

# **Shepherds Tree Stream and Wetland Restoration**

## **Project No. 333**

### **2008 Monitoring Report (Final): Year 4 of 5**



**March 2009**

Prepared for: NCDENR-EEP  
1652 Mail Service Center  
Raleigh, NC 27699-1652

Prepared by: Jordan, Jones, & Goulding  
9101 Southern Pine Blvd., Suite 160  
Charlotte, NC 28273

Design Firm: KCI Associates of North Carolina, PA  
Suite 200 Landmark Center I  
4601 Six Forks Rd  
Raleigh, NC 27609





---

## Table of Contents

### EXECUTIVE SUMMARY

### SECTION 1 – PROJECT BACKGROUND

1.1 Location and Setting .....	1-1
1.2 Mitigation Structure and Objectives .....	1-1
1.3 Project History and Background.....	1-3
1.4 Monitoring Plan View.....	1-4

### SECTION 2 – PROJECT CONDITION AND MONITORING RESULTS

2.1 Vegetation Assessment .....	2-1
2.1.1 Soil Data.....	2-1
2.1.2 Vegetation Current Condition.....	2-2
2.1.3 Vegetation Current Condition Plan View .....	2-2
2.1.4 Stem Counts .....	2-2
2.1.5 Vegetation Plot Photos.....	2-4
2.2. Stream Assessment .....	2-4
2.2.1 Stream Current Condition Plan View .....	2-4
2.2.2 Stream Current Condition Table .....	2-4
2.2.3 Numbered Issues Photo Section.....	2-4
2.2.4 Fixed Photo Station Photos.....	2-4
2.2.5 Hydrologic Criteria .....	2-5
2.3. Wetland Assessment .....	2-6
2.3.1 Wetland Current Condition Plan View .....	2-6
2.3.2 Wetland Criteria Attainment.....	2-7

### SECTION 3 – METHODOLOGY

3.1 Methodology .....	3-1
-----------------------	-----

### SECTION 4 – REFERENCES

### SECTION 5 – FIGURES

### SECTION 6 – APPENDICES

**List of Tables**

Table 1.1	Project Mitigation Structure and Objectives.....	1-2
Table 1.2	Project Activity and Reporting History .....	1-3
Table 1.3	Project Contacts .....	1-4
Table 1.4	Project Background.....	1-4
Table 2.1	Preliminary Soil Data.....	2-1
Table 2.2	Stem Counts for Planted Species Arranged by Plot.....	2-3
Table 2.3	Verification of Bankfull Events .....	2-6
Table 2.4	Wetland Criteria Attainment.....	2-8

**List of Figures**

Figure 1.1	Project Location and Watershed Map
Figure 1.2	Monitoring Plan View Map

**List of Appendices**

Appendix 1	Vegetation Raw Data
Appendix 2	Wetland Raw Data
Appendix 3	Current Condition Plan View (Integrated)



---

---

## **EXECUTIVE SUMMARY**

---

---

## Executive Summary

The Shepherds Tree Stream and Wetland Restoration Site is located in Iredell County and is a mitigation project for the North Carolina Department of Transportation (NCDOT). The main goal of the Shepherds Tree Stream and Wetland Restoration Project was to re-establish an integrated wetland-stream complex that likely existed on the site before its historic disturbance. This wetland-stream complex was proposed to restore ecosystem processes, structure, and composition to mitigate for wetland functions and values that have been lost as a result of human induced disturbances in the Yadkin River Basin. The proposed mitigation plan included stream, wetland, and riparian restoration components.

The project consisted of restoring approximately 10,704 linear feet of stream, 91 acres of forested wetland, and 5 acres of emergent wetland. The stream restoration component consisted of restoring approximately 9,904 linear feet of perennial stream and 800 linear feet of intermittent stream. A sinuous, stable pattern, with riffle-pool bed features was constructed. In-stream structures were installed to provide bank stabilization, habitat, and maintain grade control. Wetland restoration consisted of plugging and filling agricultural ditches and planting vegetation. Riparian areas were planted with native bare root seedlings and herbaceous cover to enhance the riparian areas, improve habitat, and stabilize streambanks.

Beaver have been plentiful and persistent in making use of the channel since construction. As per correspondence with North Carolina Ecosystem Enhancement Program (NCEEP), a wildlife control contractor was dispatched by NCEEP on 2 separate control efforts to remove the beaver and the associated dams so that the stream could be evaluated under a fluvial state as opposed to one of partial impoundment. Due to some remnant dam material left by the contractor and the return of beaver to the site, impoundment and backwater conditions returned again in 2007 and 2008, interrupting normal fluvial conditions for significant portions of the project extent. Coupled with the historic drought conditions, it was decided by NCEEP to suspend morphological measurement until another control effort and more thorough clearing of remnant dam material could take place. Time is necessary for this stream to function as a fluvial system under something more similar to a normal flow regime before re-assessing the streams stability. Given the rapid re-colonization and persistent utilization of the site by beaver, NCEEP is requiring monthly monitoring for beaver activity by its contractors for the entire stream channel until further notice.

The 2008 vegetation monitoring results indicated that the Shepherds Tree Site is meeting vegetative success criteria. JJG did not assess the vegetation plot 11 due to severe inundation conditions and beaver activity. The survival rate for the planted woody vegetation monitored for 2008 is approximately 94% which is down 5% from last year. There is an average of 26 live planted stems. The site density is approximately 456 planted stems per acre, which exceeds the year 4 goal of 290 planted stems per acre. A review of the natural recruits monitored indicates a current site density of approximately 772 stems per acre. There is an average of 44 recruitment stems per plot. Some loss of streambank vegetation has occurred in areas of beaver activity; however, the overall growth of the riparian buffer is good.

Morphological monitoring will likely resume in 2009, which will include re-survey of the streams cross-sections. One of the 7 permits that apply to this site calls for morphological measurement. This special condition refers to cross-section re-survey for 5 years. When morphological measurement resumes it will be limited to cross-section re-survey and a general stability assessment to comply with the scope of monitoring specified in the permit conditions.

Groundwater monitoring results from the 2008 monitoring year indicates that twelve of the seventeen groundwater gauges (1, 2, 3, 4, 6, 8, 11, 12, 13, 14, 15, and 16) achieved the wetland success criteria of saturation for 15 consecutive days (8%) during the growing season. Gauges 5, 7, 10, 17, and 18 did not meet the wetland success criteria. The lack of wetland hydrology at most of these gauges is likely attributable to the severe drought experienced during the 2007-2008 monitoring period. Total precipitation between January 1 and October 31, 2008 was 15.08 inches, which is approximately 30 inches below the average for the Statesville area (Weather Underground, 2008). Currently, the Statesville area is considered to be experiencing moderate drought conditions (North Carolina State Climate Office, 2008) and does appear to have fully recovered from the drought experienced in the 2007 monitoring year.

Overall, the Shepherds Tree Stream and Wetland Restoration Site is not meeting mitigation goals in all proposed areas. Although most of the site is meeting hydrological and vegetative criteria, some zones are exhibiting lower vegetation densities and some gauges are not meeting the hydrologic thresholds. The factors potentially contributing to this are described above. The site will be monitored again in 2009 and the impacts of more intensive beaver control efforts and the return to more average climatological conditions can then be observed. This report serves as the 4<sup>th</sup> year of the 5-year monitoring plan for the Shepherds Tree Stream and Wetland Restoration Site.



---

---

## **SECTION 1**

### **PROJECT BACKGROUND**

---

---

## **SECTION 1**

### **PROJECT BACKGROUND**

The background information provided in this report is referenced from the NCDOT mitigation plan (prepared by KCI) and the previous monitoring report prepared by Soil and Environmental Consultants.

#### **1.1 Location and Setting**

The Shepherds Tree Stream and Wetland Restoration Site is located in Iredell County, southeast of Statesville between Triplett Road (SR 2362) and Knox Farm Road (SR 2363) (Figure 1.1). The Shepherds Tree stream is a first order tributary of Third Creek, located within the Yadkin River watershed (HUC 03040102). The site drains approximately 1.06 square miles, occupying approximately 160 acres within the 2, 10, and 100 year floodplain of Third Creek.

To access the site from Interstate 77, take exit 49A, Route 70, heading east. Drive approximately 6.0 miles to Triplett Road and turn right. Drive approximately 1.5 miles, at which point, look for a gravel parking spot on the left just before Cornflower Road. The restoration project is located where Triplett Road crosses the stream.

#### **1.2 Mitigation Structure and Objectives**

The Shepherds Tree Stream and Wetland Site was developed as a NCDOT project. The restoration site is located within the Outer Piedmont region of the Yadkin River Basin (HUC 03040102). Historically, the site was utilized for agricultural activities and improvement projects through the Civilian Conservation Corps, resulting in the re-alignment, ditching and berming of Third Creek. Adjacent floodplains and streams were also cleared, drained, and ditched. These activities are thought to have inhibited stream and wetland function within the site, resulting in a degraded riparian community.

The goal of the Shepherds Tree Mitigation Project was to re-establish a wetland-stream system to restore ecosystem processes, structure, and composition to mitigate for wetland functions and values that have been lost as a result of human induced disturbances in the Yadkin River Basin. The project consisted of restoring approximately 10,704 linear feet of stream, 91 acres of forested wetland, and 5 acres of emergent wetland (Table 1.1).

The stream restoration component consisted of restoring approximately 9,904 linear feet of perennial stream and 800 linear feet of intermittent stream. The majority of the stream construction consisted of relocating the stream channel and constructing an E channel at the elevation of the historic floodplain (Priority 1).

A sinuous, stable pattern, with riffle-pool bed features was constructed. The reach was enhanced using vegetation and bank stabilization structures, such as single arm vanes, cross vanes, J-hooks, and root wads to maintain grade control. Wetland restoration consisted of plugging and filling agricultural ditches and planting vegetation. The riparian area for the unnamed tributary of Third Creek was planted with native bare root seedlings and herbaceous cover to enhance the riparian areas and stabilize streambanks.

**Table 1.1**  
**Project Mitigation Structure and Objectives**  
**Shepherds Tree/Project No. 333**

Segment/Reach	Mitigation Type	Approach	Linear Footage or Acres	Stationing (ft)	Comments
Perennial Mainstem Reach	R	P1	9,904 lf	0+00-99+04	Channel restoration, relocation with use of grade control and bank protection structures.
Intermittent Tributary	R	P1	800 lf	0+00-8+00	Channel restoration, relocation with use of grade control and bank protection structures.
Piedmont/Mountain Bottomland Hardwood Forest	R	-	48.56 acres	N/A	Restoration/Enhancement of bottomland hardwood communities by breaching channel berms, plugging drainage ditches and revegetation
	C	-	37.71 acres		
Piedmont/Mountain Swamp Hardwood Forest	R	-	5 acres	N/A	Restoration/Enhancement of swamp hardwood communities by breaching channel berms, plugging drainage ditches and revegetation
Low Elevation Seep	P	-	4.54 acres	N/A	Preservation of an existing levee forest
Phase III	R	P1	284 lf	N/A	Channel Relocation
<b>Component Summations</b>					
Restoration Level	Stream (lf)	<b>Wetland (ac)</b>		Upland (ac)	Buffer (ac)
		Riparian	Non-Riparian		BMP
Restoration (R)	10,988	53.56	N/A	N/A	N/A
Enhancement (E)	N/A	N/A	N/A	N/A	N/A
Enhancement I (E)	N/A	N/A	N/A	N/A	N/A
Enhancement II (E)	N/A	N/A	N/A	N/A	N/A
Creation (C)	N/A	37.71	N/A	N/A	N/A
Preservation (P)	N/A	4.54	N/A	N/A	N/A
HQ Preservation (P)	N/A	N/A	N/A	N/A	N/A
<b>Totals</b>	<b>10,988</b>	<b>95.61</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

## 1.3 Project History and Background

The stream and wetland enhancement/restoration was designed by KCI Associates of North Carolina, PA. Construction activities were completed in 2004. Monitoring has been conducted annually from 2005 to present. Beaver have been plentiful and persistent in making use of the channel since construction. As per correspondence with North Carolina Ecosystem Enhancement Program (NCEEP), a wildlife control contractor was dispatched by NCEEP on 2 separate control efforts to remove the beaver and the associated dams so that the stream could be evaluated under a fluvial state as opposed to one of partial impoundment. Due to some remnant dam material left by the contractor and the return of beaver to the site, impoundment and backwater conditions returned again in 2007 and 2008, interrupting normal fluvial conditions for significant portions of the project extent. Coupled with the historic drought conditions, it was decided by NCEEP to suspend morphological measurement until another control effort and more thorough clearing of remnant dam material could take place. Time is necessary for this stream to function as a fluvial system under something more similar to a normal flow regime before re-assessing the streams stability. Given the rapid re-colonization and persistent utilization of the site by beaver, NCEEP is requiring monthly monitoring for beaver activity by its contractors for the entire stream channel until further notice. As a result, morphological measurement of the cross-sections and longitudinal profile were not preformed in 2005, 2007, and 2008.

This report serves as year 4 of the 5 year monitoring plan for Shepherds Tree Stream and Wetland Restoration Site. Tables 1.2 and 1.3 provide detailed project activity, history and contact information for this project. Table 1.4 provides more in-depth watershed/site background for the project.

**Table 1.2  
Project Activity and Reporting History  
Shepherds Tree/Project No. 333**

Activity or Report	Data Collection Completed	Actual Completion or Delivery
Restoration Plan	N/A	June 2001
Final Design-90%	N/A	N/A
Construction	N/A	2004
Temporary S&E mix applied to entire project area*	Fall 2001	Fall 2001
Permanent seed mix applied to reach	Spring 2002	Spring 2002
Mitigation Plan/ As-Built (Year 0 Monitoring)	June 2001	June 2001
Year 1 Monitoring	December 2005	February 2006
Year 2 Monitoring	September 2006	January 2007
Year 3 Monitoring	October 2007	November 2007
Year 4 Monitoring	June 2008/October 2008	December 2008
Year 5 Monitoring	TBD	TBD

\*Seed and mulch is added as each section of construction is completed.

**Table 1.3**  
**Project Contacts**  
**Shepherds Tree/Project No. 333**

<b>Designer</b>	KCI Associates of North Carolina, PA Suite 200 Landmark Center I 4601 Six Forks Rd Raleigh, NC 27609
<b>Contractor's Name (Phase I)</b>	NCDOT Highway Maintenance
<b>Contractor's Name (Phase II)</b>	Northstate Environmental
<b>Contractor's Name (Phase III)</b>	NCDOT Bridge and Highway Maintenance
<b>Planting Contractor</b>	Unknown
<b>Seeding Contractor</b>	Unknown
<b>Monitoring Performers</b>	Jordan, Jones, & Goulding 9101 Southern Pine Blvd., Suite 160 Charlotte, NC 28273
<b>Stream Monitoring, POC</b>	Kirsten Young, 704-527-4106 ext.246
<b>Vegetation Monitoring, POC</b>	

**Table 1.4**  
**Project Background**  
**Shepherds Tree/Project No. 333**

Project County	Iredell, North Carolina
Drainage Area	2.17 sq mi
Drainage impervious cover estimate	~10%
Stream Order	First
Physiographic Region	Piedmont
Ecoregion	Outer Piedmont
Rosgen Classification of As-built	E5
Cowardin Classification	R2UB34
Dominant soil types	Chewalca, Conagree
USGS HUC for Project and Reference	03040102
NCDWQ Sub-basin for Project and Reference	030706
NCDWQ classification for Project and Reference	C
Any portion of any project segment 303d list?	No
Any portion of any project segment upstream of a 303d listed segment?	No
Reason for 303d listing or stressor?	N/A
% of NCDOT property boundary fenced?	100%

## 1.4 Monitoring Plan View

The monitoring plan view map (Figure 1.2) illustrates the location of the longitudinal profile stations, cross-section stations, vegetation plots, and photo points. A total of sixteen cross-sections and approximately 3,300 linear feet of longitudinal profile were established within the stream and wetland restoration project. A total of ten previously established vegetation plots and four additional vegetation plots were monitored by JJG in 2007 and 2008. Seventeen groundwater monitoring gauges and four surface water gauges were previously installed by NCDOT and downloaded on a monthly basis. Stream morphological assessments were not conducted in the 2008 monitoring year per NCEEP request.



---

---

## **SECTION 2**

### **PROJECT CONDITION AND MONITORING RESULTS**

---

---

## SECTION 2

### PROJECT CONDITION AND MONITORING RESULTS

The following monitoring results are from the 2008 (year 4 of 5) survey.

#### 2.1 Vegetation Assessment

Approximately 91 acres were planted with various native hardwood tree and shrub species for the Shepherds Tree Stream and Wetland Restoration Project. Previous monitoring reports indicated that ten 50 ft by 50 ft monitoring plots were established by NCDOT for this project. During the 2006, 2007, and 2008 monitoring conducted by JJG, fourteen vegetative plots were identified and monitored, which is different than the ten originally reported to have been established. For the first three years of monitoring, the site must meet a success criterion of 320 live stems per acre. The site density must be 290 stems per acre at the end of year 4 and 260 stems per acre at the end of year 5. For the initial assessment (MY-2006), JJG counted the previously mentioned stems from the 2005 monitoring report as the planted stems. For those species that were not previously mentioned, JJG counted them as natural volunteers. When calculating stem density, natural volunteers increases the overall number greatly; therefore, raises the calculated stem density.

##### 2.1.1 Soil Data

The Shepherds Tree Stream and Wetland Restoration Project is situated in the Outer Piedmont of the North Carolina Piedmont Physiographic Region. The soil types mapped within the riparian area adjacent to the project resemble those found in alluvial landforms of this physiographic region. The two dominating soil mapping units that are located within the project are Chewacla (Cw) and Congaree (Cy) soils. These soils are fine loamy alluvial materials that are somewhat poorly drained. Both soils are listed on the *Hydric Soils of North Carolina* for Iredell County. Please refer to Table 2.1 for preliminary soil data for the project area.

**Table 2.1**  
**Preliminary Soil Data**  
**Shepherds Tree/Project No. 333**

Soil Series	Max Depth (inches)	% Clay on Surface	K Factor	T Factor	OM %
Chewacla (Cw)	60	10-35	0.28	5	1.0-4.0
Congaree (Cy)	70	10-25	0.37	5	1.0-4.0

### **2.1.2 Vegetative Current Condition**

During the vegetative survey conducted in June 2008, it was noted that vegetative zones appear to be developing well with the exception of areas impacted by beaver activity. There are indicators of surficial wetland hydrology within the floodplain and along the previous channel location. Some of the observed floodplain hydrology is due to the beaver impoundments. As a result, isolated portions of the floodplain and riparian areas are inundated for extended periods. Floodplain and riparian areas located on the north side of the restored channel between station 4+00 and the confluence of the tributary and main channel (approximate stationing at 77+75) are typically more inundated than areas along the south side of the restored channel; however gauge data suggests that within isolated areas the south side soils appear to be saturated within the upper 12 inches isolated areas.

Within the vegetation plots, the combined number of recruitment specimens and surviving saplings exceeds the survival count from the previous year's monitoring. Recruitment species include sweet gum (*Liquidambar styraciflua*), boxelder (*Acer negundo*), red maple (*Acer rubrum*), cottonwood (*Populus deltoides*), winged elm (*Ulmus alata*), and American sycamore (*Platanus occidentalis*). Woody species such as black willow (*Salix nigra*) and tag alder (*Alnus serrulata*) planted along the streambank are doing well providing both stream cover and streambank stability. However, in areas of excessive beaver activity, some of these specimens have been removed or perished due to extended periods of inundation. The following problems should continue to be monitored. Please refer to Appendix 1.1 and 1.2 for more details on vegetative current condition areas and photos.

### **2.1.3 Vegetative Current Condition Plan View**

Please refer to Appendix 3 for location of vegetative current condition areas onsite and Appendix 1.2 for representative vegetation current condition photos.

### **2.1.4 Stem Counts**

JJG conducted the 2008 (year 4 of 5) vegetative assessment and vegetative plot analysis in June 2008. Fourteen 50 ft by 50 ft vegetative plots were assessed for the 2008 monitoring year. Vegetation assessments were conducted following the NCDOT Stem Counting Protocol which consists of counting woody stems within the established vegetation plots. According to the 2005 monitoring report, ten plots were previously established and monitored by NCDOT. During the 2006 monitoring year, JJG identified four additional plots to monitor for vegetative success.

The 2005 monitoring report states that the following tree and shrub species were planted in the wetland restoration areas: black willow, green ash (*Fraxinus pennsylvanica*), tulip poplar (*Liriodendron tulipifera*), American sycamore, water oak (*Quercus nigra*), box-elder, swamp chestnut oak (*Quercus michauxii*), cherrybark oak (*Quercus pagoda*), willow oak (*Quercus phellos*), and buttonbush (*Cephalanthus occidentalis*). Please refer to Tables 2.2 and 2.3 for the vegetation monitoring results. Please refer to Appendix 1.1 for the summary data tables of the plots monitored.

**Table 2.2**  
**Stem Counts for Planted Species Arranged by Plot**  
**Shepherds Tree/Project No. 333**

Planted Species	Monitoring Plots														N/A	Totals	
	1	2	3	4	5	6	7	8	9	10	11*	12	13	14			
Black willow ( <i>Salix nigra</i> )					1	10	1					2	4			18	
Green ash ( <i>Fraxinus pennsylvanica</i> )	2		4	15	3		4		10	7		11		5		61	
Tulip poplar ( <i>Liriodendron tulipifera</i> )	1		1	12												14	
American sycamore ( <i>Platanus occidentalis</i> )			9			2	1	10	6			17	15	20		80	
Water oak ( <i>Quercus nigra</i> )	1			2		2	3							3		11	
Box-elder ( <i>Acer negundo</i> )			1				2		2			10	8			23	
Swamp chestnut oak ( <i>Quercus michauxii</i> )		2	4	1		2						15		4		32	
Cherrybark oak ( <i>Quercus pagoda</i> )	12		3	2	4	8	3	3	4			4	10	6		59	
Willow oak ( <i>Quercus phellos</i> )	2	3				8	1			2			7	7		30	
Buttonbush ( <i>Cephalanthus occidentalis</i> )	4	2	1	1	3		1	1							2	15	
<b>Total Planted Live Stems (2008)</b>	<b>22</b>	<b>7</b>	<b>23</b>	<b>33</b>	<b>10</b>	<b>23</b>	<b>25</b>	<b>15</b>	<b>26</b>	<b>9</b>	N/A	<b>57</b>	<b>42</b>	<b>51</b>		<b>343</b>	
<b>Average # of Stems (2008)</b>								26									
<b>Stem Density (2008)</b>								456									
<b>Percent Survival (2008)</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>75%</b>	N/A	<b>98%</b>	<b>57%</b>	<b>98%</b>		<b>Avg=94%</b>	
<b>Volunteer Species</b>																	<b>Totals</b>
Black willow ( <i>Salix nigra</i> )		15	4	7	3	3		7	8				5				52
Green ash ( <i>Fraxinus pennsylvanica</i> )	6	6	10	8	3	2		10	5	13			4				67
Tulip poplar ( <i>Liriodendron tulipifera</i> )	1	1		3												5	
American sycamore ( <i>Platanus occidentalis</i> )		9	4	1		10	50	1	15	5			3	1		99	
Water oak ( <i>Quercus nigra</i> )	4		3			4	3			2			4			20	
Box-elder ( <i>Acer negundo</i> )			2		2	10	10			15						39	
Swamp chestnut oak ( <i>Quercus michauxii</i> )	3	8	2	5			4			2			4			28	
Cherrybark oak ( <i>Quercus pagoda</i> )	3			5			4	2		3						17	
Willow oak ( <i>Quercus phellos</i> )	8	4				2	6			3						23	
Buttonbush ( <i>Cephalanthus occidentalis</i> )					5					1						6	
Black gum ( <i>Nyssa sylvatica</i> )	3		3				9					1				16	
River birch ( <i>Betula nigra</i> )		16					1	7	2			4		2		32	
Tag alder ( <i>Alnus serrulata</i> )			5				1					10	1			17	
Winged elm ( <i>Ulmus alata</i> )							1	2				1				4	
Sweet gum ( <i>Liquidambar styraciflua</i> )						3				6		2				11	
Red maple ( <i>Acer rubrum</i> )	13	30	10	20	11	20	15		6			5	4			134	
Silky dogwood ( <i>Cornus amomum</i> )							1					2				3	
Unknown species																0	
Cottonwood ( <i>Populus deltoides</i> )									1							1	
<b>Totals</b>	<b>41</b>	<b>89</b>	<b>43</b>	<b>49</b>	<b>24</b>	<b>54</b>	<b>105</b>	<b>29</b>	<b>37</b>	<b>50</b>	N/A	<b>7</b>	<b>30</b>	<b>16</b>		<b>574</b>	

\*Plot 11 was not monitored due to beaver activity and severe inundation conditions.

The current condition of the vegetation developed and the loss of flagging tape on some trees made it difficult to identify which stems were planted and which stems were natural recruitment. Therefore, for this year's survey, the largest trees were recorded as the planted specimens and the smaller stems were recorded as natural recruitment. JJG did not assess the vegetation plot 11 due to severe inundation conditions and beaver activity. The survival rate for the planted woody vegetation monitored for 2008 is approximately 94%, which is down 5% from last year. There is an average of 26 live planted stems. The site density is approximately 456 planted stems per acre, which exceeds the year 4 goal of 290 planted stems per acre. A review of the natural recruits monitored indicates a current site density of approximately 772 stems per acre. There is an average of 44 recruitment stems per plot. Some loss of streambank vegetation has occurred in areas of beaver activity; however, the overall growth of the riparian buffer is good.

In conclusion, the stream and riparian restoration project has exceeded the success requirements for year 4 goal of 290 stems per acre. Although some loss of streambank vegetation has occurred in areas of beaver activity, the overall growth of the riparian buffer is good.

## **2.1.5 Vegetation Plot Photos**

Please refer to Appendix 1.3 for photographs of the monitoring plots.

## **2.2 Stream Assessment**

### **2.2.1 Stream Current Condition Plan View**

Please refer to Appendix 3 for location of stream current condition on-site.

### **2.2.2 Stream Current Condition Table**

Please refer to Appendix 1.1 for the stream current condition table.

### **2.2.3 Numbered Issues Photo Section**

Please refer to Appendix 1.2 for representative stream current condition photos.

### **2.2.4 Stability Assessment**

Stream dimension, pattern, profile, and substrate were not evaluated in the 2008 monitoring year per NCEEP request. The restored stream reach was visually assessed from the upstream point of the project (approximately 285 lf upstream of Triplett Road) to the confluence with Third Creek. Overall, the restored channel has been impacted from beaver activity, resulting in inundated or backwater conditions within certain areas of the channel. The following general observations were noted:

- Areas within the site still appear to have back water conditions due to relict beaver dams that have not been completely removed and from new beaver dams that have recently been built. Inundation levels vary throughout the restoration reach.

- Moderate to severe bank erosion is occurring throughout the stream reach, primarily in areas where beavers previously impacted the hydrology. Animal holes ranging in sizes from 1 to 3 feet in diameter start from the top of bank and continue through the bank, ending at water's edge. Also, animal slides down the side of the bank exist throughout the entire site.
- Lack of vegetation along the banks is common, and vegetative cover is very inconsistent throughout the stream reach. Approximately, from station 29+40 to 36+75, the stream banks have little to no vegetation, but the coir matting is still intact with the bank. Further downstream, bare banks are evident with some new vegetation growth.
- Beaver chews were observed from stationing 29+40 through 42+12. Typically, chews were observed on bare banks with little to no vegetation.
- Along some areas, one or both banks have collapsed forming a bench within the channel. These areas appear relatively stable, but the channel dimensions have likely changed from the designed cross-section.
- There were several areas of very slow flow resulting in emergent wetland vegetation such as broad-leaved cattail (*Typha latifolia*) and soft rush (*juncus effuses*) forming within the channel and in areas of bank slumping. Primarily, this in-stream vegetation growth is occurring between stationing 9+00 to 46+00.
- There are ten areas with old and new beaver dams located along the restored channel; stationing 2+50, 29+00, 35+50, 45+50, 46+01, 79+00, 80+01, 84+01, 82+00, and 84+40. Most dams are resulting in channel inundation at or above top of bank upstream of the dams.
- Aggradation is occurring throughout the reaches where there is in-stream vegetation or previous inundations as a result from beaver activity. Pools and riffles are filling in and several structures are either buried or flooded. This could be due to previous beaver activity; inundated areas most likely experienced heavy sediment deposition due to reduced flow velocities.
- Bank scour around rootwad, cross-vane, and j-hook structures is occurring, creating stressed conditions. Rootwad structures are typically failing (stationing 40+00, 47+50, 63+75, and 70+50) due to scouring. One j-hook and one cross-vane structure have failed, respectively at stationing 65+50 and 67+50, mainly due to scour around the arms.
- At approximate stationing 86+00, the rock rip-rap is failing, exposing raw bank.

## 2.2.5 Hydrologic Criteria

Four surface gauges are located within the Shepherds Tree project site. Table 2.6 below, verifies that one bankfull or greater event occurred within the Shepherds Tree restoration project in monitoring year 2008. Not all of the surface gauges recorded bankfull events. This is most likely due to beaver activity within the project site.

**Table 2.3**  
**Verification of Bankfull Events**  
**Shepherds Tree/Project No. 333**

Date of Collection	Date of Occurrence	Method	Photo # (if available)
6/2005	Unknown	Surface Gauge 1 and 3	N/A
8/2005	Unknown	Surface Gauge 1 and 3	N/A
10/2005	Unknown	Surface Gauge 1	N/A
12/2005	Unknown	Surface Gauge 1	N/A
11/2006	Unknown	Surface Gauge 3	N/A
12/2006	Unknown	Surface Gauge 3	N/A
1/2007	Unknown	Surface Gauge 3	N/A
3/2007	Unknown	Surface Gauge 3	N/A
8/2008	Unknown	Surface Gauge 3	N/A
9/2008	Unknown	Surface Gauge 3	N/A

## 2.3 Wetland Assessment

Seventeen groundwater monitoring gauges, one rain gauge, and four surface water gauges are located on site. The monitoring gauges are programmed to download water levels daily and were downloaded monthly from January to October in order to capture hydrologic data during the 2008 growing season. The target wetland hydrology success criterion is saturation or inundation for at least 8 percent (15 days) of the growing season in the lower landscape (floodplain) locations. To achieve the above hydrologic success criterion, ground water levels need to be within 12-inches of the ground surface for 15 consecutive days of the April 14 to October 24 growing season for Iredell County, North Carolina.

### 2.3.1 Wetland Current Condition Plan View

Results from the 2008 hydrology monitoring indicate the wetland restorations status is fair and is not meeting the wetland success criteria at all groundwater gauges. Five of the seventeen gauges (5, 7, 10, 17, and 18) did not meet the wetland success criteria. The lack of wetland hydrology at most of these gauges is most likely attributable to the severe drought experienced during the 2007-2008 monitoring period. In addition to the abnormal hydrological conditions listed above, topographic constraints may also be contributing to the lack of wetland hydrological success at gauges 5 and 7. Beaver impoundments have also created backwater areas, creating higher water levels within the floodplain and riparian areas. As a result, gauges located near the beaver impoundments are recording higher groundwater elevations (typically above surface elevation).

Between 2006 and 2008, beaver control efforts were undertaken by wildlife control contractors on several occasions to remove beaver and associated dams so that the stream could be evaluated under a fluvial state as opposed to one of partial impoundment. Due to a combination of remnant dam material being left by the contractor on some occasions and the apparent plentiful and persistent population in the area, complete removal has been difficult and impoundment of some sections of the project has persisted. In fall 2008 the site has been put on a monthly schedule for control and removal in an attempt to return normal flow conditions.

All gauges successfully downloaded throughout the growing season with the exception of surface gauge 2, groundwater gauge 12, and the rain gauge. Surface gauge 2 was inaccessible

throughout the later part of the 2008 monitoring year due to high backwater conditions. Gauge 12 failed in early October, but was replaced in November during our final site visit. However, due to malfunction after our October site visit, no data was recorded following October 7, 2008. The rain gauge had ants continually nested within the gauge throughout the summer and into the fall season. As a result, the gauge was clogging and data was not recorded. In October, maintenance was performed and the NCEEP wetland specialist was notified. Off-site daily precipitation was obtained from Weather Underground for the Statesville, NC weather station (the nearest offering daily precipitation data) in lieu of the months that the on-site rain gauge data was unavailable.

### **2.3.2 Wetland Criteria Attainment**

Groundwater monitoring in 2008 indicates that twelve of the seventeen groundwater gauges (1, 2, 3, 4, 6, 8, 11, 12, 13, 14, 15, and 16) achieved the wetland success criteria of saturation for 15 consecutive days (8%) during the growing season. Gauges 5, 7, 10, 17, and 18 did not meet the wetland success criteria. The lack of wetland hydrology at most of these gauges is likely attributable to the severe drought experienced during the 2007-2008 monitoring period. Total precipitation between January 1 and October 31, 2008, was 15.08 inches, which is approximately 30 inches below the average for the Statesville area (Weather Underground, 2008). Currently, the Statesville area is considered to be experiencing moderate drought conditions (North Carolina State Climate Office, 2008) and does not appear to have fully recovered from the drought experienced in the 2007 monitoring year.

In addition to the abnormal hydrological conditions listed above, topographic constraints may also be contributing to the lack of wetland hydrological success at gauges 5 and 7. Each of these gauges appears to be situated within areas of higher elevation (relative to the other gauge locations) and topographic divide between Third Creek and the restored tributary; thus potentially receiving insufficient groundwater flows adequate to support wetland hydrology at these locations. Please refer to Appendix 2 for wetland raw data tables and plots and Table 2.4 for a summary of wetland criteria attainment.

**Table 2.4**  
**Wetland Criteria Attainment**  
**Shepherds Tree Stream and Wetland Restoration/Project No: 333**

Gauge ID	Hydrology Threshold Met (Y/N)	Hydrology Met During Growing Season (%)	Vegetation Plot ID	Vegetation Survival Threshold Met (Y/N)
Gauge 1	Y	25	Plot 1	Y
Gauge 2	Y	100	Plot 2	N
Gauge 3	Y	29	Plot 3	Y
Gauge 4	Y	37	Plot 4	Y
Gauge 5	N	0	Plot 5	Y
Gauge 6	Y	83	Plot 6	Y
Gauge 7	N	12	Plot 7	Y
Gauge 8	Y	66	Plot 8	Y
Gauge 10	N	8	Plot 9	Y
Gauge 11	Y	100	Plot 10	N
Gauge 12	Y	85	Plot 11	Y
Gauge 13	Y	90	Plot 12	Y
Gauge 14	Y	89	Plot 13	Y
Gauge 15	Y	87	Plot 14	Y
Gauge 16	Y	86		
Gauge 17	N	8		
Gauge 18	N	16		



---

---

## **SECTION 3**

### **METHODOLOGY**

---

---

## **SECTION 3**

### **METHODOLOGY**

#### **3.1 Methodology**

Methods employed for the Shepherds Tree Stream and Wetland Restoration Project were a combination of those established by standard regulatory guidance and procedures documents (see below), the Shepherds Tree Mitigation Plan (state project no. 6.769001t) submitted by the NCDOT (prepared by KCI) and the Soil and Environmental Consultants monitoring reports. Vegetation assessments were conducted following the NCDOT protocol which consists of counting woody stems within the established vegetation plots. JJG used the *Flora of the Carolinas, Virginia, Georgia, and surrounding areas* by Alan S. Weakley as the taxonomic standard for vegetation nomenclature for this report. Precipitation data for the hydrographs was obtained from both on-site and off-site resources. Off-site daily precipitation was obtained from Weather Underground for the Statesville, NC weather station (the nearest offering daily precipitation data) through the following URL.

[http://www.wunderground.com/history/airport/KSVH/2008/1/1/CustomHistory.html?dayend=31&monthend=10&yearend=2008&req\\_city=NA&req\\_state=NA&req\\_statename=NA&MR=1](http://www.wunderground.com/history/airport/KSVH/2008/1/1/CustomHistory.html?dayend=31&monthend=10&yearend=2008&req_city=NA&req_state=NA&req_statename=NA&MR=1)



---

---

## **SECTION 4**

### **REFERENCES**

---

---

## **SECTION 4**

### **REFERENCES**

Martin, W. and Nunnally, N. 2001. *Air and Water: An Introduction to the Atmosphere and the Hydrosphere*. Kendall/Hunt Publishing Company, Dubuque, Iowa.

NCDOT. 2001. Shepherds Tree Mitigation Plan (state project no. 6.769001t). Raleigh, NC.

Radford, A.E., H.A. Ahles, and C.R. Bell. 1964. *Manual of the vascular flora of the Carolinas*. University of North Carolina Chapel Hill.

Rosgen, D L. (1996) *Applied River Morphology*. Wildland Hydrology Books, Pagosa Springs, CO.

Soil and Environmental Consultants, PA. 2006. Shepherds Tree Stream and Wetland Restoration 2005 Annual Monitoring Report (Year 1). Raleigh, NC.

State Climate Office of North Carolina (SCONC). 2007. Data retrieval from Statesville for 1948-01-01 through 2007-01-01. NC CRONOS Database, Raleigh, North Carolina.

USACOE (2003) *Stream Mitigation Guidelines*. USACOE, USEPA, NCWRC, NCDENR-DWQ

USACOE (1987) *Corps of Engineers Wetlands Delineation Manual*. Tech report Y-87-1. AD/A176

Weakley, A.S. 2008. *Flora of the Carolinas, Virginia, Georgia, Northern Florida, and Surrounding Areas* (Draft April 2008). University of North Carolina at Chapel Hill: Chapel Hill, NC.



---

---

**SECTION 5**

**FIGURES**

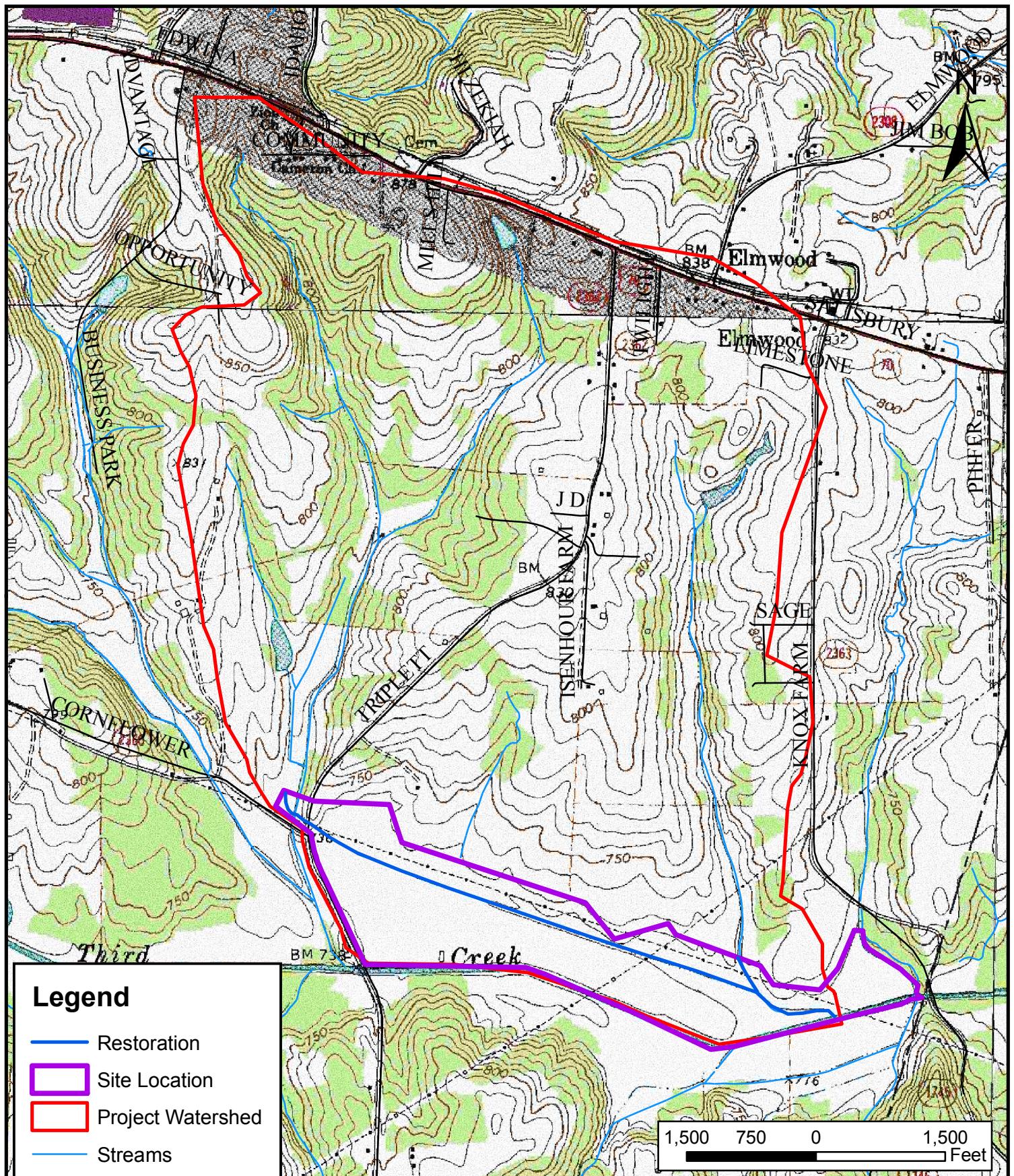
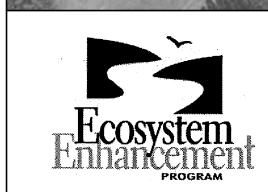


Figure 1.1 Project Location and Watershed Map  
Shepherds Tree Stream and Wetland Restoration  
Iredell County, NC  
Year 4 of 5

Project No. 333  
February 2009



**NOTES:**

1. GENERAL SITE DATA PROVIDED BY NCEEP.
2. ALL LOCATIONS ARE APPROXIMATE.

PROJECT NO. 333  
IREDELL COUNTY  
NORTH CAROLINA  
MONITORING  
YEAR 4 OF 5

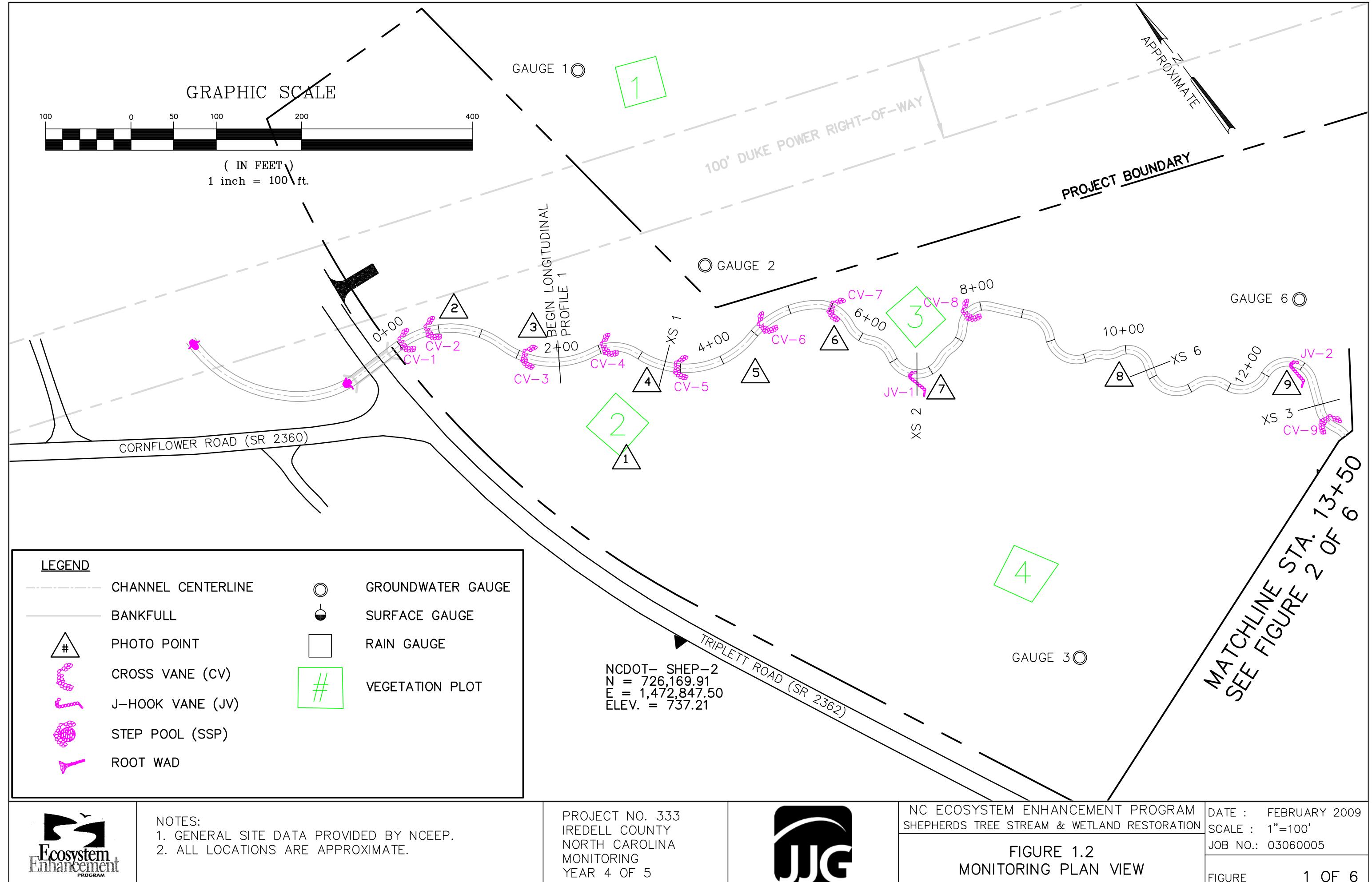


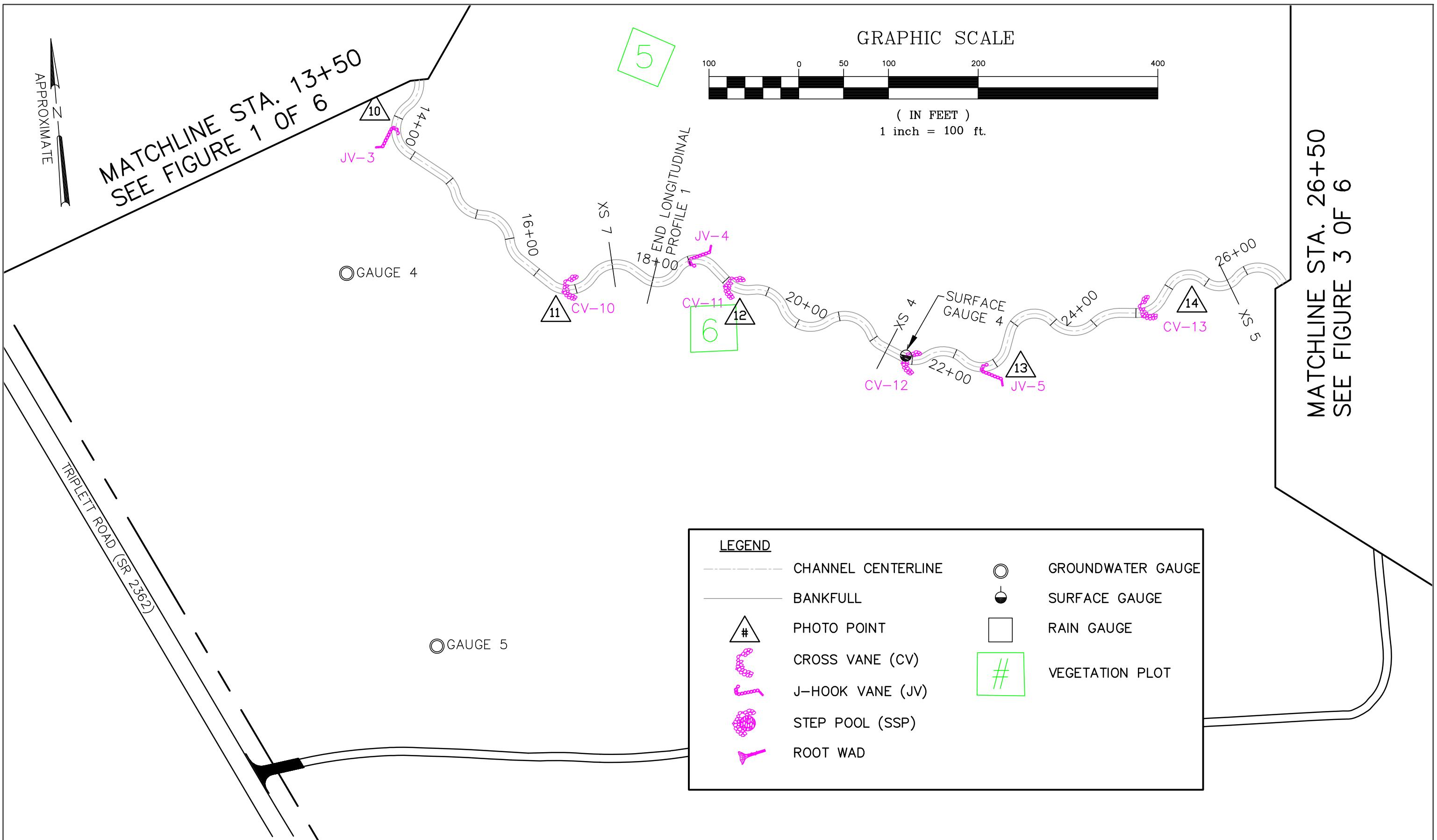
NC ECOSYSTEM ENHANCEMENT PROGRAM  
SHEPHERD'S TREE STREAM & WETLAND RESTORATION

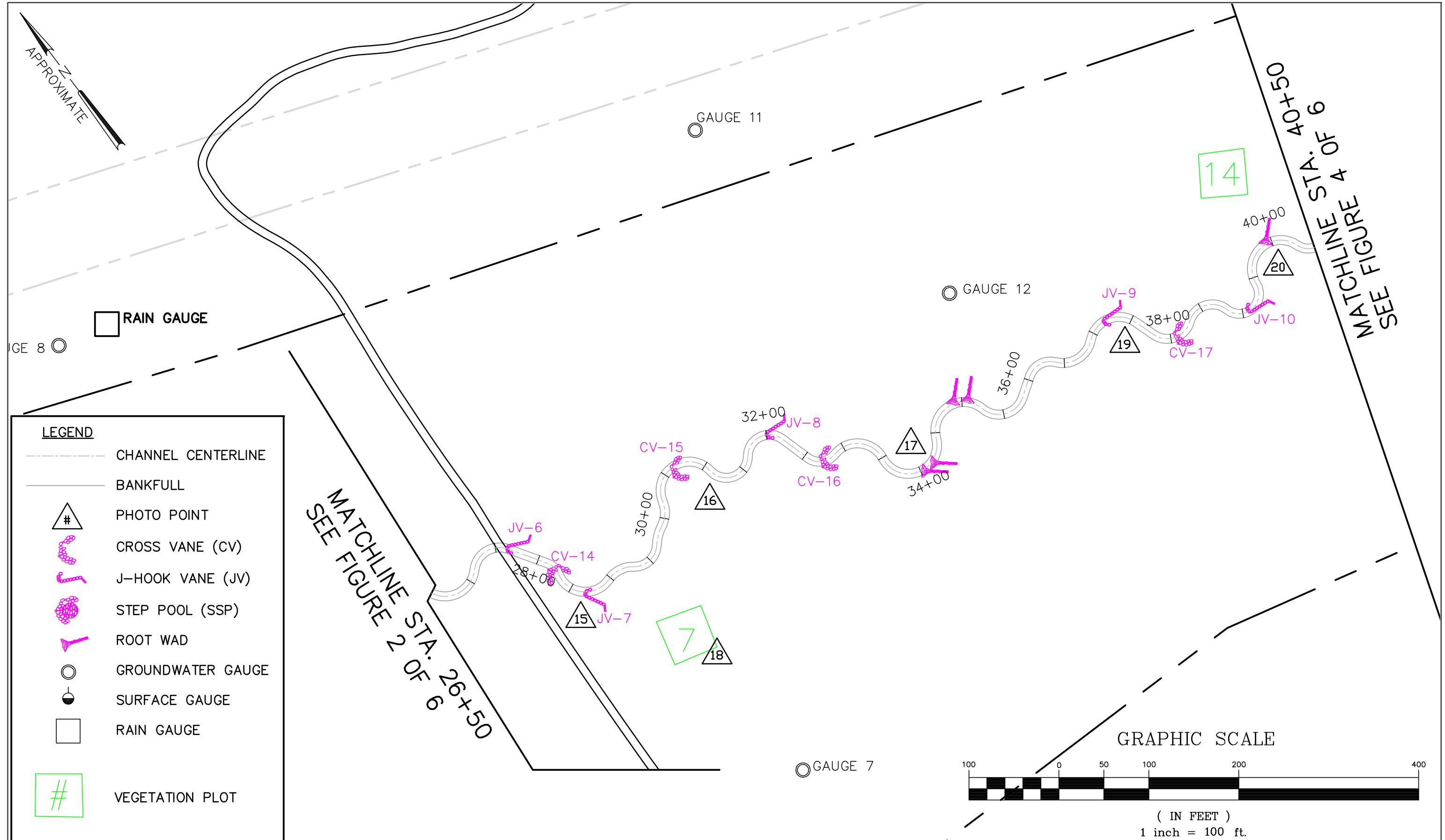
FIGURE 1.2  
MONITORING PLAN VIEW

DATE : FEBRUARY 2009  
SCALE : 1"=600'  
JOB NO.: 03060005

FIGURE  
KEY







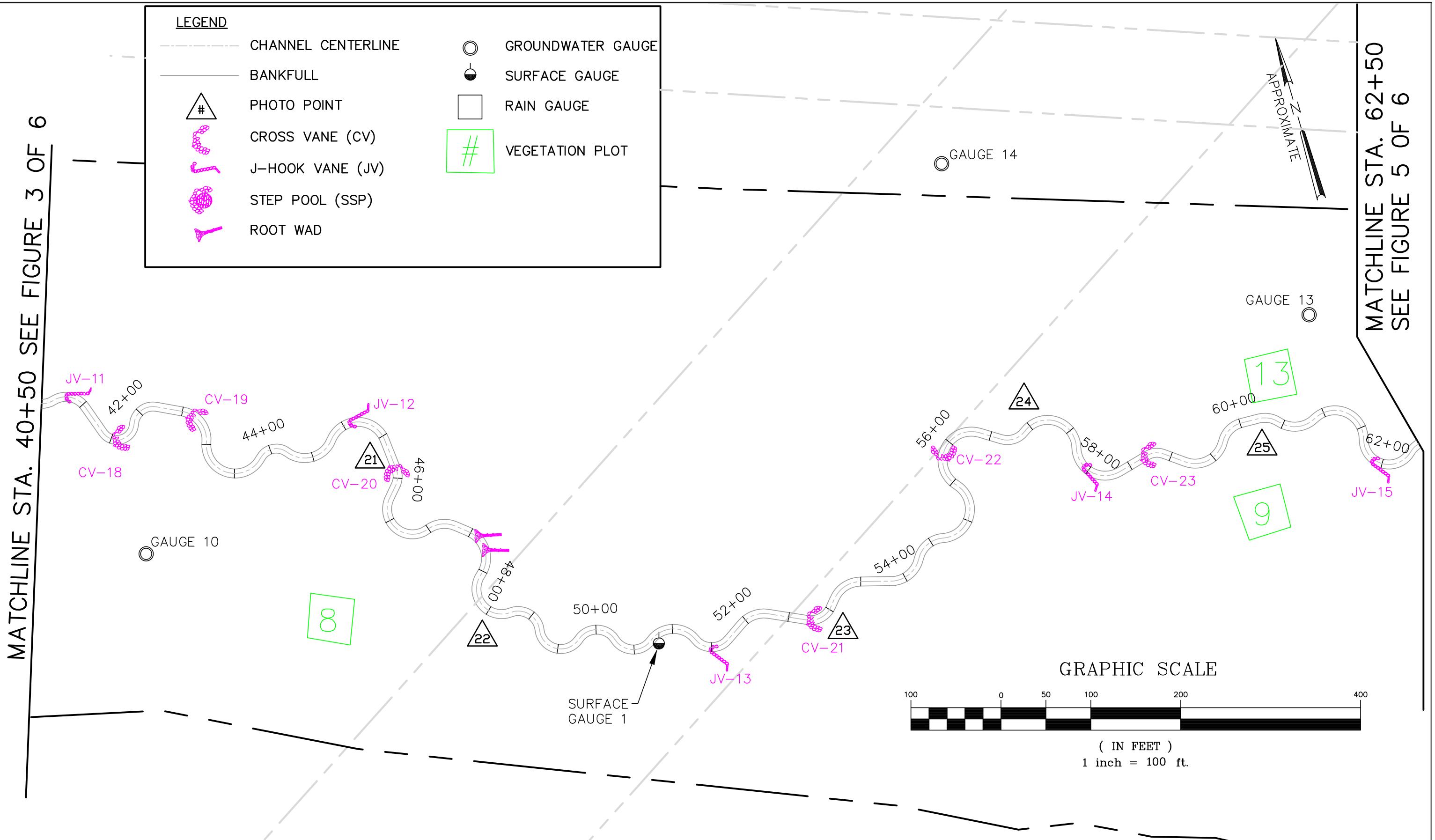
NOTES:  
1. GENERAL SITE DATA PROVIDED BY NCEEP.  
2. ALL LOCATIONS ARE APPROXIMATE.

PROJECT NO. 333  
IREDELL COUNTY  
NORTH CAROLINA  
MONITORING  
YEAR 4 OF 5



NC ECOSYSTEM ENHANCEMENT PROGRAM  
SHEPHERDS TREE STREAM & WETLAND RESTORATION  
FIGURE 1.2  
MONITORING PLAN VIEW

DATE : FEBRUARY 2009  
SCALE : 1"=100'  
JOB NO.: 03060005  
FIGURE 3 OF 6



NOTES:  
1. GENERAL SITE DATA PROVIDED BY NCEEP.  
2. ALL LOCATIONS ARE APPROXIMATE.

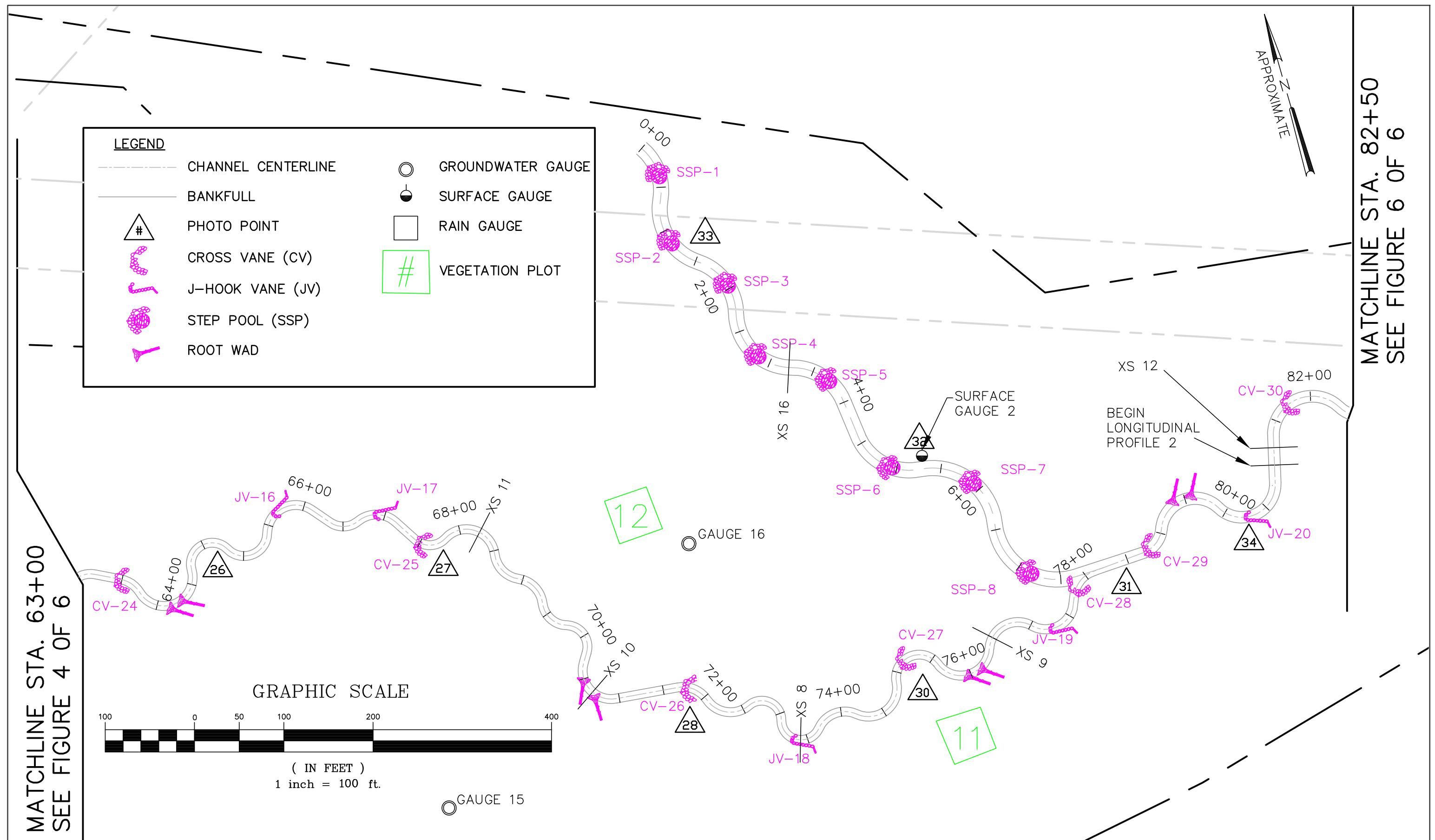
PROJECT NO. 333  
IREDELL COUNTY  
NORTH CAROLINA  
MONITORING  
YEAR 4 OF 5

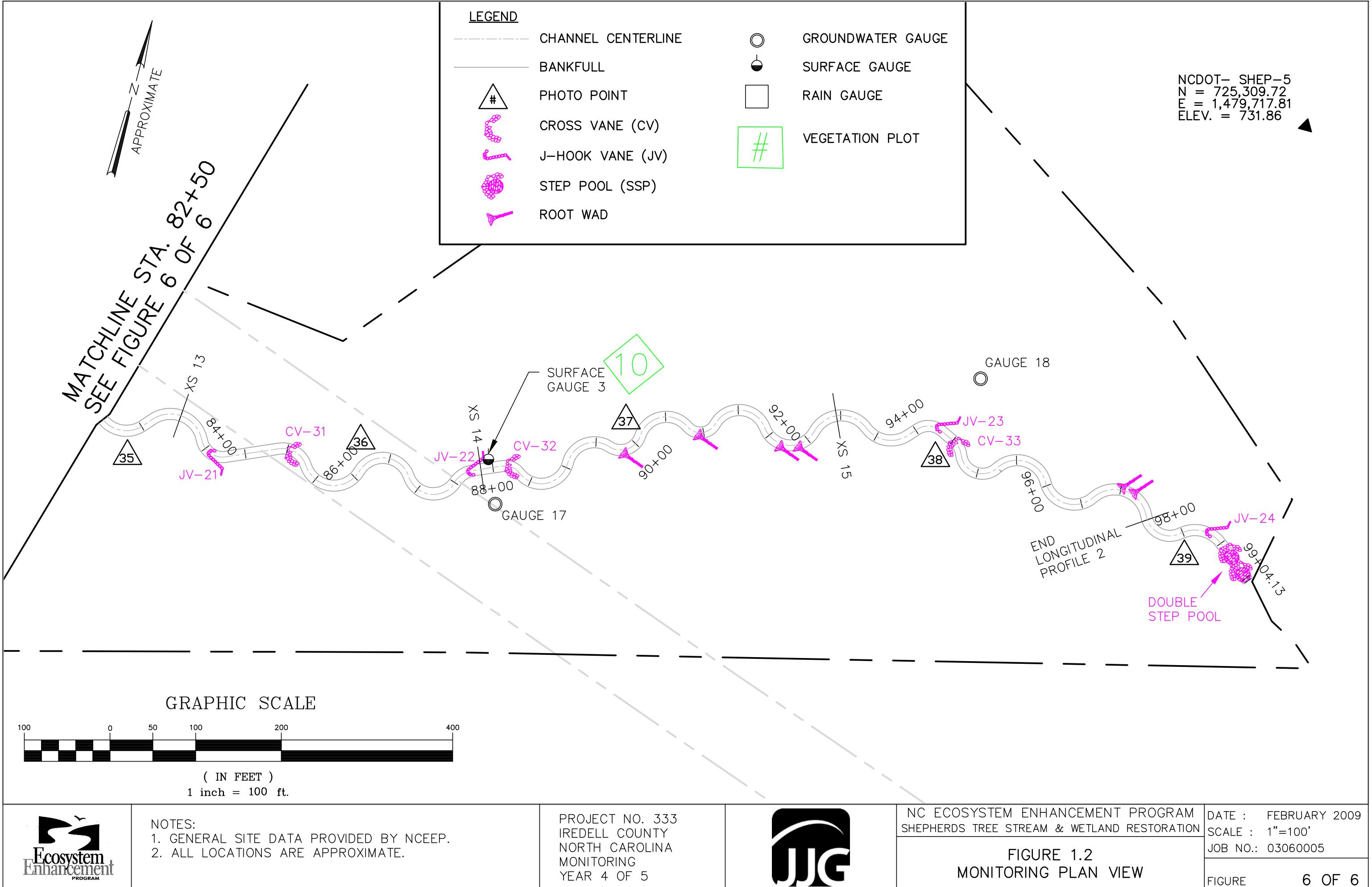


NC ECOSYSTEM ENHANCEMENT PROGRAM SHEPHERDS TREE STREAM & WETLAND RESTORATION
FIGURE 1.2 MONITORING PLAN VIEW

DATE : FEBRUARY 2009  
SCALE : 1"=100'  
JOB NO.: 03060005  
FIGURE 4 OF 6

MATCHLINE STA. 82+50  
SEE FIGURE 6 OF 6





**Click on the Desired Link Below**

**Appendix 1**

**Appendix 2**

**Appendix 3**



---

---

## **SECTION 6**

## **APPENDICES**

**Appendix 1 - Vegetation Raw Data**

**Appendix 2 – Wetland Raw Data**

**Appendix 3 – Current Condition Plan View Map (Integrated)**



---

## APPENDIX 1

### VEGETATION RAW DATA

- 1. Vegetation Survey Data Tables\***
- 2. Representative Vegetation Current Condition Photos**
- 3. Vegetation Monitoring Plot Photos**

\*Raw data tables have been provided electronically.

**Shepherds Tree**  
**Main Channel**

Feature Issue	Station Numbers	Suspected Cause	Photo ID #	
Bank Erosion - Moderate	23+00 - 23+50		1	
	24+10 - 24+35	Scour and bare banks along - LB		
	25+12-25+37			
	25+65 - 25+75	Scour and bare banks along - RB		
	26+00 - 26+40	Scour and bare banks along - LB		
	29+00 - 30+25	Unstable, bare banks - LB		
	29+00 - 29+80	Unstable, bare banks - RB		
	45+16-45+52	Scour and bare banks along - LB		
	47+13-47+48	Unstable, bare banks - LB		
	47+55-47+95	Unstable, bare banks - LB		
	48+33-48+58	Unstable, bare banks - RB		
	48+84-49+11	Unstable, bare banks - LB		
	49+32-49+65	Unstable, bare banks - RB		
	49+89-50+13	Unstable, bare banks - LB		
	50+43-50+57	Unstable, bare banks - RB		
	88+20-88+50	Scour under matting, loose matting - LB		
	88+85-88+95	Scour under matting, loose matting - LB		
	94+40-94+50	Scour under matting, loose matting - LB		
Bank Erosion - Severe	30+50 - 31+00	Severe bank erosion, lack of vegetation protection - RB	2	
	36+05-36+15	Severe bank erosion, lack of vegetation protection - LB		
	40+60-40+62	Scour under matting, lack of vegetation - RB		
	42+30 - 42+33	Scour under matting, lack of vegetation - RB		
	43+10 - 43+15	Lack of vegetation cover- old beaver slides - BB		
	44+10 - 44+55	Lack of vegetation cover- old beaver slides - LB		
	47+00 - 47+20	Severe bank erosion, lack of vegetation protection - LB		
	80+10-80+40	Severe bank erosion, lack of vegetation protection - LB		
	81+80-81+90	Severe bank erosion, lack of vegetation protection - LB		
	95+55 - 96+55	Severe bank erosion, no matting - RB		
Bank Slump	20+20 - 20+80		3	
	21+40 - 21+80	Bank slump - BB		
	44+10 - 44+60			
	46+50 - 47+00	Bank slumped into channel, forming inner berm - BB		
Poor Vegetation Cover	29+00-45+25	Matting in-place, little to no vegetation, and beaver chews evident - BB	4	
	45+90-46+10	Bare bank - BB		
	46+50-54+25	Bare banks, no matting, sporadic black willow - BB		
	86+30-86+70	Bare bank, no matting, - LB		
	87+10-88+20	Loose matting - BB		
	95+10-95+40			
In-Stream Vegetation	9+00 - 12+50	Dead Vegetation from previous growing season in middle of channel-Cattail ( <i>Typha latifolia</i> ) and <i>Panicum</i> sp.	5	
	12+70 - 13+80			
	14+50 - 19+70			
	19+90 - 20+10			
	20+25 - 20+80			
	21+20 - 21+45	Sporadic Vegetation growth from previous season		
	22+30-22+47			
	23+45 - 23+65			
	28+00 - 40+00			
	2+50	Old beaver dam with notch	6	
Beaver Dams	5+60	New beaver dam		
	8+00			
	29+00			
	35+50	Old beaver dam with small notch		
	46+01			
	78+00	New beaver dam, extends onto floodplain		
	79+00	Old beaver dam		
	80+01			
	82+00	New beaver dam		
	84+35	Old beaver dam		
Inundation-Back Water Areas	98+00	Old beaver dam with small notch	9	
	0+00 - 8+00	Structures inundated by backwater as a result of Beaverdams		
	54+25-82+00	Channel inundated over TOB from Beaverdams		
	96+00 - 98+00	Channel inundated, but not over TOB from Beaverdams		
Structure - Stressed	51+50	J-hook structure number 13-scorb behind arm	7	
	81+75	Cross-vane structure number 30, bank scour around arm		
Structure - Failed	12+50, 14+00	J-hook structures number 2 and 3 inundated	8	
	13+25, 17+00, 28+00	Cross-vane structures number 9, 10, and 14 inundated		
	28+75	J-hook structure number 7 inundated		
	37+25	J-hook structure number 9 inundated		
	38+00	Cross-vane structure number 17 inundated		
	40+00	Rootwad structure failed-scorb around structure		
	47+50	Rootwad structure failed-scorb around structure		
	54+25-80+00	All structures inundated by backwater as a result of Beaverdams		

LB - Left Bank Looking Downstream, RB - Right Bank Looking Downstream, BB - Both Banks, TOB - Top of Bank



1. Bank Erosion: Moderate (2/2008)



2. Bank Erosion: Severe (2/2008)



3. Bank Slump (2/2008)



4. Bank Cover Poor (2/2008)

Prepared For:



Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5

**Appendix 1.2 Representative Vegetation Current Condition Photos**

Date: February 2009  
Project No.: 333





5. In-Stream Vegetation (2/2008)



6. Beaver Dam (6/2008)



7. Structure Stressed (2/2008)



8. Inundation (6/2008)

Prepared For:



Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5

**Appendix 1.2 Representative Vegetation Current Condition Photos**

Date: February 2009  
Project No.: 333





Monitoring Plot 1 (6/2008)



Monitoring Plot 2 (6/2008)



Monitoring Plot 3 (6/2008)



Monitoring Plot 4 (6/2008)

Prepared For:



Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5

Date: February 2009  
Project No.: 333

**Appendix 1.3 Vegetation Monitoring Plot Photos**





Monitoring Plot 5 (6/2008)



Monitoring Plot 6 (6/2008)



Monitoring Plot 7 (6/2008)



Monitoring Plot 8 (6/2008)

Prepared For:



Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5

#### Appendix 1.3 Vegetation Monitoring Plot Photos

Date: February 2009  
Project No.: 333





Monitoring Plot 9 (6/2008)



Monitoring Plot 10 (6/2008)



Monitoring Plot 12 (6/2008)

Prepared For:



Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5

**Appendix 1.3 Vegetation Monitoring Plot Photos**

Date: February 2009  
Project No.: 333





Monitoring Plot 13



Monitoring Plot 14

Prepared For:



Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5

**Appendix 1.3 Vegetation Monitoring Plot Photos**

Date: February 2009  
Project No.: 333





---

---

## APPENDIX 2

### WETLAND RAW DATA

- 1. Data Tables for Hydrological Data\***
- 2. Precipitation – Water Level Plots for Gauges\***

\*Raw data tables have been provided electronically.

Rain Gauge	Gauge 1 Serial # - 11312632	Gauge 2 Serial # - EBDC929	Gauge 3 Serial Number: 9BEBD04	Gauge 4 Serial # - A3C227C	Gauge 5 Serial # - 1130E4A1	Gauge 6 Serial # - EBD4A7A																	
1/1/2008	0.01																						
1/2/2008	0																						
1/3/2008	0																						
1/4/2008	0																						
1/5/2008	0																						
1/6/2008	0																						
1/7/2008	0																						
1/8/2008	0																						
1/9/2008	0																						
1/10/2008	0.05																						
1/11/2008	0.17																						
1/12/2008	0																						
1/13/2008	0																						
1/14/2008	0																						
1/15/2008	0																						
1/16/2008	0																						
1/17/2008	0.57																						
1/18/2008	0.16																						
1/19/2008	0.08																						
1/20/2008	0																						
1/21/2008	0																						
1/22/2008	0.06																						
1/23/2008	0																						
1/24/2008	0.02																						
1/25/2008	0																						
1/26/2008	0																						
1/27/2008	0																						
1/28/2008	0																						
1/29/2008	0.04																						
1/30/2008	0.04																						
1/31/2008	0.05																						
2/1/2008	1.16																						
2/2/2008	0																						
2/3/2008	0.08																						
2/4/2008	0.08																						
2/5/2008	0																						
2/6/2008	0.07																						
2/7/2008	0.02																						
2/8/2008	0																						
2/9/2008	0																						
2/10/2008	0																						
2/11/2008	0																						
2/12/2008	0.09																						
2/13/2008	0.43																						
2/14/2008	0.01																						
2/15/2008	0																						
2/16/2008	0																						
2/17/2008	0.18																						
Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)			
1/1/2008	7:00:00	-3.3	1/1/2008	0:41:00	-11.9	1/1/2008	7:00	-27.1	1/1/2008	0:00	-15.4	1/1/2008	15:57:44	-35.9	1/1/2008	7:00	-0.5	1/1/2008	15:57:44	-35.9	1/1/2008	7:00	-0.5
1/2/2008	7:00:00	-4.8	1/2/2008	0:41:00	-12.2	1/2/2008	7:00	-27.4	1/2/2008	0:00	-18	1/2/2008	15:57:44	-36.1	1/2/2008	7:00	-1	1/2/2008	15:57:44	-36.1	1/2/2008	7:00	-1
1/3/2008	7:00:00	-6.5	1/3/2008	0:41:00	-12.4	1/3/2008	7:00	-27.5	1/3/2008	0:00	-22.6	1/3/2008	15:57:44	-36.1	1/3/2008	7:00	-1.3	1/3/2008	15:57:44	-36.1	1/3/2008	7:00	-1.3
1/4/2008	7:00:00	-7.6	1/4/2008	0:41:00	-12.5	1/4/2008	7:00	-27.6	1/4/2008	0:00	-26.6	1/4/2008	15:57:44	-36.1	1/4/2008	7:00	-1.6	1/4/2008	15:57:44	-36.1	1/4/2008	7:00	-1.6
1/5/2008	7:00:00	-8.4	1/5/2008	0:41:00	-12.6	1/5/2008	7:00	-27.9	1/5/2008	0:00	-28.6	1/5/2008	15:57:44	-36.1	1/5/2008	7:00	-1.5	1/5/2008	15:57:44	-36.1	1/5/2008	7:00	-1.5
1/6/2008	7:00:00	-8.9	1/6/2008	0:41:00	-12.2	1/6/2008	7:00	-28	1/6/2008	0:00	-30	1/6/2008	15:57:44	-36.1	1/6/2008	7:00	-1.3	1/6/2008	15:57:44	-36.1	1/6/2008	7:00	-1.3
1/7/2008	7:00:00	-9.3	1/7/2008	0:41:00	-12.1	1/7/2008	7:00	-28	1/7/2008	0:00	-31.2	1/7/2008	15:57:44	-36.1	1/7/2008	7:00	-1.2	1/7/2008	15:57:44	-36.1	1/7/2008	7:00	-1.2
1/8/2008	7:00:00	-9.7	1/8/2008	0:41:00	-12.2	1/8/2008	7:00	-27.7	1/8/2008	0:00	-32.3	1/8/2008	15:57:44	-36.1	1/8/2008	7:00	-1.1	1/8/2008	15:57:44	-36.1	1/8/2008	7:00	-1.1
1/9/2008	7:00:00	-9.7	1/9/2008	0:41:00	-11.5	1/9/2008	7:00	-27.6	1/9/2008	0:00	-33	1/9/2008	15:57:44	-36.1	1/9/2008	7:00	-1	1/9/2008	15:57:44	-36.1	1/9/2008	7:00	-1
1/10/2008	7:00:00	-9.7	1/10/2008	0:41:00	-12	1/10/2008	7:00	-27.6	1/10/2008	0:00	-34	1/10/2008	15:57:44	-35.9	1/10/2008	7:00	-0.9	1/10/2008	15:57:44	-35.9	1/10/2008	7:00	-0.9
1/11/2008	7:00:00	-9.3	1/11/2008	0:41:00	-11.9	1/11/2008	7:00	-27.8	1/11/2008	0:00	-34.6	1/11/2008	15:57:44	-36.1	1/11/2008	7:00	-0.4	1/11/2008	15:57:44	-36.1	1/11/2008	7:00	-0.4
1/12/2008	7:00:00	-8.7	1/12/2008	0:41:00	-12.1	1/12/2008	7:00	-27.8	1/12/2008	0:00	-35	1/12/2008	15:57:44	-36.1	1/12/2008	7:00	-1.1	1/12/2008	15:57:44	-36.1	1/12/2008	7:00	-1.1
1/13/2008	7:00:00	-9.5	1/13/2008	0:41:00	-12.3	1/13/2008	7:00	-27.9	1/13/2008	0:00	-35.6	1/13/2008	15:57:44	-36.1	1/13/2008	7:00	-1.1	1/13/2008	15:57:44	-36.1	1/13/2008	7:00	-1.1
1/14/2008	7:00:00	-10	1/14/2008	0:41:00	-12.4	1/14/2008	7:00	-28	1/14/2008	0:00	-35.7	1/14/2008	15:57:44	-36.1	1/14/2008	7:00	-1.1	1/14/2008	15:57:44	-36.1	1/14/2008	7:00	-1.1
1/15/2008	7:00:00	-10.6	1/15/2008	0:41:00	-12.5	1/15/2008	7:00	-28.1	1/15/2008	0:00	-36	1/15/2008	15:57:44	-36.1	1/15/2008	7:00	-1.4	1/15/2008	15:57:44	-36.1	1/15/2008	7:00	-1.4
1/16/2008	7:00:00	-11.2	1/16/2008	0:41:00	-12.6	1/16/2008	7:00	-19.5	1/16/2008	0:00	-36.3	1/16/2008	15:57:44	-36.1	1/16/2008	7:00	-1.6	1/16/2008	15:57:44	-36.1	1/16/2008	7:00	-1.6
1/17/2008	7:00:00	-10.8	1/17/2008	0:41:00	-12.4	1/17/2008	7:00	-24.2	1/17/2008	0:00	-36.4	1/17/2008	15:57:44	-36.1	1/17/2008	7:00	-1.3	1/17/2008	15:57:44	-36.1	1/17/2008	7:00	-1.3
1/18/2008	7:00:00	-3.5	1/18/2008	0:41:00	-11.8	1/18/2008	7:00	-20.8	1/18/2008	0:00	-9.4	1/18/2008	15:57:44	-36.1	1/18/2008	7:00	-0.6	1/18/2008	15:57:44	-36.1	1/18/2008	7:00	-0.6
1/19/2008	7:00:00	-2	1/19/2008	0:41:00	-11.7	1/19/2008	7:00	-20.7	1/19/2008	0:00	-7.3	1/19/2008	15:57:44	-36.1	1/19/2008	7:00	-0.7	1/19/2008	15:57:44	-36.1	1/19/2008	7:00	-0.7
1/20/2008	7:00:00	-2.6	1/20/2008	0:41:00	-11.9	1/20/2008	7:00	-21.7	1/20/2008	0:00	-7.2	1/20/2008	15:57:44	-36.1	1/20/2008	7:00	-0.9	1/20/2008	15:57:44	-36.1	1/20/2008	7:00	-0.9
1/21/2008	7:00:00	-4.1	1/21/2008	0:41:00	-12.5	1/21/2008	7:00	-22	1/21/2008	0:00	-9.1	1/21/2008	15:57:44	-36.3	1/21/2008	7:00	-1.6	1/21/2008	15:57:44	-36.3	1/21/2008	7:00	-1.6
1/22/2008	7:00:00	-4.5	1/22/2008	0:41:00	-12.5	1/22/2008	7:00	-21.6	1/22/2008	0:00	-10.7	1/22/2008	15:57:44	-36.3	1/22/2008	7:00	-1.4	1/22/2008	15:57:44	-36.3	1/22/2008	7:00	-1.4
1/23/2008	7:00:00	-4.3	1/23/2008	0:41:00	-12	1/23/2008	7:00	-21.6	1/23/2008	0:00	-9.6	1/23/2008	15:57:44	-36.3	1/23/2008	7:00	-1.2	1/23/2008	15:57:44	-36.3	1/23/2008	7:00	-1.2
1/24/2008	7:00:00	-4.5	1/24/2008	0:41:00	-12	1/24/2008	7:00	-22.2	1/24/2008	0:00	-8.9	1/24/2008	15:57:44	-36.3	1/24/2008	7:00	-1.1	1/24/2008	15:57:44	-36.3	1/24/2008	7:00	-1.1
1/25/2008	7:00:00	-5.6	1/25/2008	0:41:00	-12.5	1/25/2008	7:00	-21.9	1/25/2008	0:00	-9.8	1/25/2008	15:57:44	-36.3	1/25/2008	7:00	-1.6	1/25/2008	15:57:44	-36.3	1/25/2008	7:00	-1.6
1/26/2008	7:00:00	-5.8	1/26/2008	0:41:00	-12.6	1/26/2008	7:00	-21.7	1/26/2008	0:00	-10.7	1/26/2008	15:57:44	-36.3	1/26/2008	7:00	-1.4	1/26/2008	15:57:44	-36.3	1/26/2008	7:00	-1.4
1/27/2008	7:00:00	-6.3	1/27/2008	0:41:00	-12.7	1/27/2008	7:00	-21.8	1/27/2008	0:00	-10.4	1/27/2008	15:57:44	-36.3	1/27/2008	7:00	-1.3	1/27/2008	15:57:44	-36.3	1/27/2008	7:00	-1.3
1/28/2008	7:00:00	-6.9	1/28/2008	0:41:00	-12.7	1/28/2008	7:00	-21.6	1/28/2008	0:00	-11.1	1/28/2008	15:57:44	-36.3	1/28/2008	7:00	-1.6	1/28/2008	15:57:44	-36.3	1/28/2008	7:00	-1.6
1/29/2008	7:00:00	-6.9	1/29/2008	0:41:00	-12	1/29/2008	7:00	-21.3	1/29/2008	0:00	-11.4	1/29/2008	15:57:44	-36.3	1/29/2008	7:00	-1.3	1/29/2008	15:57:44	-36.3	1/29/2008	7:00	-1.3
1/30/2008	7:00:00	-6.7	1/30/2008	0:41:00	-11.9	1/30/2008	7:00	-22.2	1/30/2008	0:00	-11	1/30/2008	15:57:44	-36.3	1/30/2008	7:00	-1.1	1/30/2008	15:57:44	-36.3	1/30/2008	7:00	-1.1
1/31/2008	7:00:00	-8.2	1/31/2008	0:41:00	-12.7	1/31/2008	7:00	-1.1	1/31/2008	0:00	-12.3	1/31/2008	15:57:44	-36.3	1/31/2008	7:00	-1.5	1/31/2008	15:57:44	-36.3	1/31/2008	7:00	-1.5
2/1/2008	7:00:00	-0.6	2/1/2008	0:41:00	-12.2	2/1/2008	7:00	-3.7	2/1/2008	0:00	-12.2	2/1/2008	15:57:44	-36.1	2/1/2008	7:00	0.3	2/1/2008	15:57:44	-36.1	2/1/2008	7:00	0
2/2/2008	7:00:00	2.2	2/2/20																				

Rain Gauge	Gauge 1 Serial # - 11312632	Gauge 2 Serial # - EBDC929	Gauge 3 Serial Number: 9BEBD04	Gauge 4 Serial # - A3C227C	Gauge 5 Serial # - 1130E4A1	Gauge 6 Serial # - EBD4A7A										
Date	Level (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)
2/18/2008	0	2/18/2008	7:00:00	-2.2	2/18/2008	0:41:00	-9.8	2/18/2008	7:00	-6.4	2/18/2008	0:00	-4.1	2/18/2008	15:57:44	-38.9
2/19/2008	0	2/19/2008	7:00:00	-3.7	2/19/2008	0:41:00	-10.4	2/19/2008	7:00	-7.5	2/19/2008	0:00	-4.5	2/19/2008	15:57:44	-38.9
2/20/2008	0	2/20/2008	7:00:00	-4.5	2/20/2008	0:41:00	-10.6	2/20/2008	7:00	-8.6	2/20/2008	0:00	-4.9	2/20/2008	15:57:44	-38.9
2/21/2008	0.06	2/21/2008	7:00:00	-4.8	2/21/2008	0:41:00	-10.4	2/21/2008	7:00	-7.4	2/21/2008	0:00	-5	2/21/2008	15:57:44	-38.9
2/22/2008	0.07	2/22/2008	7:00:00	-4.7	2/22/2008	0:41:00	-10.3	2/22/2008	7:00	-7.8	2/22/2008	0:00	-4.6	2/22/2008	15:57:44	-38.9
2/23/2008	0	2/23/2008	7:00:00	-4.5	2/23/2008	0:41:00	-10.2	2/23/2008	7:00	-8.9	2/23/2008	0:00	-4.5	2/23/2008	15:57:44	-38.9
2/24/2008	0.05	2/24/2008	7:00:00	-5	2/24/2008	0:41:00	-10.2	2/24/2008	7:00	-9	2/24/2008	0:00	-4.8	2/24/2008	15:57:44	-38.9
2/25/2008	0.01	2/25/2008	7:00:00	-5	2/25/2008	0:41:00	-10.2	2/25/2008	7:00	-1.1	2/25/2008	0:00	-4.6	2/25/2008	15:57:44	-38.9
2/26/2008	0.4	2/26/2008	7:00:00	-5	2/26/2008	0:41:00	-10.4	2/26/2008	7:00	-4	2/26/2008	0:00	-5.1	2/26/2008	15:57:44	-38.9
2/27/2008	0	2/27/2008	7:00:00	-2.2	2/27/2008	0:41:00	-10.2	2/27/2008	7:00	-5.9	2/27/2008	0:00	-4	2/27/2008	15:57:44	-38.9
2/28/2008	0	2/28/2008	7:00:00	-3.5	2/28/2008	0:41:00	-10.6	2/28/2008	7:00	-7	2/28/2008	0:00	-4.5	2/28/2008	15:57:44	-38.9
2/29/2008	0	2/29/2008	7:00:00	-4.1	2/29/2008	0:41:00	-10.7	2/29/2008	7:00	-7.2	2/29/2008	0:00	-4.7	2/29/2008	15:57:44	-38.9
3/1/2008	0	3/1/2008	7:00:00	-3.9	3/1/2008	0:41:00	-10.4	3/1/2008	7:00	-8.3	3/1/2008	0:00	-4.6	3/1/2008	15:57:44	-38.9
3/2/2008	0	3/2/2008	7:00:00	-4.5	3/2/2008	0:41:00	-10.6	3/2/2008	7:00	-9.2	3/2/2008	0:00	-5	3/2/2008	15:57:44	-38.9
3/3/2008	0	3/3/2008	7:00:00	-4.8	3/3/2008	0:41:00	-10.5	3/3/2008	7:00	-8.5	3/3/2008	0:00	-5.3	3/3/2008	15:57:44	-38.9
3/4/2008	1.27	3/4/2008	7:00:00	-4.8	3/4/2008	0:41:00	-10	3/4/2008	7:00	0	3/4/2008	0:00	-5.2	3/4/2008	15:57:44	-38.9
3/5/2008	0	3/5/2008	7:00:00	3	3/5/2008	0:41:00	-8.5	3/5/2008	7:00	-1.7	3/5/2008	0:00	-1.4	3/5/2008	15:57:44	-38.5
3/6/2008	0.01	3/6/2008	7:00:00	-0.2	3/6/2008	0:41:00	-9.6	3/6/2008	7:00	2.3	3/6/2008	0:00	-3	3/6/2008	15:57:44	-38.7
3/7/2008	0.89	3/7/2008	7:00:00	-1.7	3/7/2008	0:41:00	-9.8	3/7/2008	7:00	-0.3	3/7/2008	0:00	-3.4	3/7/2008	15:57:44	-35.7
3/8/2008	0.1	3/8/2008	7:00:00	3	3/8/2008	0:41:00	-8.7	3/8/2008	7:00	-2	3/8/2008	0:00	-2	3/8/2008	15:57:44	-38.7
3/9/2008	0	3/9/2008	7:00:00	-0.9	3/9/2008	0:41:00	-9.8	3/9/2008	7:00	-2.9	3/9/2008	0:00	-3.1	3/9/2008	15:57:44	-38.7
3/10/2008	0	3/10/2008	7:00:00	-2.4	3/10/2008	0:41:00	-9.8	3/10/2008	7:00	-3.5	3/10/2008	0:00	-3.7	3/10/2008	15:57:44	-38.7
3/11/2008	0	3/11/2008	7:00:00	-2.8	3/11/2008	0:41:00	-9.9	3/11/2008	7:00	-4.3	3/11/2008	0:00	-3.8	3/11/2008	15:57:44	-38.5
3/12/2008	0	3/12/2008	7:00:00	-3.3	3/12/2008	0:41:00	-9.9	3/12/2008	7:00	-5.1	3/12/2008	0:00	-4	3/12/2008	15:57:44	-38.7
3/13/2008	0	3/13/2008	7:00:00	-3.7	3/13/2008	0:41:00	-10	3/13/2008	7:00	-5.1	3/13/2008	0:00	-4.1	3/13/2008	15:57:44	-38.3
3/14/2008	0	3/14/2008	7:00:00	-3.9	3/14/2008	0:41:00	0	3/14/2008	7:00	-5.3	3/14/2008	0:00	-4.1	3/14/2008	15:57:44	-38.5
3/15/2008	0.6	3/15/2008	7:00:00	-3.9	3/15/2008	0:41:00	0	3/15/2008	7:00	-5.8	3/15/2008	0:00	-3.9	3/15/2008	15:57:44	-38.3
3/16/2008	0.01	3/16/2008	7:00:00	0.6	3/16/2008	0:41:00	0.9	3/16/2008	7:00	-1	3/16/2008	0:00	-2.5	3/16/2008	15:57:44	-38.5
3/17/2008	0	3/17/2008	7:00:00	-1.9	3/17/2008	0:41:00	0	3/17/2008	7:00	-2.6	3/17/2008	0:00	-3.3	3/17/2008	15:57:44	-38.3
3/18/2008	0	3/18/2008	7:00:00	-2.8	3/18/2008	0:41:00	0	3/18/2008	7:00	-3.4	3/18/2008	0:00	-3.6	3/18/2008	15:57:44	-38.3
3/19/2008	0.5	3/19/2008	7:00:00	-2.8	3/19/2008	0:41:00	0.1	3/19/2008	7:00	-3.2	3/19/2008	0:00	-3.5	3/19/2008	15:57:44	-38.5
3/20/2008	0.01	3/20/2008	7:00:00	0.9	3/20/2008	0:41:00	0.8	3/20/2008	7:00	-0.6	3/20/2008	0:00	-2.1	3/20/2008	15:57:44	-38.3
3/21/2008	0	3/21/2008	7:00:00	-1.5	3/21/2008	0:41:00	0	3/21/2008	7:00	-2	3/21/2008	0:00	-3.1	3/21/2008	15:57:44	-38.3
3/22/2008	0	3/22/2008	7:00:00	-2.4	3/22/2008	0:41:00	0.1	3/22/2008	7:00	-2.7	3/22/2008	0:00	-3.3	3/22/2008	15:57:44	-38.5
3/23/2008	0	3/23/2008	7:00:00	-3.2	3/23/2008	0:41:00	0	3/23/2008	7:00	-4.4	3/23/2008	0:00	-3.7	3/23/2008	15:57:44	-38.5
3/24/2008	0	3/24/2008	7:00:00	-3.7	3/24/2008	0:41:00	0.2	3/24/2008	7:00	-5.1	3/24/2008	0:00	-3.9	3/24/2008	15:57:44	-38.5
3/25/2008	0	3/25/2008	7:00:00	-4.5	3/25/2008	0:41:00	0	3/25/2008	7:00	-6.6	3/25/2008	0:00	-4.6	3/25/2008	15:57:44	-38.5
3/26/2008	0	3/26/2008	7:00:00	-4.5	3/26/2008	0:41:00	0.1	3/26/2008	7:00	-7.4	3/26/2008	0:00	-4.5	3/26/2008	15:57:44	-38.5
3/27/2008	0	3/27/2008	7:00:00	-4.7	3/27/2008	0:41:00	0.2	3/27/2008	7:00	-8.1	3/27/2008	0:00	-5	3/27/2008	15:57:44	-38.5
3/28/2008	0	3/28/2008	7:00:00	-4.5	3/28/2008	0:41:00	0.1	3/28/2008	7:00	-9	3/28/2008	0:00	-5.3	3/28/2008	15:57:44	-38.5
3/29/2008	0.24	3/29/2008	7:00:00	-4.8	3/29/2008	0:41:00	0.1	3/29/2008	7:00	-4.3	3/29/2008	0:00	-5.6	3/29/2008	15:57:44	-38.5
3/30/2008	0.09	3/30/2008	7:00:00	-3.9	3/30/2008	0:41:00	0	3/30/2008	7:00	-4.3	3/30/2008	0:00	-4.4	3/30/2008	15:57:44	-38.5
3/31/2008	0.45	3/31/2008	7:00:00	-0.4	3/31/2008	0:41:00	0	3/31/2008	7:00	0.3	3/31/2008	0:00	-4	3/31/2008	15:57:44	-38.3
4/1/2008	0.09	4/1/2008	7:00:00	-0.7	4/1/2008	0:41:00	0.6	4/1/2008	7:00	-0.1	4/1/2008	0:00	-2.4	4/1/2008	15:57:44	-38.3
4/2/2008	0	4/2/2008	7:00:00	-1.3	4/2/2008	0:41:00	0.6	4/2/2008	7:00	-1.6	4/2/2008	0:00	-2.7	4/2/2008	15:57:44	-38.5
4/3/2008	0.63	4/3/2008	7:00:00	-2.6	4/3/2008	0:41:00	0.4	4/3/2008	7:00	-2.4	4/3/2008	0:00	-3.5	4/3/2008	15:57:44	-38.5
4/4/2008	0.59	4/4/2008	7:00:00	3	4/4/2008	0:41:00	1.5	4/4/2008	7:00	0.1	4/4/2008	0:00	-1.7	4/4/2008	15:57:44	-38.5
4/5/2008	0.37	4/5/2008	7:00:00	3	4/5/2008	0:41:00	2.5	4/5/2008	7:00	1.9	4/5/2008	0:00	-0.9	4/5/2008	15:57:44	-38.3

Appendix 2.1 Data Tables for Hydrological Data  
Shepherds Tree Stream and Wetland Restoration

Rain Gauge	Gauge 1	Gauge 2	Gauge 3	Gauge 4	Gauge 5	Gauge 6										
	Serial # - 11312632	Serial # - EBDC929	Serial Number: 9EBBD04	Serial # - A3C227C	Serial # - 1130E4A1	Serial # - EBD4A7A										
Date	Level (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)
4/6/2008	0.07	4/6/2008	7:00:00	3	4/6/2008	0:41:00	1.8	4/6/2008	7:00	0	4/6/2008	0:00	-1.4	4/6/2008	15:57:44	-38.5
4/7/2008	0	4/7/2008	7:00:00	0.9	4/7/2008	0:41:00	1.1	4/7/2008	7:00	-1.1	4/7/2008	0:00	-2.5	4/7/2008	15:57:44	-38.3
4/8/2008	0	4/8/2008	7:00:00	-0.7	4/8/2008	0:41:00	1	4/8/2008	7:00	-1.7	4/8/2008	0:00	-2.9	4/8/2008	15:57:44	-38.5
4/9/2008	0	4/9/2008	7:00:00	-1.7	4/9/2008	0:41:00	0.5	4/9/2008	7:00	-2.4	4/9/2008	0:00	-3.3	4/9/2008	15:57:44	-38.3
4/10/2008	0	4/10/2008	7:00:00	-2.6	4/10/2008	0:41:00	0.5	4/10/2008	7:00	-3.5	4/10/2008	0:00	-3.3	4/10/2008	15:57:44	-38.3
4/11/2008	0	4/11/2008	7:00:00	-3	4/11/2008	0:41:00	0.5	4/11/2008	7:00	-4.6	4/11/2008	0:00	-3.6	4/11/2008	15:57:44	-38.3
4/12/2008	0.02	4/12/2008	7:00:00	-3.2	4/12/2008	0:41:00	0.9	4/12/2008	7:00	-4.5	4/12/2008	0:00	-3.7	4/12/2008	15:57:44	-38.3
4/13/2008	0	4/13/2008	7:00:00	-3.9	4/13/2008	0:41:00	0.4	4/13/2008	7:00	-6.6	4/13/2008	0:00	-4.2	4/13/2008	15:57:44	-38.3
4/14/2008	0.02	4/14/2008	7:00:00	-4.5	4/14/2008	0:41:00	0.1	4/14/2008	7:00	-8.3	4/14/2008	0:00	-5.3	4/14/2008	15:57:44	-38.2
4/15/2008	0	4/15/2008	7:00:00	-4.7	4/15/2008	0:41:00	0.1	4/15/2008	7:00	-9.7	4/15/2008	0:00	-5.3	4/15/2008	15:57:44	-38.3
4/16/2008	0.01	4/16/2008	7:00:00	-5.6	4/16/2008	0:41:00	0	4/16/2008	7:00	-11.8	4/16/2008	0:00	-6.3	4/16/2008	15:57:44	-38.3
4/17/2008	0	4/17/2008	7:00:00	-6.1	4/17/2008	0:41:00	0	4/17/2008	7:00	-13.2	4/17/2008	0:00	-7.3	4/17/2008	15:57:44	-38.3
4/18/2008	0	4/18/2008	7:00:00	-6.9	4/18/2008	0:41:00	0.1	4/18/2008	7:00	-14.5	4/18/2008	0:00	-8.7	4/18/2008	15:57:44	-38.3
4/19/2008	0.48	4/19/2008	7:00:00	-7.3	4/19/2008	0:41:00	0.1	4/19/2008	7:00	-15.4	4/19/2008	0:00	-10.4	4/19/2008	15:57:44	-38.3
4/20/2008	0.01	4/20/2008	7:00:00	-1.3	4/20/2008	0:41:00	0.1	4/20/2008	7:00	-4.2	4/20/2008	0:00	-3.1	4/20/2008	15:57:44	-38.3
4/21/2008	0.02	4/21/2008	7:00:00	-2.8	4/21/2008	0:41:00	0.1	4/21/2008	7:00	-6.2	4/21/2008	0:00	-4	4/21/2008	15:57:44	-38.3
4/22/2008	0	4/22/2008	7:00:00	-3.3	4/22/2008	0:41:00	0.7	4/22/2008	7:00	-7.5	4/22/2008	0:00	-4	4/22/2008	15:57:44	-38.3
4/23/2008	0	4/23/2008	7:00:00	-26.1	4/23/2008	0:41:00	0.3	4/23/2008	7:00	-9	4/23/2008	0:00	-5.1	4/23/2008	15:57:44	-38.3
4/24/2008	0	4/24/2008	7:00:00	-26.8	4/24/2008	0:41:00	0.2	4/24/2008	7:00	-11.6	4/24/2008	0:00	-6.1	4/24/2008	15:57:44	-38.3
4/25/2008	0	4/25/2008	7:00:00	-27.5	4/25/2008	0:41:00	0.3	4/25/2008	7:00	-13.6	4/25/2008	0:00	-7.4	4/25/2008	15:57:44	-38.3
4/26/2008	0.09	4/26/2008	7:00:00	-28.1	4/26/2008	0:41:00	0.3	4/26/2008	7:00	-15.2	4/26/2008	0:00	-9.6	4/26/2008	15:57:44	-38.3
4/27/2008	0.42	4/27/2008	7:00:00	-28.9	4/27/2008	0:41:00	0.8	4/27/2008	7:00	-15.7	4/27/2008	0:00	-9.7	4/27/2008	15:57:44	-38
4/28/2008	0.49	4/28/2008	7:00:00	-29.5	4/28/2008	0:41:00	1.2	4/28/2008	7:00	0.3	4/28/2008	0:00	-3.5	4/28/2008	15:57:44	-38
4/29/2008	0	4/29/2008	7:00:00	-26	4/29/2008	0:41:00	0.9	4/29/2008	7:00	-2.5	4/29/2008	0:00	-2.8	4/29/2008	15:57:44	-37.8
4/30/2008	0	4/30/2008	7:00:00	-28.5	4/30/2008	0:41:00	0.5	4/30/2008	7:00	-5.1	4/30/2008	0:00	-3.7	4/30/2008	15:57:44	-38
5/1/2008	0	5/1/2008	7:00:00	-29.2	5/1/2008	0:41:00	0.5	5/1/2008	7:00	-7.8	5/1/2008	0:00	-4.7	5/1/2008	15:57:44	-38
5/2/2008	0	5/2/2008	7:00:00	-30.1	5/2/2008	0:41:00	0.9	5/2/2008	7:00	-10.9	5/2/2008	0:00	-6.1	5/2/2008	15:57:44	-38.2
5/3/2008	0	5/3/2008	7:00:00	-14.9	5/3/2008	0:41:00	0.6	5/3/2008	7:00	-13.5	5/3/2008	0:00	-8.3	5/3/2008	15:57:44	-38.2
5/4/2008	0	5/4/2008	7:00:00	-16.1	5/4/2008	0:41:00	0.8	5/4/2008	7:00	-15.2	5/4/2008	0:00	-10.2	5/4/2008	15:57:44	-38.2
5/5/2008	0	5/5/2008	7:00:00	-17.4	5/5/2008	0:41:00	0.5	5/5/2008	7:00	-17	5/5/2008	0:00	-12.7	5/5/2008	15:57:44	-38
5/6/2008	0	5/6/2008	7:00:00	-18.6	5/6/2008	0:41:00	0.4	5/6/2008	7:00	-18.1	5/6/2008	0:00	-15.7	5/6/2008	15:57:44	-38.2
5/7/2008	0	5/7/2008	7:00:00	-19.7	5/7/2008	0:41:00	0.4	5/7/2008	7:00	-19.6	5/7/2008	0:00	-18.6	5/7/2008	15:57:44	-38.2
5/8/2008	0.02	5/8/2008	7:00:00	-20.6	5/8/2008	0:41:00	0.8	5/8/2008	7:00	-20.2	5/8/2008	0:00	-20.9	5/8/2008	15:57:44	-38.2
5/9/2008	0.21	5/9/2008	7:00:00	-20.2	5/9/2008	0:41:00	1.2	5/9/2008	7:00	-20.8	5/9/2008	0:00	-22.6	5/9/2008	15:57:44	-38.2
5/10/2008	0	5/10/2008	7:00:00	-21.4	5/10/2008	0:41:00	0.7	5/10/2008	7:00	-21.4	5/10/2008	0:00	-22.7	5/10/2008	15:57:44	-38.2
5/11/2008	0.35	5/11/2008	7:00:00	-22.4	5/11/2008	0:41:00	0.5	5/11/2008	7:00	-21.7	5/11/2008	0:00	-24.1	5/11/2008	15:57:44	-37.8
5/12/2008	0	5/12/2008	7:00:00	-20.3	5/12/2008	0:41:00	0.5	5/12/2008	7:00	-22.6	5/12/2008	0:00	-22.7	5/12/2008	15:57:44	-38
5/13/2008	0	5/13/2008	7:00:00	-21.5	5/13/2008	0:41:00	0.3	5/13/2008	7:00	-23.6	5/13/2008	0:00	-23.1	5/13/2008	15:57:44	-38
5/14/2008	0	5/14/2008	7:00:00	-22.5	5/14/2008	0:41:00	0.3	5/14/2008	7:00	-24	5/14/2008	0:00	-25.3	5/14/2008	15:57:44	-38
5/15/2008	0.1	5/15/2008	7:00:00	-22.5	5/15/2008	0:41:00	1.1	5/15/2008	7:00	-24.3	5/15/2008	0:00	-26.2	5/15/2008	15:57:44	-38.2
5/16/2008	0.08	5/16/2008	7:00:00	-21.2	5/16/2008	0:41:00	1.5	5/16/2008	7:00	-24.4	5/16/2008	0:00	-26.7	5/16/2008	15:57:44	-38
5/17/2008	0	5/17/2008	7:00:00	-22.8	5/17/2008	0:41:00	0.5	5/17/2008	7:00	-24.8	5/17/2008	0:00	-27.2	5/17/2008	15:57:44	-37.8
5/18/2008	0.37	5/18/2008	7:00:00	-23.2	5/18/2008	0:41:00	0.5	5/18/2008	7:00	-25	5/18/2008	0:00	-28	5/18/2008	15:57:44	-37.6
5/19/2008	0	5/19/2008	7:00:00	-22.9	5/19/2008	0:41:00	0.7	5/19/2008	7:00	-25.6	5/19/2008	0:00	-26.6	5/19/2008	15:57:44	-37.8
5/20/2008	0	5/20/2008	7:00:00	-23.7	5/20/2008	0:41:00	0.7	5/20/2008	7:00	-25.7	5/20/2008	0:00	-28.3	5/20/2008	15:57:44	-38
5/21/2008	0	5/21/2008	7:00:00	-24.2	5/21/2008	0:41:00	0.7	5/21/2008	7:00	-26.6	5/21/2008	0:00	-29.1	5/21/2008	15:57:44	-38
5/22/2008	0	5/22/2008	7:00:00	-25.1	5/22/2008	0:41:00	0.4	5/22/2008	7:00	-27.4	5/22/2008	0:00	-30.2	5/22/2008	15:57:44	-38
5/23/2008	0	5/23/2008	7:00:00	-26.1	5/23/2008	0:41:00	0.8	5/23/2008	7:00	-28.1	5/23/2008	0:00	-31.5	5/23/2008	15:57:44	-38

Rain Gauge	Gauge 1 Serial # - 11312632	Gauge 2 Serial # - EBDC929	Gauge 3 Serial Number: 9BEBD04	Gauge 4 Serial # - A3C227C	Gauge 5 Serial # - 1130E4A1	Gauge 6 Serial # - EBD4A7A										
Date	Level (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)
5/24/2008	0.01	5/24/2008	7:00:00	-26.8	5/24/2008	0:41:00	1.1	5/24/2008	7:00	-28.5	5/24/2008	0:00	-32.7	5/24/2008	15:57:44	-38
5/25/2008	0	5/25/2008	7:00:00	-27.5	5/25/2008	0:41:00	0.7	5/25/2008	7:00	-29	5/25/2008	0:00	-33.5	5/25/2008	15:57:44	-38
5/26/2008	0	5/26/2008	7:00:00	-28.1	5/26/2008	0:41:00	0.8	5/26/2008	7:00	-29.2	5/26/2008	0:00	-34.5	5/26/2008	15:57:44	-38.2
5/27/2008	0.02	5/27/2008	7:00:00	-28.9	5/27/2008	0:41:00	0.9	5/27/2008	7:00	-29.3	5/27/2008	0:00	-35.4	5/27/2008	15:57:44	-38.2
5/28/2008	0.34	5/28/2008	7:00:00	-29.5	5/28/2008	0:41:00	1.6	5/28/2008	7:00	-29.3	5/28/2008	0:00	-35.9	5/28/2008	15:57:44	-37.8
5/29/2008	0	5/29/2008	7:00:00	-26	5/29/2008	0:41:00	1.1	5/29/2008	7:00	-29.4	5/29/2008	0:00	-36.3	5/29/2008	15:57:44	-38
5/30/2008	0	5/30/2008	7:00:00	-28.5	5/30/2008	0:41:00	1.2	5/30/2008	7:00	-29.4	5/30/2008	0:00	-36.8	5/30/2008	15:57:44	-38.2
5/31/2008	0	5/31/2008	7:00:00	-29.2	5/31/2008	0:41:00	1.6	5/31/2008	7:00	-29.4	5/31/2008	0:00	-37	5/31/2008	15:57:44	-38.2
6/1/2008	0	6/1/2008	7:00:00	-30.1	6/1/2008	0:41:00	1.4	6/1/2008	7:00	-29.4	6/1/2008	0:00	-37.2	6/1/2008	15:57:44	-38.2
6/2/2008	0	6/2/2008	7:00:00	-30.9	6/2/2008	0:41:00	1.6	6/2/2008	7:00	-29.4	6/2/2008	0:00	-37.7	6/2/2008	15:57:44	-38.2
6/3/2008	0.35	6/3/2008	7:00:00	-31.8	6/3/2008	0:41:00	1.4	6/3/2008	7:00	-29.4	6/3/2008	0:00	-37.9	6/3/2008	15:57:44	-38.2
6/4/2008	0	6/4/2008	7:00:00	-24.8	6/4/2008	0:41:00	2.1	6/4/2008	7:00	-29.4	6/4/2008	0:00	-37.7	6/4/2008	15:57:44	-38.2
6/5/2008	0	6/5/2008	7:00:00	-30.2	6/5/2008	0:41:00	1.8	6/5/2008	7:00	-29.3	6/5/2008	0:00	-37.6	6/5/2008	15:57:44	-38.2
6/6/2008	0	6/6/2008	7:00:00	-32.7	6/6/2008	0:41:00	1.6	6/6/2008	7:00	-29.3	6/6/2008	0:00	-37.7	6/6/2008	15:57:44	-38.2
6/7/2008	0	6/7/2008	7:00:00	-34.1	6/7/2008	0:41:00	1.6	6/7/2008	7:00	-29.4	6/7/2008	0:00	-37.8	6/7/2008	15:57:44	-38.2
6/8/2008	0	6/8/2008	7:00:00	-35.3	6/8/2008	0:41:00	1.6	6/8/2008	7:00	-29.4	6/8/2008	0:00	-37.7	6/8/2008	15:57:44	-38.2
6/9/2008	0	6/9/2008	7:00:00	-36.1	6/9/2008	0:41:00	1.7	6/9/2008	7:00	-29.4	6/9/2008	0:00	-37.8	6/9/2008	15:57:44	-38.2
6/10/2008	0.01	6/10/2008	7:00:00	-37.1	6/10/2008	0:41:00	1.7	6/10/2008	7:00	-29.4	6/10/2008	0:00	-37.6	6/10/2008	15:57:44	-38.3
6/11/2008	0	6/11/2008	7:00:00	-38	6/11/2008	0:41:00	1.7	6/11/2008	7:00	-29.4	6/11/2008	0:00	-37.7	6/11/2008	15:57:44	-38.3
6/12/2008	0	6/12/2008	7:00:00	-39.1	6/12/2008	0:41:00	1.6	6/12/2008	7:00	-29.4	6/12/2008	0:00	-37.8	6/12/2008	15:57:44	-38.3
6/13/2008	0	6/13/2008	7:00:00	-39	6/13/2008	0:41:00	1.6	6/13/2008	7:00	-29.4	6/13/2008	0:00	-37.9	6/13/2008	15:57:44	-38.2
6/14/2008	0.7	6/14/2008	7:00:00	-39	6/14/2008	0:41:00	1.8	6/14/2008	7:00	-29.4	6/14/2008	0:00	-37.9	6/14/2008	15:57:44	-38.3
6/15/2008	0.01	6/15/2008	7:00:00	-25.6	6/15/2008	0:41:00	1.9	6/15/2008	7:00	-29.3	6/15/2008	0:00	-37.1	6/15/2008	15:57:44	-38.2
6/16/2008	0	6/16/2008	7:00:00	-30.6	6/16/2008	0:41:00	1.7	6/16/2008	7:00	-29.4	6/16/2008	0:00	-37.3	6/16/2008	15:57:44	-38.2
6/17/2008	0	6/17/2008	7:00:00	-34.2	6/17/2008	0:41:00	1.9	6/17/2008	7:00	-29.3	6/17/2008	0:00	-37.7	6/17/2008	15:57:44	-38
6/18/2008	0	6/18/2008	7:00:00	-36.8	6/18/2008	0:41:00	1.3	6/18/2008	7:00	-29.4	6/18/2008	0:00	-38	6/18/2008	15:57:44	-38.2
6/19/2008	0	6/19/2008	7:00:00	-38.3	6/19/2008	0:41:00	1.3	6/19/2008	7:00	-29.4	6/19/2008	0:00	-38.1	6/19/2008	15:57:44	-38
6/20/2008	0	6/20/2008	7:00:00	-39.2	6/20/2008	0:41:00	1.3	6/20/2008	7:00	-29.4	6/20/2008	0:00	-38	6/20/2008	15:57:44	-38
6/21/2008	0	6/21/2008	7:00:00	-39	6/21/2008	0:41:00	1.6	6/21/2008	7:00	-29.4	6/21/2008	0:00	-38	6/21/2008	15:57:44	-38
6/22/2008	1.19	6/22/2008	7:00:00	-39	6/22/2008	0:41:00	1.6	6/22/2008	7:00	-29.4	6/22/2008	0:00	-38	6/22/2008	15:57:44	-38
6/23/2008	0.01	6/23/2008	7:00:00	-23.4	6/23/2008	0:41:00	2.6	6/23/2008	7:00	-29.2	6/23/2008	0:00	-37.9	6/23/2008	15:57:44	-38
6/24/2008	0.01	6/24/2008	7:00:00	-29	6/24/2008	0:41:00	1.8	6/24/2008	7:00	-29.2	6/24/2008	0:00	-37.3	6/24/2008	15:57:44	-38
6/25/2008	0	6/25/2008	7:00:00	-33.7	6/25/2008	0:41:00	1.7	6/25/2008	7:00	-29.3	6/25/2008	0:00	-37	6/25/2008	15:57:44	-38
6/26/2008	0.33	6/26/2008	7:00:00	-37.1	6/26/2008	0:41:00	1.6	6/26/2008	7:00	-29.3	6/26/2008	0:00	-37.9	6/26/2008	15:57:44	-38
6/27/2008	0.03	6/27/2008	7:00:00	-26.5	6/27/2008	0:41:00	2.4	6/27/2008	7:00	-29.3	6/27/2008	0:00	-37.9	6/27/2008	15:57:44	-38
6/28/2008	0.28	6/28/2008	7:00:00	-32.2	6/28/2008	0:41:00	2.2	6/28/2008	7:00	-29.3	6/28/2008	0:00	-38	6/28/2008	15:57:44	-38
6/29/2008	0.72	6/29/2008	7:00:00	-23.7	6/29/2008	0:41:00	2.2	6/29/2008	7:00	-29.3	6/29/2008	0:00	-38.1	6/29/2008	15:57:44	-38
6/30/2008	0.04	6/30/2008	7:00:00	-23.5	6/30/2008	0:41:00	2.7	6/30/2008	7:00	-29.1	6/30/2008	0:00	-38.1	6/30/2008	15:57:44	-38
7/1/2008	0	7/1/2008	7:00:00	-28.5	7/1/2008	0:41:00	2	7/1/2008	7:00	-29.2	7/1/2008	0:00	-36.8	7/1/2008	15:57:44	-38
7/2/2008	0	7/2/2008	7:00:00	-32.7	7/2/2008	0:41:00	1.4	7/2/2008	7:00	-29.2	7/2/2008	0:00	-37.3	7/2/2008	15:57:44	-38
7/3/2008	0	7/3/2008	7:00:00	-36.3	7/3/2008	0:41:00	1.7	7/3/2008	7:00	-29.2	7/3/2008	0:00	-37.3	7/3/2008	15:57:44	-38
7/4/2008	0	7/4/2008	7:00:00	-38.8	7/4/2008	0:41:00	1.7	7/4/2008	7:00	-29.2	7/4/2008	0:00	-37	7/4/2008	15:57:44	-38
7/5/2008	1.1	7/5/2008	7:00:00	-38.8	7/5/2008	0:41:00	2.2	7/5/2008	7:00	-29.2	7/5/2008	0:00	-38	7/5/2008	15:57:44	-38
7/6/2008	0.03	7/6/2008	7:00:00	-22.1	7/6/2008	0:41:00	3	7/6/2008	7:00	-29.2	7/6/2008	0:00	-30.1	7/6/2008	15:57:44	-37.6
7/7/2008	0	7/7/2008	7:00:00	-24.6	7/7/2008	0:41:00	2.5	7/7/2008	7:00	-29.2	7/7/2008	0:00	-34.7	7/7/2008	15:57:44	-37.8
7/8/2008	0.11	7/8/2008	7:00:00	-28.5	7/8/2008	0:41:00	2.5	7/8/2008	7:00	-29.1	7/8/2008	0:00	-36.9	7/8/2008	15:57:44	-37.8
7/9/2008	0.15	7/9/2008	7:00:00	-32.2	7/9/2008	0:41:00	2.4	7/9/2008	7:00	-29.1	7/9/2008	0:00	-36.8	7/9/2008	15:57:44	-37.8
7/10/2008	0.77	7/10/2008	7:00:00	-23.5	7/10/2008	0:41:00	2.5	7/10/2008	7:00	-29.2	7/10/2008	0:00	-37	7/10/2008	15:57:44	-39.4

Appendix 2.1 Data Tables for Hydrological Data  
Shepherds Tree Stream and Wetland Restoration

Rain Gauge	Gauge 1 Serial # - 11312632	Gauge 2 Serial # - EBDC929	Gauge 3 Serial Number: 9BEBD04	Gauge 4 Serial # - A3C227C	Gauge 5 Serial # - 1130E4A1	Gauge 6 Serial # - EBD4A7A	
Date	Level (in)	Date	Date	Date	Date	Date	
7/11/2008	0	7/11/2008	7:00:00 -23.1	7/11/2008	7:00:00 -29.1	7/11/2008	7:00:00 -23.9
7/12/2008	0	7/12/2008	7:00:00 -26.5	7/12/2008	7:00:00 -29.2	7/12/2008	7:00:00 -31.4
7/13/2008	0.05	7/13/2008	7:00:00 -29.8	7/13/2008	7:00:00 -29.2	7/13/2008	7:00:00 -35.6
7/14/2008	0	7/14/2008	7:00:00 -33.1	7/14/2008	7:00:00 -29.1	7/14/2008	7:00:00 -36.8
7/15/2008	0.01	7/15/2008	7:00:00 -35	7/15/2008	7:00:00 -29.2	7/15/2008	7:00:00 -37.2
7/16/2008	Ants	7/16/2008	7:00:00 -35.9	7/16/2008	7:00:00 -29.1	7/16/2008	7:00:00 -37.3
7/17/2008	Ants	7/17/2008	7:00:00 -36.7	7/17/2008	7:00:00 -29.2	7/17/2008	7:00:00 -37.3
7/18/2008	Ants	7/18/2008	7:00:00 -37.5	7/18/2008	7:00:00 -29.2	7/18/2008	7:00:00 -37.1
7/19/2008	Ants	7/19/2008	7:00:00 -38.6	7/19/2008	7:00:00 -29.2	7/19/2008	7:00:00 -37.1
7/20/2008	Ants	7/20/2008	7:00:00 -38.6	7/20/2008	7:00:00 -29.2	7/20/2008	7:00:00 -37.1
7/21/2008	Ants	7/21/2008	7:00:00 -38.7	7/21/2008	7:00:00 -29.2	7/21/2008	7:00:00 -37.2
7/22/2008	Ants	7/22/2008	7:00:00 -38.7	7/22/2008	7:00:00 -29.2	7/22/2008	7:00:00 -37.5
7/23/2008	Ants	7/23/2008	7:00:00 -22.2	7/23/2008	7:00:00 -29.2	7/23/2008	7:00:00 -37.2
7/24/2008	Ants	7/24/2008	7:00:00 -23.5	7/24/2008	7:00:00 -29.3	7/24/2008	7:00:00 -36.7
7/25/2008	Ants	7/25/2008	7:00:00 -28.5	7/25/2008	7:00:00 -29.4	7/25/2008	7:00:00 -36.4
7/26/2008	Ants	7/26/2008	7:00:00 -31.6	7/26/2008	7:00:00 -29.4	7/26/2008	7:00:00 -36.8
7/27/2008	Ants	7/27/2008	7:00:00 -34.6	7/27/2008	7:00:00 -29.3	7/27/2008	7:00:00 -37.1
7/28/2008	Ants	7/28/2008	7:00:00 -37.2	7/28/2008	7:00:00 -29.4	7/28/2008	7:00:00 -36.9
7/29/2008	Ants	7/29/2008	7:00:00 -38.9	7/29/2008	7:00:00 -29.3	7/29/2008	7:00:00 -36.8
7/30/2008	Ants	7/30/2008	7:00:00 -39	7/30/2008	7:00:00 -29.1	7/30/2008	7:00:00 -37.2
7/31/2008	Ants	7/31/2008	7:00:00 -25.8	7/31/2008	7:00:00 -29.2	7/31/2008	7:00:00 -37
8/1/2008	Ants	8/1/2008	7:00:00 -25.6	8/1/2008	7:00:00 -29.2	8/1/2008	7:00:00 -36.9
8/2/2008	Ants	8/2/2008	7:00:00 -32.1	8/2/2008	7:00:00 -29.3	8/2/2008	7:00:00 -36.3
8/3/2008	Ants	8/3/2008	7:00:00 -38.3	8/3/2008	7:00:00 -29.3	8/3/2008	7:00:00 -36.2
8/4/2008	Ants	8/4/2008	7:00:00 -39.2	8/4/2008	7:00:00 -29.4	8/4/2008	7:00:00 -36.4
8/5/2008	Ants	8/5/2008	7:00:00 -39.3	8/5/2008	7:00:00 -29.4	8/5/2008	7:00:00 -36.2
8/6/2008	Ants	8/6/2008	7:00:00 -39.7	8/6/2008	7:00:00 -29.4	8/6/2008	7:00:00 -36.4
8/7/2008	Ants	8/7/2008	7:00:00 -39.9	8/7/2008	7:00:00 -29.4	8/7/2008	7:00:00 -36.8
8/8/2008	Ants	8/8/2008	7:00:00 -39.9	8/8/2008	7:00:00 -29.4	8/8/2008	7:00:00 -37
8/9/2008	Ants	8/9/2008	7:00:00 -39.9	8/9/2008	7:00:00 -29.5	8/9/2008	7:00:00 -37.2
8/10/2008	Ants	8/10/2008	7:00:00 -40.1	8/10/2008	7:00:00 -29.5	8/10/2008	7:00:00 -36.8
8/11/2008	Ants	8/11/2008	7:00:00 -40.2	8/11/2008	7:00:00 -29.6	8/11/2008	7:00:00 -36
8/12/2008	Ants	8/12/2008	7:00:00 -40.1	8/12/2008	7:00:00 -29.6	8/12/2008	7:00:00 -37.2
8/13/2008	Ants	8/13/2008	7:00:00 -20.3	8/13/2008	7:00:00 -29.4	8/13/2008	7:00:00 -37.2
8/14/2008	Ants	8/14/2008	7:00:00 -35.3	8/14/2008	7:00:00 -29.5	8/14/2008	7:00:00 -36.3
8/15/2008	Ants	8/15/2008	7:00:00 -38.8	8/15/2008	7:00:00 -29.6	8/15/2008	7:00:00 -36
8/16/2008	Ants	8/16/2008	7:00:00 -39.6	8/16/2008	7:00:00 -29.6	8/16/2008	7:00:00 -36.3
8/17/2008	Ants	8/17/2008	7:00:00 -22.9	8/17/2008	7:00:00 -29.6	8/17/2008	7:00:00 -36
8/18/2008	Ants	8/18/2008	7:00:00 -36.2	8/18/2008	7:00:00 -29.6	8/18/2008	7:00:00 -36.2
8/19/2008	Ants	8/19/2008	7:00:00 -39.6	8/19/2008	7:00:00 -29.6	8/19/2008	7:00:00 -36.5
8/20/2008	Ants	8/20/2008	7:00:00 -39.8	8/20/2008	7:00:00 -29.6	8/20/2008	7:00:00 -35.9
8/21/2008	Ants	8/21/2008	7:00:00 -40	8/21/2008	7:00:00 -29.6	8/21/2008	7:00:00 -36.1
8/22/2008	Ants	8/22/2008	7:00:00 -40.2	8/22/2008	7:00:00 -29.6	8/22/2008	7:00:00 -36.2
8/23/2008	Ants	8/23/2008	7:00:00 -40.3	8/23/2008	7:00:00 -29.6	8/23/2008	7:00:00 -36.2
8/24/2008	Ants	8/24/2008	7:00:00 -40.1	8/24/2008	7:00:00 -29.7	8/24/2008	7:00:00 -36.5
8/25/2008	Ants	8/25/2008	7:00:00 -40.3	8/25/2008	7:00:00 -29.7	8/25/2008	7:00:00 -36.4
8/26/2008	Ants	8/26/2008	7:00:00 -40.3	8/26/2008	7:00:00 -29.3	8/26/2008	7:00:00 -35.8
8/27/2008	Ants	8/27/2008	7:00:00 0.7	8/27/2008	7:00:00 -0.7	8/27/2008	7:00:00 -33.8

Appendix 2.1 Data Tables for Hydrological Data  
Shepherds Tree Stream and Wetland Restoration  
Year 3 of 5

Rain Gauge	Gauge 1 Serial # - 11312632	Gauge 2 Serial # - EBDC929	Gauge 3 Serial Number: 9BEBD04	Gauge 4 Serial # - A3C227C	Gauge 5 Serial # - 1130E4A1	Gauge 6 Serial # - EBD4A7A
8/28/2008	Ants					
8/29/2008	Ants					
8/30/2008	Ants					
8/31/2008	Ants					
9/1/2008	Ants					
9/2/2008	Ants					
9/3/2008	Ants					
9/4/2008	Ants					
9/5/2008	Ants					
9/6/2008	Ants					
9/7/2008	Ants					
9/8/2008	Ants					
9/9/2008	Ants					
9/10/2008	Ants					
9/11/2008	Ants					
9/12/2008	Ants					
9/13/2008	Ants					
9/14/2008	Ants					
9/15/2008	Ants					
9/16/2008	Ants					
9/17/2008	Ants					
9/18/2008	Ants					
9/19/2008	Ants					
9/20/2008	Ants					
9/21/2008	Ants					
9/22/2008	Ants					
9/23/2008	Ants					
9/24/2008	Ants					
9/25/2008	Ants					
9/26/2008	Ants					
9/27/2008	Ants					
9/28/2008	Ants					
9/29/2008	Ants					
9/30/2008	Ants					
10/1/2008	*					
10/2/2008	*					
10/3/2008	*	#				
10/4/2008	*					
10/5/2008	*					
10/6/2008	*					
10/7/2008	*					
10/8/2008	*					
10/9/2008	*					
10/10/2008	*					
10/11/2008	*					
10/12/2008	*					
10/13/2008	*					
10/14/2008	*					
8/28/2008	7:00:00	-2.2				
8/29/2008	7:00:00	-6.5				
8/30/2008	7:00:00	-9.6				
8/31/2008	7:00:00	-12.6				
9/1/2008	7:00:00	-15.4				
9/2/2008	7:00:00	-18.5				
9/3/2008	7:00:00	-21				
9/4/2008	7:00:00	-23.1				
9/5/2008	7:00:00	-25.3				
9/6/2008	7:00:00	-26.2				
9/7/2008	7:00:00	-28.4				
9/8/2008	7:00:00	-30				
9/9/2008	7:00:00	0				
9/10/2008	7:00:00	-0.3				
9/11/2008	7:00:00	0.4				
9/12/2008	7:00:00	-2.3				
9/13/2008	7:00:00	-4.5				
9/14/2008	7:00:00	-6.9				
9/15/2008	7:00:00	-9				
9/16/2008	7:00:00	0.9				
9/17/2008	7:00:00	-0.1				
9/18/2008	7:00:00	-3.6				
9/19/2008	7:00:00	-6.1				
9/20/2008	7:00:00	-7.7				
9/21/2008	7:00:00	-9.2				
9/22/2008	7:00:00	-10.3				
9/23/2008	7:00:00	-12.4				
9/24/2008	7:00:00	-13.8				
9/25/2008	7:00:00	-15.5				
9/26/2008	7:00:00	-12.3				
9/27/2008	7:00:00	-2.5				
9/28/2008	7:00:00	-1.3				
9/29/2008	7:00:00	-4.5				
9/30/2008	7:00:00	-6.3				
10/1/2008	7:00:00	0.3				
10/2/2008	7:00:00	-2.4				
10/3/2008	7:00:00	-4.8				
10/4/2008	7:00:00	-6.5				
10/5/2008	7:00:00	-7.7				
10/6/2008	7:00:00	-8.6				
10/7/2008	7:00:00	-9.5				
10/8/2008	7:00:00	-10.1				
10/9/2008	7:00:00	-4.8				
10/10/2008	7:00:00	-5.9				
10/11/2008	7:00:00	-7.4				
10/12/2008	7:00:00	-8.9				
10/13/2008	7:00:00	-10.4				
10/14/2008	7:00:00	-11.5				
8/28/2008	0:41:00	3.8				
8/29/2008	0:41:00	3.2				
8/30/2008	0:41:00	2.9				
8/31/2008	0:41:00	2.9				
9/1/2008	0:41:00	3.1				
9/2/2008	0:41:00	2.8				
9/3/2008	0:41:00	2.6				
9/4/2008	0:41:00	2.6				
9/5/2008	0:41:00	2.5				
9/6/2008	0:41:00	3.3				
9/7/2008	0:41:00	2.9				
9/8/2008	0:41:00	2.8				
9/9/2008	0:41:00	5.1				
9/10/2008	0:41:00	4.4				
9/11/2008	0:41:00	4.2				
9/12/2008	0:41:00	4.4				
9/13/2008	0:41:00	3.8				
9/14/2008	0:41:00	3.5				
9/15/2008	0:41:00	3.5				
9/16/2008	0:41:00	3.3				
9/17/2008	0:41:00	4.1				
9/18/2008	0:41:00	2.9				
9/19/2008	0:41:00	2.9				
9/20/2008	0:41:00	2.7				
9/21/2008	0:41:00	2.6				
9/22/2008	0:41:00	2.9				
9/23/2008	0:41:00	2.7				
9/24/2008	0:41:00	2.5				
9/25/2008	0:41:00	2.6				
9/26/2008	0:41:00	2.9				
9/27/2008	0:41:00	3.8				
9/28/2008	0:41:00	3.8				
9/29/2008	0:41:00	2.9				
9/30/2008	0:41:00	2.9				
10/1/2008	0:41:00	3.8				
10/2/2008	0:41:00	2.4				
10/3/2008	0:41:00	2.2				
10/4/2008	0:41:00	2.2				
10/5/2008	0:41:00	2.3				
10/6/2008	0:41:00	2.3				
10/7/2008	0:41:00	2.3				
10/8/2008	0:41:00	2.5				
10/9/2008	0:41:00	3				
10/10/2008	0:41:00	3.4				
10/11/2008	0:41:00	3.1				
10/12/2008	0:41:00	2.6				
10/13/2008	0:41:00	2.2				
10/14/2008	0:41:00	2.2				
8/28/2008	7:00	-2.7				
8/29/2008	7:00	-7.1				
8/30/2008	7:00	-13				
8/31/2008	7:00	-16.5				
9/1/2008	7:00	-19				
9/2/2008	7:00	-22.1				
9/3/2008	7:00	-24.8				
9/4/2008	7:00	-27.3				
9/5/2008	7:00	-29				
9/6/2008	7:00	-29.2				
9/7/2008	7:00	-29.4				
9/8/2008	7:00	-29.5				
9/9/2008	7:00	0				
9/10/2008	7:00	2.3				
9/11/2008	7:00	1.1				
9/12/2008	7:00	-0.3				
9/13/2008	7:00	-3.2				
9/14/2008	7:00	-6.2				
9/15/2008	7:00	-10.7				
9/16/2008	7:00	3.2				
9/17/2008	7:00	0.3				
9/18/2008	7:00	-1.7				
9/19/2008	7:00	-4				
9/20/2008	7:00	-6.3				
9/21/2008	7:00	-8.8				
9/22/2008	7:00	-11.6				
9/23/2008	7:00	-14				
9/24/2008	7:00	-15.9				
9/25/2008	7:00	-17.3				
9/26/2008	7:00	-4.3				
9/27/2008	7:00	1.8				
9/28/2008	7:00	-1.7				
9/29/2008	7:00	-1.2				
9/30/2008	7:00	-1.7				
9/31/2008	7:00	-2.6				
9/22/2008	7:00	-2.9				
9/23/2008	7:00	-4.6				
9/24/2008	7:00	-6.2				
9/25/2008	7:00	-8.5				
9/26/2008	7:00	-7.6				
9/27/2008	7:00	5.4				
9/28/2008	7:00	2.6				
9/29/2008	7:00	0.7				
9/30/2008	7:00	0.3				
10/1/2008	7:00	2.1				
10/2/2008	7:00	-0.9				
10/3/2008	7:00	-2.8				
10/4/2008	7:00	-4.2				
10/5/2008	7:00	-5.8				
10/6/2008	7:00	-7.3				
10/7/2008	7:00	-8.6				
10/8/2008	7:00	-8.9				
10/9/2008	7:00	-1				
10/10/2008	7:00	-2				
10/11/2008	7:00	-3.9				
10/12/2008	7:00	-5.9				
10/13/2008	7:00	-7.7				
10/14/2008	7:00	-9.3				
8/28/2008	0:00	-0.3				
8/29/2008	0:00	-1.9				
8/30/2008	0:00	-3.3				
8/31/2008	0:00	-5.5				
9/1/2008	0:00	-9.4				
9/2/2008	0:00	-13.8				
9/3/2008	0:00	-18.2				
9/4/2008	0:00	-22.5				
9/5/2008	0:00	-26.4				
9/6/2008	0:00	-28.5				
9/7/2008	0:00	-31.7				
9/8/2008	0:00	-34.2				
9/9/2008	0:00	3.2				</td

Rain Gauge	Gauge 1	Gauge 2	Gauge 3	Gauge 4	Gauge 5	Gauge 6																
Date	Level (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)	Date	Time	Depth (in)
10/15/2008	*	10/15/2008	7:00:00	-12.4	10/15/2008	0:41:00	2.1	10/15/2008	7:00	-11.2	10/15/2008	0:00	-4.3	10/15/2008	15:57:44	-37.1	10/15/2008	7:00	1.5	10/15/2008	7:00	1.5
10/16/2008	*	10/16/2008	7:00:00	-13.2	10/16/2008	0:41:00	2.1	10/16/2008	7:00	-12.6	10/16/2008	0:00	-5.5	10/16/2008	15:57:44	-37.1	10/16/2008	7:00	1.4	10/16/2008	7:00	1.4
10/17/2008	*	10/17/2008	7:00:00	-13.3	10/17/2008	0:41:00	2.9	10/17/2008	7:00	-7.5	10/17/2008	0:00	-5	10/17/2008	15:57:44	-36.7	10/17/2008	7:00	2	10/17/2008	7:00	2
10/18/2008	*	10/18/2008	7:00:00	-8.1	10/18/2008	0:41:00	2.2	10/18/2008	7:00	-4.4	10/18/2008	0:00	0.5	10/18/2008	15:57:44	-36.9	10/18/2008	7:00	1.9	10/18/2008	7:00	1.9
10/19/2008	*	10/19/2008	7:00:00	-9.5	10/19/2008	0:41:00	2	10/19/2008	7:00	-6.7	10/19/2008	0:00	-2.4	10/19/2008	15:57:44	-36.9	10/19/2008	7:00	1.4	10/19/2008	7:00	1.4
10/20/2008	*	10/20/2008	7:00:00	-10.7	10/20/2008	0:41:00	1.6	10/20/2008	7:00	-8.4	10/20/2008	0:00	-4.3	10/20/2008	15:57:44	-36.7	10/20/2008	7:00	1	10/20/2008	7:00	1
10/21/2008	*	10/21/2008	7:00:00	-11.4	10/21/2008	0:41:00	1.6	10/21/2008	7:00	-9.6	10/21/2008	0:00	-4.9	10/21/2008	15:57:44	-36.7	10/21/2008	7:00	0.9	10/21/2008	7:00	0.9
10/22/2008	*	10/22/2008	7:00:00	-12.5	10/22/2008	0:41:00	1.6	10/22/2008	7:00	-11.4	10/22/2008	0:00	-6.4	10/22/2008	15:57:44	-36.7	10/22/2008	7:00	0.8	10/22/2008	7:00	0.8
10/23/2008	*	10/23/2008	7:00:00	-13.5	10/23/2008	0:41:00	1.3	10/23/2008	7:00	-13.1	10/23/2008	0:00	-8.5	10/23/2008	15:57:44	-36.7	10/23/2008	7:00	0.6	10/23/2008	7:00	0.6
10/24/2008	*	10/24/2008	7:00:00	-13.6	10/24/2008	0:41:00	1.5	10/24/2008	7:00	-13.2	10/24/2008	0:00	-9.2	10/24/2008	15:57:44	-36.5	10/24/2008	7:00	0.8	10/24/2008	7:00	0.8
10/25/2008	*	10/25/2008	7:00:00	-8.7	10/25/2008	0:41:00	2	10/25/2008	7:00	-3.1	10/25/2008	0:00	-4.9	10/25/2008	15:57:44	-36.3	10/25/2008	7:00	1.3	10/25/2008	7:00	1.3
10/26/2008	*	10/26/2008	7:00:00	-8.7	10/26/2008	0:41:00	1.5	10/26/2008	7:00	-5.4	10/26/2008	0:00	-2.7	10/26/2008	15:57:44	-36.7	10/26/2008	7:00	0.7	10/26/2008	7:00	0.7
10/27/2008	*	10/27/2008	7:00:00	-9.5	10/27/2008	0:41:00	1.3	10/27/2008	7:00	-6.8	10/27/2008	0:00	-4.1	10/27/2008	15:57:44	-36.5	10/27/2008	7:00	0.6	10/27/2008	7:00	0.6
10/28/2008	*	10/28/2008	7:00:00	-10.7	10/28/2008	0:41:00	1.1	10/28/2008	7:00	-8.5	10/28/2008	0:00	-5.9	10/28/2008	15:57:44	-36.7	10/28/2008	7:00	0.3	10/28/2008	7:00	0.3
10/29/2008	*	10/29/2008	7:00:00	-11.4	10/29/2008	0:41:00	1	10/29/2008	7:00	-9.7	10/29/2008	0:00	-7.4	10/29/2008	15:57:44	-36.7	10/29/2008	7:00	0.1	10/29/2008	7:00	0.1
10/30/2008	*	10/30/2008	7:00:00	-12.4	10/30/2008	0:41:00	0.9	10/30/2008	7:00	-11.6	10/30/2008	0:00	-8.8	10/30/2008	15:57:44	-36.7	10/30/2008	7:00	0.1	10/30/2008	7:00	0.1
10/31/2008	*	10/31/2008	7:00:00	-12.9	10/31/2008	0:41:00	0.9	10/31/2008	7:00	-12.6	10/31/2008	0:00	-10.1	10/31/2008	15:57:44	-36.7	10/31/2008	7:00	0	10/31/2008	7:00	0

\*Rain Gauge malfunction (Please refer to section 2.3 for further details)

**Gauge 7**  
Serial # - 1130E9D8

Date	Time	Depth (in)
1/1/2008	7:00:00	-12.1
1/2/2008	7:00:00	-19.4
1/3/2008	7:00:00	-28.2
1/4/2008	7:00:00	-31.6
1/5/2008	7:00:00	-33.3
1/6/2008	7:00:00	-34.3
1/7/2008	7:00:00	-35.3
1/8/2008	7:00:00	-36.2
1/9/2008	7:00:00	-36.4
1/10/2008	7:00:00	-37.4
1/11/2008	7:00:00	-37.2
1/12/2008	7:00:00	-32.6
1/13/2008	7:00:00	-34.3
1/14/2008	7:00:00	-35.3
1/15/2008	7:00:00	-36.2
1/16/2008	7:00:00	-37.7
1/17/2008	7:00:00	-37.6
1/18/2008	7:00:00	-13
1/19/2008	7:00:00	-11.9
1/20/2008	7:00:00	-13
1/21/2008	7:00:00	-19.2
1/22/2008	7:00:00	-21.7
1/23/2008	7:00:00	-19.9
1/24/2008	7:00:00	-21.7
1/25/2008	7:00:00	-27
1/26/2008	7:00:00	-29.1
1/27/2008	7:00:00	-29.9
1/28/2008	7:00:00	-32
1/29/2008	7:00:00	-32
1/30/2008	7:00:00	-31.6
1/31/2008	7:00:00	-33.5
2/1/2008	7:00:00	-5.9
2/2/2008	7:00:00	-5.4
2/3/2008	7:00:00	-5.4
2/4/2008	7:00:00	-5
2/5/2008	7:00:00	-5
2/6/2008	7:00:00	-4.6
2/7/2008	7:00:00	-5.4
2/8/2008	7:00:00	-5.9
2/9/2008	7:00:00	-6.1
2/10/2008	7:00:00	-6.5
2/11/2008	7:00:00	-7.3
2/12/2008	7:00:00	-8
2/13/2008	7:00:00	-6.3
2/14/2008	7:00:00	-6.1
2/15/2008	7:00:00	-6.3
2/16/2008	7:00:00	-6.3
2/17/2008	7:00:00	-6.5
2/18/2008	7:00:00	-5.6
2/19/2008	7:00:00	-6.5
2/20/2008	7:00:00	-7.1
2/21/2008	7:00:00	-7.9
2/22/2008	7:00:00	-7.3
2/23/2008	7:00:00	-7.5
2/24/2008	7:00:00	-9.8
2/25/2008	7:00:00	-10.3
2/26/2008	7:00:00	-11.3
2/27/2008	7:00:00	-6.5
2/28/2008	7:00:00	-7.5
2/29/2008	7:00:00	-8.2
3/1/2008	7:00:00	-8.8
3/2/2008	7:00:00	-12.1

**Gauge 8**  
Serial # - S4F59E5

Date	Time	Depth (in)
1/1/2008	7:00:00	2.6
1/2/2008	7:00:00	2.1
1/3/2008	7:00:00	1.1
1/4/2008	7:00:00	0.8
1/5/2008	7:00:00	0.9
1/6/2008	7:00:00	1.5
1/7/2008	7:00:00	1.7
1/8/2008	7:00:00	2.5
1/9/2008	7:00:00	3.6
1/10/2008	7:00:00	2.6
1/11/2008	7:00:00	3.6
1/12/2008	7:00:00	2.1
1/13/2008	7:00:00	2.5
1/14/2008	7:00:00	1.9
1/15/2008	7:00:00	1.1
1/16/2008	7:00:00	0.8
1/17/2008	7:00:00	1.3
1/18/2008	7:00:00	2.8
1/19/2008	7:00:00	3
1/20/2008	7:00:00	2.1
1/21/2008	7:00:00	1.1
1/22/2008	7:00:00	1.3
1/23/2008	7:00:00	1.9
1/24/2008	7:00:00	2.8
1/25/2008	7:00:00	1.1
1/26/2008	7:00:00	1.5
1/27/2008	7:00:00	1.3
1/28/2008	7:00:00	0.9
1/29/2008	7:00:00	2.8
1/30/2008	7:00:00	2.8
1/31/2008	7:00:00	1.1
2/1/2008	7:00:00	3.6
2/2/2008	7:00:00	2.6
2/3/2008	7:00:00	2.5
2/4/2008	7:00:00	3.4
2/5/2008	7:00:00	3
2/6/2008	7:00:00	3.6
2/7/2008	7:00:00	2.6
2/8/2008	7:00:00	2.3
2/9/2008	7:00:00	2.3
2/10/2008	7:00:00	2.3
2/11/2008	7:00:00	1.7
2/12/2008	7:00:00	2.1
2/13/2008	7:00:00	2.8
2/14/2008	7:00:00	2.3
2/15/2008	7:00:00	2.3
2/16/2008	7:00:00	2.6
2/17/2008	7:00:00	2.6
2/18/2008	7:00:00	3.6
2/19/2008	7:00:00	2.3
2/20/2008	7:00:00	2.3
2/21/2008	7:00:00	2.3
2/22/2008	7:00:00	2.6
2/23/2008	7:00:00	3.4
2/24/2008	7:00:00	2.6
2/25/2008	7:00:00	3
2/26/2008	7:00:00	3.4
2/27/2008	7:00:00	3
2/28/2008	7:00:00	2.1
2/29/2008	7:00:00	2.1
3/1/2008	7:00:00	2.8
3/2/2008	7:00:00	2.1

**Gauge 10**  
Serial # - S4941E6

Date	Time	Depth (in)
1/1/2008	7:00:00	-14.30
1/2/2008	7:00:00	-19.50
1/3/2008	7:00:00	-25.20
1/4/2008	7:00:00	-28.90
1/5/2008	7:00:00	-31.60
1/6/2008	7:00:00	-33.30
1/7/2008	7:00:00	-34.40
1/8/2008	7:00:00	-35.10
1/9/2008	7:00:00	-36.30
1/10/2008	7:00:00	-36.80
1/11/2008	7:00:00	-36.50
1/12/2008	7:00:00	-37.00
1/13/2008	7:00:00	-36.80
1/14/2008	7:00:00	-36.80
1/15/2008	7:00:00	-36.80
1/16/2008	7:00:00	-36.80
1/17/2008	7:00:00	-36.50
1/18/2008	7:00:00	-28.80
1/19/2008	7:00:00	-21.80
1/20/2008	7:00:00	-26.30
1/21/2008	7:00:00	-31.20
1/22/2008	7:00:00	-33.40
1/23/2008	7:00:00	-33.80
1/24/2008	7:00:00	-34.60
1/25/2008	7:00:00	-36.30
1/26/2008	7:00:00	-36.80
1/27/2008	7:00:00	-36.80
1/28/2008	7:00:00	-36.80
1/29/2008	7:00:00	-36.80
1/30/2008	7:00:00	-36.50
1/31/2008	7:00:00	-36.80
2/1/2008	7:00:00	-26.30
2/2/2008	7:00:00	-5.80
2/3/2008	7:00:00	-11.70
2/4/2008	7:00:00	-14.50
2/5/2008	7:00:00	-16.30
2/6/2008	7:00:00	-18.80
2/7/2008	7:00:00	-23.10
2/8/2008	7:00:00	-27.40
2/9/2008	7:00:00	-30.40
2/10/2008	7:00:00	-33.60
2/11/2008	7:00:00	-34.80
2/12/2008	7:00:00	-35.30
2/13/2008	7:00:00	-35.90
2/14/2008	7:00:00	-29.30
2/15/2008	7:00:00	-29.50
2/16/2008	7:00:00	-31.90
2/17/2008	7:00:00	-33.60
2/18/2008	7:00:00	-33.80
2/19/2008	7:00:00	-35.00
2/20/2008	7:00:00	-35.70
2/21/2008	7:00:00	-36.80
2/22/2008	7:00:00	-36.50
2/23/2008	7:00:00	-36.50
2/24/2008	7:00:00	-36.60
2/25/2008	7:00:00	-36.30
2/26/2008	7:00:00	-36.50
2/27/2008	7:00:00	-33.10
2/28/2008	7:00:00	-34.00
2/29/2008	7:00:00	-34.80
3/1/2008	7:00:00	-35.30
3/2/2008	7:00:00	-36.80

**Gauge 11**  
Serial # - 11310FFD

Date	Time	Depth (in)
1/1/2008	7:00:00	3.0
1/2/2008	7:00:00	3.0
1/3/2008	7:00:00	3.0
1/4/2008	7:00:00	3.0
1/5/2008	7:00:00	3.0
1/6/2008	7:00:00	3.0
1/7/2008	7:00:00	3.0
1/8/2008	7:00:00	3.0
1/9/2008	7:00:00	3.0
1/10/2008	7:00:00	3.0
1/11/2008	7:00:00	3.0
1/12/2008	7:00:00	3.0
1/13/2008	7:00:00	3.0
1/14/2008	7:00:00	3.0
1/15/2008	7:00:00	3.0
1/16/2008	7:00:00	3.0
1/17/2008	7:00:00	3.0
1/18/2008	7:00:00	3.0
1/19/2008	7:00:00	3.0
1/20/2008	7:00:00	3.0
1/21/2008	7:00:00	3.0
1/22/2008	7:00:00	3.0
1/23/2008	7:00:00	3.0
1/24/2008	7:00:00	3.0
1/25/2008	7:00:00	3.0
1/26/2008	7:00:00	3.0
1/27/2008	7:00:00	3.0
1/28/2008	7:00:00	3.0
1/29/2008	7:00:00	3.0
3/1/2008	7:00:00	3.0
3/2/2008	7:00:00	3.0

**Gauge 12**  
Serial # - 11312153

Date	Time	Depth (in)
1/1/2008	7:00:00	-3.9
1/2/2008	7:00:00	-0.8
1/3/2008	7:00:00	-1.9
1/4/2008	7:00:00	-2.1
1/5/2008	7:00:00	-1.7
1/6/2008	7:00:00	-1.5
1/7/2008	7:00:00	-1.9
1/8/2008	7:00:00	1.5
1/9/2008	7:00:00	-1.3
1/10/2008	7:00:00	-1.9
1/11/2008	7:00:00	-2.5
1/12/2008	7:00:00	-2.5
1/13/2008	7:00:00	-1.9
1/14/2008	7:00:00	-1.9
1/15/2008	7:00:00	-1.9
1/16/2008	7:00:00	-2.3
1/17/2008	7:00:00	-2.7
1/18/2008	7:00:00	-2.9
1/19/2008	7:00:00	-2.7
1/20/2008	7:00:00	-2.7
1/21/2008	7:00:00	-2.9
1/22/2008	7:00:00	-1.3
1/23/2008	7:00:00	-2.3
1/24/2008	7:00:00	-2.7
1/25/2008	7:00:00	-2.9
1/26/2008	7:00:00	-3.3
1/27/2008	7:00:00	-3.1
1/28/2008	7:00:00	-3.3
1/29/2008	7:00:00	-3.5
1/30/2008	7:00:00	-3.5
1/31/2008	7:00:00	-3.3
2/1/2008	7:00:00	-3.3
2/2/2008	7:00:00	-2.7
2/3/2008	7:00:00	-3.3
2/4/2008	7:00:00	-3.5
2/5/2008	7:00:00	-3.7
2/6/2008	7:00:00	-3.9
2/7/2008	7:00:00	-3.5
2/8/2008		

**Gauge 7**  
Serial # - 1130E9D8

Date	Time	Depth (in)
3/3/2008	7:00:00	-14
3/4/2008	7:00:00	-14.4
3/5/2008	7:00:00	-4
3/6/2008	7:00:00	-4.4
3/7/2008	7:00:00	-4
3/8/2008	7:00:00	-3.1
3/9/2008	7:00:00	-4.6
3/10/2008	7:00:00	-4.6
3/11/2008	7:00:00	-4.6
3/12/2008	7:00:00	-5
3/13/2008	7:00:00	-5
3/14/2008	7:00:00	-5.2
3/15/2008	7:00:00	-5.2
3/16/2008	7:00:00	-3.8
3/17/2008	7:00:00	-4.4
3/18/2008	7:00:00	-4.4
3/19/2008	7:00:00	-4.4
3/20/2008	7:00:00	-3.8
3/21/2008	7:00:00	-4.4
3/22/2008	7:00:00	-4.2
3/23/2008	7:00:00	-4.6
3/24/2008	7:00:00	-5
3/25/2008	7:00:00	-5.7
3/26/2008	7:00:00	-5.9
3/27/2008	7:00:00	-6.1
3/28/2008	7:00:00	-6.7
3/29/2008	7:00:00	-9
3/30/2008	7:00:00	-6.7
3/31/2008	7:00:00	-4.2
4/1/2008	7:00:00	-3.8
4/2/2008	7:00:00	-4.2
4/3/2008	7:00:00	-4.8
4/4/2008	7:00:00	-3.4
4/5/2008	7:00:00	-2.7
4/6/2008	7:00:00	-2.9
4/7/2008	7:00:00	-3.4
4/8/2008	7:00:00	-3.6
4/9/2008	7:00:00	-3.8
4/10/2008	7:00:00	-4
4/11/2008	7:00:00	-4.2
4/12/2008	7:00:00	-4.4
4/13/2008	7:00:00	-5.2
4/14/2008	7:00:00	-5.9
4/15/2008	7:00:00	-6.3
4/16/2008	7:00:00	-9
4/17/2008	7:00:00	-12.5
4/18/2008	7:00:00	-16.7
4/19/2008	7:00:00	-19.7
4/20/2008	7:00:00	-5.9
4/21/2008	7:00:00	-8.8
4/22/2008	7:00:00	-11.5
4/23/2008	7:00:00	-15.1
4/24/2008	7:00:00	-18.6
4/25/2008	7:00:00	-22.6
4/26/2008	7:00:00	-26.1
4/27/2008	7:00:00	-28.4
4/28/2008	7:00:00	-16.1
4/29/2008	7:00:00	-5.7
4/30/2008	7:00:00	-7.1
5/1/2008	7:00:00	-11.7
5/2/2008	7:00:00	-16.5
5/3/2008	7:00:00	-21.1

**Gauge 8**  
Serial # - S4F59E5

Date	Time	Depth (in)
3/3/2008	7:00:00	2.1
3/4/2008	7:00:00	3.6
3/5/2008	7:00:00	3.6
3/6/2008	7:00:00	3.2
3/7/2008	7:00:00	3.6
3/8/2008	7:00:00	3.6
3/9/2008	7:00:00	2.6
3/10/2008	7:00:00	2.6
3/11/2008	7:00:00	2.8
3/12/2008	7:00:00	2.6
3/13/2008	7:00:00	2.6
3/14/2008	7:00:00	3.4
3/15/2008	7:00:00	3.4
3/16/2008	7:00:00	3.6
3/17/2008	7:00:00	3.4
3/18/2008	7:00:00	3.6
3/19/2008	7:00:00	3.6
3/20/2008	7:00:00	3.6
3/21/2008	7:00:00	3.4
3/22/2008	7:00:00	3.6
3/23/2008	7:00:00	3.0
3/24/2008	7:00:00	3.0
3/25/2008	7:00:00	2.5
3/26/2008	7:00:00	2.8
3/27/2008	7:00:00	3.0
3/28/2008	7:00:00	3.4
3/29/2008	7:00:00	3.4
3/30/2008	7:00:00	3.4
3/31/2008	7:00:00	3.6
4/1/2008	7:00:00	3.6
4/2/2008	7:00:00	3.6
4/3/2008	7:00:00	3.6
4/4/2008	7:00:00	3.6
4/5/2008	7:00:00	3.6
4/6/2008	7:00:00	3.6
4/7/2008	7:00:00	3.6
4/8/2008	7:00:00	3.6
4/9/2008	7:00:00	3.6
4/10/2008	7:00:00	3.6
4/11/2008	7:00:00	3.6
4/12/2008	7:00:00	3.6
4/13/2008	7:00:00	3.6
4/14/2008	7:00:00	2.8
4/15/2008	7:00:00	2.8
4/16/2008	7:00:00	1.7
4/17/2008	7:00:00	1.3
4/18/2008	7:00:00	0.9
4/19/2008	7:00:00	1.3
4/20/2008	7:00:00	3.6
4/21/2008	7:00:00	3.6
4/22/2008	7:00:00	3.6
4/23/2008	7:00:00	3.6
4/24/2008	7:00:00	3.6
4/25/2008	7:00:00	3.6
4/26/2008	7:00:00	3.6
4/27/2008	7:00:00	3.6
4/28/2008	7:00:00	3.6
4/29/2008	7:00:00	3.6
4/30/2008	7:00:00	3.6
5/1/2008	7:00:00	3.6
5/2/2008	7:00:00	3.6
5/3/2008	7:00:00	3.2

**Gauge 10**  
Serial # - S4941E6

Date	Time	Depth (in)
3/3/2008	7:00:00	-36.80
3/4/2008	7:00:00	-36.60
3/5/2008	7:00:00	-2.60
3/6/2008	7:00:00	-1.10
3/7/2008	7:00:00	-5.10
3/8/2008	7:00:00	-2.80
3/9/2008	7:00:00	-0.90
3/10/2008	7:00:00	-5.40
3/11/2008	7:00:00	-10.00
3/12/2008	7:00:00	-14.10
3/13/2008	7:00:00	-18.00
3/14/2008	7:00:00	-21.6
3/15/2008	7:00:00	-24.8
3/16/2008	7:00:00	-9.2
3/17/2008	7:00:00	-16.7
3/18/2008	7:00:00	-20.3
3/19/2008	7:00:00	-22.7
3/20/2008	7:00:00	-8.5
3/21/2008	7:00:00	-16.2
3/22/2008	7:00:00	-18.8
3/23/2008	7:00:00	-23.5
3/24/2008	7:00:00	-27.4
3/25/2008	7:00:00	-30.4
3/26/2008	7:00:00	-32.5
3/27/2008	7:00:00	-33.6
3/28/2008	7:00:00	-34.4
3/29/2008	7:00:00	-35.3
3/30/2008	7:00:00	-36.5
3/31/2008	7:00:00	-36.3
4/1/2008	7:00:00	-21.0
4/2/2008	7:00:00	-21.4
4/3/2008	7:00:00	-26.3
4/4/2008	7:00:00	-4.1
4/5/2008	7:00:00	2.6
4/6/2008	7:00:00	2.1
4/7/2008	7:00:00	-0.9
4/8/2008	7:00:00	-5.3
4/9/2008	7:00:00	-11.1
4/10/2008	7:00:00	-14.5
4/11/2008	7:00:00	-17.5
4/12/2008	7:00:00	-21.0
4/13/2008	7:00:00	-24.6
4/14/2008	7:00:00	-28.2
4/15/2008	7:00:00	-30.8
4/16/2008	7:00:00	-33.3
4/17/2008	7:00:00	-33.8
4/18/2008	7:00:00	-34.4
4/19/2008	7:00:00	-35.1
4/20/2008	7:00:00	-33.6
4/21/2008	7:00:00	-33.4
4/22/2008	7:00:00	-34.2
4/23/2008	7:00:00	-35.3
4/24/2008	7:00:00	-36.3
4/25/2008	7:00:00	-36.5
4/26/2008	7:00:00	-36.3
4/27/2008	7:00:00	-37.0
4/28/2008	7:00:00	-37.4
4/29/2008	7:00:00	-16.9
4/30/2008	7:00:00	-23.3
5/1/2008	7:00:00	-28.2
5/2/2008	7:00:00	-31.8
5/3/2008	7:00:00	-33.4

**Gauge 11**  
Serial # - 11310FFD

Date	Time	Depth (in)
3/3/2008	7:00:00	3.0
3/4/2008	7:00:00	3.0
3/5/2008	7:00:00	3.0
3/6/2008	7:00:00	3.0
3/7/2008	7:00:00	3.0
3/8/2008	7:00:00	3.0
3/9/2008	7:00:00	3.0
3/10/2008	7:00:00	3.0
3/11/2008	7:00:00	3.0
3/12/2008	7:00:00	3.0
3/13/2008	7:00:00	3.0
3/14/2008	7:00:00	3.0
3/15/2008	7:00:00	-1
3/16/2008	7:00:00	3.0
3/17/2008	7:00:00	3.0
3/18/2008	7:00:00	3.0
3/19/2008	7:00:00	3.0
3/20/2008	7:00:00	-1.9
3/21/2008	7:00:00	-2.1
3/22/2008	7:00:00	-1.9
3/23/2008	7:00:00	-1.9
3/24/2008	7:00:00	-1.9
3/25/2008	7:00:00	-2.1
3/26/2008	7:00:00	-2.1
3/27/2008	7:00:00	-1.9
3/28/2008	7:00:00	-1.7
3/29/2008	7:00:00	-2.3
3/30/2008	7:00:00	-2.3
3/31/2008	7:00:00	-2.3
4/1/2008	7:00:00	-2.1
4/2/2008	7:00:00	-2.5
4/3/2008	7:00:00	-2.7
4/4/2008	7:00:00	-3.3
4/5/2008	7:00:00	-3.7
4/6/2008	7:00:00	-4
4/7/2008	7:00:00	-4.2
4/8/2008	7:00:00	-3.9
4/9/2008	7:00:00	-4
4/10/2008	7:00:00	-2.9
4/11/2008	7:00:00	-0.6
4/12/2008	7:00:00	3.9
4/13/2008	7:00:00	3.9
4/14/2008	7:00:00	3.3
4/15/2008	7:00:00	3.9
4/16/2008	7:00:00	2.9
4/17/2008	7:00:00	3.3
4/18/2008	7:00:00	3.7
4/19/2008	7:00:00	3.9
4/20/2008	7:00:00	3.9
4/21/2008	7:00:00	3.9
4/22/2008	7:00:00	3.9
4/23/2008	7:00:00	3.9
4/24/2008	7:00:00	3.9
4/25/2008	7:00:00	3.9
4/26/2008	7:00:00	3.9
4/27/2008	7:00:00	3.9
4/28/2008	7:00:00	3.9
4/29/2008	7:00:00	3.9
4/30/2008	7:00:00	3.5
5/1/2008	7:00:00	3.7
5/2/2008	7:00:00	3.9
5/3/2008	7:00:00	3.9

**Gauge 12**  
Serial # - 11312153

Date	Time	Depth (in)
3/3/2008	7:00:00	-2.5
3/4/2008	7:00:00	-2.9
3/5/2008	7:00:00	-2.7
3/6/2008	7:00:00	-2.5
3/7/2008	7:00:00	-2.5
3/8/2008	7:00:00	-2.7
3/9/2008	7:00:00	-2.7
3/10/2008	7:00:00	-2.3
3/11/2008	7:00:00	-2.3
3/12/2008</		

**Gauge 7**  
Serial # - 1130E9D8

Date	Time	Depth (in)
5/4/2008	7:00:00	-25.7
5/5/2008	7:00:00	-29.1
5/6/2008	7:00:00	-31.2
5/7/2008	7:00:00	-32.8
5/8/2008	7:00:00	-33.5
5/9/2008	7:00:00	-33.9
5/10/2008	7:00:00	-35.1
5/11/2008	7:00:00	-36
5/12/2008	7:00:00	-36.2
5/13/2008	7:00:00	-36
5/14/2008	7:00:00	-36
5/15/2008	7:00:00	-36.2
5/16/2008	7:00:00	-36.2
5/17/2008	7:00:00	-36.2
5/18/2008	7:00:00	-36.2
5/19/2008	7:00:00	-36.2
5/20/2008	7:00:00	-36.2
5/21/2008	7:00:00	-36.4
5/22/2008	7:00:00	-36.4
5/23/2008	7:00:00	-36.4
5/24/2008	7:00:00	-36.6
5/25/2008	7:00:00	-36.4
5/26/2008	7:00:00	-36.4
5/27/2008	7:00:00	-36.8
5/28/2008	7:00:00	-36.6
5/29/2008	7:00:00	-36.4
5/30/2008	7:00:00	-36.4
5/31/2008	7:00:00	-36.6
6/1/2008	7:00:00	-36.2
6/2/2008	7:00:00	-36.4
6/3/2008	7:00:00	-36.4
6/4/2008	7:00:00	-36.4
6/5/2008	7:00:00	-36.2
6/6/2008	7:00:00	-36.2
6/7/2008	7:00:00	-36.4
6/8/2008	7:00:00	-36.6
6/9/2008	7:00:00	-36.6
6/10/2008	7:00:00	-36.8
6/11/2008	7:00:00	-37.0
6/12/2008	7:00:00	-37.0
6/13/2008	7:00:00	-37.0
6/14/2008	7:00:00	-37.0
6/15/2008	7:00:00	-36.4
6/16/2008	7:00:00	-36.6
6/17/2008	7:00:00	-36.6
6/18/2008	7:00:00	-36.8
6/19/2008	7:00:00	-36.8
6/20/2008	7:00:00	-37.0
6/21/2008	7:00:00	-37.0
6/22/2008	7:00:00	-37.0
6/23/2008	7:00:00	-36.2
6/24/2008	7:00:00	-36.6
6/25/2008	7:00:00	-36.6
6/26/2008	7:00:00	-36.6
6/27/2008	7:00:00	-36.4
6/28/2008	7:00:00	-36.4
6/29/2008	7:00:00	-36.4
6/30/2008	7:00:00	-36.2
7/1/2008	7:00:00	-36.6
7/2/2008	7:00:00	-36.6
7/3/2008	7:00:00	-36.4
7/4/2008	7:00:00	-36.6

**Gauge 8**  
Serial # - S4F59E5

Date	Time	Depth (in)
5/4/2008	7:00:00	1.9
5/5/2008	7:00:00	0.8
5/6/2008	7:00:00	-0.6
5/7/2008	7:00:00	-2.1
5/8/2008	7:00:00	-1.7
5/9/2008	7:00:00	1.9
5/10/2008	7:00:00	-1.3
5/11/2008	7:00:00	-2.8
5/12/2008	7:00:00	1.1
5/13/2008	7:00:00	-1.5
5/14/2008	7:00:00	-3.6
5/15/2008	7:00:00	-2.6
5/16/2008	7:00:00	1.3
5/17/2008	7:00:00	-2.3
5/18/2008	7:00:00	-4.0
5/19/2008	7:00:00	-0.2
5/20/2008	7:00:00	-1.1
5/21/2008	7:00:00	-4.2
5/22/2008	7:00:00	-7.2
5/23/2008	7:00:00	-8.1
5/24/2008	7:00:00	-8.9
5/25/2008	7:00:00	-11.1
5/26/2008	7:00:00	-12.3
5/27/2008	7:00:00	-13.2
5/28/2008	7:00:00	-13.6
5/29/2008	7:00:00	-7.4
5/30/2008	7:00:00	-8.5
5/31/2008	7:00:00	-8.3
6/1/2008	7:00:00	-11.7
6/2/2008	7:00:00	-14.4
6/3/2008	7:00:00	-15.5
6/4/2008	7:00:00	-11.0
6/5/2008	7:00:00	-13.4
6/6/2008	7:00:00	-15.5
6/7/2008	7:00:00	-16.8
6/8/2008	7:00:00	-18.5
6/9/2008	7:00:00	-19.8
6/10/2008	7:00:00	-21.7
6/11/2008	7:00:00	-23.0
6/12/2008	7:00:00	-24.0
6/13/2008	7:00:00	-24.7
6/14/2008	7:00:00	-25.1
6/15/2008	7:00:00	-22.8
6/16/2008	7:00:00	-22.1
6/17/2008	7:00:00	-21.9
6/18/2008	7:00:00	-24.9
6/19/2008	7:00:00	-25.7
6/20/2008	7:00:00	-26.6
6/21/2008	7:00:00	-26.8
6/22/2008	7:00:00	-27.2
6/23/2008	7:00:00	-11.5
6/24/2008	7:00:00	-13.8
6/25/2008	7:00:00	-16.2
6/26/2008	7:00:00	-17.2
6/27/2008	7:00:00	-16.6
6/28/2008	7:00:00	-17.0
6/29/2008	7:00:00	-16.4
6/30/2008	7:00:00	-6.2
7/1/2008	7:00:00	-12.1
7/2/2008	7:00:00	-15.7
7/3/2008	7:00:00	-16.6
7/4/2008	7:00:00	-17.8

**Gauge 10**  
Serial # - S4941E6

Date	Time	Depth (in)
5/4/2008	7:00:00	-34.2
5/5/2008	7:00:00	-36.1
5/6/2008	7:00:00	-36.5
5/7/2008	7:00:00	-36.5
5/8/2008	7:00:00	-36.1
5/9/2008	7:00:00	-36.1
5/10/2008	7:00:00	-36.6
5/11/2008	7:00:00	-36.5
5/12/2008	7:00:00	-36.6
5/13/2008	7:00:00	-36.8
5/14/2008	7:00:00	-36.6
5/15/2008	7:00:00	-36.3
5/16/2008	7:00:00	-36.1
5/17/2008	7:00:00	-36.6
5/18/2008	7:00:00	-36.6
5/19/2008	7:00:00	-36.5
5/20/2008	7:00:00	-36.5
5/21/2008	7:00:00	-36.5
5/22/2008	7:00:00	-36.5
5/23/2008	7:00:00	-36.3
5/24/2008	7:00:00	-36.1
5/25/2008	7:00:00	-36.5
5/26/2008	7:00:00	-36.3
5/27/2008	7:00:00	-36.3
5/28/2008	7:00:00	-36.3
5/29/2008	7:00:00	-36.3
5/30/2008	7:00:00	-36.3
5/31/2008	7:00:00	-36.3
6/1/2008	7:00:00	-36.6
6/2/2008	7:00:00	-36.8
6/3/2008	7:00:00	-37.0
6/4/2008	7:00:00	-37.0
6/5/2008	7:00:00	-37.2
6/6/2008	7:00:00	-37.4
6/7/2008	7:00:00	-37.6
6/8/2008	7:00:00	-37.6
6/9/2008	7:00:00	-37.8
6/10/2008	7:00:00	-37.6
6/11/2008	7:00:00	-37.2
6/12/2008	7:00:00	-37.4
6/13/2008	7:00:00	-37.4
6/14/2008	7:00:00	-37.4
6/15/2008	7:00:00	-37.0
6/16/2008	7:00:00	-37.4
6/17/2008	7:00:00	-37.4
6/18/2008	7:00:00	-37.2
6/19/2008	7:00:00	-37.4
6/20/2008	7:00:00	-37.4
6/21/2008	7:00:00	-37.2
6/22/2008	7:00:00	-37.4
6/23/2008	7:00:00	-34.2
6/24/2008	7:00:00	-36.5
6/25/2008	7:00:00	-36.6
6/26/2008	7:00:00	-37.2
6/27/2008	7:00:00	-37.2
6/28/2008	7:00:00	-37.2
6/29/2008	7:00:00	-37.0
6/30/2008	7:00:00	-37.0
7/1/2008	7:00:00	-37.0
7/2/2008	7:00:00	-37.4
7/3/2008	7:00:00	-37.2
7/4/2008	7:00:00	-37.2

**Gauge 11**  
Serial # - 11310FFD

Date	Time	Depth (in)
5/4/2008	7:00:00	3.0
5/5/2008	7:00:00	3.0
5/6/2008	7:00:00	3.0
5/7/2008	7:00:00	3.0
5/8/2008	7:00:00	3.0
5/9/2008	7:00:00	3.0
5/10/2008	7:00:00	3.0
5/11/2008	7:00:00	3.0
5/12/2008	7:00:00	3.0
5/13/2008	7:00:00	3.0
5/14/2008	7:00:00	3.0
5/15/2008	7:00:00	3.0
5/16/2008	7:00:00	3.0
5/17/2008	7:00:00	3.0
5/18/2008	7:00:00	3.0
5/19/2008	7:00:00	3.0
5/20/2008	7:00:00	3.0
5/21/2008	7:00:00	3.0
5/22/2008	7:00:00	3.0
5/23/2008	7:00:00	3.0
5/24/2008	7:00:00	3.0
5/25/2008	7:00:00	3.0
5/26/2008	7:00:00	3.0
5/27/2008	7:00:00	3.0
5/28/2008	7:00:00	3.0
5/29/2008	7:00:00	3.0
5/30/2008	7:00:00	3.0
5/31/2008	7:00:00	3.0
6/1/2008	7:00:00	3.0
6/2/2008	7:00:00	3.0
6/3/2008	7:00:00	3.0
6/4/2008	7:00:00	3.0
6/5/2008	7:00:00	3.0
6/6/2008	7:00:00	3.0
6/7/2008	7:00:00	3.0
6/8/2008	7:00:00	3.0
6/9/2008	7:00:00	3.0
6/10/2008	7:00:00	3.0
6/11/2008	7:00:00	3.0
6/12/2008	7:00:00	3.0
6/13/2008	7:00:00	3.0
6/14/2008	7:00:00	2.6
6/15/2008	7:00:00	3.0
6/16/2008	7:00:00	3.0
6/17/2008	7:00:00	3.0
6/18/2008	7:00:00	-1.3
6/19/2008	7:00:00	-2.4
6/20/2008	7:00:00	-4.3
6/21/2008	7:00:00	-4.4
6/22/2008	7:00:00	-6.3
6/23/2008	7:00:00	3.0
6/24/2008	7:00:00	3.0
6/25/2008	7:00:00	3.0
6/26/2008	7:00:00	3.0
6/27/2008	7:00:00	3.0
6/28/2008	7:00:00	3.0
6/29/2008	7:00:00	3.0
6/30/2008	7:00:00	3.0
7/1/2008	7:00:00	3.0
7/2/2008	7:00:00	3.0
7/3/2008	7:00:00	3.0
7/4/2008	7:00:00	3.0

**Gauge 12**  
Serial # - 11312153

Date	Time	Depth (in)
5/4/2008	7:00:00	3.9
5/5/2008	7:00:00	3.9
5/6/2008	7:00:00	3.7
5/7/2008	7:00:00	3.7
5/8/2008	7:00:00	3.9
5/9/2008	7:00:00	3.9
5/10/2008	7:00:00	

**Gauge 7**  
Serial # - 1130E9D8

Date	Time	Depth (in)
7/5/2008	7:00:00	-36.6
7/6/2008	7:00:00	-28.5
7/7/2008	7:00:00	-36.4
7/8/2008	7:00:00	-36.6
7/9/2008	7:00:00	-36.4
7/10/2008	7:00:00	-36.4
7/11/2008	7:00:00	-21.1
7/12/2008	7:00:00	-31.0
7/13/2008	7:00:00	-35.8
7/14/2008	7:00:00	-35.8
7/15/2008	7:00:00	-36.2
7/16/2008	7:00:00	-36.0
7/17/2008	7:00:00	-36.0
7/18/2008	7:00:00	-36.2
7/19/2008	7:00:00	-36.2
7/20/2008	7:00:00	-36.4
7/21/2008	7:00:00	-36.2
7/22/2008	7:00:00	-36.2
7/23/2008	7:00:00	-36.0
7/24/2008	7:00:00	-36.2
7/25/2008	7:00:00	-36.2
7/26/2008	7:00:00	-36.0
7/27/2008	7:00:00	-35.8
7/28/2008	7:00:00	-36.0
7/29/2008	7:00:00	-36.0
7/30/2008	7:00:00	-35.8
7/31/2008	7:00:00	-35.8
8/1/2008	7:00:00	-35.6
8/2/2008	7:00:00	-35.8
8/3/2008	7:00:00	-35.8
8/4/2008	7:00:00	-36.0
8/5/2008	7:00:00	-36.0
8/6/2008	7:00:00	-36.2
8/7/2008	7:00:00	-36.0
8/8/2008	7:00:00	-36.2
8/9/2008	7:00:00	-36.0
8/10/2008	7:00:00	-36.0
8/11/2008	7:00:00	-36.2
8/12/2008	7:00:00	-36.2
8/13/2008	7:00:00	-35.8
8/14/2008	7:00:00	-36.0
8/15/2008	7:00:00	-36.0
8/16/2008	7:00:00	-36.0
8/17/2008	7:00:00	-35.8
8/18/2008	7:00:00	-36.0
8/19/2008	7:00:00	-36.0
8/20/2008	7:00:00	-36.2
8/21/2008	7:00:00	-36.0
8/22/2008	7:00:00	-36.2
8/23/2008	7:00:00	-36.2
8/24/2008	7:00:00	-36.2
8/25/2008	7:00:00	-36.0
8/26/2008	7:00:00	-35.8
8/27/2008	7:00:00	3.8
8/28/2008	7:00:00	3.8
8/29/2008	7:00:00	0.2
8/30/2008	7:00:00	-9.1
8/31/2008	7:00:00	-19.7
9/1/2008	7:00:00	-28.7
9/2/2008	7:00:00	-32.6
9/3/2008	7:00:00	-33.6
9/4/2008	7:00:00	-34.9

**Gauge 8**  
Serial # - S4F59E5

Date	Time	Depth (in)
7/5/2008	7:00:00	-17.9
7/6/2008	7:00:00	3.6
7/7/2008	7:00:00	1.3
7/8/2008	7:00:00	-0.4
7/9/2008	7:00:00	-1.3
7/10/2008	7:00:00	-1.3
7/11/2008	7:00:00	3.6
7/12/2008	7:00:00	3.6
7/13/2008	7:00:00	3.6
7/14/2008	7:00:00	3.6
7/15/2008	7:00:00	-0.4
7/16/2008	7:00:00	-4.0
7/17/2008	7:00:00	-7.7
7/18/2008	7:00:00	-11.5
7/19/2008	7:00:00	-13.8
7/20/2008	7:00:00	-14.9
7/21/2008	7:00:00	-16.4
7/22/2008	7:00:00	-18.7
7/23/2008	7:00:00	-3.2
7/24/2008	7:00:00	0.9
7/25/2008	7:00:00	-2.8
7/26/2008	7:00:00	-4.9
7/27/2008	7:00:00	-6.4
7/28/2008	7:00:00	-11.3
7/29/2008	7:00:00	-13.0
7/30/2008	7:00:00	-14.7
7/31/2008	7:00:00	-7.2
8/1/2008	7:00:00	-7.0
8/2/2008	7:00:00	-10.8
8/3/2008	7:00:00	-13.2
8/4/2008	7:00:00	-15.5
8/5/2008	7:00:00	-16.6
8/6/2008	7:00:00	-17.9
8/7/2008	7:00:00	-19.4
8/8/2008	7:00:00	-21.1
8/9/2008	7:00:00	-24.0
8/10/2008	7:00:00	-24.7
8/11/2008	7:00:00	-25.9
8/12/2008	7:00:00	-27.8
8/13/2008	7:00:00	-18.1
8/14/2008	7:00:00	-14.9
8/15/2008	7:00:00	-15.7
8/16/2008	7:00:00	-16.2
8/17/2008	7:00:00	-15.1
8/18/2008	7:00:00	-14.5
8/19/2008	7:00:00	-15.9
8/20/2008	7:00:00	-17.0
8/21/2008	7:00:00	-17.2
8/22/2008	7:00:00	-19.1
8/23/2008	7:00:00	-20.0
8/24/2008	7:00:00	-21.3
8/25/2008	7:00:00	-21.7
8/26/2008	7:00:00	-19.6
8/27/2008	7:00:00	3.6
8/28/2008	7:00:00	3.6
8/29/2008	7:00:00	3.6
8/30/2008	7:00:00	3.6
8/31/2008	7:00:00	3.6
9/1/2008	7:00:00	3.6
9/2/2008	7:00:00	0.6
9/3/2008	7:00:00	-3.0
9/4/2008	7:00:00	-6.4

**Gauge 10**  
Serial # - S4941E6

Date	Time	Depth (in)
7/5/2008	7:00:00	-37.2
7/6/2008	7:00:00	-33.8
7/7/2008	7:00:00	-35.7
7/8/2008	7:00:00	-36.1
7/9/2008	7:00:00	-36.3
7/10/2008	7:00:00	-36.8
7/11/2008	7:00:00	-35.0
7/12/2008	7:00:00	-35.7
7/13/2008	7:00:00	-35.9
7/14/2008	7:00:00	-35.9
7/15/2008	7:00:00	-36.3
7/16/2008	7:00:00	-36.5
7/17/2008	7:00:00	-36.8
7/18/2008	7:00:00	-36.8
7/19/2008	7:00:00	-37.0
7/20/2008	7:00:00	-37.0
7/21/2008	7:00:00	-37.2
7/22/2008	7:00:00	-37.2
7/23/2008	7:00:00	-36.8
7/24/2008	7:00:00	-34.8
7/25/2008	7:00:00	-35.7
7/26/2008	7:00:00	-35.9
7/27/2008	7:00:00	-36.1
7/28/2008	7:00:00	-36.5
7/29/2008	7:00:00	-36.8
7/30/2008	7:00:00	-37.0
7/31/2008	7:00:00	-36.8
8/1/2008	7:00:00	-36.8
8/2/2008	7:00:00	-37.0
8/3/2008	7:00:00	-36.8
8/4/2008	7:00:00	-37.0
8/5/2008	7:00:00	-37.0
8/6/2008	7:00:00	-37.0
8/7/2008	7:00:00	-37.0
8/8/2008	7:00:00	-37.2
8/9/2008	7:00:00	-37.0
8/10/2008	7:00:00	-37.0
8/11/2008	7:00:00	-37.2
8/12/2008	7:00:00	-37.2
8/13/2008	7:00:00	-36.8
8/14/2008	7:00:00	-37.0
8/15/2008	7:00:00	-37.0
8/16/2008	7:00:00	-37.0
8/17/2008	7:00:00	-36.8
8/18/2008	7:00:00	-37.0
8/19/2008	7:00:00	-37.0
8/20/2008	7:00:00	-37.2
8/21/2008	7:00:00	-37.0
8/22/2008	7:00:00	-37.2
8/23/2008	7:00:00	-37.2
8/24/2008	7:00:00	-37.2
8/25/2008	7:00:00	-37.0
8/26/2008	7:00:00	-36.8
8/27/2008	7:00:00	2.8
8/28/2008	7:00:00	2.8
8/29/2008	7:00:00	-0.8
8/30/2008	7:00:00	-10.1
8/31/2008	7:00:00	-20.7
9/1/2008	7:00:00	-29.7
9/2/2008	7:00:00	3.0
9/3/2008	7:00:00	-33.6
9/4/2008	7:00:00	-34.6
9/4/2008	7:00:00	-35.9

**Gauge 11**  
Serial # - 11310FFD

Date	Time	Depth (in)
7/5/2008	7:00:00	3.0
7/6/2008	7:00:00	3.0
7/7/2008	7:00:00	3.0
7/8/2008	7:00:00	3.0
7/9/2008	7:00:00	3.0
7/10/2008	7:00:00	3.0
7/11/2008	7:00:00	3.0
7/12/2008	7:00:00	3.0
7/13/2008	7:00:00	3.0
7/14/2008	7:00:00	3.0
7/15/2008	7:00:00	3.0
7/16/2008	7:00:00	3.0
7/17/2008	7:00:00	3.0
7/18/2008	7:00:00	3.0
7/19/2008	7:00:00	3.0
7/20/2008	7:00:00	3.0
7/21/2008	7:00:00	3.0
7/22/2008	7:00:00	-11.9
7/23/2008	7:00:00	3.9
7/24/2008	7:00:00	3.9
7/25/2008	7:00:00	3.9
7/26/2008	7:00:00	3.9
7/27/2008	7:00:00	3.9
7/28/2008	7:00:00	3.9
7/29/2008	7:00:00	3.9
7/30/2008	7:00:00	3.9
7/31/2008	7:00:00	3.9
8/1/2008	7:00:00	3.9
8/2/2008	7:00:00	3.9
8/3/2008	7:00:00	3.9
8/4/2008	7:00:00	3.1
8/5/2008	7:00:00	1.0
8/6/2008	7:00:00	-0.8
8/7/2008	7:00:00	-3.9
8/8/2008	7:00:00	-6.7
8/9/2008	7:00:00	-16.9
8/10/2008	7:00:00	-19.6
8/11/2008	7:00:00	-26.6
8/12/2008	7:00:00	-27.5
8/13/2008	7:00:00	3.9
8/14/2008	7:00:00	3.9
8/15/2008	7:00:00	3.9
8/16/2008	7:00:00	3.9
8/17/2008	7:00:00	3.9
8/18/2008	7:00:00	3.9
8/19/2008	7:00:00	3.9
8/20/2008	7:00:00	3.9
8/21/2008	7:00:00	3.9
8/22/2008	7:00:00	2.1
8/23/2008	7:00:00	-0.2
8/24/2008	7:00:00	-2.1
8/25/2008	7:00:00	-1.9
8/26/2008	7:00:00	3.9
8/27/2008	7:00:00	3.9
8/28/2008	7:00:00	3.9
8/29/2008	7:00:00	3.9
8/30/2008	7:00:00	3.9
8/31/2008	7:00:00	3.9
9/1/2008	7:00:00	3.9
9/2/2008	7:00:00	3.9
9/3/2008	7:00:00	3.9
9/4/2008	7:00:00	3.9

**Gauge 12**  
Serial # - 11312153

Date	Time	Depth (in)
7/5/2008	7:00:00	3.9
7/6/2008	7:00:00	3.9
7/7/2008	7:00:00	3.9
7/8/2008	7:00:00	3.9
7/9/2008	7:00:00	3.9
7/10/2008		

**Gauge 7**  
Serial # - 1130E9D8

Date	Time	Depth (in)
9/5/2008	7:00:00	-35.6
9/6/2008	7:00:00	-35.3
9/7/2008	7:00:00	-35.8
9/8/2008	7:00:00	-35.8
9/9/2008	7:00:00	3.8
9/10/2008	7:00:00	-3.8
9/11/2008	7:00:00	3.6
9/12/2008	7:00:00	0.1
9/13/2008	7:00:00	-6.7
9/14/2008	7:00:00	-15.3
9/15/2008	7:00:00	-24.6
9/16/2008	7:00:00	-1.3
9/17/2008	7:00:00	3.8
9/18/2008	7:00:00	-0.1
9/19/2008	7:00:00	-8.2
9/20/2008	7:00:00	-15.3
9/21/2008	7:00:00	-21.5
9/22/2008	7:00:00	-26.8
9/23/2008	7:00:00	-31.1
9/24/2008	7:00:00	-32.4
9/25/2008	7:00:00	-33.2
9/26/2008	7:00:00	-33.6
9/27/2008	7:00:00	-18.2
9/28/2008	7:00:00	-10.8
9/29/2008	7:00:00	-18.2
9/30/2008	7:00:00	-24.6
10/1/2008	7:00:00	-2.0
10/2/2008	7:00:00	-12.3
10/3/2008	7:00:00	-19.3
10/4/2008	7:00:00	-24.7
10/5/2008	7:00:00	-28.9
10/6/2008	7:00:00	-31.7
10/7/2008	7:00:00	-32.6
10/8/2008	7:00:00	-33.2
10/9/2008	7:00:00	-33.6
10/10/2008	7:00:00	-34.5
10/11/2008	7:00:00	-34.9
10/12/2008	7:00:00	-35.3
10/13/2008	7:00:00	-35.5
10/14/2008	7:00:00	-35.5
10/15/2008	7:00:00	-35.1
10/16/2008	7:00:00	-35.1
10/17/2008	7:00:00	-34.7
10/18/2008	7:00:00	-34.9
10/19/2008	7:00:00	-34.9
10/20/2008	7:00:00	-34.7
10/21/2008	7:00:00	-34.7
10/22/2008	7:00:00	-34.7
10/23/2008	7:00:00	-34.7
10/24/2008	7:00:00	-34.5
10/25/2008	7:00:00	-34.3
10/26/2008	7:00:00	-34.7
10/27/2008	7:00:00	-34.5
10/28/2008	7:00:00	-34.7
10/29/2008	7:00:00	-34.7
10/30/2008	7:00:00	-34.7
10/31/2008	7:00:00	-34.7

**Gauge 8**  
Serial # - S4F59E5

Date	Time	Depth (in)
9/5/2008	7:00:00	-9.4
9/6/2008	7:00:00	-8.7
9/7/2008	7:00:00	-12.8
9/8/2008	7:00:00	-14.5
9/9/2008	7:00:00	3.6
9/10/2008	7:00:00	3.6
9/11/2008	7:00:00	3.6
9/12/2008	7:00:00	3.6
9/13/2008	7:00:00	3.6
9/14/2008	7:00:00	3.6
9/15/2008	7:00:00	3.6
9/16/2008	7:00:00	3.6
9/17/2008	7:00:00	3.6
9/18/2008	7:00:00	3.6
9/19/2008	7:00:00	3.6
9/20/2008	7:00:00	3.6
9/21/2008	7:00:00	3.6
9/22/2008	7:00:00	3.6
9/23/2008	7:00:00	2.6
9/24/2008	7:00:00	1.3
9/25/2008	7:00:00	0.4
9/26/2008	7:00:00	3.6
9/27/2008	7:00:00	3.6
9/28/2008	7:00:00	3.6
9/29/2008	7:00:00	3.6
9/30/2008	7:00:00	3.6
10/1/2008	7:00:00	3.6
10/2/2008	7:00:00	3.6
10/3/2008	7:00:00	3.6
10/4/2008	7:00:00	3.6
10/5/2008	7:00:00	3.6
10/6/2008	7:00:00	3.6
10/7/2008	7:00:00	3.6
10/8/2008	7:00:00	3.6
10/9/2008	7:00:00	3.6
10/10/2008	7:00:00	3.6
10/11/2008	7:00:00	3.6
10/12/2008	7:00:00	3.6
10/13/2008	7:00:00	3.6
10/14/2008	7:00:00	3.6
10/15/2008	7:00:00	3.4
10/16/2008	7:00:00	3.2
10/17/2008	7:00:00	3.6
10/18/2008	7:00:00	3.6
10/19/2008	7:00:00	3.6
10/20/2008	7:00:00	3.6
10/21/2008	7:00:00	3.6
10/22/2008	7:00:00	2.8
10/23/2008	7:00:00	2.1
10/24/2008	7:00:00	2.6
10/25/2008	7:00:00	3.6
10/26/2008	7:00:00	3.6
10/27/2008	7:00:00	3.6
10/28/2008	7:00:00	3.4
10/29/2008	7:00:00	3.2
10/30/2008	7:00:00	2.5
10/31/2008	7:00:00	2.1

**Gauge 10**  
Serial # - S4941E6

Date	Time	Depth (in)
9/5/2008	7:00:00	-36.6
9/6/2008	7:00:00	-36.3
9/7/2008	7:00:00	-36.8
9/8/2008	7:00:00	-36.8
9/9/2008	7:00:00	2.8
9/10/2008	7:00:00	2.8
9/11/2008	7:00:00	2.6
9/12/2008	7:00:00	-0.9
9/13/2008	7:00:00	-7.7
9/14/2008	7:00:00	-16.3
9/15/2008	7:00:00	-25.6
9/16/2008	7:00:00	-2.3
9/17/2008	7:00:00	2.8
9/18/2008	7:00:00	-1.1
9/19/2008	7:00:00	-9.2
9/20/2008	7:00:00	-16.3
9/21/2008	7:00:00	-22.5
9/22/2008	7:00:00	-27.8
9/23/2008	7:00:00	-32.1
9/24/2008	7:00:00	-33.4
9/25/2008	7:00:00	-34.2
9/26/2008	7:00:00	-34.6
9/27/2008	7:00:00	-19.2
9/28/2008	7:00:00	-11.8
9/29/2008	7:00:00	-19.2
9/30/2008	7:00:00	-25.6
10/1/2008	7:00:00	-30.0
10/2/2008	7:00:00	-3.0
10/3/2008	7:00:00	-13.3
10/4/2008	7:00:00	-20.3
10/5/2008	7:00:00	-25.7
10/6/2008	7:00:00	-29.9
10/7/2008	7:00:00	-32.7
10/8/2008	7:00:00	-33.6
10/9/2008	7:00:00	-34.2
10/10/2008	7:00:00	-34.6
10/11/2008	7:00:00	-35.5
10/12/2008	7:00:00	-35.9
10/13/2008	7:00:00	-36.3
10/14/2008	7:00:00	-36.5
10/15/2008	7:00:00	-36.1
10/16/2008	7:00:00	-36.1
10/17/2008	7:00:00	-35.7
10/18/2008	7:00:00	-35.9
10/19/2008	7:00:00	-35.9
10/20/2008	7:00:00	-35.7
10/21/2008	7:00:00	-35.7
10/22/2008	7:00:00	-35.7
10/23/2008	7:00:00	-35.7
10/24/2008	7:00:00	-35.5
10/25/2008	7:00:00	-35.3
10/26/2008	7:00:00	-35.7
10/27/2008	7:00:00	-35.5
10/28/2008	7:00:00	-35.7
10/29/2008	7:00:00	-35.7
10/30/2008	7:00:00	-35.7
10/31/2008	7:00:00	-35.7

**Gauge 11**  
Serial # - 11310FFD

Date	Time	Depth (in)
9/5/2008	7:00:00	3.0
9/6/2008	7:00:00	3.0
9/7/2008	7:00:00	3.0
9/8/2008	7:00:00	3.0
9/9/2008	7:00:00	3.0
9/10/2008	7:00:00	3.0
9/11/2008	7:00:00	3.0
9/12/2008	7:00:00	3.0
9/13/2008	7:00:00	3.0
9/14/2008	7:00:00	3.0
9/15/2008	7:00:00	3.0
9/16/2008	7:00:00	3.0
9/17/2008	7:00:00	3.0
9/18/2008	7:00:00	3.0
9/19/2008	7:00:00	3.0
9/20/2008	7:00:00	3.0
9/21/2008	7:00:00	3.0
9/22/2008	7:00:00	3.0
9/23/2008	7:00:00	3.0
9/24/2008	7:00:00	3.0
9/25/2008	7:00:00	3.0
9/26/2008	7:00:00	3.0
9/27/2008	7:00:00	3.0
9/28/2008	7:00:00	3.0
9/29/2008	7:00:00	3.0
9/30/2008	7:00:00	3.0
10/1/2008	7:00:00	3.0
10/2/2008	7:00:00	3.0
10/3/2008	7:00:00	3.0
10/4/2008	7:00:00	3.0
10/5/2008	7:00:00	3.0
10/6/2008	7:00:00	3.0
10/7/2008	7:00:00	3.0
10/8/2008	7:00:00	3.0
10/9/2008	7:00:00	3.0
10/10/2008	7:00:00	3.0
10/11/2008	7:00:00	3.0
10/12/2008	7:00:00	3.0
10/13/2008	7:00:00	3.0
10/14/2008	7:00:00	3.0
10/15/2008	7:00:00	3.0
10/16/2008	7:00:00	3.0
10/17/2008	7:00:00	3.0
10/18/2008	7:00:00	3.0
10/19/2008	7:00:00	3.0
10/20/2008	7:00:00	3.0
10/21/2008	7:00:00	3.0
10/22/2008	7:00:00	3.0
10/23/2008	7:00:00	3.0
10/24/2008	7:00:00	3.0
10/25/2008	7:00:00	3.0
10/26/2008	7:00:00	3.0
10/27/2008	7:00:00	3.0
10/28/2008	7:00:00	3.0
10/29/2008	7:00:00	3.0
10/30/2008	7:00:00	3.0
10/31/2008	7:00:00	3.0

**Gauge 12**  
Serial # - 11312153

Date	Time	Depth (in)
9/5/2008	7:00:00	3.9
9/6/2008	7:00:00	3.9
9/7/2008	7:00:00	3.7
9/8/2008	7:00:00	2.7
9/9/2008	7:00:00	3.9
9/10/2008	7:00:00	3.9
9/11/2008	7:00:00	3.9
9/12/2008	7:00:00	3.9
9/13/2008	7:00:00	3.9
9/14/2008	7:00:00	3.9
9/15/2008	7:00:00	3.9
9/16/2008	7:00:00	3.9
9/17/2008	7:00:00	3.9
9/18/2008	7:00:00	3.9
9/19/2008	7:00:00	3.9
9/20/2008	7:00:00	3.9
9/21/2008	7:00:00	3.9
9/22/2008	7:00:00	3.9
9/23/2008	7:00:00	3.9
9/24/2008	7:00:00	3.9
9/25/2008	7:00:00	3.9
9/26/2008	7:00:00	3.9
9/27/2008	7:00:00	3.9
9/28/2008	7:00:00	3.9
9/29/2008		

**Gauge 13**  
Serial # - 11310538

Date	Time	Depth (in)
1/1/2008	7:00:00	3
1/2/2008	7:00:00	1.7
1/3/2008	7:00:00	1
1/4/2008	7:00:00	0.6
1/5/2008	7:00:00	0.4
1/6/2008	7:00:00	1.7
1/7/2008	7:00:00	1
1/8/2008	7:00:00	1.7
1/9/2008	7:00:00	1.9
1/10/2008	7:00:00	1.9
1/11/2008	7:00:00	2.7
1/12/2008	7:00:00	1.7
1/13/2008	7:00:00	1.7
1/14/2008	7:00:00	1.3
1/15/2008	7:00:00	0.8
1/16/2008	7:00:00	0.4
1/17/2008	7:00:00	1.9
1/18/2008	7:00:00	3
1/19/2008	7:00:00	3.4
1/20/2008	7:00:00	1.9
1/21/2008	7:00:00	1.1
1/22/2008	7:00:00	1
1/23/2008	7:00:00	1.9
1/24/2008	7:00:00	1.9
1/25/2008	7:00:00	0.8
1/26/2008	7:00:00	0.8
1/27/2008	7:00:00	0.6
1/28/2008	7:00:00	0.6
1/29/2008	7:00:00	1.3
1/30/2008	7:00:00	1.7
1/31/2008	7:00:00	0.6
2/1/2008	7:00:00	3.2
2/2/2008	7:00:00	4
2/3/2008	7:00:00	2.8
2/4/2008	7:00:00	2.7
2/5/2008	7:00:00	2.7
2/6/2008	7:00:00	2.8
2/7/2008	7:00:00	2.3
2/8/2008	7:00:00	1.9
2/9/2008	7:00:00	1.7
2/10/2008	7:00:00	1.7
2/11/2008	7:00:00	1.3
2/12/2008	7:00:00	1.5
2/13/2008	7:00:00	2.3
2/14/2008	7:00:00	2.3
2/15/2008	7:00:00	2.1
2/16/2008	7:00:00	2.1
2/17/2008	7:00:00	2.1
2/18/2008	7:00:00	2.8
2/19/2008	7:00:00	1.9
2/20/2008	7:00:00	1.7
2/21/2008	7:00:00	1.7
2/22/2008	7:00:00	1.9
2/23/2008	7:00:00	2.5
2/24/2008	7:00:00	1.9
2/25/2008	7:00:00	2.1
2/26/2008	7:00:00	2.3
2/27/2008	7:00:00	2.7
2/28/2008	7:00:00	1.7
2/29/2008	7:00:00	1.7
3/1/2008	7:00:00	2.1
3/2/2008	7:00:00	1.7

**Gauge 14**  
Serial # - EBD1AB7

Date	Time	Depth (in)
1/1/2008	14:35	0.4
1/2/2008	14:35	-0.1
1/3/2008	14:35	-0.7
1/4/2008	14:35	-1.1
1/5/2008	14:35	-1
1/6/2008	14:35	-0.5
1/7/2008	14:35	-0.6
1/8/2008	14:35	-0.5
1/9/2008	14:35	-0.4
1/10/2008	14:35	-0.3
1/11/2008	14:35	-0.1
1/12/2008	14:35	-0.4
1/13/2008	14:35	-0.5
1/14/2008	14:35	-0.9
1/15/2008	14:35	-1.2
1/16/2008	14:35	-1.6
1/17/2008	14:35	0.6
1/18/2008	14:35	0.6
1/19/2008	14:35	0.4
1/20/2008	14:35	-0.1
1/21/2008	14:35	-1
1/22/2008	14:35	-0.6
1/23/2008	14:35	-0.3
1/24/2008	14:35	-0.4
1/25/2008	14:35	-1.1
1/26/2008	14:35	-1
1/27/2008	14:35	-0.9
1/28/2008	14:35	-1
1/29/2008	14:35	-0.8
1/30/2008	14:35	-0.7
1/31/2008	14:35	-1
2/1/2008	14:35	0.9
2/2/2008	14:35	0.7
2/3/2008	14:35	0.1
2/4/2008	14:35	0.3
2/5/2008	14:35	0.1
2/6/2008	14:35	0.5
2/7/2008	14:35	4
2/8/2008	14:35	0.2
2/9/2008	14:35	-0.3
2/10/2008	14:35	-0.4
2/11/2008	14:35	-0.6
2/12/2008	14:35	-0.3
2/13/2008	14:35	-0.6
2/14/2008	14:35	0.2
2/15/2008	14:35	0
2/16/2008	14:35	0
2/17/2008	14:35	0
2/18/2008	14:35	0
2/19/2008	14:35	-0.1
2/20/2008	14:35	-0.3
2/21/2008	14:35	-0.3
2/22/2008	14:35	0.1
2/23/2008	14:35	0
2/24/2008	14:35	0
2/25/2008	14:35	-0.1
2/26/2008	14:35	1
2/27/2008	14:35	0.3
2/28/2008	14:35	0
2/29/2008	14:35	-0.2
3/1/2008	14:35	-0.3
3/2/2008	14:35	-0.3

**Gauge 15**  
Serial # - EBDC918

Date	Time	Depth (in)
1/1/2008	0:00	3.9
1/2/2008	0:00	3.4
1/3/2008	0:00	2.9
1/4/2008	0:00	2.8
1/5/2008	0:00	2.8
1/6/2008	0:00	2.9
1/7/2008	0:00	2.9
1/8/2008	0:00	2.9
1/9/2008	0:00	3.3
1/10/2008	0:00	3.2
1/11/2008	0:00	3.3
1/12/2008	0:00	3.3
1/13/2008	0:00	3.1
1/14/2008	0:00	3
1/15/2008	0:00	2.9
1/16/2008	0:00	2.6
1/17/2008	0:00	2.7
1/18/2008	0:00	3.3
1/19/2008	0:00	3.7
1/20/2008	0:00	3.4
1/21/2008	0:00	3
1/22/2008	0:00	2.9
1/23/2008	0:00	3.1
1/24/2008	0:00	3.1
1/25/2008	0:00	2.9
1/26/2008	0:00	2.9
1/27/2008	0:00	2.8
1/28/2008	0:00	2.8
1/29/2008	0:00	3
1/30/2008	0:00	3.3
1/31/2008	0:00	2.9
2/1/2008	0:00	3.1
2/2/2008	0:00	3.3
2/3/2008	0:00	3.7
2/4/2008	0:00	3.8
2/5/2008	0:00	3.8
2/6/2008	0:00	3.7
2/7/2008	0:00	3.7
2/8/2008	0:00	3.3
2/9/2008	0:00	3.2
2/10/2008	0:00	3.2
2/11/2008	0:00	3.1
2/12/2008	0:00	2.7
2/13/2008	0:00	3.3
2/14/2008	0:00	3.4
2/15/2008	0:00	3.2
2/16/2008	0:00	3.4
2/17/2008	0:00	3.3
2/18/2008	0:00	3.6
2/19/2008	0:00	3.3
2/20/2008	0:00	3.1
2/21/2008	0:00	3.3
2/22/2008	0:00	3.2
2/23/2008	0:00	3.4
2/24/2008	0:00	3.3
2/25/2008	0:00	3.3
2/26/2008	0:00	3.2
2/27/2008	0:00	3.5
2/28/2008	0:00	3.3
2/29/2008	0:00	3.1
3/1/2008	0:00	3.1
3/2/2008	0:00	3.3
3/3/2008	0:00	3

**Gauge 16**  
Serial # - 9BEBDDF

Date	Time	Depth (in)
1/1/2008	0:00	3.3
1/2/2008	0:00	3.1
1/3/2008	0:00	2.9
1/4/2008	0:00	2.9
1/5/2008	0:00	2.8
1/6/2008	0:00	2.9
1/7/2008	0:00	2.9
1/8/2008	0:00	3.2
1/9/2008	0:00	3.3
1/10/2008	0:00	3.2
1/11/2008	0:00	3.3
1/12/2008	0:00	3.2
1/13/2008	0:00	3.2
1/14/2008	0:00	3.1
1/15/2008	0:00	2.9
1/16/2008	0:00	2.7
1/17/2008	0:00	2.7
1/18/2008	0:00	2.9
1/19/2008	0:00	3
1/20/2008	0:00	3
1/21/2008	0:00	2.8
1/22/2008	0:00	2.7
1/23/2008	0:00	2.9
1/24/2008	0:00	2.8
1/25/2008	0:00	2.7
1/26/2008	0:00	2.8
1/27/2008	0:00	2.7
1/28/2008	0:00	2.8
1/29/2008	0:00	2.9
1/30/2008	0:00	3.2
1/31/2008	0:00	3.2
2/1/2008	0:00	3.1
2/2/2008	0:00	3.3
2/3/2008	0:00	3.5
2/4/2008	0:00	3.4
2/5/2008	0:00	3.3
2/6/2008	0:00	3.2
2/7/2008	0:00	3.2
2/8/2008	0:00	3.1
2/9/2008	0:00	3.3
2/10/2008	0:00	3.4
2/11/2008	0:00	3.1
2/12/2008	0:00	19.9
2/13/2008	0:00	-19
2/14/2008	0:00	-19
2/15/2008	0:00	-9.1
2/16/2008	0:00	-11.6
2/17/2008	0:00	-13.1
2/18/2008	0:00	-7.6
2/19/2008	0:00	-12.3
2/20/2008	0:00	-15.2
2/21/2008	0:00	-17.3
2/22/2008	0:00	-17.5
2/23/2008	0:00	-16.7
2/24/2008	0:00	-18.4
2/25/2008	0:00	-18.4
2/26/2008	0:00	-18.2
2/27/2008	0:00	-8.5
2/28/2008	0:00	-13.7
2/29/2008	0:00	-15.9
3/1/2008	0:00	-16.3
3/2/2008	0:00	-14.2

**Gauge 17**  
Serial # - 11311060

Date	Time	Depth (in)
1/1/2008	0:00	-24.1
1/2/2008	0:00	-28.1
1/3/2008	0:00	-30.5
1/4/2008	0:00	-32.4
1/5/2008	0:00	-33.4
1/6/2008	0:00	-33.6
1/7/2008	0:00	-33.8
1/8/2008	0:00	-34
1/9/2008	0:00	-34
1/10/2008	0:00	-34.2
1/11/2008	0:00	-34.9
1/12/2008	0:00	-35.3
1/13/2008	0:00	-35.3
1/14/2008	0:00	-35.7
1/15/2008	0:00	-35.7
1/16/2008	0:00	-35.9
1/17/2008	0:00	-35.9
1/18/2008	0:00	-15.9
1/19/2008	0:00	-14.4
1/20/2008	0:00	-14.8
1/21/2008	0:00	-19.2
1/22/2008	0:00	-20.1
1/23/2008	0:00	-20.1
1/24/2008	0:00	-20.3
1/25/2008	0:00	-23.9
1/26/200		

**Gauge 13**  
Serial # - 11310538

Date	Time	Depth (in)
3/3/2008	7:00:00	1.7
3/4/2008	7:00:00	2.1
3/5/2008	7:00:00	4.2
3/6/2008	7:00:00	4
3/7/2008	7:00:00	4
3/8/2008	7:00:00	4.2
3/9/2008	7:00:00	3.8
3/10/2008	7:00:00	3.4
3/11/2008	7:00:00	3.2
3/12/2008	7:00:00	3
3/13/2008	7:00:00	2.8
3/14/2008	7:00:00	3.2
3/15/2008	7:00:00	3
3/16/2008	7:00:00	4.2
3/17/2008	7:00:00	4
3/18/2008	7:00:00	3.8
3/19/2008	7:00:00	4
3/20/2008	7:00:00	4.2
3/21/2008	7:00:00	4
3/22/2008	7:00:00	3.8
3/23/2008	7:00:00	3.2
3/24/2008	7:00:00	3
3/25/2008	7:00:00	2.5
3/26/2008	7:00:00	2.7
3/27/2008	7:00:00	2.7
3/28/2008	7:00:00	3
3/29/2008	7:00:00	2.7
3/30/2008	7:00:00	2.8
3/31/2008	7:00:00	3.2
4/1/2008	7:00:00	3
4/2/2008	7:00:00	1.7
4/3/2008	7:00:00	1
4/4/2008	7:00:00	3
4/5/2008	7:00:00	4.2
4/6/2008	7:00:00	4.2
4/7/2008	7:00:00	2.7
4/8/2008	7:00:00	2.1
4/9/2008	7:00:00	1.7
4/10/2008	7:00:00	1.5
4/11/2008	7:00:00	1.5
4/12/2008	7:00:00	1.3
4/13/2008	7:00:00	0.8
4/14/2008	7:00:00	0.4
4/15/2008	7:00:00	0.6
4/16/2008	7:00:00	0.2
4/17/2008	7:00:00	0.2
4/18/2008	7:00:00	0.4
4/19/2008	7:00:00	0.8
4/20/2008	7:00:00	1.7
4/21/2008	7:00:00	1.5
4/22/2008	7:00:00	1.5
4/23/2008	7:00:00	1
4/24/2008	7:00:00	0.6
4/25/2008	7:00:00	0.6
4/26/2008	7:00:00	0.6
4/27/2008	7:00:00	0.8
4/28/2008	7:00:00	2.1
4/29/2008	7:00:00	1.5
4/30/2008	7:00:00	0.6
5/1/2008	7:00:00	0.4
5/2/2008	7:00:00	1.1
5/3/2008	7:00:00	1

**Gauge 14**  
Serial # - EBD1AB7

Date	Time	Depth (in)
3/3/2008	14:35	-0.3
3/4/2008	14:35	0
3/5/2008	14:35	1.6
3/6/2008	14:35	0.8
3/7/2008	14:35	1.6
3/8/2008	14:35	1.3
3/9/2008	14:35	0.7
3/10/2008	14:35	0.5
3/11/2008	14:35	0.5
3/12/2008	14:35	0.3
3/13/2008	14:35	0.1
3/14/2008	14:35	0
3/15/2008	14:35	0
3/16/2008	14:35	0.9
3/17/2008	14:35	0.5
3/18/2008	14:35	0.4
3/19/2008	14:35	0.5
3/20/2008	14:35	0.7
3/21/2008	14:35	0.6
3/22/2008	14:35	0.3
3/23/2008	14:35	0.1
3/24/2008	14:35	0.1
3/25/2008	14:35	0
3/26/2008	14:35	0
3/27/2008	14:35	0
3/28/2008	14:35	0
3/29/2008	14:35	1
3/30/2008	14:35	1
3/31/2008	14:35	1.2
4/1/2008	14:35	1.2
4/2/2008	14:35	0.6
4/3/2008	14:35	0.6
4/4/2008	14:35	1.4
4/5/2008	14:35	1.9
4/6/2008	14:35	1.3
4/7/2008	14:35	1.2
4/8/2008	14:35	1.1
4/9/2008	14:35	1
4/10/2008	14:35	0.9
4/11/2008	14:35	0.8
4/12/2008	14:35	1.1
4/13/2008	14:35	0.7
4/14/2008	14:35	0.7
4/15/2008	14:35	0.5
4/16/2008	14:35	0.3
4/17/2008	14:35	0.3
4/18/2008	14:35	0.1
4/19/2008	14:35	0.2
4/20/2008	14:35	1.1
4/21/2008	14:35	0.9
4/22/2008	14:35	0.7
4/23/2008	14:35	0.6
4/24/2008	14:35	0.4
4/25/2008	14:35	0.1
4/26/2008	14:35	0
4/27/2008	14:35	1.6
4/28/2008	14:35	1.6
4/29/2008	14:35	1.2
4/30/2008	14:35	0.9
5/1/2008	14:35	0.6
5/2/2008	14:35	-22.8
5/3/2008	14:35	1.9

**Gauge 15**  
Serial # - EBDC918

Date	Time	Depth (in)
3/3/2008	0:00	3.2
3/4/2008	0:00	3.5
3/5/2008	0:00	3.8
3/6/2008	0:00	3.8
3/7/2008	0:00	4.2
3/8/2008	0:00	4.4
3/9/2008	0:00	4.1
3/10/2008	0:00	4.1
3/11/2008	0:00	4.1
3/12/2008	0:00	4
3/13/2008	0:00	3.9
3/14/2008	0:00	4
3/15/2008	0:00	4.2
3/16/2008	0:00	4.2
3/17/2008	0:00	4.4
3/18/2008	0:00	4.2
3/19/2008	0:00	4.4
3/20/2008	0:00	4.4
3/21/2008	0:00	4.5
3/22/2008	0:00	4.3
3/23/2008	0:00	4.2
3/24/2008	0:00	4.1
3/25/2008	0:00	3.8
3/26/2008	0:00	3.8
3/27/2008	0:00	3.7
3/28/2008	0:00	3.8
3/29/2008	0:00	3.9
3/30/2008	0:00	3.8
3/31/2008	0:00	3.8
4/1/2008	0:00	-0.9
4/2/2008	0:00	-2
4/3/2008	0:00	-2.5
4/4/2008	0:00	-1.8
4/5/2008	0:00	-1
4/6/2008	0:00	-1.3
4/7/2008	0:00	-2
4/8/2008	0:00	-2.3
4/9/2008	0:00	-2.8
4/10/2008	0:00	-3.3
4/11/2008	0:00	-4.3
4/12/2008	0:00	-5.2
4/13/2008	0:00	-6.1
4/14/2008	0:00	-8.7
4/15/2008	0:00	-10.4
4/16/2008	0:00	-13.2
4/17/2008	0:00	-15
4/18/2008	0:00	-16.8
4/19/2008	0:00	-18.6
4/20/2008	0:00	-11.8
4/21/2008	0:00	-12.2
4/22/2008	0:00	-14.3
4/23/2008	0:00	-16.2
4/24/2008	0:00	-18.3
4/25/2008	0:00	-20.2
4/26/2008	0:00	-22
4/27/2008	0:00	-22.8
4/28/2008	0:00	-7.9
4/29/2008	0:00	-3.7
4/30/2008	0:00	-5.9
5/1/2008	0:00	-8.5
5/2/2008	0:00	-11.2
5/3/2008	0:00	-11.6

**Gauge 16**  
Serial # - 9BEBDDF

Date	Time	Depth (in)
3/4/2008	0:00	2.9
3/5/2008	0:00	3.3
3/6/2008	0:00	3.6
3/7/2008	0:00	3.7
3/8/2008	0:00	4.2
3/9/2008	0:00	4.2
3/10/2008	0:00	4
3/11/2008	0:00	4
3/12/2008	0:00	4
3/13/2008	0:00	4
3/14/2008	0:00	3.8
3/15/2008	0:00	3.8
3/16/2008	0:00	3.9
3/17/2008	0:00	4
3/18/2008	0:00	4.4
3/19/2008	0:00	4.2
3/20/2008	0:00	4.4
3/21/2008	0:00	4.3
3/22/2008	0:00	4.6
3/23/2008	0:00	4.2
3/24/2008	0:00	4
3/25/2008	0:00	3.9
3/26/2008	0:00	3.8
3/27/2008	0:00	3.6
3/28/2008	0:00	3.4
3/29/2008	0:00	3.5
3/30/2008	0:00	3.5
3/31/2008	0:00	3.5
4/1/2008	0:00	3.4
4/2/2008	0:00	-4.6
4/3/2008	0:00	-5.9
4/4/2008	0:00	-6.8
4/5/2008	0:00	-6.1
4/6/2008	0:00	-5.1
4/7/2008	0:00	-4.4
4/8/2008	0:00	-6.3
4/9/2008	0:00	-6.8
4/10/2008	0:00	-7
4/11/2008	0:00	-7.2
4/12/2008	0:00	-7.9
4/13/2008	0:00	-8.4
4/14/2008	0:00	-9.7
4/15/2008	0:00	-11.6
4/16/2008	0:00	-12.5
4/17/2008	0:00	-14.8
4/18/2008	0:00	-16.9
4/19/2008	0:00	-19.6
4/20/2008	0:00	-21
4/21/2008	0:00	-18
4/22/2008	0:00	-15.1
4/23/2008	0:00	-16.6
4/24/2008	0:00	-19.5
4/25/2008	0:00	-21.1
4/26/2008	0:00	-22.1
4/27/2008	0:00	-23.3
4/28/2008	0:00	-24.6
4/29/2008	0:00	-10.1
4/30/2008	0:00	-6.5
5/1/2008	0:00	-7.8
5/2/2008	0:00	-8.7
5/3/2008	0:00	-21.6

**Gauge 17**  
Serial # - 11311060

Date	Time	Depth (in)
3/3/2008	7:00:00	-19.4
3/4/2008	7:00:00	-19.4
3/5/2008	7:00:00	1.3
3/6/2008	7:00:00	-2.7
3/7/2008	7:00:00	-7.4
3/8/2008	7:00:00	3.4
3/9/2008	7:00:00	-2.3
3/10/2008	7:00:00	-8
3/11/2008	7:00:00	-11.4
3/12/2008	7:00:00	-13.5
3/13/2008	7:00:00	-15.6
3/14/2008	7:00:00	-16.5
3/15/2008	7:00:00	-17.6
3/16/2008	7:00:00	-3.4
3/17/2008	7:00:00	-11
3/18/2008	7:00:00	-13.7
3/19/2008	7:00:00	-13.7
3/20/2008	7:00:00	-2.1
3/21/2008	7:00:00	-2.4
3/22/2008	7:00:00	-12.3
3/23/2008	7:00:00	-15.7
3/24/2008	7:00:00	-2.6
3/25/2008	7:00:00	-3.8
3/26/2008	7:00:00	-4.9
3/27/2008	7:00:00	-11.7
3/28/2008	7:00:00</td	

**Gauge 13**  
Serial # - 11310538

Date	Time	Depth (in)
5/4/2008	7:00:00	0.6
5/5/2008	7:00:00	0.4
5/6/2008	7:00:00	-0.2
5/7/2008	7:00:00	-0.6
5/8/2008	7:00:00	0
5/9/2008	7:00:00	1
5/10/2008	7:00:00	0.6
5/11/2008	7:00:00	0
5/12/2008	7:00:00	0.4
5/13/2008	7:00:00	0.2
5/14/2008	7:00:00	-0.4
5/15/2008	7:00:00	0
5/16/2008	7:00:00	0.8
5/17/2008	7:00:00	0.2
5/18/2008	7:00:00	-0.2
5/19/2008	7:00:00	0.4
5/20/2008	7:00:00	0.2
5/21/2008	7:00:00	-0.6
5/22/2008	7:00:00	-1.1
5/23/2008	7:00:00	-1.3
5/24/2008	7:00:00	-1.5
5/25/2008	7:00:00	-2.3
5/26/2008	7:00:00	-2.5
5/27/2008	7:00:00	-3
5/28/2008	7:00:00	-3
5/29/2008	7:00:00	-1.1
5/30/2008	7:00:00	-0.9
5/31/2008	7:00:00	-1.3
6/1/2008	7:00:00	-1.9
6/2/2008	7:00:00	-2.7
6/3/2008	7:00:00	-3.2
6/4/2008	7:00:00	-1.5
6/5/2008	7:00:00	-2.5
6/6/2008	7:00:00	-3
6/7/2008	7:00:00	-4.9
6/8/2008	7:00:00	-7
6/9/2008	7:00:00	-9.7
6/10/2008	7:00:00	-14
6/11/2008	7:00:00	-19.2
6/12/2008	7:00:00	-22.8
6/13/2008	7:00:00	-25.4
6/14/2008	7:00:00	-28.1
6/15/2008	7:00:00	-18.8
6/16/2008	7:00:00	-23.3
6/17/2008	7:00:00	-27.9
6/18/2008	7:00:00	-31.1
6/19/2008	7:00:00	-32.6
6/20/2008	7:00:00	-33.6
6/21/2008	7:00:00	-33.8
6/22/2008	7:00:00	-33.8
6/23/2008	7:00:00	-5.3
6/24/2008	7:00:00	-9.1
6/25/2008	7:00:00	-13.1
6/26/2008	7:00:00	-5.5
6/27/2008	7:00:00	-4.6
6/28/2008	7:00:00	-4.9
6/29/2008	7:00:00	-4.6
6/30/2008	7:00:00	-1.5
7/1/2008	7:00:00	-1.7
7/2/2008	7:00:00	-2.3
7/3/2008	7:00:00	-3
7/4/2008	7:00:00	-4.2

**Gauge 14**  
Serial # - EBD1AB7

Date	Time	Depth (in)
5/4/2008	14:35	0.1
5/5/2008	14:35	-0.1
5/6/2008	14:35	-0.6
5/7/2008	14:35	-0.9
5/8/2008	14:35	-0.6
5/9/2008	14:35	0.6
5/10/2008	14:35	-0.3
5/11/2008	14:35	2
5/12/2008	14:35	0.6
5/13/2008	14:35	-0.2
5/14/2008	14:35	-0.3
5/15/2008	14:35	-0.4
5/16/2008	14:35	0.6
5/17/2008	14:35	-0.3
5/18/2008	14:35	-0.7
5/19/2008	14:35	0.3
5/20/2008	14:35	-0.2
5/21/2008	14:35	-0.9
5/22/2008	14:35	-1.5
5/23/2008	14:35	-2.1
5/24/2008	14:35	-2.4
5/25/2008	14:35	-2.5
5/26/2008	14:35	-3.5
5/27/2008	14:35	-4.2
5/28/2008	14:35	-1.5
5/29/2008	14:35	-0.8
5/30/2008	14:35	-1.3
5/31/2008	14:35	-1.9
6/1/2008	14:35	-2.7
6/2/2008	14:35	-3.7
6/3/2008	14:35	-4
6/4/2008	14:35	-1.8
6/5/2008	14:35	-3.7
6/6/2008	14:35	-4.7
6/7/2008	14:35	-6
6/8/2008	14:35	-7.6
6/9/2008	14:35	-9.5
6/10/2008	14:35	-12
6/11/2008	14:35	-20
6/12/2008	14:35	-23.6
6/13/2008	14:35	-26.2
6/14/2008	14:35	-28.9
6/15/2008	14:35	-19.6
6/16/2008	14:35	-24.1
6/17/2008	14:35	-28.7
6/18/2008	14:35	-31.9
6/19/2008	14:35	-33.4
6/20/2008	14:35	-34.4
6/21/2008	14:35	-34.6
6/22/2008	14:35	-34.6
6/23/2008	14:35	-6.1
6/24/2008	14:35	-9.9
6/25/2008	14:35	-13.9
6/26/2008	14:35	-6.3
6/27/2008	14:35	-5.4
6/28/2008	14:35	-5.7
6/29/2008	14:35	-5.4
6/30/2008	14:35	-2.3
7/1/2008	14:35	-2.5
7/2/2008	14:35	-3.1
7/3/2008	14:35	-3.8
7/4/2008	14:35	-5

**Gauge 15**  
Serial # - EBDC918

Date	Time	Depth (in)
5/4/2008	14:35	-16.1
5/5/2008	14:35	-18.9
5/6/2008	14:35	-20.5
5/7/2008	14:35	-21.8
5/8/2008	14:35	-24.7
5/9/2008	14:35	-25.9
5/10/2008	14:35	-24.9
5/11/2008	14:35	-26
5/12/2008	14:35	-23.5
5/13/2008	14:35	-24.6
5/14/2008	14:35	-26.4
5/15/2008	14:35	-28.1
5/16/2008	14:35	-28.8
5/17/2008	14:35	-8.4
5/18/2008	14:35	-4
5/19/2008	14:35	-1.2
5/20/2008	14:35	-0.4
5/21/2008	14:35	0.1
5/22/2008	14:35	-0.1
5/23/2008	14:35	0
5/24/2008	14:35	0.2
5/25/2008	14:35	-0.1
5/26/2008	14:35	-0.3
5/27/2008	14:35	-0.5
5/28/2008	14:35	-0.6
5/29/2008	14:35	-0.3
5/30/2008	14:35	-0.1
5/31/2008	14:35	0.2
6/1/2008	14:35	0.1
6/2/2008	14:35	-0.1
6/3/2008	14:35	-0.6
6/4/2008	14:35	-0.3
6/5/2008	14:35	-0.5
6/6/2008	14:35	-1
6/7/2008	14:35	-1.9
6/8/2008	14:35	-2.5
6/9/2008	14:35	-2.9
6/10/2008	14:35	-3.1
6/11/2008	14:35	-3.5
6/12/2008	14:35	-4.1
6/13/2008	14:35	-4.6
6/14/2008	14:35	-4.9
6/15/2008	14:35	-3.6
6/16/2008	14:35	-4.1
6/17/2008	14:35	-4.1
6/18/2008	14:35	-4.7
6/19/2008	14:35	-5.1
6/20/2008	14:35	-6
6/21/2008	14:35	-6.7
6/22/2008	14:35	-7.5
6/23/2008	14:35	-2.9
6/24/2008	14:35	-3
6/25/2008	14:35	-3.6
6/26/2008	14:35	-4.1
6/27/2008	14:35	-3.3
6/28/2008	14:35	-3.5
6/29/2008	14:35	-3.6
6/30/2008	14:35	-1.5
7/1/2008	14:35	-1.5
7/2/2008	14:35	-2.1
7/3/2008	14:35	-2.2
7/4/2008	14:35	-2.2

**Gauge 16**  
Serial # - 9BEBDDF

Date	Time	Depth (in)
5/4/2008	0:00	-14.6
5/5/2008	0:00	-17.6
5/6/2008	0:00	-20.4
5/7/2008	0:00	-22
5/8/2008	0:00	-23.3
5/9/2008	0:00	-26.2
5/10/2008	0:00	-27.4
5/11/2008	0:00	-26.4
5/12/2008	0:00	-27.5
5/13/2008	0:00	-25
5/14/2008	0:00	-26.1
5/15/2008	0:00	-27.9
5/16/2008	0:00	-29.6
5/17/2008	0:00	-30.3
5/18/2008	0:00	-9.9
5/19/2008	0:00	-5.5
5/20/2008	0:00	-2.7
5/21/2008	0:00	-1.9
5/22/2008	0:00	-1.4
5/23/2008	0:00	-1.6
5/24/2008	0:00	-1.5
5/25/2008	0:00	-1.3
5/26/2008	0:00	-1.6
5/27/2008	0:00	-1.8
5/28/2008	0:00	-2
5/29/2008	0:00	-2.1
5/30/2008	0:00	-1.8
5/31/2008	0:00	-1.6
6/1/2008	0:00	-1.3
6/2/2008	0:00	-1.4
6/3/2008	0:00	-1.6
6/4/2008	0:00	-2.1
6/5/2008	0:00	-1.8
6/6/2008	0:00	-2
6/7/2008	0:00	-2.5
6/8/2008	0:00	-3.4
6/9/2008	0:00	-4
6/10/2008	0:00	-4.4
6/11/2008	0:00	-4.6
6/12/2008	0:00	-5
6/13/2008	0:00	-5.6
6/14/2008	0:00	-6.1
6/15/2008	0:00	-6.4
6/16/2008	0:00	-5.1
6/17/2008	0:00	-5.6
6/18/2008	0:00	-5.6
6/19/2008	0:00	-6.2
6/20/2008	0:00	-6.6
6/21/2008	0:00	-7.5
6/22/2008	0:00	-8.2
6/23/2008	0:00	-9
6/24/2008	0:00	-4.4
6/25/2008	0:00	-4.5
6/26/2008	0:00	-5.1
6/27/2008	0:00	-5.6
6/28/2008	0:00	-4.8
6/29/2008	0:00	-5
6/30/2008	0:00	-5.1
7/1/2008	0:00	-3
7/2/2008	0:00	-3
7/3/2008	0:00	-3.6
7/4/2008	0:00	-3.7

**Gauge 17**  
Serial # - 11311060

Date	Time	Depth (in)
5/4/2008	7:00:00	-22.8
5/5/2008	7:00:00	-18.4
5/6/2008	7:00:00	-20.1
5/7/2008	7:00:00	-21.7
5/8/2008	7:00:00	-23.2
5/9/2008	7:00:00	-24.1
5/10/2008	7:00:00	-25.8
5/11/2008	7:00:00	-27.2
5/12/2008	7:00:00	-27.9
5/13/2008	7:00:00	-29.6
5/14/2008	7:00:00	-30.4
5/15/2008	7:00:00	-32.1
5/16/2008	7:00:00	-33.8
5/17/2008	7:00:00	-33.8
5/18/2008	7:00:00	-34.7
5/19/2008	7:00:00	-35.7
5/20/2008	7:00:00	-36.1
5/21/2008	7:00:00	-32
5/22/2008	7:00:00	-36.5
5/23/2008	7:00:00	-36.3
5/24/2008	7:00:00	-36.5
5/25/2008	7:00:00	-3

**Gauge 13**  
Serial # - 11310538

Date	Time	Depth (in)
7/5/2008	7:00:00	-5.3
7/6/2008	7:00:00	1.9
7/7/2008	7:00:00	2.1
7/8/2008	7:00:00	1.5
7/9/2008	7:00:00	1.1
7/10/2008	7:00:00	1.1
7/11/2008	7:00:00	4.2
7/12/2008	7:00:00	3.8
7/13/2008	7:00:00	3.2
7/14/2008	7:00:00	2.5
7/15/2008	7:00:00	1.7
7/16/2008	7:00:00	1
7/17/2008	7:00:00	-0.2
7/18/2008	7:00:00	-0.9
7/19/2008	7:00:00	-1.5
7/20/2008	7:00:00	-2.7
7/21/2008	7:00:00	-3.8
7/22/2008	7:00:00	-5.1
7/23/2008	7:00:00	-0.2
7/24/2008	7:00:00	-0.4
7/25/2008	7:00:00	0.6
7/26/2008	7:00:00	0.8
7/27/2008	7:00:00	-0.2
7/28/2008	7:00:00	-1.3
7/29/2008	7:00:00	-1.3
7/30/2008	7:00:00	-2.5
7/31/2008	7:00:00	-0.8
8/1/2008	7:00:00	-0.4
8/2/2008	7:00:00	-1.5
8/3/2008	7:00:00	-2.3
8/4/2008	7:00:00	-4
8/5/2008	7:00:00	-6.1
8/6/2008	7:00:00	-7.8
8/7/2008	7:00:00	-10.6
8/8/2008	7:00:00	-14
8/9/2008	0:00	-18.8
8/10/2008	0:00	-21.4
8/11/2008	0:00	-23.9
8/12/2008	0:00	-26.6
8/13/2008	0:00	-3.4
8/14/2008	0:00	-7
8/15/2008	0:00	-2.3
8/16/2008	0:00	-2.3
8/17/2008	0:00	-0.8
8/18/2008	0:00	-1.7
8/19/2008	0:00	-2.5
8/20/2008	0:00	-3.4
8/21/2008	0:00	-4.2
8/22/2008	0:00	-4.9
8/23/2008	0:00	-6.8
8/24/2008	0:00	-8.7
8/25/2008	0:00	-11.4
8/26/2008	0:00	-7.8
8/27/2008	0:00	4.2
8/28/2008	0:00	4.2
8/29/2008	0:00	3.8
8/30/2008	0:00	3
8/31/2008	0:00	3
9/1/2008	0:00	2.3
9/2/2008	0:00	2.3
9/3/2008	0:00	1.3
9/4/2008	0:00	1

**Gauge 14**  
Serial # - EBD1AB7

Date	Time	Depth (in)
7/5/2008	14:35	-6.1
7/6/2008	14:35	1.1
7/7/2008	14:35	1.3
7/8/2008	14:35	0.7
7/9/2008	14:35	0.3
7/10/2008	14:35	0.3
7/11/2008	14:35	3.4
7/12/2008	14:35	3
7/13/2008	14:35	2.4
7/14/2008	14:35	1.7
7/15/2008	14:35	0.9
7/16/2008	14:35	0.2
7/17/2008	14:35	-1
7/18/2008	14:35	-1.7
7/19/2008	14:35	-2.3
7/20/2008	14:35	-3.5
7/21/2008	14:35	-4.6
7/22/2008	14:35	-5.9
7/23/2008	14:35	-1
7/24/2008	14:35	-1.2
7/25/2008	14:35	-0.2
7/26/2008	14:35	0
7/27/2008	14:35	-1
7/28/2008	14:35	-2.1
7/29/2008	14:35	-2.1
7/30/2008	14:35	-3.3
7/31/2008	14:35	-1.6
8/1/2008	14:35	-1.2
8/2/2008	14:35	-1.2
8/3/2008	14:35	-3.1
8/4/2008	14:35	-4.8
8/5/2008	14:35	-6.9
8/6/2008	14:35	-8.6
8/7/2008	14:35	-11.4
8/8/2008	14:35	-14.8
8/9/2008	14:35	-19.6
8/10/2008	14:35	-22.2
8/11/2008	14:35	-24.7
8/12/2008	14:35	-27.4
8/13/2008	14:35	-4.2
8/14/2008	14:35	-7.8
8/15/2008	14:35	-3.1
8/16/2008	14:35	-3.1
8/17/2008	14:35	-1.6
8/18/2008	14:35	-2.5
8/19/2008	14:35	-3.3
8/20/2008	14:35	-4.2
8/21/2008	14:35	-5
8/22/2008	14:35	-5.7
8/23/2008	14:35	-7.6
8/24/2008	14:35	-9.5
8/25/2008	14:35	-12.2
8/26/2008	14:35	-8.6
8/27/2008	14:35	3.4
8/28/2008	14:35	3.4
8/29/2008	14:35	3
8/30/2008	14:35	2.2
8/31/2008	14:35	2.2
9/1/2008	14:35	1.5
9/2/2008	14:35	1.5
9/3/2008	14:35	0.5
9/4/2008	14:35	0.2

**Gauge 15**  
Serial # - EBDC918

Date	Time	Depth (in)
7/5/2008	0:00	-3.7
7/6/2008	0:00	-3.8
7/7/2008	0:00	-1
7/8/2008	0:00	1.7
7/9/2008	0:00	1.6
7/10/2008	0:00	1.6
7/11/2008	0:00	1.6
7/12/2008	0:00	3.7
7/13/2008	0:00	4.2
7/14/2008	0:00	3.8
7/15/2008	0:00	3.7
7/16/2008	0:00	2.7
7/17/2008	0:00	2.1
7/18/2008	0:00	1.6
7/19/2008	0:00	1.2
7/20/2008	0:00	0.4
7/21/2008	0:00	-0.1
7/22/2008	0:00	-0.5
7/23/2008	0:00	-1.1
7/24/2008	0:00	-2.4
7/25/2008	0:00	0.1
7/26/2008	0:00	0
7/27/2008	0:00	0.5
7/28/2008	0:00	0.4
7/29/2008	0:00	0.2
7/30/2008	0:00	0
7/31/2008	0:00	-0.5
8/1/2008	0:00	-0.1
8/2/2008	0:00	0
8/3/2008	0:00	-0.7
8/4/2008	0:00	-0.7
8/5/2008	0:00	-1
8/6/2008	0:00	-2.2
8/7/2008	0:00	-2.4
8/8/2008	0:00	-3.9
8/9/2008	0:00	-4.3
8/10/2008	0:00	-5.8
8/11/2008	0:00	-5.3
8/12/2008	0:00	-6.8
8/13/2008	0:00	-9.7
8/14/2008	0:00	-11.1
8/15/2008	0:00	-5.4
8/16/2008	0:00	-5.1
8/17/2008	0:00	-4.4
8/18/2008	0:00	-4
8/19/2008	0:00	-2.7
8/20/2008	0:00	-2.7
8/21/2008	0:00	-3.1
8/22/2008	0:00	-3.8
8/23/2008	0:00	-4.5
8/24/2008	0:00	-5.2
8/25/2008	0:00	-5.9
8/26/2008	0:00	-5.9
8/27/2008	0:00	-4.6
8/28/2008	0:00	-0.1
8/29/2008	0:00	5.1
8/30/2008	0:00	4.3
8/31/2008	0:00	3.8
9/1/2008	0:00	3.8
9/2/2008	0:00	3.8
9/3/2008	0:00	3.1
9/4/2008	0:00	2.6

**Gauge 16**  
Serial # - 9BEBDDF

Date	Time	Depth (in)
7/5/2008	14:35	-2.3
7/6/2008	14:35	0.5
7/7/2008	14:35	3.2
7/8/2008	14:35	3.1
7/9/2008	14:35	3.1
7/10/2008	14:35	3.1
7/11/2008	14:35	5.2
7/12/2008	14:35	5.7
7/13/2008	14:35	5.3
7/14/2008	14:35	5.2
7/15/2008	14:35	4.2
7/16/2008	14:35	3.6
7/17/2008	14:35	3.1
7/18/2008	14:35	2.7
7/19/2008	14:35	1.9
7/20/2008	14:35	1.6
7/21/2008	14:35	1.2
7/22/2008	14:35	0.4
7/23/2008	14:35	-0.1
7/24/2008	14:35	1.6
7/25/2008	14:35	1.1
7/26/2008	14:35	0.4
7/27/2008	14:35	-0.5
7/28/2008	14:35	-1.1
7/29/2008	14:35	-1.6
7/30/2008	14:35	-2.1
7/31/2008	14:35	-2.6
8/1/2008	14:35	-3.1
8/2/2008	14:35	-3.6
8/3/2008	14:35	-4.1
8/4/2008	14:35	-4.7
8/5/2008	14:35	-5.2
8/6/2008	14:35	-5.8
8/7/2008	14:35	-6.4
8/8/2008	14:35	-7
8/9/2008	14:35	-7.6
8/10/2008	14:35	-8.2
8/11/2008	14:35	-8.8
8/12/2008	14:35	-9.4
8/13/2008	14:35	-9.9
8/14/2008	14:35	-10.5
8/15/2008	14:35	-11.1
8/16/2008	14:35	-11.7
8/17/2008	14:35	-12.3
8/18/2008	14:35	-12.9
8/19/2008	14:35	-13.5
8/20/2008	14:35	-14.1
8/21/2008	14:35	-14.7
8/22/2008	14:35	-15.3
8/23/2008	14:35	-15.9
8/24/2008	14:35	-16.5
8/25/2008	14:35	-17.1
8/26/2008	14:35	-17.7
8/27/2008	14:35	-18.3
8/28/2008	14:35	-18.9
8/29/2008	14:35	-19.5
8/30/2008	14:35	-20.1
8/31/2008	14:35	-20.7
9/1/2008	14:35	-21.3
9/2/2008	14:35	-21.9
9/3/2008	14:35	-22.5
9/4/2008	14:35	-33.8

**Gauge 17**  
Serial # - 11311060

Date	Time	Depth (in)
7/5/2008	0:00	-37.1
7/6/2008	0:00	-36.5
7/7/2008	0:00	-36.9
7/8/2008	0:00	-36.9
7/9/2008	0:00	-36.9
7/10/2008	0:00	-36.9
7/11/2008	0:00	-36.7
7/12/2008	0:00	-36.7
7/13/2008	0:00	-37.1
7/14/2008	0:00	-36.7
7/15/2008	0:00	-36.7
7/16/2008	0:00	-36.7
7/17/2008	0:00	-36.7
7/18/2008	0:00	-36.9
7/19/2008	0:00	-36.9
7/20/2008	0:00	-36.9
7/21/2008	0:00	-36.9
7/22/2008	0:00	-36.9
7/23/2008	0:00	-36.7
7/24/2008	0:00	-36.7
7/25/2008	0:00	-36.7
7/26/2008	0:00	-36.7
7/27/2008	0:00	-36.7
7/28/2008	0:00	-36.9
7/29/2008	0:00	-36.7
7/30/2008</td		

**Gauge 13**  
Serial # - 11310538

Date	Time	Depth (in)
9/5/2008	0:00	0.2
9/6/2008	0:00	1.3
9/7/2008	0:00	-0.8
9/8/2008	0:00	-1.5
9/9/2008	0:00	4.2
9/10/2008	0:00	4.2
9/11/2008	0:00	4.2
9/12/2008	0:00	4.2
9/13/2008	0:00	3.6
9/14/2008	0:00	3.4
9/15/2008	0:00	4
9/16/2008	0:00	4.2
9/17/2008	0:00	4.2
9/18/2008	0:00	3.4
9/19/2008	0:00	2.8
9/20/2008	0:00	2.5
9/21/2008	0:00	2.3
9/22/2008	0:00	2.5
9/23/2008	0:00	2.1
9/24/2008	0:00	1.7
9/25/2008	0:00	1.7
9/26/2008	0:00	2.7
9/27/2008	0:00	4.2
9/28/2008	0:00	4.2
9/29/2008	0:00	3.4
9/30/2008	0:00	3.2
10/1/2008	0:00	4.2
10/2/2008	0:00	3.2
10/3/2008	0:00	2.7
10/4/2008	0:00	2.7
10/5/2008	0:00	2.5
10/6/2008	0:00	2.5
10/7/2008	0:00	3
10/8/2008	0:00	3
10/9/2008	0:00	4.2
10/10/2008	0:00	4.2
10/11/2008	0:00	3.4
10/12/2008	0:00	3
10/13/2008	0:00	2.8
10/14/2008	0:00	2.7
10/15/2008	0:00	2.7
10/16/2008	0:00	2.7
10/17/2008	0:00	4
10/18/2008	0:00	2.8
10/19/2008	0:00	2.5
10/20/2008	0:00	2.1
10/21/2008	0:00	2.3
10/22/2008	0:00	2.1
10/23/2008	0:00	2.1
10/24/2008	0:00	2.5
10/25/2008	0:00	4.2
10/26/2008	0:00	2.7
10/27/2008	0:00	2.7
10/28/2008	0:00	2.1
10/29/2008	0:00	1.9
10/30/2008	0:00	1.9
10/31/2008	0:00	1.9

**Gauge 14**  
Serial # - EBD1AB7

Date	Time	Depth (in)
9/5/2008	14:35	-0.6
9/6/2008	14:35	0.5
9/7/2008	14:35	-1.6
9/8/2008	14:35	-2.3
9/9/2008	14:35	3.4
9/10/2008	14:35	3.4
9/11/2008	14:35	3.4
9/12/2008	14:35	3.4
9/13/2008	14:35	2.8
9/14/2008	14:35	2.6
9/15/2008	14:35	3.2
9/16/2008	14:35	3.4
9/17/2008	14:35	3.4
9/18/2008	14:35	2.6
9/19/2008	14:35	2
9/20/2008	14:35	1.7
9/21/2008	14:35	1.5
9/22/2008	14:35	1.7
9/23/2008	14:35	1.3
9/24/2008	14:35	0.9
9/25/2008	14:35	0.9
9/26/2008	14:35	1.9
9/27/2008	14:35	3.4
9/28/2008	14:35	3.4
9/29/2008	14:35	2.6
9/30/2008	14:35	2.4
10/1/2008	14:35	3.4
10/2/2008	14:35	2.4
10/3/2008	14:35	1.9
10/4/2008	14:35	1.9
10/5/2008	14:35	1.7
10/6/2008	14:35	1.7
10/7/2008	14:35	2.2
10/8/2008	14:35	2.2
10/9/2008	14:35	3.4
10/10/2008	14:35	3.4
10/11/2008	14:35	2.6
10/12/2008	14:35	2.2
10/13/2008	14:35	2
10/14/2008	14:35	1.9
10/15/2008	14:35	1.9
10/16/2008	14:35	1.9
10/17/2008	14:35	3.2
10/18/2008	14:35	2
10/19/2008	14:35	1.7
10/20/2008	14:35	1.3
10/21/2008	14:35	1.5
10/22/2008	14:35	1.3
10/23/2008	14:35	1.3
10/24/2008	14:35	1.7
10/25/2008	14:35	3.4
10/26/2008	14:35	1.9
10/27/2008	14:35	1.9
10/28/2008	14:35	1.3
10/29/2008	14:35	1.1
10/30/2008	14:35	1.1
10/31/2008	14:35	1.1

**Gauge 15**  
Serial # - EBDC918

Date	Time	Depth (in)
9/5/2008	14:35	3.3
9/6/2008	14:35	3.6
9/7/2008	14:35	2.9
9/8/2008	14:35	2.1
9/9/2008	14:35	6.3
9/10/2008	14:35	6.6
9/11/2008	14:35	6.3
9/12/2008	14:35	6.3
9/13/2008	14:35	5.2
9/14/2008	14:35	5.5
9/15/2008	14:35	5.5
9/16/2008	14:35	5.3
9/17/2008	14:35	6.6
9/18/2008	14:35	5.9
9/19/2008	14:35	5.5
9/20/2008	14:35	5.3
9/21/2008	14:35	5.2
9/22/2008	14:35	5.4
9/23/2008	14:35	5.1
9/24/2008	14:35	5
9/25/2008	14:35	5
9/26/2008	14:35	5.2
9/27/2008	14:35	5.8
9/28/2008	14:35	6.2
9/29/2008	14:35	5.9
9/30/2008	14:35	5.7
10/1/2008	14:35	6.1
10/2/2008	14:35	5.9
10/3/2008	14:35	5.7
10/4/2008	14:35	5.5
10/5/2008	14:35	5.7
10/6/2008	14:35	5.5
10/7/2008	14:35	5.5
10/8/2008	14:35	5.5
10/9/2008	14:35	5
10/10/2008	14:35	4.7
10/11/2008	14:35	4.6
10/12/2008	14:35	4.5
10/13/2008	14:35	4.3
10/14/2008	14:35	4.4
10/15/2008	14:35	4.6
10/16/2008	14:35	4.6
10/17/2008	14:35	4.7
10/18/2008	14:35	4.6
10/19/2008	14:35	4.6
10/20/2008	14:35	4.6
10/21/2008	14:35	4.4
10/22/2008	14:35	4.4
10/23/2008	14:35	5
10/24/2008	14:35	4.9
10/25/2008	14:35	5
10/26/2008	14:35	4.8
10/27/2008	14:35	4.5
10/28/2008	14:35	4.6
10/29/2008	14:35	4.5
10/30/2008	14:35	4.4
10/31/2008	14:35	1.5

**Gauge 16**  
Serial # - 9BEBDDF

Date	Time	Depth (in)
9/5/2008	0:00	2.2
9/6/2008	0:00	1.8
9/7/2008	0:00	2.1
9/8/2008	0:00	1.4
9/9/2008	0:00	0.6
9/10/2008	0:00	4.8
9/11/2008	0:00	5.1
9/12/2008	0:00	4.8
9/13/2008	0:00	4.8
9/14/2008	0:00	3.7
9/15/2008	0:00	4
9/16/2008	0:00	4
9/17/2008	0:00	3.8
9/18/2008	0:00	5.1
9/19/2008	0:00	4.4
9/20/2008	0:00	4
9/21/2008	0:00	3.8
9/22/2008	0:00	3.7
9/23/2008	0:00	3.9
9/24/2008	0:00	3.6
9/25/2008	0:00	3.5
9/26/2008	0:00	3.5
9/27/2008	0:00	3.7
9/28/2008	0:00	4.3
9/29/2008	0:00	4.7
9/30/2008	0:00	4.4
10/1/2008	0:00	4.2
10/2/2008	0:00	4.6
10/3/2008	0:00	4.4
10/4/2008	0:00	4.2
10/5/2008	0:00	4
10/6/2008	0:00	4
10/7/2008	0:00	4
10/8/2008	0:00	4
10/9/2008	0:00	4
10/10/2008	0:00	3.5
10/11/2008	0:00	3.2
10/12/2008	0:00	3.1
10/13/2008	0:00	3
10/14/2008	0:00	2.8
10/15/2008	0:00	2.9
10/16/2008	0:00	3.1
10/17/2008	0:00	3.1
10/18/2008	0:00	3.2
10/19/2008	0:00	3.1
10/20/2008	0:00	3.1
10/21/2008	0:00	3.1
10/22/2008	0:00	2.9
10/23/2008	0:00	2.9
10/24/2008	0:00	3.5
10/25/2008	0:00	3.4
10/26/2008	0:00	3.5
10/27/2008	0:00	3.3
10/28/2008	0:00	3
10/29/2008	0:00	3.1
10/30/2008	0:00	3
10/31/2008	0:00	2.9

**Gauge 17**  
Serial # - 11311060

Date	Time	Depth (in)
9/5/2008	7:00:00	-34.2
9/6/2008	7:00:00	-34.6
9/7/2008	7:00:00	-34.5
9/8/2008	7:00:00	-35.3
9/9/2008	7:00:00	2.5
9/10/2008	7:00:00	-5.4
9/11/2008	7:00:00	-5.6
9/12/2008	7:00:00	-7
9/13/2008	7:00:00	-11.4
9/14/2008	7:00:00	-17.7
9/15/2008	7:00:00	-21.9
9/16/2008	7:00:00	-24.3
9/17/2008	7:00:00	-5.9
9/18/2008	7:00:00	-10.3
9/19/2008	7:00:00	-16.1
9/20/2008	7:00:00	-19.9
9/21/2008	7:00:00	-22
9/22/2008	7:00:00	-22.9
9/23/2008	7:00:00	-24.2
9/24/2008	7:00:00	-25.1
9/25/2008	7:00:00	-25.8
9/26/2008	7:00:00	-26
9/27/2008	7:00:00	-7.5
9/28/2008	7:00:00	-7.5
9/29/2008	7:00:00	-11.8
9/30/2008	7:00:00	-14.9
10/1/2008	7:00:00	-5.1
10/2/2008	7:00:00	-9.6
10/3/2008	7:00:00	-12.3
10/4/2008	7:00:00	-13.5
10/5/2008	7:00:00	-14.8
10/6/2008	7:00:00	-15.8
10/7/2008	7:00:00	-16.2
10/8/2008	7:00:00	-17.5
10/9/2008	7:00:00	-18.1
10/10/2008	7:00:00	-16.1
10/11/2008	7:00:00	-16.9
10/12/2008	7:00:00	-17.7
10/13/2008	7:00:00	-18.4
10/14/2008	7:00:00	-19.2
10/15/2008	7:00:00	-20
10/16/2008	7:00:00	-20.6
1		

**Surface Gauge 1**

Serial Number: EBDD17D

Date	Time	Depth (in)
1/1/2008	20:04	-29.4
1/2/2008	20:04	-29.9
1/3/2008	20:04	-30.5
1/4/2008	20:04	-30.5
1/5/2008	20:04	-30.5
1/6/2008	20:04	-30.5
1/7/2008	20:04	-30.3
1/8/2008	20:04	-30.3
1/9/2008	20:04	-30.4
1/10/2008	20:04	-30.3
1/11/2008	20:04	-30.1
1/12/2008	20:04	-30.2
1/13/2008	20:04	-30.3
1/14/2008	20:04	-30.4
1/15/2008	20:04	-30.7
1/16/2008	20:04	-30.8
1/17/2008	20:04	-29.2
1/18/2008	20:04	-29
1/19/2008	20:04	-29.1
1/20/2008	20:04	-30.1
1/21/2008	20:04	-30.5
1/22/2008	20:04	-29.7
1/23/2008	20:04	-29.9
1/24/2008	20:04	-30.1
1/25/2008	20:04	-30.4
1/26/2008	20:04	-30.3
1/27/2008	20:04	-30.4
1/28/2008	20:04	-30.4
1/29/2008	20:04	-30.4
1/30/2008	20:04	-30.4
1/31/2008	20:04	-30.5
2/1/2008	20:04	-21
2/2/2008	20:04	-28.6

**Surface Gauge 2**

Serial Number: 9BEBF4C

Date	Time	Depth (in)
1/1/2008	11:18	-7.5
1/2/2008	11:18	-8.1
1/3/2008	11:18	-8.4
1/4/2008	11:18	-8.6
1/5/2008	11:18	-8.6
1/6/2008	11:18	-8.5
1/7/2008	11:18	-8.1
1/8/2008	11:18	-8.1
1/9/2008	11:18	-7.9
1/10/2008	11:18	-7.9
1/11/2008	11:18	-7.7
1/12/2008	11:18	-7.7
1/13/2008	11:18	-7.9
1/14/2008	11:18	-8.2
1/15/2008	11:18	-8.5
1/16/2008	11:18	-8.7
1/17/2008	11:18	-8
1/18/2008	11:18	-7.6
1/19/2008	11:18	-7.5
1/20/2008	11:18	-7.9
1/21/2008	11:18	-8.1
1/22/2008	11:18	-8.3
1/23/2008	11:18	-8.1
1/24/2008	11:18	-7.9
1/25/2008	11:18	-8.2
1/26/2008	11:18	-8.3
1/27/2008	11:18	-8.3
1/28/2008	11:18	-8.3
1/29/2008	11:18	-8.1
1/30/2008	11:18	-7.9
1/31/2008	11:18	-8.2
2/1/2008	11:18	-6.4
2/2/2008	11:18	-7

**Surface Gauge 3**

Serial Number: 9BEBE7D

Date	Time	Depth (in)
1/1/2008	0:00	-31.20
1/2/2008	0:00	-35.60
1/3/2008	0:00	-37.20
1/4/2008	0:00	-38.50
1/5/2008	0:00	-38.70
1/6/2008	0:00	-38.40
1/7/2008	0:00	-38.70
1/8/2008	0:00	-38.30
1/9/2008	0:00	-38.10
1/10/2008	0:00	-38.40
1/11/2008	0:00	-38.60
1/12/2008	0:00	-37.90
1/13/2008	0:00	-38.10
1/14/2008	0:00	-38.70
1/15/2008	0:00	-39.10
1/16/2008	0:00	-39.90
1/17/2008	0:00	-40.10
1/18/2008	0:00	-34.80
1/19/2008	0:00	-33.70
1/20/2008	0:00	-35.30
1/21/2008	0:00	-37.60
1/22/2008	0:00	-38.50
1/23/2008	0:00	-37.40
1/24/2008	0:00	-37.60
1/25/2008	0:00	-38.30
1/26/2008	0:00	-38.80
1/27/2008	0:00	-38.80
1/28/2008	0:00	-39.10
1/29/2008	0:00	-39.00
1/30/2008	0:00	-38.50
1/31/2008	0:00	-38.80
2/1/2008	0:00	-38.90
2/2/2008	0:00	-23.70

**Surface Gauge 4**

Serial Number: AB36CFD

Date	Time	Depth (in)
1/1/2008	7:00	-38.7
1/2/2008	7:00	-39.8
1/3/2008	7:00	-40.3
1/4/2008	7:00	-41
1/5/2008	7:00	-41.6
1/6/2008	7:00	-41.6
1/7/2008	7:00	-41.5
1/8/2008	7:00	-41.3
1/9/2008	7:00	-41.1
1/10/2008	7:00	-41
1/11/2008	7:00	-40.8
1/12/2008	7:00	-40.6
1/13/2008	7:00	-40.5
1/14/2008	7:00	-40.5
1/15/2008	7:00	-40.7
1/16/2008	7:00	-40.9
1/17/2008	7:00	-40.6
1/18/2008	7:00	-37.8
1/19/2008	7:00	-38.1
1/20/2008	7:00	-38.7
1/21/2008	7:00	-40
1/22/2008	7:00	-40.1
1/23/2008	7:00	-38.8
1/24/2008	7:00	-38.9
1/25/2008	7:00	-40.1
1/26/2008	7:00	-40
1/27/2008	7:00	-40.2
1/28/2008	7:00	-40.4
1/29/2008	7:00	-40
1/30/2008	7:00	-39.7
1/31/2008	7:00	-40.4
2/1/2008	7:00	-37.2
2/2/2008	7:00	-36.7

## Appendix 2.1 Data Tables for Hydrological Data

Shepherds Tree Stream and Wetland Restoration

Year 3 of 5

**Surface Gauge 1**

Serial Number: EBDD17D

Date	Time	Depth (in)
2/3/2008	20:04	-29.3
2/4/2008	20:04	-29.4
2/5/2008	20:04	-29.6
2/6/2008	20:04	-29.5
2/7/2008	20:04	-29.5
2/8/2008	20:04	-29.7
2/9/2008	20:04	-29.7
2/10/2008	20:04	-30
2/11/2008	20:04	-30.2
2/12/2008	20:04	-29.3
2/13/2008	20:04	-28.5
2/14/2008	20:04	-28.9
2/15/2008	20:04	-29
2/16/2008	20:04	-29.2
2/17/2008	20:04	-28.9
2/18/2008	20:04	-29.5
2/19/2008	20:04	-29.7
2/20/2008	20:04	-29.7
2/21/2008	20:04	-30
2/22/2008	20:04	-28.8
2/23/2008	20:04	-29.6
2/24/2008	20:04	-29.1
2/25/2008	20:04	-29.8
2/26/2008	20:04	-27.9
2/27/2008	20:04	-29.4
2/28/2008	20:04	-29.7
2/29/2008	No reading	
3/1/2008	20:04	-29.3
3/2/2008	20:04	-29.8
3/3/2008	20:04	-30
3/4/2008	20:04	-29.7
3/5/2008	20:04	-22.9
3/6/2008	20:04	-25.6

**Surface Gauge 2**

Serial Number: 9BEBF4C

Date	Time	Depth (in)
2/3/2008	11:18	-7.5
2/4/2008	11:18	-7.3
2/5/2008	11:18	-7.2
2/6/2008	11:18	-7.2
2/7/2008	11:18	-7.4
2/8/2008	11:18	-7.7
2/9/2008	11:18	-7.7
2/10/2008	11:18	-7.7
2/11/2008	11:18	-8.1
2/12/2008	11:18	-8.1
2/13/2008	11:18	-7.7
2/14/2008	11:18	-7.5
2/15/2008	11:18	-7.6
2/16/2008	11:18	-7.5
2/17/2008	11:18	-7.5
2/18/2008	11:18	-7.1
2/19/2008	11:18	-7.5
2/20/2008	11:18	-7.7
2/21/2008	11:18	-7.7
2/22/2008	11:18	-7.7
2/23/2008	11:18	-7.5
2/24/2008	11:18	-7.6
2/25/2008	11:18	-7.5
2/26/2008	11:18	-7.1
2/27/2008	11:18	-7.3
2/28/2008	11:18	-7.7
2/29/2008	11:18	-7.7
3/1/2008	11:18	-7.3
3/2/2008	11:18	-7.4
3/3/2008	11:18	-7.4
3/4/2008	11:18	-7
3/5/2008	11:18	-5.4
3/6/2008	11:18	-6.4

**Surface Gauge 3**

Serial Number: 9BEBE7D

Date	Time	Depth (in)
2/3/2008	0.00	-32.70
2/4/2008	0.00	-34.30
2/5/2008	0.00	-35.40
2/6/2008	0.00	-35.80
2/7/2008	0.00	-36.10
2/8/2008	0.00	-36.40
2/9/2008	0.00	-37.00
2/10/2008	0.00	-37.50
2/11/2008	0.00	-38.00
2/12/2008	0.00	-38.50
2/13/2008	0.00	-37.80
2/14/2008	0.00	-34.60
2/15/2008	0.00	-35.70
2/16/2008	0.00	-36.30
2/17/2008	0.00	-37.20
2/18/2008	0.00	-35.90
2/19/2008	0.00	-36.90
2/20/2008	0.00	-37.60
2/21/2008	0.00	-38.00
2/22/2008	0.00	-37.90
2/23/2008	0.00	-37.50
2/24/2008	0.00	-38.00
2/25/2008	0.00	-37.80
2/26/2008	0.00	-38.10
2/27/2008	0.00	-35.60
2/28/2008	0.00	-36.40
2/29/2008	0.00	-37.60
3/1/2008	0.00	-38.00
3/2/2008	0.00	-38.40
3/3/2008	0.00	-38.80
3/4/2008	0.00	-38.80
3/5/2008	0.00	-21.10
3/6/2008	0.00	-29.70

**Surface Gauge 4**

Serial Number: AB36CFD

Date	Time	Depth (in)
2/3/2008	7:00	-37.9
2/4/2008	7:00	-37.7
2/5/2008	7:00	-37.9
2/6/2008	7:00	-37.9
2/7/2008	7:00	-38.2
2/8/2008	7:00	-38.7
2/9/2008	7:00	-38.9
2/10/2008	7:00	-39
2/11/2008	7:00	-39.6
2/12/2008	7:00	-39.3
2/13/2008	7:00	-38.2
2/14/2008	7:00	-37.9
2/15/2008	7:00	-38.4
2/16/2008	7:00	-38.4
2/17/2008	7:00	-38.7
2/18/2008	7:00	-37.4
2/19/2008	7:00	-38.6
2/20/2008	7:00	-38.8
2/21/2008	7:00	-38.9
2/22/2008	7:00	-38.5
2/23/2008	7:00	-38.3
2/24/2008	7:00	-38.9
2/25/2008	7:00	-38.6
2/26/2008	7:00	-38.6
2/27/2008	7:00	-37.6
2/28/2008	7:00	-38.7
2/29/2008	7:00	-38.8
3/1/2008	7:00	-38.5
3/2/2008	7:00	-38.8
3/3/2008	7:00	-38.9
3/4/2008	7:00	-38.6
3/5/2008	7:00	-34.7
3/6/2008	7:00	-36.7

## Appendix 2.1 Data Tables for Hydrological Data

Shepherds Tree Stream and Wetland Restoration

Year 3 of 5

**Surface Gauge 1**

Serial Number: EBDD17D

Date	Time	Depth (in)
3/7/2008	20:04	-28.2
3/8/2008	20:04	-18
3/9/2008	20:04	-26.5
3/10/2008	20:04	-28.2
3/11/2008	20:04	-28.5
3/12/2008	20:04	-28.7
3/13/2008	20:04	-28.8
3/14/2008	20:04	-29.1
3/15/2008	20:04	-28.9
3/16/2008	20:04	-26.8
3/17/2008	20:04	-27.8
3/18/2008	20:04	-28.5
3/19/2008	20:04	-28.5
3/20/2008	20:04	-26.9
3/21/2008	20:04	-27.2
3/22/2008	20:04	-28.1
3/23/2008	20:04	-28.4
3/24/2008	20:04	-28.9
3/25/2008	20:04	-29
3/26/2008	20:04	-29.2
3/27/2008	20:04	-29.4
3/28/2008	20:04	-29.5
3/29/2008	20:04	-29.5
3/30/2008	20:04	-29.1
3/31/2008	20:04	-28.8
4/1/2008	20:04	-32.9
4/2/2008	20:04	-35.8
4/3/2008	20:04	-37.5
4/4/2008	20:04	-33.7
4/5/2008	20:04	-30.9
4/6/2008	20:04	-24.6
4/7/2008	20:04	-32
4/8/2008	20:04	-35.3

**Surface Gauge 2**

Serial Number: 9BEBF4C

Date	Time	Depth (in)
3/7/2008	11:18	-6.3
3/8/2008	11:18	-5.6
3/9/2008	11:18	-6.5
3/10/2008	11:18	-6.6
3/11/2008	11:18	-6.6
3/12/2008	11:18	-6.8
3/13/2008	11:18	-6.8
3/14/2008	11:18	-6.6
3/15/2008	11:18	-6.6
3/16/2008	11:18	-6.1
3/17/2008	11:18	-6.3
3/18/2008	11:18	-6.5
3/19/2008	11:18	-6.2
3/20/2008	11:18	-6
3/21/2008	11:18	-6.2
3/22/2008	11:18	-6.2
3/23/2008	11:18	-6.5
3/24/2008	11:18	-6.7
3/25/2008	11:18	-7
3/26/2008	11:18	-7
3/27/2008	11:18	-7
3/28/2008	11:18	-6.8
3/29/2008	11:18	-6.9
3/30/2008	11:18	-7.1
3/31/2008	11:18	-11.7
4/1/2008	11:18	-23.8
4/2/2008	11:18	-25.9
4/3/2008	11:18	-27.1
4/4/2008	11:18	-21.1
4/5/2008	11:18	-15.1
4/6/2008	11:18	-19.4
4/7/2008	11:18	-23.7
4/8/2008	11:18	-25.4

**Surface Gauge 3**

Serial Number: 9BEBE7D

Date	Time	Depth (in)
3/7/2008	0.00	-33.60
3/8/2008	0.00	-19.50
3/9/2008	0.00	-30.30
3/10/2008	0.00	-33.50
3/11/2008	0.00	-35.10
3/12/2008	0.00	-36.00
3/13/2008	0.00	-36.70
3/14/2008	0.00	-36.8
3/15/2008	0.00	-36.9
3/16/2008	0.00	-31.8
3/17/2008	0.00	-33.7
3/18/2008	0.00	-36.1
3/19/2008	0.00	-36.5
3/20/2008	0.00	-31.6
3/21/2008	0.00	-33.5
3/22/2008	0.00	-35.6
3/23/2008	0.00	-36.2
3/24/2008	0.00	-37.1
3/25/2008	0.00	-37.5
3/26/2008	0.00	-36.6
3/27/2008	0.00	-37.8
3/28/2008	0.00	-38.1
3/29/2008	0.00	-37.8
3/30/2008	0.00	-37.1
3/31/2008	0.00	-36.5
4/1/2008	0.00	-31.6
4/2/2008	0.00	-32.9
4/3/2008	0.00	-35.4
4/4/2008	0.00	-29.6
4/5/2008	0.00	-23
4/6/2008	0.00	-22.7
4/7/2008	0.00	-29.6
4/8/2008	0.00	-32

**Surface Gauge 4**

Serial Number: AB36CFD

Date	Time	Depth (in)
3/7/2008	7:00	-37.1
3/8/2008	7:00	-34.8
3/9/2008	7:00	-36.2
3/10/2008	7:00	-36.9
3/11/2008	7:00	-37.1
3/12/2008	7:00	-37.4
3/13/2008	7:00	-37.5
3/14/08	7:00	-38.1
3/15/08	7:00	-38
3/16/08	7:00	-36.4
3/17/08	7:00	-37.2
3/18/08	7:00	-37.6
3/19/08	7:00	-37.9
3/20/08	7:00	-36.8
3/21/08	7:00	-37.9
3/22/08	7:00	-38
3/23/08	7:00	-38.1
3/24/08	7:00	-38.5
3/25/08	7:00	-39
3/26/08	7:00	-38.8
3/27/08	7:00	-38.7
3/28/08	7:00	-38.9
3/29/08	7:00	-38.9
3/30/08	7:00	-38.5
3/31/08	7:00	-37.6
4/1/08	7:00	-37.2
4/2/08	7:00	-37.7
4/3/08	7:00	-38.1
4/4/08	7:00	-36.6
4/5/08	7:00	-35.1
4/6/08	7:00	-35.7
4/7/08	7:00	-36.9
4/8/08	7:00	-37.3

## Appendix 2.1 Data Tables for Hydrological Data

Shepherds Tree Stream and Wetland Restoration

**Surface Gauge 1**

Serial Number: EBDD17D

Date	Time	Depth (in)
4/9/2008	20:04	-36.6
4/10/2008	20:04	-37.6
4/11/2008	20:04	-38.7
4/12/2008	20:04	-39.3
4/13/2008	20:04	-39.8
4/14/2008	20:04	-40
4/15/2008	20:04	-40.7
4/16/2008	20:04	-40.9
4/17/2008	20:04	-41.1
4/18/2008	20:04	-41.2
4/19/2008	20:04	-40.8
4/20/2008	20:04	-40.7
4/21/2008	20:04	-38.3
4/22/2008	20:04	-39.8
4/23/2008	20:04	-39.8
4/24/2008	20:04	-39.9
4/25/2008	20:04	-41
4/26/2008	20:04	-41.1
4/27/2008	20:04	-39.6
4/28/2008	20:04	-37.8
4/29/2008	20:04	-34.8
4/30/2008	20:04	-38.1
5/1/2008	20:04	-38.3
5/2/2008	20:04	-38.8
5/3/2008	20:04	-39
5/4/2008	20:04	-39.2
5/5/2008	20:04	-39.8
5/6/2008	20:04	-40.4
5/7/2008	20:04	-41.1
5/8/2008	20:04	-41.2
5/9/2008	20:04	-41.2
5/10/2008	20:04	-40.9
5/11/2008	20:04	-41

**Surface Gauge 2**

Serial Number: 9BEBF4C

Date	Time	Depth (in)
4/9/2008	11:18	-25.8
4/10/2008	11:18	-26.1
4/11/2008	11:18	-26.5
4/12/2008	11:18	-25.9
4/13/2008	11:18	-27.6
4/14/2008	11:18	-27.9
4/15/2008	11:18	-28
4/16/2008	11:18	-27.6
4/17/2008	11:18	-27.5
4/18/2008	11:18	-27.6
4/19/2008	11:18	-27.9
4/20/2008	11:18	-25.8
4/21/2008	11:18	-26.9
4/22/2008	11:18	-27.6
4/23/2008	11:18	-27.9
4/24/2008	11:18	-28.1
4/25/2008	11:18	-28.4
4/26/2008	11:18	-28.5
4/27/2008	11:18	-28.5
4/28/2008	11:18	-23.5
4/29/2008	11:18	-26.4
4/30/2008	11:18	-28.4
5/1/2008	11:18	-28.7
5/2/2008	11:18	-28.7
5/3/2008	11:18	*
5/4/2008	11:18	*
5/5/2008	11:18	*
5/6/2008	11:18	*
5/7/2008	11:18	*
5/8/2008	11:18	*
5/9/2008	11:18	*
5/10/2008	11:18	*
5/11/2008	11:18	*

**Surface Gauge 3**

Serial Number: 9BEBE7D

Date	Time	Depth (in)
4/9/2008	0.00	-33
4/10/2008	0.00	-33.7
4/11/2008	0.00	-34.6
4/12/2008	0.00	-35
4/13/2008	0.00	-35.5
4/14/2008	0.00	-36
4/15/2008	0.00	-36.1
4/16/2008	0.00	-36.2
4/17/2008	0.00	-36.4
4/18/2008	0.00	-36.5
4/19/2008	0.00	-36.6
4/20/2008	0.00	-34.4
4/21/2008	0.00	-33.6
4/22/2008	0.00	-35.3
4/23/2008	0.00	-35.8
4/24/2008	0.00	-36.1
4/25/2008	0.00	-36.1
4/26/2008	0.00	-36.4
4/27/2008	0.00	-36.2
4/28/2008	0.00	-32.4
4/29/2008	0.00	-29.8
4/30/2008	0.00	-34.2
5/1/2008	0.00	-35.8
5/2/2008	0.00	-36.5
5/3/2008	0.00	-36.9
5/4/2008	0.00	-37
5/5/2008	0.00	-37.2
5/6/2008	0.00	-37.4
5/7/2008	0.00	-37.7
5/8/2008	0.00	-37.7
5/9/2008	0.00	-37.5
5/10/2008	0.00	-37.2
5/11/2008	0.00	-37.7

**Surface Gauge 4**

Serial Number: AB36CFD

Date	Time	Depth (in)
4/9/08	7:00	-37.7
4/10/08	7:00	-38.1
4/11/08	7:00	-38.1
4/12/08	7:00	-38.1
4/13/08	7:00	-38.5
4/14/08	7:00	-38.8
4/15/08	7:00	-38.9
4/16/08	7:00	-39.3
4/17/08	7:00	-39.5
4/18/08	7:00	-39.5
4/19/08	7:00	-39.4
4/20/08	7:00	-37.9
4/21/08	7:00	-38.6
4/22/08	7:00	-38.7
4/23/08	7:00	-38.9
4/24/08	7:00	-39.2
4/25/08	7:00	-39.6
4/26/08	7:00	-39.4
4/27/08	7:00	-39.6
4/28/08	7:00	-38.1
4/29/08	7:00	-38.5
4/30/08	7:00	-38.8
5/1/08	7:00	-38.9
5/2/08	7:00	-39.2
5/3/08	7:00	-39.2
5/4/08	7:00	-39.3
5/5/08	7:00	-39.4
5/6/08	7:00	-39.6
5/7/08	7:00	-39.6
5/8/08	7:00	-39.4
5/9/08	7:00	-39.2
5/10/08	7:00	-39.6
5/11/08	7:00	-39.6

## Appendix 2.1 Data Tables for Hydrological Data

Shepherds Tree Stream and Wetland Restoration

**Surface Gauge 1**

Serial Number: EBDD17D

Date	Time	Depth (in)
5/12/2008	20:04	-39.4
5/13/2008	20:04	-39.8
5/14/2008	20:04	-40.9
5/15/2008	20:04	-40.9
5/16/2008	20:04	-40.9
5/17/2008	20:04	-40.8
5/18/2008	20:04	-38.9
5/19/2008	20:04	-36.4
5/20/2008	20:04	-36.1
5/21/2008	20:04	-35.3
5/22/2008	20:04	-35.3
5/23/2008	20:04	-35.4
5/24/2008	20:04	-35.4
5/25/2008	20:04	-35.7
5/26/2008	20:04	-35.9
5/27/2008	20:04	-36.3
5/28/2008	20:04	-36.5
5/29/2008	20:04	-35.5
5/30/2008	20:04	-35.7
5/31/2008	20:04	-35.6
6/1/2008	20:04	-35.5
6/2/2008	20:04	-35.9
6/3/2008	20:04	-36.3
6/4/2008	20:04	-35.7
6/5/2008	20:04	-36.2
6/6/2008	20:04	-36.6
6/7/2008	20:04	-37.3
6/8/2008	20:04	-38
6/9/2008	20:04	-38.5
6/10/2008	20:04	-39.1
6/11/2008	20:04	-39.3
6/12/2008	20:04	-39.4
6/13/2008	20:04	-40.3

**Surface Gauge 2**

Serial Number: 9BEBF4C

Date	Time	Depth (in)
5/12/2008	11:18	*
5/13/2008	11:18	*
5/14/2008	11:18	*
5/15/2008	11:18	*
5/16/2008	11:18	*
5/17/2008	11:18	*
5/18/2008	11:18	*
5/19/2008	11:18	*
5/20/2008	11:18	*
5/21/2008	11:18	*
5/22/2008	11:18	*
5/23/2008	11:18	*
5/24/2008	11:18	*
5/25/2008	11:18	*
5/26/2008	11:18	*
5/27/2008	11:18	*
5/28/2008	11:18	*
5/29/2008	11:18	*
5/30/2008	11:18	*
5/31/2008	11:18	*
6/1/2008	11:18	*
6/2/2008	11:18	*
6/3/2008	11:18	*
6/4/2008	11:18	*
6/5/2008	11:18	*
6/6/2008	11:18	*
6/7/2008	11:18	*
6/8/2008	11:18	*
6/9/2008	11:18	*
6/10/2008	11:18	*
6/11/2008	11:18	*
6/12/2008	11:18	*
6/13/2008	11:18	*

**Surface Gauge 3**

Serial Number: 9BEBE7D

Date	Time	Depth (in)
5/12/2008	0.00	-36.2
5/13/2008	0.00	-37
5/14/2008	0.00	-37.5
5/15/2008	0.00	-38
5/16/2008	0.00	-38
5/17/2008	0.00	-37.9
5/18/2008	0.00	-40.3
5/19/2008	0.00	-39.9
5/20/2008	0.00	-40.1
5/21/2008	0.00	-40.4
5/22/2008	0.00	-40.6
5/23/2008	0.00	-40.6
5/24/2008	0.00	-40.5
5/25/2008	0.00	-40.7
5/26/2008	0.00	-40.7
5/27/2008	0.00	-40.7
5/28/2008	0.00	-40.5
5/29/2008	0.00	-39.8
5/30/2008	0.00	-40.2
5/31/2008	0.00	-40.1
6/1/2008	0.00	-40.4
6/2/2008	0.00	-40.6
6/3/2008	0.00	-40.7
6/4/2008	0.00	-40.3
6/5/2008	0.00	-40.5
6/6/2008	0.00	-40.6
6/7/2008	0.00	-40.6
6/8/2008	0.00	-40.7
6/9/2008	0.00	-40.7
6/10/2008	0.00	-40.7
6/11/2008	0.00	-40.6
6/12/2008	0.00	-40.8
6/13/2008	0.00	-40.8

**Surface Gauge 4**

Serial Number: AB36CFD

Date	Time	Depth (in)
5/12/08	7:00	-39.8
5/13/08	7:00	-39.9
5/14/08	7:00	-40
5/15/08	7:00	-39.7
5/16/08	7:00	-39.4
5/17/08	7:00	-40
5/18/08	7:00	-40
5/19/08	7:00	-39.9
5/20/08	7:00	-40
5/21/08	7:00	-40.1
5/22/08	7:00	-40.3
5/23/08	7:00	-40.3
5/24/08	7:00	-40.3
5/25/08	7:00	-40.4
5/26/08	7:00	-40.4
5/27/08	7:00	-40.3
5/28/08	7:00	-40.4
5/29/08	7:00	-40.3
5/30/08	7:00	-40.3
5/31/08	7:00	-40.9
6/1/08	7:00	-41.3
6/2/08	7:00	-41.4
6/3/08	7:00	-41.4
6/4/08	7:00	-41.2
6/5/08	7:00	-41.3
6/6/08	7:00	-41.4
6/7/08	7:00	-41.4
6/8/08	7:00	-41.4
6/9/08	7:00	-41.4
6/10/08	7:00	-41.4
6/11/08	7:00	-41.4
6/12/08	7:00	-41.4
6/13/08	7:00	-41.4

## Appendix 2.1 Data Tables for Hydrological Data

Shepherds Tree Stream and Wetland Restoration

Year 3 of 5

**Surface Gauge 1**

Serial Number: EBDD17D

Date	Time	Depth (in)
6/14/2008	20:04	-40.5
6/15/2008	20:04	-38.6
6/16/2008	20:04	-39.4
6/17/2008	20:04	-39.4
6/18/2008	20:04	-40.4
6/19/2008	20:04	-40.7
6/20/2008	20:04	-40.6
6/21/2008	20:04	-40.7
6/22/2008	20:04	-40.8
6/23/2008	20:04	-40.1
6/24/2008	20:04	-38.3
6/25/2008	20:04	-39
6/26/2008	20:04	-39.3
6/27/2008	20:04	-38.5
6/28/2008	20:04	-39
6/29/2008	20:04	-38.7
6/30/2008	20:04	-36.6
7/1/2008	20:04	-36.9
7/2/2008	20:04	-37.2
7/3/2008	20:04	-37.5
7/4/2008	20:04	-38
7/5/2008	20:04	-38.5
7/6/2008	20:04	-36.4
7/7/2008	20:04	-31.7
7/8/2008	20:04	-32
7/9/2008	20:04	-31.8
7/10/2008	20:04	-31.8
7/11/2008	20:04	-29.2
7/12/2008	20:04	-29.4
7/13/2008	20:04	-29.9
7/14/2008	20:04	-30
7/15/2008	20:04	-31
7/16/2008	20:04	-31.6

**Surface Gauge 2**

Serial Number: 9BEBF4C

Date	Time	Depth (in)
6/14/2008	11:18	*
6/15/2008	11:18	*
6/16/2008	11:18	*
6/17/2008	11:18	*
6/18/2008	11:18	*
6/19/2008	11:18	*
6/20/2008	11:18	*
6/21/2008	11:18	*
6/22/2008	11:18	*
6/23/2008	11:18	*
6/24/2008	11:18	*
6/25/2008	11:18	*
6/26/2008	11:18	*
6/27/2008	11:18	*
6/28/2008	11:18	*
6/29/2008	11:18	*
6/30/2008	11:18	*
7/1/2008	11:18	*
7/2/2008	11:18	*
7/3/2008	11:18	*
7/4/2008	11:18	*
7/5/2008	11:18	*
7/6/2008	11:18	*
7/7/2008	11:18	*
7/8/2008	11:18	*
7/9/2008	11:18	*
7/10/2008	11:18	*
7/11/2008	11:18	*
7/12/2008	11:18	*
7/13/2008	11:18	*
7/14/2008	11:18	*
7/15/2008	11:18	*
7/16/2008	11:18	*

**Surface Gauge 3**

Serial Number: 9BEBE7D

Date	Time	Depth (in)
6/14/2008	0.00	-40.8
6/15/2008	0.00	-40.1
6/16/2008	0.00	-40.1
6/17/2008	0.00	-40.5
6/18/2008	0.00	-40.9
6/19/2008	0.00	-41
6/20/2008	0.00	-41.1
6/21/2008	0.00	-41.1
6/22/2008	0.00	-41.1
6/23/2008	0.00	-40.6
6/24/2008	0.00	-39.8
6/25/2008	0.00	-40.5
6/26/2008	0.00	-40.7
6/27/2008	0.00	-39.6
6/28/2008	0.00	-39.9
6/29/2008	0.00	-40
6/30/2008	0.00	-39.8
7/1/2008	0.00	-40.5
7/2/2008	0.00	-40.9
7/3/2008	0.00	-40.9
7/4/2008	0.00	-40.9
7/5/2008	0.00	-40.8
7/6/2008	0.00	-40.1
7/7/2008	0.00	-37.2
7/8/2008	0.00	-40.5
7/9/2008	0.00	-40.2
7/10/2008	0.00	-40.3
7/11/2008	0.00	-33.3
7/12/2008	0.00	-35.5
7/13/2008	0.00	-40.1
7/14/2008	0.00	-40.2
7/15/2008	0.00	-40.5
7/16/2008	0.00	-40.6

**Surface Gauge 4**

Serial Number: AB36CFD

Date	Time	Depth (in)
6/14/08	7:00	-41.4
6/15/08	7:00	-41.3
6/16/08	7:00	-41.4
6/17/08	7:00	-41.4
6/18/08	7:00	-41.5
6/19/08	7:00	-41.4
6/20/08	7:00	-41.5
6/21/08	7:00	-41.4
6/22/08	7:00	-41.4
6/23/08	7:00	-41.4
6/24/08	7:00	-41.4
6/25/08	7:00	-41.4
6/26/08	7:00	-41.4
6/27/08	7:00	-41.4
6/28/08	7:00	-41.4
6/29/08	7:00	-41.3
6/30/08	7:00	-41.2
7/1/08	7:00	-41.4
7/2/08	7:00	-41.4
7/3/08	7:00	-41.4
7/4/08	7:00	-41.4
7/5/08	7:00	-41.4
7/6/08	7:00	-36.9
7/7/08	7:00	-38.6
7/8/08	7:00	-39
7/9/08	7:00	-39.1
7/10/08	7:00	-39
7/11/08	7:00	-37.3
7/12/08	7:00	-38.7
7/13/08	7:00	-39.2
7/14/08	7:00	-39
7/15/08	7:00	-39.3
7/16/08	7:00	-39.6

## Appendix 2.1 Data Tables for Hydrological Data

Shepherds Tree Stream and Wetland Restoration

**Surface Gauge 1**

Serial Number: EBDD17D

Date	Time	Depth (in)
7/17/2008	20:04	-32.4
7/18/2008	20:04	-33.2
7/19/2008	20:04	-34
7/20/2008	20:04	-34.7
7/21/2008	20:04	-35.5
7/22/2008	20:04	-36.3
7/23/2008	20:04	-36.7
7/24/2008	20:04	-33.7
7/25/2008	20:04	-34.1
7/26/2008	20:04	-33.7
7/27/2008	20:04	-33.7
7/28/2008	20:04	-34.2
7/29/2008	20:04	-35
7/30/2008	20:04	-35.7
7/31/2008	20:04	-35.1
8/1/2008	20:04	-34.9
8/2/2008	20:04	-35.7
8/3/2008	20:04	-36.3
8/4/2008	20:04	-37.2
8/5/2008	20:04	-37.9
8/6/2008	20:04	-38.5
8/7/2008	20:04	-39.2
8/8/2008	20:04	-39.3
8/9/2008	20:04	-39.5
8/10/2008	20:04	-40.1
8/11/2008	20:04	-40.5
8/12/2008	20:04	-40.5
8/13/2008	20:04	-40.4
8/14/2008	20:04	-39.3
8/15/2008	20:04	-39.4
8/16/2008	20:04	-38.7
8/17/2008	20:04	-38.4
8/18/2008	20:04	-36.7

**Surface Gauge 2**

Serial Number: 9BEBF4C

Date	Time	Depth (in)
7/17/2008	11:18	*
7/18/2008	11:18	*
7/19/2008	11:18	*
7/20/2008	11:18	*
7/21/2008	11:18	*
7/22/2008	11:18	*
7/23/2008	11:18	*
7/24/2008	11:18	*
7/25/2008	11:18	*
7/26/2008	11:18	*
7/27/2008	11:18	*
7/28/2008	11:18	*
7/29/2008	11:18	*
7/30/2008	11:18	*
7/31/2008	11:18	*
8/1/2008	11:18	*
8/2/2008	11:18	*
8/3/2008	11:18	*
8/4/2008	11:18	*
8/5/2008	11:18	*
8/6/2008	11:18	*
8/7/2008	11:18	*
8/8/2008	11:18	*
8/9/2008	11:18	*
8/10/2008	11:18	*
8/11/2008	11:18	*
8/12/2008	11:18	*
8/13/2008	11:18	*
8/14/2008	11:18	*
8/15/2008	11:18	*
8/16/2008	11:18	*
8/17/2008	11:18	*
8/18/2008	11:18	*

**Surface Gauge 3**

Serial Number: 9BEBE7D

Date	Time	Depth (in)
7/17/2008	0.00	-40.7
7/18/2008	0.00	-40.8
7/19/2008	0.00	-40.6
7/20/2008	0.00	-40.7
7/21/2008	0.00	-40.6
7/22/2008	0.00	-40.6
7/23/2008	0.00	-40.1
7/24/2008	0.00	-39.8
7/25/2008	0.00	-40.5
7/26/2008	0.00	-40.4
7/27/2008	0.00	-40.5
7/28/2008	0.00	-40.6
7/29/2008	0.00	-40.5
7/30/2008	0.00	-40.1
7/31/2008	0.00	-40
8/1/2008	0.00	-39.7
8/2/2008	0.00	-40
8/3/2008	0.00	-40.3
8/4/2008	0.00	-40.5
8/5/2008	0.00	-40.6
8/6/2008	0.00	-40.6
8/7/2008	0.00	-40.6
8/8/2008	0.00	-40.7
8/9/2008	0.00	-40.9
8/10/2008	0.00	-40.7
8/11/2008	0.00	-40.8
8/12/2008	0.00	-40.9
8/13/2008	0.00	-40.8
8/14/2008	0.00	-40.5
8/15/2008	0.00	-40.1
8/16/2008	0.00	-40.3
8/17/2008	0.00	-40.1
8/18/2008	0.00	-40.5

**Surface Gauge 4**

Serial Number: AB36CFD

Date	Time	Depth (in)
7/17/08	7:00	-39.9
7/18/08	7:00	-40
7/19/08	7:00	-40.1
7/20/08	7:00	-40.1
7/21/08	7:00	-40.2
7/22/08	7:00	-40.3
7/23/08	7:00	-40.1
7/24/08	7:00	-37.2
7/25/08	7:00	-39.1
7/26/08	7:00	-39.3
7/27/08	7:00	-39.3
7/28/08	7:00	-39.5
7/29/08	7:00	-39.3
7/30/08	7:00	-39.6
7/31/08	7:00	-39.6
8/1/08	7:00	-39.5
8/2/08	7:00	-39.7
8/3/08	7:00	-39.8
8/4/08	7:00	-39.9
8/5/08	7:00	-40
8/6/08	7:00	-40
8/7/08	7:00	-40.2
8/8/08	7:00	-40.3
8/9/08	7:00	-40.5
8/10/08	7:00	-40.3
8/11/08	7:00	-40.5
8/12/08	7:00	-41.4
8/13/08	7:00	-41.2
8/14/08	7:00	-38.4
8/15/08	7:00	-39
8/16/08	7:00	-39.4
8/17/08	7:00	-38.6
8/18/08	7:00	-39.4

## Appendix 2.1 Data Tables for Hydrological Data

Shepherds Tree Stream and Wetland Restoration

Year 3 of 5

**Surface Gauge 1**

Serial Number: EBDD17D

Date	Time	Depth (in)
8/19/2008	20:04	-36.9
8/20/2008	20:04	-37.4
8/21/2008	20:04	-38.1
8/22/2008	20:04	-38.6
8/23/2008	20:04	-39.3
8/24/2008	20:04	-39.3
8/25/2008	20:04	-39.6
8/26/2008	20:04	-39.6
8/27/2008	20:04	-35.9
8/28/2008	20:04	-16.2
8/29/2008	20:04	-28
8/30/2008	20:04	-29.6
8/31/2008	20:04	-30
9/1/2008	20:04	-30.2
9/2/2008	20:04	-30.5
9/3/2008	20:04	-31
9/4/2008	20:04	-31.4
9/5/2008	20:04	-32.1
9/6/2008	20:04	-32.4
9/7/2008	20:04	-33.1
9/8/2008	20:04	-33.7
9/9/2008	20:04	-34.3
9/10/2008	20:04	-19.6
9/11/2008	20:04	-23.8
9/12/2008	20:04	-26.3
9/13/2008	20:04	-28.4
9/14/2008	20:04	-28.9
9/15/2008	20:04	-29.4
9/16/2008	20:04	-29.6
9/17/2008	20:04	-15.4
9/18/2008	20:04	-27.1
9/19/2008	20:04	-28.9
9/20/2008	20:04	-29.6

**Surface Gauge 2**

Serial Number: 9BEBF4C

Date	Time	Depth (in)
8/19/2008	11:18	*
8/20/2008	11:18	*
8/21/2008	11:18	*
8/22/2008	11:18	*
8/23/2008	11:18	*
8/24/2008	11:18	*
8/25/2008	11:18	*
8/26/2008	11:18	*
8/27/2008	11:18	*
8/28/2008	11:18	*
8/29/2008	11:18	*
8/30/2008	11:18	*
8/31/2008	11:18	*
9/1/2008	11:18	*
9/2/2008	11:18	*
9/3/2008	11:18	*
9/4/2008	11:18	*
9/5/2008	11:18	*
9/6/2008	11:18	*
9/7/2008	11:18	*
9/8/2008	11:18	*
9/9/2008	11:18	*
9/10/2008	11:18	*
9/11/2008	11:18	*
9/12/2008	11:18	*
9/13/2008	11:18	*
9/14/2008	11:18	*
9/15/2008	11:18	*
9/16/2008	11:18	*
9/17/2008	11:18	*
9/18/2008	11:18	*
9/19/2008	11:18	*
9/20/2008	11:18	*

**Surface Gauge 3**

Serial Number: 9BEBE7D

Date	Time	Depth (in)
8/19/2008	0.00	-40.6
8/20/2008	0.00	-40.6
8/21/2008	0.00	-40.7
8/22/2008	0.00	-40.8
8/23/2008	0.00	-40.8
8/24/2008	0.00	-40.9
8/25/2008	0.00	-40.9
8/26/2008	0.00	-40.3
8/27/2008	0.00	-38.7
8/28/2008	0.00	-3.3
8/29/2008	0.00	-26.3
8/30/2008	0.00	-33.5
8/31/2008	0.00	-37.8
9/1/2008	0.00	-40
9/2/2008	0.00	-40.3
9/3/2008	0.00	-40.5
9/4/2008	0.00	-40.5
9/5/2008	0.00	-40.6
9/6/2008	0.00	-40.1
9/7/2008	0.00	-40.3
9/8/2008	0.00	-40.4
9/9/2008	0.00	4.8
9/10/2008	0.00	-12.4
9/11/2008	0.00	-20
9/12/2008	0.00	-24.7
9/13/2008	0.00	-28.3
9/14/2008	0.00	-31.5
9/15/2008	0.00	-35.3
9/16/2008	0.00	-37.4
9/17/2008	0.00	-12.8
9/18/2008	0.00	-26.9
9/19/2008	0.00	-32.1
9/20/2008	0.00	-34.9

**Surface Gauge 4**

Serial Number: AB36CFD

Date	Time	Depth (in)
8/19/08	7:00	-39.4
8/20/08	7:00	-39.5
8/21/08	7:00	-39.3
8/22/08	7:00	-39.6
8/23/08	7:00	-39.7
8/24/08	7:00	-39.8
8/25/08	7:00	-39.8
8/26/08	7:00	-39.5
8/27/08	7:00	-13.4
8/28/08	7:00	-34.4
8/29/08	7:00	-36.1
8/30/08	7:00	-37.2
8/31/08	7:00	-37.6
9/1/08	7:00	-38
9/2/08	7:00	-38.5
9/3/08	7:00	-39
9/4/08	7:00	-39.3
9/5/08	7:00	-39.3
9/6/08	7:00	-38.9
9/7/08	7:00	-39.2
9/8/08	7:00	-39.3
9/9/08	7:00	-18.5
9/10/08	7:00	-34.2
9/11/08	7:00	-34.4
9/12/08	7:00	-35.3
9/13/08	7:00	-36
9/14/08	7:00	-36.4
9/15/08	7:00	-36.6
9/16/08	7:00	-34.2
9/17/08	7:00	-35
9/18/08	7:00	-36.2
9/19/08	7:00	-36.7
9/20/08	7:00	-37

## Appendix 2.1 Data Tables for Hydrological Data

Shepherds Tree Stream and Wetland Restoration

**Surface Gauge 1**

Serial Number: EBDD17D

Date	Time	Depth (in)
9/21/2008	20:04	-29.9
9/22/2008	20:04	-29.9
9/23/2008	20:04	-30.1
9/24/2008	20:04	-30.2
9/25/2008	20:04	-30.5
9/26/2008	20:04	-30.5
9/27/2008	20:04	-27.3
9/28/2008	20:04	-24.4
9/29/2008	20:04	-27.8
9/30/2008	20:04	-29
10/1/2008	20:04	-26.2
10/2/2008	20:04	-25.6
10/3/2008	20:04	-28.1
10/4/2008	20:04	-28.7
10/5/2008	20:04	-29
10/6/2008	20:04	-29.2
10/7/2008	20:04	-29.3
10/8/2008	20:04	-29.3
10/9/2008	20:04	-28.7
10/10/2008	20:04	-27.2
10/11/2008	20:04	-27
10/12/2008	20:04	-27.5
10/13/2008	20:04	-28.3
10/14/2008	20:04	-28.5
10/15/2008	20:04	-28.8
10/16/2008	20:04	-29.2
10/17/2008	20:04	-29.4
10/18/2008	20:04	-29.4
10/19/2008	20:04	-27.9
10/20/2008	20:04	-28.1
10/21/2008	20:04	-28.6
10/22/2008	20:04	-28.8
10/23/2008	20:04	-28.9

**Surface Gauge 2**

Serial Number: 9BEBF4C

Date	Time	Depth (in)
9/21/2008	11:18	*
9/22/2008	11:18	*
9/23/2008	11:18	*
9/24/2008	11:18	*
9/25/2008	11:18	*
9/26/2008	11:18	*
9/27/2008	11:18	*
9/28/2008	11:18	*
9/29/2008	11:18	*
9/30/2008	11:18	*
10/1/2008	11:18	*
10/2/2008	11:18	*
10/3/2008	11:18	*
10/4/2008	11:18	*
10/5/2008	11:18	*
10/6/2008	11:18	*
10/7/2008	11:18	*
10/8/2008	11:18	*
10/9/2008	11:18	*
10/10/2008	11:18	*
10/11/2008	11:18	*
10/12/2008	11:18	*
10/13/2008	11:18	*
10/14/2008	11:18	*
10/15/2008	11:18	*
10/16/2008	11:18	*
10/17/2008	11:18	*
10/18/2008	11:18	*
10/19/2008	11:18	*
10/20/2008	11:18	*
10/21/2008	11:18	*
10/22/2008	11:18	*
10/23/2008	11:18	*

**Surface Gauge 3**

Serial Number: 9BEBE7D

Date	Time	Depth (in)
9/21/2008	0.00	-37.2
9/22/2008	0.00	-38.1
9/23/2008	0.00	-39
9/24/2008	0.00	-39.9
9/25/2008	0.00	-39.9
9/26/2008	0.00	-39.8
9/27/2008	0.00	-28.2
9/28/2008	0.00	-25.1
9/29/2008	0.00	-29.9
9/30/2008	0.00	-33.9
10/1/2008	0.00	-23.4
10/2/2008	0.00	-25.7
10/3/2008	0.00	-29.7
10/4/2008	0.00	-32.2
10/5/2008	0.00	-33.9
10/6/2008	0.00	-36.2
10/7/2008	0.00	-37.7
10/8/2008	0.00	-38
10/9/2008	0.00	-30.1
10/10/2008	0.00	-30.2
10/11/2008	0.00	-31.2
10/12/2008	0.00	-32.5
10/13/2008	0.00	-34.8
10/14/2008	0.00	-36.7
10/15/2008	0.00	-38.1
10/16/2008	0.00	-38.6
10/17/2008	0.00	-38.8
10/18/2008	0.00	-35.1
10/19/2008	0.00	-32.2
10/20/2008	0.00	-33.1
10/21/2008	0.00	-34
10/22/2008	0.00	-35.1
10/23/2008	0.00	-36.2

**Surface Gauge 4**

Serial Number: AB36CFD

Date	Time	Depth (in)
9/21/08	7:00	-37.2
9/22/08	7:00	-37.2
9/23/08	7:00	-37.6
9/24/08	7:00	-37.7
9/25/08	7:00	-37.9
9/26/08	7:00	-36.9
9/27/08	7:00	-35.9
9/28/08	7:00	-35.9
9/29/08	7:00	-36.7
9/30/08	7:00	-37.1
10/1/08	7:00	-34
10/2/08	7:00	-35.8
10/3/08	7:00	-36.3
10/4/08	7:00	-36.5
10/5/08	7:00	-36.6
10/6/08	7:00	-36.6
10/7/08	7:00	-37.1
10/8/08	7:00	-37.1
10/9/08	7:00	-36.3
10/10/08	7:00	-34.8
10/11/08	7:00	-35.3
10/12/08	7:00	-35.7
10/13/08	7:00	-36.4
10/14/08	7:00	-36.5
10/15/08	7:00	-36.4
10/16/08	7:00	-36.8
10/17/08	7:00	-36.6
10/18/08	7:00	-36.6
10/19/08	7:00	-36.7
10/20/08	7:00	-37.6
10/21/08	7:00	-37.6
10/22/08	7:00	-37.4
10/23/08	7:00	-37.4

## Appendix 2.1 Data Tables for Hydrological Data

Shepherds Tree Stream and Wetland Restoration

**Surface Gauge 1**

Serial Number: EBDD17D

Date	Time	Depth (in)
10/24/2008	20:04	-29.2
10/25/2008	20:04	-29.4
10/26/2008	20:04	-28.7
10/27/2008	20:04	-27.7
10/28/2008	20:04	-28.1
10/29/2008	20:04	-28.8
10/30/2008	20:04	-29.1
10/31/2008	20:04	-29.3

**Surface Gauge 2**

Serial Number: 9BEBF4C

Date	Time	Depth (in)
10/24/2008	11:18	*
10/25/2008	11:18	*
10/26/2008	11:18	*
10/27/2008	11:18	*
10/28/2008	11:18	*
10/29/2008	11:18	*
10/30/2008	11:18	*
10/31/2008	11:18	*

**Surface Gauge 3**

Serial Number: 9BEBE7D

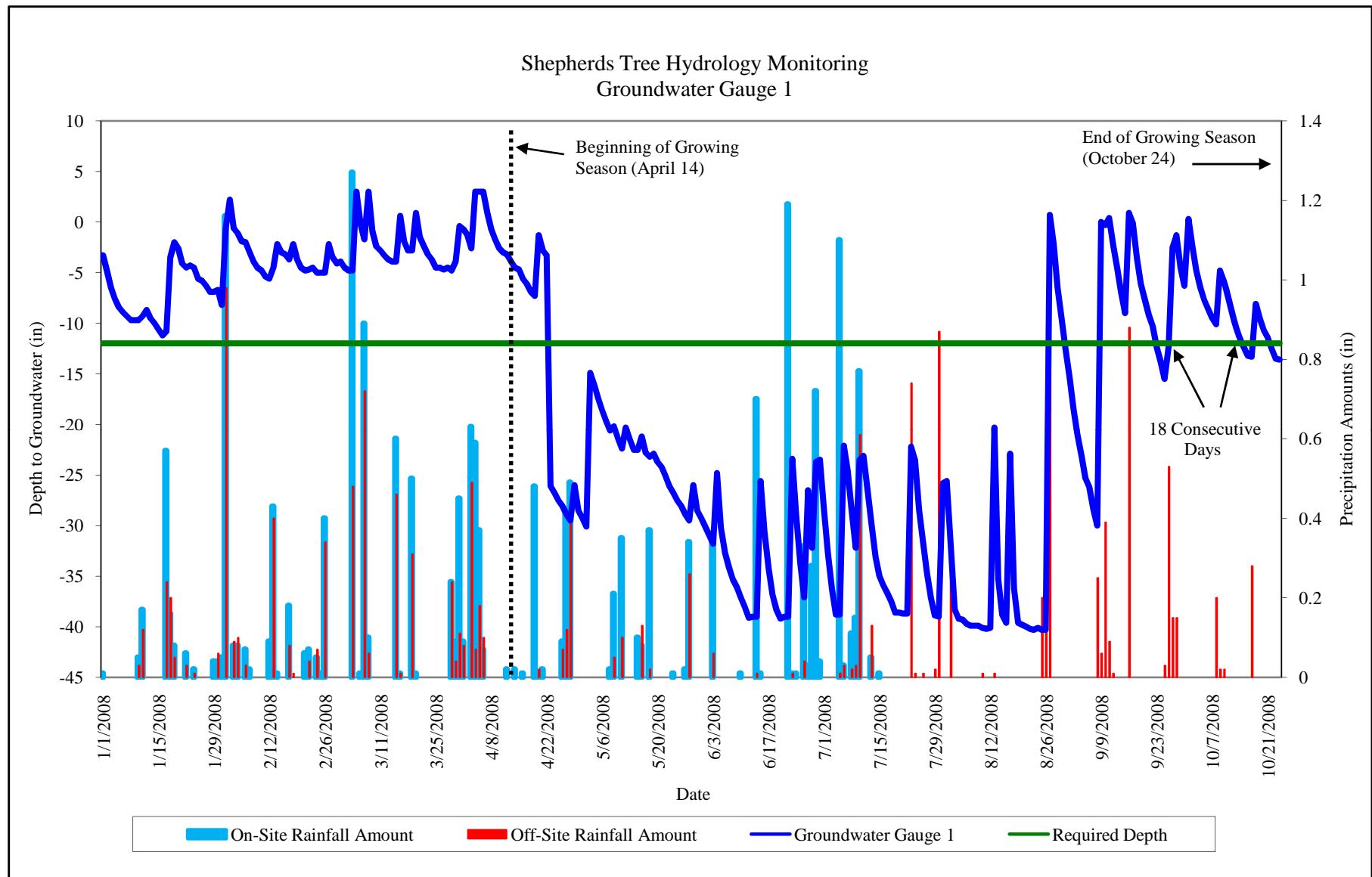
Date	Time	Depth (in)
10/24/2008	0.00	-37
10/25/2008	0.00	-35.5
10/26/2008	0.00	-31
10/27/2008	0.00	-31.5
10/28/2008	0.00	-33.1
10/29/2008	0.00	-34.6
10/30/2008	0.00	-35.9
10/31/2008	0.00	-39.6

**Surface Gauge 4**

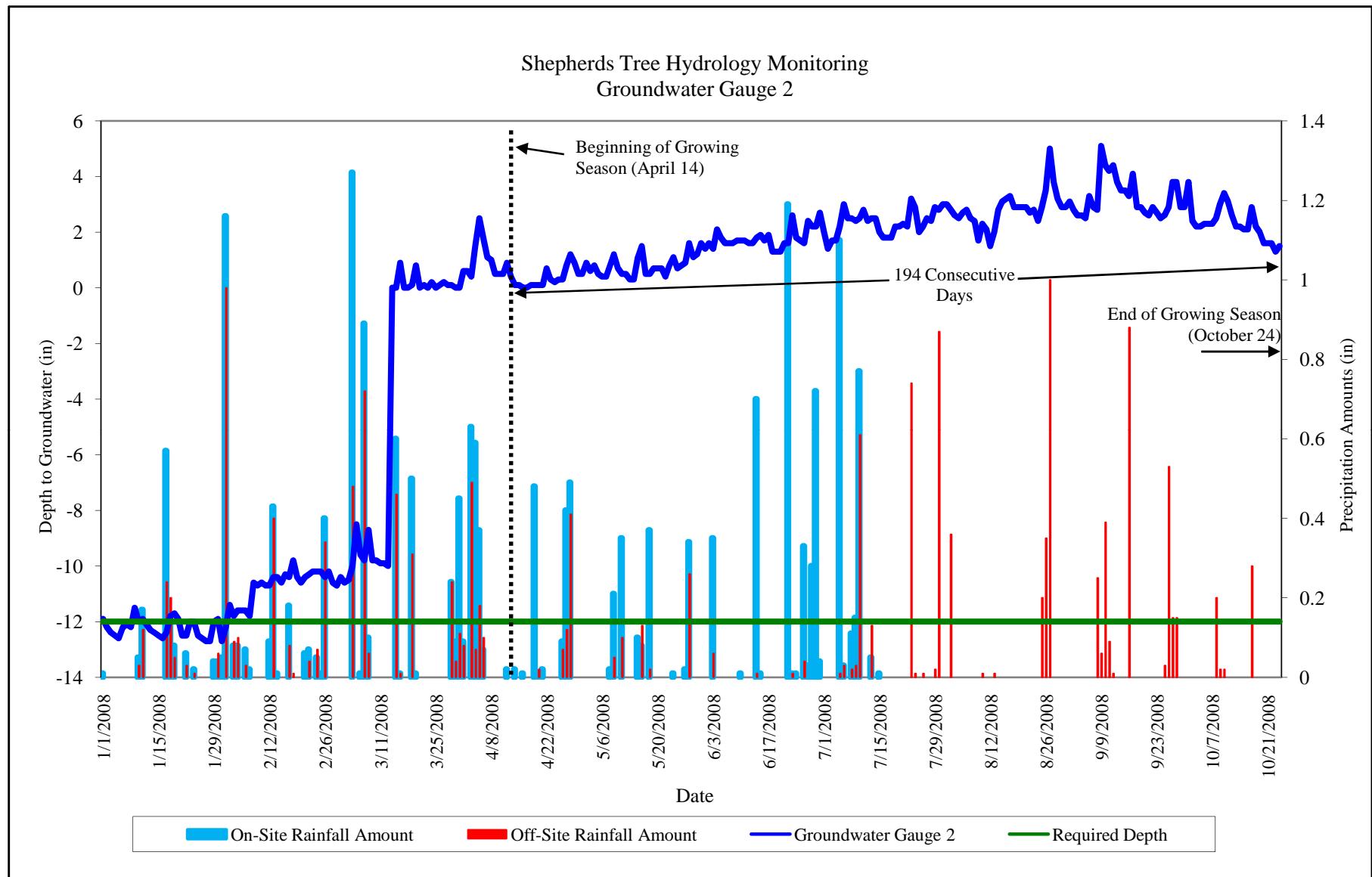
Serial Number: AB36CFD

Date	Time	Depth (in)
10/24/08	7:00	-37.4
10/25/08	7:00	-37.2
10/26/08	7:00	-35.6
10/27/08	7:00	-36.9
10/28/08	7:00	-37
10/29/08	7:00	-37.1
10/30/08	7:00	-37.1
10/31/08	7:00	-37.2

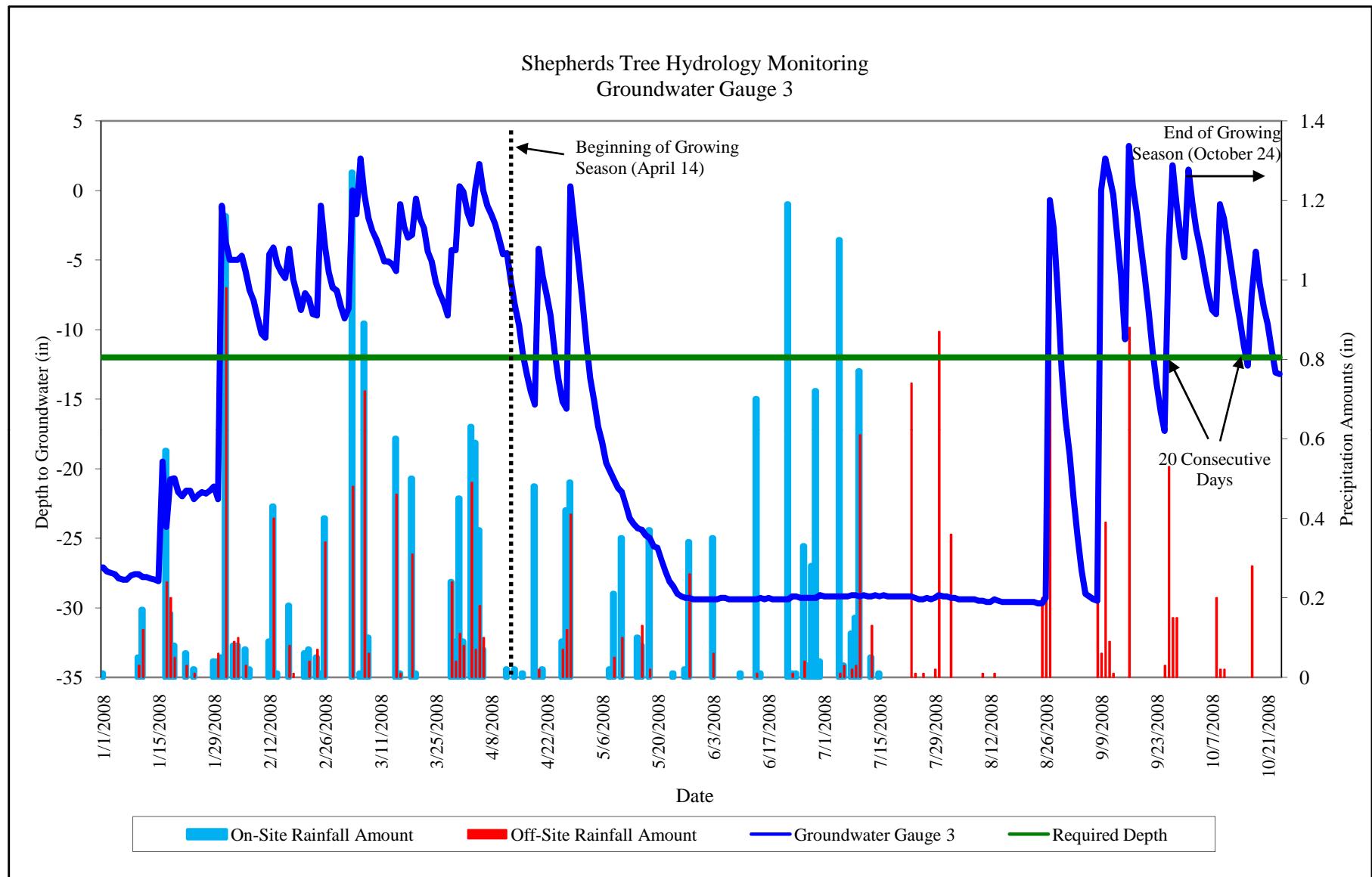
\*Gauge Inundated (Please refer to section 2.3 for further details)



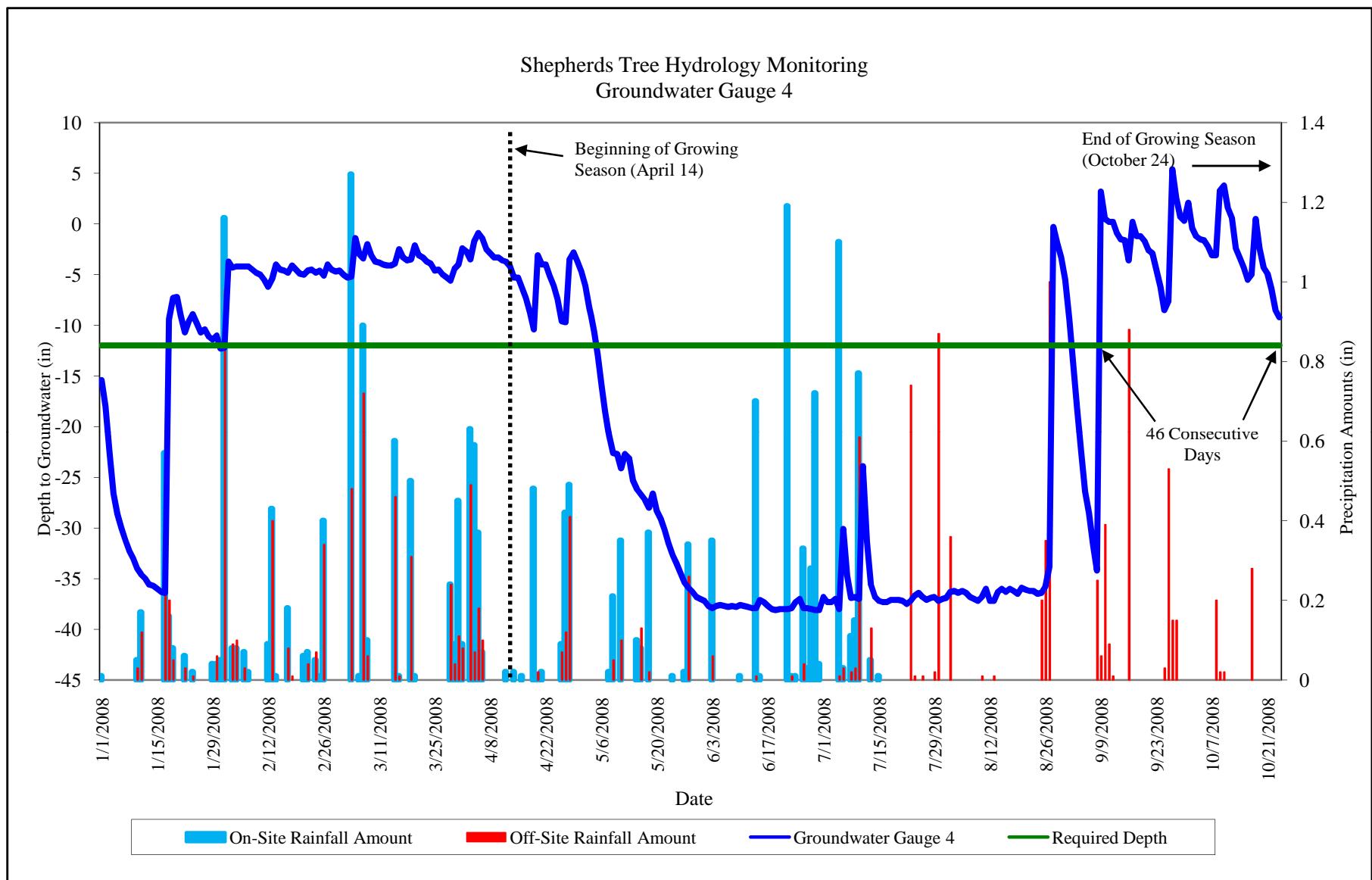
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



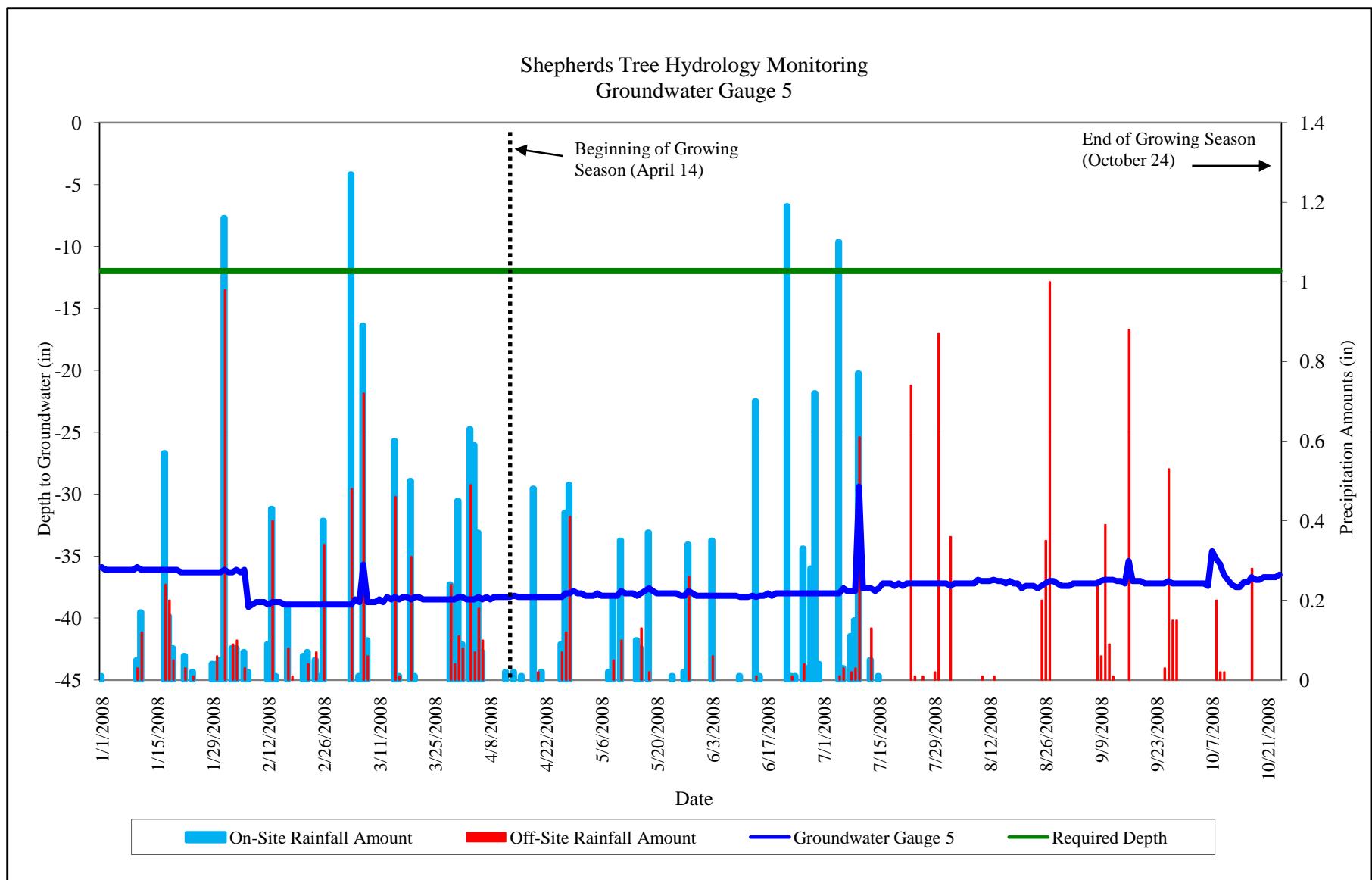
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



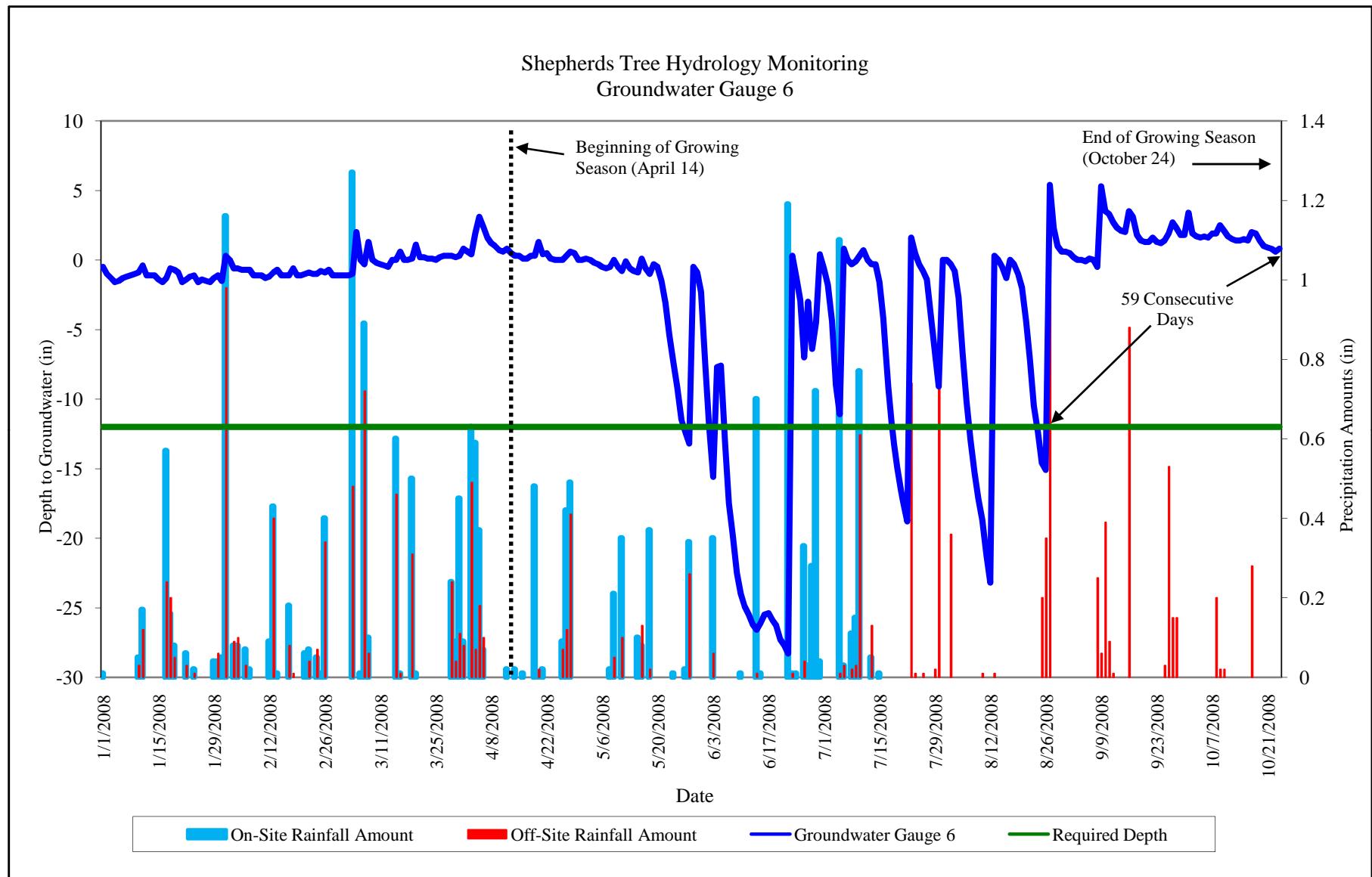
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



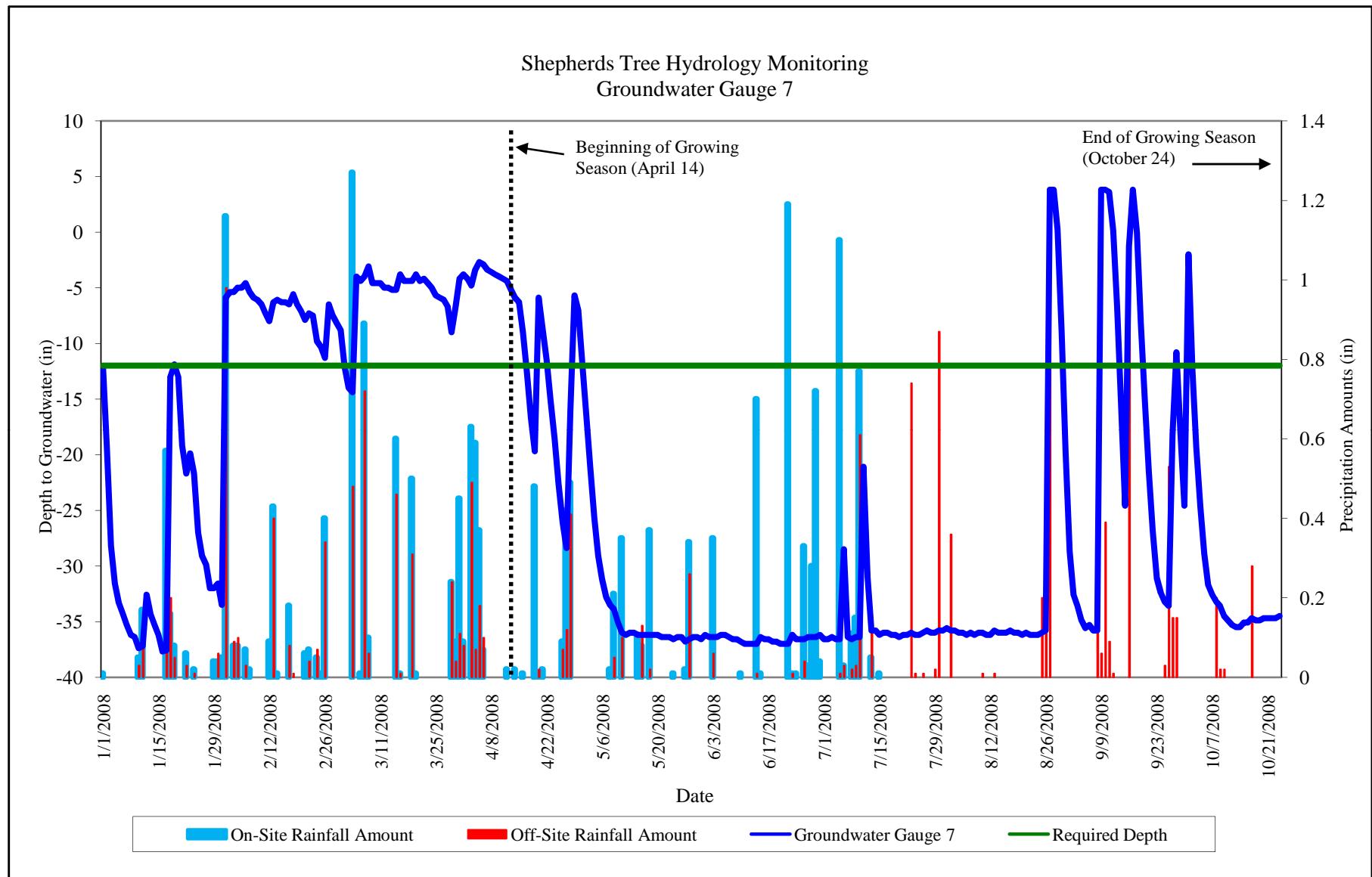
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



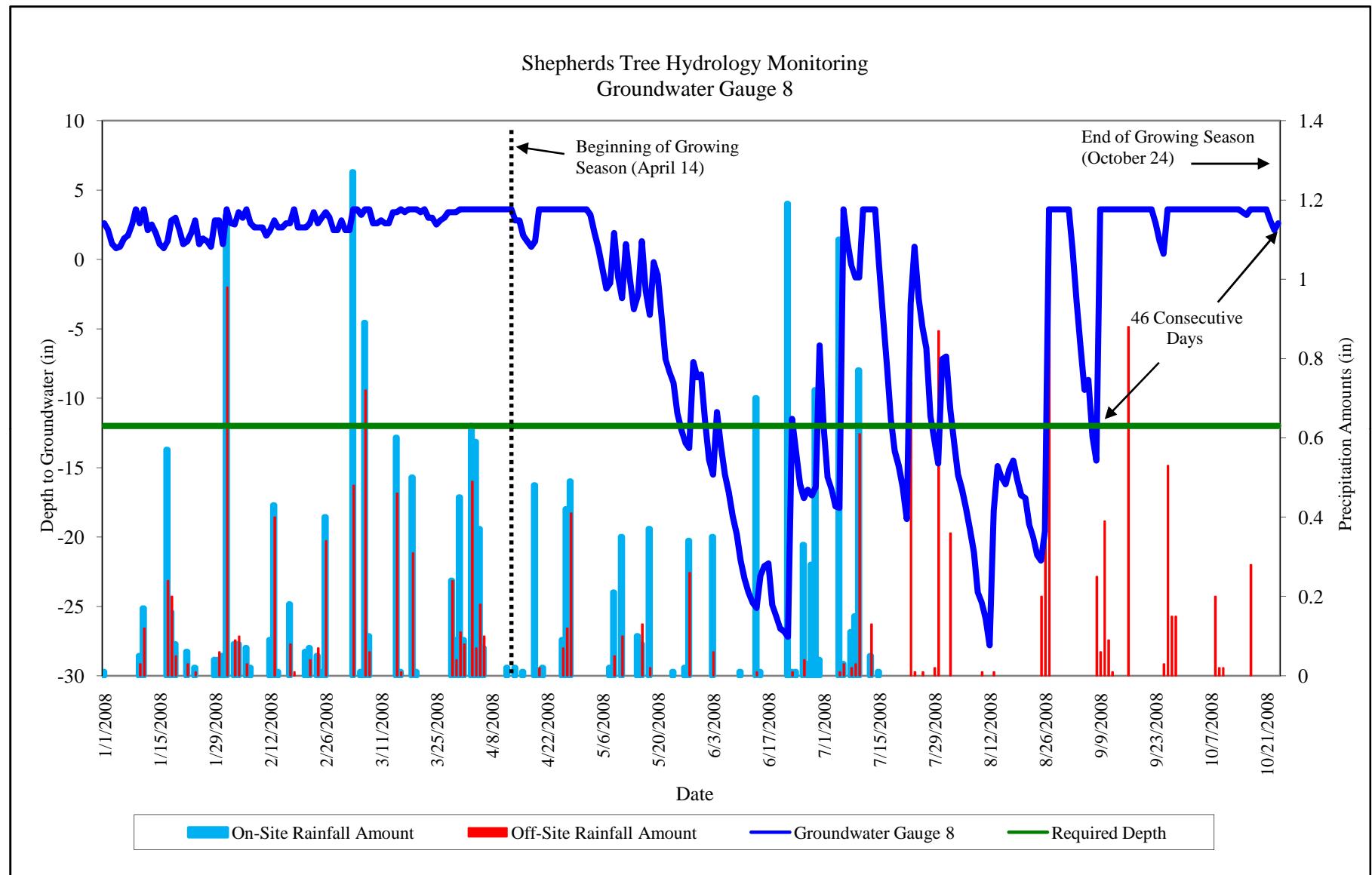
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



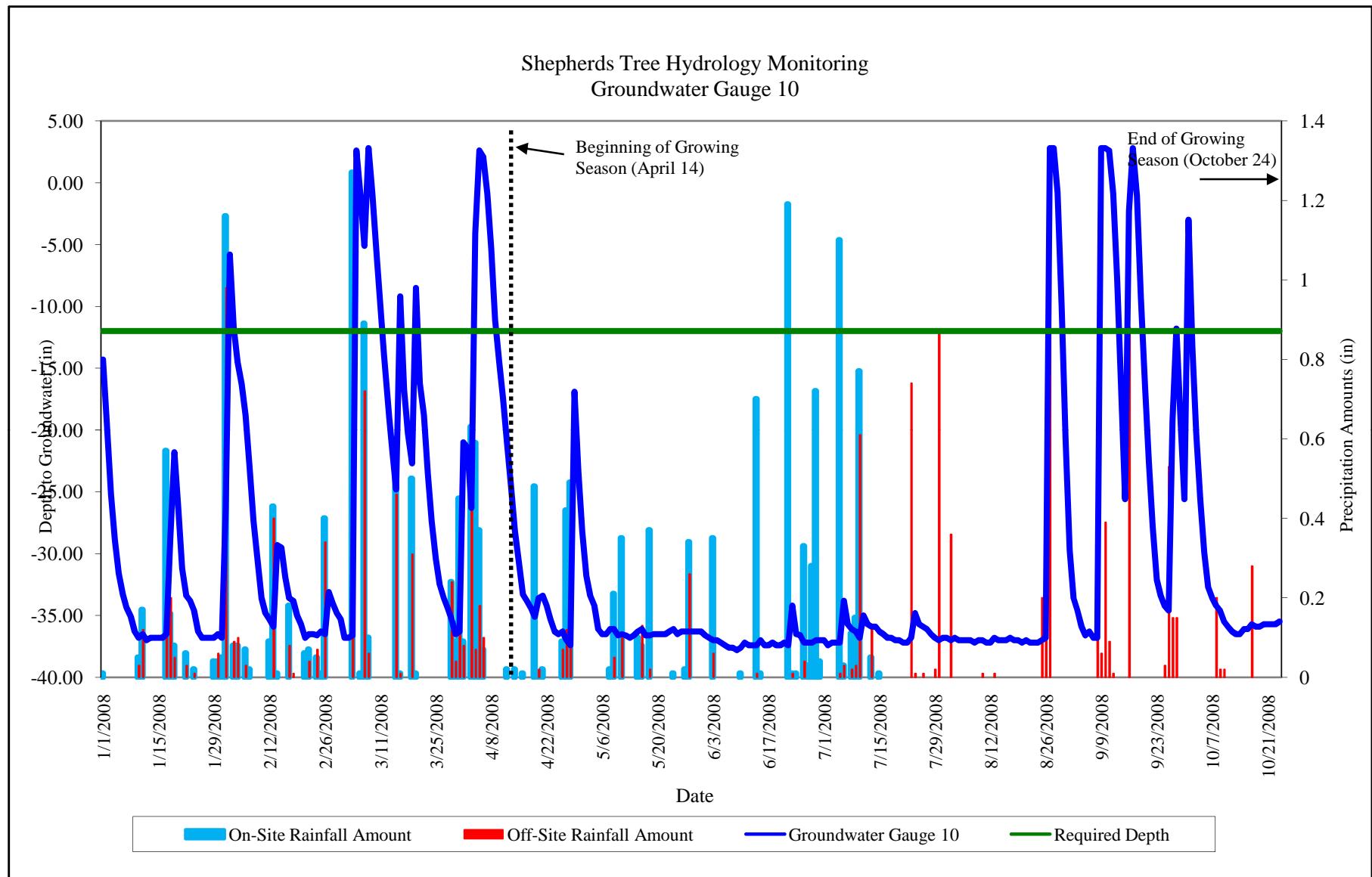
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



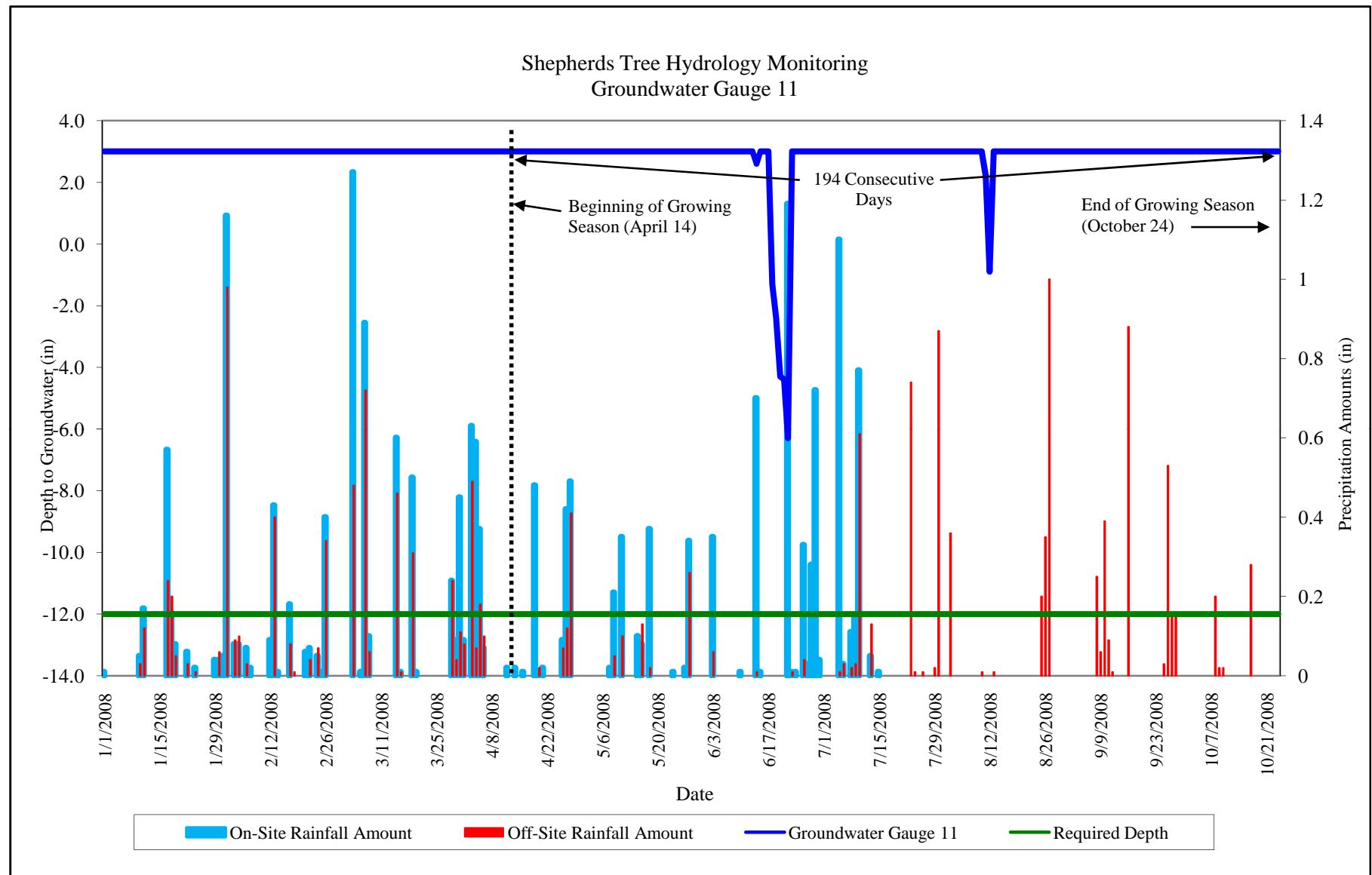
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



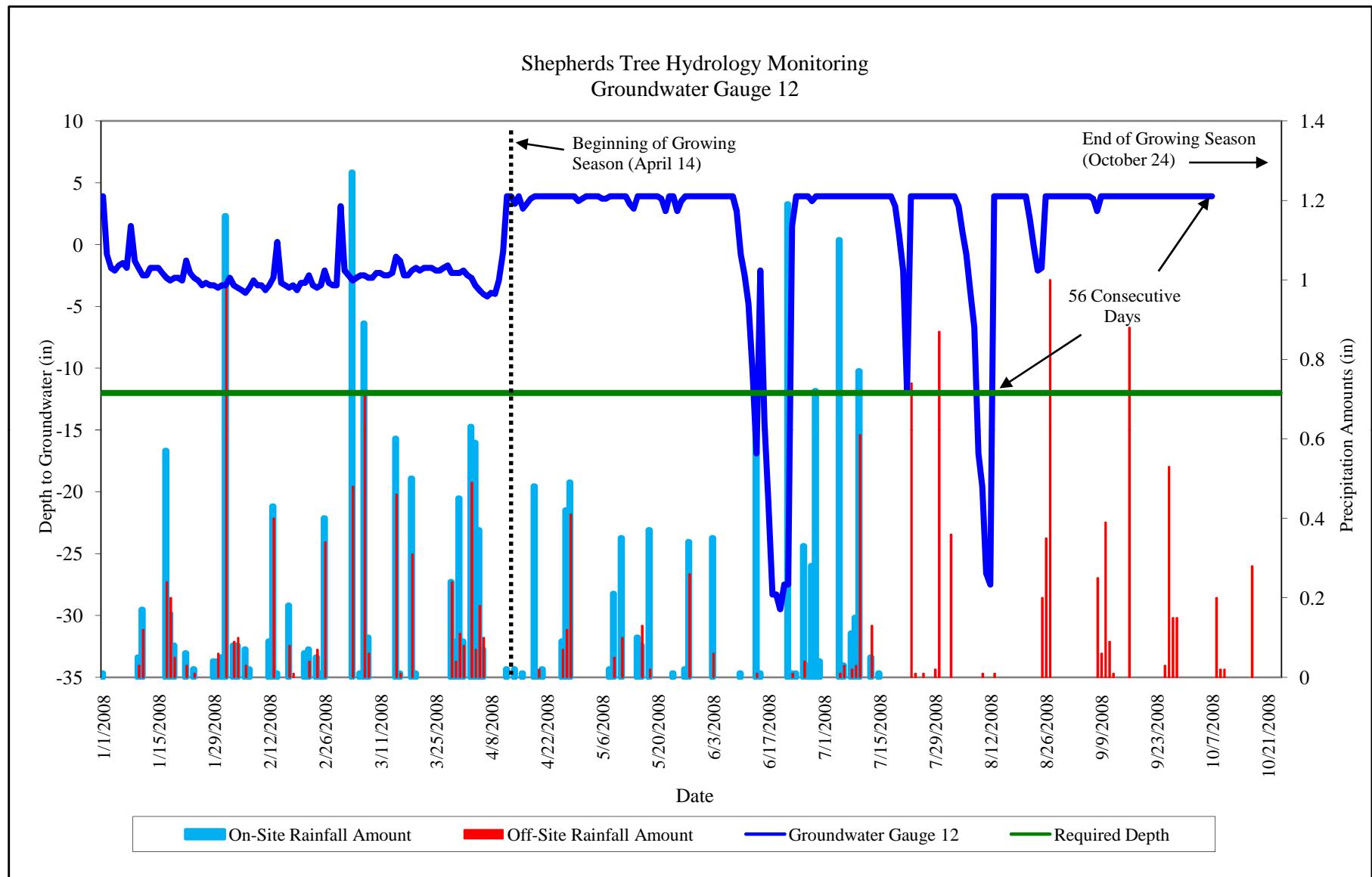
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



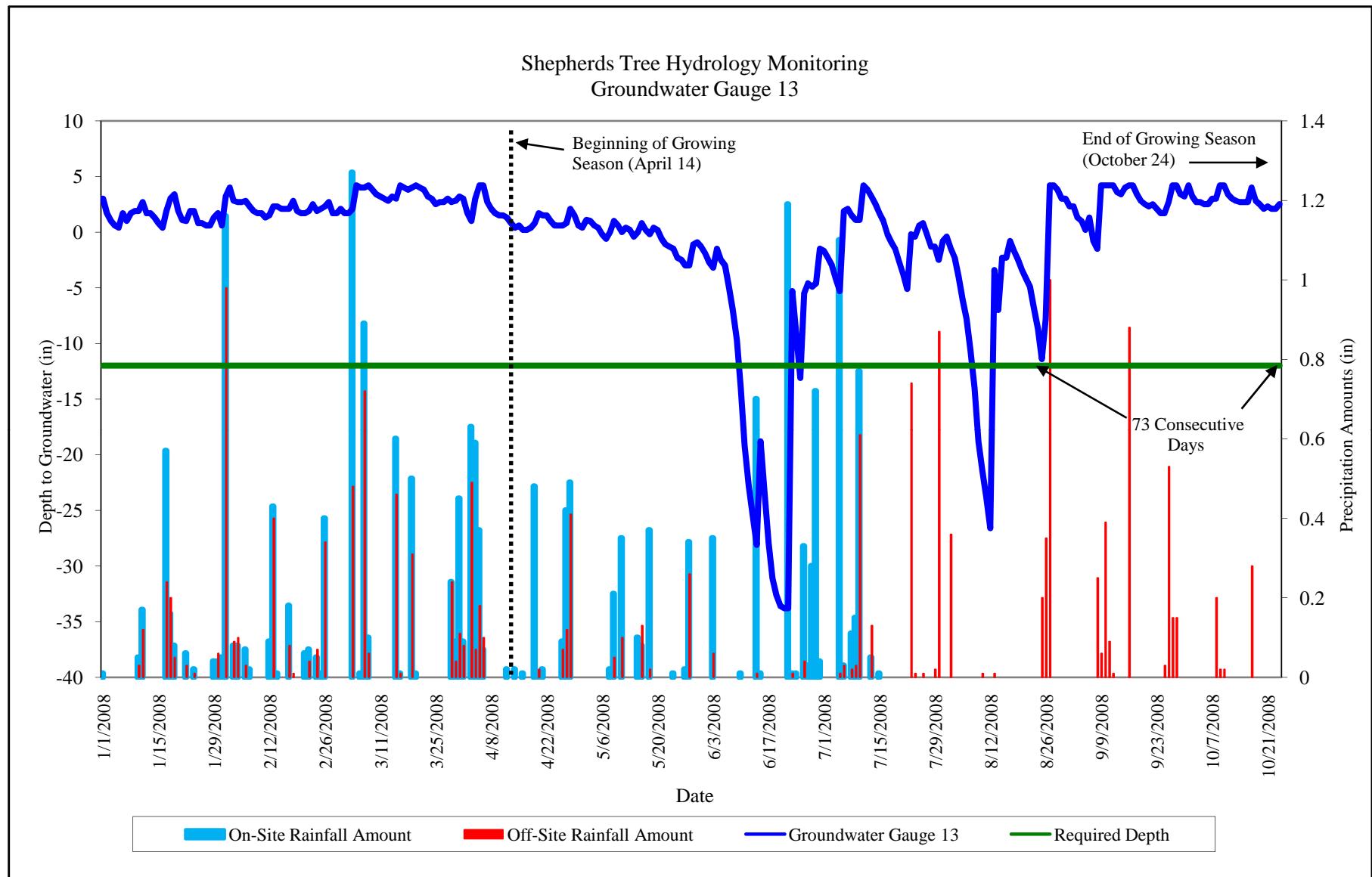
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



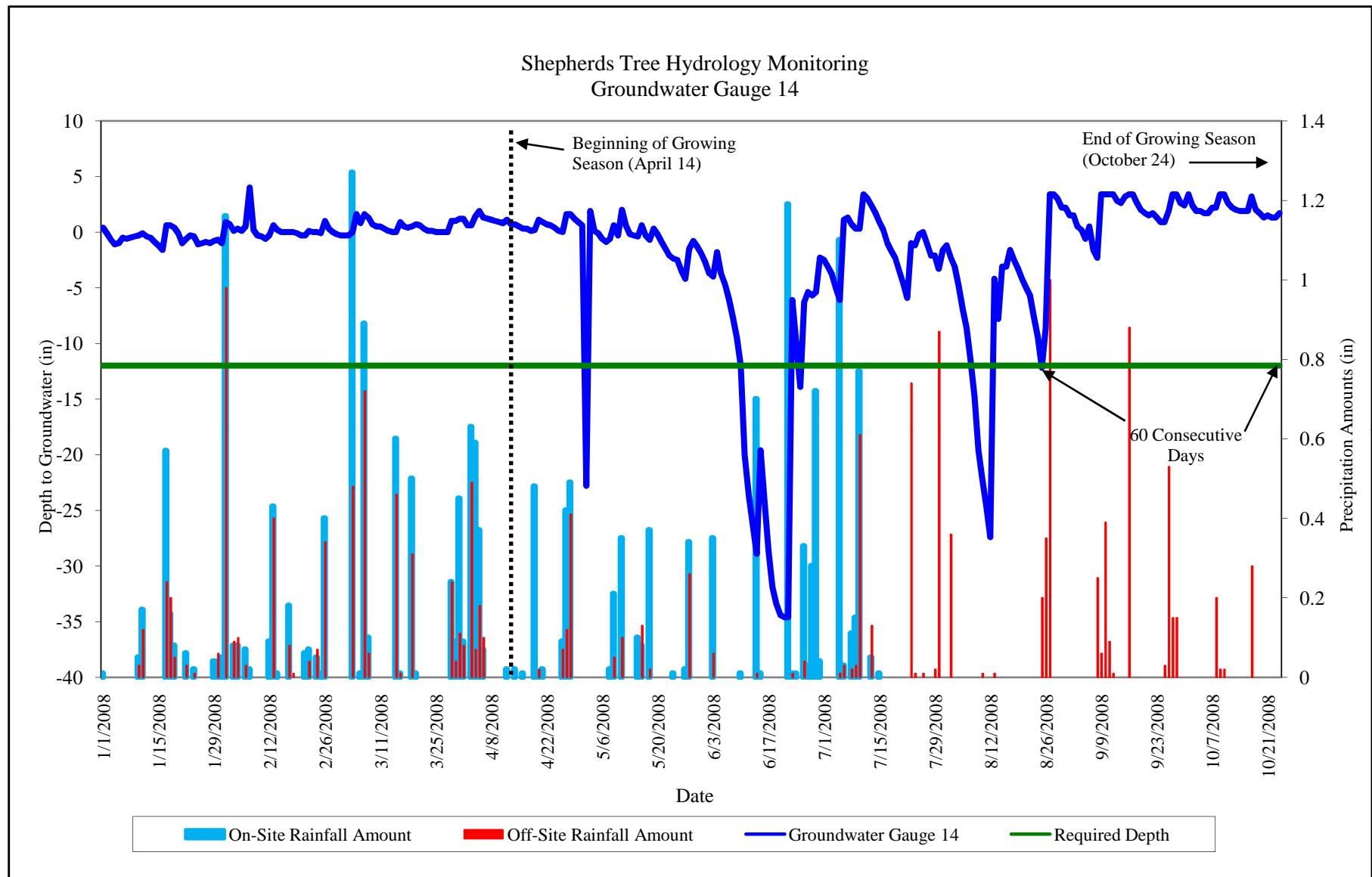
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



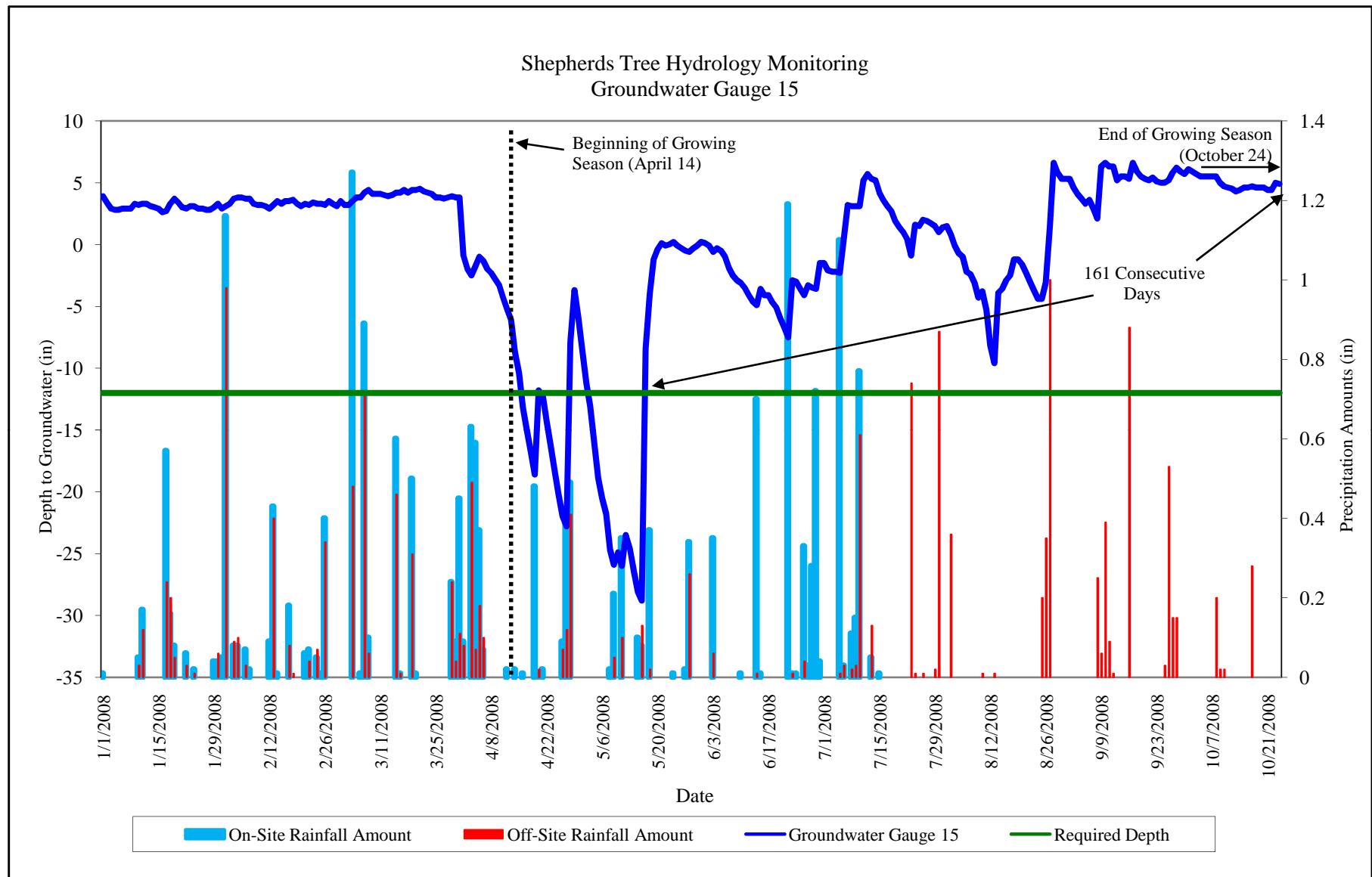
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



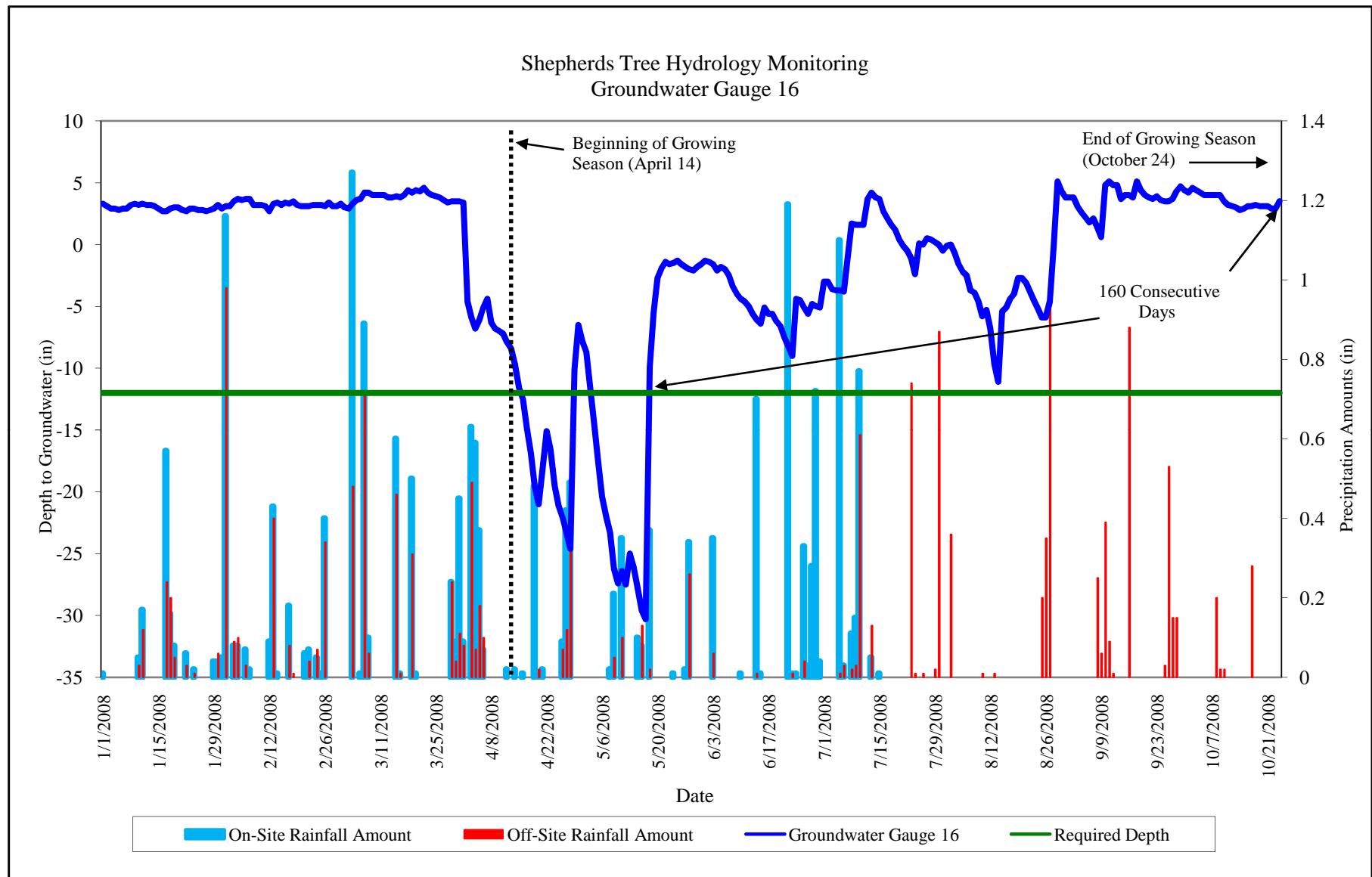
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



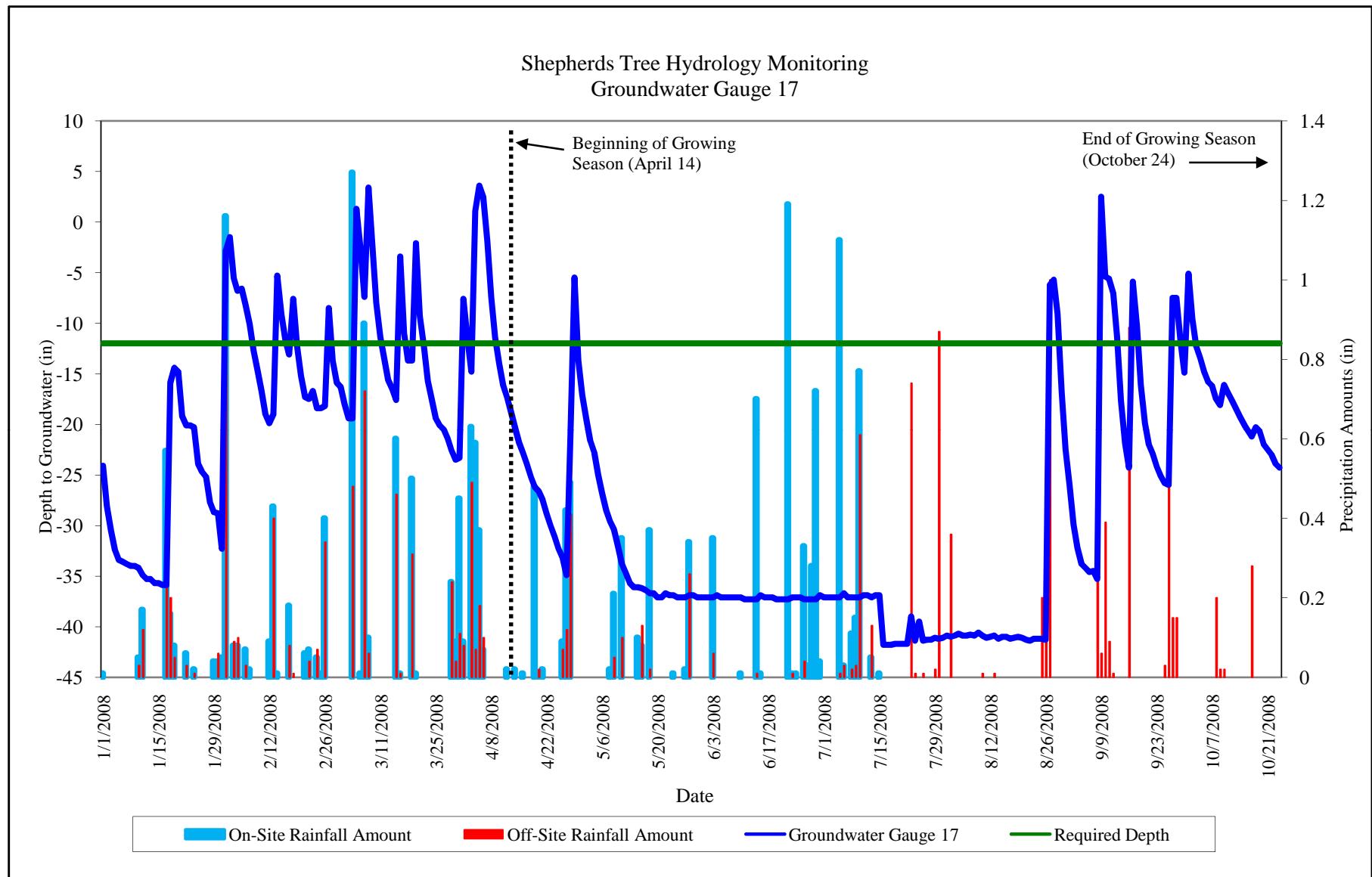
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



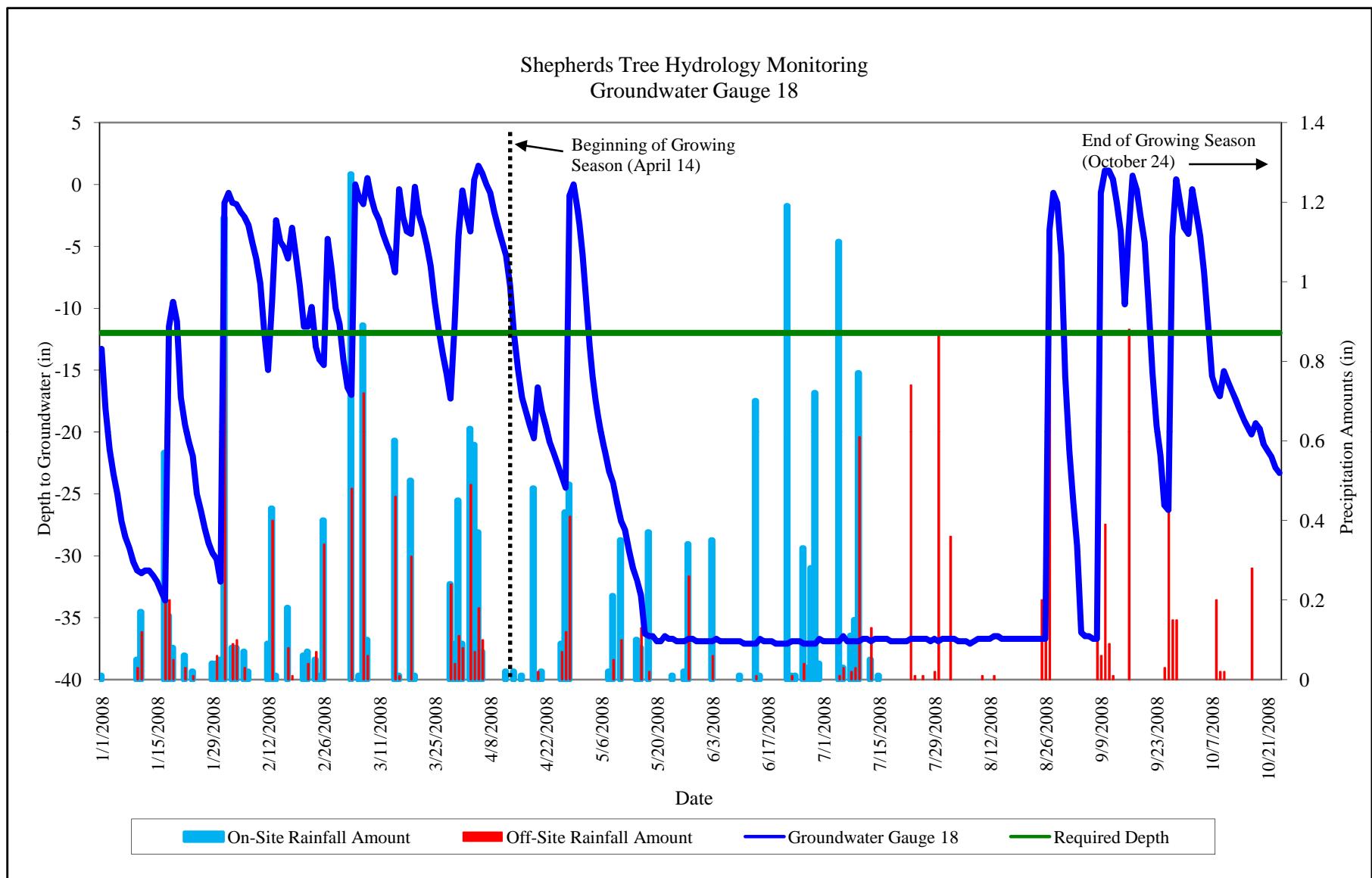
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



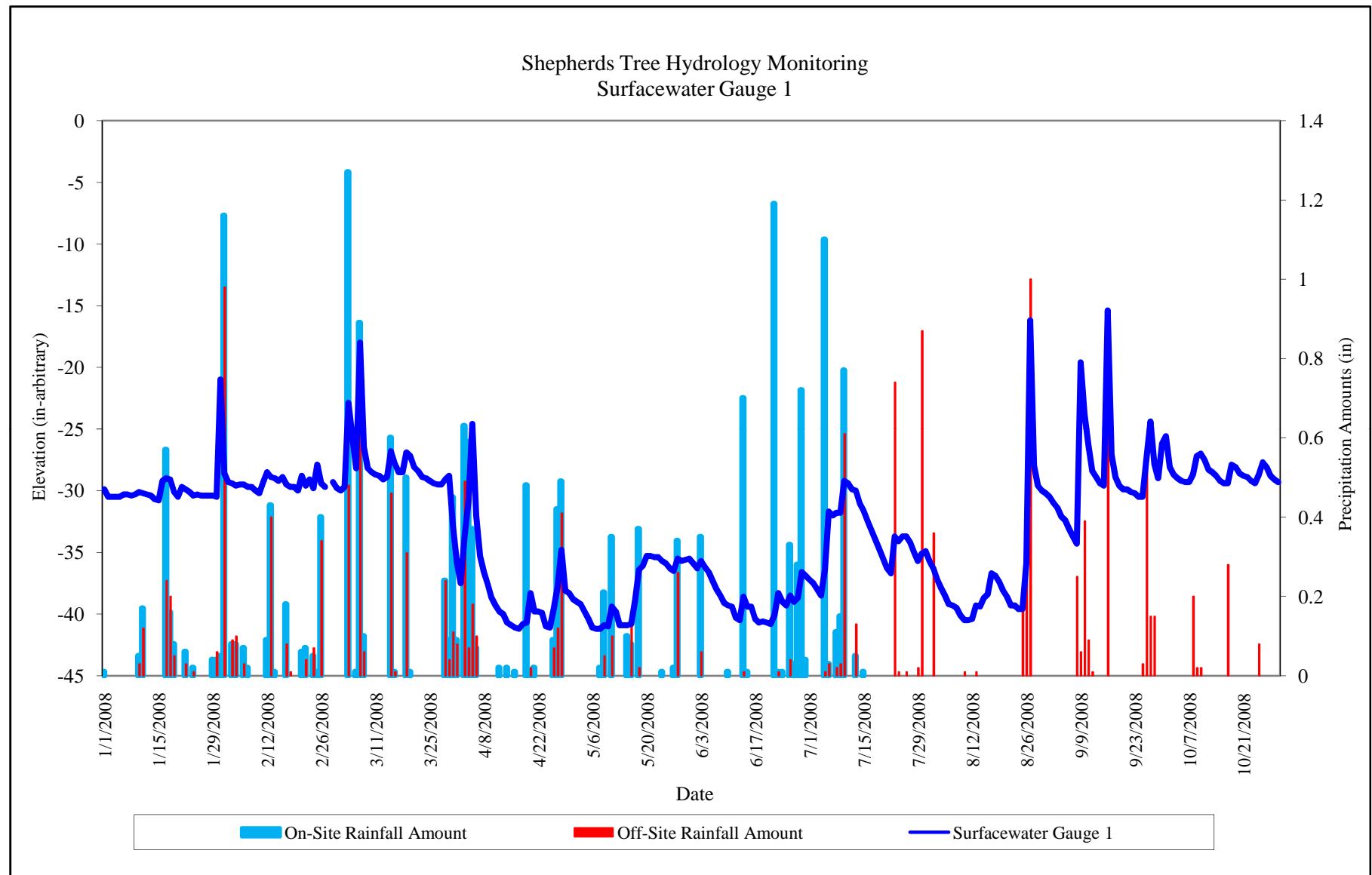
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



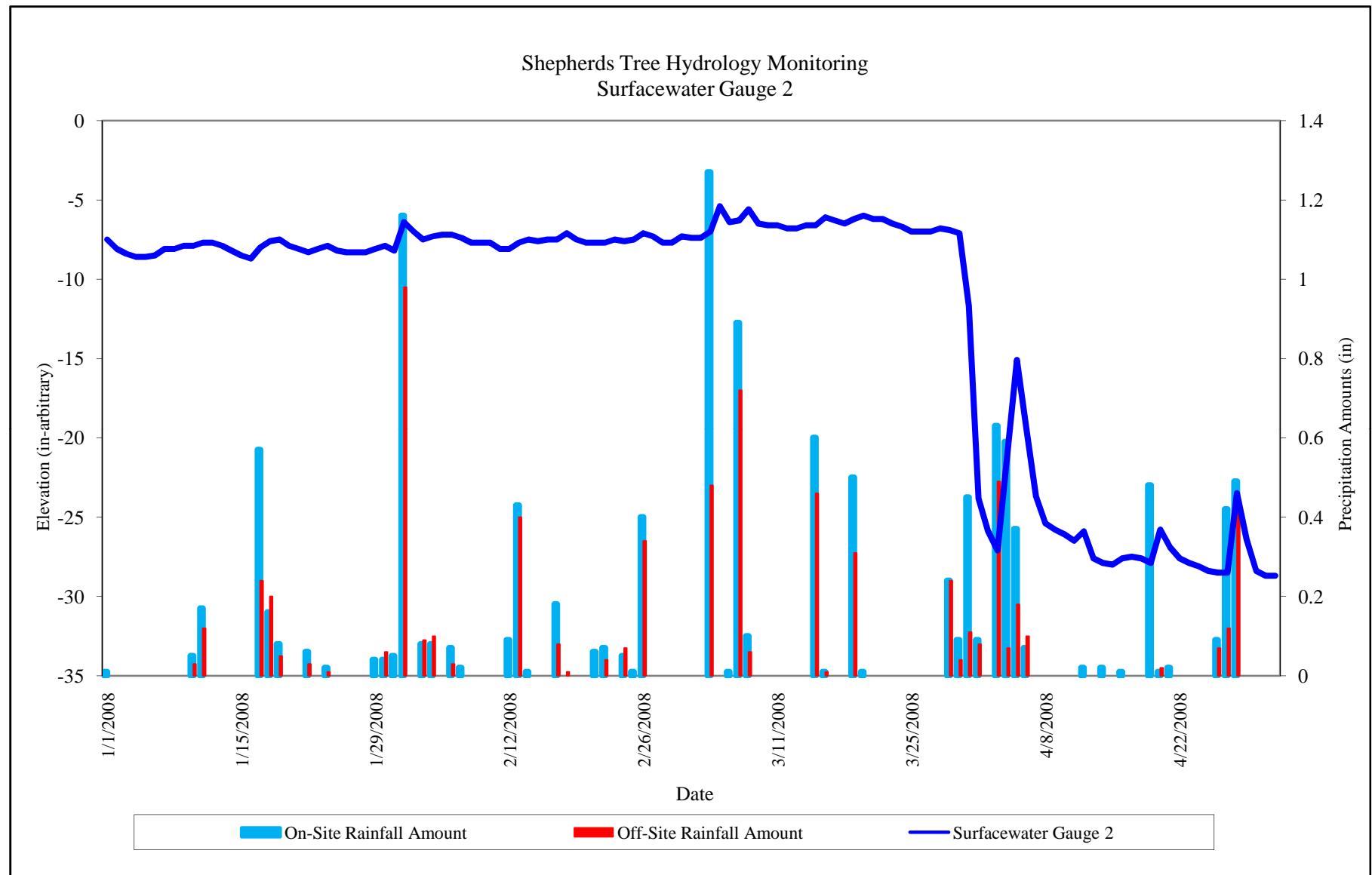
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



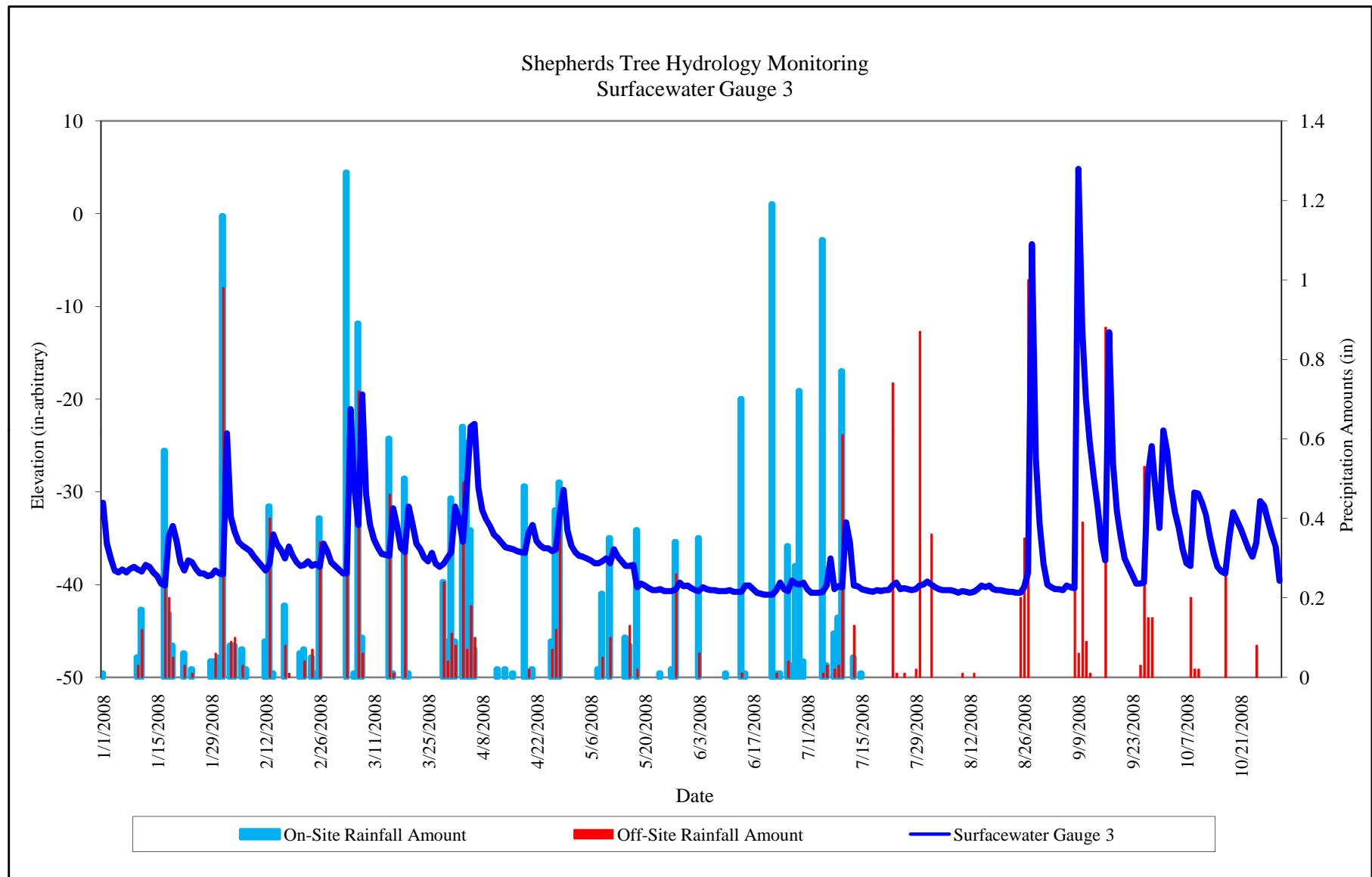
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



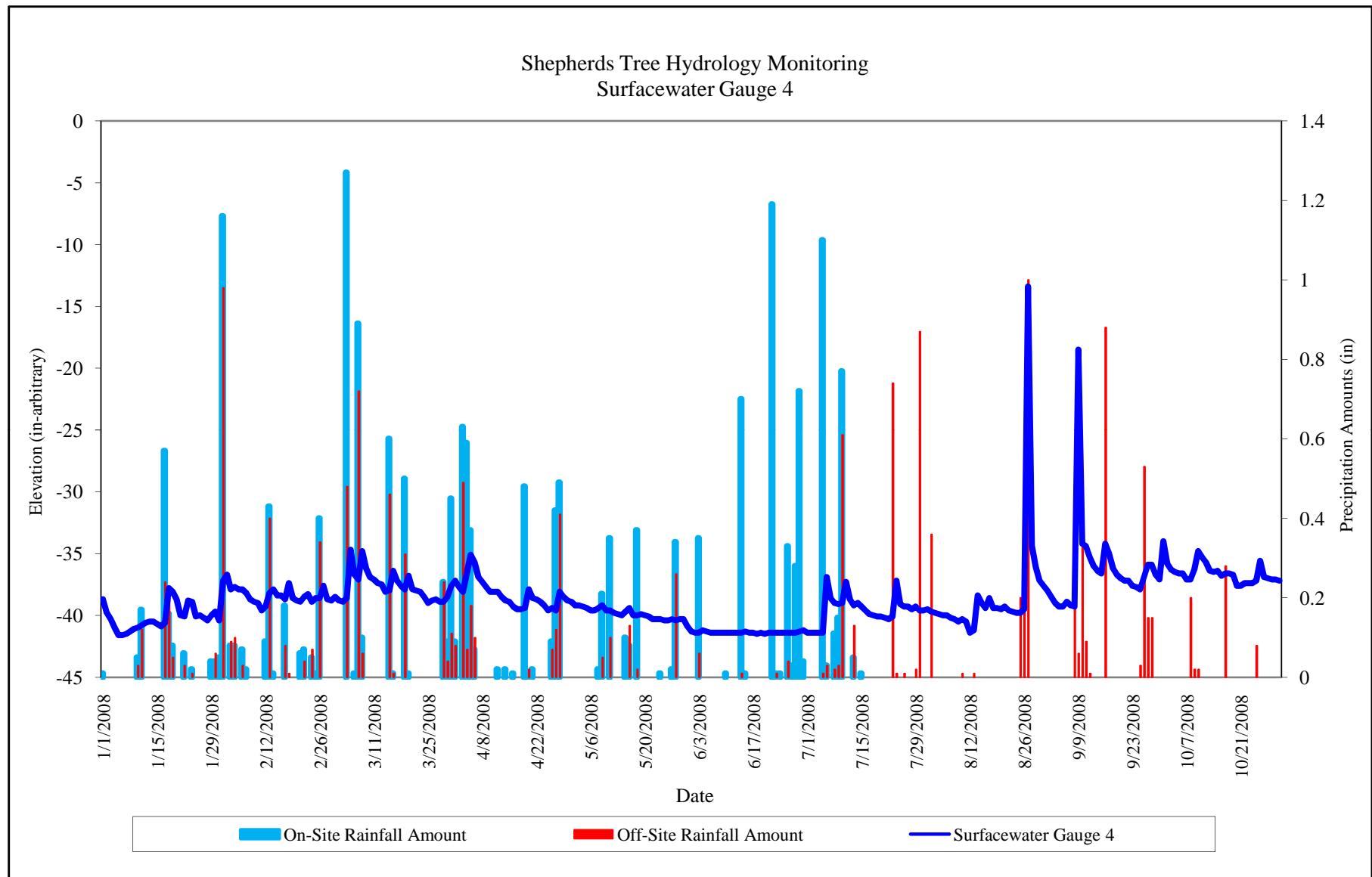
Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5



Appendix 2.2 Precipitation - Water Level Plots for Gauges  
Shepherds Tree Stream and Wetland Restoration  
Year 4 of 5

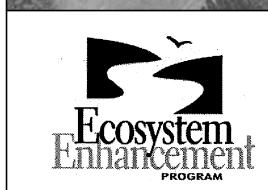
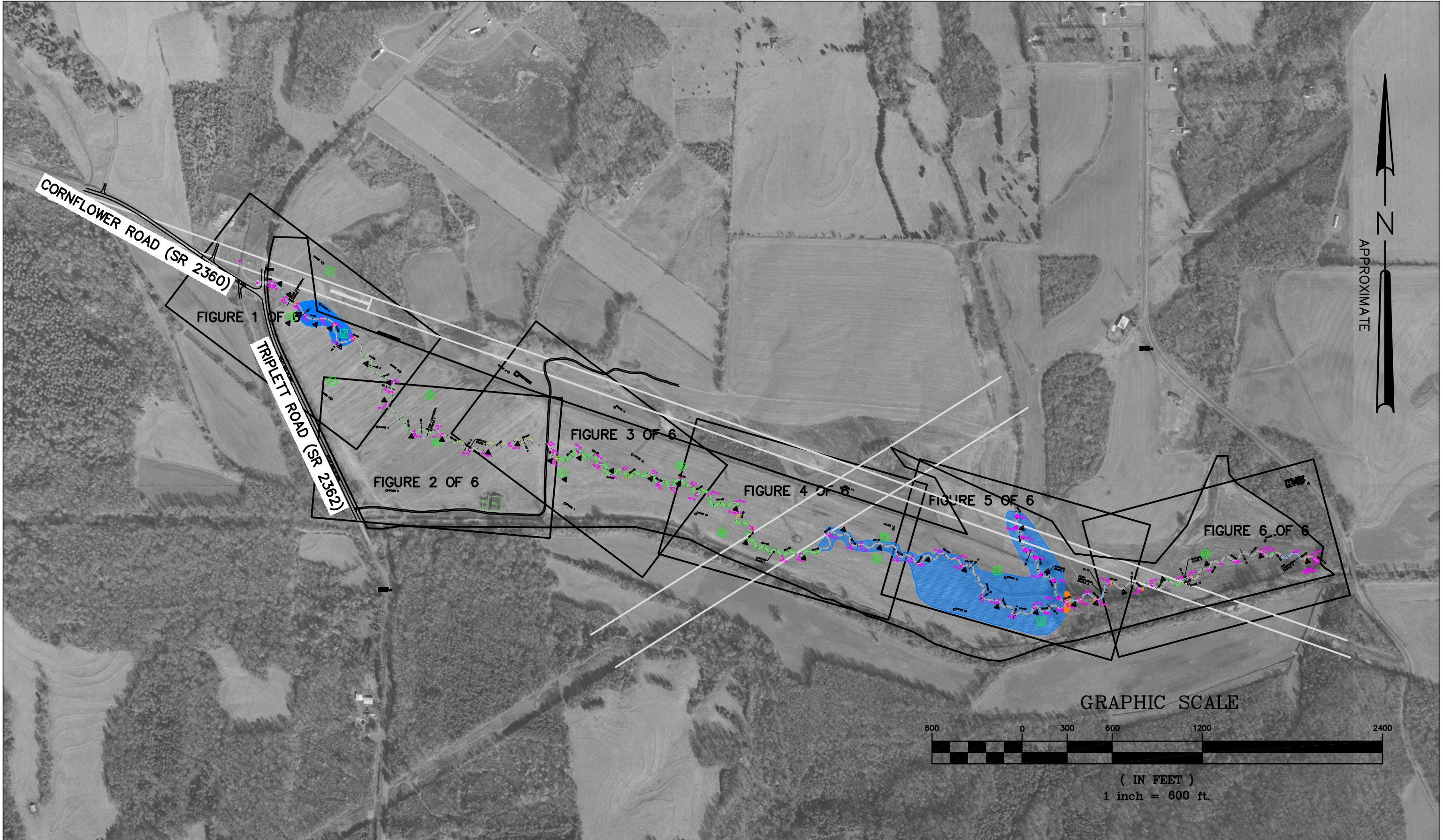


---

## APPENDIX 3

### CURRENT CONDITION PLAN VIEW (INTEGRATED)

#### **1. Current Condition Plan View (Integrated)**



NOTES:

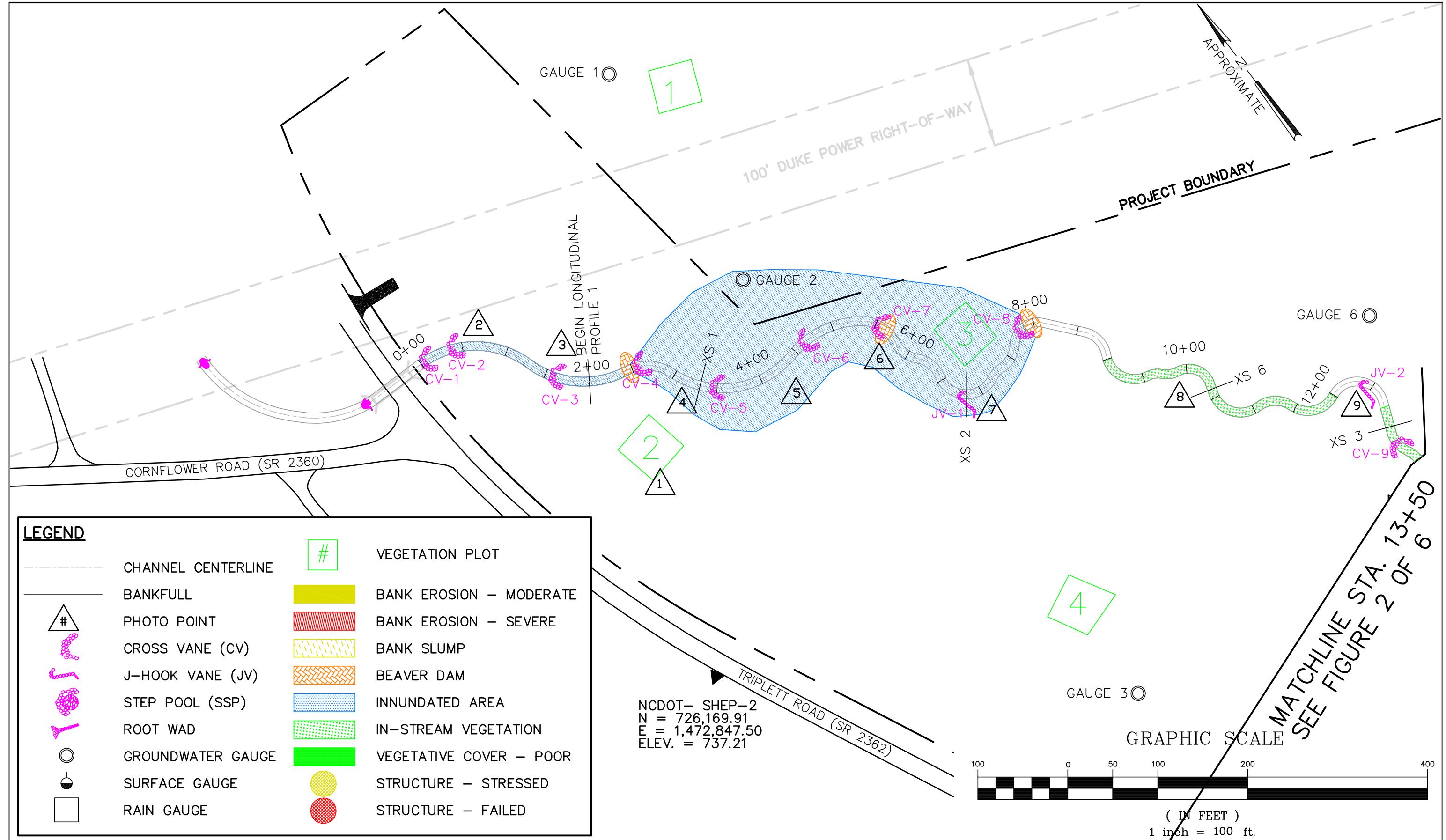
1. GENERAL SITE DATA PROVIDED BY NCEEP.
2. ALL LOCATIONS ARE APPROXIMATE.

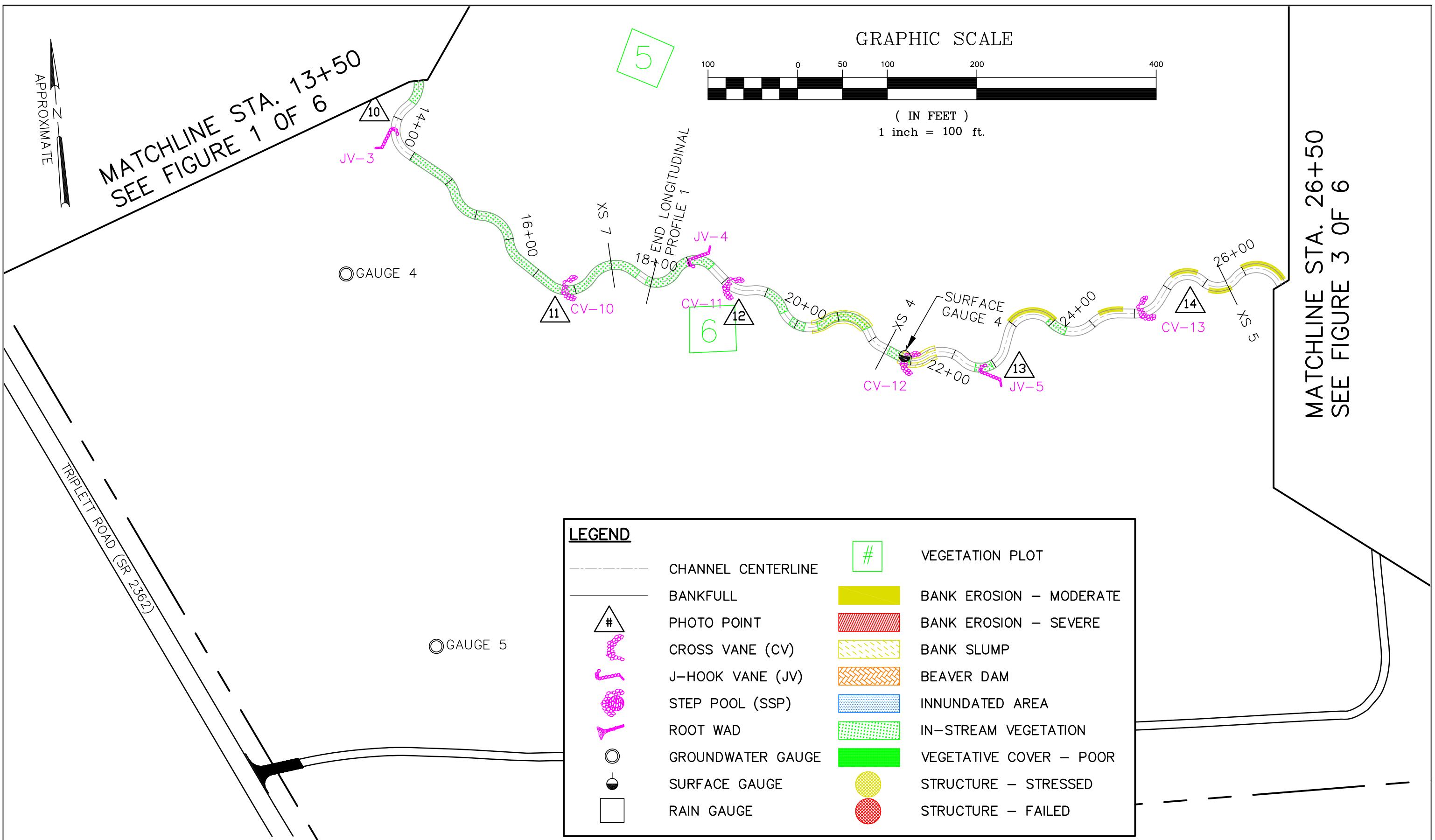
PROJECT NO. 333  
IREDELL COUNTY  
NORTH CAROLINA  
MONITORING  
YEAR 4 OF 5

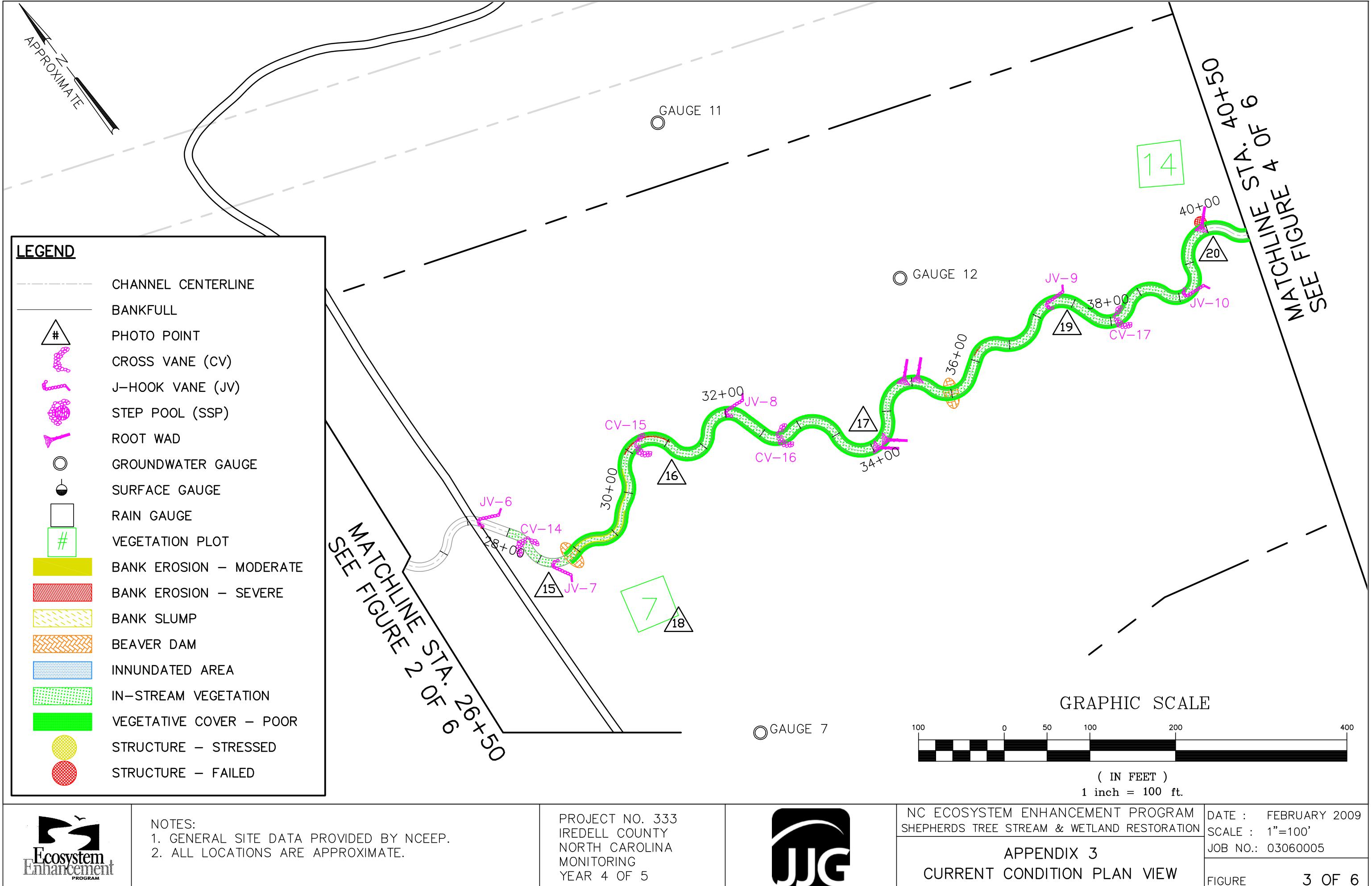


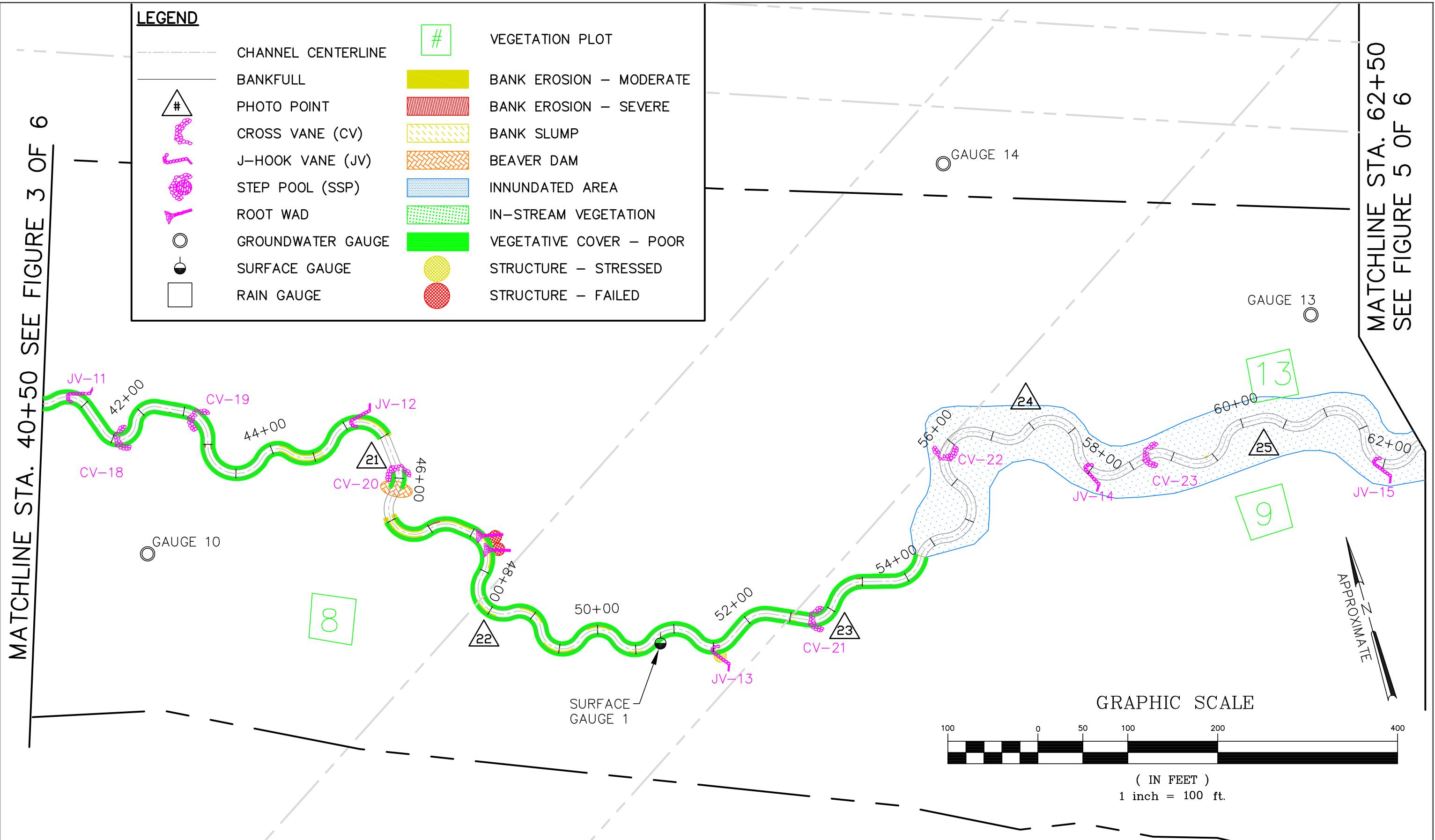
NC ECOSYSTEM ENHANCEMENT PROGRAM  
SHEPHERDS TREE STREAM & WETLAND RESTORATION  
APPENDIX 3  
CURRENT CONDITION PLAN VIEW

DATE : FEBRUARY 2009  
SCALE : 1"=600'  
JOB NO.: 03060005  
FIGURE KEY









**LEGEND**

CHANNEL CENTERLINE	#	VEGETATION PLOT
BANKFULL	[Yellow]	BANK EROSION - MODERATE
PHOTO POINT	[Red]	BANK EROSION - SEVERE
CROSS VANE (CV)	[Yellow Hatched]	BANK SLUMP
J-HOOK VANE (JV)	[Orange Hatched]	BEAVER DAM
STEP POOL (SSP)	[Blue Dotted]	INNUNDATED AREA
ROOT WAD	[Green Dotted]	IN-STREAM VEGETATION
GROUNDWATER GAUGE	[Green]	VEGETATIVE COVER - POOR
SURFACE GAUGE	[Yellow Green Hatched]	STRUCTURE - STRESSED
RAIN GAUGE	[Red Hatched]	STRUCTURE - FAILED

MATCHLINE STA. 63+00  
SEE FIGURE 4 OF 6

NOTES:  
 1. GENERAL SITE DATA PROVIDED BY NCEEP.  
 2. ALL LOCATIONS ARE APPROXIMATE.

PROJECT NO. 333  
IREDELL COUNTY  
NORTH CAROLINA  
MONITORING  
YEAR 4 OF 5



NC ECOSYSTEM ENHANCEMENT PROGRAM  
SHEPHERDS TREE STREAM & WETLAND RESTORATION  
APPENDIX 3  
CURRENT CONDITION PLAN VIEW

DATE : FEBRUARY 2009  
SCALE : 1"=100'  
JOB NO.: 03060005  
FIGURE 5 OF 6

