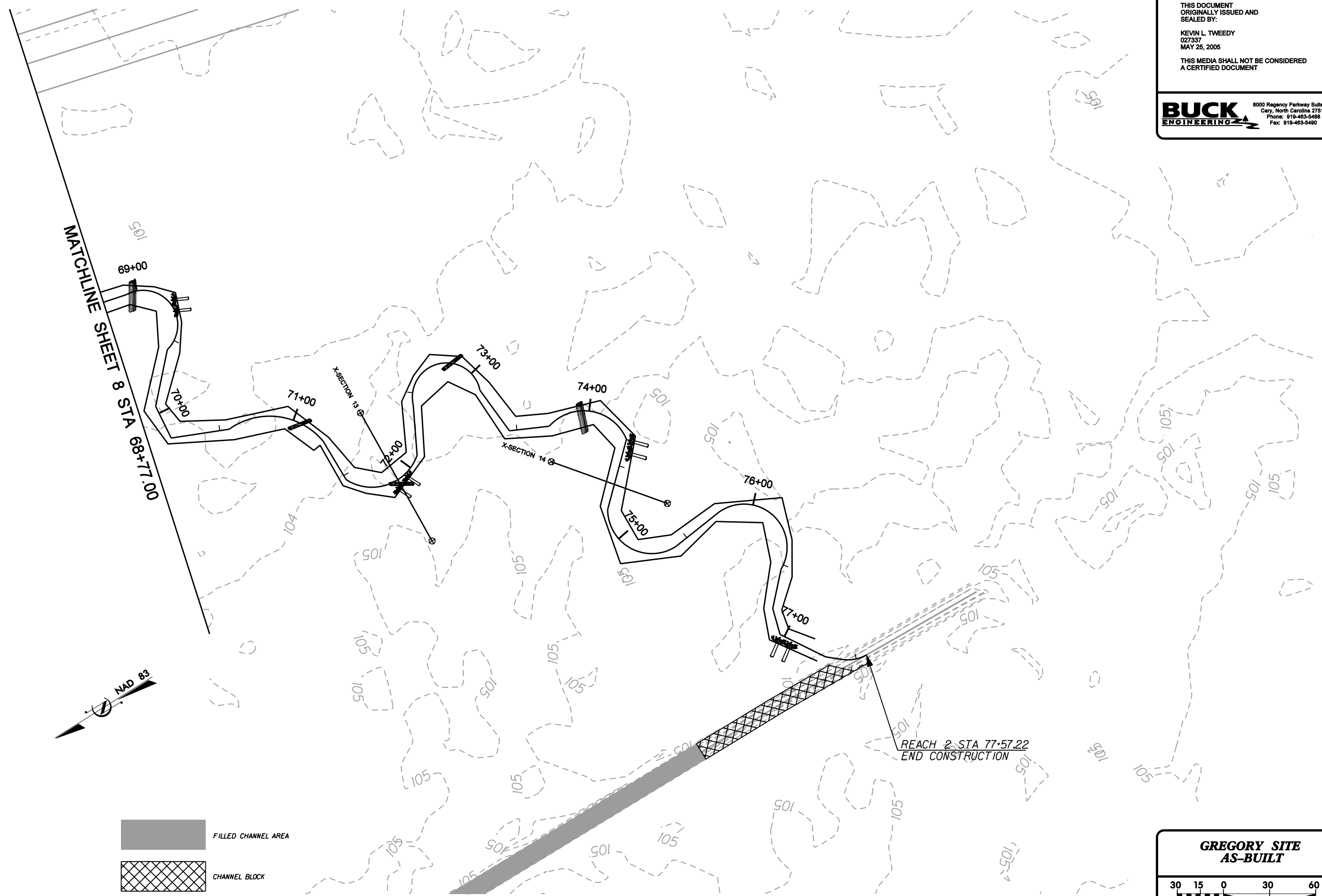
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MAY 25, 2005

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MATCHLINE SHEET 8 STA 68+77.00

	FILLED CHANNEL AREA
	CHANNEL BLOCK

REACH 2 STA 77+57.22  
END CONSTRUCTION

**GREGORY SITE  
AS-BUILT**



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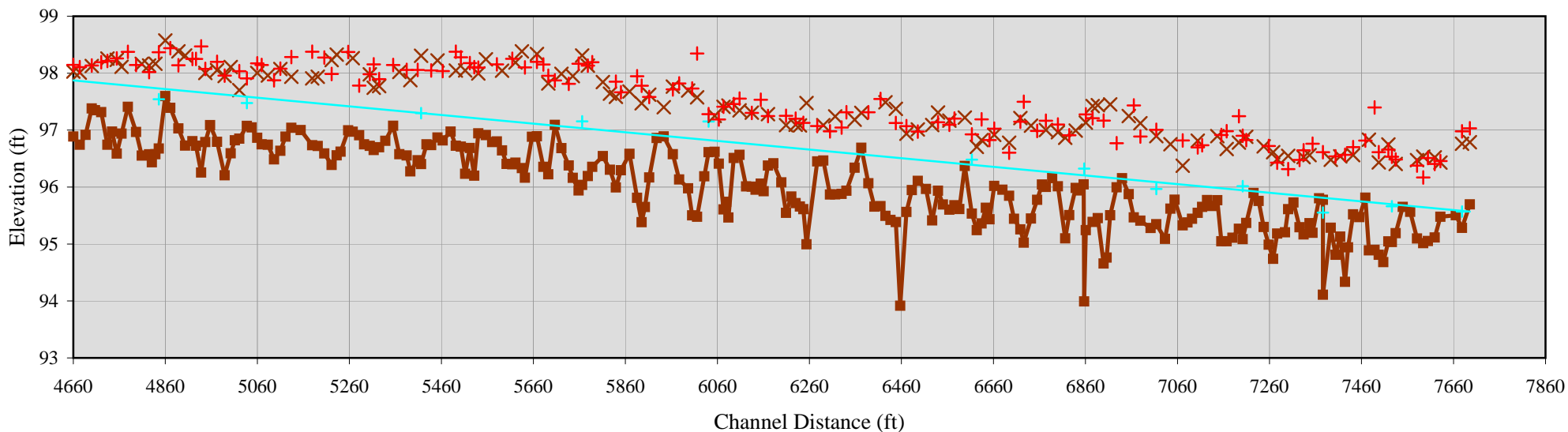
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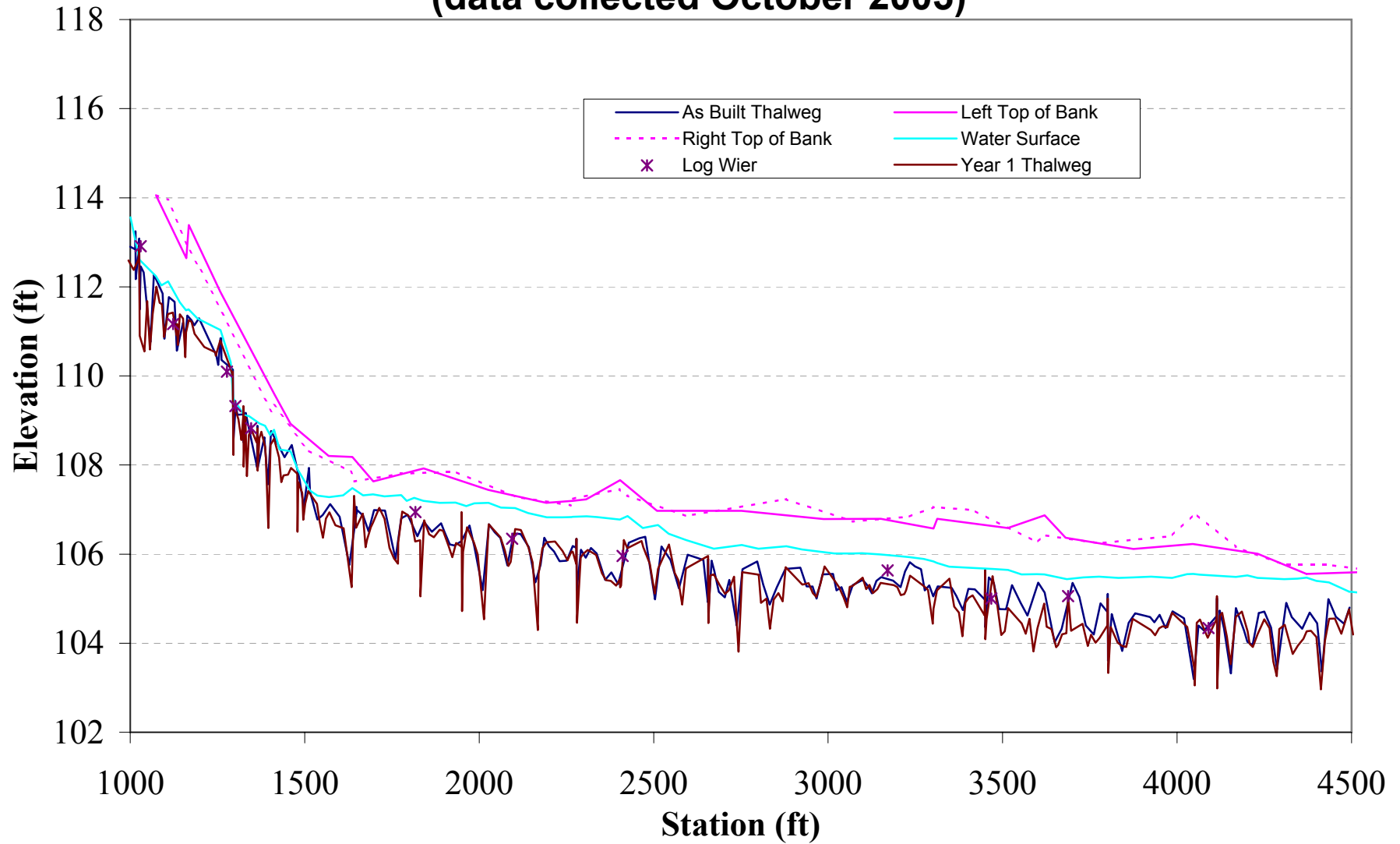
# **APPENDIX B**

## **Profile and Cross Section Data**

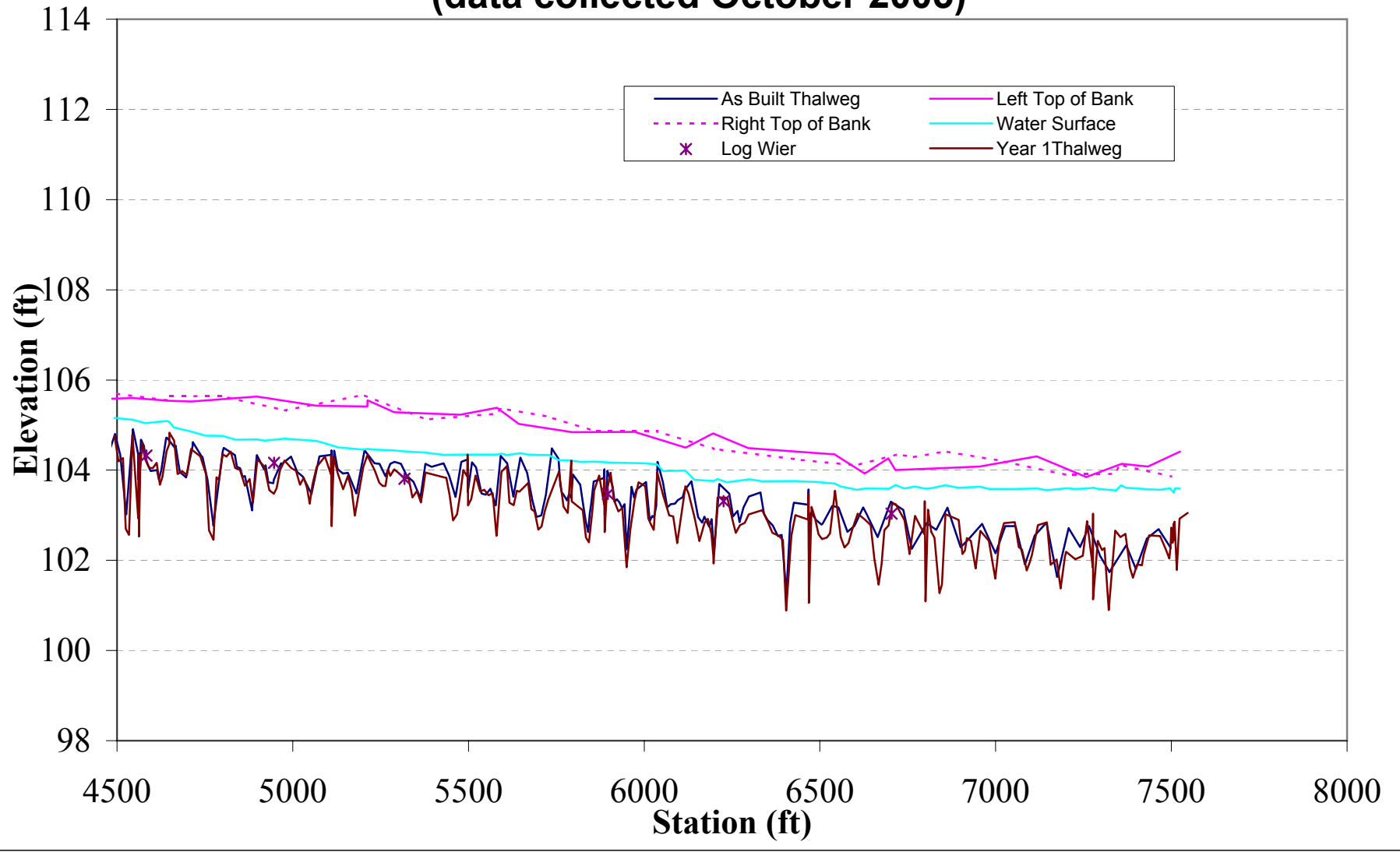
**Gregory 2007 Profile**  
**STA 46+60 to STA 76+95**



# Gregory Profile Chart - Year 1 - Station 10+00 to 45+00 (data collected October 2005)



# Gregory Profile Chart - Year 1 - Station 45+00 to 75+47 (data collected October 2005)

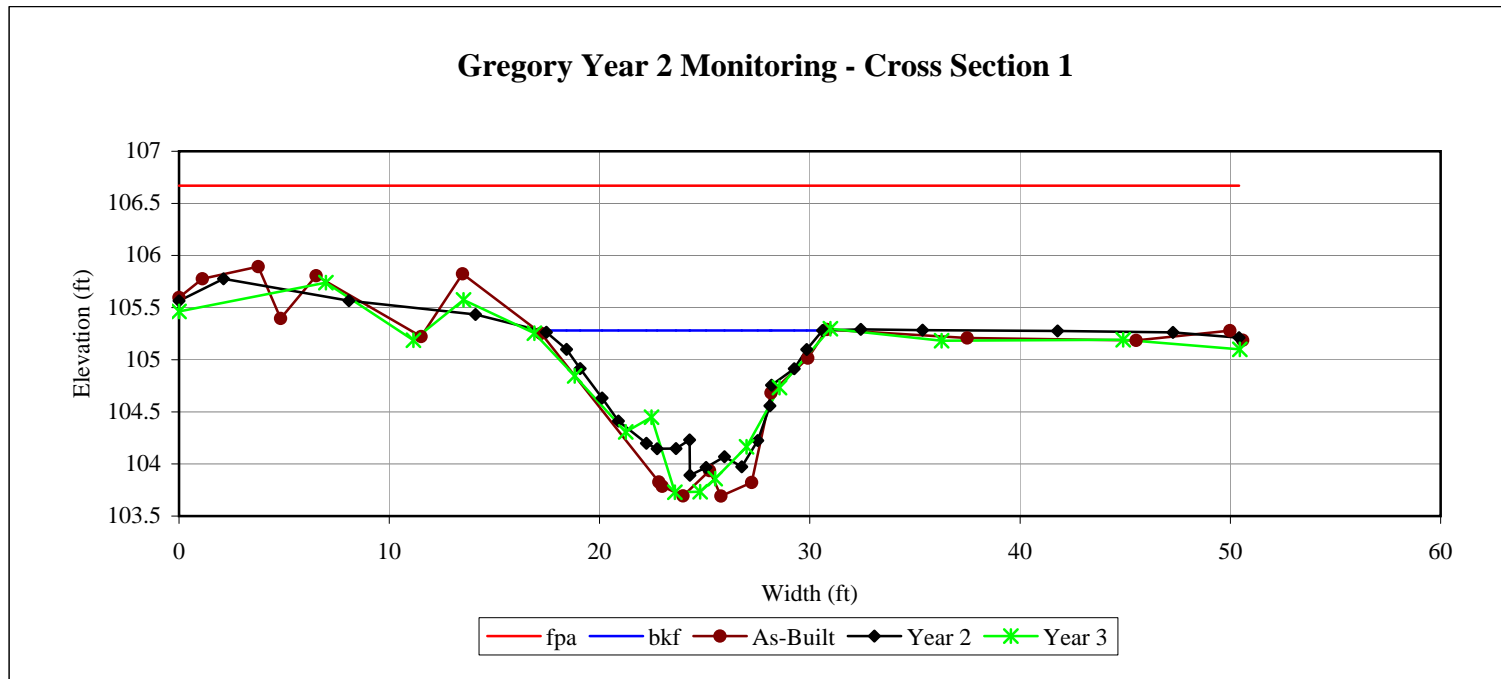




Looking at left bank.



Looking at right bank.



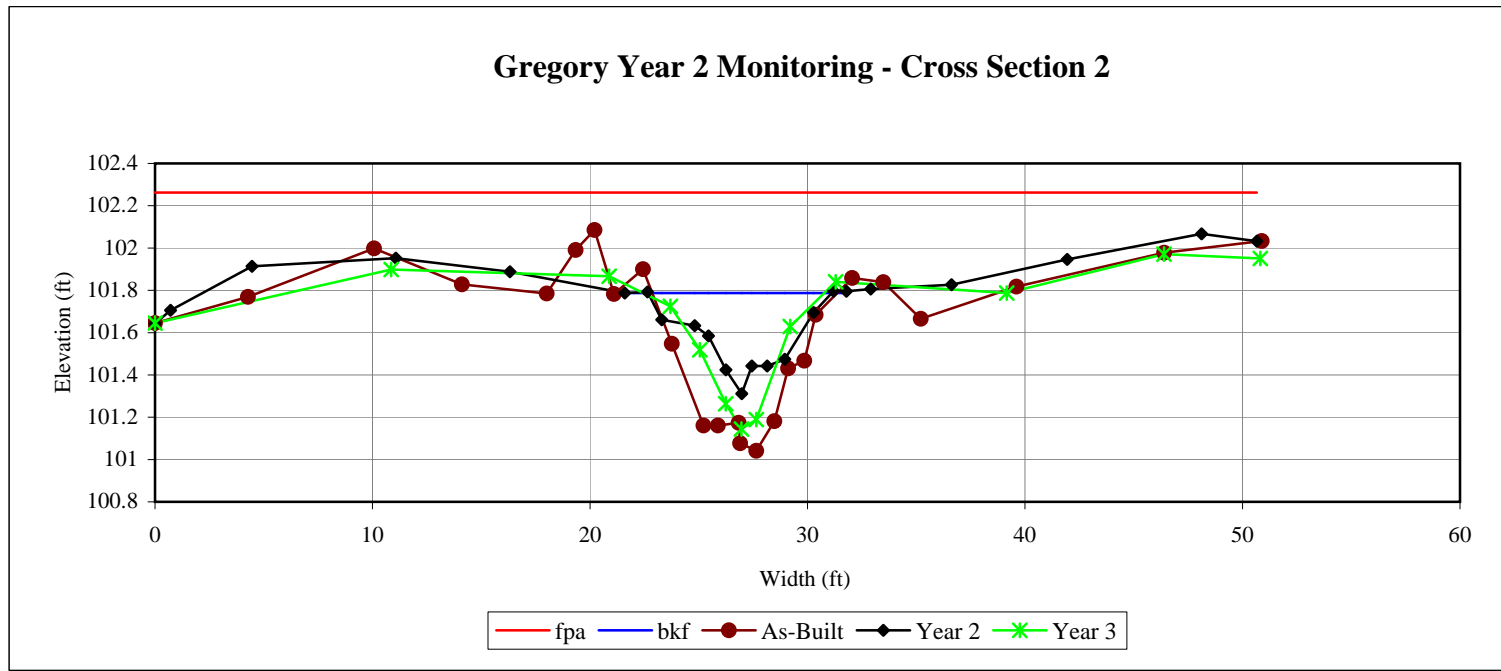




Looking at left bank.



Looking at right bank.

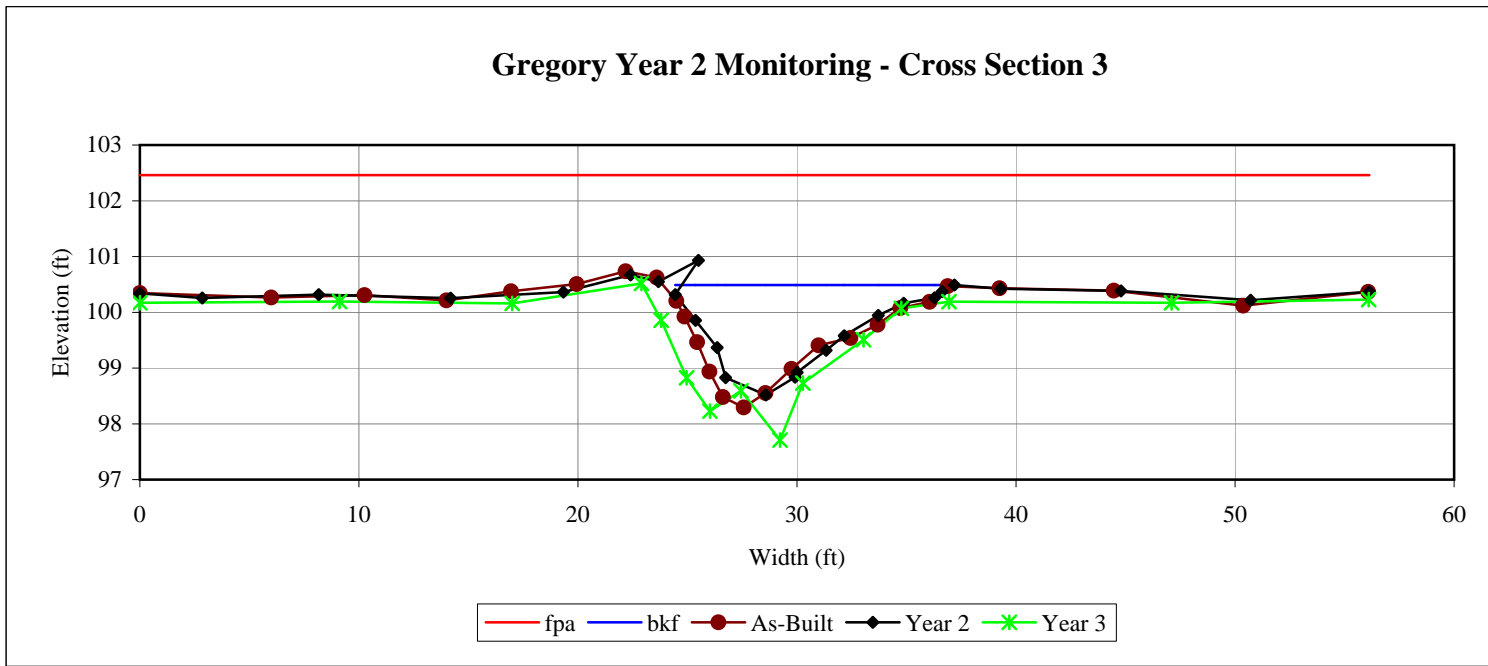




Looking at left bank.



Looking at right bank.

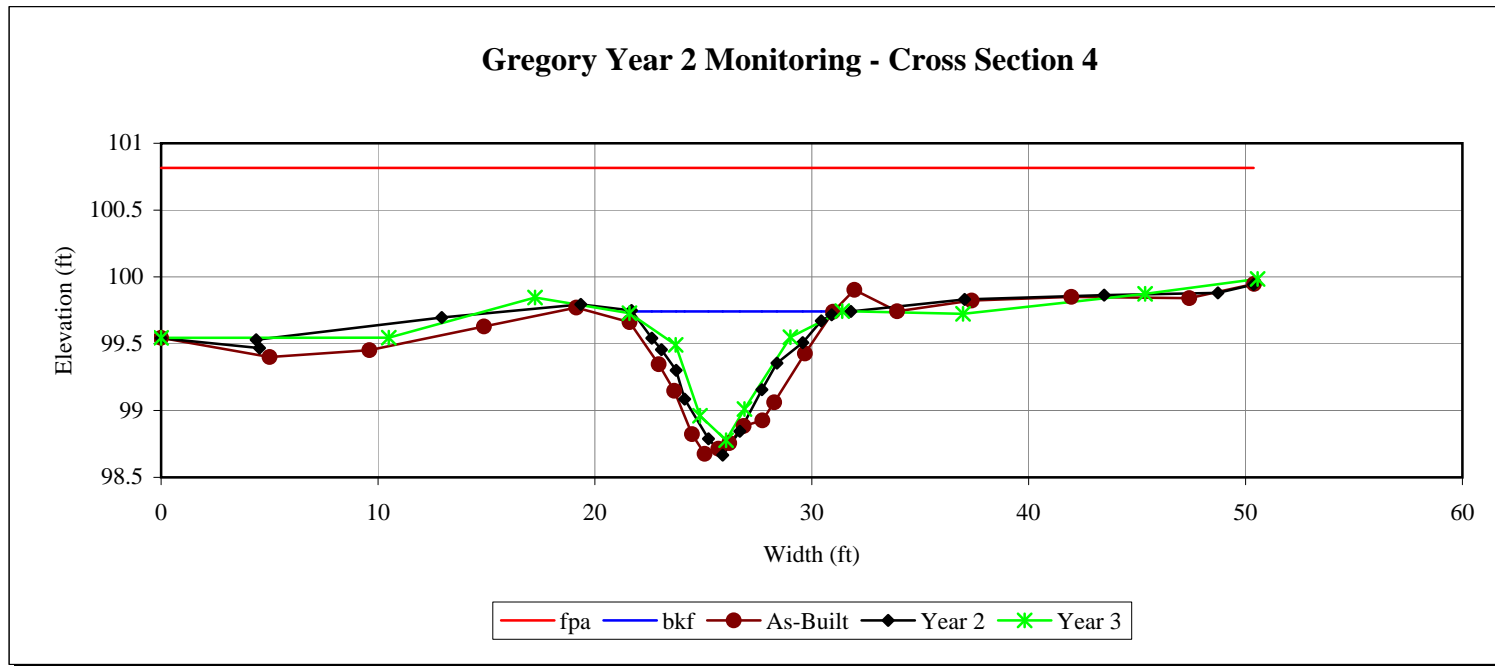




Looking at left bank.



Looking at right bank.

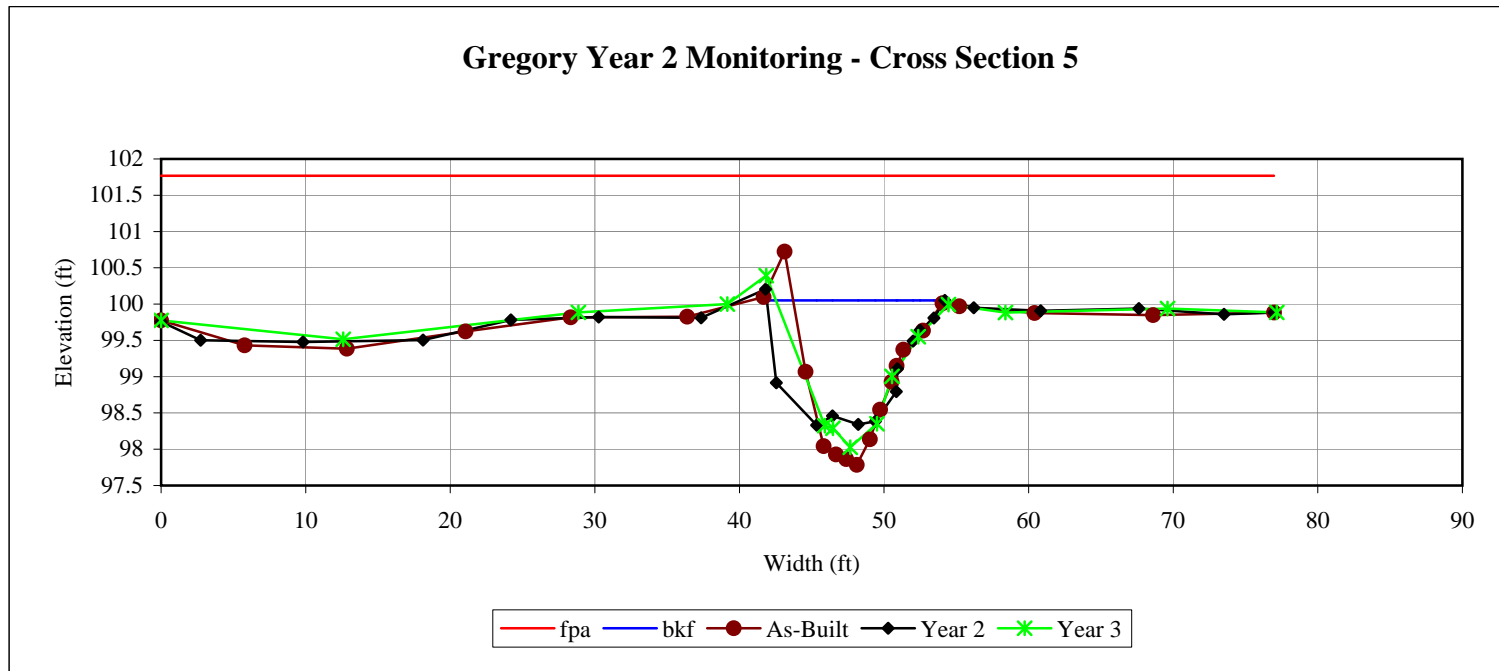




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Looking at right bank.

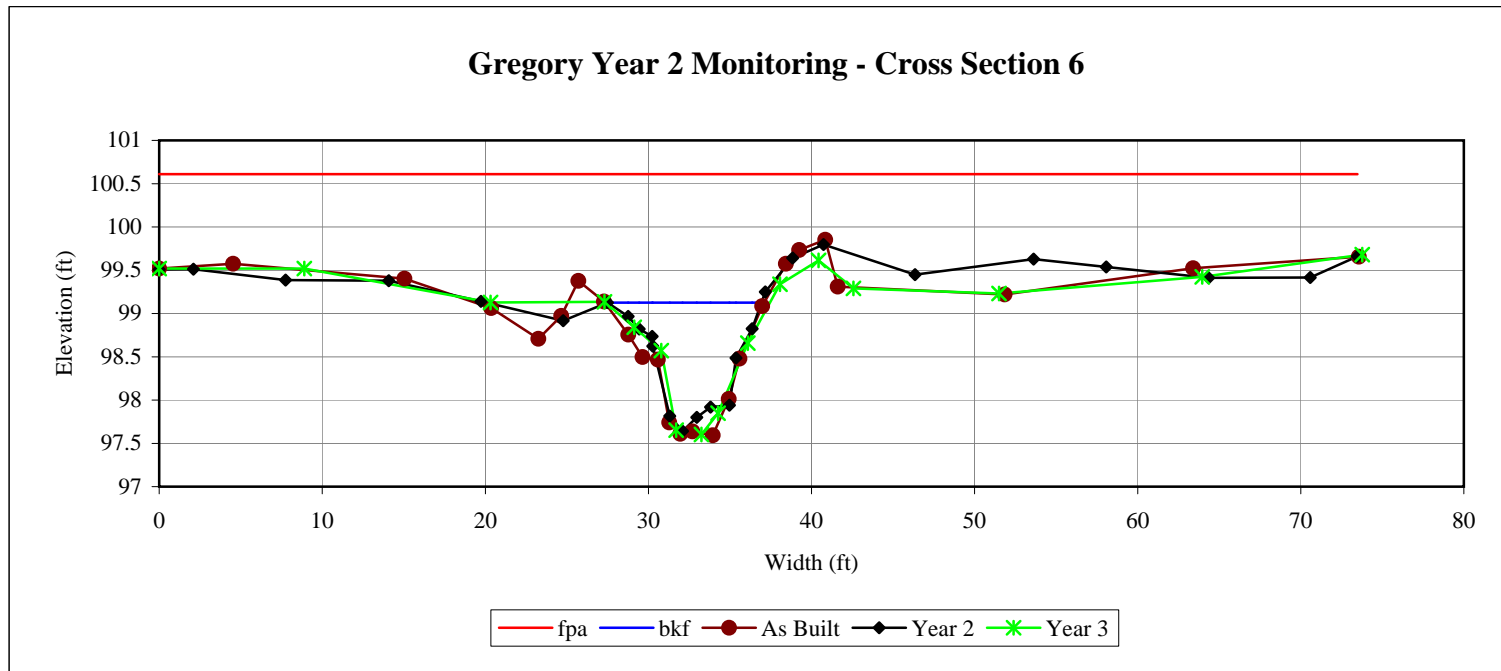




Looking at left bank.



Looking at right bank.

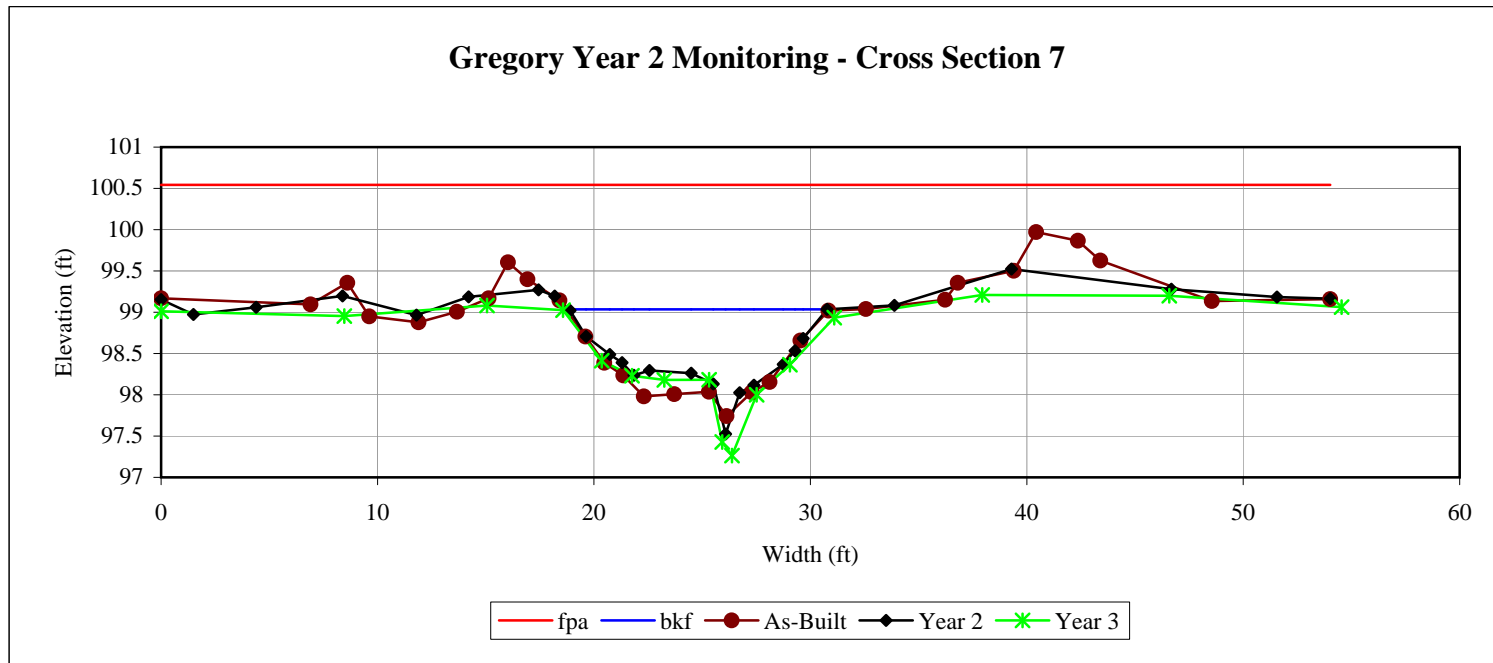




Looking at left bank.



Looking at right bank.

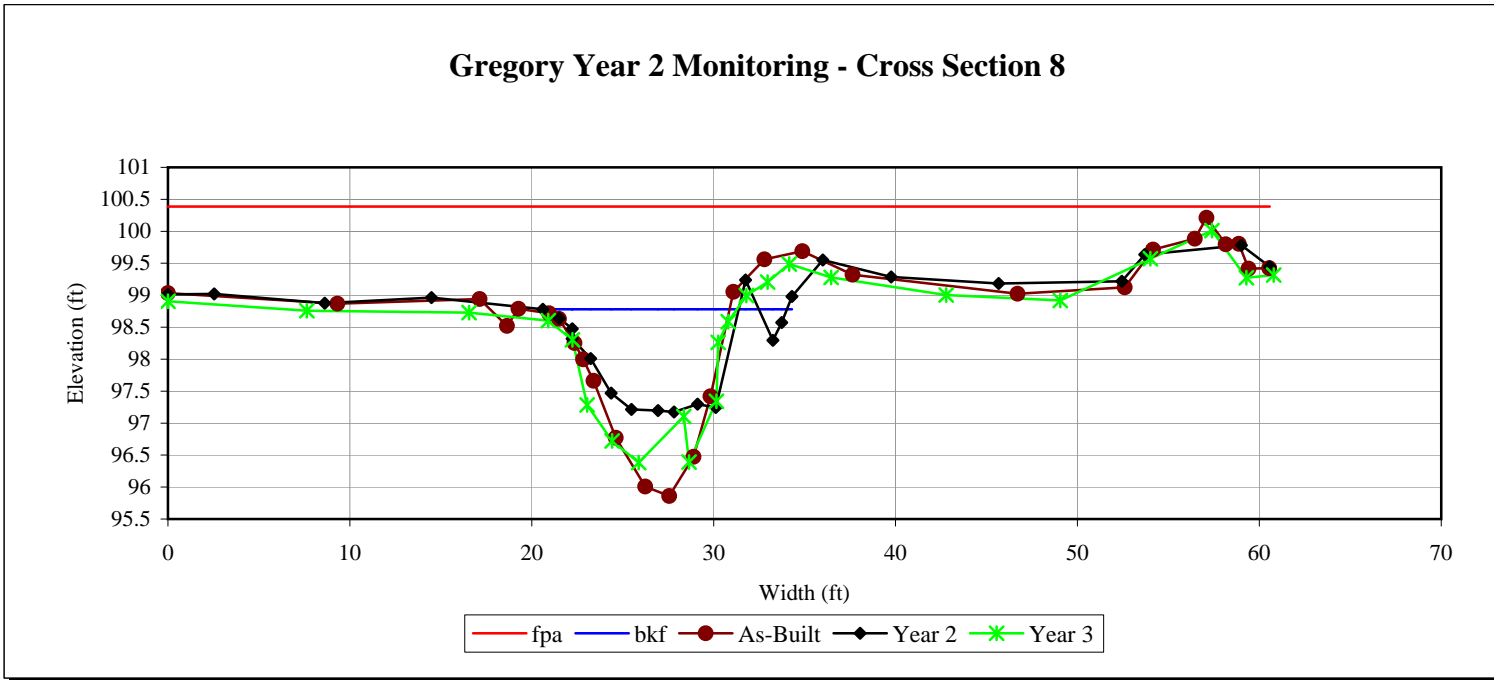




Looking at left bank.



Looking at right bank.

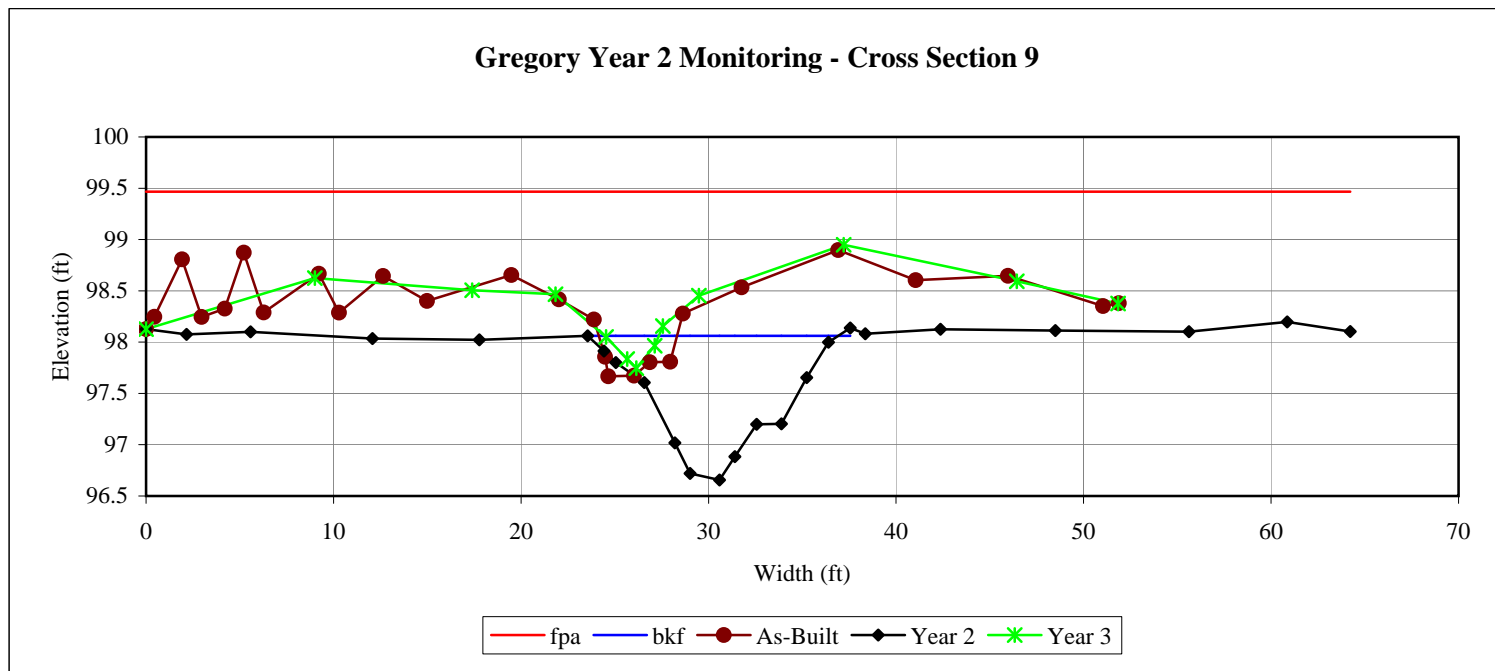




Looking at left bank.



Looking at right bank.



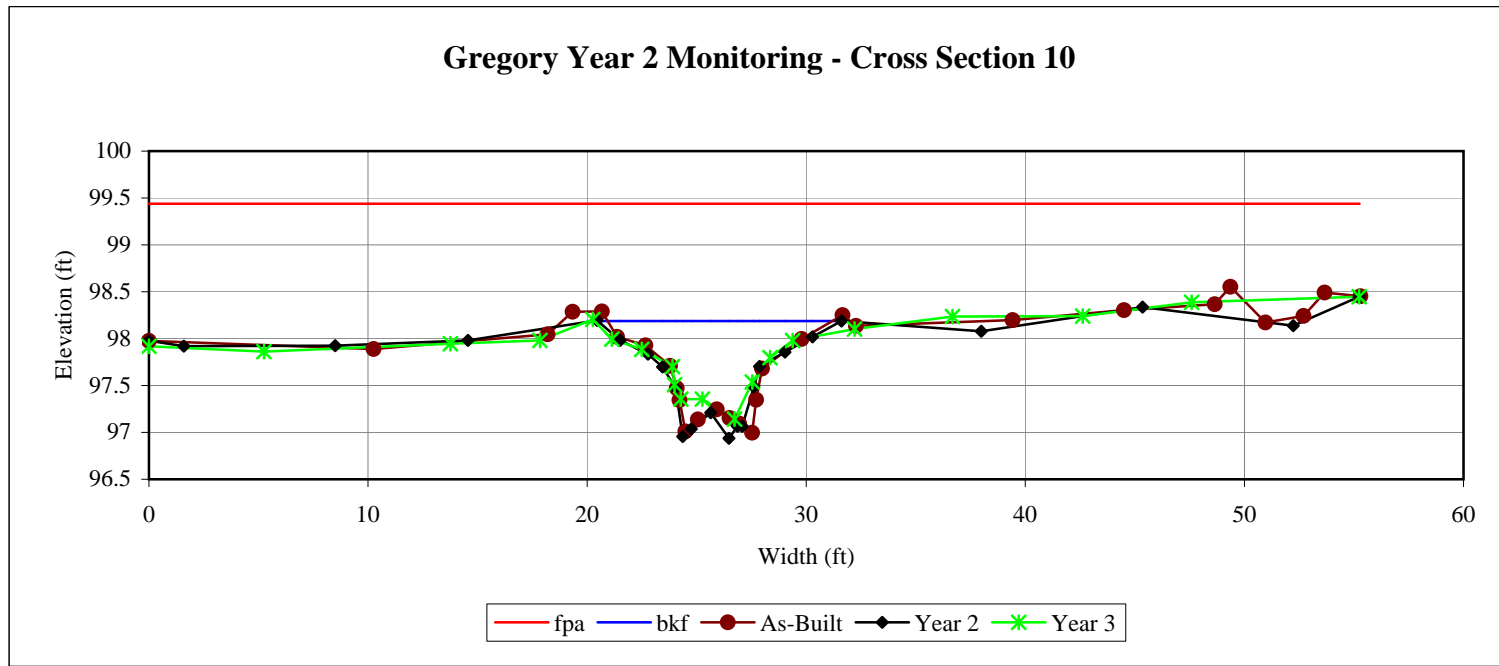




Looking at left bank.



Looking at right bank.

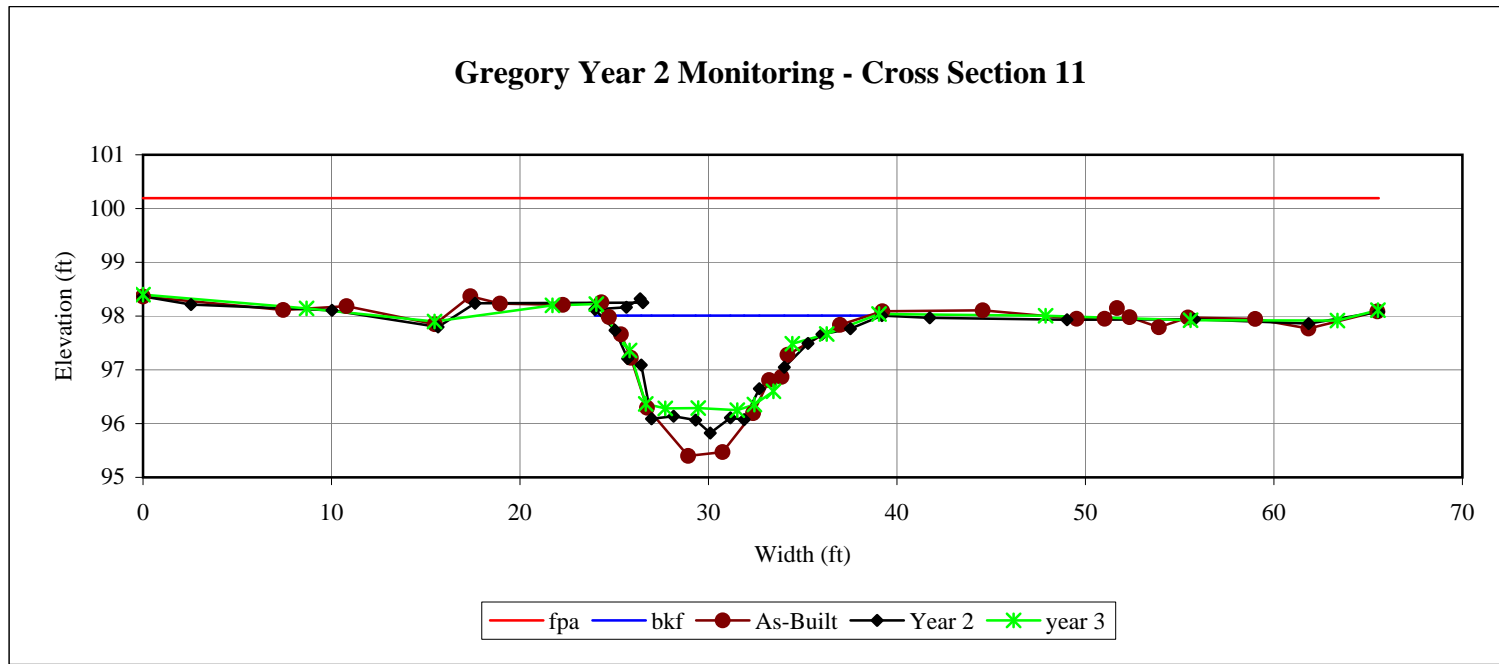




Looking at left bank.



Looking at right bank.

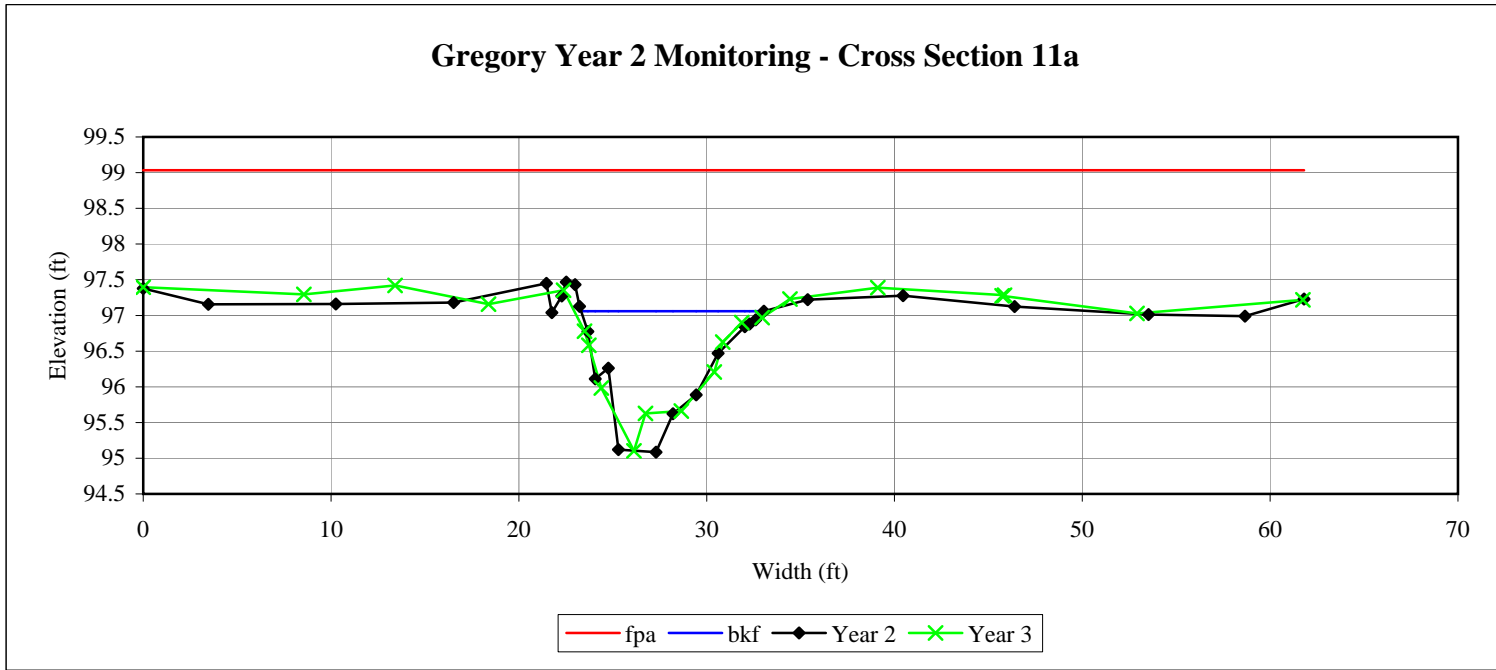




Looking at left bank.



Looking at right bank.

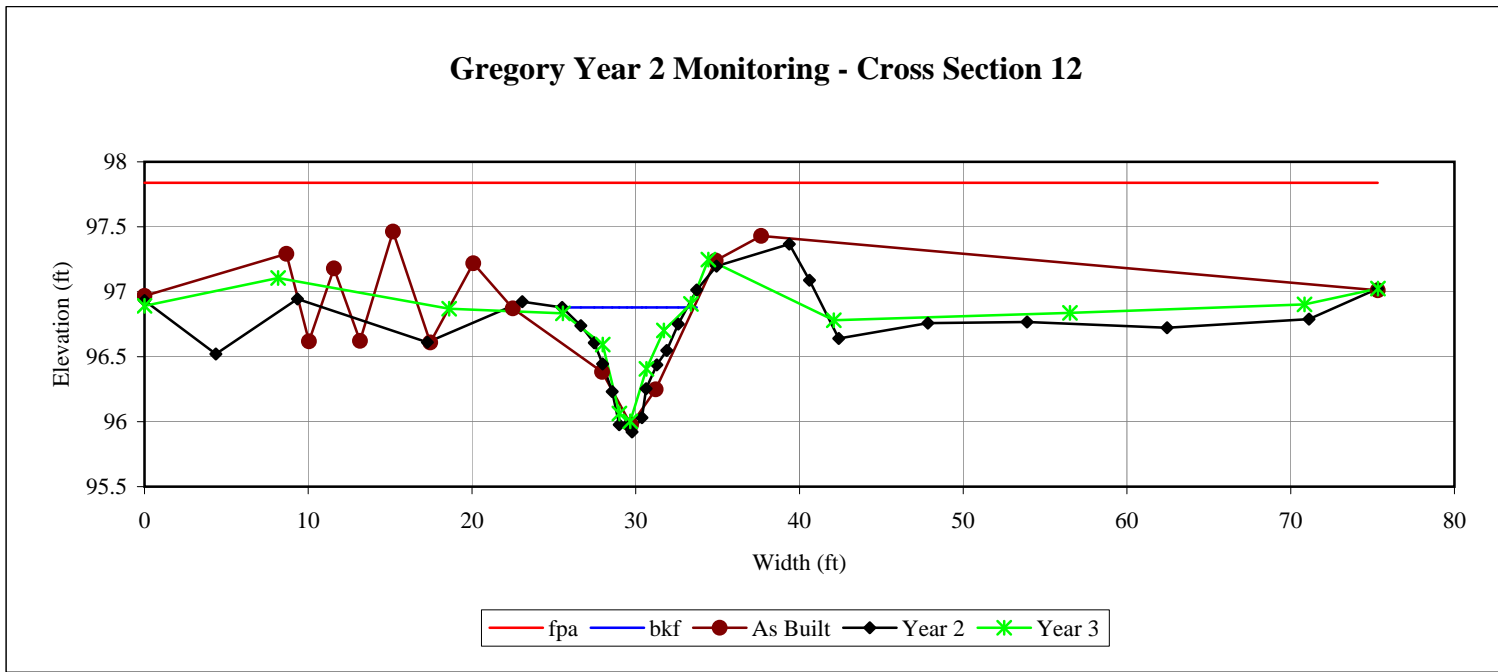




Looking at left bank.



Looking at right bank.



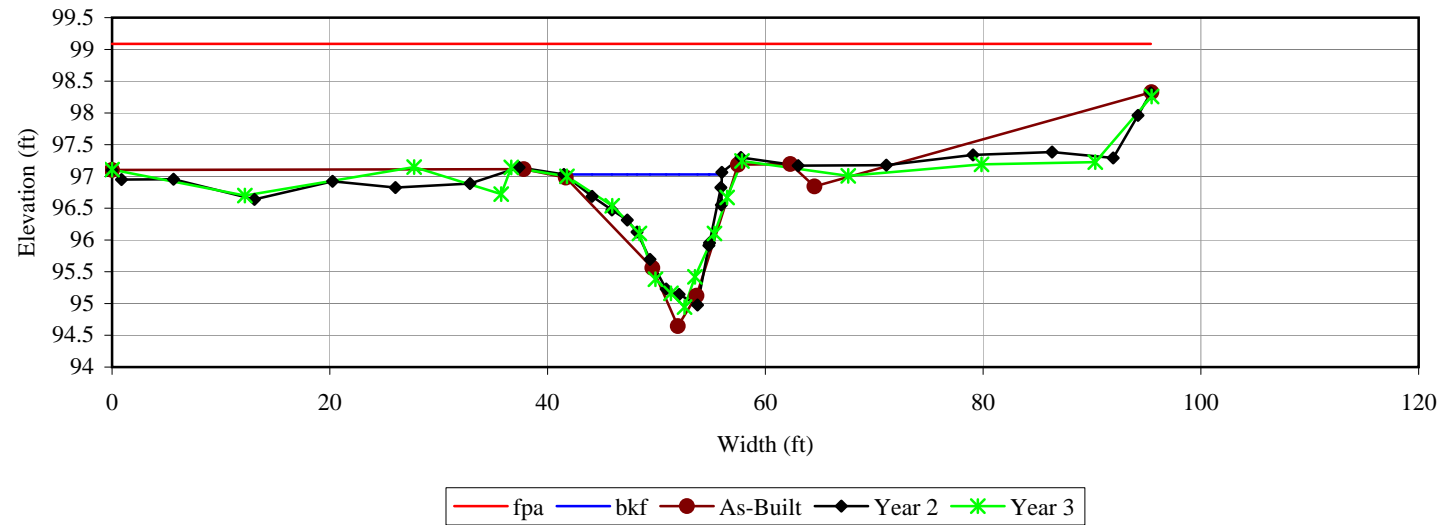


Looking at left bank.



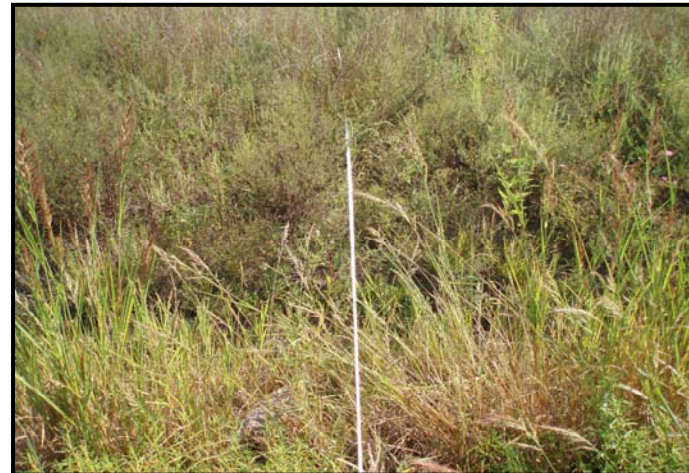
Looking at right bank.

### Gregory Year 2 Monitoring - Cross Section 13

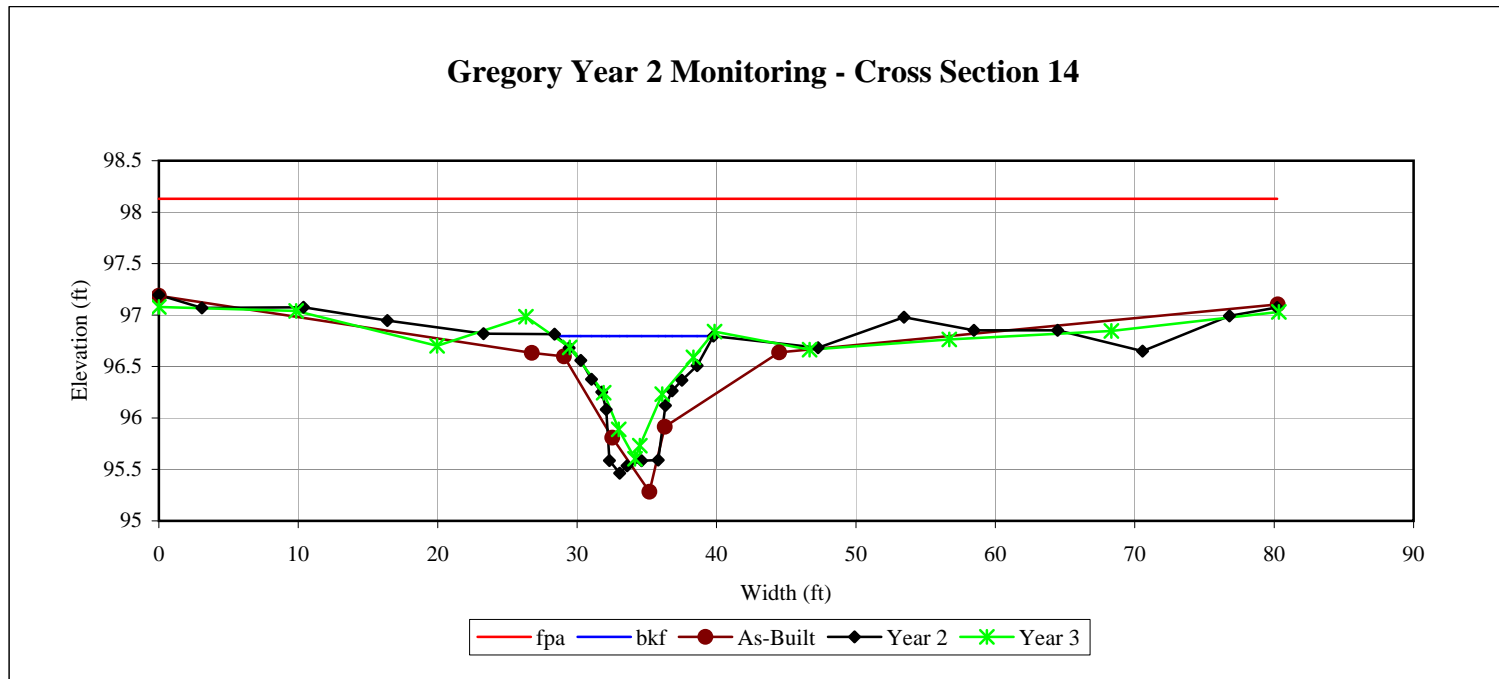




Looking at left bank.



Looking at right bank.



# **APPENDIX C**

## **Gauge Data**

Date	Time	Water Level (inches)									
dd-mmm-yyyy	hh:mm:ss	AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
1-Jan-07	08:00:00										
1-Jan-07	20:00:00										
2-Jan-07	08:00:00										
2-Jan-07	20:00:00										
3-Jan-07	08:00:00										
3-Jan-07	20:00:00										
4-Jan-07	08:00:00										
4-Jan-07	20:00:00										
5-Jan-07	08:00:00										
5-Jan-07	20:00:00										
6-Jan-07	08:00:00										
6-Jan-07	20:00:00										
7-Jan-07	08:00:00										
7-Jan-07	20:00:00										
8-Jan-07	08:00:00										
8-Jan-07	20:00:00										
9-Jan-07	08:00:00										
9-Jan-07	20:00:00										
10-Jan-07	08:00:00										
10-Jan-07	20:00:00										
11-Jan-07	08:00:00										
11-Jan-07	20:00:00										
12-Jan-07	08:00:00										
12-Jan-07	20:00:00										
13-Jan-07	08:00:00										
13-Jan-07	20:00:00										
14-Jan-07	08:00:00										
14-Jan-07	20:00:00										
15-Jan-07	08:00:00										
15-Jan-07	20:00:00										
16-Jan-07	08:00:00										
16-Jan-07	20:00:00										
17-Jan-07	08:00:00										
17-Jan-07	20:00:00										
18-Jan-07	08:00:00										
18-Jan-07	20:00:00										



Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
19-Jan-07	08:00:00										
19-Jan-07	20:00:00										
20-Jan-07	08:00:00										
20-Jan-07	20:00:00										
21-Jan-07	08:00:00										
21-Jan-07	20:00:00										
22-Jan-07	08:00:00										
22-Jan-07	20:00:00										
23-Jan-07	08:00:00										
23-Jan-07	20:00:00										
24-Jan-07	08:00:00										
24-Jan-07	20:00:00										
25-Jan-07	08:00:00										
25-Jan-07	20:00:00										
26-Jan-07	08:00:00										
26-Jan-07	20:00:00										
27-Jan-07	08:00:00										
27-Jan-07	20:00:00										
28-Jan-07	08:00:00										
28-Jan-07	20:00:00										
29-Jan-07	08:00:00										
29-Jan-07	20:00:00										
30-Jan-07	08:00:00										
30-Jan-07	20:00:00										
31-Jan-07	08:00:00										
31-Jan-07	20:00:00										
1-Feb-07	08:00:00										
1-Feb-07	20:00:00										
2-Feb-07	08:00:00										
2-Feb-07	20:00:00										
3-Feb-07	08:00:00										
3-Feb-07	20:00:00										
4-Feb-07	08:00:00										
4-Feb-07	20:00:00										
5-Feb-07	08:00:00										
5-Feb-07	20:00:00										

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
6-Feb-07	08:00:00										
6-Feb-07	20:00:00										
7-Feb-07	08:00:00										
7-Feb-07	20:00:00										
8-Feb-07	08:00:00										
8-Feb-07	20:00:00										
9-Feb-07	08:00:00										
9-Feb-07	20:00:00										
10-Feb-07	08:00:00										
10-Feb-07	20:00:00										
11-Feb-07	08:00:00										
11-Feb-07	20:00:00										
12-Feb-07	08:00:00										
12-Feb-07	20:00:00										
13-Feb-07	08:00:00										
13-Feb-07	20:00:00										
14-Feb-07	08:00:00										
14-Feb-07	20:00:00										
15-Feb-07	08:00:00										
15-Feb-07	20:00:00										
16-Feb-07	08:00:00										
16-Feb-07	20:00:00										
17-Feb-07	08:00:00										
17-Feb-07	20:00:00										
18-Feb-07	08:00:00										
18-Feb-07	20:00:00										
19-Feb-07	08:00:00				1.49						
19-Feb-07	20:00:00	-3.74	-2.54	8.80	1.48	-10.38	-1.31	-4.34		-11.85	
20-Feb-07	08:00:00	-4.51	-2.51	9.15	1.46		-1.28	-3.86		-12.62	
20-Feb-07	20:00:00	-4.62	-2.90	8.68	1.48		-1.31	-4.19		-12.73	
21-Feb-07	08:00:00	-5.32	-2.86	9.66	1.42		-1.45	-3.08		-13.43	
21-Feb-07	20:00:00	-4.15	-2.48	9.23	1.39		-1.43	-3.36		-12.26	
22-Feb-07	08:00:00	-2.89	-2.19	10.01	1.43		-1.30	-2.46		-11.00	
22-Feb-07	20:00:00	-3.63	-3.07	6.70	1.44		-1.58	-5.63		-11.74	
23-Feb-07	08:00:00	-5.91	-3.45	5.83	1.46		-1.86	-6.37		-14.02	
23-Feb-07	20:00:00	-6.94	-4.52	5.43	1.55		-2.03	-6.63		-15.05	

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
24-Feb-07	08:00:00	-7.95	-5.00	5.41	1.54		-2.19	-6.52		-16.06	
24-Feb-07	20:00:00	-8.24	-4.82	5.21	1.59		-2.28	-6.58		-16.35	
25-Feb-07	08:00:00	-8.60	-4.29	6.55	1.64		-2.29	-5.11		-16.71	
25-Feb-07	20:00:00	2.69	-1.36	9.23	1.64		-0.80	-2.29		-5.42	
26-Feb-07	08:00:00	3.95	-2.01	8.28	1.53		-0.64	-3.11		-4.16	
26-Feb-07	20:00:00	1.72	-2.16	7.49	1.69		-0.92	-3.76		-6.39	
27-Feb-07	08:00:00	-0.45	-2.19	7.07	1.54		-1.14	-4.05		-8.56	
27-Feb-07	20:00:00	-1.77	-2.38	6.31	1.51		-1.27	-4.68		-9.88	
28-Feb-07	08:00:00	-3.50	-2.51	5.84	1.44		-1.51	-5.01		-11.61	
28-Feb-07	20:00:00	-4.37	-2.97	5.90	1.43		-1.54	-4.82		-12.48	
1-Mar-07	08:00:00	-5.34	-2.84	6.79	1.41		-1.58	-3.79		-13.45	
1-Mar-07	20:00:00	-5.38	-2.76	9.24	2.26		-1.57	-1.21		-13.49	
2-Mar-07	08:00:00	6.66	1.47	8.72	3.55		2.37	-1.59		-1.45	
2-Mar-07	20:00:00	6.31	-1.22	7.85	2.30		1.77	-2.33		-1.80	
3-Mar-07	08:00:00	6.04	-1.98	7.93	1.87		0.52	-2.11		-2.07	
3-Mar-07	20:00:00	5.46	-2.25	5.90	1.68		-0.44	-4.01		-2.65	
4-Mar-07	08:00:00	4.21	-2.43	5.15	1.57		-0.99	-4.61		-3.90	
4-Mar-07	20:00:00	1.87	-3.19	4.63	1.57		-1.26	-5.01		-6.24	
5-Mar-07	08:00:00	0.09	-3.34	4.98	1.47		-1.49	-4.52		-8.02	
5-Mar-07	20:00:00	-1.35	-4.55	4.13	1.48		-1.56	-5.24		-9.46	
6-Mar-07	08:00:00	-3.49	-5.01	2.46	1.42		-1.96	-6.77		-11.60	
6-Mar-07	20:00:00	-4.76	-5.62	2.96	1.43		-2.04	-6.14		-12.87	
7-Mar-07	08:00:00	-5.70	-4.70	4.49	1.38		-2.03	-4.48		-13.81	
7-Mar-07	20:00:00	-5.85	-5.62	1.52	1.42		-2.29	-7.31		-13.96	
8-Mar-07	08:00:00	-6.86	-4.65	1.21	1.35		-2.48	-7.49		-14.97	
8-Mar-07	20:00:00	-7.43	-3.93	0.11	1.40		-2.68	-8.45		-15.54	
9-Mar-07	08:00:00	-8.31	-4.43	0.16	1.31		-2.85	-8.27		-16.42	
9-Mar-07	20:00:00	-8.63	-5.16	-0.31	1.35		-3.03	-8.60		-16.74	
10-Mar-07	08:00:00	-9.03	-5.00	0.36	1.30		-3.07	-7.80		-17.14	
10-Mar-07	20:00:00	-9.16	-5.83	-0.98	1.35		-3.53	-9.00		-17.27	
11-Mar-07	08:00:00	-9.51	-5.47	-1.49	1.22		-3.63	-9.38		-17.62	
11-Mar-07	20:00:00	-9.86	-7.19	-3.24	1.24		-5.07	-10.99		-17.97	
12-Mar-07	08:00:00	-10.47	-7.29	-2.83	1.18		-5.56	-10.45		-18.58	
12-Mar-07	20:00:00	-10.75	-7.93	-3.51	1.22		-7.39	-10.99		-18.86	
13-Mar-07	08:00:00	-11.10	-7.50	-3.42	1.23		-7.61	-10.77		-19.21	
13-Mar-07	20:00:00	-11.32	-8.15	-3.97	1.27		-9.13	-11.18		-19.43	

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
14-Mar-07	08:00:00	-11.62	-7.72	-3.55	1.20		-9.64	-10.63		-19.73	
14-Mar-07	20:00:00	-11.79	-8.70	-4.31	1.27		-10.93	-11.26		-19.90	
15-Mar-07	08:00:00	-12.03	-8.20	-4.32	1.17		-11.61	-11.13		-20.14	
15-Mar-07	20:00:00	-12.20	-9.65	-5.14	1.39		-12.15	-11.82		-20.31	
16-Mar-07	08:00:00	-11.44	-2.04	3.20	2.63		-3.70	-3.34		-19.55	
16-Mar-07	20:00:00	5.49	-1.38	3.28	2.28		-0.15	-3.13		-2.62	
17-Mar-07	08:00:00	5.50	-2.07	2.22	1.82		-0.05	-4.05		-2.61	
17-Mar-07	20:00:00	4.91	-1.20	1.05	2.32		-1.25	-5.09		-3.20	
18-Mar-07	08:00:00	3.94	-2.05	0.58	1.66		-0.21	-5.42		-4.17	
18-Mar-07	20:00:00	1.70	-2.70	-0.42	1.56		-1.77	-6.29		-6.41	
19-Mar-07	08:00:00	-0.20	-2.97	-0.37	1.36		-2.17	-6.10		-8.31	
19-Mar-07	20:00:00	-1.48	-4.08	-0.60	1.35		-2.32	-6.20		-9.59	
20-Mar-07	08:00:00	-2.93	-4.36	-1.37	1.26		-2.47	-6.83		-11.04	
20-Mar-07	20:00:00	-4.24	-3.58	-3.27	1.25		-2.83	-8.60		-12.35	
21-Mar-07	08:00:00	-5.82	-3.40	-3.57	1.24		-2.91	-8.76		-13.93	
21-Mar-07	20:00:00	-6.67	-1.44	-2.95	1.33		-3.00	-8.01		-14.78	
22-Mar-07	08:00:00	-7.20	-11.55	-2.51	1.22		-3.11	-7.44		-15.31	
22-Mar-07	20:00:00	-7.53	-2.43	-3.85	1.26		-3.70	-8.64		-15.64	
23-Mar-07	08:00:00	-7.97	-10.92	-4.25	1.14		-3.77	-8.91		-16.08	
23-Mar-07	20:00:00	-8.49	-4.30	-5.62	1.15		-6.17	-10.14		-16.60	
24-Mar-07	08:00:00	-9.13	-10.10	-5.87	1.05		-6.72	-10.26	-7.40	-17.24	-1.61
24-Mar-07	20:00:00	-9.63	-6.93	-6.34	1.13		-8.98	-10.59	-7.63	-17.74	-2.02
25-Mar-07	08:00:00	-10.19	-14.71	-7.68	0.94		-10.25	-11.80	-8.49	-18.30	-2.54
25-Mar-07	20:00:00	-10.90	-7.97	-8.57	0.93		-12.35	-12.55	-9.57	-19.01	-3.89
26-Mar-07	08:00:00	-11.59	-14.17	-8.15	0.86		-13.49	-12.00	-9.28	-19.70	-3.77
26-Mar-07	20:00:00	-12.01	-8.40	-8.37	0.93		-13.76	-12.08	-8.85	-20.12	-4.16
27-Mar-07	08:00:00	-12.42	-16.05	-8.50	0.79		-13.97	-12.08	-9.24	-20.53	-4.29
27-Mar-07	20:00:00	-12.78	-9.29	-9.36	0.92		-14.29	-12.80	-10.05	-20.89	-5.47
28-Mar-07	08:00:00	-13.14	-15.59	-9.89	1.01	-15.44	-14.71	-13.20	-10.24	-21.25	-5.54
28-Mar-07	20:00:00	-13.54	-10.36	-4.05	0.88	-16.06	-15.27	-7.09	-10.80	-8.86	-6.12
29-Mar-07	08:00:00	0.35	-0.32	-4.50	1.48	-6.33	-3.74	-5.04	-5.13	-0.18	-0.94
29-Mar-07	20:00:00	-2.17	1.29	-4.72	1.31	-11.67	-5.87	-7.96	-4.85	-3.30	-0.79
30-Mar-07	08:00:00	-4.67	-8.79	-4.98	1.19	-13.00	-7.08	-7.29	-5.31	-4.77	-1.18
30-Mar-07	20:00:00	-5.77	-5.90	-6.17	1.05	-12.45	-9.61	-7.86	-5.27	-5.36	-1.82
31-Mar-07	08:00:00	-6.77	-10.73	5.03	1.04	-12.82	-10.88	-8.25	-5.95	-5.70	-2.10
31-Mar-07	20:00:00	-7.74	-2.76	8.08	0.93	-13.05	-11.76	-9.62	-6.82	-5.98	-2.72

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
1-Apr-07	08:00:00	-8.66	-9.98	7.09	0.94	-13.92	-12.38	-9.82	-7.71	-6.42	-3.06
1-Apr-07	20:00:00	-9.26	-3.04	6.33	0.92	-13.65	-12.77	-10.08	-7.81	-6.78	-3.05
2-Apr-07	08:00:00	-9.74	-11.94	5.77	0.93	-13.95	-13.14	-10.58	-8.40	-7.10	-3.34
2-Apr-07	20:00:00	-10.41	-5.86	7.07	0.72	-14.39	-13.64	-11.88	-9.21	-7.43	-5.07
3-Apr-07	08:00:00	-11.26	-15.13	8.69	0.79	-15.71	-14.45	-12.70	-10.19	-8.02	-5.49
3-Apr-07	20:00:00	-12.06	-8.07	20.21	0.54	-15.35	-15.00	-12.24	-10.21	-8.57	-6.86
4-Apr-07	08:00:00	-12.67	-16.18	9.34	0.61	-14.47	-14.91	-11.78	-9.55	-8.76	-6.56
4-Apr-07	20:00:00	-13.18	-9.76	17.86	0.31	-14.33	-15.05	-13.94	-11.14	-8.93	-8.70
5-Apr-07	08:00:00	-14.00	-19.45	8.11	0.41	-17.22	-16.05	-14.86	-12.96	-9.68	-10.24
5-Apr-07	20:00:00	-14.69	-15.98	15.23	0.16	-18.45	-17.21	-15.58	-13.67	-10.53	-11.51
6-Apr-07	08:00:00	-15.53	-16.84	4.12	0.16	-19.75	-18.32	-15.70	-14.10	-11.42	-12.63
6-Apr-07	20:00:00	-16.06	-16.82	9.81	0.10	-18.73	-18.73	-15.29	-13.32	-11.87	-12.75
7-Apr-07	08:00:00	-16.59	-15.75	2.69	0.55	-19.05	-18.08	-16.31	-13.27	-12.34	-12.90
7-Apr-07	20:00:00	-17.18	-16.34	12.07	0.45	-20.48	-19.42	-17.60	-14.87	-13.04	-12.54
8-Apr-07	08:00:00	-17.77	-17.58	0.72	0.47	-22.37	-21.04	-17.59	-15.23	-13.96	-13.85
8-Apr-07	20:00:00	-18.11	-12.78	6.93	0.34	-22.24	-21.94	-18.18	-14.78	-14.59	-14.40
9-Apr-07	08:00:00	-18.52	-23.13	-0.71	0.39	-23.45	-23.00	-17.96	-15.58	-15.33	-15.44
9-Apr-07	20:00:00	-18.75	-15.17	5.66	0.31	-23.11	-23.30	-18.32	-15.25	-15.71	-15.90
10-Apr-07	08:00:00	-19.07	-19.44	4.96	0.39	-24.12	-23.90	-18.76	-16.34	-16.25	-16.88
10-Apr-07	20:00:00	-19.33	-19.87	4.66	0.26	-24.27	-24.21	-19.23	-16.08	-16.65	-17.21
11-Apr-07	08:00:00	-19.57	-20.24	4.16	0.32	-24.75	-24.51	-18.92	-16.15	-17.04	-17.59
11-Apr-07	20:00:00	-19.69	-19.70	3.70	0.41	-23.67	-24.30	-16.25	-15.25	-17.13	-17.12
12-Apr-07	08:00:00	-4.27	-5.65	-2.20	1.35	-5.47	-4.35	-6.68	-6.15	3.93	-2.45
12-Apr-07	20:00:00	-2.14	-5.51	2.87	0.97	-16.23	-11.82	-10.66	-5.88	-2.12	-1.51
13-Apr-07	08:00:00	-5.29	-6.26		0.79	-19.15	-15.37	-10.85	-6.67	-6.36	-1.86
13-Apr-07	20:00:00	-5.80	-8.70		0.56	-18.91	-16.15	-10.17	-6.09	-8.47	-2.52
14-Apr-07	08:00:00	-6.61	-9.87		0.60	-19.14	-16.54	-10.30	-5.96	-9.84	-2.52
14-Apr-07	20:00:00	-7.26	-9.76		0.42	-17.12	-16.11	-8.38	-5.80	-10.25	-3.00
15-Apr-07	08:00:00	2.25	-1.82		1.10	-6.21	-2.15	-1.74	-1.82	0.45	-0.01
15-Apr-07	20:00:00	6.40	2.48		4.30	-1.86	0.48	-2.93	1.73	5.35	2.15
16-Apr-07	08:00:00	6.30	2.96		6.58	-2.54	4.62	-1.88	4.06	5.28	2.66
16-Apr-07	20:00:00	5.14	2.60		6.18	-4.80	3.75	-2.15	4.08	4.60	1.83
17-Apr-07	08:00:00	4.65	-0.58		4.35	-5.51	2.53	-3.35	3.37	3.55	1.49
17-Apr-07	20:00:00	1.36	-2.68		1.61	-8.60	0.13	-5.09	2.31	1.97	1.06
18-Apr-07	08:00:00	0.01	-2.94		0.94	-10.39	-1.82	-5.78	0.92	0.44	0.72
18-Apr-07	20:00:00	-2.69	-4.54		0.59	-11.52	-2.23	-6.93	-0.06	-1.03	0.34

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
19-Apr-07	08:00:00	-4.17	-4.12		0.42	-12.61	-2.35	-6.83	-1.01	-2.34	0.17
19-Apr-07	20:00:00	-5.30	-5.22		0.20	-13.22	-2.57	-8.06	-2.49	-3.50	-0.11
20-Apr-07	08:00:00	-6.38	-5.61		0.12	-14.42	-2.76	-8.67	-3.71	-4.62	-0.36
20-Apr-07	20:00:00	-7.26	-8.34		-0.14	-14.88	-3.17	-9.84	-4.73	-5.66	-0.70
21-Apr-07	08:00:00	-8.29	-9.15		-0.12	-15.67	-3.39	-10.42	-5.44	-6.68	-1.06
21-Apr-07	20:00:00	-9.10	-10.50		-0.46	-15.95	-5.05	-11.20	-6.09	-7.48	-1.65
22-Apr-07	08:00:00	-9.97	-10.82		-0.48	-16.32	-5.21	-12.04	-6.65	-8.17	-2.10
22-Apr-07	20:00:00	-10.71	-6.80		-1.13	-16.92	-10.68	-12.62	-7.68	-8.99	-3.66
23-Apr-07	08:00:00	-11.48	-16.93		-1.26	-17.42	-13.15	-12.80	-8.24	-9.78	-3.86
23-Apr-07	20:00:00	-12.06	-8.94		-4.34	-17.26	-14.53	-13.13	-8.64	-10.31	-6.32
24-Apr-07	08:00:00	-12.70	-17.89		-4.28	-17.52	-15.37	-13.34	-9.19	-10.75	-6.53
24-Apr-07	20:00:00	-13.30	-9.83	-18.57	-7.01	-17.84	-16.02	-14.06	-9.99	-11.14	-8.33
25-Apr-07	08:00:00	-14.01	-15.03	-19.20	-8.15	-18.44	-16.65	-14.10	-10.43	-11.61	-8.81
25-Apr-07	20:00:00	-14.57	-15.37	-19.98	-10.22	-18.72	-17.10	-14.95	-11.15	-11.96	-10.19
26-Apr-07	08:00:00	-15.29	-16.01	-20.69	-11.66	-20.01	-17.95	-15.78	-12.49	-12.53	-11.34
26-Apr-07	20:00:00	-15.90	-16.61	-21.36	-12.80	-20.52	-18.74	-15.54	-12.39	-13.07	-12.35
27-Apr-07	08:00:00	-16.43	-16.95	-21.92	-13.84	-20.71	-19.20	-15.95	-12.74	-13.51	-13.07
27-Apr-07	20:00:00	-16.86	-15.68	-22.49	-13.16	-20.35	-18.91	-15.63	-12.64	-13.76	-12.21
28-Apr-07	08:00:00	-17.30	-15.90	-23.09	-14.06	-20.94	-19.79	-16.56	-13.34	-14.18	-12.41
28-Apr-07	20:00:00	-17.76	-17.07	-23.72	-15.14	-21.81	-20.62	-17.21	-14.03	-14.67	-14.26
29-Apr-07	08:00:00	-18.32	-18.12	-24.29	-16.03	-22.99	-21.65	-18.14	-15.01	-15.20	-15.46
29-Apr-07	20:00:00	-18.81	-18.98	-24.88	-16.74	-23.81	-22.57	-18.82	-15.66	-15.77	-16.83
30-Apr-07	08:00:00	-19.35	-19.86	-25.42	-17.43	-24.88	-23.56	-19.06	-16.42	-16.37	-17.71
30-Apr-07	20:00:00	-19.78	-20.33	-25.92	-18.04	-25.00	-24.10	-19.38	-16.42	-16.86	-18.35
1-May-07	08:00:00	-20.26	-21.12	-26.45	-18.68	-26.05	-24.89	-20.43	-17.67	-17.43	-19.25
1-May-07	20:00:00	-20.67	-21.71	-26.96	-19.24	-26.58	-25.40	-20.42	-17.53	-18.01	-19.66
2-May-07	08:00:00	-21.08	-22.28	-27.46	-19.85	-27.12	-25.89	-20.99	-18.46	-18.42	-20.19
2-May-07	20:00:00	-21.52	-22.89	-28.00	-20.44	-27.75	-26.35	-21.93	-19.01	-18.93	-20.95
3-May-07	08:00:00	-22.03	-23.83	-28.54	-21.09	-29.24	-27.24	-22.81	-20.58	-19.61	-22.13
3-May-07	20:00:00	-22.55	-24.74	-28.95	-21.73	-30.33	-28.04	-22.65	-20.80	-20.31	-22.63
4-May-07	08:00:00	-22.89	-24.38	-29.01	-14.27	-30.24	-24.87	-22.65	-19.92	-20.86	-21.59
4-May-07	20:00:00	-22.97	-24.69	-29.11	-15.44	-29.87	-26.51	-22.18	-18.68	-21.24	-21.16
5-May-07	08:00:00	-22.88	-24.82	-29.20	-16.53	-29.51	-27.37	-22.21	-18.02	-21.49	-21.19
5-May-07	20:00:00	-22.84	-24.95	-29.30	-17.42	-29.32	-27.82	-16.66	-17.74	-21.63	-21.44
6-May-07	08:00:00	-22.16	-18.86	-26.24	-7.33	-27.84	-19.05	-18.04	-13.73	-17.30	-9.12
6-May-07	20:00:00	-22.06	-21.65	-26.10	-9.16	-28.83	-24.77	-18.55	-13.88	-18.49	-14.44

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
7-May-07	08:00:00	-22.05	-22.48	-26.08	-10.60	-28.58	-26.52	-18.72	-13.29	-19.33	-15.98
7-May-07	20:00:00	-22.12	-22.90	-26.65	-12.29	-28.40	-27.22	-18.67	-13.91	-19.94	-17.82
8-May-07	08:00:00	-22.21	-23.14	-27.17	-13.84	-28.29	-27.51	-19.05	-14.03	-20.32	-18.71
8-May-07	20:00:00	-22.36	-23.40	-27.64	-15.25	-28.43	-27.65	-18.98	-14.41	-20.66	-19.42
9-May-07	08:00:00	-22.54	-23.48	-27.96	-13.29	-28.56	-27.21	-18.49	-13.79	-20.93	-19.78
9-May-07	20:00:00	-12.07	-4.77	-28.18	-2.07	-13.61	-3.60	-8.63	-5.55	3.45	-2.31
10-May-07	08:00:00	-12.38	-4.75	-28.27	-0.72	-20.94	-3.93	-8.59	-4.82	-3.59	-1.79
10-May-07	20:00:00	-12.86	-6.43	-28.42	-1.00	-20.49	-7.12	-9.81	-5.82	-7.44	-2.58
11-May-07	08:00:00	-13.54	-6.44	-28.78	-1.10	-20.57	-9.55	-10.46	-6.48	-9.86	-3.19
11-May-07	20:00:00	-14.12	-10.26	-29.19	-1.71	-20.38	-14.64	-11.15	-7.56	-11.62	-5.24
12-May-07	08:00:00	-14.87	-11.65	-29.56	-0.38	-20.97	-16.82	-11.22	-7.26	-12.90	-5.60
12-May-07	20:00:00	-15.41	-12.20	-29.83	-1.69	-20.57	-17.34	-10.92	-8.09	-13.82	-5.95
13-May-07	08:00:00	-16.02	-12.73	-30.05	-1.84	-20.96	-18.00	-12.32	-8.77	-14.59	-7.85
13-May-07	20:00:00	-16.66	-13.95	-30.37	-2.27	-22.54	-19.40	-13.12	-9.79	-15.59	-10.22
14-May-07	08:00:00	-17.29	-15.12	-30.62	-2.45	-23.56	-20.76	-13.92	-10.20	-16.65	-12.06
14-May-07	20:00:00	-17.83	-16.46	-30.83	-6.48	-23.81	-21.78	-14.16	-10.64	-17.57	-14.61
15-May-07	08:00:00	-18.44	-17.11	-31.11	-7.55	-23.63	-22.15	-14.12	-10.68	-18.14	-15.43
15-May-07	20:00:00	-18.86	-17.76	-31.29	-8.97	-22.83	-21.98	-14.72	-10.70	-18.36	-16.58
16-May-07	08:00:00	-19.38	-18.19	-31.59	-9.93	-23.10	-21.86	-14.59	-11.21	-18.63	-17.36
16-May-07	20:00:00	-19.86	-18.87	-31.90	-11.37	-23.01	-21.69	-12.27	-11.86	-18.83	-18.56
17-May-07	08:00:00	-19.04	-12.03	-32.09	-3.36	-23.33	-13.81	-12.05	-9.98	-7.70	-10.69
17-May-07	20:00:00	-19.58	-15.31	-31.88	-5.39	-23.34	-18.35	-11.92	-9.06	-11.49	-13.42
18-May-07	08:00:00	-20.08	-16.49	-31.44	-6.72	-23.21	-19.66	-12.09	-8.14	-13.85	-14.72
18-May-07	20:00:00	-19.96	-4.88	-31.62	-0.83	-20.81	-4.16	-8.85	-7.29	-2.31	-10.88
19-May-07	08:00:00	-19.74	-10.06	-31.73	-2.83	-22.78	-6.59	-9.34	-7.27	-8.25	-10.84
19-May-07	20:00:00	-20.10	-13.48	-31.95	-6.45	-22.59	-15.22	-10.82	-7.63	-12.01	-14.00
20-May-07	08:00:00	-20.59	-14.66	-32.20	-7.96	-22.71	-17.52	-12.00	-8.05	-14.22	-15.25
20-May-07	20:00:00	-20.96	-16.24	-32.47	-9.47	-23.01	-18.74	-13.15	-8.92	-15.79	-17.47
21-May-07	08:00:00	-21.46	-17.01	-32.86	-10.64	-24.10	-19.52	-14.78	-10.07	-17.30	-18.81
21-May-07	20:00:00	-21.98	-18.66	-33.20	-12.35	-25.63	-20.84	-16.38	-11.61	-18.85	-20.50
22-May-07	08:00:00	-22.60	-19.85	-33.55	-13.84	-27.23	-22.07	-16.91	-12.57	-20.30	-21.64
22-May-07	20:00:00	-32.98	-19.87	-4.02	-15.85	-19.87	-22.34	-17.96	-14.66	-25.01	-25.37
23-May-07	08:00:00	-33.58	-20.95	-9.69	-16.99	-20.95	-23.15	-18.74	-15.29	-26.19	-26.16
23-May-07	20:00:00	-34.02	-21.96	-7.06	-17.99	-21.96	-23.84	-19.56	-15.95	-27.08	-26.79
24-May-07	08:00:00	-34.49	-22.93	-11.79	-18.81	-22.93	-24.50	-20.02	-16.60	-27.95	-27.42
24-May-07	20:00:00	-34.77	-23.68	-8.70	-19.52	-23.68	-24.71	-20.40	-16.68	-28.53	-27.62

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
25-May-07	08:00:00	-35.14	-24.33	-13.19	-20.19	-24.33	-24.92	-20.53	-17.03	-29.05	-27.98
25-May-07	20:00:00	-35.39	-24.85	-10.79	-20.78	-24.85	-24.93	-21.14	-17.28	-29.41	-28.21
26-May-07	08:00:00	-35.74	-25.36	-11.26	-21.38	-25.36	-25.18	-21.63	-17.94	-29.79	-28.68
26-May-07	20:00:00	-36.06	-25.84	-11.91	-21.93	-25.84	-25.46	-22.31	-18.55	-30.14	-29.04
27-May-07	08:00:00	-36.45	-26.41	-12.79	-22.49	-26.41	-26.03	-23.08	-19.47	-30.58	-29.82
27-May-07	20:00:00	-36.80	-26.96	-13.37	-22.98	-26.96	-26.50	-23.70	-20.00	-30.99	-30.28
28-May-07	08:00:00	-37.26	-27.59	-13.96	-23.47	-27.59	-27.09	-24.22	-20.75	-31.45	-30.98
28-May-07	20:00:00	-37.60	-28.20	-14.65	-23.93	-28.20	-27.47	-24.66	-21.08	-31.89	-31.32
29-May-07	08:00:00	-38.02	-28.80	-15.13	-24.39	-28.80	-27.89	-25.23	-21.46	-32.33	-31.88
29-May-07	20:00:00	-38.41	-29.43	-15.78	-24.83	-29.43	-28.24	-25.86	-22.11	-32.75	-32.37
30-May-07	08:00:00	-38.83	-30.08	-16.45	-25.30	-30.08	-28.71	-26.49	-22.48	-33.18	-32.93
30-May-07	20:00:00	-39.20	-30.57	-17.05	-25.73	-30.57	-28.98	-26.96	-22.82	-33.57	-33.30
31-May-07	08:00:00	-39.63	-31.08	-17.60	-26.17	-31.08	-29.40	-27.29	-22.99	-33.91	-33.77
31-May-07	20:00:00	-39.98	-31.54	-18.07	-26.54	-31.54	-29.66	-27.94	-23.42	-34.25	-34.10
1-Jun-07	08:00:00	-40.35	-31.97	-18.45	-26.95	-31.97	-30.06	-28.31	-23.60	-34.67	-34.61
1-Jun-07	20:00:00	-40.66	-32.40	-19.04	-27.31	-32.40	-30.28	-28.87	-23.99	-34.97	-34.94
2-Jun-07	08:00:00	-41.35	-32.88	-19.61	-27.71	-32.88	-30.66	-29.14	-24.07	-35.32	-35.36
2-Jun-07	20:00:00	-42.01	-33.28	-19.85	-28.04	-33.28	-30.82	-28.83	-24.26	-35.62	-35.54
3-Jun-07	08:00:00	-31.74	-5.13	-4.62	-5.51	-5.13	-4.51	-14.10	-14.50	0.87	-9.56
3-Jun-07	20:00:00	-29.35	-11.06	-1.74	-8.20	-11.06	-7.93	-14.13	-10.66	-10.36	-9.78
4-Jun-07	08:00:00	-30.55	-15.21	-2.61	-10.78	-15.21	-14.76	-14.87	-10.87	-18.5	-16.01
4-Jun-07	20:00:00	-31.46	-17.82	-3.50	-12.86	-17.82	-18.51	-16.09	-10.88	-22.91	-20.80
5-Jun-07	08:00:00	-32.39	-19.79	-3.96	-14.33	-19.79	-19.96	-16.90	-11.26	-25.57	-22.90
5-Jun-07	20:00:00	-33.18	-21.39	-4.49	-15.75	-21.39	-20.99	-15.27	-12.13	-27.42	-24.63
6-Jun-07	08:00:00	-32.44	-12.60	-1.44	-7.50	-12.60	-10.82	-15.98	-11.54	-12.41	-17.33
6-Jun-07	20:00:00	-33.33	-17.66	-2.69	-10.20	-17.66	-18.81	-17.14	-12.29	-19.35	-22.25
7-Jun-07	08:00:00	-34.11	-20.35	-3.46	-11.82	-20.35	-21.03	-17.20	-12.19	-23.83	-24.36
7-Jun-07	20:00:00	-34.63	-22.09	-4.06	-13.54	-22.09	-21.88	-18.18	-12.52	-26.56	-25.53
8-Jun-07	08:00:00	-35.15	-23.28	-4.68	-14.90	-23.28	-22.31	-17.97	-12.57	-28.43	-26.37
8-Jun-07	20:00:00	-35.52	-23.98	-5.17	-16.11	-23.98	-22.33	-18.66	-12.92	-29.46	-26.72
9-Jun-07	08:00:00	-35.98	-24.55	-5.58	-16.92	-24.55	-22.27	-19.01	-13.14	-30.25	-27.18
9-Jun-07	20:00:00	-36.43	-25.11	-5.94	-17.72	-25.11	-22.54	-19.76	-14.23	-30.93	-27.89
10-Jun-07	08:00:00	-36.93	-25.73	-6.41	-18.40	-25.73	-22.91	-20.60	-14.88	-31.61	-28.67
10-Jun-07	20:00:00	-37.41	-26.44	-6.87	-19.11	-26.44	-23.52	-21.62	-15.86	-32.31	-29.33
11-Jun-07	08:00:00	-37.94	-27.13	-7.42	-19.79	-27.13	-24.18	-22.41	-16.14	-33.03	-30.06
11-Jun-07	20:00:00	-38.32	-27.74	-7.92	-20.45	-27.74	-24.72	-22.97	-16.41	-33.51	-30.36



Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
12-Jun-07	08:00:00	-38.78	-28.35	-8.44	-21.07	-28.35	-25.09	-23.64	-16.80	-33.97	-30.89
12-Jun-07	20:00:00	-39.20	-28.89	-8.99	-21.75	-28.89	-25.82	-24.65	-18.66	-34.37	-31.36
13-Jun-07	08:00:00	-39.68	-29.48	-9.71	-22.42	-29.48	-27.03	-25.23	-20.73	-34.87	-32.04
13-Jun-07	20:00:00	-40.10	-30.04	-10.32	-23.11	-30.04	-28.02	-26.30	-22.00	-35.29	-32.53
14-Jun-07	08:00:00	-40.54	-30.63	-11.02	-23.79	-30.63	-29.20	-27.08	-23.75	-35.81	-33.27
14-Jun-07	20:00:00	-40.88	-31.15	-11.70	-24.45	-31.15	-30.00	-27.61	-24.20	-36.2	-33.52
15-Jun-07	08:00:00	-41.78	-31.67	-12.53	-25.10	-31.67	-30.82	-28.48	-25.14	-36.57	-34.07
15-Jun-07	20:00:00	-42.49	-32.13	-13.31	-25.75	-32.13	-31.44	-29.24	-25.79	-36.91	-34.45
16-Jun-07	08:00:00	-42.92	-32.64	-13.86	-26.38	-32.64	-31.99	-29.92	-26.44	-37.28	-34.83
16-Jun-07	20:00:00	-43.28	-33.00	-14.63	-26.98	-33.00	-32.34	-30.31	-26.74	-37.57	-35.11
17-Jun-07	08:00:00	-43.58	-33.49	-15.17	-27.56	-33.49	-32.77	-31.12	-27.52	-37.85	-35.52
17-Jun-07	20:00:00	-43.97	-33.93	-15.92	-28.14	-33.93	-33.18	-31.51	-28.41	-38.12	-36.09
18-Jun-07	08:00:00	-44.29	-34.42	-16.54	-28.67	-34.42	-33.68	-32.04	-28.83	-38.45	-36.51
18-Jun-07	20:00:00	-44.69	-34.83	-17.18	-29.16	-34.83	-34.04	-32.72	-29.34	-38.73	-36.98
19-Jun-07	08:00:00	-44.87	-35.29	-17.74	-29.69	-35.29	-34.50	-32.86	-29.92	-39.09	-37.41
19-Jun-07	20:00:00	-45.26	-35.67	-18.14	-30.19	-35.67	-34.74	-33.52	-30.10	-39.39	-37.69
20-Jun-07	08:00:00	-44.66	-36.08	-18.78	-30.72	-36.08	-35.13	-34.25	-30.76	-39.64	-38.09
20-Jun-07	20:00:00	-45.00	-36.49	-19.40	-31.20	-36.49	-35.64	-34.70	-31.73	-40	-38.64
21-Jun-07	08:00:00	-45.29	-36.94	-20.30	-31.74	-36.94	-36.26	-35.30	-32.39	-41.59	-39.00
21-Jun-07	20:00:00	-45.55	-37.25	-20.45	-32.22	-37.25	-36.55	-35.36	-32.45	-42.09	-39.25
22-Jun-07	08:00:00	-45.77	-37.53	-20.91	-32.75	-37.53	-36.80	-35.83	-32.49	-42.88	-39.29
22-Jun-07	20:00:00	-46.05	-37.83	-21.31	-33.24	-37.83	-37.18	-36.82	-33.05	-43.22	-39.86
23-Jun-07	08:00:00	-46.31	-38.24	-21.83	-33.77	-38.24	-37.74	-37.51	-34.01	-43.84	-40.44
23-Jun-07	20:00:00	-46.63	-38.66	-22.86	-34.24	-38.66	-38.13	-38.40	-34.41	-44.13	-40.84
24-Jun-07	08:00:00	-46.90	-39.18	-23.99	-34.77	-39.18	-38.76	-39.54	-35.35	-44.9	-41.40
24-Jun-07	20:00:00	-47.20	-39.69	-24.51	-35.22	-39.69	-39.23	-40.41	-35.94	-44.87	-41.91
25-Jun-07	08:00:00	-47.54	-40.27	-25.09	-35.75	-40.27	-39.83	-40.71	-36.67	-44.75	-42.45
25-Jun-07	20:00:00	-47.76	-40.80	-25.42	-36.30	-40.80	-40.10	-41.02	-36.71	-44.51	-42.78
26-Jun-07	08:00:00	-48.00	-41.45	-26.09	-36.88	-41.45	-40.58	-41.23	-37.19	-45.16	-43.04
26-Jun-07	20:00:00	-48.18	-41.93	-26.87	-37.45	-41.93	-40.74	-41.85	-37.00	-45.63	-43.43
27-Jun-07	08:00:00	-48.46	-42.39	-27.63	-38.16	-42.39	-40.98	-42.08	-37.19	-46.03	-43.98
27-Jun-07	20:00:00	-48.69	-42.02	-28.30	-39.24	-42.02	-41.01	-42.55	-37.20	-46.34	-43.84
28-Jun-07	08:00:00	-48.84	-42.37	-28.92	-40.33	-42.37	-41.14	-42.55	-37.11	-46.57	-44.13
28-Jun-07	20:00:00	-49.07	-42.59	-29.57	-41.03	-42.59	-41.38	-43.28	-37.39	-46.73	-44.12
29-Jun-07	08:00:00	-49.24	-43.05	-30.23	-41.78	-43.05	-41.67	-43.48	-37.94	-46.91	-44.59
29-Jun-07	20:00:00	-49.50	-43.39	-30.86	-42.49	-43.39	-41.98	-44.57	-38.90	-47.12	-44.92

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
30-Jun-07	08:00:00	-49.76	-43.81	-31.48	-43.17	-43.81	-42.25	-44.71	-38.93	-47.35	-45.55
30-Jun-07	20:00:00	-50.34	-44.18	-32.02	-43.85	-44.18	-42.62	-45.55	-39.50	-47.59	-46.02
1-Jul-07	08:00:00	-50.86	-44.48	-33.76	-44.49	-44.48	-43.02	-46.53	-40.25	-47.86	-46.64
1-Jul-07	20:00:00	-51.18	-44.84	-35.14	-45.06	-44.84	-43.64	-47.19	-41.05	-48.2	-47.21
2-Jul-07	08:00:00	-51.64	-45.28	-38.61	-45.65	-45.28	-44.09	-47.39	-41.64	-48.69	-47.89
2-Jul-07	20:00:00	-51.67	-45.65	-36.66	-46.22	-45.65	-44.62	-48.15	-41.93	-49.27	-48.31
3-Jul-07	08:00:00	-51.72	-46.05	-39.75	-46.82	-46.05	-44.85	-48.44	-42.28	-50.04	-48.69
3-Jul-07	20:00:00	-51.65	-46.37	-38.39	-47.39	-46.37	-45.25	-48.83	-42.41	-50.68	-49.09
4-Jul-07	08:00:00	-51.76	-46.78	-40.09	-48.07	-46.78	-45.47	-48.76	-42.74	-51.12	-49.38
4-Jul-07	20:00:00	-51.71	-47.04	-38.24	-48.57	-47.04	-45.67	-49.35	-42.91	-51.5	-49.79
5-Jul-07	08:00:00	-51.85	-47.39	-40.34	-48.77	-47.39	-45.85	-49.63	-43.30	-51.78	-50.16
5-Jul-07	20:00:00	-51.92	-47.70	-38.79	-49.02	-47.70	-46.02	-50.18	-43.44	-52.1	-50.52
6-Jul-07	08:00:00	-52.03	-48.04	-40.27	-49.26	-48.04	-46.30	-50.78	-43.86	-52.39	-50.88
6-Jul-07	20:00:00	-52.12	-48.39	-34.49	-48.78	-48.39	-46.70	-50.98	-44.43	-51.78	-51.44
7-Jul-07	08:00:00	-52.17	-48.79	-34.97	-48.84	-48.79	-46.79	-51.23	-44.91	-52.05	-51.73
7-Jul-07	20:00:00	-51.75	-49.10	-34.99	-48.87	-49.10	-47.16	-51.56	-45.26	-52.18	-52.19
8-Jul-07	08:00:00	-51.76	-49.49	-35.43	-48.87	-49.49	-47.32	-51.78	-45.27	-52.21	-52.48
8-Jul-07	20:00:00	-51.77	-49.78	-35.92	-48.87	-49.78	-47.81	-52.19	-45.69	-52.29	-53.02
9-Jul-07	08:00:00	-51.81	-50.16	-36.28	-48.89	-50.16	-48.00	-49.03	-46.50	-52.35	-53.15
9-Jul-07	20:00:00	-51.82	-50.52	-36.63	-48.89	-50.52	-48.54	-49.04	-46.83	-52.5	-53.58
10-Jul-07	08:00:00	-51.85	-50.94	-37.14	-48.91	-50.94	-48.71	-48.94	-47.06	-52.51	-49.58
10-Jul-07	20:00:00	-51.82	-51.27	-37.50	-48.89	-51.27	-47.38	-48.94	-47.08	-52.8	-49.58
11-Jul-07	08:00:00	-51.82	-51.55	-37.76	-47.24	-51.55	-46.79	-48.94	-45.28	-52.11	-49.58
11-Jul-07	20:00:00	-42.45	-24.47	-18.49	-14.78	-24.47	-19.40	-33.38	-29.94	-17.23	-28.33
12-Jul-07	08:00:00	-47.45	-27.93	-17.60	-18.39	-27.93	-34.46	-42.84	-35.81	-34.86	-38.64
12-Jul-07	20:00:00	-47.99	-30.82	-18.91	-20.87	-30.82	-39.61	-47.14	-34.94	-41.96	-41.56
13-Jul-07	08:00:00	-48.35	-33.02	-20.61	-22.94	-33.02	-41.54	-48.93	-35.41	-46.52	-42.54
13-Jul-07	20:00:00	-48.64	-34.79	-21.86	-24.71	-34.79	-42.29	-48.94	-35.39	-48.2	-43.71
14-Jul-07	08:00:00	-48.92	-36.25	-23.11	-26.30	-36.25	-42.48	-48.85	-35.53	-49.23	-44.45
14-Jul-07	20:00:00	-49.18	-37.47	-24.59	-27.74	-37.47	-42.89	-48.77	-35.83	-50.18	-45.28
15-Jul-07	08:00:00	-49.49	-38.42	-26.93	-29.00	-38.42	-42.88	-48.71	-35.91	-50.61	-45.44
15-Jul-07	20:00:00	-50.38	-39.49	-27.91	-30.27	-39.49	-43.51	-48.78	-36.93	-51.29	-46.46
16-Jul-07	08:00:00	-50.60	-40.89	-28.89	-31.49	-40.89	-43.76	-48.87	-37.72	-51.44	-46.93
16-Jul-07	20:00:00	-51.28	-42.04	-29.71	-32.74	-42.04	-44.58	-49.00	-39.00	-51.53	-48.21
17-Jul-07	08:00:00	-51.34	-43.39	-30.40	-33.93	-43.39	-44.85	-49.23	-39.67	-51.47	-48.57
17-Jul-07	20:00:00	-42.36	-18.75	-7.09	-11.11	-18.75	-9.68	-32.10	-22.11	-13.96	-22.46

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
18-Jul-07	08:00:00	-46.65	-21.87	-8.08	-12.26	-21.87	-25.30	-39.46	-24.03	-32.41	-29.15
18-Jul-07	20:00:00	-47.25	-25.37	-8.62	-16.48	-25.37	-32.80	-42.56	-25.01	-38.6	-34.29
19-Jul-07	08:00:00	-47.44	-27.94	-9.54	-18.78	-27.94	-35.73	-43.51	-26.52	-44.03	-36.96
19-Jul-07	20:00:00	-47.73	-30.35	-10.25	-20.76	-30.35	-37.51	-43.53	-28.17	-46.15	-39.17
20-Jul-07	08:00:00	-47.96	-32.36	-11.06	-22.48	-32.36	-38.33	-43.83	-29.22	-47.14	-40.78
20-Jul-07	20:00:00	-48.24	-33.99	-12.50	-23.94	-33.99	-39.15	-44.30	-30.48	-47.46	-42.14
21-Jul-07	08:00:00	-48.53	-35.25	-13.91	-25.52	-35.25	-39.72	-44.83	-31.62	-48.12	-42.67
21-Jul-07	20:00:00	-48.81	-36.27	-14.94	-26.94	-36.27	-40.52	-45.22	-32.61		-43.79
22-Jul-07	08:00:00	-49.08	-37.25	-16.56	-28.21	-37.25	-40.63	-45.66	-32.94		-44.30
22-Jul-07	20:00:00	-49.41	-37.95	-17.63	-29.39	-37.95	-41.32	-45.84	-34.01		-45.71
23-Jul-07	08:00:00	-49.69	-38.68	-18.78	-30.53	-38.68	-41.35	-46.22	-34.11		-45.78
23-Jul-07	20:00:00	-50.43	-39.58	-19.51	-31.66	-39.58	-42.10	-46.75	-35.20		-47.06
24-Jul-07	08:00:00	-50.95	-40.69	-20.90	-32.80	-40.69	-42.28	-47.14	-35.70		-47.07
24-Jul-07	20:00:00	-51.26	-41.58	-22.30	-33.85	-41.58	-42.95	-47.42	-36.46		-48.21
25-Jul-07	08:00:00	-51.31	-42.61	-23.50	-34.82	-42.61	-43.15	-47.78	-37.02		-48.17
25-Jul-07	20:00:00	-51.30	-43.46	-24.43	-35.69	-43.46	-43.78	-48.23	-37.93	-52.01	-48.92
26-Jul-07	08:00:00	-51.36	-44.44	-25.71	-36.69	-44.44	-43.89	-48.66	-38.14	-51.78	-48.66
26-Jul-07	20:00:00	-51.41	-44.51	-27.21	-37.77	-44.51	-44.22	-48.98	-38.91	-52.37	-49.87
27-Jul-07	08:00:00	-51.48	-45.37	-28.65	-39.82	-45.37	-44.28	-49.16	-38.76	-52.48	-49.32
27-Jul-07	20:00:00	-51.52	-45.76	-28.19	-35.55	-45.76	-43.24	-49.10	-39.02	-52.6	-50.10
28-Jul-07	08:00:00	-51.57	-46.01	-27.90	-36.45	-46.01	-43.46	-48.66	-37.81	-52.28	-49.26
28-Jul-07	20:00:00	-51.68	-46.40	-28.33	-37.53	-46.40	-44.46	-48.58	-39.08	-52.28	-51.04
29-Jul-07	08:00:00	-51.77	-46.85	-29.05	-39.53	-46.85	-44.71	-48.70	-39.03	-52.3	-50.47
29-Jul-07	20:00:00	-51.60	-47.34	-30.95	-41.36	-47.34	-45.45	-48.89	-40.79	-52.3	-52.11
30-Jul-07	08:00:00	-51.61	-47.95	-32.81	-42.86	-47.95	-45.66	-49.15	-40.70	-52.29	-51.58
30-Jul-07	20:00:00	-51.60	-48.58	-33.91	-44.14	-48.58	-46.02	-48.96	-41.46	-52.29	-52.43
31-Jul-07	08:00:00	-51.62	-49.16	-36.32	-45.24	-49.16	-46.09	-48.94	-41.16	-52.28	-51.86
31-Jul-07	20:00:00	-51.61	-49.69	-36.24	-46.30	-49.69	-46.84	-48.94	-42.72	-52.29	-52.16
1-Aug-07	08:00:00	-51.63	-50.33	-36.16	-47.59	-50.33	-46.98	-48.96	-42.82	-51.8	-49.56
1-Aug-07	20:00:00	-51.64	-50.83	-36.52	-48.35	-50.83	-47.87	-48.97	-44.39	-51.92	-49.57
2-Aug-07	08:00:00	-51.67	-51.44	-36.94	-48.79	-51.44	-48.07	-48.98	-44.45	-51.81	-49.58
2-Aug-07	20:00:00	-51.65	-51.90	-37.28	-48.66	-51.90	-48.74	-48.98	-45.73	-52.14	-49.58
3-Aug-07	08:00:00	-51.67	-52.30	-37.65	-48.65	-52.30	-48.67	-48.98	-45.49	-51.82	-49.57
3-Aug-07	20:00:00	-51.64	-52.51	-37.96	-48.66	-52.51	-49.31	-48.99	-46.72	-52.24	-49.58
4-Aug-07	08:00:00	-51.66	-52.73	-38.24	-48.68	-52.73	-49.31	-48.98	-46.42	-52	-49.56
4-Aug-07	20:00:00	-51.63	-53.01	-38.51	-48.69	-53.01	-49.57	-48.98	-47.62	-52.06	-49.57

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
5-Aug-07	08:00:00	-51.65	-52.77	-38.77	-48.68	-52.77	-49.72	-48.97	-47.47	-52.07	-49.57
5-Aug-07	20:00:00	-51.62	-52.77	-39.03	-48.69	-52.77	-49.69	-48.99	-48.22	-51.78	-49.57
6-Aug-07	08:00:00	-51.64	-52.78	-39.29	-48.68	-52.78	-49.80	-49.00	-48.32	-51.75	-49.57
6-Aug-07	20:00:00	-51.61	-52.78	-39.63	-48.69	-52.78	-49.75	-48.98	-48.34	-51.75	-49.59
7-Aug-07	08:00:00	-51.63	-52.77	-40.15	-48.67	-52.77	-49.85	-48.99	-48.35	-51.74	-49.57
7-Aug-07	20:00:00	-51.61	-52.77	-42.15	-48.69	-52.77	-49.76	-48.99	-48.35	-51.75	-49.58
8-Aug-07	08:00:00	-51.62	-52.77	-42.27	-48.70	-52.77	-49.77	-49.00	-48.34	-51.95	-49.56
8-Aug-07	20:00:00	-51.59	-52.76	-42.26	-48.69	-52.76	-49.75	-48.99	-48.34	-52.08	-49.58
9-Aug-07	08:00:00	-51.62	-52.77	-42.40	-48.68	-52.77	-49.79	-48.99	-48.35	-52.06	-49.58
9-Aug-07	20:00:00	-51.59	-52.76	-42.41	-48.68	-52.76	-49.73	-48.99	-48.35	-52.06	-49.58
10-Aug-07	08:00:00	-51.59	-52.78	-42.04	-48.68	-52.78	-49.74	-49.00	-48.35	-52.06	-49.57
10-Aug-07	20:00:00	-51.57	-52.76	-42.05	-48.67	-52.76	-49.58	-48.99	-48.35	-52.07	-49.57
11-Aug-07	08:00:00	-46.22	-20.16	-13.11	-13.88	-20.16	-34.31	-48.96	-48.15	-10.8	-37.91
11-Aug-07	20:00:00	-48.29	-27.14	-21.04	-17.84	-27.14	-46.30	-48.99	-47.56	-36.15	-48.05
12-Aug-07	08:00:00	-49.12	-30.78	-26.07	-20.07	-30.78	-48.17	-48.97	-46.39	-46.43	-50.17
12-Aug-07	20:00:00	-49.93	-33.59	-30.27	-21.92	-33.59	-48.63	-49.00	-45.84	-51.58	-49.48
13-Aug-07	08:00:00	-50.80	-35.28	-30.77	-23.40	-35.28	-48.50	-49.00	-45.25	-52.14	-49.44
13-Aug-07	20:00:00	-51.03	-36.68	-31.80	-24.89	-36.68	-49.11	-48.99	-46.26	-52.06	-49.43
14-Aug-07	08:00:00	-51.12	-37.97	-37.28	-26.27	-37.97	-49.21	-49.00	-46.75	-52.06	-49.46
14-Aug-07	20:00:00	-51.21	-39.21	-34.85	-27.65	-39.21	-49.76	-49.00	-48.32	-52.06	-49.58
15-Aug-07	08:00:00	-51.34	-40.88	-37.02	-28.89	-40.88	-49.48	-49.01	-48.59	-51.87	-49.58
15-Aug-07	20:00:00	-51.47	-42.43	-37.50	-30.16	-42.43	-49.45	-49.01	-48.40	-52.03	-49.58
16-Aug-07	08:00:00	-51.57	-43.97	-38.95	-31.34	-43.97	-49.51	-49.03	-48.37	-51.7	-49.57
16-Aug-07	20:00:00	-51.69	-45.17	-37.10	-32.59	-45.17	-49.40	-48.99	-48.37	-52.08	-49.57
17-Aug-07	08:00:00	-51.64	-39.04	-24.85	-14.95	-39.04	-49.48	-49.03	-48.39	-52	-49.57
17-Aug-07	20:00:00	-51.65	-40.08	-26.12	-17.83	-40.08	-49.44	-49.00	-48.38	-52.1	-49.57
18-Aug-07	08:00:00	-51.84	-41.55	-27.17	-19.96	-41.55	-49.54	-48.96	-48.40	-51.56	-49.57
18-Aug-07	20:00:00	-51.92	-43.23	-28.69	-21.94	-43.23	-49.55	-48.99	-48.41	-51.72	-49.58
19-Aug-07	08:00:00	-51.96	-44.67	-30.27	-23.56	-44.67	-49.53	-49.02	-48.35	-51.61	-49.57
19-Aug-07	20:00:00	-51.93	-45.80	-33.61	-25.26	-45.80	-49.45	-49.02	-48.34	-52.11	-49.58
20-Aug-07	08:00:00	-51.47	-46.22	-39.65	-26.72	-46.22	-49.46	-49.04	-48.34	-52.07	-49.57
20-Aug-07	20:00:00	-51.42	-47.03	-39.31	-28.19	-47.03	-49.43	-49.02	-48.34	-52.04	-49.57
21-Aug-07	08:00:00	-51.50	-47.88	-38.47	-29.52	-47.88	-49.50	-49.03	-48.34	-52.08	-49.58
21-Aug-07	20:00:00	-51.40	-48.76	-38.87	-30.88	-48.76	-49.44	-49.00	-48.35	-52.07	-49.60
22-Aug-07	08:00:00	-51.46	-49.61	-39.22	-32.11	-49.61	-49.50	-49.01	-48.34	-52.07	-49.59
22-Aug-07	20:00:00	-51.45	-50.39	-39.84	-33.34	-50.39	-49.49	-49.02	-48.34	-52.08	-49.57

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
23-Aug-07	08:00:00	-51.48	-51.23	-42.25	-34.38	-51.23	-49.51	-49.03	-48.35	-52.05	-49.57
23-Aug-07	20:00:00	-51.41	-51.94	-42.01	-35.38	-51.94	-49.48	-49.06	-48.35	-52.1	-49.59
24-Aug-07	08:00:00	-51.39	-52.50	-42.02	-36.40	-52.50	-49.44	-49.04	-48.34	-52.48	-49.56
24-Aug-07	20:00:00	-51.34	-52.70	-42.04	-37.58	-52.70	-49.39	-49.04	-48.34	-51.99	-49.59
25-Aug-07	08:00:00	-51.33	-53.02	-42.04	-39.73	-53.02	-49.32	-49.04	-48.35	-51.98	-49.58
25-Aug-07	20:00:00	-51.30	-52.92	-42.05	-41.48	-52.92	-49.31	-49.06	-48.36	-51.93	-49.58
26-Aug-07	08:00:00	-51.43	-52.91	-42.08	-43.12	-52.91	-49.33	-49.07	-48.34	-52.03	-49.57
26-Aug-07	20:00:00	-51.49	-52.90	-42.12	-36.93	-52.90	-49.36	-49.02	-48.34	-51.83	-49.59
27-Aug-07	08:00:00	-51.51	-52.81	-42.15	-37.21	-52.81	-49.39	-49.01	-48.35	-51.57	-49.57
27-Aug-07	20:00:00	-51.50	-52.90	-42.18	-39.11	-52.90	-49.38	-49.01	-48.34	-51.97	-49.58
28-Aug-07	08:00:00	-51.53	-52.88	-42.20	-40.85	-52.88	-49.41	-49.00	-48.34	-51.59	-49.57
28-Aug-07	20:00:00	-51.47	-52.87	-42.21	-42.40	-52.87	-49.33	-49.04	-48.35	-52.09	-49.59
29-Aug-07	08:00:00	-51.48	-52.87	-42.24	-43.86	-52.87	-49.37	-49.06	-48.35		-49.58
29-Aug-07	20:00:00	-51.43	-52.87	-42.27	-45.26	-52.87	-49.32	-49.08	-48.35		-49.58
30-Aug-07	08:00:00	-51.41	-52.86	-42.31	-46.54	-52.86	-49.32	-49.07	-48.35		-49.58
30-Aug-07	20:00:00	-51.42	-52.86	-42.34	-47.98	-52.86	-49.33	-49.07	-48.34		-49.57
31-Aug-07	08:00:00	-51.39	-52.85	-42.37	-48.40	-52.85	-49.34	-49.07	-48.35		-49.57
31-Aug-07	20:00:00	-51.41	-52.85	-42.41	-48.39	-52.85	-49.35	-49.04	-48.35		-49.58
1-Sep-07	08:00:00	-51.45	-52.87	-42.45	-48.39	-52.87	-49.40	-49.03	-48.34		-49.58
1-Sep-07	20:00:00	-51.47	-52.87	-42.49	-48.40	-52.87	-49.40	-49.01	-48.36		-49.58
2-Sep-07	08:00:00	-51.42	-52.87	-42.61	-48.39	-52.87	-49.38	-49.00	-48.35		-49.58
2-Sep-07	20:00:00	-51.38	-52.87	-42.86	-48.38	-52.87	-49.32	-49.04	-48.35		-49.59
3-Sep-07	08:00:00	-51.33	-52.86	-43.07	-48.39	-52.86	-49.16	-49.06	-48.36		-49.58
3-Sep-07	20:00:00	-51.32	-52.85	-42.25	-48.40	-52.85	-49.09	-49.08	-48.35		-49.58
4-Sep-07	08:00:00	-51.35	-52.85	-42.21	-48.39	-52.85	-49.09	-49.07	-48.35		-49.58
4-Sep-07	20:00:00	-51.35	-52.87	-42.28	-48.41	-52.87	-49.11	-49.04	-48.34		-49.59
5-Sep-07	08:00:00	-51.38	-52.87	-42.31	-48.39	-52.87	-49.14	-49.03	-48.34		-49.57
5-Sep-07	20:00:00	-51.37	-52.84	-42.09	-48.40	-52.84	-49.14	-49.02	-48.35		-49.58
6-Sep-07	08:00:00	-51.36	-52.76	-42.09	-48.40	-52.76	-49.24	-49.03	-48.35		-49.59
6-Sep-07	20:00:00	-51.08	-52.76	-42.09	-48.40	-52.76	-49.21	-49.01	-48.35		-49.58
7-Sep-07	08:00:00	-51.04	-52.76	-42.09	-48.39	-52.76	-49.23	-49.05	-48.34		-49.58
7-Sep-07	20:00:00	-50.99	-52.76	-42.10	-48.41	-52.76	-49.15	-49.05	-48.35		-49.58
8-Sep-07	08:00:00	-51.08	-52.76	-42.10	-48.37	-52.76	-49.14	-49.06	-48.35		-49.60
8-Sep-07	20:00:00	-51.07	-52.77	-42.09	-48.39	-52.77	-49.11	-49.07	-48.34		-49.58
9-Sep-07	08:00:00	-51.09	-52.78	-42.10	-48.38	-52.78	-49.08	-49.08	-48.34		-49.57
9-Sep-07	20:00:00	-51.09	-52.77	-42.10	-48.39	-52.77	-49.08	-49.03	-48.35		-49.59

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
10-Sep-07	08:00:00	-51.11	-52.76	-42.09	-48.39	-52.76	-49.13	-49.06	-48.34		-49.59
10-Sep-07	20:00:00	-51.12	-52.76	-42.09	-48.40	-52.76	-49.08	-49.08	-48.37		-49.59
11-Sep-07	08:00:00	-51.10	-52.77	-42.11	-48.40	-52.77	-49.05	-49.09	-48.34		-49.60
11-Sep-07	20:00:00	-51.08	-52.77	-42.08	-48.41	-52.77	-49.12	-49.00	-48.34		-49.58
12-Sep-07	08:00:00	-51.06	-52.76	-42.09	-48.39	-52.76	-49.18	-49.00	-48.35		-49.59
12-Sep-07	20:00:00	-51.07	-52.76	-42.10	-48.42	-52.76	-49.21	-48.98	-48.34		-49.59
13-Sep-07	08:00:00	-51.06	-52.78	-42.11	-48.40	-52.78	-49.23	-49.01	-48.35		-49.59
13-Sep-07	20:00:00	-51.08	-52.77	-42.10	-48.39	-52.77	-49.22	-48.99	-48.35		-49.59
14-Sep-07	08:00:00	-51.04	-52.77	-42.09	-48.40	-52.77	-49.20	-49.05	-48.34		-49.60
14-Sep-07	20:00:00	-51.02	-52.77	-42.10	-48.39	-52.77	-49.09	-49.09	-48.35		-49.57
15-Sep-07	08:00:00	-51.03	-52.77	-42.10	-47.98	-52.77	-49.14	-49.01	-48.35		-49.58
15-Sep-07	20:00:00	-51.03	-52.77	-42.09	-48.32	-52.77	-49.24	-48.99	-48.36		-49.59
16-Sep-07	08:00:00	-51.05	-52.77	-42.09	-48.36	-52.77	-49.25	-48.98	-48.34		-49.57
16-Sep-07	20:00:00	-51.04	-52.76	-42.09	-48.38	-52.76	-49.25	-48.99	-48.35		-49.60
17-Sep-07	08:00:00	-51.04	-52.76	-42.09	-48.40	-52.76	-49.26	-48.97	-48.35		-49.58
17-Sep-07	20:00:00	-51.02	-52.78	-42.08	-48.43	-52.78	-49.25	-48.99	-48.34		-49.59
18-Sep-07	08:00:00	-51.01	-52.77	-42.09	-48.43	-52.77	-49.26	-48.99	-48.35		-49.57
18-Sep-07	20:00:00	-51.13	-52.78	-42.10	-48.43	-52.78	-49.23	-48.98	-48.34		-49.58
19-Sep-07	08:00:00	-51.11	-52.78	-42.09	-48.45	-52.78	-49.21	-49.00	-48.34		-49.57
19-Sep-07	20:00:00	-51.12	-52.78	-42.10	-48.44	-52.78	-49.21	-49.00	-48.34		-49.58
20-Sep-07	08:00:00	-51.10	-52.77	-42.10	-48.45	-52.77	-49.20	-49.01	-48.33		-49.59
20-Sep-07	20:00:00	-51.08	-52.77	-42.10	-48.47	-52.77	-49.15	-49.01	-48.33		-49.57
21-Sep-07	08:00:00	-51.10	-52.76	-42.09	-48.45	-52.76	-49.21	-49.02	-48.35		-49.59
21-Sep-07	20:00:00	-51.06	-52.77	-42.09	-48.46	-52.77	-49.16	-49.02	-48.34		-49.58
22-Sep-07	08:00:00	-51.09	-52.78	-42.11	-48.47	-52.78	-49.20	-49.03	-48.34		-49.59
22-Sep-07	20:00:00	-51.04	-52.76	-42.10	-48.47	-52.76	-49.20	-49.00	-48.36		-49.58
23-Sep-07	08:00:00	-51.04	-52.77	-42.09	-48.47	-52.77	-49.22	-49.00	-48.36		-49.56
23-Sep-07	20:00:00	-51.01	-52.77	-42.09	-48.48	-52.77	-49.22	-49.00	-48.34		-49.57
24-Sep-07	08:00:00	-51.07	-52.78	-42.09	-48.50	-52.78	-49.24	-49.00	-48.34		-49.58
24-Sep-07	20:00:00	-51.04	-52.77	-42.10	-48.49	-52.77	-49.23	-49.00	-48.34		-49.58
25-Sep-07	08:00:00	-51.09	-52.78	-42.08	-48.48	-52.78	-49.25	-49.02	-48.34		-49.57
25-Sep-07	20:00:00	-51.06	-52.77	-42.09	-48.49	-52.77	-49.21	-49.04	-48.34		-49.58
26-Sep-07	08:00:00	-51.05	-52.76	-42.09	-48.49	-52.76	-49.21	-49.07	-48.33		-49.59
26-Sep-07	20:00:00	-51.05	-52.77	-42.08	-48.50	-52.77	-49.15	-49.08	-48.35		-49.57
27-Sep-07	08:00:00	-51.06	-52.77	-42.09	-48.48	-52.77	-49.11	-48.33	-48.35		-49.58
27-Sep-07	20:00:00	-51.22	-53.45	-49.51	-48.35	-46.29	-47.68	-48.29	-49.43	-52.45	-50.11

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
28-Sep-07	08:00:00	-51.20	-53.46	-49.50	-48.33	-46.28	-47.75	-48.25	-49.42	-52.23	-50.14
28-Sep-07	20:00:00	-51.19	-53.46	-49.51	-48.34	-46.29	-47.85	-48.23	-49.43	-52.01	-50.12
29-Sep-07	08:00:00	-51.12	-53.47	-49.50	-48.35	-46.28	-47.86	-48.22	-49.43	-52.03	-50.12
29-Sep-07	20:00:00	-51.11	-53.46	-49.51	-48.36	-46.27	-47.87	-48.22	-49.42	-52.01	-50.14
30-Sep-07	08:00:00	-51.12	-53.45	-49.51	-48.35	-46.29	-47.89	-48.22	-49.42	-52.03	-50.11
30-Sep-07	20:00:00	-51.09	-53.46	-49.52	-48.36	-46.29	-47.85	-48.23	-49.42	-52.41	-50.13
1-Oct-07	08:00:00	-51.09	-53.45	-49.52	-48.36	-46.27	-47.85	-48.23	-49.43	-52.25	-50.12
1-Oct-07	20:00:00	-51.08	-53.45	-49.53	-48.34	-46.28	-47.81	-48.24	-49.42	-52.62	-50.11
2-Oct-07	08:00:00	-51.08	-53.47	-49.51	-48.36	-46.28	-47.82	-48.24	-49.43	-52.61	-50.13
2-Oct-07	20:00:00	-51.07	-53.45	-49.52	-48.34	-46.28	-47.78	-48.25	-49.42	-52.62	-50.13
3-Oct-07	08:00:00	-51.07	-53.47	-49.52	-48.35	-46.28	-47.79	-48.26	-49.43	-52.61	-50.13
3-Oct-07	20:00:00	-51.07	-53.46	-49.53	-48.35	-46.27	-47.72	-48.26	-49.42	-52.59	-50.13
4-Oct-07	08:00:00	-51.05	-53.46	-49.52	-48.25	-46.28	-47.80	-48.25	-49.43	-52.03	-50.13
4-Oct-07	20:00:00	-51.04	-53.47	-49.51	-48.24	-46.29	-47.81	-48.23	-49.43	-52.29	-50.12
5-Oct-07	08:00:00	-51.13	-53.47	-49.50	-48.24	-46.29	-47.83	-48.25	-49.42	-52.05	-50.11
5-Oct-07	20:00:00	-51.12	-53.47	-49.50	-39.89	-46.28	-47.83	-48.25	-49.43	-52.45	-50.13
6-Oct-07	08:00:00	-51.12	-53.47	-49.51	-41.74	-46.28	-47.83	-48.27	-49.42	-52.52	-50.12
6-Oct-07	20:00:00	-51.09	-53.45	-49.51	-43.15	-46.27	-47.74	-48.28	-49.42	-52.65	-50.12
7-Oct-07	08:00:00	-51.09	-53.46	-49.51	-44.37	-46.28	-47.80	-48.32	-49.42	-52.64	-50.14
7-Oct-07	20:00:00	-51.08	-53.46	-49.50	-45.55	-46.27	-47.68	-48.32	-49.42	-52.65	-50.13
8-Oct-07	08:00:00	-51.09	-53.46	-49.51	-46.84	-46.28	-47.73	-48.33	-49.42	-52.66	-50.12
8-Oct-07	20:00:00	-51.08	-53.47	-49.51	-47.82	-46.28	-47.67	-48.33	-49.42	-52.45	-50.12
9-Oct-07	08:00:00	-51.06	-53.47	-49.50	-48.45	-46.28	-47.67	-48.32	-49.44	-52.61	-50.13
9-Oct-07	20:00:00	-51.07	-53.46	-49.51	-48.20	-46.28	-47.67	-48.30	-49.42	-52.65	-50.13
10-Oct-07	08:00:00	-51.06	-53.47	-49.50	-48.22	-46.29	-47.71	-48.35	-49.42	-52.25	-50.14
10-Oct-07	20:00:00	-51.04	-53.47	-49.51	-48.20	-46.29	-47.63	-48.31	-49.42	-52.47	-50.12
11-Oct-07	08:00:00	-51.06	-53.48	-49.49	-48.23	-46.29	-47.70	-48.28	-49.44	-52.30	-50.12
11-Oct-07	20:00:00	-51.06	-53.47	-49.49	-48.25	-46.29	-47.74	-48.26	-49.43	-52.14	-50.13
12-Oct-07	08:00:00	-51.09	-53.48	-49.50	-48.30	-46.29	-47.79	-48.26	-49.41	-52.08	-50.11
12-Oct-07	20:00:00	-51.10	-53.46	-49.51	-48.28	-46.28	-47.81	-48.23	-49.42	-52.07	-50.12
13-Oct-07	08:00:00	-51.08	-53.47	-49.51	-48.24	-46.29	-47.87	-48.24	-49.42	-52.05	-50.12
13-Oct-07	20:00:00	-51.05	-53.47	-49.52	-48.24	-46.28	-47.84	-48.23	-49.42	-52.32	-50.11
14-Oct-07	08:00:00	-51.12	-53.47	-49.49	-48.26	-46.29	-47.86	-48.23	-49.40	-51.77	-50.14
14-Oct-07	20:00:00	-51.14	-53.46	-49.51	-48.25	-46.30	-47.86	-48.24	-49.43	-51.64	-50.13
15-Oct-07	08:00:00	-51.15	-53.46	-49.50	-48.24	-46.29	-47.86	-48.24	-49.40	-52.29	-50.12
15-Oct-07	20:00:00	-51.10	-53.47	-49.51	-48.25	-46.29	-47.83	-48.24	-49.42	-52.29	-50.12

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
16-Oct-07	08:00:00	-51.14	-53.47	-49.52	-48.26	-46.29	-47.84	-48.23	-49.41	-52.28	-50.12
16-Oct-07	20:00:00	-51.11	-53.45	-49.49	-48.25	-46.29	-47.82	-48.24	-49.41	-52.29	-50.12
17-Oct-07	08:00:00	-51.13	-53.47	-49.50	-48.26	-46.29	-47.83	-48.25	-49.41	-52.30	-50.11
17-Oct-07	20:00:00	-51.07	-53.47	-49.50	-48.27	-46.28	-47.82	-48.25	-49.41	-52.28	-50.12
18-Oct-07	08:00:00	-51.06	-53.47	-49.49	-48.25	-46.29	-47.78	-48.27	-49.41	-52.28	-50.12
18-Oct-07	20:00:00	-51.03	-53.47	-49.50	-48.27	-46.29	-47.74	-48.28	-49.42	-52.30	-50.12
19-Oct-07	08:00:00	-51.02	-53.47	-49.49	-48.26	-46.29	-47.64	-48.31	-49.42	-52.30	-50.11
19-Oct-07	20:00:00	-51.02	-53.47	-49.50	-48.27	-46.28	-47.68	-48.26	-49.41	-52.29	-50.10
20-Oct-07	08:00:00	-51.08	-53.45	-49.50	-48.26	-46.29	-47.80	-48.24	-49.42	-52.29	-50.12
20-Oct-07	20:00:00	-51.10	-53.47	-49.51	-48.26	-46.28	-47.84	-48.24	-49.41	-52.30	-50.11
21-Oct-07	08:00:00	-51.10	-53.47	-49.49	-48.26	-46.29	-47.83	-48.25	-49.41	-51.73	-50.10
21-Oct-07	20:00:00	-51.10	-53.49	-49.49	-48.24	-46.28	-47.85	-48.23	-49.42	-52.29	-50.11
22-Oct-07	08:00:00	-51.12	-53.48	-49.50	-48.25	-46.29	-47.85	-48.23	-49.42	-52.28	-50.11
22-Oct-07	20:00:00	-51.02	-53.47	-49.49	-48.26	-46.29	-47.81	-48.26	-49.41	-52.29	-50.11
23-Oct-07	08:00:00	-50.99	-53.47	-49.51	-48.26	-46.29	-47.74	-48.28	-49.41	-52.29	-50.12
23-Oct-07	20:00:00	-50.96	-53.47	-49.50	-48.26	-46.29	-47.67	-48.28	-49.42	-52.28	-50.11
24-Oct-07	08:00:00	-50.98	-53.46	-49.51	34.09	-46.29	-47.71	-48.27	-49.42	-52.30	-50.12
24-Oct-07	20:00:00	-50.99	-53.47	-49.50	-48.27	-46.30	-47.74	-48.24	-49.42	-52.29	-50.11
25-Oct-07	08:00:00	-51.05	-53.47	-49.48	78.00	-46.28	-47.84	-48.22	-49.41	-52.29	-50.11
25-Oct-07	20:00:00	-51.04	-53.48	-49.16	-22.43	-46.29	-47.86	-48.22	-49.41	-52.29	-50.12
26-Oct-07	08:00:00	-51.06	-53.47	-49.26	-23.88	-46.29	-47.87	-48.24	-49.42	-52.29	-50.12
26-Oct-07	20:00:00	-50.95	-53.46	-46.18	-18.75	-46.29	-47.85	-44.14	-49.41	-52.29	-50.12
27-Oct-07	08:00:00	-50.96	-49.72	-34.37	-12.91	-46.30	-47.58	-48.22	-49.42	-11.02	-50.12
27-Oct-07	20:00:00	-50.97	-50.51	-49.06	-17.65	-46.29	-47.68	-48.22	-49.42	-40.30	-50.11
28-Oct-07	08:00:00	-50.97	-52.01	-49.38	-19.50	-46.30	-47.78	-48.22	-49.40	-52.25	-50.12
28-Oct-07	20:00:00	-50.98	-52.99	-49.23	-21.15	-46.29	-47.79	-48.21	-49.42	-52.25	-50.12
29-Oct-07	08:00:00	-51.01	-53.57	-49.33	-22.56	-46.29	-47.81	-48.23	-49.40	-52.26	-50.11
29-Oct-07	20:00:00	-50.98	-53.48	-49.54	-23.76	-46.29	-47.73	-48.22	-49.40	-52.25	-50.09
30-Oct-07	08:00:00	-51.00	-53.50	-49.75	-25.01	-46.31	-47.79	-48.21	-49.41	-52.24	-50.11
30-Oct-07	20:00:00	-50.95	-53.46	-49.86	-26.03	-46.29	-47.68	-48.23	-49.41	-52.26	-50.10
31-Oct-07	08:00:00	-50.94	-53.49	-49.73	-26.87	-46.30	-47.68	-48.23	-49.41	-52.26	-50.11
31-Oct-07	20:00:00	-50.85	-53.45	-49.73	-27.66	-46.29	-47.58	-48.23	-49.41	-52.24	-50.11
1-Nov-07	08:00:00	-50.85	-53.47	-49.74	-28.37	-46.31	-47.56	-48.23	-49.41	-52.24	-50.12
1-Nov-07	20:00:00	-50.81	-53.47	-49.75	-29.11	-46.30	-47.58	-48.23	-49.40	-52.23	-50.12
2-Nov-07	08:00:00	-50.95	-53.48	-49.75	-29.89	-46.30	-47.67	-48.24	-49.40	-52.24	-50.12
2-Nov-07	20:00:00	-50.91	-53.46	-49.75	-30.61	-46.29	-47.58	-48.25	-49.41	-52.25	-50.10



Water Level (inches)											
Date	Time	Water Level (inches)									
dd-mmm-yyyy	hh:mm:ss	AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
3-Nov-07	08:00:00	-50.84	-53.47	-49.75	-31.32	-46.29	-47.58	-48.25	-49.40	-52.25	-50.10
3-Nov-07	20:00:00	-50.84	-53.46	-49.76	-31.98	-46.31	-47.59	-48.25	-49.40	-52.25	-50.10
4-Nov-07	08:00:00	-50.92	-53.49	-49.76	-32.69	-46.30	-47.65	-48.24	-49.40	-52.26	-50.10
4-Nov-07	20:00:00	-50.92	-53.49	-49.76	-33.32	-46.29	-47.64	-48.24	-49.41	-52.25	-50.09
5-Nov-07	08:00:00	-50.98	-53.51	-49.77	-33.98	-46.31	-47.71	-48.25	-49.40	-51.63	-50.09
5-Nov-07	20:00:00	-50.92	-53.49	-49.76	-34.58	-46.29	-47.59	-48.25	-49.40	-52.25	-50.11
6-Nov-07	08:00:00	-50.90	-53.49	-49.74	-35.18	-46.31	-47.60	-48.22	-49.41	-52.24	-50.11
6-Nov-07	20:00:00	-50.99	-53.52	-49.75	-35.81	-46.30	-47.74	-48.23	-49.41	-52.27	-50.10
7-Nov-07	08:00:00	-51.02	-53.54	-49.74	-36.42	-46.31	-47.78	-48.24	-49.41	-52.29	-50.08
7-Nov-07	20:00:00	-51.06	-53.54	-49.74	-37.10	-46.31	-47.80	-48.21	-49.39	-52.29	-50.11
8-Nov-07	08:00:00	-51.07	-53.54	-49.76	-37.93	-46.30	-47.80	-48.24	-49.37	-52.29	-50.09
8-Nov-07	20:00:00	-51.01	-53.54	-49.77	-39.07	-46.29	-47.77	-48.21	-49.39	-52.29	-50.11
9-Nov-07	08:00:00	-50.99	-53.54	-49.77	-40.07	-46.29	-47.75	-48.22	-49.39	-52.29	-50.10
9-Nov-07	20:00:00	-50.93	-53.54	-49.78	-40.88	-46.29	-47.60	-48.21	-49.40	-52.27	-50.10
10-Nov-07	08:00:00	-50.96	-53.53	-49.79	-41.70	-46.29	-47.72	-48.21	-49.39	-52.27	-50.11
10-Nov-07	20:00:00	-51.03	-53.56	-49.78	-42.57	-46.28	-47.79	-48.21	-49.40	-52.30	-50.09
11-Nov-07	08:00:00	-51.05	-53.57	-49.78	-43.45	-46.29	-47.82	-48.21	-49.39	-52.33	-50.10
11-Nov-07	20:00:00	-50.91	-53.55	-49.78	-44.29	-46.30	-47.79	-48.20	-49.37	-52.31	-50.09
12-Nov-07	08:00:00	-50.93	-53.55	-49.81	-45.15	-46.29	-47.83	-48.19	-49.40	-52.31	-50.10
12-Nov-07	20:00:00	-50.86	-53.55	-49.81	-45.92	-46.29	-47.71	-48.21	-49.40	-52.30	-50.10
13-Nov-07	08:00:00	-50.86		-49.81	-46.85	-46.29			-49.39	-52.28	-50.08
13-Nov-07											
14-Nov-07											
14-Nov-07											
15-Nov-07											
15-Nov-07											
16-Nov-07											
16-Nov-07											
17-Nov-07											
17-Nov-07											
18-Nov-07											
18-Nov-07											
19-Nov-07											
19-Nov-07											
20-Nov-07											
20-Nov-07											

Date	Time	Water Level (inches)									
		AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
dd-mmm-yyyy	hh:mm:ss										
21-Nov-07											
21-Nov-07											
22-Nov-07											
22-Nov-07											
23-Nov-07											
23-Nov-07											
24-Nov-07											
24-Nov-07											
25-Nov-07											
25-Nov-07											
26-Nov-07											
26-Nov-07											
27-Nov-07											
27-Nov-07											
28-Nov-07											
28-Nov-07											
29-Nov-07											
29-Nov-07											
30-Nov-07											
30-Nov-07											
1-Dec-07											
1-Dec-07											
2-Dec-07											
2-Dec-07											
3-Dec-07											
3-Dec-07											
4-Dec-07											
4-Dec-07											
5-Dec-07											
5-Dec-07											
6-Dec-07											
6-Dec-07											
7-Dec-07											
7-Dec-07											
8-Dec-07											
8-Dec-07											

Gregory Mitigation Site											
Annual Monitoring Report for 2007 (Year 3)											
Appendix C											
Date	Time	Water Level (inches)									
dd-mmm-yyyy	hh:mm:ss	AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
9-Dec-07											
9-Dec-07											
10-Dec-07											
10-Dec-07											
11-Dec-07											
11-Dec-07											
12-Dec-07											
12-Dec-07											
13-Dec-07											
13-Dec-07											
14-Dec-07											
14-Dec-07											
15-Dec-07											
15-Dec-07											
16-Dec-07											
16-Dec-07											
17-Dec-07											
17-Dec-07											
18-Dec-07											
18-Dec-07											
19-Dec-07											
19-Dec-07											
20-Dec-07											
20-Dec-07											
21-Dec-07											
21-Dec-07											
22-Dec-07											
22-Dec-07											
23-Dec-07											
23-Dec-07											
24-Dec-07											
24-Dec-07											
25-Dec-07											
25-Dec-07											
26-Dec-07											
26-Dec-07											

Date	Time	Water Level (inches)									
dd-mmm-yyyy	hh:mm:ss	AW1	AW2	AW5	AW7	AW8	AW9	AW10	AW11	AW12	AW13
27-Dec-07											
27-Dec-07											
28-Dec-07											
28-Dec-07											
29-Dec-07											
29-Dec-07											
30-Dec-07											
30-Dec-07											
31-Dec-07											
31-Dec-07											

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
1-Jan-07	08:00:00										7.45
1-Jan-07	20:00:00										0
2-Jan-07	08:00:00										
2-Jan-07	20:00:00										0.12
3-Jan-07	08:00:00										
3-Jan-07	20:00:00										0
4-Jan-07	08:00:00										
4-Jan-07	20:00:00										0
5-Jan-07	08:00:00										
5-Jan-07	20:00:00										0
6-Jan-07	08:00:00										
6-Jan-07	20:00:00										0.52
7-Jan-07	08:00:00										
7-Jan-07	20:00:00										0
8-Jan-07	08:00:00										
8-Jan-07	20:00:00										0.32
9-Jan-07	08:00:00										
9-Jan-07	20:00:00										0
10-Jan-07	08:00:00										
10-Jan-07	20:00:00										0.13
11-Jan-07	08:00:00										
11-Jan-07	20:00:00										0
12-Jan-07	08:00:00										
12-Jan-07	20:00:00										0
13-Jan-07	08:00:00										
13-Jan-07	20:00:00										0
14-Jan-07	08:00:00										
14-Jan-07	20:00:00										0
15-Jan-07	08:00:00										
15-Jan-07	20:00:00										0
16-Jan-07	08:00:00										
16-Jan-07	20:00:00										0
17-Jan-07	08:00:00										
17-Jan-07	20:00:00										0.02
18-Jan-07	08:00:00										
18-Jan-07	20:00:00										0.07

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
19-Jan-07	08:00:00										
19-Jan-07	20:00:00									0.26	
20-Jan-07	08:00:00										
20-Jan-07	20:00:00									0	
21-Jan-07	08:00:00										
21-Jan-07	20:00:00									0	
22-Jan-07	08:00:00										
22-Jan-07	20:00:00									1.17	
23-Jan-07	08:00:00										
23-Jan-07	20:00:00									0	
24-Jan-07	08:00:00										
24-Jan-07	20:00:00									0	
25-Jan-07	08:00:00										
25-Jan-07	20:00:00									0	
26-Jan-07	08:00:00										
26-Jan-07	20:00:00									0	
27-Jan-07	08:00:00										
27-Jan-07	20:00:00									0	
28-Jan-07	08:00:00										
28-Jan-07	20:00:00									0	
29-Jan-07	08:00:00										
29-Jan-07	20:00:00									0	
30-Jan-07	08:00:00										
30-Jan-07	20:00:00									0	
31-Jan-07	08:00:00										
31-Jan-07	20:00:00									0	2.61
1-Feb-07	08:00:00										
1-Feb-07	20:00:00									0	
2-Feb-07	08:00:00										
2-Feb-07	20:00:00									0.36	
3-Feb-07	08:00:00										
3-Feb-07	20:00:00									0	
4-Feb-07	08:00:00										
4-Feb-07	20:00:00									0	
5-Feb-07	08:00:00										
5-Feb-07	20:00:00									0	

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
6-Feb-07	08:00:00										
6-Feb-07	20:00:00										0
7-Feb-07	08:00:00										
7-Feb-07	20:00:00										0
8-Feb-07	08:00:00										
8-Feb-07	20:00:00										0
9-Feb-07	08:00:00										
9-Feb-07	20:00:00										0
10-Feb-07	08:00:00										
10-Feb-07	20:00:00										0
11-Feb-07	08:00:00										
11-Feb-07	20:00:00										0
12-Feb-07	08:00:00										
12-Feb-07	20:00:00										0
13-Feb-07	08:00:00										
13-Feb-07	20:00:00										0
14-Feb-07	08:00:00										
14-Feb-07	20:00:00										1.27
15-Feb-07	08:00:00										
15-Feb-07	20:00:00										0
16-Feb-07	08:00:00										
16-Feb-07	20:00:00										0
17-Feb-07	08:00:00										
17-Feb-07	20:00:00										0
18-Feb-07	08:00:00										
18-Feb-07	20:00:00										0
19-Feb-07	08:00:00				-3.78	-2.62					
19-Feb-07	20:00:00	-1.5	-1	1.5	-3.94	-2.59			3.37	0	
20-Feb-07	08:00:00				-3.82	-2.57					
20-Feb-07	20:00:00				-3.6	-2.36					0
21-Feb-07	08:00:00				-4.41	-2.66					
21-Feb-07	20:00:00				-4.26	-2.16					0
22-Feb-07	08:00:00				-3.7	-1.79					
22-Feb-07	20:00:00				-4.2	-2.43					0.33
23-Feb-07	08:00:00				-5.29	-3.48					
23-Feb-07	20:00:00				-5.27	-3.91					0

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
24-Feb-07	08:00:00				-5.91	-4.22					
24-Feb-07	20:00:00				-5.45	-3.95				0	
25-Feb-07	08:00:00				-5.16	-3.91					
25-Feb-07	20:00:00				-1.07	-0.03				0	
26-Feb-07	08:00:00				-2.47	-0.82					
26-Feb-07	20:00:00				-2.94	-1.63				0.51	
27-Feb-07	08:00:00				-3.69	-2.18					
27-Feb-07	20:00:00				-3.61	-2.34				0	
28-Feb-07	08:00:00				-4.44	-2.81					
28-Feb-07	20:00:00				-4.22	-2.82				0	2.47
1-Mar-07	08:00:00				-4.15	-2.91					
1-Mar-07	20:00:00				-3.45	-2.28				0	
2-Mar-07	08:00:00				0.62	0.57					
2-Mar-07	20:00:00				-0.15	0.07				0.99	
3-Mar-07	08:00:00				-0.4	-0.28					
3-Mar-07	20:00:00				-0.58	-0.11				0	
4-Mar-07	08:00:00				-1.89	-0.91					
4-Mar-07	20:00:00				-2.67	-1.48				0	
5-Mar-07	08:00:00				-3.66	-2.04					
5-Mar-07	20:00:00				-3.83	-2.23				0	
6-Mar-07	08:00:00				-5.55	-3.40					
6-Mar-07	20:00:00				-5.24	-3.74				0	
7-Mar-07	08:00:00				-5.06	-3.56					
7-Mar-07	20:00:00				-5.34	-2.89				0	
8-Mar-07	08:00:00				-6.24	-4.41					
8-Mar-07	20:00:00				-6.48	-4.26				0	
9-Mar-07	08:00:00				-7.01	-4.96					
9-Mar-07	20:00:00				-6.31	-4.48				0	
10-Mar-07	08:00:00				-6.9	-4.56					
10-Mar-07	20:00:00				-6.23	-4.02				0	
11-Mar-07	08:00:00				-7.33	-4.31					
11-Mar-07	20:00:00				-7.29	-4.80				0	
12-Mar-07	08:00:00				-7.7	-5.46					
12-Mar-07	20:00:00				-7.12	-4.74				0	
13-Mar-07	08:00:00				-7.57	-4.88					
13-Mar-07	20:00:00				-7.05	-4.38				0	



									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
14-Mar-07	08:00:00				-7.25	-4.71					
14-Mar-07	20:00:00				-6.94	-4.49				0	
15-Mar-07	08:00:00				-7.59	-4.70					
15-Mar-07	20:00:00				-7.22	-4.75				0	
16-Mar-07	08:00:00				-2.62	-2.40					
16-Mar-07	20:00:00				-0.94	0.23				0.2	
17-Mar-07	08:00:00				-1.12	-0.39					
17-Mar-07	20:00:00				-0.89	-0.05				0.95	
18-Mar-07	08:00:00				-1.31	-0.11					
18-Mar-07	20:00:00				-2.28	-0.98				0	
19-Mar-07	08:00:00				-3.34	-1.75					
19-Mar-07	20:00:00				-3.55	-2.11				0	
20-Mar-07	08:00:00				-4.83	-2.48					
20-Mar-07	20:00:00				-5.21	-3.04				0	
21-Mar-07	08:00:00				-5.81	-3.95					
21-Mar-07	20:00:00				-5.54	-4.00				0	
22-Mar-07	08:00:00				-5.99	-3.90					
22-Mar-07	20:00:00				-5.48	-3.58				0	
23-Mar-07	08:00:00				-6.32	-3.72					
23-Mar-07	20:00:00				-6	-3.88				0	
24-Mar-07	08:00:00				-7.44	-4.24	-8.22	-13.19			
24-Mar-07	20:00:00				-6.28	-4.19	-8.15	-13.24		0	
25-Mar-07	08:00:00				-7.76	-4.80	-8.86	-13.87			
25-Mar-07	20:00:00				-7.77	-5.78	-9.41	-14.52		0	
26-Mar-07	08:00:00				-7.96	-5.88	-9.59	-14.55			
26-Mar-07	20:00:00				-7.18	-5.00	-8.44	-13.46		0	
27-Mar-07	08:00:00				-7.46	-4.84	-8.70	-13.65			
27-Mar-07	20:00:00				-7.65	-5.10	-8.92	-14.11		0	
28-Mar-07	08:00:00	-1.5	-5.5	-17.5	-7.7	-5.38	-9.39	-14.45			
28-Mar-07	20:00:00					-5.44	-8.65	-14.04	0.91	0	
29-Mar-07	08:00:00						-4.39	-9.26			
29-Mar-07	20:00:00				-7.58	-4.46	-5.31	-10.30		0.58	
30-Mar-07	08:00:00				-3.86	-1.13	-6.11	-11.22			
30-Mar-07	20:00:00				-3.35	-1.92	-5.78	-10.89		0	
31-Mar-07	08:00:00				-4.76	-2.64	-6.37	-11.41			
31-Mar-07	20:00:00				-3.79	-2.56	-6.73	-11.79		0	2.72

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
1-Apr-07	08:00:00				-5.12	-2.86	-7.46	-12.54			
1-Apr-07	20:00:00				-4.87	-3.15	-7.48	-12.60		0	
2-Apr-07	08:00:00				-5.68	-3.71	-7.94	-13.02			
2-Apr-07	20:00:00				-5.53	-3.79	-8.53	-13.77		0	
3-Apr-07	08:00:00				-6.27	-4.06	-9.38	-14.52			
3-Apr-07	20:00:00				-6.3	-4.87	-9.65	-14.92		0	
4-Apr-07	08:00:00				-7.84	-5.50	-8.84	-13.86			
4-Apr-07	20:00:00				-7.52	-5.93	-10.06	-15.33		0	
5-Apr-07	08:00:00				-7.25	-4.97	-11.31	-16.53			
5-Apr-07	20:00:00				-8.15	-6.22	-11.90	-17.22		0	
6-Apr-07	08:00:00				-9.65	-7.51	-12.31	-17.61			
6-Apr-07	20:00:00				-9.91	-7.97	-11.49	-16.77		0	
7-Apr-07	08:00:00				-10.87	-8.31	-9.68	-15.28			
7-Apr-07	20:00:00				-10	-7.41	-11.02	-16.50		0.16	
8-Apr-07	08:00:00				-8.98	-5.05	-12.26	-17.69			
8-Apr-07	20:00:00				-9.08	-6.81	-12.00	-17.48		0.03	
9-Apr-07	08:00:00				-10.67	-8.09	-12.58	-18.00			
9-Apr-07	20:00:00				-10.07	-7.86	-12.25	-17.77		0	
10-Apr-07	08:00:00				-11.3	-8.46	-12.79	-18.26			
10-Apr-07	20:00:00				-10.73	-8.06	-12.66	-18.25		0	
11-Apr-07	08:00:00				-12.03	-8.65	-12.46	-17.93			
11-Apr-07	20:00:00				-11.35	-8.44	-11.26	-16.67		0	
12-Apr-07	08:00:00				-11.79	-8.24	-2.42	-7.32			
12-Apr-07	20:00:00				-10.69	-6.98	-4.91	-10.16		0.35	
13-Apr-07	08:00:00				-3.49	0.10	-4.98	-11.69			
13-Apr-07	20:00:00				-3.19	-1.66	-4.23	-11.26		0	
14-Apr-07	08:00:00				-4.09	-2.09	-5.53	-11.65			
14-Apr-07	20:00:00				-2.72	-1.37	-5.88	-11.48		0	
15-Apr-07	08:00:00				-3.98	-2.04	-1.31	-5.98			
15-Apr-07	20:00:00				-3.77	-2.32	0.85	-4.42		0.32	
16-Apr-07	08:00:00				-1.24	0.52	1.03	-6.12			
16-Apr-07	20:00:00				1.24	2.29	0.97	-6.51		1.08	
17-Apr-07	08:00:00				0.69	2.47	-0.86	-7.25			
17-Apr-07	20:00:00				0.75	2.39	-2.85	-8.90		0	
18-Apr-07	08:00:00				-0.03	0.74	-4.21	-9.91			
18-Apr-07	20:00:00				-0.91	-0.28	-5.65	-11.30		0	

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
19-Apr-07	08:00:00				-2.31	-1.23	-6.32	-11.85			
19-Apr-07	20:00:00				-3.43	-2.30	-7.35	-12.83		0	
20-Apr-07	08:00:00				-4.46	-2.65	-7.95	-13.41			
20-Apr-07	20:00:00				-5.31	-3.62	-8.96	-14.50		0	
21-Apr-07	08:00:00				-6.26	-4.13	-9.43	-14.86			
21-Apr-07	20:00:00				-6.48	-5.08	-10.52	-16.08		0	
22-Apr-07	08:00:00				-7.73	-5.49	-10.76	-16.27			
22-Apr-07	20:00:00				-7.81	-6.61	-11.91	-17.64		0	
23-Apr-07	08:00:00				-8.93	-6.76	-11.95	-17.64			
23-Apr-07	20:00:00				-9.32	-7.88	-12.85	-18.62		0	
24-Apr-07	08:00:00				-10.31	-7.83	-12.60	-18.35			
24-Apr-07	20:00:00				-10.36	-8.57	-13.81	-19.68		0	
25-Apr-07	08:00:00	-3.5	-8	-19	-10.97	-8.34	-13.29	-19.10			
25-Apr-07	20:00:00					-10.21	-14.76	-20.67	2.8	0	
26-Apr-07	08:00:00					-10.47	-14.85	-20.86			
26-Apr-07	20:00:00				-12.76	-10.72	-15.30	-21.21		0	
27-Apr-07	08:00:00				-13.81	-9.98	-14.43	-20.31			
27-Apr-07	20:00:00				-13.78	-9.07	-13.72	-19.94		0	
28-Apr-07	08:00:00				-13.83	-9.49	-13.89	-19.98			
28-Apr-07	20:00:00				-12.67	-11.39	-16.01	-22.03		0.27	
29-Apr-07	08:00:00				-13.38	-11.57	-16.01	-22.06			
29-Apr-07	20:00:00				-14.7	-12.74	-17.37	-23.43		0.01	
30-Apr-07	08:00:00				-15.62	-12.64	-17.13	-23.09			
30-Apr-07	20:00:00				-16.36	-13.79	-18.54	-24.55		0	2.22
1-May-07	08:00:00				-17.12	-13.96	-18.52	-24.53			
1-May-07	20:00:00				-17.6	-15.04	-19.83	-25.80		0	
2-May-07	08:00:00				-18.61	-14.85	-19.41	-25.34			
2-May-07	20:00:00				-19.13	-16.58	-21.24	-27.22		0	
3-May-07	08:00:00				-19.48	-16.72	-21.18	-27.09			
3-May-07	20:00:00				-21.34	-16.93	-21.33	-27.10		0	
4-May-07	08:00:00				-21.57	-14.10	-18.18	-24.84			
4-May-07	20:00:00				-21.98	-12.82	-16.82	-23.12		0.09	
5-May-07	08:00:00				-20.57	-12.25	-16.17	-22.27			
5-May-07	20:00:00				-19.53	-12.53	-16.56	-22.44		0.02	
6-May-07	08:00:00				-18.67	-6.43	-10.43	-17.26			
6-May-07	20:00:00				-18.78	-9.65	-13.63	-20.08		0.38	

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
7-May-07	08:00:00				-12.74	-9.46	-13.36	-19.37			
7-May-07	20:00:00				-14.37	-10.91	-15.06	-21.23		0	
8-May-07	08:00:00				-14.5	-10.42	-14.47	-20.52			
8-May-07	20:00:00				-15.61	-10.68	-14.73	-20.71		0	
9-May-07	08:00:00				-15.7	-8.18	-12.01	-18.97			
9-May-07	20:00:00				-15.96	-0.81	-3.47	-9.92		0.08	
10-May-07	08:00:00				-15.1	-2.14	-5.93	-11.43			
10-May-07	20:00:00				-5.84	-4.47	-8.48	-13.94		0.38	
11-May-07	08:00:00				-5.75	-5.18	-9.14	-14.62			
11-May-07	20:00:00				-7.21	-7.89	-11.78	-17.29		0	
12-May-07	08:00:00				-8.27	-7.89	-11.87	-17.55			
12-May-07	20:00:00				-10.19	-6.91	-10.98	-16.73		0.04	
13-May-07	08:00:00				-10.97	-7.39	-11.39	-17.16			
13-May-07	20:00:00				-10.29	-8.88	-12.96	-18.60		0.75	
14-May-07	08:00:00				-10.96	-9.15	-13.16	-18.89			
14-May-07	20:00:00				-12.02	-10.96	-15.29	-20.85		0	
15-May-07	08:00:00				-12.98	-10.25	-14.45	-20.29			
15-May-07	20:00:00				-14.19	-11.78	-16.35	-22.00		0	
16-May-07	08:00:00				-14.49	-11.18	-15.59	-21.49			
16-May-07	20:00:00				-15.45	-13.22	-17.84	-23.66		0	
17-May-07	08:00:00				-15.49	-5.92	-10.66	-17.74			
17-May-07	20:00:00				-17.46	-7.66	-12.03	-18.17		0.67	
18-May-07	08:00:00				-11.61	-7.19	-11.90	-18.12			
18-May-07	20:00:00				-12.03	-5.40	-10.15	-18.55		0	
19-May-07	08:00:00				-12.08	-5.81	-10.60	-16.44			
19-May-07	20:00:00				-12.17	-9.50	-13.96	-19.68		0.06	
20-May-07	08:00:00				-10.59	-9.65	-14.08	-19.86			
20-May-07	20:00:00				-12.52	-12.15	-16.82	-22.77		0	
21-May-07	08:00:00				-13.21	-12.50	-16.93	-23.04			
21-May-07	20:00:00				-15.39	-14.72	-19.36	-25.51		0	
22-May-07	08:00:00	-8	-16	-31	-16.46	-14.92	-19.32	-25.46			
22-May-07	20:00:00				-18.97	-44.03	-21.78	-30.12	2.96	0.12	
23-May-07	08:00:00				-19.3	-44.14	-21.7	-29.84			
23-May-07	20:00:00				-19.07	-45.64	-23.32	-31.53		0	
24-May-07	08:00:00				-19.14	-45.65	-23.11	-31.06			
24-May-07	20:00:00				-21.01	-46.76	-24.36	-32.40		0	

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
25-May-07	08:00:00				-20.74	-46.39	-23.79	-31.44			
25-May-07	20:00:00				-22.15	-47.67	-25.19	-33.07		0	
26-May-07	08:00:00				-21.45	-47.53	-24.87	-32.32			
26-May-07	20:00:00				-23.16	-48.92	-26.33	-34.09		0	
27-May-07	08:00:00				-22.45	-49.08	-26.37	-33.62			
27-May-07	20:00:00				-24.78	-50.33	-27.62	-35.23		0	
28-May-07	08:00:00				-24.15	-50.42	-27.65	-34.71			
28-May-07	20:00:00				-26.53	-51.55	-28.74	-36.20		0	
29-May-07	08:00:00				-25.62	-51.54	-28.63	-35.48			
29-May-07	20:00:00				-27.91	-52.81	-29.86	-37.18		0	
30-May-07	08:00:00				-26.79	-52.76	-29.78	-36.44			
30-May-07	20:00:00				-29.46	-53.85	-30.84	-37.99		0	
31-May-07	08:00:00				-28.22	-53.74	-30.65	-37.17			
31-May-07	20:00:00				-30.71	-54.79	-31.72	-38.72		0	2.59
1-Jun-07	08:00:00				-29.19	-54.6	-31.44	-37.87			
1-Jun-07	20:00:00				-31.69	-55.64	-32.48	-39.35		0	
2-Jun-07	08:00:00				-30.05	-55.44	-32.24	-38.52			
2-Jun-07	20:00:00				-32.56	-56.13	-32.89	-39.60		0	
3-Jun-07	08:00:00				-30.87	-48.17	-22.96	-34.03			
3-Jun-07	20:00:00				-32.72	-40.22	-16.58	-24.08		1.49	
4-Jun-07	08:00:00				-23.54	-40.62	-17.29	-24.58			
4-Jun-07	20:00:00				-15.12	-42.65	-19.77	-27.55		1.16	
5-Jun-07	08:00:00				-15.19	-42.76	-19.8	-27.68			
5-Jun-07	20:00:00				-17.24	-44.94	-22.29	-30.47		0.09	
6-Jun-07	08:00:00				-17.37	-43.41	-20.53	-29.08			
6-Jun-07	20:00:00				-19.88	-45.48	-22.93	-31.40		0.27	
7-Jun-07	08:00:00				-18.55	-45.01	-22.24	-30.56			
7-Jun-07	20:00:00				-20.71	-46.49	-23.94	-32.40		0	
8-Jun-07	08:00:00				-19.79	-45.94	-23.15	-31.28			
8-Jun-07	20:00:00				-21.71	-47.68	-25.18	-33.43		0	
9-Jun-07	08:00:00				-20.47	-47.35	-24.55	-32.41			
9-Jun-07	20:00:00				-22.77	-49.35	-26.8	-34.74		0	
10-Jun-07	08:00:00				-21.49	-49.46	-26.65	-34.16			
10-Jun-07	20:00:00				-24.45	-51.02	-28.27	-35.86		0	
11-Jun-07	08:00:00				-23.34	-50.92	-27.91	-35.07			
11-Jun-07	20:00:00				-26.27	-52.03	-29.18	-36.54		0	

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
12-Jun-07	08:00:00				-24.85	-52.04	-28.94	-35.76			
12-Jun-07	20:00:00				-27.35	-53.59	-30.69	-37.79		0	
13-Jun-07	08:00:00				-25.87	-53.69	-30.61	-37.21			
13-Jun-07	20:00:00				-29.29	-54.87	-31.77	-38.60		0	
14-Jun-07	08:00:00				-27.72	-55.04	-31.93	-38.24			
14-Jun-07	20:00:00				-30.95	-55.36	-32.05	-38.16		0.01	
15-Jun-07	08:00:00				-29.48	-55.29	-31.84	-37.61			
15-Jun-07	20:00:00				-31.01	-56.12	-32.75	-38.89		0.05	
16-Jun-07	08:00:00				-29.49	-55.93	-32.42	-38.09			
16-Jun-07	20:00:00				-32.21	-56.57	-33.1	-39.11		0.04	
17-Jun-07	08:00:00				-30.36	-56.43	-32.87	-38.42			
17-Jun-07	20:00:00				-32.69	-57.64	-34.15	-40.35		0.19	
18-Jun-07	08:00:00				-31.26	-57.59	-34.18	-39.90			
18-Jun-07	20:00:00				-34.87	-58.78	-35.3	-41.68		0	
19-Jun-07	08:00:00				-33.18	-58.82	-35.46	-41.35			
19-Jun-07	20:00:00				-36.47	-59.81	-36.33	-42.76		0	
20-Jun-07	08:00:00				-34.90	-59.93	-36.51	-42.43			
20-Jun-07	20:00:00				-37.64	-60.52	-36.98	-43.08		0	
21-Jun-07	08:00:00				-36.20	-60.58	-37.07	-42.69			
21-Jun-07	20:00:00				-37.77	-61.41	-37.7	-43.83		0.05	
22-Jun-07	08:00:00				-36.37	-61.3	-37.75	-43.37			
22-Jun-07	20:00:00				-39.12	-62.26	-38.52	-44.72		0	
23-Jun-07	08:00:00				-37.66	-62.51	-38.86	-44.89			
23-Jun-07	20:00:00				-40.41	-63.32	-39.5	-45.73		0	
24-Jun-07	08:00:00				-39.76	-63.56	-39.9	-45.98			
24-Jun-07	20:00:00				-41.71	-64.42	-40.56	-46.87		0	
25-Jun-07	08:00:00				-40.69	-64.6	-40.89	-46.96			
25-Jun-07	20:00:00				-43.12	-65.25	-41.33	-47.53		0	
26-Jun-07	08:00:00				-41.90	-65.34	-41.59	-47.49			
26-Jun-07	20:00:00				-43.71	-65.99	-42.02	-48.19		0	
27-Jun-07	08:00:00				-42.22	-65.95	-42.22	-48.03			
27-Jun-07	20:00:00				-44.47	-66.36	-42.54	-48.63		0	
28-Jun-07	08:00:00	-21.5	-36.5	-49.5	-42.94	-66.27	-42.58	-48.15	2.53		
28-Jun-07	20:00:00				-43.78	-66.75	-42.92	-48.94		0	
29-Jun-07	08:00:00				-42.15	-66.8	-43.08	-48.86			
29-Jun-07	20:00:00				-39.34	-67.67	-43.55			1.12	

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
30-Jun-07	08:00:00				-39.39	-67.57	-43.75				
30-Jun-07	20:00:00				-40.26	-68.31	-44			0	4.47
1-Jul-07	08:00:00				-40.16	-68.47	-44.45				
1-Jul-07	20:00:00				-40.90	-69.26	-43.97			0	
2-Jul-07	08:00:00				-41.06	-69.46	-43.96				
2-Jul-07	20:00:00				-41.85	-70.07	-43.95			0	
3-Jul-07	08:00:00				-42.05	-70.17	-43.95				
3-Jul-07	20:00:00				-42.66	-70.78	-43.95			0	
4-Jul-07	08:00:00				-42.76	-70.89	-43.96				
4-Jul-07	20:00:00				-43.37	-71.44	-43.96			0	
5-Jul-07	08:00:00				-43.48	-71.59	-43.95				
5-Jul-07	20:00:00				-44.03	-72.09	-43.95			0	
6-Jul-07	08:00:00				-44.18	-72.23	-43.96				
6-Jul-07	20:00:00				-44.68	-72.89	-43.97			0	
7-Jul-07	08:00:00				-44.82	-72.99	-43.96				
7-Jul-07	20:00:00				-45.48	-73.55	-43.94			0	
8-Jul-07	08:00:00				-45.58	-73.61	-43.96				
8-Jul-07	20:00:00				-46.14	-74.14	-43.97			0	
9-Jul-07	08:00:00				-46.20	-74.33	-43.95	-43.11			
9-Jul-07	20:00:00				-46.73	-74.82	-43.96	-43.11		0	
10-Jul-07	08:00:00				-46.92	-74.92	-43.96	-43.11			
10-Jul-07	20:00:00				-47.41	-75.25	-43.96	-43.11		0	
11-Jul-07	08:00:00				-47.51	-75.1	-43.95	-43.11			
11-Jul-07	20:00:00				-47.84	-74.61	-43.95	-43.10		0.48	
12-Jul-07	08:00:00				-47.69	-73.33	-43.95	-43.11			
12-Jul-07	20:00:00				-47.20	-72.63	-43.95	-43.10		1.37	
13-Jul-07	08:00:00				-45.92	-72.26	-43.95	-43.11			
13-Jul-07	20:00:00				-45.22	-71.93	-43.96	-43.11		0	
14-Jul-07	08:00:00				-44.85	-71.62	-43.94	-43.12			
14-Jul-07	20:00:00				-44.52	-71.54	-43.95	-43.11		0.11	
15-Jul-07	08:00:00				-44.21	-71.35	-43.95	-43.11			
15-Jul-07	20:00:00				-44.13	-71.52	-43.95	-43.11		0	
16-Jul-07	08:00:00				-43.94	-71.59	-43.94	-43.10			
16-Jul-07	20:00:00				-44.11	-71.96	-43.96	-43.12		0	
17-Jul-07	08:00:00				-44.18	-72.17	-43.95	-43.11			
17-Jul-07	20:00:00				-44.55	-71.27	-43.95	-43.10		0	

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
18-Jul-07	08:00:00				-44.76	-69.6	-43.95	-43.12			
18-Jul-07	20:00:00				-43.86	-68.83	-43.95	-43.11		1.95	
19-Jul-07	08:00:00				-42.19	-68.25	-43.94	-43.11			
19-Jul-07	20:00:00				-41.42	-67.85	-43.96	-44.28		0	
20-Jul-07	08:00:00				-40.84	-67.63	-43.85	-47.42			
20-Jul-07	20:00:00				-40.44	-67.51	-43.84	-49.02		0	
21-Jul-07	08:00:00				-40.22	-67.46	-43.95				
21-Jul-07	20:00:00				-40.10	-67.55	-44			0	
22-Jul-07	08:00:00				-40.05	-67.44	-44.08				
22-Jul-07	20:00:00				-40.14	-67.71	-44.13			0	
23-Jul-07	08:00:00				-40.03	-67.69	-43.95				
23-Jul-07	20:00:00				-40.30	-68.15	-43.95			0	
24-Jul-07	08:00:00				-40.28	-68.34	-43.95				
24-Jul-07	20:00:00				-40.74	-68.85	-43.94			0	
25-Jul-07	08:00:00	-21	-46.5	-51.5	-40.93	-69.19	-43.96		3.55		
25-Jul-07	20:00:00				-41.44	-69.8	-43.95			0	
26-Jul-07	08:00:00				-41.78	-70.12	-43.95				
26-Jul-07	20:00:00				-45.18	-70.71	-43.95			0	
27-Jul-07	08:00:00				-44.55	-70.89	-43.94				
27-Jul-07	20:00:00				-45.24	-71.4	-43.95	-43.11		0	
28-Jul-07	08:00:00				-45.43	-71.33	-43.95	-43.11			
28-Jul-07	20:00:00				-46.33	-71.94	-43.96	-43.11		0	
29-Jul-07	08:00:00				-45.57	-72.1	-43.95	-43.11			
29-Jul-07	20:00:00				-47.18	-72.8	-43.95	-43.11		0	
30-Jul-07	08:00:00				-46.97	-72.9	-43.94	-43.10			
30-Jul-07	20:00:00				-49.15	-73.29	-43.95	-43.11		0.12	
31-Jul-07	08:00:00				-48.67	-73.43	-43.94	-43.10			
31-Jul-07	20:00:00				-49.81	-74.11	-43.95	-43.10		0	4.03
1-Aug-07	08:00:00				-49.11	-74.29	-43.93	-43.10			
1-Aug-07	20:00:00					-74.98	-43.96	-43.10		0.09	
2-Aug-07	08:00:00					-75.2	-43.95	-43.10			
2-Aug-07	20:00:00				-50.63	-75.8	-43.95	-43.11		0	
3-Aug-07	08:00:00				-50.58	-75.88	-43.94	-43.11			
3-Aug-07	20:00:00				-50.58	-76.38	-43.94	-43.10		0	
4-Aug-07	08:00:00				-50.59	-76.5	-43.94	-43.11			
4-Aug-07	20:00:00				-50.60	-76.91	-43.95	-43.10		0	



		Water Level (inches)							Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
5-Aug-07	08:00:00				-50.61	-77.11	-43.95	-43.11			
5-Aug-07	20:00:00				-50.58	-77.51	-43.93	-43.12		0	
6-Aug-07	08:00:00				-50.63	-77.67	-43.93	-43.11			
6-Aug-07	20:00:00				-50.59	-78.11	-43.95	-43.11		0	
7-Aug-07	08:00:00				-50.63	-78.27	-43.95	-43.11			
7-Aug-07	20:00:00				-50.60	-78.72	-43.95	-43.10		0	
8-Aug-07	08:00:00				-50.62	-78.83	-43.95	-43.11			
8-Aug-07	20:00:00				-50.59	-79.28	-43.95	-43.10		0	
9-Aug-07	08:00:00				-50.62	-79.47	-43.95	-43.10			
9-Aug-07	20:00:00				-50.58	-79.79	-43.94	-43.12		0	
10-Aug-07	08:00:00				-50.63	-79.81	-43.94	-43.11			
10-Aug-07	20:00:00				-50.60	-80.12	-43.94	-43.11		0.22	
11-Aug-07	08:00:00				-50.64	-79.87	-43.93	-43.12			
11-Aug-07	20:00:00				-50.65	-79.97	-43.93	-43.11		0.41	
12-Aug-07	08:00:00				-47.38	-79.88	-43.94	-43.10			
12-Aug-07	20:00:00				-50.60	-79.72	-43.95	-43.12		0	
13-Aug-07	08:00:00				-50.64	-79.57	-43.94	-43.12			
13-Aug-07	20:00:00				-50.58	-79.74	-43.94	-43.10		0	
14-Aug-07	08:00:00				-50.59	-79.92	-43.93	-43.12			
14-Aug-07	20:00:00				-50.58	-80.22	-43.93	-43.11		0	
15-Aug-07	08:00:00				-50.64	-80.28	-43.93	-43.10			
15-Aug-07	20:00:00				-50.64	-80.61	-43.95	-43.11		0	
16-Aug-07	08:00:00				-50.61	-80.71	-43.94	-43.11			
16-Aug-07	20:00:00				-50.62	-81.04	-43.94	-43.11		0	
17-Aug-07	08:00:00				-50.65	-81.1	-43.94	-43.10			
17-Aug-07	20:00:00				-50.62	-81.21	-43.94	-43.12		0.03	
18-Aug-07	08:00:00				-50.60	-81.52	-43.94	-43.11			
18-Aug-07	20:00:00				-50.56	-81.83	-43.94	-43.13		0.02	
19-Aug-07	08:00:00				-50.66	-81.84	-43.94	-43.12			
19-Aug-07	20:00:00				-50.65	-82.07	-43.94	-43.11		0	
20-Aug-07	08:00:00				-50.68	-82.21	-43.93	-43.12			
20-Aug-07	20:00:00				-50.60	-82.55	-43.95	-43.10		0	
21-Aug-07	08:00:00				-50.64	-82.71	-43.93	-43.11			
21-Aug-07	20:00:00				-50.61	-83.16	-43.94	-43.11		0	
22-Aug-07	08:00:00				-50.66	-83.12	-43.93	-43.11			
22-Aug-07	20:00:00				-50.68	-83.42	-43.93	-43.12		0.17	

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
23-Aug-07	08:00:00				-50.68	-83.55	-43.94	-43.11			
23-Aug-07	20:00:00				-50.68		-43.93	-43.12		0	
24-Aug-07	08:00:00				-50.68		-43.93	-43.11			
24-Aug-07	20:00:00				-50.67		-43.94	-43.10		0.34	
25-Aug-07	08:00:00				-50.69		-43.94	-43.11			
25-Aug-07	20:00:00				-50.63		-43.94	-43.12		0	
26-Aug-07	08:00:00				-50.66		-43.94	-43.12			
26-Aug-07	20:00:00				-50.61		-43.94	-43.12		0	
27-Aug-07	08:00:00	-17.5	-49.5	-51.5	-50.68		-43.94	-43.11	3.18		
27-Aug-07	20:00:00				-50.65		-43.95	-43.11		0.17	
28-Aug-07	08:00:00				-50.67		-43.94	-43.11			
28-Aug-07	20:00:00				-50.66		-43.93	-43.11		0	
29-Aug-07	08:00:00				-50.67		-43.95	-43.11			
29-Aug-07	20:00:00				-50.65		-43.94	-43.12		0	
30-Aug-07	08:00:00				-50.67		-43.93	-43.10			
30-Aug-07	20:00:00				-50.63		-43.93	-43.12		0	
31-Aug-07	08:00:00				-50.65		-43.93	-43.12			
31-Aug-07	20:00:00				-50.63		-43.95	-43.12		0	1.45
1-Sep-07	08:00:00				-50.68		-43.94	-43.10			
1-Sep-07	20:00:00				-50.71		-43.92	-43.11			
2-Sep-07	08:00:00				-50.69		-43.93	-43.10			
2-Sep-07	20:00:00				-50.70		-43.94	-43.11		0	
3-Sep-07	08:00:00				-50.74		-43.92	-43.12			
3-Sep-07	20:00:00				-50.66		-43.93	-43.12		0	
4-Sep-07	08:00:00				-50.69		-43.94	-43.11			
4-Sep-07	20:00:00				-50.61		-43.93	-43.10		0	
5-Sep-07	08:00:00				-50.66		-43.94	-43.11			
5-Sep-07	20:00:00				-50.65		-43.95	-43.11		0	
6-Sep-07	08:00:00				-50.70		-43.94	-43.11			
6-Sep-07	20:00:00				-50.71		-43.94	-43.11			
7-Sep-07	08:00:00				-50.73		-43.93	-43.12			
7-Sep-07	20:00:00				-50.71		-43.94	-43.10			
8-Sep-07	08:00:00				-50.72		-43.93	-43.10			
8-Sep-07	20:00:00				-50.69		-43.93	-43.10			
9-Sep-07	08:00:00				-50.72		-43.94	-43.11			
9-Sep-07	20:00:00				-50.68		-43.93	-43.10		0	

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
10-Sep-07	08:00:00				-50.69		-43.93	-43.12			
10-Sep-07	20:00:00				-50.65		-43.95	-43.11			
11-Sep-07	08:00:00				-50.74		-43.94	-43.10			
11-Sep-07	20:00:00				-50.71		-43.93	-43.11		0	
12-Sep-07	08:00:00				-50.72		-43.94	-43.12			
12-Sep-07	20:00:00				-50.68		-43.94	-43.12		0	
13-Sep-07	08:00:00				-50.69		-43.93	-43.12			
13-Sep-07	20:00:00				-50.74		-43.93	-43.12		0	
14-Sep-07	08:00:00				-50.72		-43.95	-43.12			
14-Sep-07	20:00:00				-50.72		-43.93	-43.12		0	
15-Sep-07	08:00:00				-50.76		-43.94	-43.12			
15-Sep-07	20:00:00				-50.66		-43.92	-43.12			
16-Sep-07	08:00:00				-50.72		-43.93	-43.12			
16-Sep-07	20:00:00				-50.74		-43.93	-43.10		0	
17-Sep-07	08:00:00				-50.73		-43.93	-43.12			
17-Sep-07	20:00:00				-50.74		-43.93	-43.11		0	
18-Sep-07	08:00:00				-50.79		-43.94	-43.10			
18-Sep-07	20:00:00				-50.79		-43.94	-43.11		0	
19-Sep-07	08:00:00				-50.81		-43.94	-43.11			
19-Sep-07	20:00:00				-50.80		-43.94	-43.10		0	
20-Sep-07	08:00:00				-50.82		-43.93	-43.10			
20-Sep-07	20:00:00				-50.82		-43.93	-43.08		0	
21-Sep-07	08:00:00				-50.82		-43.93	-43.10			
21-Sep-07	20:00:00				-50.82		-43.94	-43.10		0.25	
22-Sep-07	08:00:00				-50.78		-43.94	-43.11			
22-Sep-07	20:00:00				-50.79		-43.95	-43.09		0	
23-Sep-07	08:00:00				-50.82		-43.95	-43.10			
23-Sep-07	20:00:00				-50.79		-43.94	-43.10		0	
24-Sep-07	08:00:00				-50.83		-43.94	-43.11			
24-Sep-07	20:00:00				-50.80		-43.95	-43.12		0	
25-Sep-07	08:00:00				-50.84		-43.94	-43.10			
25-Sep-07	20:00:00				-50.82		-43.95	-43.11			
26-Sep-07	08:00:00				-50.83		-43.94	-43.10			
26-Sep-07	20:00:00				-50.79		-43.94	-43.10			
27-Sep-07	08:00:00	-33.5	-50	-51.5	-50.81		-43.93	-43.11	0.84	0	
27-Sep-07	20:00:00				-50.78	-51.06	-43.83	-45.86			

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
28-Sep-07	08:00:00				-50.79	-51.05	-43.83	-45.86			
28-Sep-07	20:00:00				-49.08	-51.04	-43.82	-45.87			
29-Sep-07	08:00:00				-49.14	-51.04	-43.82	-45.86		0	
29-Sep-07	20:00:00				-49.16	-51.05	-43.81	-45.89			
30-Sep-07	08:00:00				-49.16	-51.03	-43.82	-45.85		0	
30-Sep-07	20:00:00				-49.17	-51.04	-43.83	-45.87			0.25
1-Oct-07	08:00:00				-49.16	-51.05	-43.81	-45.87		0	
1-Oct-07	20:00:00				-49.16	-51.03	-43.83	-45.88			
2-Oct-07	08:00:00				-49.21	-51.04	-43.81	-45.87		0	
2-Oct-07	20:00:00				-49.15	-51.04	-43.83	-45.87			
3-Oct-07	08:00:00				-49.18	-51.04	-43.82	-45.85		0	
3-Oct-07	20:00:00				-49.14	-51.05	-43.83	-45.86			
4-Oct-07	08:00:00				-49.13	-51.05	-43.83	-45.87		0	
4-Oct-07	20:00:00				-49.14	-51.06	-43.82	-45.87			
5-Oct-07	08:00:00				-49.31	-51.04	-43.83	-45.86		0	
5-Oct-07	20:00:00				-49.36	-51.04	-43.83	-45.86			
6-Oct-07	08:00:00				-49.17	-51.05	-43.83	-45.87		0	
6-Oct-07	20:00:00				-49.18	-51.06	-43.83	-45.86			
7-Oct-07	08:00:00				-49.18	-51.04	-43.82	-45.86		0	
7-Oct-07	20:00:00				-49.16	-51.04	-43.82	-45.86			
8-Oct-07	08:00:00				-49.18	-51.04	-43.81	-45.86		0	
8-Oct-07	20:00:00				-49.15	-51.04	-43.82	-45.87			
9-Oct-07	08:00:00				-49.18	-51.05	-43.82	-45.87		0	
9-Oct-07	20:00:00				-49.16	-51.06	-43.83	-45.88			
10-Oct-07	08:00:00				-49.16	-51.06	-43.82	-45.87		0	
10-Oct-07	20:00:00				-49.11	-51.05	-43.81	-45.86			
11-Oct-07	08:00:00				-49.16	-51.04	-43.81	-45.87		0	
11-Oct-07	20:00:00				-49.09	-51.02	-43.82	-45.87			
12-Oct-07	08:00:00				-49.14	-51.03	-43.81	-45.86		0	
12-Oct-07	20:00:00				-49.17	-51.05	-43.82	-45.86			
13-Oct-07	08:00:00				-49.18	-51.04	-43.81	-45.88		0	
13-Oct-07	20:00:00				-49.18	-51.03	-43.83	-45.85			
14-Oct-07	08:00:00				-49.16	-51.04	-43.81	-45.87		0	
14-Oct-07	20:00:00				-49.16	-51.02	-43.83	-45.87			
15-Oct-07	08:00:00				-49.16	-51.03	-43.81	-45.87		0	
15-Oct-07	20:00:00				-49.31	-51.01	-43.81	-45.86			

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
16-Oct-07	08:00:00				-49.16	-51.03	-43.82	-45.85		0	
16-Oct-07	20:00:00				-49.18	-51.01	-43.81	-45.86			
17-Oct-07	08:00:00				-49.16	-51.04	-43.81	-45.86		0	
17-Oct-07	20:00:00				-49.21	-51.02	-43.82	-45.86			
18-Oct-07	08:00:00				-49.17	-51.02	-43.81	-45.86		0	
18-Oct-07	20:00:00				-49.15	-51.03	-43.81	-45.86			
19-Oct-07	08:00:00				-49.14	-51.01	-43.81	-45.86		0	
19-Oct-07	20:00:00				-49.13	-51.01	-43.83	-45.86			
20-Oct-07	08:00:00				-49.09	-51.02	-43.82	-45.86		0	
20-Oct-07	20:00:00				-49.10	-51.01	-43.82	-45.86			
21-Oct-07	08:00:00				-49.18	-51.01	-43.81	-45.87		0	
21-Oct-07	20:00:00				-49.16	-51.01	-43.81	-45.86			
22-Oct-07	08:00:00				-49.16	-51.01	-43.80	-45.85	0.8	0	
22-Oct-07	20:00:00				-49.16	-51.01	-43.81	-45.87			
23-Oct-07	08:00:00	-35.5	-53.5	-51.5	-49.16	-51.02	-43.81	-45.86		0	
23-Oct-07	20:00:00				-49.26	-51.02	-43.82	-45.86			
24-Oct-07	08:00:00				-49.17	-51.03	-43.81	-45.86		0	
24-Oct-07	20:00:00				-49.16	-51.01	-43.82	-45.86			
25-Oct-07	08:00:00				-49.36	-51.00	-43.81	-45.86		0	
25-Oct-07	20:00:00				-49.17	-51.01	-43.81	-45.86			
26-Oct-07	08:00:00				-49.17	-51.02	-43.80	-45.87		0	
26-Oct-07	20:00:00				-49.17	-51.01	-43.82	-45.86			
27-Oct-07	08:00:00				-49.17	-51.02	-43.81	-45.86		0	
27-Oct-07	20:00:00				-49.17	-51.02	-43.82	-45.87			
28-Oct-07	08:00:00				-49.17	-51.01	-43.81	-45.86		0	
28-Oct-07	20:00:00				-49.17	-51.01	-43.81	-45.84			
29-Oct-07	08:00:00				-49.17	-51.01	-43.80	-45.86		0	
29-Oct-07	20:00:00				-49.17	-51.00	-43.81	-45.85			
30-Oct-07	08:00:00				-49.17	-51.00	-43.81	-45.85		0	
30-Oct-07	20:00:00				-49.17	-51.01	-43.81	-45.86			
31-Oct-07	08:00:00				-49.17	-51.00	-43.81	-45.86		0	
31-Oct-07	20:00:00				-49.17	-51.01	-43.81	-45.86			0
1-Nov-07	08:00:00				-49.17	-51.00	-43.81	-45.85		0	
1-Nov-07	20:00:00				-49.17	-50.99	-43.82	-45.85			
2-Nov-07	08:00:00				-49.17	-50.99	-43.80	-45.84		0	
2-Nov-07	20:00:00				-49.17	-50.99	-43.81	-45.84			

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
3-Nov-07	08:00:00				-49.17	-50.99	-43.81	-45.84		0	
3-Nov-07	20:00:00				-49.17	-50.98	-43.81	-45.84			
4-Nov-07	08:00:00				-49.17	-50.98	-43.81	-45.84		0	
4-Nov-07	20:00:00				-49.17	-50.96	-43.82	-45.84			
5-Nov-07	08:00:00				-49.17	-50.98	-43.79	-45.84		0	
5-Nov-07	20:00:00				-49.17	-50.99	-43.81	-45.84			
6-Nov-07	08:00:00				-49.17	-50.98	-43.81	-45.84		0	
6-Nov-07	20:00:00				-49.17	-50.97	-43.81	-45.83			
7-Nov-07	08:00:00				-49.17	-50.98	-43.81	-45.82		0	
7-Nov-07	20:00:00				-49.17	-50.98	-43.81	-45.85			
8-Nov-07	08:00:00				-49.17	-50.98	-43.81	-45.84		0	
8-Nov-07	20:00:00				-49.17	-50.97	-43.81	-45.83			
9-Nov-07	08:00:00				-49.17	-50.95	-43.79	-45.82		0	
9-Nov-07	20:00:00				-49.17	-50.96	-43.80	-45.83			
10-Nov-07	08:00:00				-49.17	-50.96	-43.81	-45.83		0	
10-Nov-07	20:00:00				-49.18	-50.94	-43.82	-45.82			
11-Nov-07	08:00:00				-49.17	-50.96	-43.80	-45.81		0	
11-Nov-07	20:00:00				-49.17	-50.95	-43.79	-45.82			
12-Nov-07	08:00:00				-49.17	-50.95	-43.79	-45.82		0	
12-Nov-07	20:00:00				-49.17	-50.95	-43.81	-45.82			
13-Nov-07	08:00:00	-28.75	-56	-53	-49.17		-43.80	-45.81	2.66	0	
13-Nov-07											
14-Nov-07										0	
14-Nov-07											
15-Nov-07										0	
15-Nov-07											
16-Nov-07										0.45	
16-Nov-07											
17-Nov-07										0	
17-Nov-07											
18-Nov-07										0	
18-Nov-07											
19-Nov-07										0	
19-Nov-07											
20-Nov-07										0	
20-Nov-07											

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
21-Nov-07										0	
21-Nov-07											
22-Nov-07										0	
22-Nov-07											
23-Nov-07										0	
23-Nov-07											
24-Nov-07										0	
24-Nov-07											
25-Nov-07										0.02	
25-Nov-07											
26-Nov-07										0.03	
26-Nov-07											
27-Nov-07											
27-Nov-07											
28-Nov-07											
28-Nov-07											
29-Nov-07											
29-Nov-07											
30-Nov-07											
30-Nov-07											0.5
1-Dec-07											
1-Dec-07											
2-Dec-07											
2-Dec-07											
3-Dec-07											
3-Dec-07											
4-Dec-07											
4-Dec-07											
5-Dec-07											
5-Dec-07											
6-Dec-07											
6-Dec-07											
7-Dec-07											
7-Dec-07											
8-Dec-07											
8-Dec-07											

									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
9-Dec-07											
9-Dec-07											
10-Dec-07											
10-Dec-07											
11-Dec-07											
11-Dec-07											
12-Dec-07											
12-Dec-07											
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25-Dec-07											
25-Dec-07											
26-Dec-07											
26-Dec-07											



									Weatherstation Rainfall Data		
Date	Time	Water Level (inches)							On-site Raingauge	Enfield Daily Rainfall	Enfield Monthly Rainfall
dd-mmm-yyyy	hh:mm:ss	MW3	MW4	MW6	REFAW1	REFAW2	REFAW3	REFAW4			
27-Dec-07											
27-Dec-07											
28-Dec-07											
28-Dec-07											
29-Dec-07											
29-Dec-07											
30-Dec-07											
30-Dec-07											
31-Dec-07											
31-Dec-07											

# **APPENDIX D**

## **2007 Site Photos**



SPA 1. Vegetation in channel creating stagnant flow throughout the Gregory Mitigation Site.  
STA 11+70 XS 1



SPA 2. Erosion occurring between the left bank and installed root wad. STA 17+75



SPA 3. Erosion on left bank STA 37+80



SPA 4. Erosion between left bank and installed root wad STA 42+00



SPA 5. Erosion between left bank and installed root wad. Root wad is in the middle of the channel.



Wildlife on right bank willow



Left bank root wad STA 74+40



Log weir at STA 74+00



Downstream at cross section 3



Downstream at STA 74+40



Upstream at cross section 11



Upstream at cross section 3





Downstream at cross section 8



Upstream at station 64+90

**Vegetation Plot Photos**



Vegetation Plot 1



Vegetation Plot 2



Vegetation Plot 3



Vegetation Plot 4



Vegetation Plot S1



Vegetation Plot S2



Vegetation Plot S3