



# City of North Port

National Pollutant Discharge Elimination System (NPDES)  
Municipal Separate Storm Sewer System (MS4)  
Permit # FLS000004

## Year 2 Annual Report

**Report period Jan 1, 2009 to December 31, 2009**

Prepared June, 2010



Old Corroded Water Control Structure #503 on  
Apollo Waterway



New Water Control Structure #503 on Apollo  
Waterway

Submitted by  
**Elizabeth Wong P.E.**  
**Stormwater Manager**  
**Planning Zoning and**  
**Engineering Department**

4970 City Hall Blvd  
North Port, Florida 34286  
OfficeTel (941) 429-7090  
Cellphone (941) 628-1475  
Fax: (941) 429-7085  
Email: [ewong@cityofnorthport.com](mailto:ewong@cityofnorthport.com)



# ANNUAL REPORT FORM FOR INDIVIDUAL NPDES PERMITS FOR MUNICIPAL SEPARATE STORM SEWER SYSTEMS (RULE 62-624.600(2), F.A.C.)

- This Annual Report Form must be completed and submitted to the Department to satisfy the annual reporting requirements established in Rule 62-621.600, F.A.C.
- Submit this fully completed and signed form and any REQUIRED attachments by mail to the address in the box at right.
- Refer to the Form Instructions for guidance on completing each section.
- Please print or type information in the appropriate areas below.

**Submit the form and attachments to:**  
 Florida Department of Environmental Protection  
 Mail Station 2500  
 2600 Blair Stone Road  
 Tallahassee, Florida 32399-2400

**SECTION I. BACKGROUND INFORMATION**

<b>A.</b>	Permittee Name: City of North Port		
<b>B.</b>	Permit Name: Sarasota County Municipal Separate Storm Sewer System		
<b>C.</b>	Permit Number: FLS000004		
<b>D.</b>	Annual Report Year: <input type="checkbox"/> Year 1 <input checked="" type="checkbox"/> Year 2 <input type="checkbox"/> Year 3 <input type="checkbox"/> Year 4 <input type="checkbox"/> Year 5 <input type="checkbox"/> Other, specify Year:		
<b>E.</b>	Reporting Time Period (month/year): January 1, 2009 through December 31, 2009		
<b>F.</b>	Name of the Responsible Authority: David J. Garofalo, Sr.		
	Title: Chair, North Port City Commission		
	Mailing Address: 4970 City Hall Boulevard		
	City: North Port	Zip Code: 34286	County: Sarasota
	Telephone Number: 941-428-7069		Fax Number: 941-429-7008
E-mail Address: dgarofalo @cityofnorthport.com			
<b>G.</b>	Name of the Designated Stormwater Management Program Contact (if different from Section I.F above): Elizabeth Wong, P.E		
	Title: Stormwater Manager		
	Department: Planning, Zoning and Engineering		
	Mailing Address: 4970 City Hall Boulevard		
	City: North Port	Zip Code: 34286	County: Sarasota County
Telephone Number: 941-429-7090 (Office) 628-1475 (cell)		Fax Number: 941-429-7164	
E-mail Address: ewong@cityofnorthport.com			

**SECTION II. MS4 MAJOR OUTFALL INVENTORY (Not Applicable In Year 1)**

<b>A.</b>	Number of outfalls ADDED to the outfall inventory in the current reporting year (insert "0" if none): 0 (none added) (Does this number include non-major outfalls? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable)
<b>B.</b>	Number of outfalls REMOVED from the outfall inventory in the current reporting year (insert "0" if none): 0 (none removed) (Does this number include non-major outfalls? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable)
<b>C.</b>	Is the change in the total number of outfalls due to lands annexed or vacated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Change is due to the new annexed areas, new development and outfalls not previously reported.

**SECTION III. MONITORING PROGRAM**

A.	<p>Provide a brief statement as to the status of monitoring plan implementation:</p> <p>The water quality monitoring plan was approved by Steven Michael Kelly (FDEP) in a letter dated May 6, 2009. The approved plan allows the use of the Hydrobiological (HB) monitoring data and sampling sites to satisfy the NPDES monitoring requirements. The HB data is collected by the City as a requirement of the SWFWMD consumptive use permit and has very similar parameters to the Sarasota County's monitoring plan. The sampling locations provide more specific water quality data for the surface water runoff from the City of North Port. These HB sampling sites and water quality monitoring will be continued and the data used in the future reporting years of this NPDES permit.</p>
B.	<p>Provide a brief discussion of the monitoring results to date:</p> <p><b>Appendix A includes the following:</b></p> <ul style="list-style-type: none"> <li>• A location map of the HB sampling sites</li> <li>• Three tables entitled             <ul style="list-style-type: none"> <li>◦ "Hydrobiological Data – Current Year Average of All Sites" for reporting period (January 1, 2009 to December 31, 2009)</li> <li>◦ "Hydrobiological Data – Previous Year Average of All Sites" for reporting period (April 18, 2007 to December 31, 2008)</li> <li>◦ "Hydrobiological Data – Comparison of Average Of All Sites Between Current And Previous Reporting Years.</li> </ul> </li> </ul> <p>Following is a discussion of the comparison of average data for the 10 sampling sites between the current reporting period and for the previous reporting period.</p> <ul style="list-style-type: none"> <li>- Comparable data with for Nitrogen, Phosphorus, Suspended Solids, Turbidity and Dissolved Oxygen between the previous and current reporting periods.</li> <li>- Chlorophyll-a data for the current reporting period is a slightly lower than the previous reporting period.</li> <li>- The physical parameters of color, specific conductance, salinity, pH, Secchi depth do not appear significantly different between the previous and current reporting periods. This data is subject to tidal and flow conditions at the time of measurement.</li> </ul> <p><b>Appendix B includes the following:</b></p> <ul style="list-style-type: none"> <li>• Graphs are provided for all the data collected from the City HB monitoring program for the reporting period and all previous reporting periods. Separate graphs are prepared for each parameter.</li> <li>• Site No. 6 is the location that represents most closely the water quality <u>immediately</u> downstream of the City of North Port. For Site No. 6, comparison graphs are also included for the following :             <ul style="list-style-type: none"> <li>- <u>Nutrients - Nitrate, Nitrite, Ammonia-N, TKN, Orthophosphorus, and Total Phosphorus</u> – This graph shows a correlation of the nitrogen data with the phosphorus data. Higher concentrations were seen in the wet season months near Sept 2009.</li> <li>- <u>Turbidity, Total Suspended Solids, Color</u> - The turbidity, total suspended and also with color are higher in the wet season. This is probably due to influence of more surface water flow causing turbidity, suspended solids and dissolution of organic color material to increase in the rainy season.</li> <li>- <u>Dissolved Oxygen, and Temperature</u> – As expected, the dissolved oxygen content is inversely proportional to temperature. The average dissolved oxygen content of the water at Site No. 6 is 5.32mg/L.</li> </ul> </li> </ul>
C.	<p>Attach a monitoring data summary, as required by the permit.</p> <ul style="list-style-type: none"> <li>• Appendix A includes a tabulation of the HB sampling sites for the report year taken on a monthly basis. The data is graphed in Appendix B.</li> </ul>

**SECTION IV. FISCAL ANALYSIS**

A.	<p>Total expenditures for the NPDES stormwater management program for the current reporting year: \$7,839,281 (City's Fiscal Year 2008/2009 – October 1 2008 to October 2009 for Base and Enhanced Drainage and Mowing)</p>
B.	<p>Total budget for the NPDES stormwater management program for the subsequent reporting year: \$6,567,048 (City's Fiscal Year 2009/2010 – October 1 2009 to October 2010 for Base and Enhanced Drainage and Mowing)</p>

**SECTION V. MATERIALS TO BE SUBMITTED WITH THIS ANNUAL REPORT FORM**

Only the following materials are to be submitted to the Department along with this fully completed and signed Annual Report Form (check the appropriate box to indicate whether the item is attached or is not applicable):

<u>Attached</u>	<u>N/A</u>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Any additional information required to be submitted in this current annual reporting year in accordance with Part III.A of your permit that is not otherwise included in Section VII below.
Appendix D & E		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	A monitoring data summary as directed in Section III.C above and in accordance with Rule 62-624.600(2)(c), F.A.C.
Appendix A&B		
<input type="checkbox"/>	<input type="checkbox"/>	Year 1 ONLY: An inventory of all known major outfalls and a map depicting the location of the major outfalls (hard copy or CD-ROM) in accordance with Rule 62-624.600(2)(a), F.A.C.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Year 2 ONLY: Summary of current Local code review
Appendix C		
<input type="checkbox"/>	<input type="checkbox"/>	Year 3 ONLY: The estimates of pollutant loadings and event mean concentrations for each major outfall or each major watershed in accordance with Rule 62-624.600(2)(b), F.A.C.
<input type="checkbox"/>	<input type="checkbox"/>	Year 4 ONLY: Permit re-application information in accordance with Rule 62-624.420(2), F.A.C.

**DO NOT SUBMIT ANY OTHER MATERIALS**

(such as records and logs of activities, monitoring raw data, public outreach materials, etc.)

**SECTION VI. CERTIFICATION STATEMENT AND SIGNATURE**

*The Responsible Authority listed in Section I.F above must sign the following certification statement, as per Rule 62-620.305, F.A.C:*

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of Responsible Authority (type or print): David J. Garofalo, Sr.

Title: Chair, North Port City Commission

Signature: \_\_\_\_\_ Date:  / /

**SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE**

A. Permit Citation/SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation/ Record	E. Entity Performing the Activity	F. Comments
Part III.A.1	Structural Controls and Stormwater Collection Systems Operation Maintain an up-to-date inventory of the structural controls and roadway stormwater collection structures operated by the permittee. Update MS4 mapping, as needed, and provide the current known inventory in each Annual Report.	224	Public Works Drive T:\N.P.D.\S\Inspections 2009 and 3 ring Binder S:\Engineering\NPDES\NPDES Year 2, 1-1-09 to 12-31-09\Summary of PW Inspections 2009.xls	PW Infrastructure Management	These are originally installed by General Development Corp.
	Stormwater treatment ponds	74	S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls	PZE Stormwater Manager and Inspections Staff	These are other City owned and maintained ponds
	Stormwater pump stations	0	Not Applicable	Not Applicable	City has no stormwater pump stations
	Exfiltration trenches	21	S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls	PZE Stormwater Manager and Inspections Staff	Side drains and Underdrains. See Appendix E Summary
	Channels/canals/canal banks (miles)	79.09	Public Works Drive T:\N.P.D.\S\Inspections 2009 and 3 ring Binder S:\Engineering\NPDES\NPDES Year 2, 1-1-09 to 12-31-09\Summary of PW Inspections 2009.xls	PW Infrastructure Management	These are originally installed by General Development Corp.
	Channel control structures	69	Public Works Drive T:\N.P.D.\S\Inspections 2009 and 3 ring Binder S:\Engineering\NPDES\NPDES Year 2, 1-1-09 to 12-31-09\Summary of PW Inspections 2009.xls	PW Infrastructure Management	These are originally installed by General Development Corp.
	Pollution control boxes (e.g., CDS units, baffle boxes, swirl boxes)	6	S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls	PZE Stormwater Manager and Inspections Staff	These are grate inlet baskets (GIBs) on Sumter Phase 2. See Appendix E Summary
	Ditches/swales (miles)	132.42 miles	Public Works Drive T:\N.P.D.\S\Inspections	PW	These are

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	Retention Ditches.	1498.29 miles of grass Swales	2009 and 3 ring Binder S:\Engineering\NPDES\NPDES Year 2, 1-1-09 to 12-31-09\Summary of PW Inspections 2009.xls Files	Infrastructure Management	originally installed by General Development Corp.
	Inlets/catch basins/grates	365 Inlets 452 Catch Basins	Public Works Drive T:\N.P.D.\S\Inspections 2009 and 3 ring Binder S:\Engineering\NPDES\NPDES Year 2, 1-1-09 to 12-31-09\Summary of PW Inspections 2009.xls Files	PW Infrastructure Management	These are originally installed by General Development Corp.
	219		S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls	PZE Stormwater Manager and Inspections Staff	These are other City owned and maintained catch basins/inlets. See Appendix E Summary
	Year 1 ONLY: Attach a map of all known major outfalls per Rule 62-624.600(2)(a)				No Major Outfalls installed in 2009
	Conduct inspections and maintenance of structural controls and roadway stormwater collection structures operated by the permittee. Report the number of inspection and maintenance activities conducted in each Annual Report. <b>Stormwater treatment pond inspections</b>	224	DEP Note: The permittee needs to match the list of MS4 inspection and maintenance activities to its MS4 inventory above. In addition, please provide an explanation in Column F for any "0" reported in Column C for the inspections of the MS4. The permittee may choose its own unit of measurement for each control/structure, but it must be the same unit as used in the inventory above. Public Works Drive T:\N.P.D.\S\Inspections 2009 and 3 ring Binder S:\Engineering\NPDES\NPDES Year 2, 1-1-09 to 12-31-09\Summary of PW Inspections 2009.xls	PW Infrastructure Management	These are originally installed by General Development Corp.
	74 + 16 = 90		S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls	PZE Stormwater Manager and Inspections Staff	These are other City owned and maintained ponds. The additional 16 inspections are to follow up to check that maintenance is completed. See Appendix E

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	Stormwater treatment pond maintenance	80	PW Monthly IFSTP	Public Works	Summary These are originally installed by General Development Corp.
		16	S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls	PZE Stormwater Manager and Inspections Staff	These are other City owned and maintained facilities. The City routinely mows <u>all</u> ponds and performs routine maintenance. These 16 ponds are additional maintenance performed as a result of PZE staff annual inspections See Appendix E Summary
	Stormwater pump station inspections	N/A	Not Applicable	Not Applicable	City has no stormwater pump stations
	Stormwater pump station maintenance	N/A	Not Applicable	Not Applicable	City has no stormwater pump stations
	Exfiltration trench inspections	21	S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls	PZE Stormwater Manager and Inspections Staff	Side drains and Underdrains. See Appendix E Summary
	Exfiltration trench maintenance	0	S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls	PZE Stormwater Manager and Inspections Staff	Side drains and Underdrains are functioning as designed.
	Channel/canal/ canal bank inspections (miles)	79.09	Public Works Drive T:\N.P.D.\S\Inspections 2009 and 3 ring Binder S:\Engineering\NPDES\NPDES Year 2, 1-1-09 to 12-31-09\Summary of PW Inspections 2009.xls	PW Infrastructure Management	These are originally installed by General Development

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	Channel/canal/ canal bank maintenance (miles) Channel control structure inspections	71 69	PW Monthly IFSTP Public Works Drive T:\N.P.D.S\Inspections 2009 and 3 ring Binder S:\Engineering\NPDES\NPDES Year 2, 1-1- 09 to 12-31-09\Summary of PW Inspections 2009.xls	Public Works PW Infrastructure Management	Corp. All water control structures (WCS) are inspected. In addition, 31 of 69 structures are the gated WCS and these are inspected daily during the work week.
	Channel control structure maintenance	58	PW Daily IFSTP	Public Works	These 58 structures are routinely cleared of vegetation /debris and include 31 gated structures in which the gates are greased every 6 months. The remaining 11 structures are open weir structures and did not require maintenance in reporting year.
	Pollution control box inspections	6	S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls	PZE Stormwater Manager and Inspections Staff	These are grate inlet baskets (GIBs) along Sumter Phase II. See Appendix E Summary
	Pollution control box maintenance	6	PW Files in Ops	Public Works	These are grate inlet baskets (GIBs) along Sumter Phase II.



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	Ditch/swale inspections (miles)	132.42 miles Retention Ditches 1498.29 miles of grass Swales	Public Works Drive T:\N.P.D.S\Inspections 2009 and 3 ring Binder S:\Engineering\NPDES\NPDES Year 2, 1-1-09 to 12-31-09\Summary of PW Inspections 2009.xls Files	PW Infrastructure Management	These are originally installed by General Development Corp.
	Ditch/swale maintenance (miles)	110 miles of Retention Ditches	PW Monthly IFSTP	Public Works	PW mows all roadside swales that are fronting undeveloped parcels
	Inlet/catch basin/grate inspections	365 Inlets 452 Catch Basins	Public Works Files S:\NPDES Files	PW Infrastructure Management	These are originally installed by General Development Corp.
	Inlet/catch basin/grate maintenance	219	S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls	PZE Stormwater Manager and Inspections Staff	See Appendix E Summary
		21	Public Works Files S:\NPDES Files	PW Infrastructure Management	These are originally installed by General Development Corp.
		31	S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls	PZE Stormwater Manager and Inspections Staff	These are other City owned and maintained catch basins / inlets. See Appendix E Summary
Part III.A.2	Areas of New Development and Significant Redevelopment				
	Report the number of new development and significant redevelopment projects reviewed by the permittee for post-development stormwater considerations in each Annual Report.				DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.
	Number of new development and redevelopment projects reviewed	41	Naviine Database	Stormwater Mgr	See Appendix E
	In the Year 2 Annual Report, provide a summary of the current local code review activity by attaching a report that				DEP Note: Please provide the title of the attached report in Column D and the name of the entity who finalized the report in Column E. If the report is not attached as required, please provide an

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	<p>includes the following information: all applicable local code and regulation citations (both current and draft); a description of the techniques aimed at reducing the stormwater impact of new development and areas of significant redevelopment that are included within the applicable codes and regulations (both current and draft); a description of innovative stormwater planning techniques, including those described above, recommended for possible future incorporation into the codes and regulations (beyond what may be currently in draft).</p> <p>In the Year 4 Annual Report, provide a follow-up report that provides a summary of the activities performed in accordance with the local codes and regulations described in the report provided in Year 2 for the purpose of reducing stormwater impact from new development and areas of significant redevelopment, as well as the status of any initiatives described in the report to amend or newly develop local codes and regulations for the purpose of reducing stormwater impact from new development and areas of significant redevelopment.</p> <p><b>Year 2 ONLY: Attach the summary report of the inter-departmental review</b></p> <p><b>Year 4 ONLY: Attach the follow-up report of the inter-department review</b></p>	<p>explanation for the omission in Column F.</p>	<p>Appendix C - Summary of Local Code Review Activity</p>	<p>Stormwater Manager</p>	<p>See attached Appendix C</p>
<p>Part III.A.3</p> <p>Roadways</p> <p>Report on the litter collection activities, including the frequency of litter collection, the amount of area covered by the activities and an estimate of the quantity of litter collected, in each Annual Report.</p> <p><b>Litter Control Program: Frequency of litter collection collected (pounds)</b></p> <p><b>Litter Control Program: Estimated amount of litter collected (pounds)</b></p> <p><b>Litter Control Program: Amount of area maintained (miles)</b></p> <p>Report on the "Adopt-A-Road" activities, including the total number of road miles cleaned and an estimate of the quantity of litter collected, in each Annual Report.</p> <p><b>Keep Sarasota Beautiful: Total miles cleaned</b></p> <p><b>Keep Sarasota Beautiful: Estimated amount of litter collected (Tons)</b></p>	<p><b>DEP Note: Please provide an explanation in Column F for any "q" reported in Column C. In addition, the permittee may choose its own units of measurement for the reporting items. Unit options for the amount of litter include: bags, cubic yards, pounds, tons. Unit options for the amount of area covered by the activity include: linear feet, yards, miles, acres.</b></p> <p>Daily PW Files</p> <p>310 tons PW Files</p> <p>Entire City ROW PW Files</p> <p><b>DEP Note: Please provide an explanation in Column F for any "q" reported in Column C. In addition, the permittee may choose its own unit of measurement for the amount of litter collected. Unit options include: bags, cubic yards, pounds, tons.</b></p> <p>52.5 miles PW Files</p> <p>9.25 tons PW Files</p> <p>City staff and Citizens</p> <p>Events coordinate by Julie Bellia</p> <p>- Adopt a Street 6/27/09</p>	<p>PW Operations</p> <p>PW Operations</p> <p>PW Operations</p>	<p>City staff and Citizens</p> <p>City staff and Citizens</p>	<p>City staff and Citizens</p> <p>City staff and Citizens</p>	<p>See attached Appendix C</p>

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					- Great American Cleanup 4/18/09 - International Coastal Cleanup 9/19/09
	Report on the annual street sweeping activities, including the frequency of the sweeping, total miles swept and an estimate of the quantity of sweepings collected, in each Annual Report. <b>Street Sweeping Program: Frequency of street sweeping</b>	DEP Note: Please provide an explanation in Column F for any "0" reported in Column C. Also, the permittee may choose its own unit of measurement for the amount of sweeping material collected. Unit options include: cubic yards, pounds, tons.			
	<b>Street Sweeping Program: Estimated amount of material collected (tons)</b> <b>Street Sweeping Program: Total miles swept (per year)</b>	Bi-Annual 38 tons 42 miles	PW Files PW Files PW Files	PW Operations PW Operations PW Operations	
	Maintain documentation of the inspections of equipment yards and maintenance shops that demonstrates the stormwater concerns reviewed and the appropriate control measures and procedures implemented or needing to be implemented, and report on the status and findings of the program, including the number of applicable facilities and the number and frequency of the inspections conducted, in each Annual Report. <b>Applicable equipment yards and maintenance shops that support road maintenance activities</b>	DEP Note: If "0" is reported in Column C for the number of inspections conducted and the permittee has one or more applicable facilities, please provide an explanation in Column F for why no inspections were conducted.	S:\Engineering\NPDES\NPDES 2009 Inspections\City Facility Inspection S:\Engineering\NPDES\NPDES 2009 Inspections\City Facility Inspection S:\Engineering\NPDES\Facilities Inspection\NPDES Overal Inspection Schedule Database.xls	PZE Inspectors & Stormwater Manager PZE Stormwater Manager and Inspections Staff	1. PW Yard 2. Fleet Maintenance Yard 3. Utilities Yard See Appendix E Summary These are City owned and maintained facilities. Two inspections per facility, one initially and one to follow up to check that maintenance is
	<b>Number of site inspections for stormwater runoff concerns and applicable stormwater BMPs</b>	3 6			

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Part III.A.4	<p><b>Flood Control Projects</b></p> <p>Maintain a list of capital improvement projects proposed by the Stormwater Management Master Plan or Basin Management Planning studies (or similar document). Include in the project list any retrofits of existing structural flood control devices to provide additional pollutant removal from stormwater, and report on the status of the projects, including a description of the stormwater quality improvements and/or protection measures for each project, in each Annual Report.</p> <p><b>Flood control projects proposed as of the last day of the reporting period</b></p>	10	Flood Control Projects Summary (See Appendix D)	Stormwater Manager - Elizabeth Wong	See Appendix D
	<p><b>Flood control projects active as of the last day of the reporting period</b></p>	6	Flood Control Projects Summary (See Appendix D)	Infrastructure Manager -- Marcello Ranalli	Appendix D Projects # 1, 2, 7, 8,9,10 are all active as of 12/31/09
	<p><b>Flood control projects completed during reporting period</b></p>	4	S:\NPDES files Infrastructure Manager Files	Stormwater Manager - Elizabeth Wong	Appendix D Projects # 3 through 6 were completed as of 12/31/09
	<p><b>Attach a brief description of the stormwater quality improvements and/or protection measures for each project</b></p>				See Appendix D
Part III.A.5	Municipal Waste Treatment, Storage, and Disposal Facilities		Not Covered by an NPDES Stormwater Permit		

*DEP Note: The status of the flood control projects should be reported as of the last day of the applicable reporting period. Therefore, there should be no duplication for those reported as proposed, active and completed. In addition, please provide the title of the attached description of the projects in Column D and the name of the entity who finalized the description in Column E. If the description is not attached as required, please provide an explanation for the omission in Column F.*

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	<p>Maintain documentation of the inspections of applicable municipal waste treatment, storage and disposal facilities. The documentation should demonstrate the stormwater concerns reviewed and the appropriate pollution control measures and procedures implemented or needing to be implemented, and report on the status and findings of the program, including the number of applicable facilities and the number and frequency of the inspections conducted, in each Annual Report.</p> <p><b>Applicable municipal waste treatment, storage and disposal facilities</b></p>	<p>3</p>	<p>S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls</p>	<p>PZE Stormwater Manager and Inspections Staff</p>	<p>1. PW Yard 2. Fleet Maintenance Yard 3. Utilities Yard These are City owned and maintained facilities. See Appendix E Summary</p>
<p>Part III.A.6</p>	<p><b>Number of site inspections for stormwater runoff concerns and applicable stormwater BMPs</b></p>	<p>6</p>	<p>S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls</p>	<p>PZE Stormwater Manager and Inspections Staff</p>	<p>These are City owned and maintained facilities. Two inspections per facility, one initially and one to follow up to check that maintenance is completed. See Appendix E Summary</p>
<p>Pesticides, Herbicides, and Fertilizer Application</p> <p>Report the number of permittee personnel and contractors certified/licensed to apply pesticides or herbicides on permittee owned property in each Annual Report.</p> <p>Florida Department of Agriculture and Consumer Services (DACS) certified applicators (personnel) DACS certified/licensed applicators (contractors)</p> <p>Continue to implement a public education program to</p>					
<p>DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.</p>					
<p>3</p>		<p>Public Works Files</p>			
<p>3</p>		<p>Public Works Files</p>			
<p>DEP Note: The permittee should "customize" the list of public outreach activities by removing or</p>					

**SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE**

A. Permit Citation/SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation/Record	E. Entity Performing the Activity	F. Comments
	encourage citizens to reduce their use of pesticides, herbicides, and fertilizers. Report on the public education activities that are performed or sponsored by the permittee within the permittee's jurisdiction, including the type and number of outreach activities conducted and the type and amount of materials distributed, in each Annual Report. <b>Brochures/Flyers/Fact sheets distributed</b>	1479	S:\Engineering\NPDES\Brochures\Brochures and Public Dissemination Tracking and Outreach.xls	PZE Staff	See Appendix E
	<b>Neighborhood presentations: Number conducted</b>	3	S:\Engineering\NPDES\Brochures\Brochures and Public Dissemination Tracking and Outreach.xls	Stormwater Manager and Grants Writer and Planner	See Appendix E
	<b>Neighborhood presentations: Number of participants</b>	80	S:\Engineering\NPDES\Brochures\Brochures and Public Dissemination Tracking and Outreach.xls	Public Attended	See Appendix E
	<b>Newspapers &amp; newsletters: Number of articles/notices published</b>	8	S:\Engineering\NPDES\Brochures\Brochures and Public Dissemination Tracking and Outreach.xls	Stormwater Manager & Grants Writer	See Appendix E
	<b>Newsletters: Number of newsletters distributed</b>	33,825	S:\Engineering\NPDES\Brochures\Brochures and Public Dissemination Tracking and Outreach.xls	City HR dept sends E-mail, Websites and North Port Magazine	See Appendix E
	<b>Public displays (e.g., kiosks, storyboards, posters, etc.)</b>	15	S:\Engineering\NPDES\Brochures\Brochures and Public Dissemination Tracking and Outreach.xls	PZE Staff	See Appendix E
	<b>Radio or television Public Service Announcements (PSAs)</b>	0			None performed in reporting year
	<b>School presentations: Number conducted</b>	1	S:\Engineering\NPDES\Brochures\Brochures and Public Dissemination Tracking and Outreach.xls	PZE Staff	Woodland Elementary School. See Appendix E
	<b>School presentations: Number of participants</b>	200	S:\Engineering\NPDES\Brochures\Brochures and Public Dissemination Tracking and Outreach.xls	PZE Staff	See Appendix E
	<b>Seminars/Workshops: Number conducted</b>	3	S:\Engineering\NPDES\Brochures\Brochures and Public Dissemination Tracking and Outreach.xls	Stormwater Manager	See Appendix E
	<b>Seminars/Workshops: Number of participants</b>	170	S:\Engineering\NPDES\Brochures\Brochures and Public Dissemination Tracking and Outreach.xls	Public attended	See Appendix E
	<b>Special events: Number conducted</b>	10	S:\Engineering\NPDES\Brochures\Brochures and Public Dissemination Tracking and Outreach.xls	PZE Staff	See Appendix E

*adding to the list below as appropriate to their particular public outreach program. The permittee may add more specifics to the reporting items, such as the name of the brochure or newsletter distributed.*

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A. Permit Citation/SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation/ Record	E. Entity Performing the Activity	F. Comments
	<p>Special events: Number of participants</p> <p>Web Site: Number of stormwater-related pages</p>	<p>16942</p> <p>4</p>	<p>Outreach.xls</p> <p>S:\Engineering\NPDES\Brochures\Brochures Dissemination Tracking and Public Outreach.xls</p> <p>See City Website</p>	<p>Public attended</p> <p>Stormwater Mgr</p>	<p>See Appendix E</p> <p>1. Planning Zoning Engineering main page.</p> <p>2. Stormwater Management</p> <p>3. FEMA Floodmap Updates</p> <p>4. Fertilizer Ordinance Information</p>
	<p>Web Site: Number of visitors to the stormwater-related pages</p>	<p>9278</p>	<p>E-mail dated 5/19/10 from I &amp; T specialist George Goodfellow in NPDES backup folder</p>	<p>I &amp; T specialist George Goodfellow</p>	<p>DEP Note: If "0" is reported in Column C for any of these reporting items, please include in Column F an explanation for why training was not provided to/obtained by personnel during the applicable reporting year and the most recent year that training was previously provided/obtained. In addition, please note that "non-certification" training refers to any classes, on-the-job training, or other informal training that does not count toward an applicator's DACS certification.</p>
	<p>Continue to conduct annual seminars, training sessions, and/or on-the-job supervision for municipal applicators to emphasize the stormwater implications of pesticide and herbicide application. Report on the training activities, including the number of municipal applicators trained (both in-house and outside training), in each Annual Report.</p> <p><b>Non-certification seminars/training sessions provided</b></p> <p><b>Personnel trained(in-house and outside non-certification training)</b></p> <p>Continue implementation of standardized procedures to minimize the municipal use of pesticides, herbicides, and fertilizers and to properly apply, store, and mix these products.</p>	<p>5</p> <p>18</p> <p>3 additional staff were trained in 2009</p>	<p>Public Works Files</p> <p>Public Works Files</p> <p>S:\Engineering\NPDES\NPDES Year 2, 1-1-09 to 12-31-09\NorthPortCert per e-mail from Lori Ann Javis 5-24-10.xls</p>	<p>Public Works</p> <p>Public Works</p> <p>UF IFAS Training on BMPs Florida Green Industries</p>	<p>Total of 24 City Staff has received Fertilizer BMP training as of 2009. See Appendix E.</p>
<p>Part III.A.7.a</p>	<p>Illicit Discharges and Improper Disposal — Inspections, Ordinances, and Enforcement Measures</p> <p>Where applicable, strengthen the legal authority to control</p>	<p>See City illicit</p>	<p>City Website</p>	<p>Stormwater</p>	<p>See City's Fertilizer Ordinance 2007-45 effective 12/14/07 on City Website</p>

**SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE**

A. Permit Citation/SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation/ Record	E. Entity Performing the Activity	F. Comments
	<p>illicit discharges, illicit connections, illegal dumping and spills into the MS4 and to require compliance with conditions in ordinances, permits, contracts, and orders. <b>Report any amendments to the applicable legal authority, as needed</b></p>	<p>Discharge Ordinance 05-47</p>		<p>Manager</p>	<p>No amendments</p>
<p>Part III.A.7.c</p>	<p><b>Illicit Discharges and Improper Disposal — Investigation of Suspected Illicit Discharges and/or Improper Disposal</b>                      Continue to implement the procedures for proactive inspections to identify and eliminate the source(s) of illicit discharges, illicit connections or dumping to the MS4.                      Report on the proactive inspection program, including the number of inspections conducted, the number of illicit activities found, and the number and type of enforcement actions taken, in each Annual Report.  <b>Proactive inspections for suspected illicit discharges/ connections/ dumping</b></p> <p><b>Illicit discharges/ connections/ dumping found during a proactive inspection</b></p> <p><b>Notices of Violation (NOVs) issued for illicit discharges/ connections/ dumping found during a proactive inspection</b></p> <p><b>Fines issued for illicit discharges/ connections/ dumping found during a proactive inspection</b></p>	<p>20</p> <p>2</p> <p>0</p> <p>0</p>	<p>S:\Engineering\NPDES\Facilities Inspection\NPDES Overall Inspection Schedule Database.xls</p> <p>S:\Engineering\NPDES\NPDES 2009 Inspections\2009 Commercial Site Inspections</p>	<p>PZE Inspectors &amp; Stormwater Manager</p> <p>PZE Inspectors &amp; Stormwater Manager</p> <p>Building Code Compliance</p> <p>Building Code Compliance</p>	<p>See Appendix E Summary</p> <p>Don's Recycling and Toledo Blade Self Storage</p> <p>None issued</p> <p>None issued</p>
	<p>Report on the investigation program as it relates to reacting or responding to reports of suspected illicit discharges, including the number of reports received, the number of investigations conducted, the number of illicit activities found, and the number and type of enforcement actions taken, in each Annual Report.  <b>Number of reports of suspected illicit connections/ discharges/ dumping received</b></p> <p><b>Investigations of reports of suspected illicit discharges/ connections/ dumping</b></p> <p><b>Illicit discharges/ connections/ dumping found during a reactive investigation</b></p> <p><b>NOVs issued for illicit discharges/ connections/ dumping found during a reactive investigation</b></p> <p><b>Fines issued for illicit discharges/ connections/ dumping found during a reactive investigation</b></p>	<p>4</p> <p>4</p> <p>4</p> <p>0</p> <p>0</p>	<p>S:\Engineering\NPDES\NPDES Year 2, 1-1-09 to 12-31-09\NPDES Training and Proactive Illicit Discharge Inspection.xls</p> <p>S:\Engineering\NPDES\NPDES Year 2, 1-1-09 to 12-31-09\NPDES Training and Proactive Illicit Discharge Inspection.xls</p> <p>S:\Engineering\NPDES\NPDES Year 2, 1-1-09 to 12-31-09\NPDES Training and Proactive Illicit Discharge Inspection.xls</p>	<p>PZE Inspectors &amp; Stormwater Manager</p> <p>PZE Inspectors &amp; Stormwater Manager</p> <p>PZE Inspectors &amp; Stormwater Manager</p> <p>Building Code Compliance</p> <p>Building Code Compliance</p>	<p>See Appendix E Summary</p> <p>See Appendix E Summary</p> <p>See Appendix E Summary</p> <p>Issues were resolved</p> <p>Issues were resolved</p>



**SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE**

A. Permit Citation/SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation/ Record	E. Entity Performing the Activity	F. Comments
	<p>Report on the training activities, including the number of permittee personnel trained (both in-house and outside training), and the number of contractors trained by the permittee, in each Annual Report.</p> <p><b>Illicit Discharge Training: Personnel trained</b></p>	13	S:\Engineering\NPDES\NPDES Year 2, 1-1-09 to 12-31-09\NPDES Training and Proactive Illicit Discharge Inspection.xls	<p>1. USEPA Stormwater Program Webcast Series IDDE 301</p> <p>2. UF IFAS Training on BMPS Florida Green Industries</p> <p>3. Stormwater Manager</p>	See Appendix E Summary
Part III.A.7.d	<p><b>Illicit Discharge Training: Contractors trained</b></p>	0			Contractors not trained to perform IDDE inspection. This activity is performed solely by PZE Inspectors & Stormwater Manager
	<p><b>Illicit Discharges and Improper Disposal — Spill Prevention and Response</b></p> <p>Report on the spill prevention and response activities, including the number of spills addressed that had the potential to enter the MS4, in each Annual Report.</p> <p><b>Hazardous and non-hazardous material spills responded to</b></p>	3	Fire and Rescue Report in NPDES Backup Binder	North Port Fire Dept and Sarasota County	No spills reached the City's stormwater system
	<p>Report on the training activities completed, including the number of personnel trained (both in-house and outside training) and the number of contractors trained by the permittee, in each Annual Report.</p> <p><b>Spill Prevention and Response Training: Personnel trained</b></p>	84	Fire Rescue and personnel records	North Port Fire Dept, Sarasota County and Venice	81 Firefighters, 2 chiefs and Training/Safety Captain trained

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	Spill Prevention and Response Training: Contractors trained	0			Contractors not used. This activity is performed by North Port Fire Dept, Sarasota County and Venice
Part III.A.7.e	<p>Illicit Discharges and Improper Disposal — Public Reporting</p> <p>Continue to promote, publicize, and facilitate public reporting of the presence of illicit discharges and improper disposal of materials into the MS4. Report on the public outreach activities that are performed or sponsored by the permittee within the permittee's jurisdiction, including the number of outreach activities conducted and the amount of materials distributed, in each Annual Report.</p> <p>Brochures/Flyers/Fact sheets distributed</p> <p>Neighborhood presentations: Number conducted</p> <p>Neighborhood presentations: Number of participants</p> <p>Newspapers &amp; newsletters: Number of articles/notices published</p> <p>Newsletters: Number of newsletters distributed</p> <p>Public displays (e.g., kiosks, storyboards, posters, etc.)</p> <p>Radio or television Public Service Announcements (PSAs)</p> <p>School presentations: Number conducted</p> <p>School presentations: Number of participants</p> <p>Seminars/Workshops: Number conducted</p> <p>Seminars/Workshops: Number of participants</p> <p>Special events: Number conducted</p> <p>Special events: Number of participants</p>	<p>1000</p> <p>1</p> <p>25</p> <p>0</p> <p>0</p> <p>2 Solid Waste Brochures</p> <p>4</p> <p>1420</p> <p>4</p> <p>641</p> <p>8</p> <p>14332</p>	<p>Same Brochure as in 2008 NPDES Backup Binder</p> <p>Solid Waste Manager's files</p> <p>Solid Waste Manager's files</p> <p>Solid Waste Manager's files</p> <p>Kiosks at City hall and Library</p> <p>Solid Waste Manager's files</p> <p>Solid Waste Manager's files</p> <p>Solid Waste Manager's files</p> <p>Solid Waste Manager's files</p> <p>Solid Waste Manager's files</p> <p>Solid Waste Manager's files</p>	<p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p>	<p>See Appendix E summary</p> <p>See Appendix E summary</p> <p>See Appendix E summary</p> <p>None were published in reporting year</p> <p>None were distributed in reporting year</p> <p>None performed in reporting year</p> <p>See Appendix E summary</p> <p>See Appendix E summary</p> <p>See Appendix E summary</p> <p>See Appendix E summary</p> <p>See Appendix E summary</p> <p>See Appendix E summary</p> <p>See Appendix E summary</p> <p>See Appendix E summary</p>

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A. Permit Citation/SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation/Record	E. Entity Performing the Activity	F. Comments
	Web Site: Number of stormwater-related pages	4	See City Website	Stormwater Mgr	summary 1. Planning Zoning Engineering main page. 2. Stormwater Management 3. FEMA Floodmap Updates 4. Fertilizer Ordinance Information
	Web Site: Number of visitors to the stormwater-related pages	9278	E-mail dated 5/19/10 from I & T specialist George Goodfellow in NPDES backup folder	I & T specialist George Goodfellow	
Part III.A.7.f	<p>Illicit Discharges and Improper Disposal — Oils, Toxics, and Household Hazardous Waste Control</p> <p>Continue implementation of the outreach program to instruct the public on responsible environmental management and the proper disposal of used motor vehicle fluids, leftover hazardous household products, and lead acid batteries. Report on the public outreach activities that are performed or sponsored by the permittee within the permittee's jurisdiction, including the number of outreach activities conducted, the amount of outreach materials distributed and the amount of waste collected/recycled/properly disposed, in each Annual Report.</p> <p>Brochures/Flyers/Fact sheets distributed</p> <p>Curbside Used Oil &amp; Filter Collection Program events</p> <p>Household Hazardous Waste (HHW) Collection Day events</p> <p>HHW Collection Day/Curbside Program/Retail Battery Program/Project Green Sweep: Amount of waste collected/recycled (tons)</p> <p>Neighborhood presentations</p> <p>Newspaper articles published</p> <p>Project Green Sweep events</p>	<p>1000</p> <p>Picked up weekly at curbside</p> <p>1</p> <p>61 tons recycled</p> <p>1</p> <p>0</p> <p>0</p>	<p>Brochure in 2008 NPDES Backup Binder</p> <p>Solid Waste Manager's files</p> <p>Solid Waste Manager's files</p> <p>Solid Waste Manager's files</p> <p>Solid Waste Manager's files</p>	<p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p> <p>Solid Waste Mgr</p>	<p>DEP Note: The permittee should "customize" the list of public outreach activities by removing or adding to the list below as appropriate to their particular public outreach program. The permittee may add more specifics to the reporting items, such as the name of the brochure or newsletter distributed.</p> <p>See Appendix E summary</p> <p>See Appendix E summary</p> <p>None were published in reporting year</p> <p>Not conducted</p>

**SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE**

A. Permit Citation/SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation/Record	E. Entity Performing the Activity	F. Comments
	Public displays (e.g., kiosks, storyboards, posters, etc.)	2 Solid Waste Brochures	Kiosks at City hall and Library	Solid Waste Mgr	
	Radio or television Public Service Announcements (PSAs)	0			None performed in reporting year
	Retail Battery Collection Program events	Picked up weekly at curbside		Solid Waste Mgr	
	School presentations: Number conducted	4	Solid Waste Manager's files	Solid Waste Mgr	See Appendix E Summary
	School presentations: Number of participants	1420	Solid Waste Manager's files	Solid Waste Mgr	See Appendix E Summary
	Seminars/Workshops: Number conducted	4	Solid Waste Manager's files	Solid Waste Mgr	See Appendix E Summary
	Seminars/Workshops: Number of participants	641	Solid Waste Manager's files	Solid Waste Mgr	See Appendix E Summary
	Special events: Number conducted	8	Solid Waste Manager's files	Solid Waste Mgr	See Appendix E Summary
	Special events: Number of participants	14332	Solid Waste Manager's files	Solid Waste Mgr	See Appendix E Summary
	Storm sewer inlets newly marked/replaced	0			None performed in reporting year
	Web Site: Number of stormwater-related pages	4	See City Website	Stormwater Mgr	1. Planning Zoning Engineering main page. 2. Stormwater Management 3. FEMA Floodmap Updates 4. Fertilizer Ordinance Information
	Web Site: Number of visitors to the stormwater-related pages	9278	E-mail dated 5/19/10 from I & T specialist George Goodfellow in NPDES backup folder	I & T specialist George Goodfellow	
Part III.A.7.g	Illicit Discharges and Improper Disposal — Limitation of Sanitary Sewer Seepage				
	Report on the activities to reduce or eliminate Sanitary Sewer Overflows (SSOs) and seepage, such as the number of incidents of each discovered and resolved, in each Annual Report.				<i>DEP Note: The permittee should contact the appropriate authorities for accurate reporting information, such as the sanitary sewer system operator and the local health department that is responsible for permitting/overseeing septic tank systems.</i>
	SSO incidents discovered and resolved	6	Sewer spill report to FDEP SPCPD	Utilities	None performed
	Inflow/Infiltration incidents discovered and resolved	0		Utilities	None performed

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Part III.A.8.a	Industrial and High-Risk Runoff — Identification of Priorities and Procedures for Inspections Report on the inventory, including the total number of high risk facilities and the number of facilities newly added each year, in each Annual Report.	0	EPA Website	Stormwater Mgr	The only facility in the EPA Toxic Release Inventory is Marble Works. However, with the downturn in economy, this facility has closed down.
	Total number of high risk facilities	0			None added that the Stormwater Manager is aware of.
	New high risk facilities added to the inventory during the current reporting period	0			
	Report on the inspection program, including the number of inspections conducted and the number of enforcement actions taken, in each Annual Report.	0			DEP Note: If "0" is reported in Column C for the number of inspections conducted and the permittee has one or more high risk facilities, please provide an explanation in Column F for why no inspections were conducted. In addition, the permittee can re-word the "NOVs issued" reporting item to better reflect its particular initial enforcement activity.
	High risk facility site inspections for stormwater runoff concerns	0			No high risk facilities
	NOVs issued for violations discovered during a high risk site inspection	0			No high risk facilities
	Fines issued for violations discovered during a high risk site inspection	0			No high risk facilities
Part III.A.8.b	Industrial and High-Risk Runoff — Monitoring for High Risk Industries Monitoring may be required on an as-needed basis in the event that inspections of high-risk facilities disclose suspected illicit discharges to the MS4. New high-risk industrial facilities as defined in 40 CFR 122.26(d)(2)(iv)(C) must be evaluated to determine if the new discharge is contributing a substantial pollutant load to the MS4. The evaluation may include site-specific monitoring.				
Part III.A.9.a	Construction Site Runoff — Site Planning and Non-Structural and Structural Best Management Practices Report the number of pre-construction site plans reviewed in each Annual Report.	0		Stormwater Mgr	No high risk facilities

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	<p>Construction site plan/permit application reviews for proper erosion and sedimentation BMPs (private sites)</p> <p>Construction site plan/permit application reviews for proper erosion and sedimentation BMPs (permittee sites)</p> <p>Report the number of building permit applicants notified to obtain all required stormwater permits in each Annual Report.</p>	<p>21</p>	<p>Naviline Database and NPDES Backup Binder</p>	<p>Stormwater Mgr</p>	<p>See Appendix E Summary</p>
	<p>Land disturbance and building permit applicants notified of ERP and NPDES stormwater permit requirements</p> <p>Report the number of permittee construction sites for which a Notice of Intent (NOI) was submitted in each Annual Report.</p> <p>Number of permittee construction sites requiring an NOI</p>	<p>12</p>	<p>Naviline Database and NPDES Backup Binder</p>	<p>Stormwater Mgr</p>	<p>See Appendix E Summary</p>
	<p>Construction Site Runoff — Inspection and Enforcement</p> <p>Report on the inspection program, including the number of construction site inspections conducted and the number and type of enforcement actions taken, in each Annual Report.</p> <p>Construction site inspections for proper erosion and sedimentation BMPs (private sites)</p> <p>Construction site inspections for proper erosion and sedimentation BMPs (permittee sites)</p> <p>NOVs/ written warnings/citations issued</p> <p>Stop Work Orders issued</p> <p>Fines issued</p>	<p>14</p>	<p>Naviline Database and NPDES Backup Binder</p>	<p>Stormwater Mgr and Chief Inspector</p>	<p>See Appendix E Summary</p>
<p>Part III.A.9.b</p>	<p>Construction Site Runoff — Inspection and Enforcement</p> <p>Report on the inspection program, including the number of construction site inspections conducted and the number and type of enforcement actions taken, in each Annual Report.</p> <p>Construction site inspections for proper erosion and sedimentation BMPs (private sites)</p> <p>Construction site inspections for proper erosion and sedimentation BMPs (permittee sites)</p> <p>NOVs/ written warnings/citations issued</p> <p>Stop Work Orders issued</p> <p>Fines issued</p>	<p>DEP Note: Please provide an explanation in Column F for any "0" reported in Column C. If the land disturbance and building permits are administered by different departments (and thereby the notifications are performed by two departments), the permittee may separate the reporting of these two activities into separate lines.</p> <p>13</p>	<p>DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.</p> <p>PZE Inspector Files</p>	<p>PZE Inspectors</p>	<p>This NOI requirement is always requested at the preconstruction meeting held on every new project.</p>
<p>Part III.A.9.c</p>	<p>Construction Site Runoff — Site Operator Training</p> <p>Report on the training activities, including the number of inspectors, site plan reviewers and site operators trained</p>	<p>67</p>	<p>PZE Inspector Files</p>	<p>PZE Inspectors</p>	<p>None issued</p>
		<p>28</p>	<p>PZE Inspector Files</p>	<p>PZE Inspectors</p>	<p>None issued</p>
		<p>0</p>	<p>HTE System</p>	<p>Building Dept - Code Compliance</p>	<p>None issued</p>
		<p>0</p>	<p>HTE System</p>	<p>Building Dept - Code Compliance</p>	<p>None issued</p>
		<p>\$0</p>	<p>HTE System</p>	<p>Building Dept - Code Compliance</p>	<p>None issued</p>
<p>DEP Form 62-624.600(2), Effective January 28, 2004</p>	<p>DEP Note: "0" is reported in Column C for any of these reporting items, please include in Column F an explanation of why training was not provided to/obtained by the permittee's staff and private</p>				<p>Page 21 of 22</p>

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	(both in-house and outside training), and the number of private persons trained by the permittee, in each Annual Report.	14	On site training 5/19/09, 8/14/09 and 11/10/09 By Elizabeth Wong and NPDES backup binder	Stormwater Manager Elizabeth Wong	See Appendix E Summary
	Permittee construction site inspectors trained/certified	0			PZE Inspectors already trained in previous years
	Permittee construction site plan reviewers trained/certified	0			The City does not train Permittee construction site operators.
	Permittee construction site operators trained/certified	0			The City does not train Private persons.

**SECTION VIII. CHANGES TO THE STORMWATER MANAGEMENT PROGRAM (SWMP) ACTIVITIES (Not Applicable In Year 4)**

A.	Permit Citation/SWMP Element	Proposed Changes to the Stormwater Management Program Activities Established as Specific Requirements Under Part III.A of the Permit (Including the Rationale for the Change) — REQUIRES DEP APPROVAL PRIOR TO CHANGE IF PROPOSING TO REPLACE OR DELETE AN ACTIVITY.
B.	Permit Citation/SWMP Element	Changes to the Stormwater Management Program Activities NOT Established as Specific Requirements Under Part III.A of the Permit (Including the Rationale for the Change)

# APPENDIX A

## WATER QUALITY DATA

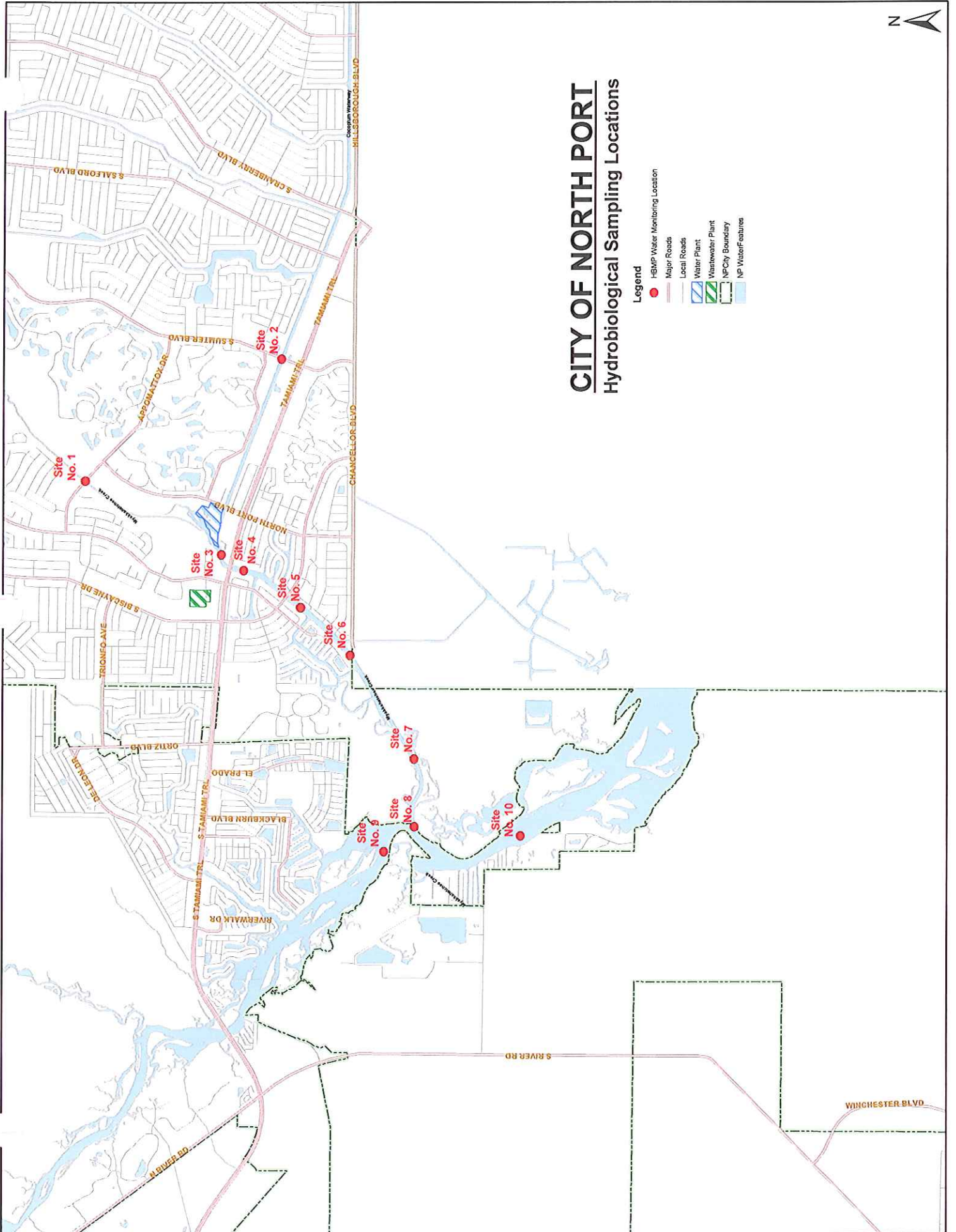




# CITY OF NORTH PORT

## Hydrobiological Sampling Locations

- Legend**
- HBMP Water Monitoring Location
  - Major Roads
  - Local Roads
  - Water Plant
  - Wastewater Plant
  - NP City Boundary
  - NP Water Features



### Hydrobiological Data - Current Year Avg of All Sites Reporting Period (Jan 2009 to December 2009)

Date	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Arith. Average of All Sites
Nitrate, Nitrite as N (mg/L)	0.064	0.008		0.021		0.018	0.019				0.026
Ammonia as N (mg/L)	0.052	0.032		0.046		0.034	0.020				0.037
Total Kjeldahl Nitrogen as N (mg/L)	0.93	0.87		0.99		1.01	0.97				0.95
Ortho Phosphorus as P (mg/L)	0.19	0.05		0.14		0.15	0.16				0.14
Total Phosphorus as P (mg/L)	0.24	0.09		0.22		0.23	0.24				0.20
Total Suspended Solids (mg/L)	2	3		6		6	6				5
Turbidity (NTU)	3.2	2.3		4.2		3.2	3.3				3.2
Color Apparent (PCU)	125	72		106		115	123				108
Color pH SU	7.45	7.83		7.64		7.70	7.69				7.66
Chlorophyll a - Pheo Corrected (ug/L)	3.96	13.07		14.99		15.88	12.45				12.07
Specific Conductance (mmhos/cm)	0.9	1.0		12.7		14.6	15.5				8.9
Salinity - Lab (PSU)	0.4	0.5		7.6		7.5	9.4				5.1
Overall Depth (meters)			1.5	1.2	1.8	2.6	3.1	4.2	3.2	1.9	2.5
Depth of Measurement (meters)			1	1	1	1	1	1	1	1	1
Field Salinity (PSU)			10.3	10.4	10.7	10.4	11.0	11.7	11.2	12.7	11.0
Field Specific Conductance (mmhos/cm)			16.82	16.97	17.45	16.99	17.90	19.03	18.25	20.63	18.01
Field Temperature (°C)			26.3	26.2	25.8	25.5	25.4	25.3	25.4	25.3	25.7
Field pH (SU)			7.3	7.3	7.3	7.3	7.4	7.3	7.3	7.3	7.3
Field Dissolved Oxygen (mg/L)			4.1	4.1	4.7	5.2	5.3	5.2	5.3	5.3	4.9
Percent Saturation of D.O. (%)			53	53	61	67	69	68	68	70	64
Secchi Depth (meters)			1.27	1.06	1.12	1.15	1.16	1.05	1.05	1.05	1.11

### Hydrobiological Data - Previous Year Avg of All Sites Reporting Period (April 2007 to December 2008)

Date	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Average of All Sites
Nitrate, Nitrite as N (mg/L)	0.074	0.007		0.033		0.025	0.018				0.031
Ammonia as N (mg/L)	0.048	0.021		0.032		0.021	0.017				0.028
Total Kjeldahl Nitrogen as N (mg/L)	0.91	0.83		1.01		1.00	1.01				0.95
Ortho Phosphorus as P (mg/L)	0.22	0.04		0.18		0.18	0.18				0.16
Total Phosphorus as P (mg/L)	0.26	0.08		0.25		0.26	0.27				0.22
Total Suspended Solids (mg/L)	3	4		5		5	6				5
Turbidity (NTU)	3.6	3.1		4.1		3.8	3.7				3.7
Color Apparent (PCU)	111	53		100		104	105				95
Color pH SU	7.44	7.92		7.71		7.79	7.78				7.73
Chlorophyll a - Pheo Corrected (ug/L)	4.81	13.34		13.66		15.55	15.77				12.63
Specific Conductance (mmhos/cm)	0.8	1.0		9.3		12.6	14.6				7.7
Salinity - Lab (PSU)	0.3	0.4		5.4		7.4	8.7				4.5
Overall Depth (meters)			1.6	1.4	1.8	2.6	3.1	5.0	3.2	2.0	2.6
Depth of Measurement (meters)			1	1	1	1	1	1	1	1	1
Field Salinity (PSU)			9.8	10.1	10.4	10.2	10.9	11.7	11.4	13.1	11.0
Field Specific Conductance (mmhos/cm)			16.19	16.63	17.26	16.87	18.07	19.26	18.80	21.37	18.06
Field Temperature (°C)			26.2	26.1	26.0	25.6	25.5	25.3	25.4	25.3	25.7
Field pH (SU)			7.2	7.2	7.3	7.4	7.4	7.3	7.3	7.4	7.3
Field Dissolved Oxygen (mg/L)			4.1	3.9	4.9	5.3	5.4	5.3	5.3	5.4	5.0
Percent Saturation of D.O. (%)			53	50	64	69	69	69	69	71	64
Secchi Depth (meters)			0.92	0.88	0.96	0.93	0.95	0.90	0.93	0.98	0.93

## Hydrobiological Data - Comparison of Average of All Sites Between Current and Previous Reporting Years

Date	Previous Year Arith. Average (4/18/07 to 12/10/08)	Current Year Arith Average (1/1/09 to 12/31/09)	Difference
Nitrate, Nitrite as N (mg/L)	0.031	0.026	-0.006
Ammonia as N (mg/L)	0.028	0.037	0.009
Total Kjeldahl Nitrogen as N (mg/L)	0.95	0.95	0.001
Ortho Phosphorus as P (mg/L)	0.16	0.14	-0.021
Total Phosphorus as P (mg/L)	0.22	0.20	-0.019
Total Suspended Solids (mg/L)	5	5	-0.050
Turbidity (NTU)	3.7	3.2	-0.445
Color Apparent (PCU)	95	108	14
Color pH SU	7.73	7.66	-0.07
Chlorophyll a - Pheo Corrected (ug/L)	12.63	12.07	-0.56
Specific Conductance (mmhos)/cm	7.7	8.9	1.3
Salinity - Lab (PSU)	4.5	5.1	0.6
Overall Depth (meters)	2.6	2.5	-0.1
Depth of Measurement (meters)	1	1	0.0
Field Salinity (PSU)	10.95	11.05	0.09
Field Specific Conductance (mmhos)/cm	18.06	18.01	-0.05
Field Temperature (°C)	25.7	25.7	0.0
Field pH (SU)	7.3	7.3	0.0
Field Dissolved Oxygen (mg/L)	5.0	4.9	-0.1
Percent Saturation of D.O. (%)	64.4	63.7	-0.7
Secchi Depth (meters)	0.93	1.11	0.19

### Hydrobiological Data - Site 1 Myk Creek at Appomattox

Date	1/15/09	2/11/09	3/11/09	4/9/09	5/6/09	6/10/09	7/8/09	8/5/09	9/3/09	10/14/09	11/4/09	12/2/09	2009 Max	2009 Min	2009 Arth. Avg.	2009 Geom Mean
Nitrate, Nitrite as N (mg/L)	0.042	0.020	0.026	0.047	0.021	0.037	0.088	0.046	0.017	0.181	0.124	0.121	0.181	0.017	0.064	0.048
Ammonia as N (mg/L)	0.051	0.020	0.061	0.047	0.032	0.049	0.040	0.037	0.078	0.105	0.052	0.048	0.105	0.020	0.052	0.048
Total Kjeldahl Nitrogen as N (mg/L)	0.64	0.40	0.73	0.87	0.74	0.85	1.22	1.01	1.61	1.32	0.97	0.83	1.61	0.40	0.93	0.88
Ortho Phosphorus as P (mg/L)	0.071	0.098	0.073	0.192	0.221	0.116	0.227	0.174	0.448	0.303	0.172	0.145	0.448	0.071	0.187	0.162
Total Phosphorus as P (mg/L)	0.111	0.181	0.091	0.22	0.27	0.171	0.27	0.20	0.53	0.35	0.23	0.21	0.53	0.09	0.24	0.21
Total Suspended Solids (mg/L)	U 2	U 2	3.1	U 2	U 2	U 2	U 2	U 2	5.1	2.1	3.1	U 2	5	2	2	2
Turbidity (NTU)	2.3	2.6	3.1	3.0	1.6	2.3	2.0	2.7	4.0	4.1	5.8	5.1	5.8	1.6	3.2	3.0
Color Apparent (PCU)	48	44	50	50	47	90	150	200	360	250	130	80	360	44	125	96
Color pH SU	7.4	7.46	7.62	7.67	7.80	7.44	7.23	7.28	6.92	7.29	7.61	7.62	7.80	6.92	7.45	7.44
Chlorophyll a - Pheo Corrected (ug/L)	3.16	0.84	2.35	2.26	2.81	3.48	3.64	4.03	4.77	1.48	16.45	2.21	16.45	0.84	3.96	2.99
Specific Conductance (mmhos/cm)	1.03	1.2	1.3	1.21	1.09	0.824	0.847	0.481	0.284	0.613	0.847	0.791	1.3	0.3	0.9	0.8
Salinity - Lab (PSU)	0.51	0.61	0.61	0.61	0.51	0.31	0.41	U 0.2	U 0.2	0.21	0.41	0.31	0.6	0.2	0.4	0.4
Overall Depth (meters)																
Depth of Measurement (meters)																
Field Salinity (PSU)																
Field Specific Conductance (mmhos/cm)																
Field Temperature (°C)																
Field pH (SU)																
Field Dissolved Oxygen (mg/L)																
Percent Saturation of D.O. (%)																
Secchi Depth (meters)																
	U = Less than Method Detection Limit															
	B = Secchi Depth greater than the bottom channel. For average and graphing purposes, the total depth is used instead.															
	I = Value is between the MDL and Practical Quantitation Limit (PQL)															

### Hydrobiological Data - Site 2 Cocoplum at Sumter

Date	1/15/09	2/11/09	3/11/09	4/9/09	5/6/09	6/10/09	7/8/09	8/5/09	9/3/09	10/14/09	11/4/09	12/2/09	2009 Max	2009 Min	2009 Arith. Avg.	2009 Geom Mean
Nitrate, Nitrite as N (mg/L)	0.007 I	U 0.005	U 0.005	U 0.005	U 0.005	U 0.005	U 0.005	U 0.005	0.036	U 0.005	U 0.005	U 0.005	0.036	0.005	0.008	0.006
Ammonia as N (mg/L)	0.041	0.007 U, I	U 0.005	U 0.005	U 0.005	U 0.005	U 0.005	0.047	0.178	0.064	0.013 I	U 0.005	0.178	0.005	0.032	0.013
Total Kjeldahl Nitrogen as N (mg/L)	0.74	0.62	0.72	0.81	0.76	0.87	0.95	0.78	1.21	1.12	0.89	0.94	1.21	0.62	0.87	0.85
Ortho Phosphorus as P (mg/L)	0.021	0.009 I	0.008 I	0.017 I	0.015 I	0.039	0.067	0.065	0.158	0.118	0.039	0.007 I	0.158	0.007	0.047	0.029
Total Phosphorus as P (mg/L)	0.06 I	U 0.05	U 0.05	U 0.05	U 0.05	0.09 I	0.11 I	0.10 I	0.22	0.20	0.09 I	U 0.05	0.22	0.05	0.09	0.08
Total Suspended Solids (mg/L)	5 I	2 U, I	3 I	2 U, I	U 2	4 I	3 I	U 2	4 I	3 I	3 I	2 U, I	4.5	1.65	3	3
Turbidity (NTU)	2.5	2.0	1.7	2.3	1.5	2.9	2.5	1.7	3.9	2.3	2.5	2.2	3.9	1.5	2.3	2.2
Color Apparent (PCU)	37	33	31.5	45	34.5	62.5	60	55	205	160	92.5	52.5	205	31.5	72	59
Color pH SU	7.82	7.96	8.04	8.08	8.01	7.77	7.84	7.68	7.43	7.56	7.81	7.95	8.08	7.43	7.83	7.82
Chlorophyll a - Pheo Corrected (ug/L)	7.18	8.43	5.19	6.33	4.32	17.34	22.77	15.09	15.31	19.49	17.59	17.87	22.77	4.32	13.07	11.39
Specific Conductance (mmhos)/cm	1.24	1.29	1.33	1.10	1.10	0.84	0.881	0.839	0.598	0.852	1.03	1.070	1.3	0.6	1.0	1.0
Salinity - Lab (PSU)	0.6 I	0.6 I	0.6 I	0.5 I	0.5 I	0.4 I	0.4 I	0.4 I	0.2 I	0.4 I	0.5 I	0.5 I	0.6	0.2	0.5	0.5
Overall Depth (meters)																
Depth of Measurement (meters)																
Field Salinity (PSU)																
Field Specific Conductance (mmhos)/cm																
Field Temperature (°C)																
Field pH (SU)																
Field Dissolved Oxygen (mg/L)																
Percent Saturation of D.O. (%)																
Secchi Depth (meters)																
	U = Less than Method Detection Limit															
	B = Secchi Depth greater than the bottom channel. For average and graphing purposes, the total depth is used instead.															
	I = Value is between the MDL and Practical Quantitation Limit (PQL)															

### Hydrobiological Data - Site 3 Myk Creek Downstream WTP

Date	1/15/09	2/11/09	3/11/09	4/9/09	5/6/09	6/10/09	7/8/09	8/5/09	9/3/09	10/14/09	11/4/09	12/2/09	2009 Max	2009 Min	2009 Arith. Avg.	2009 Geom Mean
Nitrate, Nitrite as N (mg/L)																
Ammonia as N (mg/L)																
Total Kjeldahl Nitrogen as N (mg/L)																
Ortho Phosphorus as P (mg/L)																
Total Phosphorus as P (mg/L)																
Total Suspended Solids (mg/L)																
Turbidity (NTU)																
Color Apparent (PCU)																
Color pH SU																
Chlorophyll a - Pheo Corrected (ug/L)																
Specific Conductance (mmhos)/cm																
Salinity - Lab (PSU)																
Overall Depth (meters)	1.2	1.4	1.4	1.4	1.7	1.8	1.8	1.4	1.9	1.0	1.3	1.4	1.9	1.0	1.5	1.5
Depth of Measurement (meters)	1	1	1	1	1	1	1	1	1	0.8	1	1	1.0	0.8	1.0	1.0
Field Salinity (PSU)	14.6	17.4	19.7	19.5	23.7	9.9	0.4	0.3	0.3	0.4	6.2	11.0	23.7	0.3	10.3	4.1
Field Specific Conductance (mmhos)/cm	24.13	28.26	31.63	31.31	37.39	16.92	0.82	0.58	0.56	0.81	10.96	18.48	37.39	0.56	16.82	7.18
Field Temperature (°C)	22.7	20.0	23.8	24.9	29.7	28.7	30.8	29.2	29.2	28.3	27.5	21.1	30.8	20.0	26.3	26.1
Field pH (SU)	7.1	7.4	7.1	7.1	7.4	7.1	7.6	7.4	7.2	7.4	7.1	7.2	7.6	7.1	7.3	7.3
Field Dissolved Oxygen (mg/L)	3.5	6.3	4.1	4.5	3.1	1.9	5.2	5.1	4.2	4.1	1.9	4.8	6.3	1.9	4.1	3.8
Percent Saturation of D.O. (%)	45	77	55	61	47	27	70	67	55	52	25	58	77	25	53	51
Secchi Depth (meters)	1.20 >B	1.33	1.40 >B	1.40 >B	1.70 >B	1.30	1.45	1.40 >B		1.00 >B	0.88	0.95	1.70	0.88	1.27	1.25
	U = Less than Method Detection Limit															
	B = Secchi Depth greater than the bottom channel. For average and graphing purposes, the total depth is used instead.															
	I = Value is between the MDL and Practical Quantitation Limit (PQL)															
	Note = No data for Secchi depth on 9/3/09, due to strong current.															

### Hydrobiological Data - Site 4 Myk Creek

Date	1/15/09	2/11/09	3/11/09	4/9/09	5/6/09	6/10/09	7/8/09	8/5/09	9/3/09	10/14/09	11/4/09	12/2/09	2009 Max	2009 Min	2009 Arith. Avg.	2009 Geom. Mean
Nitrate, Nitrite as N (mg/L)	U 0.005	U 0.005	U 0.005	U 0.005	U 0.005	0.0151	0.035	0.020	0.028	0.085	0.034	U 0.005	0.085	0.005	0.021	0.012
Ammonia as N (mg/L)	0.037	0.0081	0.0101	U 0.005	0.0181	0.073	0.043	0.046	0.133	0.095	0.084	U 0.005	0.133	0.005	0.046	0.028
Total Kjeldahl Nitrogen as N (mg/L)	0.89	0.70	0.98	0.92	1.07	0.93	1.03	0.86	1.39	1.14	0.95	0.99	1.39	0.70	0.99	0.97
Ortho Phosphorus as P (mg/L)	0.109	0.085	0.105	0.156	0.180	0.149	0.139	0.119	0.273	0.166	0.154	0.072	0.273	0.072	0.142	0.134
Total Phosphorus as P (mg/L)	0.20	0.181	0.181	0.23	0.32	0.21	0.181	0.171	0.37	0.25	0.21	0.131	0.37	0.13	0.22	0.21
Total Suspended Solids (mg/L)	11	51	8	71	8	31	21	61	9	41	41	41	11	2	6	5
Turbidity (NTU)	4.9	3.2	2.8	3.1	3.5	2.8	2.3	6.0	6.4	5.0	5.7	4.2	6.4	2.3	4.2	3.9
Color Apparent (PCU)	70	55	55	65	65	85	120	130	250	170	120	85	250	55	106	95
Color pH SU	7.47	7.81	7.65	7.67	7.69	7.59	7.77	7.67	7.31	7.61	7.61	7.85	7.85	7.31	7.64	7.64
Chlorophyll a - Pheo Corrected (ug/L)	11.66	13.03	13.07	14.28	16.18	9.90	10.63	14.56	11.74	22.24	14.26	28.35	28.35	9.90	14.99	14.32
Specific Conductance (mmhos)/cm	22.0	21.8	27.8	25.0	32.8	4.67	0.898	0.631	0.483	0.904	5.490	10.200	32.8	0.5	12.7	5.5
Salinity - Lab (PSU)	13.0	13.1	17.1	15.2	20.5	2.5	0.41	0.21	U 0.2	0.41	2.9	5.7	20.5	0.2	7.6	2.8
Overall Depth (meters)	0.9	1.1	1.0	1.2	1.2	1.4	1.6	1.4	1.4	1.6	1.0	1.1	1.6	0.9	1.2	1.2
Depth of Measurement (meters)	0.7	0.9	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.8	0.9	1.0	0.7	0.9	0.9
Field Salinity (PSU)	14.8	17.7	19.6	18.8	23.3	10.8	0.4	0.3	0.2	0.5	6.1	12.1	23.3	0.2	10.4	4.1
Field Specific Conductance (mmhos)/cm	24.37	28.80	31.54	30.36	36.79	18.29	0.83	0.56	0.48	0.86	10.65	20.11	36.79	0.48	16.97	7.17
Field Temperature (°C)	22.4	19.6	24.0	24.4	30.2	29.0	30.2	28.7	28.9	28.4	27.6	20.9	30.2	19.6	26.2	25.9
Field pH (SU)	7.2	7.4	7.2	7.2	7.4	7.1	7.5	7.3	7.1	7.4	7.1	7.2	7.5	7.1	7.3	7.3
Field Dissolved Oxygen (mg/L)	4.2	6.5	4.8	4.0	3.1	1.5	4.7	4.2	4.5	4.2	1.7	5.2	6.5	1.5	4.1	3.8
Percent Saturation of D.O. (%)	53	79	64	54	48	21	63	55	59	54	23	63	79	21	53	50
Secchi Depth (meters)	0.90 >B	1.10 >B	1.00 >B	1.20 >B	1.20 >B	1.2	1.60 >B	0.85		0.75	0.80	1.10 >B	1.60	0.75	1.06	1.04
	U = Less than Method Detection Limit															
	B = Secchi Depth greater than the bottom channel. For average and graphing purposes, the total depth is used instead.															
	= Value is between the MDL and Practical Quantitation Limit (PQL)															
	Note = No data for Secchi depth on 9/3/09, due to strong current.															



### Hydrobiological Data - Site 5 Myk Creek

Date	1/15/09	2/11/09	3/11/09	4/9/09	5/6/09	6/10/09	7/8/09	8/5/09	9/3/09	10/14/09	11/4/09	12/2/09	2009 Max	2009 Min	2009 Arith. Avg.	2009 Geom. Mean
Nitrate, Nitrite as N (mg/L)																
Ammonia as N (mg/L)																
Total Kjeldahl Nitrogen as N (mg/L)																
Ortho Phosphorus as P (mg/L)																
Total Phosphorus as P (mg/L)																
Total Suspended Solids (mg/L)																
Turbidity (NTU)																
Color Apparent (PCU)																
Color pH SU																
Chlorophyll a - Pheo Corrected (ug/L)																
Specific Conductance (mmhos/cm)																
Salinity - Lab (PSU)																
Overall Depth (meters)	1.4	1.8	1.5	1.7	1.9	1.9	2.4	1.8	2.2	2.0	1.5	1.8	2.4	1.4	1.8	1.8
Depth of Measurement (meters)	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.0	1.0	1.0
Field Salinity (PSU)	14.5	17.9	20.4	21.1	24.4	10.5	0.6	0.3	0.2	0.5	7.1	11.1	24.4	0.2	10.7	4.3
Field Specific Conductance (mmhos/cm)	23.93	29.01	32.71	33.56	38.36	17.85	1.05	0.55	0.45	0.98	12.40	18.58	38.36	0.45	17.45	7.48
Field Temperature (°C)	21.2	19.5	23.3	22.3	29.2	28.8	30.1	28.8	28.7	28.5	27.7	21.1	30.1	19.5	25.8	25.5
Field pH (SU)	7.2	7.4	7.2	7.4	7.5	7.3	7.4	7.3	7.2	7.4	7.2	7.2	7.5	7.2	7.3	7.3
Field Dissolved Oxygen (mg/L)	4.7	6.3	5.1	6.2	4.3	3.6	5.0	4.3	4.4	3.5	3.4	5.5	6.3	3.4	4.7	4.6
Percent Saturation of D.O. (%)	58	77	68	82	65	50	67	55	57	45	45	67	82	45	61	60
Secchi Depth (meters)	1.10	1.35	1.50 >B	1.35	1.50	1.25	1.35	1.00	0.43	0.69	0.88	1.05	1.50	0.43	1.12	1.06
	U = Less than Method Detection Limit															
	B = Secchi Depth greater than the bottom channel. For average and graphing purposes, the total depth is used instead.															
	I = Value is between the MDL and Practical Quantitation Limit (PQL)															

### Hydrobiological Data - Site 6 Myk Creek

Date	1/15/09	2/11/09	3/11/09	4/9/09	5/6/09	6/10/09	7/8/09	8/5/09	9/3/09	10/14/09	11/4/09	12/2/09	2009 Max	2009 Min	2009 Arth. Avg.	2009 Geom Mean
Nitrate, Nitrite as N (mg/L)	U 0.005	U 0.005	U 0.005	U 0.005	U 0.005	0.011 I	U 0.005	0.037	0.023	0.061	0.024	0.025	0.061	0.005	0.018	0.011
Ammonia as N (mg/L)	0.009 I	0.007 U, I	0.010 I	U 0.005	0.011 I	0.031	U 0.005	0.048	0.090	0.107	0.079	0.010 I	0.107	0.005	0.034	0.019
Total Kjeldahl Nitrogen as N (mg/L)	1.02	0.66	0.89	0.80	1.06	0.96	1.04	0.94	1.50	1.18	1.14	0.95	1.50	0.66	1.01	0.99
Ortho Phosphorus as P (mg/L)	0.099	0.076	0.097	0.125	0.154	0.125	0.115	0.143	0.378	0.198	0.191	0.091	0.378	0.076	0.149	0.135
Total Phosphorus as P (mg/L)	0.20	0.19	0.171	0.191	0.28	0.20	0.17	0.20	0.55	0.27	0.28	0.141	0.55	0.14	0.23	0.22
Total Suspended Solids (mg/L)	9	61	9	61	16.5	31	31	31	61	41	41	31	16.5	2.5	6	5
Turbidity (NTU)	3.5	2.6	2.4	2.8	3.1	3.3	3.1	4.4	4.0	3.5	3.7	2.5	4.4	2.4	3.2	3.2
Color Apparent (PCU)	65	47	52.5	60	57.5	90	100	150	330	205	140	87.5	330	47	115	96
Color pH SU	7.68	7.89	7.79	7.81	7.84	7.68	7.82	7.60	7.21	7.66	7.66	7.83	7.89	7.21	7.70	7.70
Chlorophyll a - Pheo Corrected (ug/L)	36.73	9.99	9.07	10.01	15.81	11.18	22.15	11.96	4.57	15.73	29.28	14.07	36.73	4.57	15.88	13.76
Specific Conductance (mmhos/cm)	21.8	23.8	26.8	25.0	34.2	6.7	1.3	0.62	0.36	19.18	6.8	8.5	34.2	0.4	14.6	7.4
Salinity - Lab (PSU)	13.1	14.4	16.4	15.2	21.5	3.6	0.61	0.21	U 0.2	0.61	3.7	1.21	21.5	0.2	7.5	2.8
Overall Depth (meters)	2.2	2.7	2.4	2.6	2.7	2.5	3.2	2.7	2.5	2.6	2.8	2.8	3.2	2.2	2.6	2.6
Depth of Measurement (meters)	1	1	1	1	1	1	1	1	1	1	1	1.0	1.0	1.0	1.0	1.0
Field Salinity (PSU)	14.1	17.9	20.5	20.4	24.1	10.4	0.9	0.3	0.2	0.7	4.0	11.5	24.1	0.2	10.4	4.4
Field Specific Conductance (mmhos/cm)	23.42	29.09	32.79	32.52	37.98	17.75	1.63	0.60	0.36	1.30	7.20	19.29	37.98	0.36	16.99	7.49
Field Temperature (°C)	19.7	19.4	23.2	22.5	29.0	28.8	30.6	28.8	28.3	29.1	25.7	21.0	30.6	19.4	25.5	25.2
Field pH (SU)	7.4	7.4	7.3	7.4	7.5	7.3	7.4	7.3	6.9	7.4	7.4	7.3	7.5	6.9	7.3	7.3
Field Dissolved Oxygen (mg/L)	6.6	6.8	5.6	6.4	4.8	4.3	5.4	4.2	4.4	4.0	4.1	5.7	6.8	4.0	5.2	5.1
Percent Saturation of D.O. (%)	78	83	74	82	73	60	73	54	56	53	52	69	83	52	67	66
Secchi Depth (meters)	1.00	1.63	1.65	1.20	1.45	1.35	1.20	1.00	0.38	0.65	0.85	1.45	1.65	0.38	1.15	1.07
	U = Less than Method Detection Limit															
	B = Secchi Depth greater than the bottom channel. For average and graphing purposes, the total depth is used instead.															
	I = Value is between the MDL and Practical Quantitation Limit (PQL)															

### Hydrobiological Data - Site 7 Myk Creek

Date	1/15/09	2/11/09	3/11/09	4/9/09	5/6/09	6/10/09	7/8/09	8/5/09	9/3/09	10/14/09	11/4/09	12/2/09	2009 Max	2009 Min	2009 Arith. Avg.	2009 Geom Mean
Nitrate, Nitrite as N (mg/L)	U 0.005	U 0.005	U 0.005	U 0.005	U 0.005	U 0.005	0.007 I	0.037	0.022	0.082	0.020	0.025	0.082	0.005	0.019	0.011
Ammonia as N (mg/L)	0.008 I	0.005 I	0.009 I	U 0.005	0.017 I	U 0.005	U 0.005	0.035	0.089	0.033	0.026	0.008 I	0.089	0.005	0.020	0.013
Total Kjeldahl Nitrogen as N (mg/L)	0.77	0.66	0.82	0.89	0.98	0.93	1.13	0.89	1.53	1.16	0.91	0.93	1.53	0.66	0.97	0.95
Ortho Phosphorus as P (mg/L)	0.092	0.084	0.087	0.114	0.131	0.145	0.199	0.140	0.380	0.322	0.186	0.097	0.380	0.084	0.165	0.145
Total Phosphorus as P (mg/L)	0.16 I	0.18 I	0.14 I	0.17 I	0.24	0.24	0.29	0.18 I	0.50	0.39	0.25	0.14 I	0.50	0.14	0.24	0.22
Total Suspended Solids (mg/L)	7 I	7 I	4 I	6 I	17	4 I	4 I	5 I	12	3 I	4 I	3 I	17	3	6	5
Turbidity (NTU)	2.9	2.5	1.9	2.8	3.1	3.2	3.2	4.3	6.9	2.6	3.5	2.1	6.9	1.9	3.3	3.1
Color Apparent (PCU)	65	50	55	60	55	95	120	120	320	260	170	100	320	50	123	101
Color pH SU	7.73	7.89	7.78	7.89	7.81	7.95	7.68	7.73	7.14	7.25	7.71	7.87	7.89	7.14	7.69	7.69
Chlorophyll a - Pheo Corrected (ug/L)	13.38	8.92	6.52	7.82	9.32	13.09	18.44	18.06	6.68	10.04	25.72	11.37	25.72	6.52	12.45	11.41
Specific Conductance (mmhos)/cm	23.2	27.2	30.5	27.9	36.9	10.1	2.87	0.800	0.372	3.6	7.6	15.2	36.9	0.4	15.5	8.0
Salinity - Lab (PSU)	14.0	17.0	18.9	17.1	23.3	5.7	1.5	0.31	U 0.2	1.9	4.1	8.8	23.3	0.2	9.4	4.5
Overall Depth (meters)	3.0	3.1	3.2	3.1	3.4	3.0	3.4	3.1	3.0	3.0	2.9	3.1	3.4	2.9	3.1	3.1
Depth of Measurement (meters)	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.0	1.0	1.0
Field Salinity (PSU)	14.2	17.5	20.6	21.5	24.7	11.0	1.9	0.4	0.2	2.0	6.2	11.6	24.7	0.2	11.0	5.4
Field Specific Conductance (mmhos)/cm	23.54	28.41	33.05	34.09	38.72	18.61	3.47	0.70	0.37	3.67	10.84	19.35	38.72	0.37	17.90	9.22
Field Temperature (°C)	18.8	19.3	22.8	21.3	28.3	28.3	30.5	29.6	28.3	29.6	26.9	21.4	30.5	18.8	25.4	25.1
Field pH (SU)	7.4	7.5	7.3	7.5	7.6	7.4	7.3	7.4	7.0	7.2	7.4	7.3	7.6	7.0	7.4	7.4
Field Dissolved Oxygen (mg/L)	6.7	7.0	5.5	7.1	5.2	4.6	4.5	4.4	4.1	4.3	4.3	6.3	7.1	4.1	5.3	5.2
Percent Saturation of D.O. (%)	78	85	73	92	77	64	60	58	53	57	56	76	92	53	69	68
Secchi Depth (meters)	1.25	1.50	1.65	1.53	1.52	1.15	1.05	0.95	0.95	0.64	0.80	1.55	1.65	0.35	1.16	1.07
	U = Less than Method Detection Limit															
	B = Secchi Depth greater than the bottom channel. For average and graphing purposes, the total depth is used instead.															
	I = Value is between the MDL and Practical Quantitation Limit (PQL)															

### Hydrobiological Data - Site 8 Myk Creek

Date	1/15/09	2/11/09	3/11/09	4/9/09	5/6/09	6/10/09	7/8/09	8/5/09	9/3/09	10/14/09	11/4/09	12/2/09	2009 Max	2009 Min	2009 Artht. Avg.	2009 Geom Mean
Nitrate, Nitrite as N (mg/L)																
Ammonia as N (mg/L)																
Total Kjeldahl Nitrogen as N (mg/L)																
Ortho Phosphorus as P (mg/L)																
Total Phosphorus as P (mg/L)																
Total Suspended Solids (mg/L)																
Turbidity (NTU)																
Color Apparent (PCU)																
Color pH SU																
Chlorophyll a - Pheo Corrected (ug/L)																
Specific Conductance (mmhos)/cm																
Salinity - Lab (PSU)																
Overall Depth (meters)	4.5	3.5	4.7	2.9	4.0	4.6	5.8	5.3	5.0	4.1	2.6	3.8	5.8	2.6	4.2	4.1
Depth of Measurement (meters)	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.0	1.0	1.0
Field Salinity (PSU)	14.4	18.9	21.6	22.0	26.2	12.0	4.2	0.9	0.2	2.6	4.8	12.6	26.2	0.2	11.7	6.4
Field Specific Conductance (mmhos)/cm	23.78	30.50	34.31	34.78	40.89	20.16	7.56	1.69	0.37	4.68	8.63	20.99	40.89	0.37	19.03	10.91
Field Temperature (°C)	17.7	19.9	23.3	20.6	28.5	28.2	30.5	30.3	28.2	29.5	25.9	21.5	30.5	17.7	25.3	25.0
Field pH (SU)	7.4	7.5	7.3	7.5	7.6	7.5	7.2	7.2	6.8	7.2	7.3	7.3	7.6	6.8	7.3	7.3
Field Dissolved Oxygen (mg/L)	6.4	6.6	5.6	7.2	4.9	4.5	4.3	3.7	3.5	4.0	4.8	7.0	7.2	3.5	5.2	5.1
Percent Saturation of D.O. (%)	74	82	75	92	74	62	59	49	44	53	61	86	92	44	68	66
Secchi Depth (meters)	1.10	1.15	1.33	1.45	1.35	1.10	1.15	0.85	0.53	0.63	0.73	1.25	1.45	0.53	1.05	1.01
	U = Less than Method Detection Limit															
	B = Secchi Depth greater than the bottom channel. For average and graphing purposes, the total depth is used instead.															
	I = Value is between the MDL and Practical Quantitation Limit (PQL)															

### Hydrobiological Data - Site 9 Myakka River Upstream

Date	1/15/09	2/11/09	3/11/09	4/9/09	5/6/09	6/10/09	7/8/09	8/5/09	9/3/09	10/14/09	11/4/09	12/2/09	2009 Max	2009 Min	2009 Arth. Avg.	2009 Geom Mean
Nitrate, Nitrite as N (mg/L)																
Ammonia as N (mg/L)																
Total Kjeldahl Nitrogen as N (mg/L)																
Ortho Phosphorus as P (mg/L)																
Total Phosphorus as P (mg/L)																
Total Suspended Solids (mg/L)																
Turbidity (NTU)																
Color Apparent (PCU)																
Color pH SU																
Chlorophyll a - Pheo Corrected (ug/L)																
Specific Conductance (mmhos/cm)																
Salinity - Lab (PSU)																
Overall Depth (meters)	3.2	2.9	3.4	2.8	3.6	3.6	2.6	3.2	4.0	3.3	2.5	3.0	4.0	2.5	3.2	3.1
Depth of Measurement (meters)	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.0	1.0	1.0
Field Salinity (PSU)	13.0	18.6	20.9	21.7	26.0	11.4	3.6	0.9	0.2	2.3	3.9	11.8	26.0	0.2	11.2	6.0
Field Specific Conductance (mmhos/cm)	21.78	30.14	33.36	34.32	40.56	19.45	6.45	1.63	0.31	4.14	7.08	19.78	40.56	0.31	18.25	10.10
Field Temperature (°C)	17.5	20.1	23.2	20.9	28.3	28.6	30.6	30.1	28.1	29.5	26.2	21.4	30.6	17.5	25.4	25.0
Field pH (SU)	7.4	7.4	7.3	7.5	7.6	7.5	7.1	7.2	6.8	7.2	7.3	7.3	7.6	6.8	7.3	7.3
Field Dissolved Oxygen (mg/L)	6.9	6.7	5.5	7.2	4.4	5.2	4.0	3.7	3.3	3.8	5.4	7.6	7.6	3.3	5.3	5.1
Percent Saturation of D.O. (%)	77	83	73	92	66	73	55	49	42	50	69	93	93	42	68	66
Secchi Depth (meters)	1.15	1.13	1.40	1.40	1.15	1.25	1.05	0.75	0.55	0.60	0.85	1.30	1.40	0.55	1.05	1.00
U = Less than Method Detection Limit																
B = Secchi Depth greater than the bottom channel. For average and graphing purposes, the total depth is used instead.																
I = Value is between the MDL and Practical Quantitation Limit (PQL)																

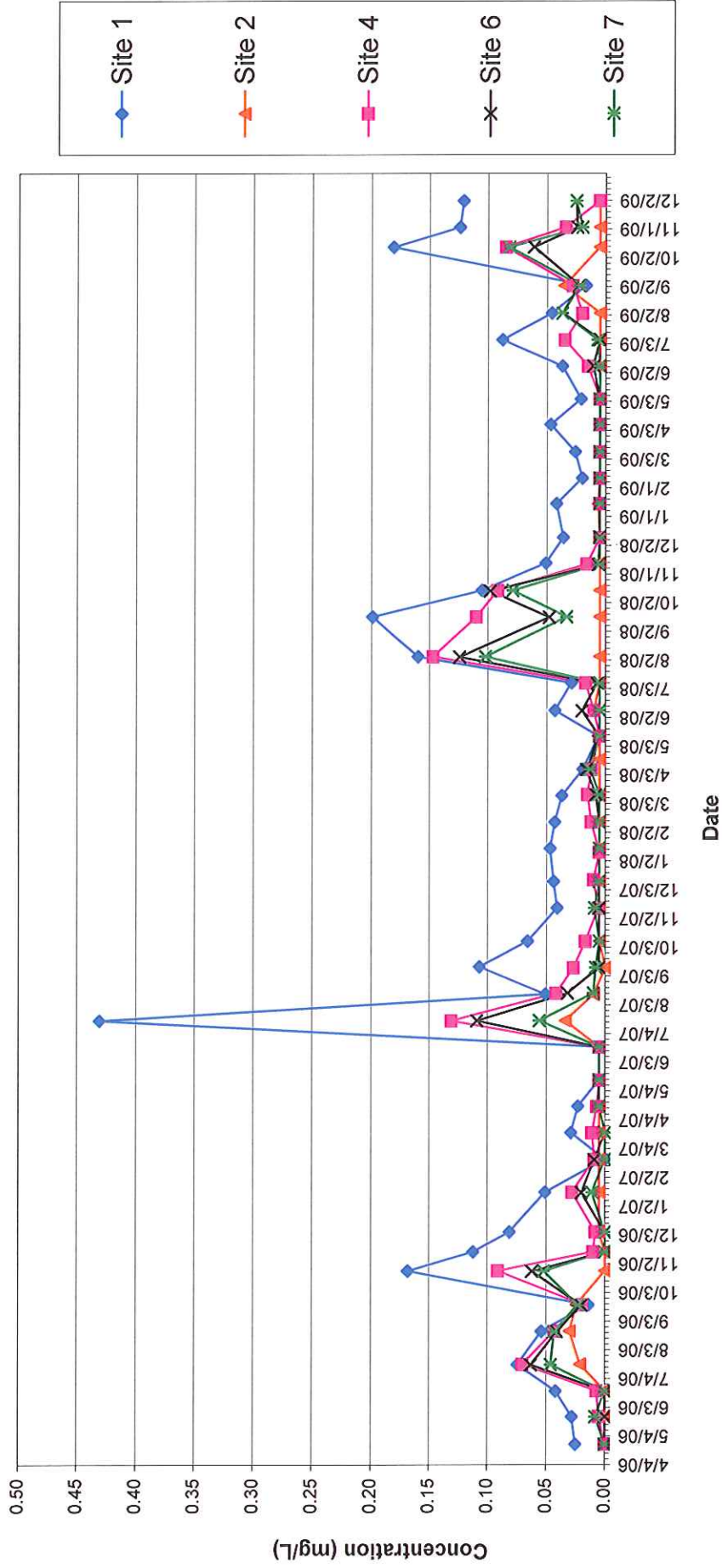
### Hydrobiological Data - Site 10 Myakka River Downstream

Date	1/15/09	2/11/09	3/11/09	4/9/09	5/6/09	6/10/09	7/8/09	8/5/09	9/3/09	10/14/09	11/4/09	12/2/09	2009 Max	2009 Min	2009 Arth. Avg.	2009 Geom Mean
Nitrate, Nitrite as N (mg/L)																
Ammonia as N (mg/L)																
Total Kjeldahl Nitrogen as N (mg/L)																
Ortho Phosphorus as P (mg/L)																
Total Phosphorus as P (mg/L)																
Total Suspended Solids (mg/L)																
Turbidity (NTU)																
Color Apparent (PCU)																
Color pH SU																
Chlorophyll a - Pheo Corrected (ug/L)																
Specific Conductance (mmhos/cm)																
Salinity - Lab (PSU)																
Overall Depth (meters)	1.3	1.8	1.8	1.8	2.3	2.0	2.4	2.3	1.8	2.0	1.7	2.0	2.4	1.3	1.9	1.9
Depth of Measurement (meters)	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.0	1.0	1.0
Field Salinity (PSU)	15.6	19.7	22.0	23.1	27.2	14.0	6.8	1.3	0.2	4.4	5.2	13.0	27.2	0.2	12.7	7.5
Field Specific Conductance (mmhos/cm)	25.56	31.67	35.00	36.34	42.28	23.24	11.93	2.44	0.41	7.93	9.22	21.56	42.28	0.41	20.63	12.78
Field Temperature (°C)	18.2	19.9	23.3	20.3	28.4	28.2	30.3	30.4	28.2	29.4	26.0	21.4	30.4	18.2	25.3	25.0
Field pH (SU)	7.4	7.5	7.3	7.5	7.7	7.5	7.2	7.2	6.8	7.3	7.4	7.3	7.7	6.8	7.3	7.3
Field Dissolved Oxygen (mg/L)	6.5	6.5	5.7	7.1	5.2	5.1	3.8	3.9	3.3	4.4	5.0	7.2	7.2	3.3	5.3	5.2
Percent Saturation of D.O. (%)	76	81	76	91	79	71	53	53	43	60	63	89	91	43	70	68
Secchi Depth (meters)	1.08	1.13	1.33	1.43	1.15	1.18	1.15	0.80	0.45	0.64	0.90	1.35	1.43	0.45	1.05	1.00
	U = Less than Method Detection Limit															
	B = Secchi Depth greater than the bottom channel. For average and graphing purposes, the total depth is used instead.															
	I = Value is between the MDL and Practical Quantitation Limit (PQL)															

# APPENDIX B

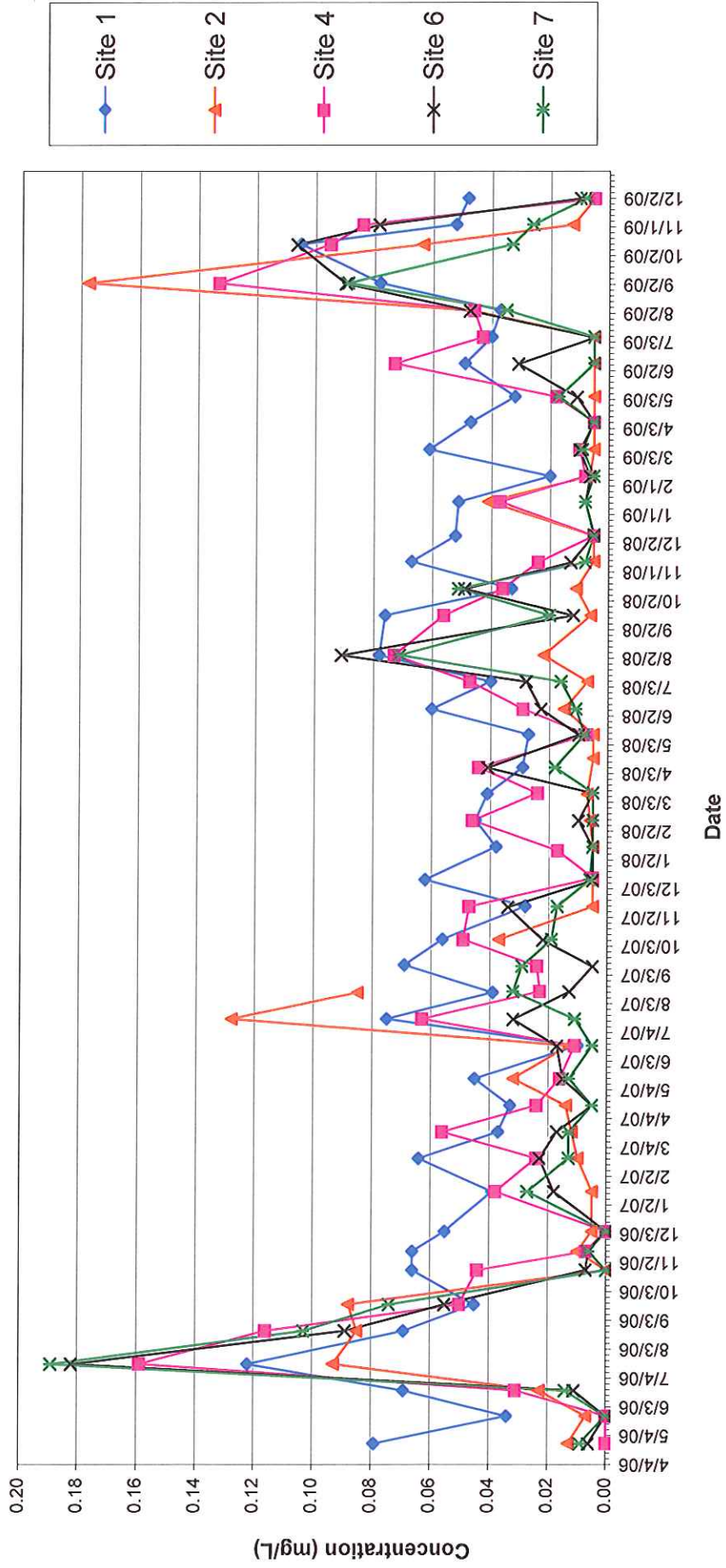
## WATER QUALITY GRAPHS

# Nitrate, Nitrite as N

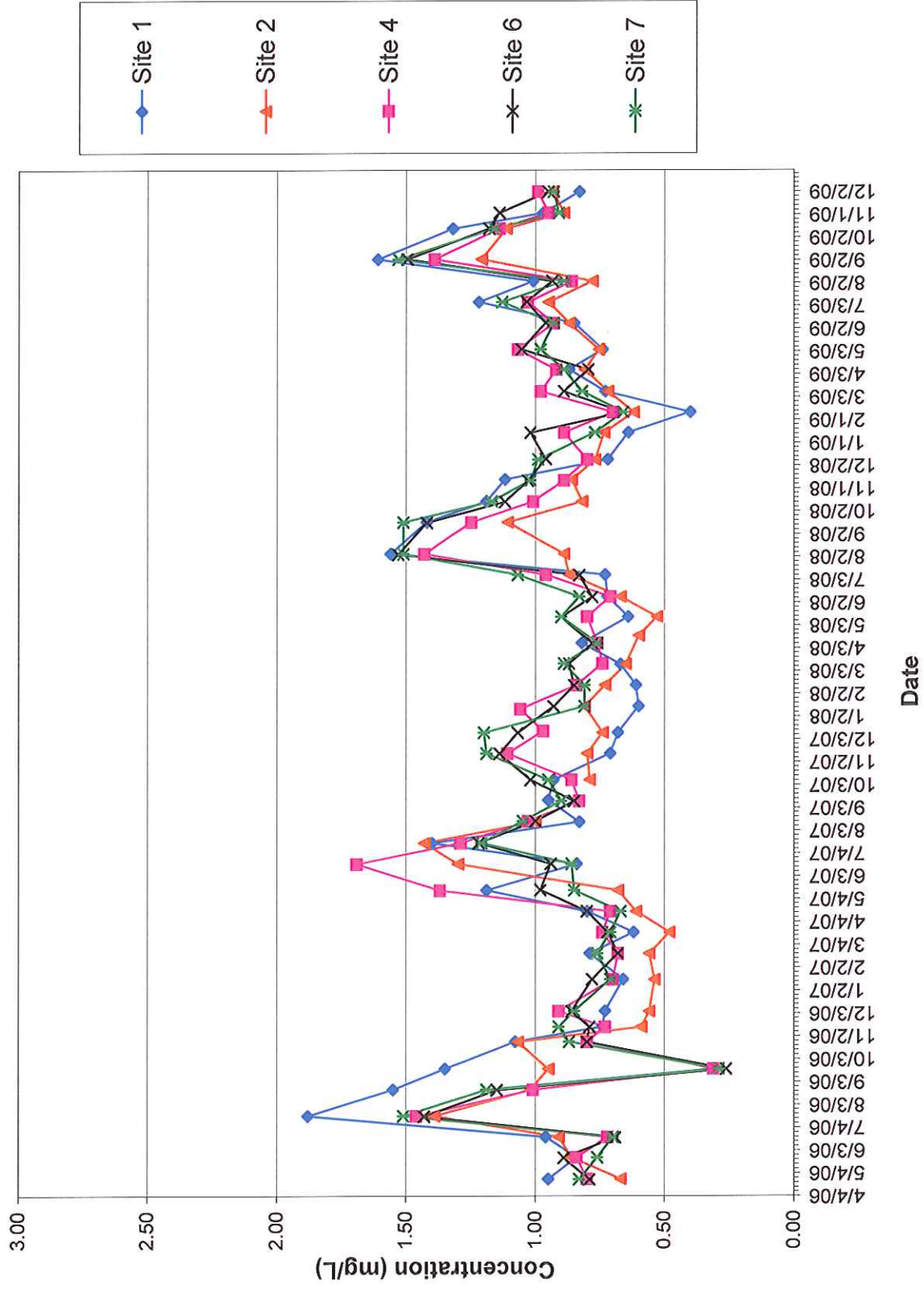




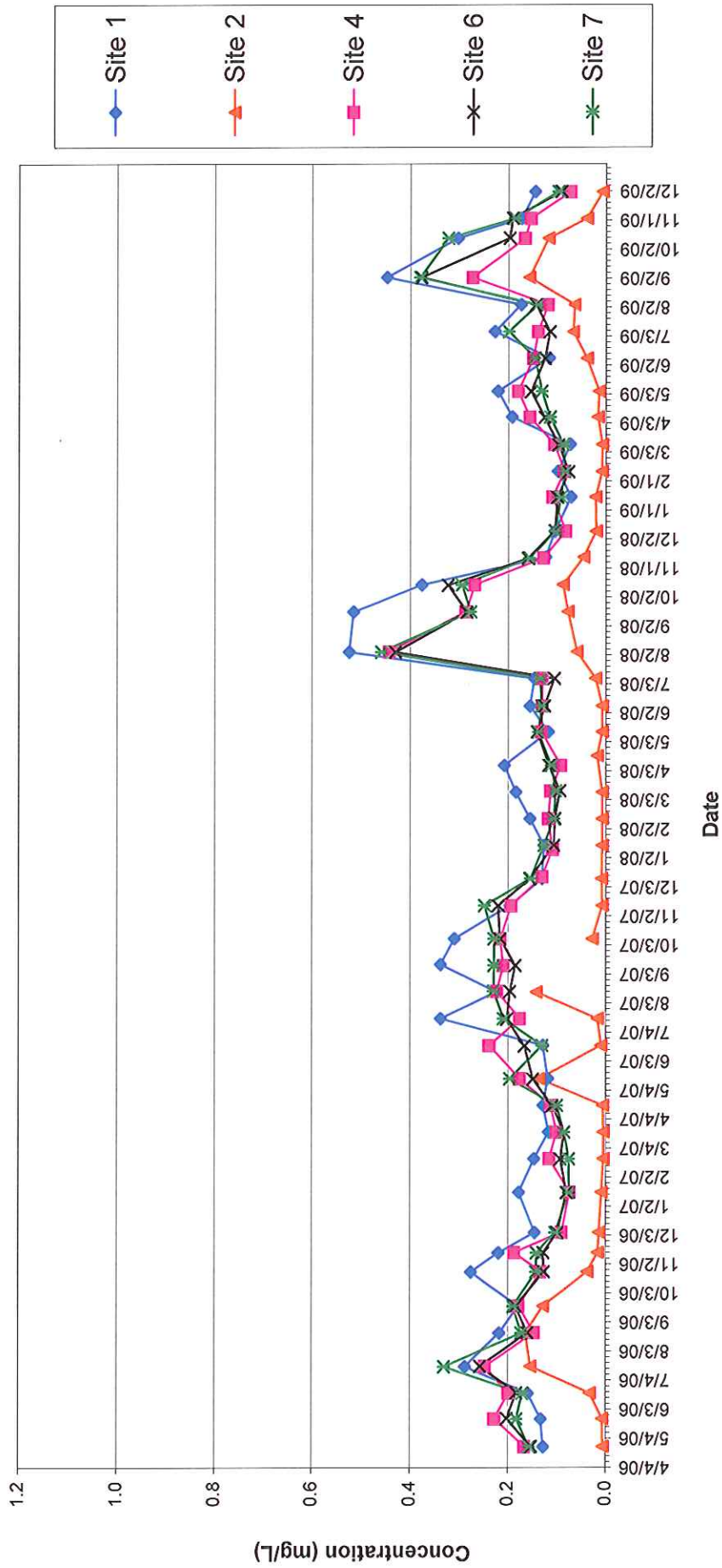
# Ammonia as N



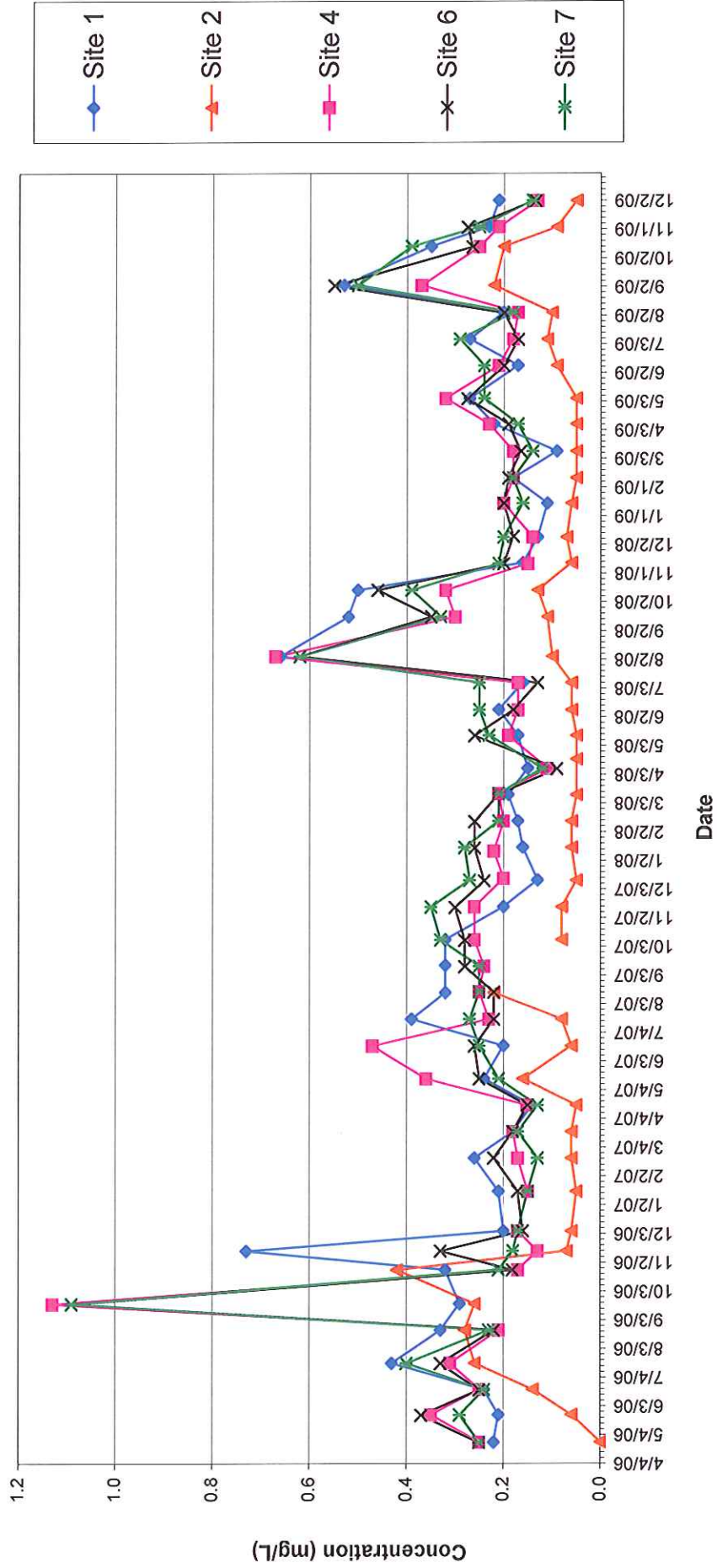
# Total Kjeldahl Nitrogen as N



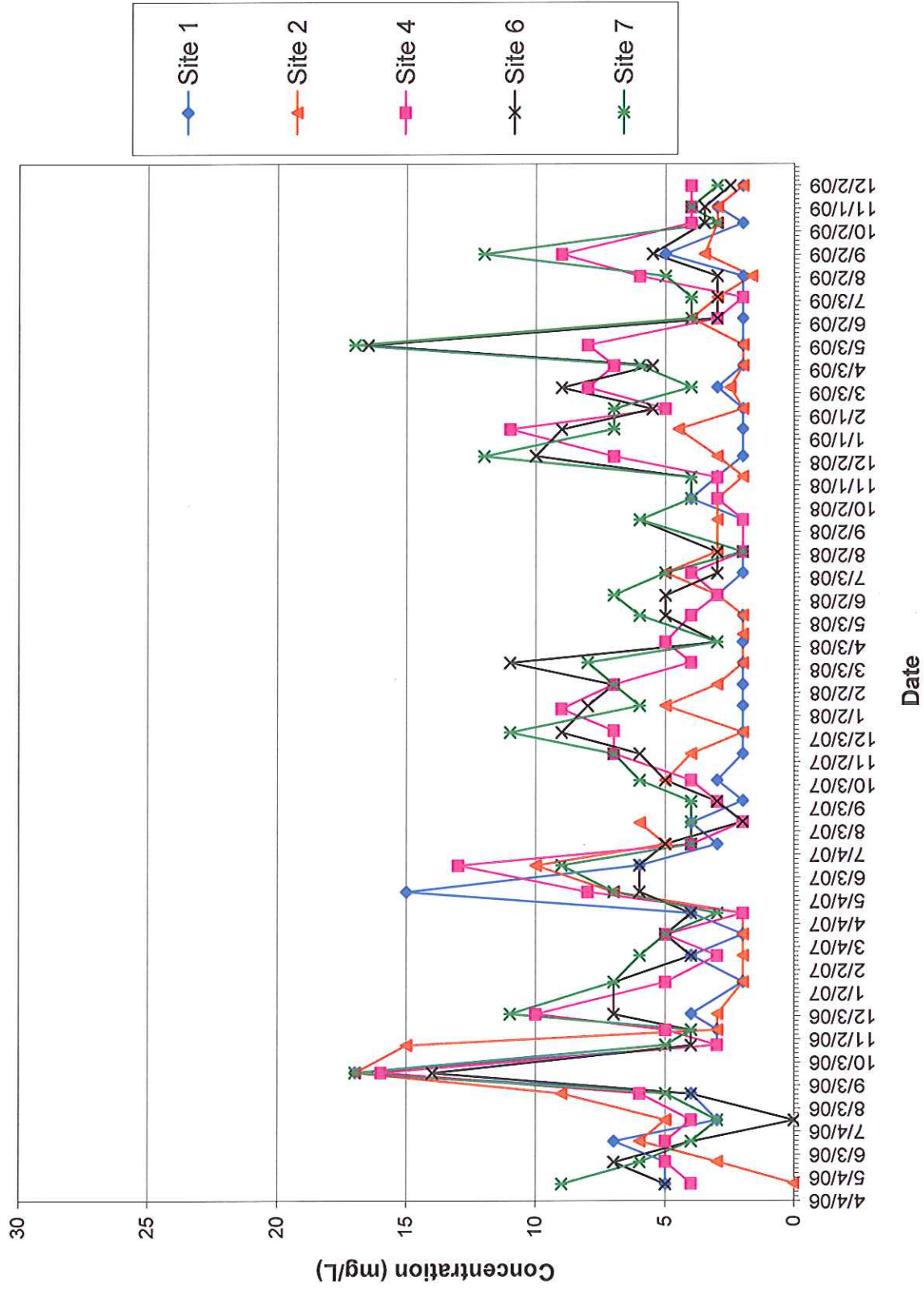
# Ortho Phosphorus as P



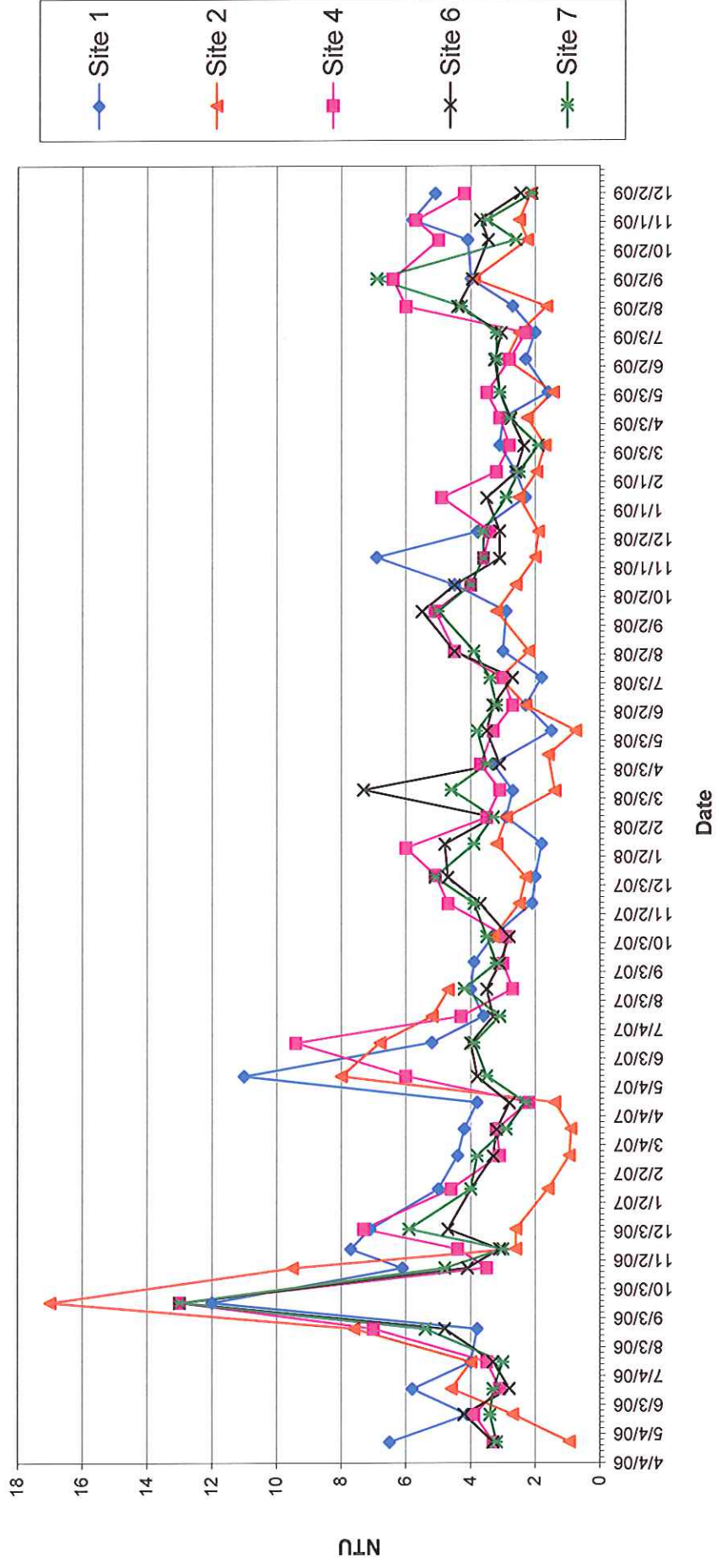
# Total Phosphorus as P



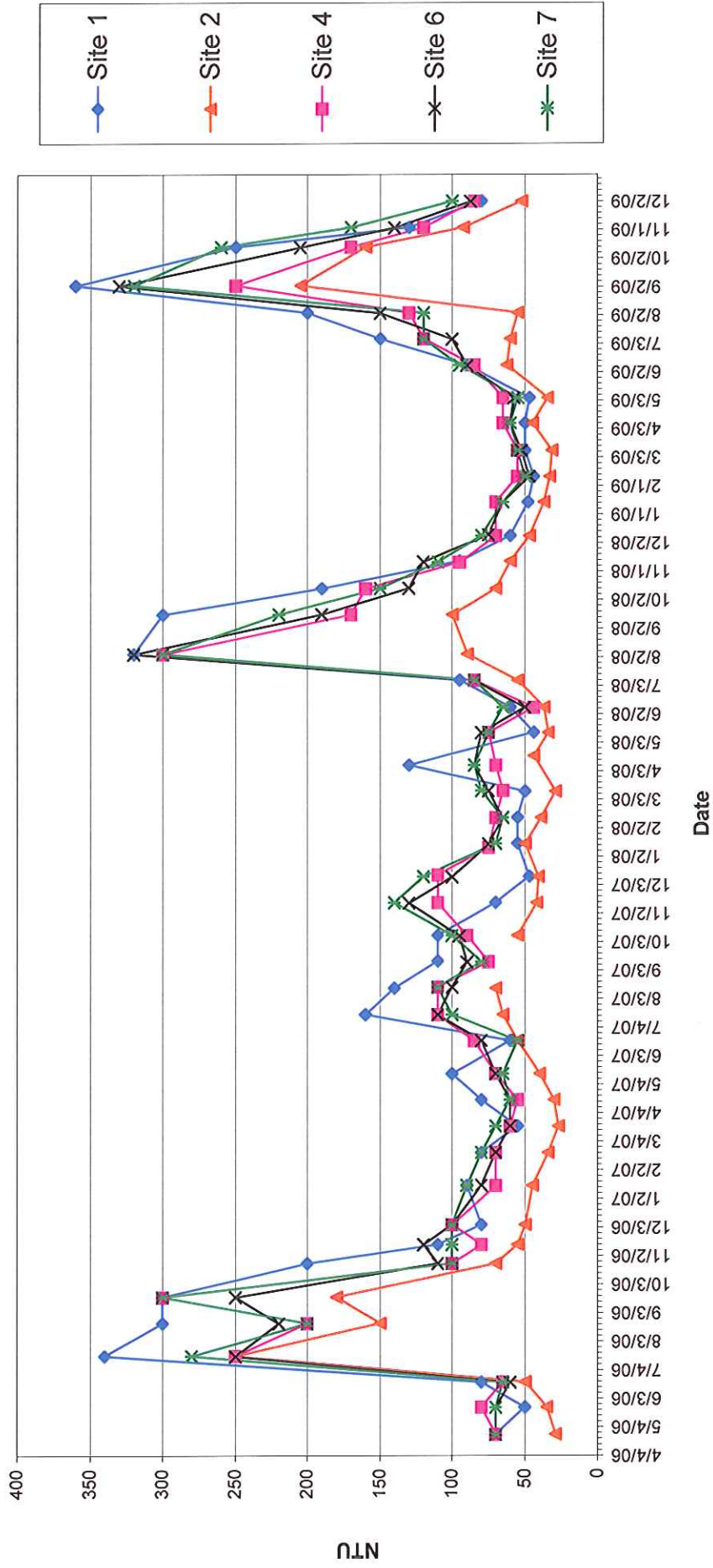
# Total Suspended Solids



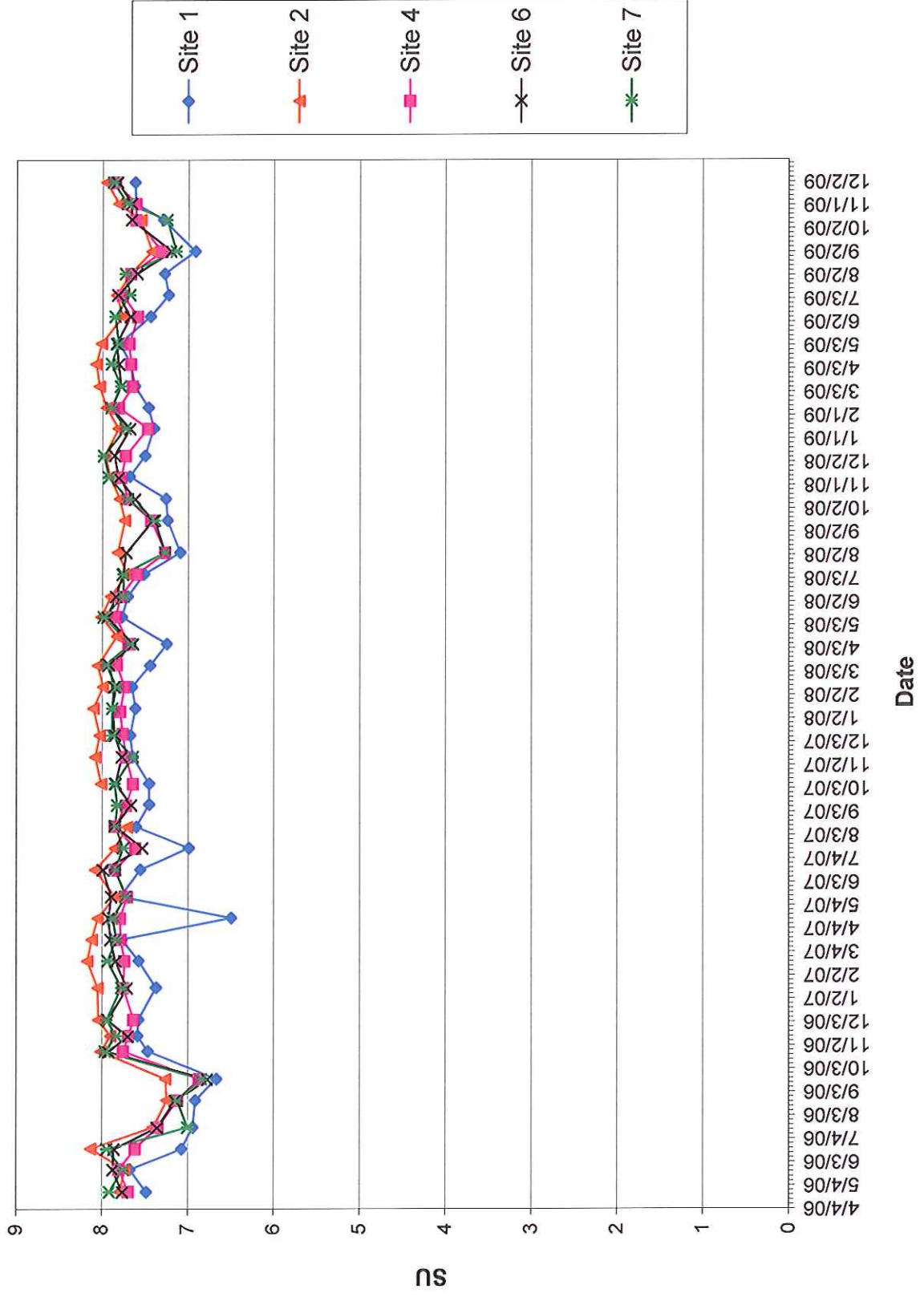
# Turbidity



# Color Apparent

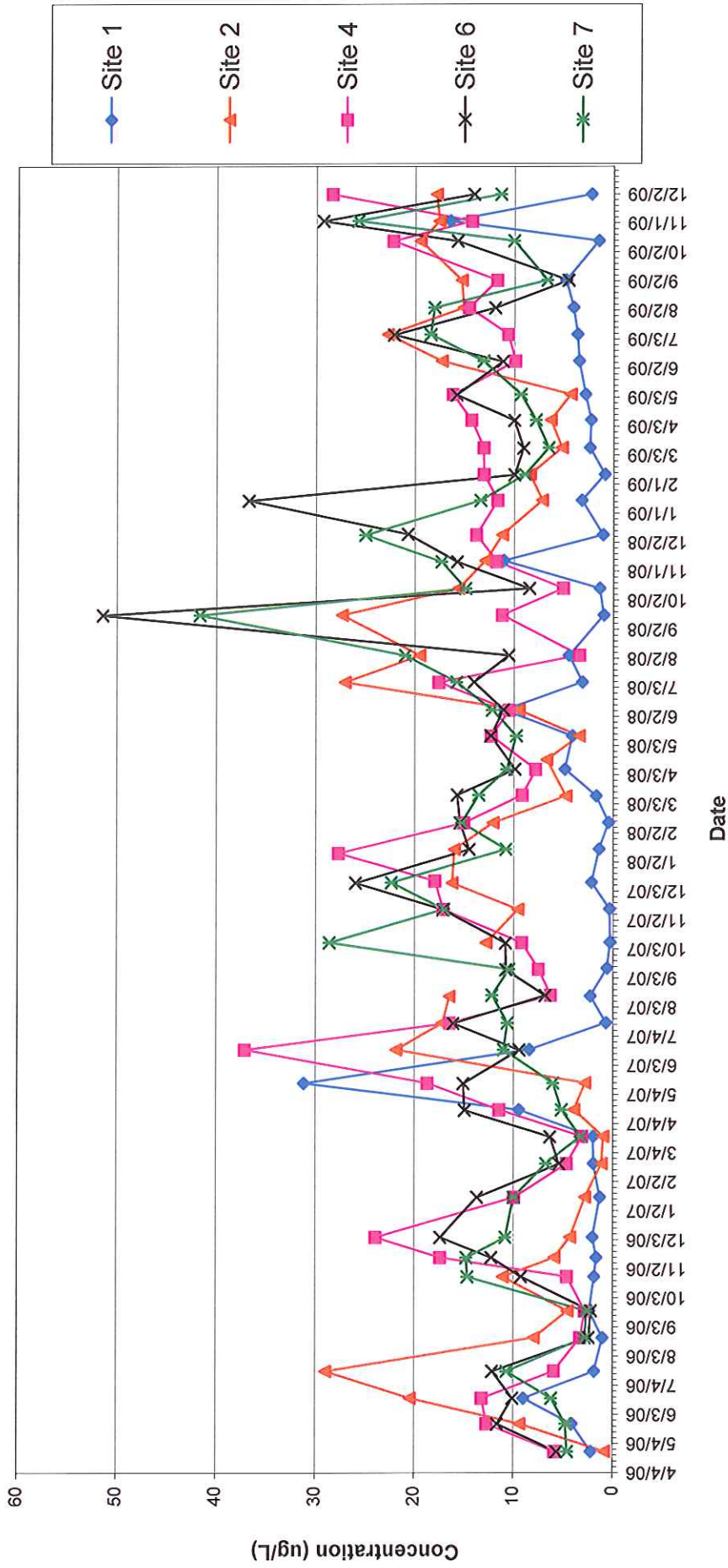


# Color pH

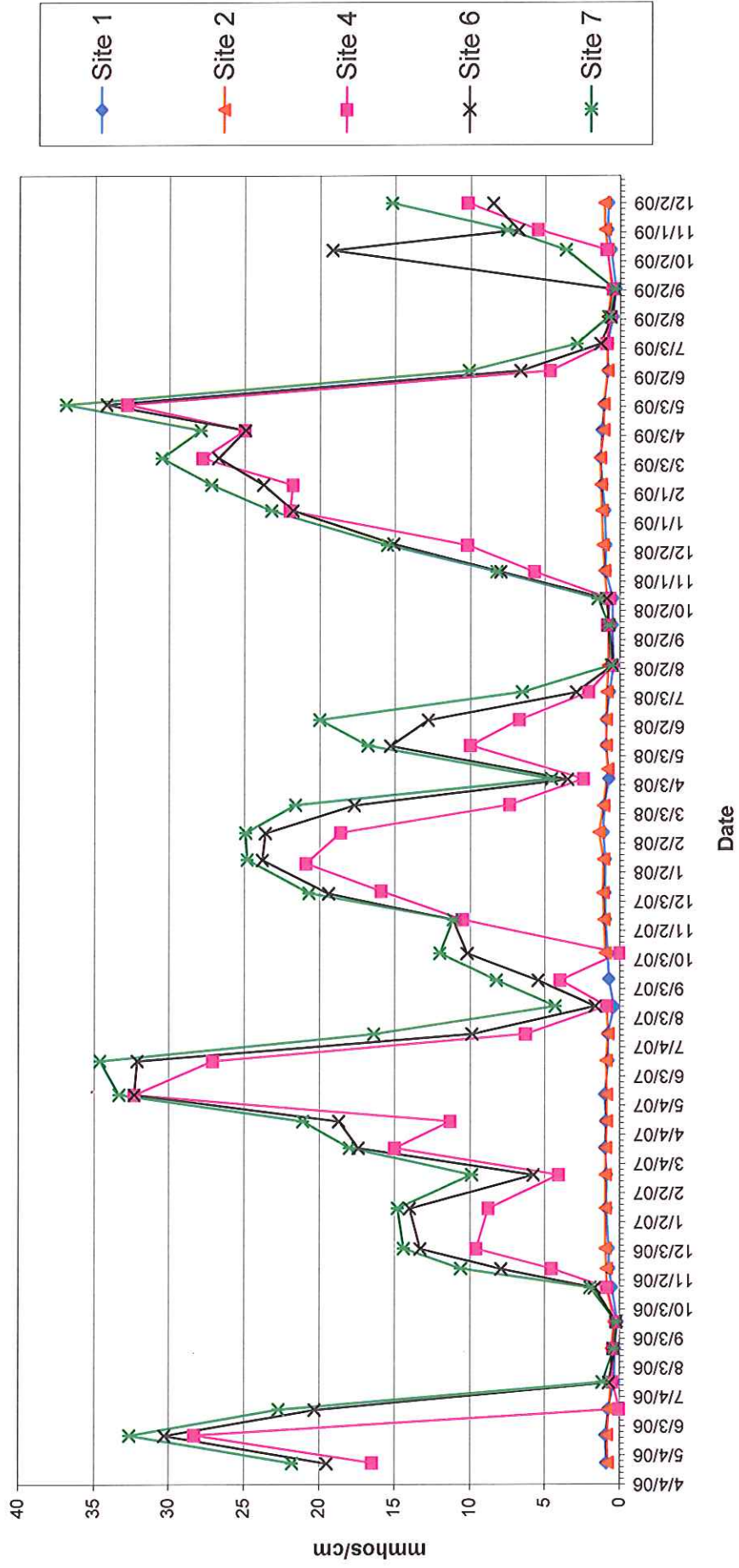




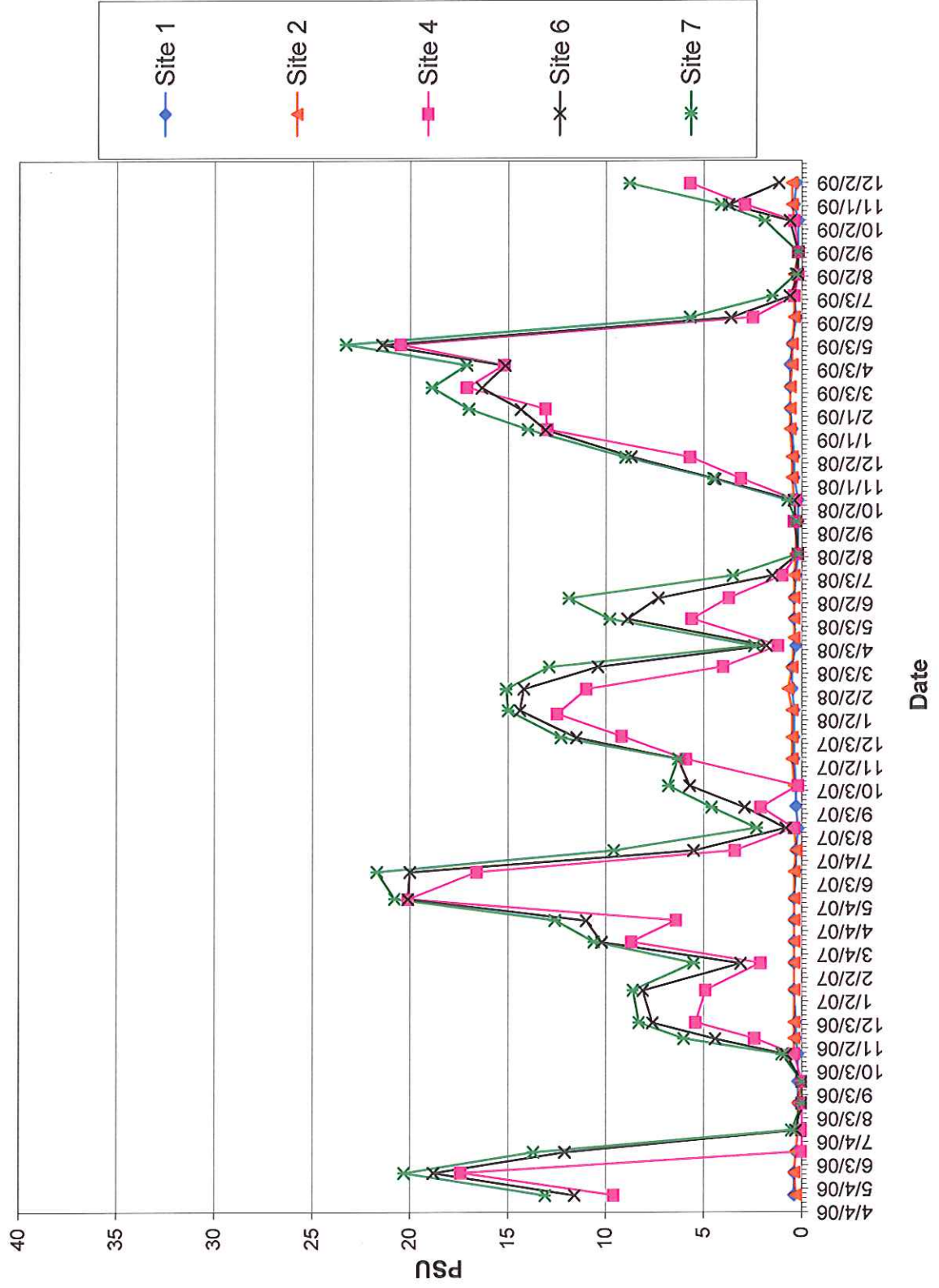
# Chlorophyll a - Pheo Corrected



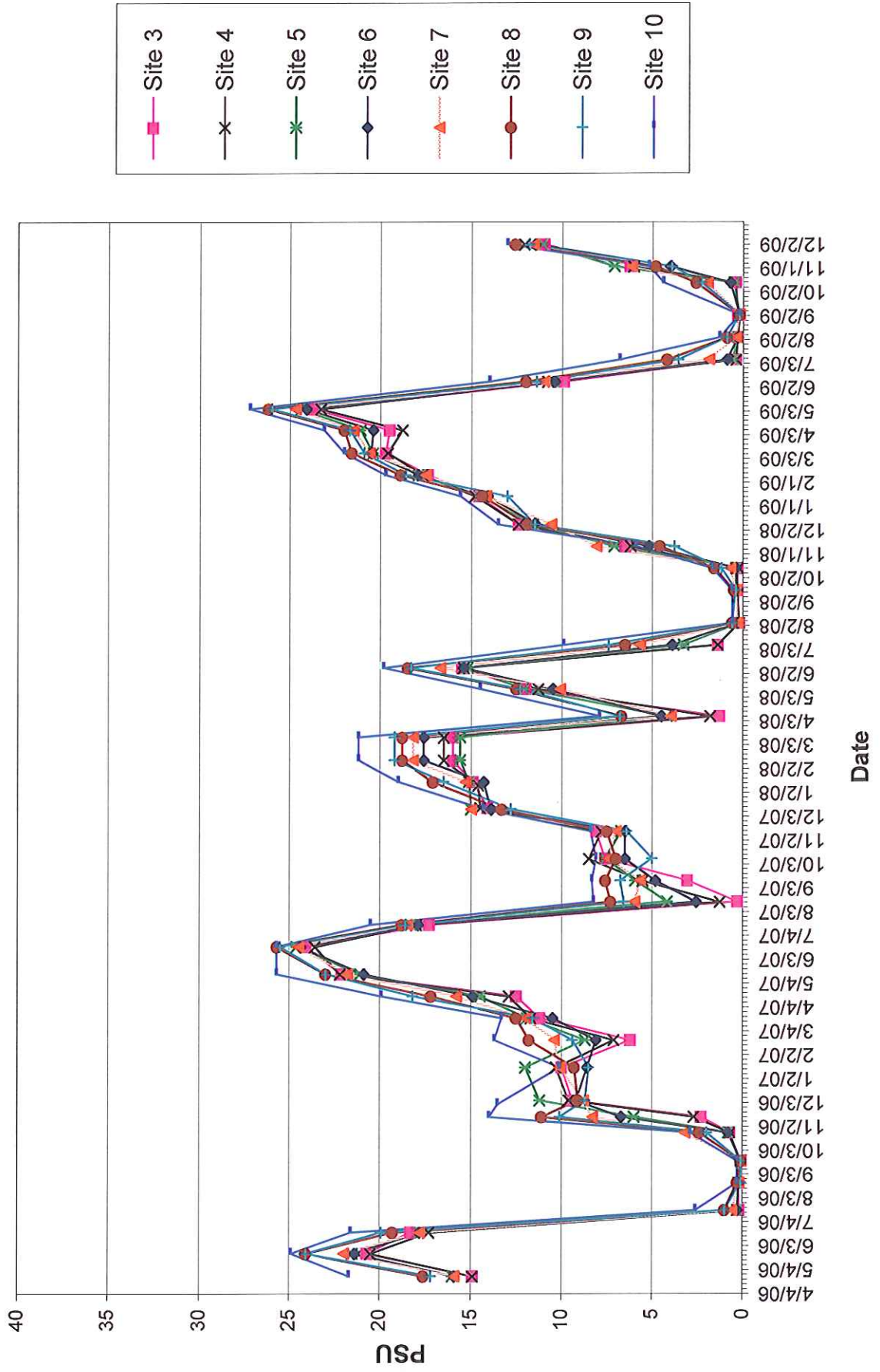
# Specific Conductance



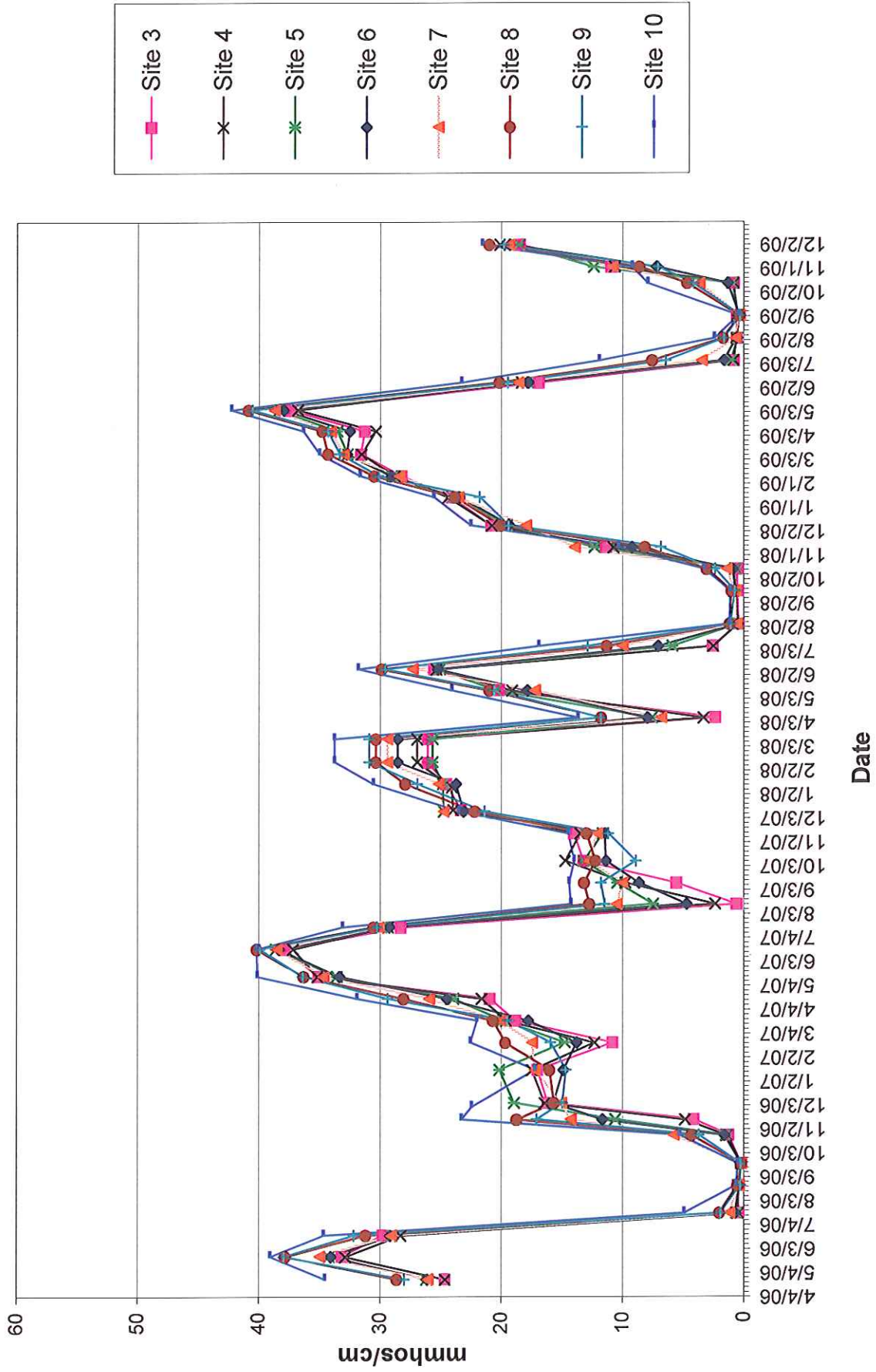
# Salinity - Lab



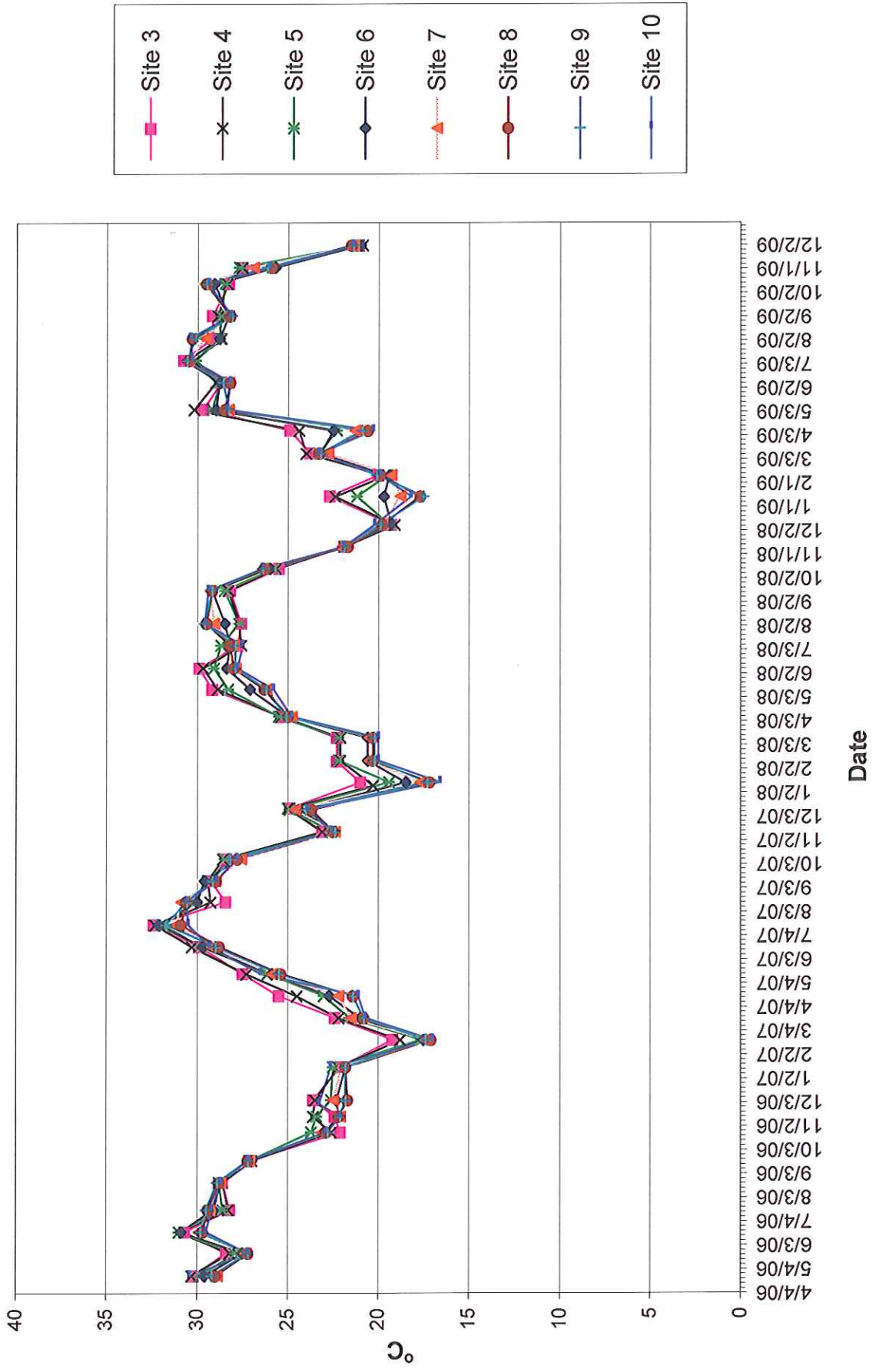
# Field Salinity



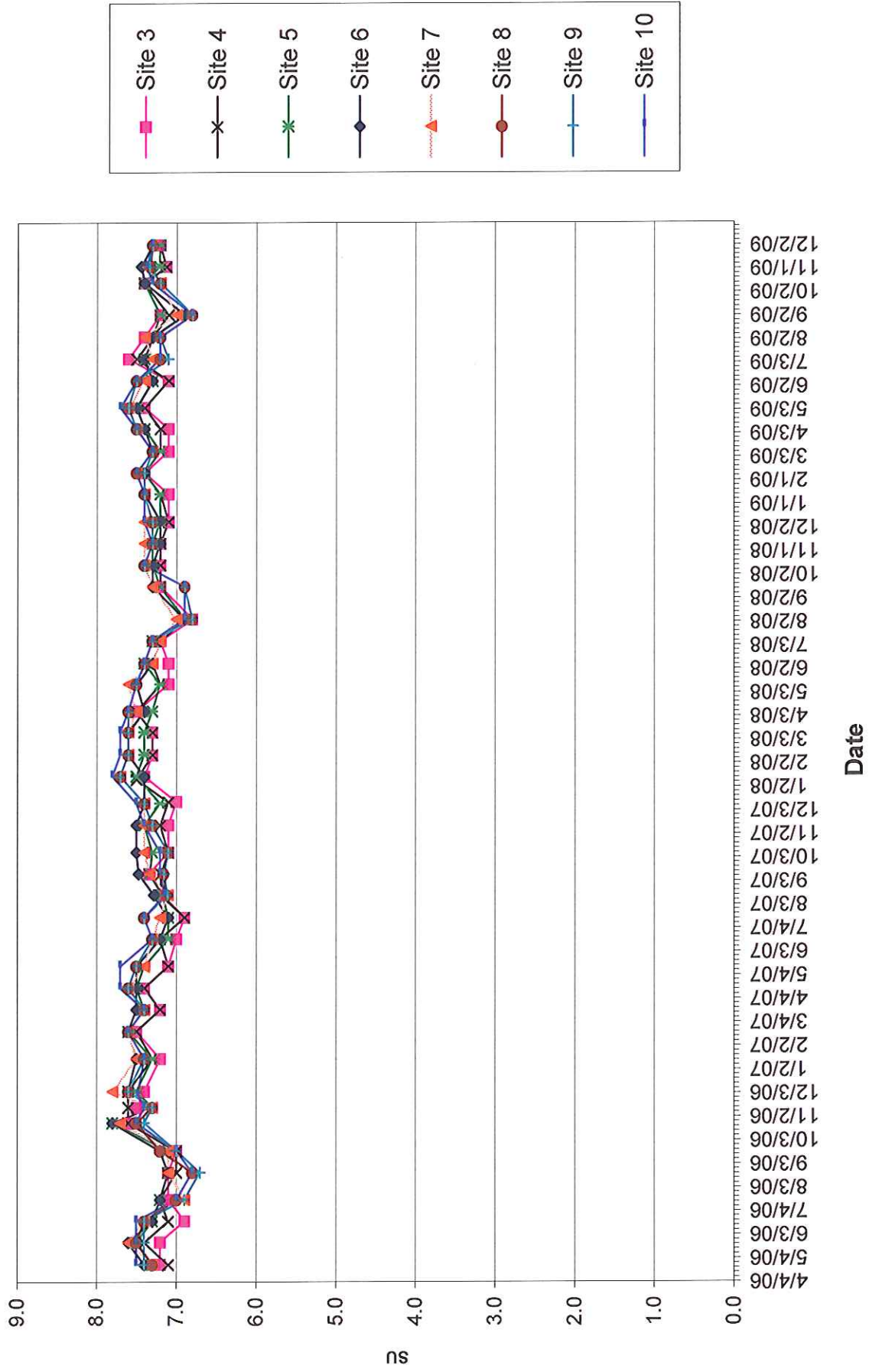
# Field Specific Conductance



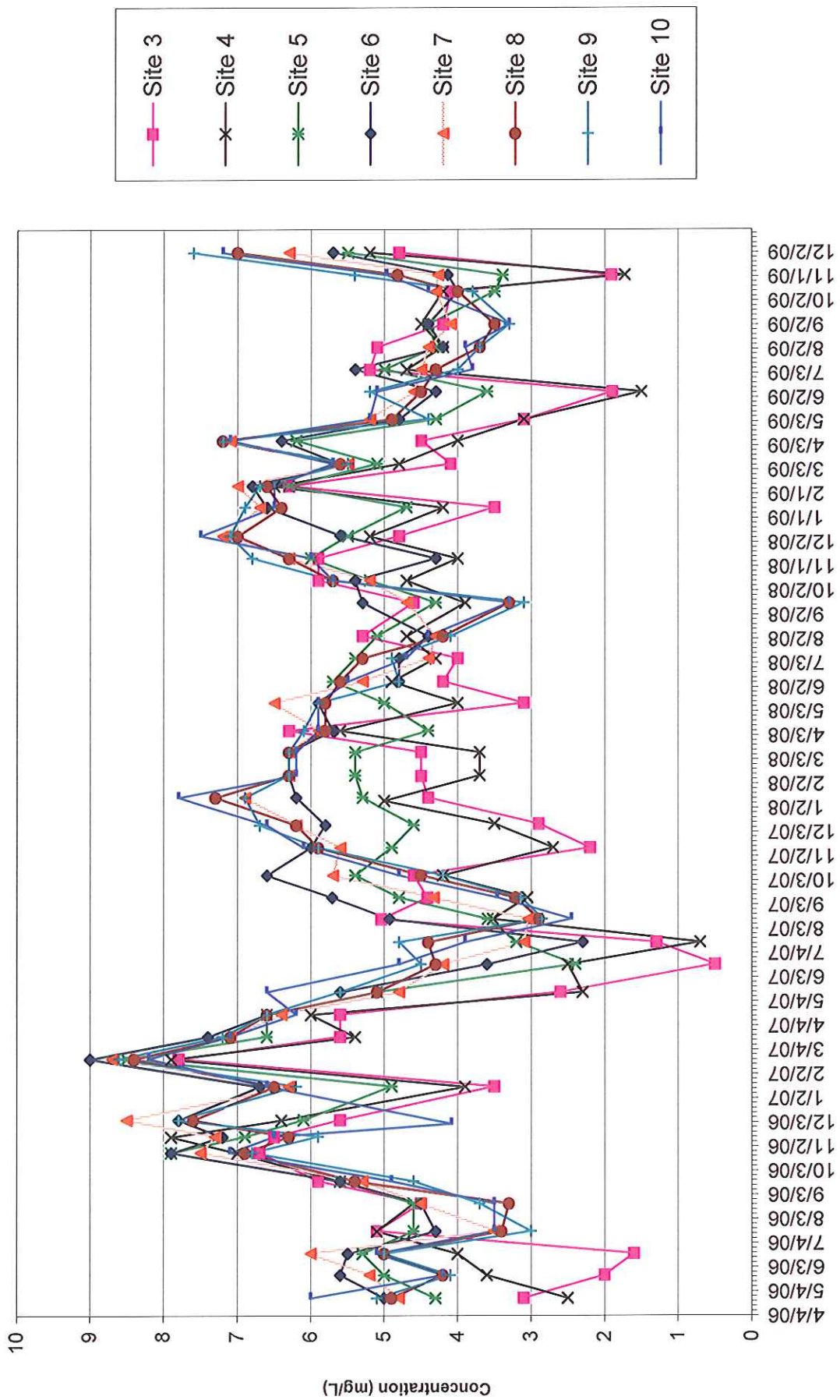
# Field Temperature



# Field pH



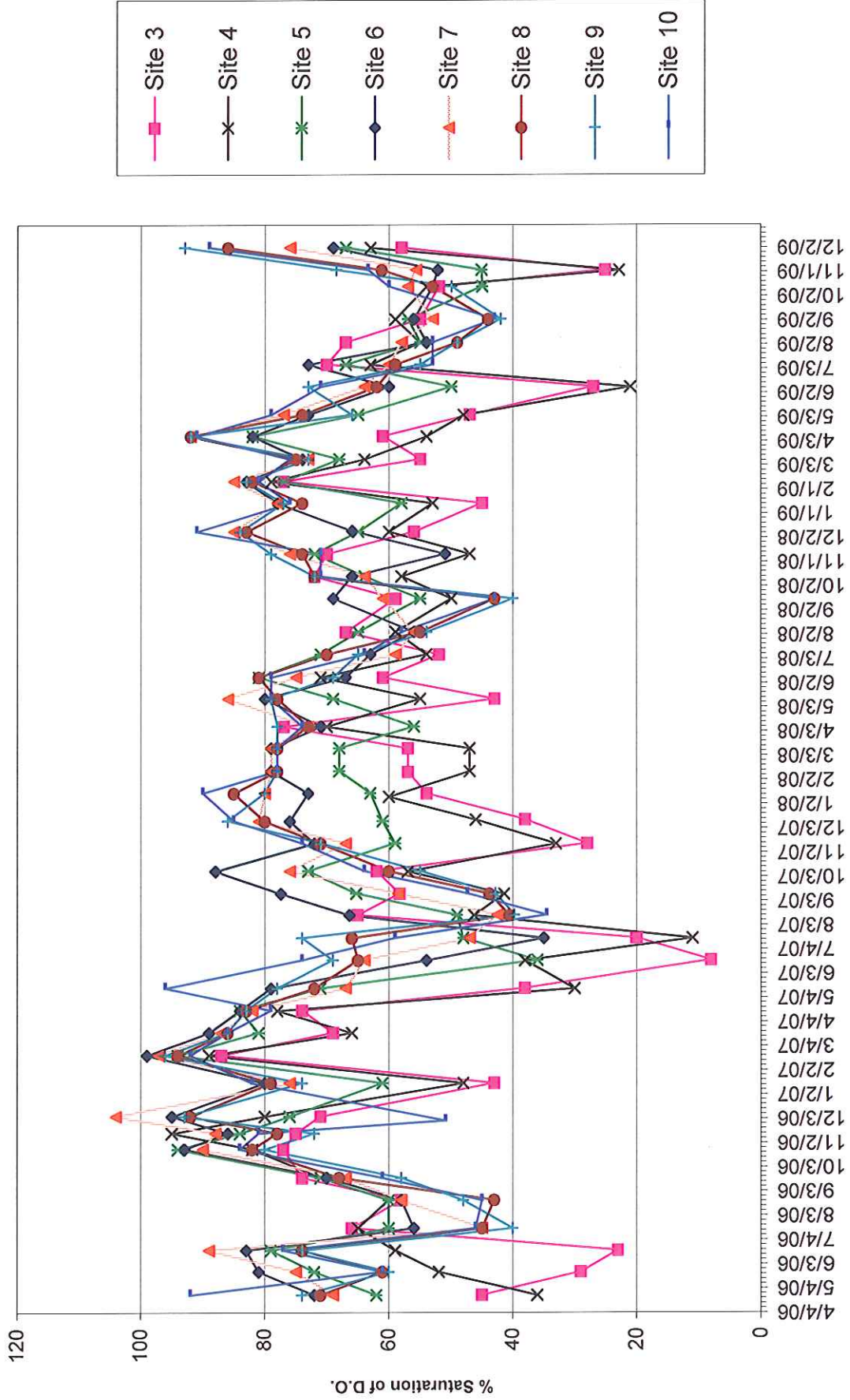
# Field Dissolved Oxygen



Date

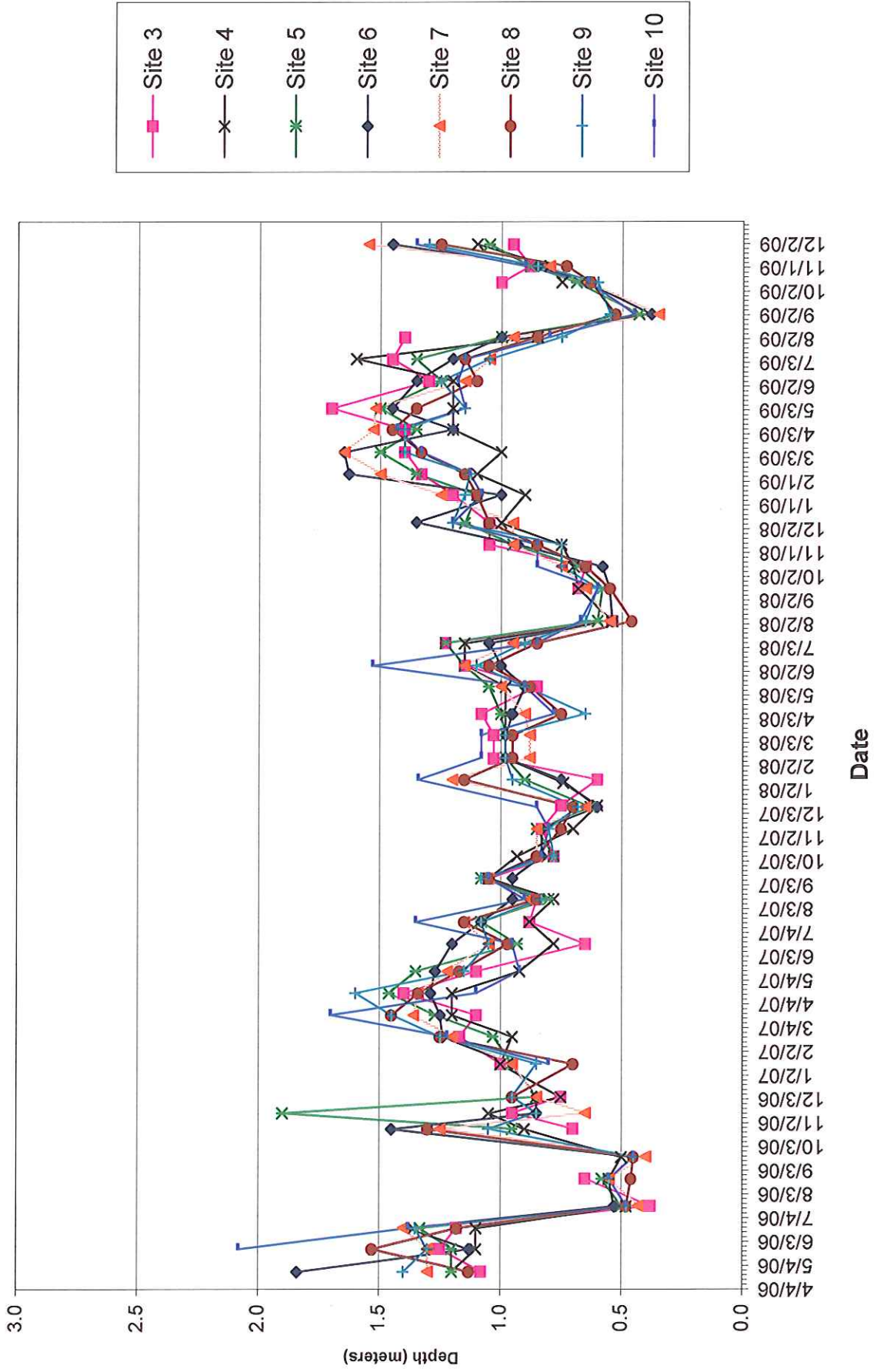


### Percent Saturation of D.O.

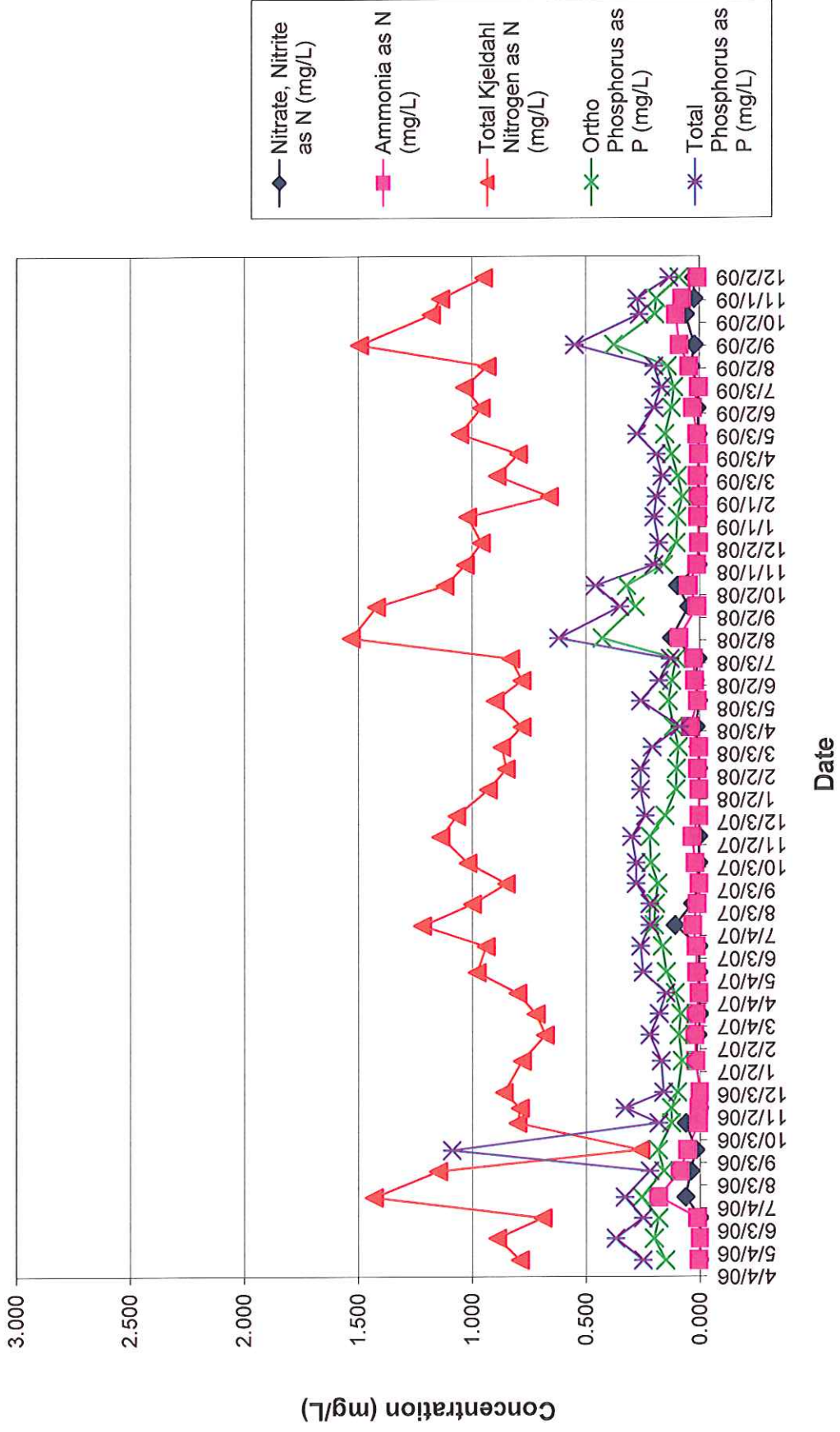


Date

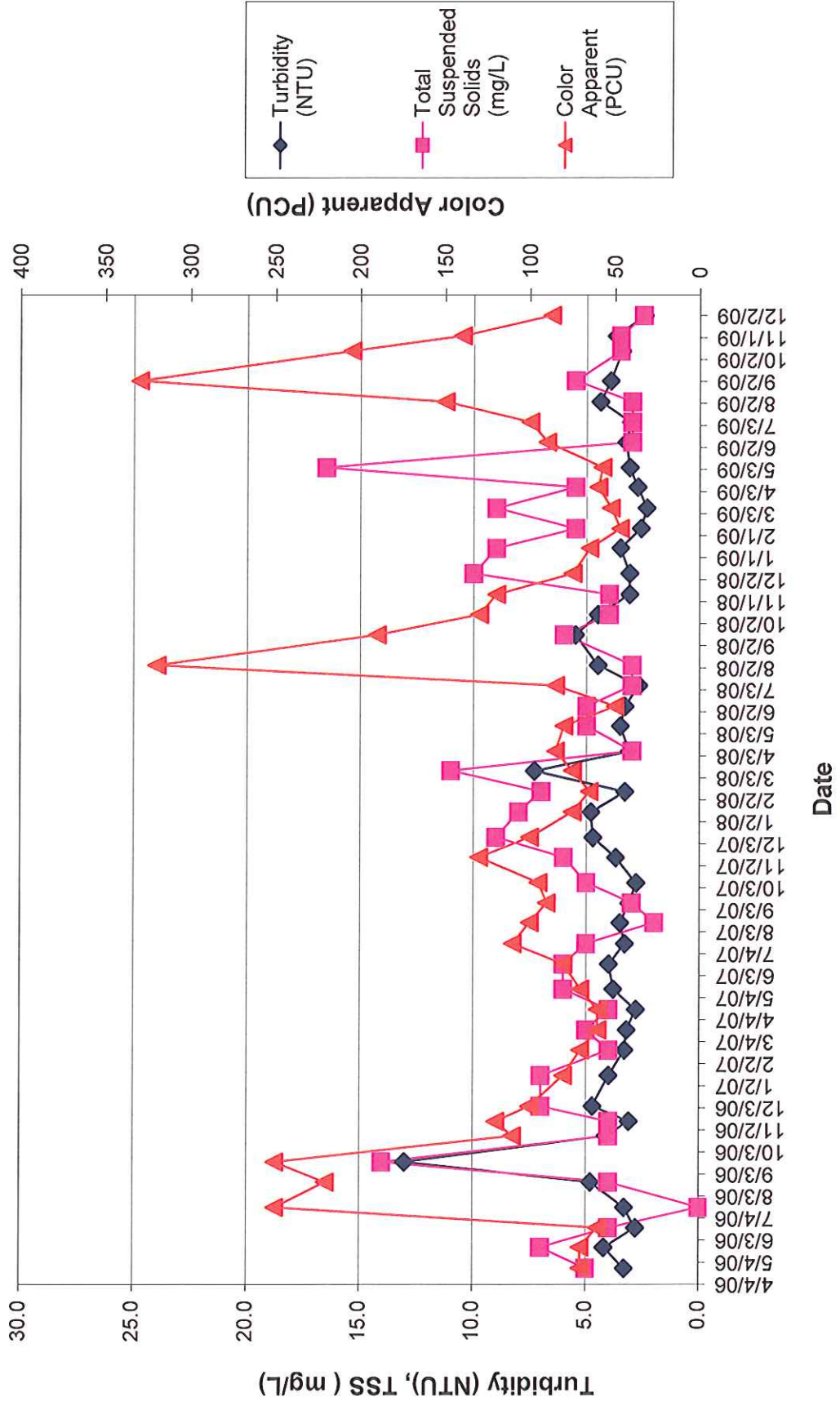
# Secchi Depth



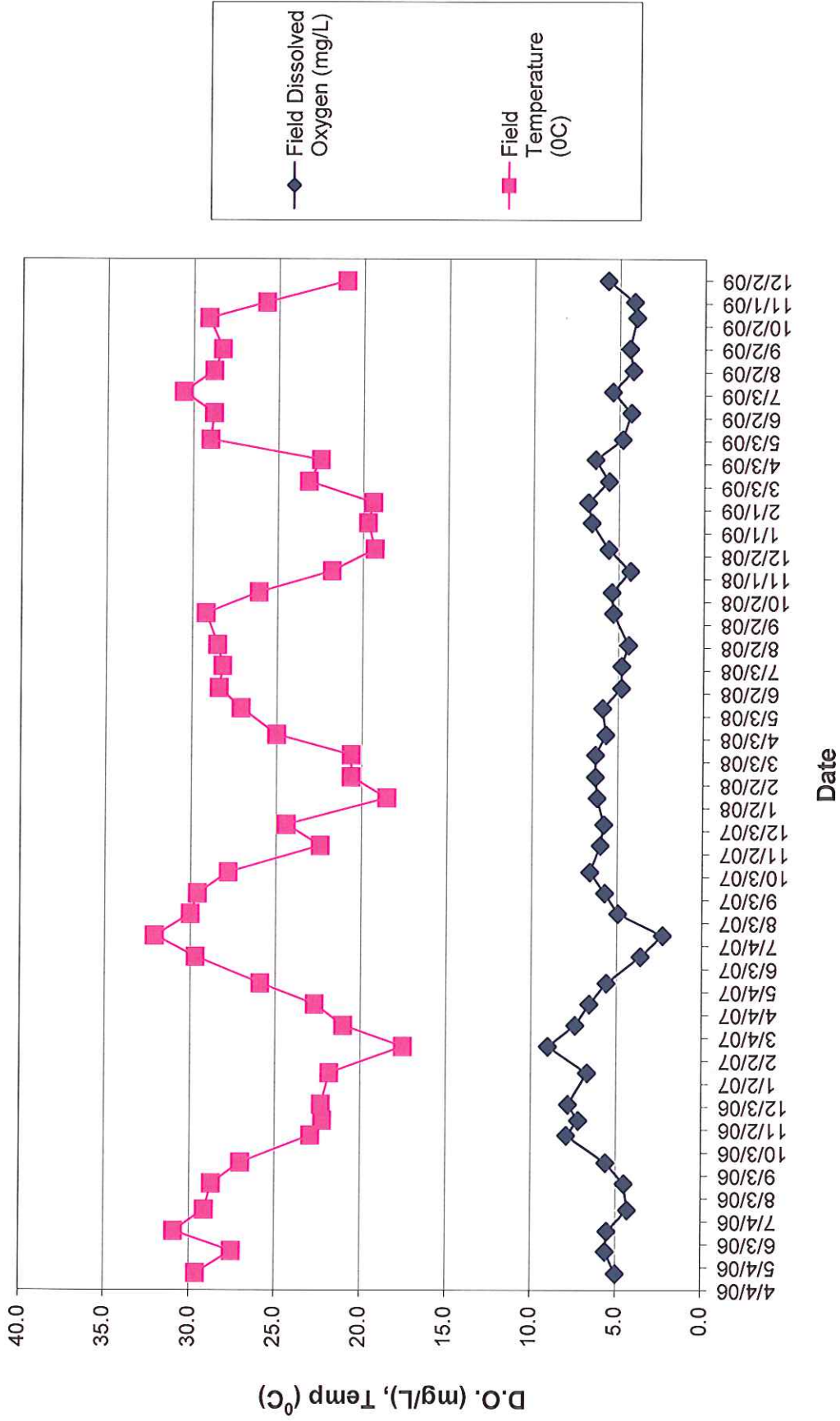
### Site 6 Nutrients



### Site 6 Turbidity, TSS, Color



### Site 6 Field D.O., Field Temp.



# APPENDIX C

## Summary of Current Local Code Review Activity

## **Summary of Current Local Code Review Activity**

Over the last two years, the City of North Port has been drafting a complete revision of the Unified Land Development Code (ULDC) which included stormwater regulations. In the existing ULDC, the stormwater regulations were spread over multiple Chapters 5-8, 14-11, 14-14 , 37-25 (see Appendix C-1). In the new draft ULDC, all details of the stormwater system design is consolidated into one new Chapter 18 (see Appendix C-2).

In the new Chapter 18 the following scheme is used to show changes:

- Strike through indicate deleted sections and underline indicate added sections.
- Grey highlighted sections indicate that these sections have been copied and pasted from another section verbatim.

The main changes in the proposed Chapter 18 are aimed at reducing the stormwater impact of new developments and redevelopments on stormwater quality and adverse flooding and encourage the use of Low Impact Designs to the maximum extent practicable.

This City expects to presented this revised ULDC to the City Commission for two readings of the adoption Ordinance on May 17, 2010 and June 14, 2010. At these hearings, all relevant department staff are present and provide responses as need to Commissioner and Public comments. When approved the new ULDC will be effective immediately.

In general, the City follows the SWFMWD requirements on the design of the stormwater management system. The following table summarizes the areas where the City has additional requirements:

<b>SWFMWD Requirements</b>	<b>City of North Port Proposed Requirements</b>	<b>Comments</b>
<b>Water Quality Treatment Volume</b>		
For on-line (dry ponds) off-line systems and effluent filtration and exfiltration systems, SWFMWD requires a treatment volume correspond to 0.5-inch of runoff over the project area.	In the existing ULDC, the City requires a treatment volume correspond to 1-inch of runoff over the project area, regardless of the treatment type.  This requirement is unchanged in the proposed ULDC.	The City is unique in that the stormwater runoff within most of the City is collected into the interconnected canals and Myakkahatchee Creek system, which serves as the major source of the City's potable raw water supply. Thus the historically higher level of water quality treatment is reasonable.
<b>Littoral Zone Plants</b>		
SWFMWD does not specify planting of the littoral zone. Any green plant including the prevalent invasive cattails are acceptable	Littoral zone shall be planted with non-invasive aquatic species, with a guaranteed survival rate of at least 85%.	If a littoral zone is not planted, invariably, cattails will take over. This is an invasive plant and is not aesthetically pleasing to most people.
<b>Fountains or Aeration Device</b>		
None Required	Wet detention ponds shall have a fountain or waterfall type of water feature to improve water quality treatment and provide an aesthetic appeal. The aeration device shall have a timer to ensure compliance with State and City water preservation requirements.	Fountain or waterfall type of water feature will provide the benefit of aeration to wet pond which are often stagnant and low in dissolved oxygen in the hot dry months. This anoxic water in the wet pond when flushed by rainfall into downstream water bodies can cause extremely low dissolved oxygen levels which can lead to fish kills.
<b>Stormwater Quantity Level Of Service And Design Criteria for Hydraulic Gradeline analysis</b>		
No specific guidance provided by SWFMWD	Specific guidelines provided for acceptable	These guidelines are similar to Sarasota



	levels of flooding for existing and new streets and developments for specified storm events.	County guidelines and are designed to protect the public, but with flexibility for City to review exceedances on a case by case basis for any adverse effects.
<b>Low Impact Development (LID)</b>		
No Low Impact Development (LID) requirements exist in the current SWFWMD rules. The proposed Statewide Stormwater treatment rule have LID requirements	The design engineer must demonstrate in the stormwater design that LID practices are incorporated to the maximum extent practicable. Examples of LID design practices are to minimize impervious areas, and encourage the use of pervious pavement, green roofs, rain cisterns, reuse of stormwater for irrigation, direct runoff to bioretention/biotreatment vegetated swale areas prior to discharge stormwater pond, Florida Friendly native landscaping, and other surface water quality improvement controls and devices.	In order to protect the limited, valuable natural resources within the City, developments must proceed in a sustainable manner. Sustainable measures such as construction to Florida Green Building Standards, LEED Certification and use of Low Impact Development (LID) designs are encouraged.

# APPENDIX C1

## Previous ULDC Stormwater Regulations

3594 ~~Department shall obtain from records of the Sarasota County landfill an~~  
3595 ~~estimate of the landfill's available excess capacity.~~

3596

3597 Sec. 5-~~8~~ 10. Drainage.

3598

3599 A. Adopted level of service. Policy 1.1 of the Drainage Stormwater Element of  
3600 the City's adopted Comprehensive Plan shall serve as the minimum criteria for  
3601 determining that adequate capacity exists for drainage facilities impacted by a  
3602 proposed development. Policy 1.1 states:

3603

3604 (1) Design storm within the City of North Port

3605

3606 (2) 10-year frequency, 5-day duration for existing ditch/canal systems  
3607 constructed by the General Development Corporation for existing surface water  
3608 management systems.

3609

3610 (3) 25-year frequency, 24 hour duration pursuant to SWFWMD criteria for  
3611 permitting new surface water management systems. Upon such time that SWFWMD  
3612 revises their design storm standards the City shall amend the Comprehensive  
3613 Plan and adopt those new standards within 6 months of the official action by  
3614 SWFWMD.

3615

3616 B. Procedures for review of individual development permits. As part of the  
3617 City's existing development permit review process, all development permit  
3618 applications are required to meet the more restrictive of the City's Stormwater  
3619 Regulations given in Chapter 18, and the latest SWFWMD stormwater management  
3620 permit regulations unless otherwise exempted by SWFWMD itself.

3621

3622 C. Procedures for annual concurrency review.

6394 ~~herein, the applicant shall demonstrate to the satisfaction of the Planning and~~  
6395 ~~Zoning Advisory Board and City Commission that the proposed earthmoving is~~  
6396 ~~specifically adapted and designed for the uses anticipated. The applicant shall~~  
6397 ~~also demonstrate that the proposed earthmoving activity and closure plan~~  
6398 ~~benefits and complies with the City of North Port Comprehensive Plan, the zoning~~  
6399 ~~regulations and other sections of this Unified Land Development Code, and other~~  
6400 ~~laws, ordinances and regulations, as applicable.~~

6401

6402 Sec. 14-9 7. Use of natural features.

6403

6404 The size, shape and orientation of earthmoving and associated ~~facilities~~  
6405 activities shall be designed to logically relate to trees, topography, solar  
6406 orientation, natural features, and adjacent land uses. All earthmoving shall be  
6407 designed to maximize the preservation of natural features, listed species,  
6408 trees, tree masses, unusual rock formations, watercourses and sites which have  
6409 historical significance, scenic views or similar assets. All earthmoving  
6410 ~~facilities~~ activities shall be designed to minimize the size of the excavation  
6411 with respect to the volume of material proposed for excavation so as to conserve  
6412 land and natural resources.

6413

6414 Sec. 14-~~11~~ 8. Consideration of flood hazards and conservation restricted areas.

6415

6416 Earthmoving ~~facilities~~ activities or portions thereof proposed to be located  
6417 within any of the City's designated conservation restricted areas, as depicted  
6418 on the City's Future Land Use Map, or in any designated flood hazard zone, as  
6419 depicted on the most ~~recent~~ latest FEMA and SWFWMD governing board adopted  
6420 floodplain maps", shall comply with all applicable City of North Port  
6421 regulations governing land uses within such areas as set forth in Chapter 9,  
6422 Conservation/Restricted Overlay Zone Regulations, and Chapter 17, Flood Damage

6423 Prevention Regulations, Chapter 18, Stormwater Regulations of this Unified Land  
6424 Development Code State and Federal requirements.

6425

6426 Sec. 14-~~12~~ 9. Tree protection and wetland protection.

6427

6428 All proposed earthmoving to be located within the City shall comply, as may be  
6429 deemed appropriate, with the wetland protection regulations and tree protection  
6430 regulations set forth in Chapter 49, Wetland Protection Regulations, and Chapter  
6431 45, Tree Protection Regulations, of this Unified Land Development Code.

6432

6433 Sec. 14-~~13~~ 10. Land clearing debris.

6434

6435 A. The on-site burying of any land clearing material generated as a result of  
6436 the earthmoving shall be ~~expressly~~ prohibited, except where the felled trees are  
6437 mulched in with Sec. 37-23 of these regulations .

6438

6439 B. All land clearing material generated as a result of earthmoving activities  
6440 shall be removed from the site prior to the completion of earthmoving activities  
6441 and the final Closure Plan.

6442

6443 C. Land clearing debris may be burned in accordance with § 33-9D(1)(e).

6444

6445 Sec. 14-~~14~~ 11. Stormwater management standards.

6446

6447 A. General provisions. A complete stormwater management system shall be provided  
6448 for the adequate control of stormwater runoff and water quality treatment that  
6449 originates within the earthmoving ~~facility~~ site and development parcel that  
6450 flows onto or across the property from adjacent lands. Said stormwater

6423 Prevention Regulations, Chapter 18, Stormwater Regulations of this Unified Land  
6424 Development Code State and Federal requirements.  
6425  
6426 Sec. 14-~~12~~ 9. Tree protection and wetland protection.  
6427  
6428 All proposed earthmoving to be located within the City shall comply, as may be  
6429 deemed appropriate, with the wetland protection regulations and tree protection  
6430 regulations set forth in Chapter 49, Wetland Protection Regulations, and Chapter  
6431 45, Tree Protection Regulations, of this Unified Land Development Code.  
6432  
6433 Sec. 14-~~13~~ 10. Land clearing debris.  
6434  
6435 A. The on-site burying of any land clearing material generated as a result of  
6436 the earthmoving shall be ~~expressly~~ prohibited, except where the felled trees are  
6437 mulched in with Sec. 37-23 of these regulations .  
6438  
6439 B. All land clearing material generated as a result of earthmoving activities  
6440 shall be removed from the site prior to the completion of earthmoving activities  
6441 and the final Closure Plan.  
6442  
6443 C. Land clearing debris may be burned in accordance with § 33-9D(1)(e).  
6444  
6445 Sec. 14-~~14~~ 11. Stormwater management standards.  
6446  
6447 A. General provisions. A complete stormwater management system shall be provided  
6448 for the adequate control of stormwater runoff and water quality treatment that  
6449 originates within the earthmoving ~~facility~~ site and development parcel that  
6450 flows onto or across the property from adjacent lands. Said stormwater

6451 management system shall be ~~designated~~ designed in accordance with ~~accepted~~  
6452 ~~engineering principles~~ the standards given in Chapter 18.

6453

6454 ~~B. Relationship to Comprehensive Plan. The stormwater management regulations in~~  
6455 ~~this chapter implement the objectives and policies set forth in the Drainage~~  
6456 ~~Element and the conservation and Coastal Zone Management Elements of the City's~~  
6457 ~~adopted Comprehensive Plan.~~

6458

6459 ~~€~~ B. Relationship to other stormwater management requirements. In addition to  
6460 meeting the requirements of this chapter, the design and performance of all  
6461 stormwater management systems shall comply with applicable state regulations or  
6462 rules of the Southwest Florida Water Management District (SWFWMD). In all cases,  
6463 the strictest of the applicable standards shall apply.

6464

6465 ~~Ø~~ C. Performance standards. All earthmoving facilities must be designed,  
6466 constructed and maintained to meet the following standards:

6467

6468 (1) While earthmoving activity is underway and after it is completed, the  
6469 characteristics of stormwater runoff shall approximate the rate, volume,  
6470 quality and timing of stormwater runoff that occurred under the site's  
6471 natural unimproved or existing state, except that the first inch of  
6472 stormwater runoff shall be treated in a retention/detention system or  
6473 according to other best management practices as described elsewhere in this  
6474 chapter.

6475

6476 (2) The proposed earthmoving activity shall not violate the water quality  
6477 standards as set forth in Chapter 17-3, Florida Administrative Code.

6478

6479 E D. Design standards. To comply with the foregoing performance standards, the  
6480 proposed stormwater management system shall conform to the following design  
6481 standards:

6482

6483 (1) Detention and retention systems shall be in compliance with Chapter 18.  
6484 ~~designed to accommodate storm events of at least a twenty-four-hour duration~~  
6485 ~~and twenty-five-year frequency.~~

6486

6487 (2) To the maximum extent practicable, natural systems shall be used to  
6488 accommodate stormwater.

6489

6490 (3) The proposed stormwater management system shall be designed to  
6491 accommodate the stormwater that originates within the earthmoving development  
6492 parcel and stormwater that flows onto or across the earthmoving development  
6493 parcel from adjacent lands.

6494

6495 (4) The proposed stormwater management system shall be designed to function  
6496 properly for the life of the system.

6497

6498 (5) A professional engineer registered in the State of Florida shall certify  
6499 the design and construction of the proposed stormwater management system as  
6500 meeting the requirements of this chapter.

6501

6502 (6) No surface water may be channeled or directed into a sanitary sewer.

6503

6504 (7) The proposed stormwater management system shall be compatible with the  
6505 stormwater management facilities on surrounding properties or streets, taking  
6506 into account the possibility that substandard systems may be improved in the  
6507 future.



18341 ~~City; however, the property owner shall maintain all surrounding landscape which~~  
18342 ~~shall be kept in good condition at all times.~~

18343

18344 Sec. 37-23 22. Tree protection and landscaping standards.

18345

18346 All proposed subdivisions to be located within the City shall comply with the  
18347 landscaping and tree protection regulations set forth in Chapter 21, Landscaping  
18348 Regulations, and Chapter 45, Tree Protection Regulations, of this Unified Land  
18349 Development Code.

18350

18351 Sec. 37-24 23. Land clearing debris.

18352

18353 A. The on-site burying of any land clearing material generated as a result of  
18354 the development of a subdivision shall be expressly prohibited.

18355

18356 B. Trees that are felled in the process of land clearing, may be mulched and  
18357 spread over the site, but shall not be buried in bulk. The mulched material may  
18358 not be used to build a berm.

18359

18360 C. Land clearing debris in any form may not be used for a business operation  
18361 from the project site.

18362

18363 D. All land clearing material generated as a result of development, except as  
18364 referenced in B above, of a subdivision shall be removed from the site within 30  
18365 days of completion of all subdivision work.

18366

18367 E. Land clearing debris may be burned in accordance with § 33-8 7(D)(1)(e).

18368

18369 Sec. 37-25 24. Stormwater management standards.

18370

18371 A. General provisions. A complete stormwater management system shall be  
18372 provided for the adequate control of stormwater runoff and water quality  
18373 treatment that originates within the development or that flows onto or across  
18374 the development from adjacent lands. Said stormwater management system shall be  
18375 designed in accordance with ~~accepted engineering principles~~ the standards given  
18376 in Chapter 18.

18377

18378 ~~B. Relationship to Comprehensive Plan. The stormwater management regulations~~  
18379 ~~in this chapter implement the objectives and policies set forth in the Drainage~~  
18380 ~~Element and the Conservation and Coastal Zone Management Elements of the City's~~  
18381 ~~adopted Comprehensive Plan.~~

18382

18383 ~~C. Relationship to other stormwater management requirements. In addition to~~  
18384 ~~meeting the requirements of this chapter, the design and performance of all~~  
18385 ~~stormwater management systems shall comply with applicable state regulations or~~  
18386 ~~rules of the Southwest Florida Water Management District. In all cases, the~~  
18387 ~~strictest of the applicable standards shall apply.~~

18388

18389 ~~D. Exemptions. The following development activities are exempt from these~~  
18390 ~~stormwater management requirements, except that steps to control erosion and~~  
18391 ~~sedimentation must be taken for all development.~~

18392

18393 ~~(1) The construction of a single family or duplex residential unit and~~  
18394 ~~accessory structures on a single parcel of land.~~

18395

18396 ~~(2) Any development within a subdivision if each of the following conditions~~  
18397 ~~has been met:~~

18398

# APPENDIX C2

New ULDC Chapter 18 Stormwater Regulations

8118

8119

8120 Chapter 18 STORMWATER REGULATIONS

8121

8122 [HISTORY: Adopted by the City Commission of the City of North Port:]

8123

8124 GENERAL REFERENCES

8125

8126 Conservation/Restricted Overlay Zone regulations - See Ch. 9.

8127 Dredge and fill regulations - See Ch. 13.

8128 Flood damage prevention regulations - See Ch. 17.

8129 Landscaping regulations - See Ch. 21.

8130 Site and development plan regulations - See Ch. 33.

8131 Subdivision regulations - See Ch. 37.

8132 Tree protection regulations - See Ch. 45.

8133 Wetlands protection regulations - See Ch. 49.

8134 Archaeological resource protection - See Ch. 58.

8135

8136 Sec. 18-1. Title.

8137 Sec. 18-2. Findings.

8138 Sec. 18-3. Intent.

8139 Sec. 18-4. Relationship to state and federal regulations, comprehensive plan.

8140 Sec. 18-5. Applicability.

8141 Sec. 18-6. Procedure for securing stormwater management plan approval.

8142 Sec. 18-7. Submission requirements for stormwater management systems.

8143 Sec. 18-8. Flood hazard areas, conservation restricted areas and floodplain

8144 encroachment.

8145 Sec. 18-9. Tree protection and wetland protection.

8146 Sec. 18-10. Stormwater management standards.

8147 Sec. 18-11. Interpretations.

8148 Sec. 18-12. Conflicts.

8149 Sec. 18-13. Appeals.

8150 Sec. 18-14. Severability.

8151

8152 Sec. 18-1. Title.

8153

8154 This chapter shall be known and may be cited as the "Stormwater

8155 Regulations" of the City of North Port, Florida.

8156

8157 Sec. 18-2. Findings.

8158

8159 A. It is important to ensure that stormwater management activities for site

8160 development are conducted in a manner that promotes public health, safety, and

8161 welfare.

8162

8163 B. Without appropriate stormwater regulations, site development activities may

8164 cause adverse impacts to watersheds, drainage patterns, native habitats, water

8165 quality, land use compatibility, historical resources, and roads.

8166

8167 (1) The City of North Port adopts these stormwater regulations to protect

8168 public health, safety, and general welfare.

8169

8170 Sec. 18-3. Intent.

8171

8172 It is the intent of these stormwater regulations to preserve, protect, and

8173 improve the public health, safety, comfort, good order, appearance and general

8174 welfare, and to conserve and to protect the natural resources within City of

8175 North Port while promoting opportunities for responsible development.

8176

8177 Sec. 18-4. Relationship to state and federal regulations, comprehensive plan

8178

8179 Before any site development is to begin, appropriate state and/or federal

8180 permits shall be obtained, when necessary, and presented to the City. In the

8181 case where a state and/or federal permits are not necessary, a copy of an

8182 exemption letter or other authorization shall be presented to the City. The

8183 project must also be in compliance with the City's Comprehensive Plan.

8184

8185 Sec. 18-5. Applicability.

8186

8187 A. General provisions. A complete stormwater management system shall be provided

8188 for the adequate water quality treatment and control of stormwater runoff that

8189 originates within the development or that flows onto or across the development

8190 from adjacent lands. Said stormwater management system shall be designed in

8191 accordance with accepted engineering principles. The design of the stormwater

8192 conveyance system shall also divert or bypass off-site run-off from adjacent

8193 lands that flows onto or across the development, so as not to adversely affect

8194 these adjacent lands.

8195

8196 B. Relationship to Comprehensive Plan. The stormwater management regulations in

8197 this chapter implement the objectives and policies set forth in the Drainage

8198 Stormwater Element and the Conservation and Coastal Zone Management Elements of

8199 the City's adopted Comprehensive Plan.

8200

8201 C. Relationship to other stormwater management requirements. In addition to

8202 meeting the requirements of this chapter, the design and performance of all

8203 stormwater management systems shall comply with applicable state regulations or

8204 to include but not limited to rules of the Southwest Florida Water Management

8205 District (SWFWMD) and Florida Department of Environmental Protection (FDEP). In  
8206 all cases, the strictest of the applicable standards shall apply.

8207

8208 D. Exemptions. The following development activities are exempt from these  
8209 stormwater management requirements, except that steps to control erosion and  
8210 sedimentation must be taken for all development.

8211

8212 (1) The construction of a single-family or duplex residential unit and  
8213 accessory structures on a single parcel of land.

8214

8215 (2) Any development within a subdivision if each of the following conditions  
8216 has been met:

8217

8218 (a) Stormwater management provisions for the subdivision were previously  
8219 approved and remain valid as part of a final plat or development plan.

8220

8221 (b) The development is conducted in accordance with the stormwater  
8222 management provisions submitted with the final plat or development plan.

8223

8224 (3) Bona fide agricultural activities, including forestry, provided that  
8225 farming activities are conducted in accordance with the requirements set  
8226 forth in an approved soil conservation service plan and forestry activities  
8227 are conducted in accordance with the Silviculture Best Management Practices  
8228 (BMP) Manual (1979 or latest edition), published by the Florida Division of  
8229 Forestry. If the conservation plan and forestry BMPs are not implemented  
8230 accordingly, this exemption shall become void.

8231

8232 (4) Maintenance activity that does not change or affect the quality, rate,  
8233 volume or location of stormwater flows on the site or of stormwater runoff.

8234

8235

(5) Action taken under emergency conditions to prevent imminent harm or

8236

danger to persons or to protect property from imminent fire, violent storms,

8237

hurricanes or other hazards. A report of the emergency action shall be made

8238

to the City as soon as practicable.

8239

8240

Sec. 18-6. Procedure for securing Stormwater management plan approval.

8241

8242

Prior to the submission of an application, the applicant should discuss with the

8243

City Stormwater Manager, City staff, and other agencies such as SWFWMD, FDEP and

8244

Army Corp. of Engineers (ACOE) on the requirements of Stormwater regulations.

8245

8246

Sec. 18-7. Submission requirements for Stormwater management systems.

8247

8248

Besides the submission requirements under Chapter 33, following are additional

8249

submission requirements that should be provided for the stormwater management

8250

system review prior to issuance of a Development Order (DO). A stormwater

8251

design submittal checklist is available on the City website under the Stormwater

8252

Division to facilitate submittal of a complete package. Applicant shall

8253

complete and submit with the application package, the latest checklist from the

8254

City's website. This checklist will be revised on an as-needed basis.

8255

8256

A. Approved state permits, e.g. SWFWMD or FDEP, Environmental Resource Permit

8257

(ERP), and SWFWMD approved stamped plans - two hard copies.

8258

8259

B. Color Aerial and Legible Boundary and Topographic Survey - two legible hard

8260

copies. This survey must be performed within one (1) year from the application

8261

date and signed and sealed by a Florida registered Land Surveyor. If there are



8262 any topographic changes within this one (1) year time period, a more recent  
8263 topographic survey shall be required.

8264

8265 (1) Include sufficient on-site topographic elevations and contour lines to  
8266 facilitate interpretation of direction of Stormwater flow. Include  
8267 sufficient off-site topographic elevations to show all off-site stormwater  
8268 flow onto project site. Clearly indicate the vertical datum (NGVD29 or  
8269 NAVD88) used.

8270

8271 (2) Provide the Big Slough Watershed floodplain map that is considered by  
8272 SWFWMD as the most appropriate information available for floodplain impact  
8273 and compensation analysis. Include the 100-year flood elevations and  
8274 footprint. Clearly indicate the vertical datum (NGVD29 or NAVD88) used.

8275

8276 (3) Include a benchmark. Clearly indicate the vertical datum (NGVD29 or  
8277 NAVD88) used.

8278

8279 C. Soil conservation service (SCS) soils survey map or soil boring analysis  
8280 report to support the selection of the seasonal high water elevation (SHWE) used  
8281 in the design - two legible hard copies.

8282

8283 D. Stormwater Design Plans - Digital copy of the proposed construction plans in  
8284 AutoCAD and PDF format - one CD copy. See number of hard copies of plans  
8285 required under Chapter 33. The plans must be signed and sealed by a Florida  
8286 Licensed Professional Engineer.

8287

8288 (1) Paving grading and Drainage Plans :

8289

8290 (a) Sufficient proposed elevations, cross sections and details should be  
8291 provided to show how flow is directed to the Stormwater management  
8292 system. Clearly indicate the vertical datum (NGVD29 or NAVD88) used.  
8293  
8294 (b) All off-site flows onto proposed project areas must be diverted so as  
8295 not to cause adverse off-site impacts.  
8296  
8297 (c) All required drainage and maintenance easements must be clearly  
8298 shown.  
8299  
8300 (d) The proposed pervious and impervious area and total project area must  
8301 be included in the plans with the corresponding curve numbers. The  
8302 amount of impervious area shall be minimized to the maximum extent  
8303 practicable. The proposed pervious and impervious area and corresponding  
8304 curve number information shall also be supplied on the plans for each  
8305 future outparcel served by the proposed master stormwater systems.  
8306  
8307 (e) Provide pond contour lines, cross sections and labels corresponding  
8308 to the pond bottom, change in slope, lower end of the littoral zone,  
8309 upper end of the littoral zone, control water elevation (CWE), ~~25-year~~  
8310 ~~24-hour storm event~~ design high water elevation (DHWE) and top of berm.  
8311 Six (6) inches of freeboard is recommended between the DHWE and the top  
8312 of bank.  
8313  
8314 (f) Legible water control structure details and skimmer to show the  
8315 bottom of skimmer to be a minimum of 4-inch below the control water  
8316 elevation and the top to be equal or higher than the ~~25-year 24-hr~~ DHWE.  
8317

8318 (i) A concrete pad shall be provided below the skimmer to prevent  
8319 vegetation from growing up through the skimmer.  
8320  
8321 (ii) Sufficient clearance shall be maintained between this concrete  
8322 pad and the skimmer bottom to avoid flow restriction.  
8323  
8324 (g) Cross sections of all ponds, swales and channels proposed. Check  
8325 that slopes are no steeper than 4:1 (horizontal to vertical).  
8326  
8327 (h) Typical lot grading plan for residential subdivisions.  
8328  
8329 (i) Littoral zone planting plan listing non-invasive aquatic species, and  
8330 showing spacing of plants with guaranteed survival rate of at least 85%.  
8331  
8332 (j) Fountain or aeration device for wet ponds with deep pool.  
8333  
8334 (k) Evaluate and apply to the maximum extent practicable, low impact  
8335 development (LID) design concepts including stormwater reuse for  
8336 irrigation.  
8337  
8338 (2) Best Management Plans (BMPs) and National Pollutant Discharge Elimination  
8339 System (NPDES) surface water pollution prevention plan (SWPPP)  
8340  
8341 (a) Show the location and details of the erosion, sediment and turbidity  
8342 control measures such as silt fence around the construction area, and  
8343 silt fence around each inlet structure to be implemented during each  
8344 phase of construction.  
8345

8346 (b) Include notes on how turbidity in stormwater runoff will be monitored  
8347 and corrective actions needed if turbidity level is higher than 29 NTUs  
8348 above background.

8349

8350 (c) Provide at the preconstruction meeting one hard copy of any required  
8351 NPDES SWPPP and Notice of Intent (NOI).

8352

8353 (3) Dewatering Plans.

8354

8355 (a) Show the location of the dewatering sites, the dewatering pump,  
8356 sediment sump, methods to retain or detain discharge, methods of  
8357 isolating the dewatering areas, flow path and points of discharge of the  
8358 water and the duration of the dewatering.

8359

8360 (b) A sectional detail of the dewatering pump should be provided to  
8361 include the dewatering pump (include pump rate in cfs on the plans),  
8362 sediment sump (include dimensions), piping, temporary berm, and turbidity  
8363 barriers.

8364

8365 (c) Provide calculations supporting the dimension of the sediment sumps,  
8366 and the capacity of the sediment pumps.

8367

8368 (4) Floodplain Impact and Compensation.

8369

8370 (a) The footprint area of 100-year floodplain impact and floodplain  
8371 compensation provided shall be clearly shown on the plans, together with  
8372 representative cross sections.

8373

8374 E. Drainage Treatment and Attenuation Analysis - two hard copies signed and  
8375 sealed by a Florida Licensed Professional Engineer. Provide also one CD copy of  
8376 the input and output data of any hydraulic model or spreadsheet analysis used.

8377

8378 (1) Include legible pre-development and post-development basin maps with  
8379 corresponding acreages, curve numbers (CN), flow arrows showing connectivity  
8380 and time of concentration (Tc) overlaid on existing and proposed conditions  
8381 topographic elevations.

8382

8383 (2) Provide attenuation analysis - Hydraulic modeling using software such as  
8384 Interconnected Pond Routing (ICPR) or CHAN software is preferred. Spreadsheet  
8385 attenuation calculations using the Rational Method is also acceptable for  
8386 drainage areas 10 acres or less.

8387

8388 (3) Include the printout of the node/reach schematic diagram and input and  
8389 output data of the Pre-development and Post-development hydraulic model if  
8390 used, including a printout of the peak discharge rate and the hourly flows  
8391 from all discharge points leaving the project site.

8392

8393 (4) If the Rational Method is used (for project area 10 acres or less),  
8394 provide the spreadsheet attenuation calculations for the design storm event.  
8395 Outflow may not commence until the first inch has accumulated in the  
8396 retention area. To compensate for the fact that flow out of the pond does  
8397 not begin to flow in the initial 10 minutes, the critical pond volume for  
8398 attenuation must be increased by 20 percent.

8399

8400 (5) Provide Tc calculations using TR-55 methodology or equivalent.

8401

8402 (6) Provide table summary of proposed pervious and impervious areas for each  
8403 drainage basin and corresponding CN and Tc for the pre-development and post-  
8404 development conditions.

8405  
8406 (7) Provide tabular summary of elevation/area/volume data for each Stormwater  
8407 pond at the following elevations - pond bottom, change in slope, lower end of  
8408 the littoral zone, upper end of the littoral zone, control water elevation  
8409 (CWE), 25-year 24-hour storm event design high water elevation (DHWE) and top  
8410 of berm.

8411  
8412 (8) Provide treatment calculations based on one-inch of runoff over the  
8413 entire project area and recovery of treatment volume analysis.

8414  
8415 (9) Provide calculations supporting size of drawdown orifice or weir notch if  
8416 applicable.

8417  
8418 (10) Provide floodplain impact and compensation analysis based on 100-year  
8419 flood elevation in compliance with SWFWMD requirements.

8420  
8421 F. Operation and Maintenance (O&M) Plan - two hard copies.

8422  
8423 (1) Provide an O&M plan that includes a schedule of maintenance and  
8424 inspection, and details on how to rehabilitate or retrofit the system if the  
8425 system does not function as designed.

8426  
8427 (2) O&M Plan must be signed by the owner accepting the responsibility to  
8428 adhere to the plan.

8429

8430 G. Prior to issuance of a Certificate of Occupancy (CO), the following shall be  
8431 submitted:

8432

8433 (1) Complete set of as-built site and stormwater plans, signed and sealed by  
8434 a Florida Licensed Professional Engineer. Any deviations shall be clearly  
8435 marked and approved by the City prior to issuance of a CO - two hard copies.

8436

8437 (2) Digital copy of the as-built plans in AutoCAD and PDF format together  
8438 with a signed and seal written certification by a Florida License  
8439 Professional Engineer of Record that the digital files are a complete set  
8440 that correlates to the hard copy of the submitted as-built plans - one CD  
8441 copy.

8442

8443 (3) Approval from SWFWMD to transfer the surface water management system into  
8444 operation - two hard copies.

8445

8446 Sec. 18-8. Flood hazard areas, conservation restricted areas and floodplain  
8447 encroachment

8448

8449 Site development proposed to be located within any of the City's designated  
8450 conservation restricted areas, as depicted on the City's Future Land Use Map, or  
8451 in any designated flood hazard area, shall comply with all applicable  
8452 regulations governing land use within such areas as set forth in Chapter 9,  
8453 Conservation/Restricted Overlay Zone Regulations, and Chapter 17, Flood Damage  
8454 Prevention Regulations, of this Unified Land Development Code.

8455

8456 Sec. 18-9. Tree protection and wetland protection.

8457

8458 All proposed Stormwater management systems to be located within the City shall  
8459 comply, as may be deemed appropriate, with the wetland protection regulations  
8460 and tree protection regulations set forth in Chapter 49, Wetland Protection  
8461 Regulations, and Chapter 45, Tree Protection Regulations, of this Unified Land  
8462 Development Code.

8463

8464 Sec. 18-10. Stormwater management standards.

8465

8466 A. Performance standards. All developments must be designed, constructed and  
8467 maintained to meet the following standards:

8468

8469 (1) While development activity is underway and after it is completed, the  
8470 characteristics of stormwater runoff shall approximate the rate, volume,  
8471 quality and timing of stormwater runoff that occurred under the site's  
8472 natural unimproved or existing state. ~~7~~ except that The first inch of  
8473 stormwater runoff shall be treated in all stormwater management systems a  
8474 (retention/detention systems) or according to other best management practices  
8475 as described elsewhere in this chapter.

8476

8477 (2) The proposed development and development activity shall not violate the  
8478 water quality standards as set forth in Chapter 17-3, Florida Administrative  
8479 Code Chapters 62-4, 62-302, 62-520, 62-522 and 62-550, F.A.C., including any  
8480 antidegradation provisions of paragraphs 62-4.242(1)(a) and (b), subsections  
8481 62-4.242(2) and (3), and Rule 62-302.300, F.A.C. The surface water  
8482 management facilities shall also comply with the requirements of the  
8483 Statewide Stormwater Treatment Rule upon its adoption by SWFWMD and FDEP.

8484



8485 B. Design standards. To comply with the foregoing performance standards, the  
8486 proposed stormwater management system shall conform to the following design  
8487 standards:

8488

8489 (1) ~~Detention and retention systems shall be designed to accommodate storm~~  
8490 ~~events of at least a twenty-four hour duration and twenty-five year frequency~~

8491 All stormwater management systems shall be designed to meet the SWFWMD ERP  
8492 rules with the following **additional** requirements:

8493

8494 (a) The water quality treatment volume for all types of stormwater  
8495 treatment systems shall correspond to **one-inch** of runoff over the  
8496 entire project area (including the pond area).

8497

8498 (i) The water quality treatment volume in a wet pond system shall  
8499 be recovered per SWFWMD criteria.

8500

8501 (ii) The water quality treatment volume in a dry pond system shall  
8502 be recovered through percolation within 72 hours. However, only  
8503 that volume which can again be available within 36 hours can be  
8504 counted as part of the volume required for water quantity storage.

8505

8506 (iii) The water quality treatment volume in an effluent filtration  
8507 system shall again be available within 36 hours. The treatment  
8508 volume can be counted as part of the volume required for water  
8509 quantity storage.

8510

8511 (iv) The water quality treatment volume in underground  
8512 exfiltration systems shall again be available within 72 hours.

8513 Due to the maintenance requirements and life expectancy of

8514 exfiltration systems, the treatment volume cannot be counted as  
8515 part of the volume required for water quantity storage.

8516

8517 (b) All new developments shall include ~~provide~~ a surface water management  
8518 system to attenuate for the 25-year 24-hour storm event that provides  
8519 attenuation per SWFWMD criteria. The post-development peak discharge  
8520 rate must not exceed the pre-development peak discharge rate for the 25-  
8521 year 24-hour design storm event per SWFWMD criteria. Projects that  
8522 qualify for a SWFWMD Minor Surface Water Management Systems ERP permit  
8523 under 40D-40.301, F.A.C., shall also provide attenuation for the 25-year  
8524 24-hour storm event. The only exception to the attenuation requirement  
8525 is for small projects that are 9,000 square feet or less in impervious  
8526 area that qualify for a SWFWMD Noticed General ERP permit under 40D-  
8527 400,475, F.A.C. No discharge from any stormwater management facility  
8528 shall cause adverse increases in on-site or off-site flood levels.

8529

8530 (c) Six inches of freeboard is recommended between the 25-year 24-hour  
8531 storm event design high water elevation and the top of bank in the  
8532 stormwater ponds. The top of berm width shall be sufficient for  
8533 maintenance vehicle access.

8534

8535 (d) The level of service criteria for a surface water management system  
8536 is given in the following tables:

8537

8538 STORMWATER QUANTITY LEVEL OF SERVICE AND DESIGN CRITERIA

8539

I.	<u>New Buildings: The finished floor elevation of all new building structures shall be set above the 100-year flood elevation.</u>
II.	<u>New Roadways Access: New roadways shall be designed to be passable during flooding under the following storm events.</u>

	Road Type		Design Storm 24-hr Duration
___	A. ___	Evacuation ___	> 100
___	B. ___	Arterials ___	100*
___	C. ___	Collectors ___	25*
___	D. ___	Neighborhood ___	25*
	* For arterials, collectors and neighborhood roads, roadway flooding < 6" depth measured at the outside edge of pavement is considered passable. No flooding is allowed on any portion of an evacuation road.		
III. -	<b>Existing Roadways Access:</b> The level of service for improvements to existing roadways may be adjusted from the above criteria, based on existing conditions such as existing road right-of-way area, on-site and adjacent topography, and vehicular use of the roadway.		
IV. -	<p><b>New Site Development:</b> The available stormwater pond attenuation volume for new site developments must be capable of attenuating <del>for</del> a 25-year 24-hour duration storm event per SWFWMD criteria. Within a new development, the stormwater runoff piping and conveyance system hydraulic grade line (HGL) analysis shall be based on a 25-year 24-hour duration storm event and shall not cause any adverse flooding impacts on-site or off-site. Deliberate flooding of a parking area in a 25-year 24-hr storm event is not allowed. The tailwater for the HGL analysis shall be based on the stage in the receiving pond at the time of peak flow.</p> <p>The City Stormwater Manager can allow a greater level of flooding during the peak of a 25-year storm event on a case-by-case basis, if sufficient documentation is provided to show that this level of flooding cannot be avoided, and the flooding can be demonstrated to not adversely impact public health and safety, natural resources or other property. The flood depth and duration of the flooding must be defined in the attenuation analysis, and justification provided to show why public health and safety is not compromised.</p>		

8540

8541

(2) ~~To the maximum extent practicable, Natural systems shall~~ may be used to

8542

~~accommodate stormwater,~~ but a hydroperiod analysis shall be provided to

8543

demonstrate no adverse impact to the natural system and the required

8544

pretreatment volume shall be provided pursuant to SWFWMD requirements.

8545

8546

(3) ~~The proposed stormwater management system shall be designed to~~

8547

accommodate treat and attenuate ~~the stormwater that originates within the~~

8548

~~development.~~ And ~~stormwater that flows onto or across the development from~~

8549

~~adjacent lands~~ The design of the stormwater conveyance system shall also

8550 divert or bypass off-site run-off that flows onto or across the development,  
8551 from adjacent lands, so as not to adversely affect any adjacent lands.

8552

8553 (4) The proposed stormwater management system shall be designed to function  
8554 properly for the life of the system.

8555

8556 (5) The design and construction of the proposed stormwater management system  
8557 shall be certified as meeting the requirements of this chapter by a  
8558 professional engineer registered in the State of Florida.

8559

8560 (6) No surface water may be channeled or directed into a sanitary sewer.

8561

8562 (7) The proposed stormwater management system shall be compatible with the  
8563 stormwater management facilities on surrounding properties or streets, taking  
8564 into account the possibility that substandard systems may be improved in the  
8565 future, properly maintained by the specified operation and maintenance  
8566 (O&M)entity. An O&M plan must be submitted to the City for review and  
8567 approval. If the system is not properly operated and maintained, the City  
8568 will perform the required O&M functions and lien the property for  
8569 reimbursement as necessary.

8570

8571 (8) The banks of retention and detention areas shall be sloped at a ratio of  
8572 no greater than 3 to 1 in order to accommodate and be planted with  
8573 appropriate vegetation. For purposes of public safety, water quality  
8574 treatment and maintenance, all retention or detention stormwater management  
8575 areas shall have stabilized side slopes no steeper than 4:1 (horizontal:  
8576 vertical).

8577

8578 (a) For wet ponds the 4:1 slope shall be maintained to a depth of two  
8579 feet below the SHWE elevation. The slopes shall be no greater than 2:1  
8580 (horizontal: vertical) thereafter. Due to fluctuations in ground water  
8581 levels in particularly in the dry season, it is recommended that the 4:1  
8582 slope requirement be extended to at least 5 feet below the proposed SHWE  
8583 in order to avoid steep exposed banks during the dry season and  
8584 corresponding erosion.

8585  
8586 (b) For purposes of public safety, exposed pond side slopes designed  
8587 steeper than 4:1 will require a six foot chain link fence or other  
8588 protection sufficient to prevent accidental incursion into the retention  
8589 or detention area.

8590  
8591 (c) In determining the sufficiency of other protection measures,  
8592 consideration shall be given to the depth and morphometry of the  
8593 detention or retention area, surrounding land uses, degree of public  
8594 access, and likelihood of accidental incursion.

8595  
8596 (d) For dry ponds, shallow swales and channel, slopes proposed steeper  
8597 than 4:1 (horizontal to vertical) will require approval by the City  
8598 Stormwater Manager or designee on a case-by-case basis and no adverse  
8599 effect to safety and erosion will need to be demonstrated.

8600  
8601 (9) Dredging, clearing of vegetation, deepening, widening, straightening,  
8602 stabilizing or otherwise altering natural surface waters shall be prohibited  
8603 unless the activity is in compliance with the regulations set forth in  
8604 Chapter 49, Wetlands Protection Regulations, Chapter 9,  
8605 Conservation/Restricted Overlay Zone Regulations and Chapter 13, Docks,  
8606 Seawalls And Other Water Dependent Structures.

8607

8608

(10) Natural surface waters shall not be used as sediment traps during or after development.

8609

8610

8611

(11) For aesthetic reasons and to increase shoreline habitat, the shoreline of retention and detention areas shall be sinuous rather than straight where practical.

8612

8613

8614

8615

(12) Water reuse and conservation shall, to the maximum extent practicable, be achieved by incorporating the stormwater management system into irrigation systems serving the development. The design plans for the stormwater reuse systems shall be submitted and all necessary SWFMWD permits obtained. The development will have to show just cause of why the stormwater management system is not used for irrigation.

8616

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8619

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8622

(13) A 6-foot low maintenance vegetated buffer zone of sufficient width is recommended to prevent erosion shall be retained or created and provide water quality treatment along the shores, banks or edges of all natural or man-made surface waters. The required vegetated buffer around a natural wetland is specified under Chapter 49, Wetland Protection Regulations.

8623

8624

8625

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8628

(14) In phased developments, the Stormwater management system for each integrated stage of completion shall be capable of functioning independently as required by this chapter. A phasing plan shall be submitted for approval.

8629

8630

8631

8632

(15) All retention and detention facilities, except natural water bodies used for this purpose, shall be accessible for maintenance from streets or public rights-of-way or easements.

8633

8634

8635

8636 (16) Retention and detention areas Stormwater management systems shall not be  
8637 located in a 100-year floodplain area as delineated on the FEMA/FIRM maps,  
8638 except as approved by the City Manager or designee and SWFWMD. Any loss of  
8639 floodplain volume as a result of development within the 100-year floodplain  
8640 shall be compensated, mitigated elsewhere on the site, the location of which  
8641 must The method and extent of floodplain compensation requires the approval  
8642 of be approved by the City's Engineer Stormwater Manager and SWFWMD.

8643

8644 (17) Design requirements with respect to floodplain encroachment and  
8645 floodplain compensation.

8646

8647 (a) No net encroachment will be allowed into the "fresh water" component  
8648 of the 100-year floodplain, which will adversely affect either  
8649 conveyance, storage, water quality or adjacent lands. If the proposed  
8650 development encroaches into the 100-year floodplain, then floodplain  
8651 compensating storage shall be equivalently provided between the seasonal  
8652 high water elevation and the 100-year flood elevation to allow flood  
8653 water storage function.

8654

8655 (b) The equivalent excavation method of floodplain compensation is the  
8656 preferred method of floodplain compensation. Supporting calculations  
8657 shall be submitted to the City for review. The footprint area of  
8658 floodplain impact and floodplain compensation provided shall be clearly  
8659 shown on the plans, together with representative cross sections. Detailed  
8660 floodplain impact and compensation volume calculations shall be provided.

8661

8662 (c) Other methods of floodplain compensation that are acceptable to  
8663 SWFWMD will be acceptable to the City also. In lieu of the equivalent  
8664 excavation method of floodplain compensation, the Big Slough Watershed

8665 hydraulic model that is considered by SWFWMD as the most appropriate  
8666 information available may be used with the proposed development, to  
8667 demonstrate no adverse impacts on-site or off-site for the 100-year  
8668 design storm. The analysis using the Big Slough Watershed hydraulic  
8669 model must show no significant increase in off-site stages. As the Big  
8670 Slough Watershed hydraulic model is a very detailed and extensive model,  
8671 to ensure a fair and reasonable analysis, the developer must pay the fees  
8672 specified in the Fee Ordinance as adopted by the City Commission, in  
8673 order for the City to retain a consultant to perform this hydraulic  
8674 analysis using the Big Slough Watershed hydraulic model. Selection of  
8675 the consultant will be mutually agreeable to both the City and the  
8676 Developer.

8677

8678 (18) Stormwater discharge facilities which directly discharge to the  
8679 Myakkahatchee Creek shall include an additional level of treatment equal to  
8680 50% of the treatment criteria specified in § 37-25E(1) 18-9 herein.

8681

8682 (19) Drainage plans shall provide that stormwater be conveyed to a an  
8683 ultimate positive outfall beyond the outer edge of the development or at the  
8684 nearest natural outfall. Discharge points and flow rates must match between  
8685 the pre-development and post-development conditions.

8686

8687 (20) A littoral zone planting plan shall be provided showing the proposed  
8688 location(s) of the littoral zone(s), plant types, spacing of plantings and a  
8689 typical pond cross section showing the littoral zone.

8690

8691 (a) The size of the littoral zone shall follow the criteria as required  
8692 by the SWFWMD.



8693

8694

(b) The depth of the water between the seasonal high water elevation

8695

(SHWE) of the pond and the littoral shelf shall typically be two feet. A

8696

maximum 3 feet of water depth can be allowed provided littoral zone

8697

plants are proposed that can survive at this water depth.

8698

8699

(c) The littoral zone shall be concentrated near the outfall of each

8700

pond. Surface water run-off shall be directed to the deep pool of the

8701

pond and not into the littoral zone in order to avoid short circuiting

8702

the treatment capacity provided by the pond.

8703

8704

(d) The littoral zone shall be planted with aquatic plants species.

8705

Native plant species are encouraged. Aquatic plants that are prohibited

8706

under the Florida Department of Environment Protection Chapter 62C-52

8707

will not be allowed. In particularly, the invasive species e.g. cattails

8708

(Typha spp. 1) shall not be planted or allowed to grow in the littoral

8709

zone or on the periphery of the pond.

8710

8711

(e) Centers of vegetation shall be no farther apart than three feet for

8712

herbaceous individual plants or clumps, or five feet for floating-leaved

8713

species.

8714

8715

(f) Supplemental planting will be required on an annual basis if survival

8716

falls below 85 percent or if coverage is less than 85 percent.

8717

8718

(g) Required littoral zone vegetation shall be maintained in perpetuity

8719

by a designated responsible entity or the owner of the property.

8720

Invasive plant species shall be removed from the pond as part of routine

8721

pond maintenance.

8722

8723

(h) Overgrowth of littoral zone plants maybe be trimmed but all trimmings

8724

and decaying vegetation must be removed from the pond and not allowed to

8725

accumulate in the pond.

8726

8727

(21) For a wet detention pond, an aeration device shall be used in the deep

8728

pool area to increase the oxygen content of the water to improve water

8729

quality treatment. The aeration capacity of the device shall be sufficient

8730

to avoid anoxic (oxygen depleted) conditions in the pond. Anoxic conditions

8731

may result in buildup of algae, turbidity, scum, and foul smells from the

8732

pond and even fish kills. This oxygen depleted water when flushed in the

8733

City's canals and Myakkahatchee Creek system, will deteriorate the quality of

8734

the City's potable water sources and can cause downstream detrimental

8735

environmental effects.

8736

8737

(a) If the wet detention pond is located in an area that is not visible

8738

to the public or visitors to the site, a bubbler aerator or mixer can be

8739

used.

8740

8741

(b) All other wet detention ponds shall have a fountain or waterfall type

8742

of water feature to improve water quality treatment and provide an

8743

aesthetic appeal. The aeration device shall have a timer to ensure

8744

compliance with State and City water preservation requirements.

8745

8746

(c) On a case-by-case basis, the aeration device requirement may be

8747

waived if approved by the City Stormwater Manager.

8748

8749

C. General requirements for drainage culvert pipe construction.

8750

8751 ~~(1) No certificate of occupancy or other required final approval for any~~  
8752 ~~development may be issued until an appropriate culvert has been installed in~~  
8753 ~~accordance with the requirements of this chapter City standards. {Amended 3-~~  
8754 ~~11-1991 by Ord. No. 91-1}~~

8755

8756 ~~(2) No person shall construct or install a culvert within the right-of-way or~~  
8757 ~~easement of the City without a currently valid culvert permit issued by the~~  
8758 ~~City's Road and Drainage Department. Pursuant to this chapter.~~

8759

8760 ~~(3) Specifications for culvert pipes shall be according to the requirements~~  
8761 ~~under Sec. 33-5.~~

8762

8763 D. Sustainable Developments and Low Impact Development Design

8764

8765 ~~(1) In order to protect the limited, valuable natural resources within the~~  
8766 ~~City, developments must proceed in a sustainable manner. Sustainable~~  
8767 ~~measures such as construction to Florida Green Building Standards, LEED~~  
8768 ~~Certification and use of Low Impact Development (LID) designs are~~  
8769 ~~encouraged. The design engineer must demonstrate in the stormwater design~~  
8770 ~~that LID practices are incorporated to the maximum extent practicable.~~  
8771 ~~Examples of LID design practices are to minimize impervious areas, and~~  
8772 ~~encourage the use of pervious pavement, green roofs, rain cisterns, reuse of~~  
8773 ~~stormwater for irrigation, direct runoff to bioretention/biotreatment~~  
8774 ~~vegetated swale areas prior to discharge stormwater pond, Florida Friendly~~  
8775 ~~native landscaping, and other surface water quality improvement controls and~~  
8776 ~~devices.~~

8777

8778 (2) Treatment trains incorporating LID design shall be practiced to achieve  
8779 pollutant load reduction in a developed site in accordance with the  
8780 Statewide Stormwater Treatment Rule when adopted by SWFWMD and FDEP.

8781

8782 Sec. 18-11. Interpretations

8783

8784 Interpretations of this section shall be made by the City Manager or designee.

8785

8786 Sec. 18-12. Conflicts.

8787

8788 Whenever the requirements of these regulations differ from those imposed by the  
8789 City, Federal, or state regulation, law or statute, the most restrictive or  
8790 imposing the higher standards shall govern.

8791

8792 Sec. 18-13. Appeals.

8793

8794 Any person aggrieved by the City Manager or designee's interpretation may appeal  
8795 to the Zoning Board of Appeals. The criteria for granting an appeal shall be  
8796 based upon substantial competent evidence proving that the interpretation  
8797 renders the property unbuildable. The granting of any appeal shall not be in  
8798 conflict with State Statutes. The Zoning Board of Appeals' decision may be  
8799 appealed to the Circuit Court of Sarasota County within 30 days of such  
8800 decision.

8801

8802 (1) Applications for an appeal shall be filed pursuant to Sec. 1-10.

8803

8804 Sec. 18-14. Severability.

8805

8806 If any section, subsection, phrase or portion of this chapter is for any reason  
8807 held invalid or unconstitutional by any court of competent jurisdiction, such  
8808 portion shall be deemed a separate, distinct and independent provision and such  
8809 holding shall not affect the validity of the remaining portions thereof.

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8811 Chapters 19--20 RESERVED

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# APPENDIX D

## FLOOD CONTROL PROJECTS SUMMARY

## APPENDIX D

### FLOOD CONTROL PROJECTS SUMMARY As of May 25, 2010

Over the last several years the City has pursued a very aggressive stormwater program. Following is a description of the work accomplished.

#### 1. STORMWATER IMPROVEMENTS FUNDING STUDY PHASE I

##### Summary of Project Accomplishments

The City Commission is committed to considering and evaluating dedicated funding source alternatives for funding stormwater program elements associated with the Big Slough Watershed Study, National Pollutant Discharge Elimination System (NPDES) MS4 Permit compliance, maintenance and rehabilitation of stormwater control structures and infrastructure, water quality improvements, and flood control. In September 2007, a consultant, URS Corporation, was retained to assist in the development of this long-term funding solution for the City. The work will consist of the following steps:

1. Conceptualization of a comprehensive stormwater management vision that:
  - a. Takes stock of the existing program;
  - b. Integrates community values and expectations on levels of service standards;
  - c. Incorporates current and anticipated regulatory requirements; and
  - d. Establishes the operational and financial needs of an enhanced stormwater management program consistent with community expectations.
2. Development of an integrated stormwater management program that:
  - a. Defines specific work activities that will be accomplished in future years to meet community expectations;
  - b. Establishes firm costs for these services; and
  - c. Develops a viable long-term funding plan to provide adequate revenues to fund annual operations and capital investments.
3. Implementation of the stormwater funding plan to include:
  - a. Required financial analyses;
  - b. Assistance with the development of the master account files for the customer base;
  - c. Staff training; and
  - d. Public education and related support needs.

##### Budget and Estimated Time for Completion of Projects

The URS contract is for \$261,946. Review comments from City Staff have been provided to URS. URS is preparing the final report. A final invoice is expected in June 2010 when the report is completely finalized.

#### 2. CITY OF NORTH PORT WATERSHED STUDY #K883

##### Summary of Project Accomplishments

The City of North Port is located in southeast Sarasota County in the southern portion of the Big Slough Watershed, which covers approximately 195 square miles, in southwest Florida. The headwaters of the Big Slough Watershed initiate in the Mosaic (a phosphate mining company) land holdings in Desoto County. Flows from the watershed are mostly conveyed by the Big Slough Canal which extends in a

southwesterly direction from Desoto County through unincorporated portions of Manatee and Sarasota Counties before traversing through the City of North Port. The portion of the Big Slough Canal that traverses through the City is also known as the Myakkahatchee Creek. The Myakkahatchee Creek discharges to the lower Myakka River just above the Myakka River's mouth at Charlotte Harbor which then connects to the Gulf of Mexico. The current land use within the watershed north of the City boundary is predominantly agricultural with some mining activities scattered therein.

Due to the extensive historic flooding experienced in the City, a Big Slough Watershed Study is being conducted by consultant Ardaman and Associates under a cooperative funding agreement (K883) between the Southwest Florida Water Management District (SWFWMD) and the City of North Port. The two major goals of this project are to revise the 1981 FEMA flood maps and develop flood reduction projects. The hydraulic model has been created and calibrated with actual storms experienced in 2003 and 2004. The calibrated model has been used to produce draft 100-year flood maps. The latest draft 100-year floodplain maps and hydraulic model received is dated July 18, 2008 and is based on 2004 LiDAR topographic data and development constructed in 2004. A draft of the flood map based on July 18, 2008 draft Big Slough Watershed model has been received.

#### Budget and Estimated Time for Completion of Projects

This Big Slough watershed study effort is budgeted at \$1,280,000 and is cost shared equally between SWFMWD and the City. SWFMWD pays the consultant Ardaman and Associates Inc. for the work completed and the City reimburses SWFMWD for 50% of the cost.

In late 2008, SWFMWD decided to update the hydraulic model with 2007 LiDAR topographic data and the extensive development that has occurred in the City between 2004 and 2007. This update will be done at SWFMWD expense. However, there have been multiple delays on delivery of the 2007 LiDAR due to quality assurance/quality (QA/QC) control issues. The consultant Ardaman and Associates is currently updating the model with developments that has been constructed between 2004 and 2007.

After the model is updated to 2007 data, SWFMWD will pay separately for a Peer Review Consultant (Engineering and Applied Science) to perform a QA/QC of the hydraulic model and also to make recommendation on whether a 100-year frequency storm event with a duration longer than 1-day should be used to develop floodplain maps for the City of North Port. At the completion of the Peer Review effort which is expected in 2010, a series of public meetings will be held to solicit Public input on the 100-year floodplain maps. Any needed revisions of floodplain maps will be completed and the floodplain maps are expected to be submitted to FEMA in 2010 for FEMA review and approval. Once the QA/QC effort is completed on the Big Slough watershed hydraulic model, it will be used to model cost effective stormwater improvement projects for flood reduction that can be permitted through the regulatory agencies. Due to the delays in the 2007 LiDAR data, the contract between the City and SWFMWD has been extended to March 1, 2011.

### **3. WATER CONTROL STRUCTURE #109 RETROFIT (see attached photos)**

#### **Engineering Design**

##### Summary of Project Accomplishments

The City's existing 69 water control structures (WCS) are thirty (30) to forty (40) years old. Aging, functionality and structural integrity conditions vary between structures, but many are in dire need of rehabilitation. Delays in the rehabilitation schedule increase the possibility and risk for a potential massive failure of older deteriorated structures; especially during a severe storm event or any event where there is exposure to harsh environmental conditions. Water control structure failures can trigger



other catastrophic mishaps such as downstream flooding and perhaps even washout of bridges. As a recommendation of a previous evaluation conducted by consultant PBS&J, WCS #109 located in the Cocoplum Waterway just east of San Mateo Blvd was selected for a retrofit. This metal sheet pilings and vertical I-beams on this structure are severely corroded with multiple large holes in the structure allowing extensive seepage of water through these corrosion openings. All of the six gates are severely corroded and either cannot be opened or not opened fully. There is severe erosion undermining the structure.

Kimley Horn and Associates (KHA) has completed the design of the WCS#109 retrofit and has provided engineering services during construction such as shop drawing review, construction inspection, design changes during construction and preparation of as-built plans.

#### Budget and Estimated Time for Completion of Projects

The KHA contract is for \$49,594.36 and the project is completed in May 2009.

#### **Construction**

##### Summary of Project Accomplishments

- Keesling Construction Inc. was selected as the contractor to perform the retrofit work on the severely corroded major water control structure WCS #109 on Cocoplum waterway, east of San Mateo. The contractor has completed the rehabilitation of this severely corroded major water control structure WCS #109 on Cocoplum waterway, east of San Mateo. Work began on April 1, 2009 and is completed in late May 2009. The completion is much earlier than the 5 months planned for this project. Key task accomplished includes:
  - Dewatering of the structure with the installation of an Aquadam was on the upstream and downstream sides of the structure.
  - Replacement of all six (6) rusted gates with stainless steel gates.
  - Construction of reinforced concrete walls at the locations of the existing sheet pilings. Extensive rock revetment was added to provide support for the structure and reduce erosion.
  - Construction of a extended concrete spillway and energy dissipaters to reduced erosion and undermining of the structure.
  - Replacement of all the tie rods that restrain the structure.

#### Budget and Estimated Time for Completion of Projects

The contract is for \$311,650 and the project is completed in May 2009.

#### **4, 5 & 6. CHANCELLOR BLVD THREE WATER CONTROL STRUCTURES #501, #503, #504 AND CULVERTS REPLACEMENT (see attached photos)**

#### **Engineering Design**

##### Summary of Project Accomplishments

On Chancellor Blvd near Sumter Blvd, there are three (3) corrugated metal pipe (CMP) drop type water control structures WCS #501 (Cheshire Waterway), #503 (Apollo Waterway), and #504 (Jupiter Waterway). The large culvert pipes (CMP) associated with each structure, are all extremely corroded. Since the midline of Chancellor Blvd is the border between City of North Port and Charlotte County, there is an Interlocal agreement between the City and the County in 2002 to plan and budget for replacement of these structures. The County is managing the bidding, award and construction of these projects and the City will reimburse the County for 50% of the design and construction costs.

All three water control structures have been designed and permitted by the consultant DRMP retained by Charlotte County. The DRMP contract with Charlotte County was for \$49,868.00.

#### Budget and Estimated Time for Completion of Projects

The DRMP contract with Charlotte County was for \$49,868.00 and the project was completed Sept 2009.

## **Construction**

### Summary of Project Accomplishments

#### WCS# 504 (Jupiter Waterway)

The first structure to be replaced is WCS# 504 (Jupiter Waterway). This structure is located on the north side of Chancellor Blvd between Fountain Street and Eppinger Drive (just east of the new portion of Salford Blvd). The Contract has been awarded to Armadillo Underground Contractors and a notice to proceed is issued effective 4/27/09 and the contract time is 90 days. The project cost is \$432,032 and the project was completed in August 2009.

#### WCS#503 (Apollo Waterway)

The second structure to be replaced is WCS# 503 (Apollo Waterway). This structure is located on the north side of Chancellor just east of Sumter Blvd. The project has been awarded to Dave Foot Environmental and a notice to proceed is issued effective 5/26/09 and the contract time is 90 days. The dewatering system is currently being installed as of 6/9/09. The project cost is \$400,464 and the project was completed in Sept 2009.

#### WCS#501 (Cheshire Waterway)

The third structure to be replaced is WCS# 504 (Cheshire Waterway). This structure is located on the north side of Chancellor just west of Sumter Blvd. The project has been awarded to Southwest Utilities and a notice to proceed is issued effective 5/26/09 and the contract time is 60 days. Currently as of 6/9/09, the contractor is awaiting on SWFWMD approval of the revised dewatering plan prior to start of site work. The project cost is \$171,908 and the project was completed in July 2009.

### Budget and Estimated Time for Completion of Projects

The final cost of all three projects is \$1,004,404 and is shared 50/50 between Charlotte County and the City of North Port. All three projects are all completed in 2009.

## **7. REHABILITATION WCS 107 ON COCOPLUM WATERWAY**

### Summary of Project Accomplishments

As a recommendation of a previous evaluation conducted by consultant PBS&J, WCS #107 located in the Cocoplum Waterway just west of Chamberlain Blvd was selected as the next major water control structure on Cocoplum waterway targeted for a retrofit. This metal sheet piling and vertical I-beams on this structure are severely corroded with multiple large holes in the structure allowing extensive seepage of water through these corrosion openings. All of the six gates are severely corroded and either cannot be opened or not opened fully. There is severe erosion undermining the structure.

Kimley Horn and Associates (KHA) has completed the design and SWFWMD permitting of the WCS#107 retrofit and is contracted to provide engineering services during construction such as shop drawing review, construction inspection, design changes during construction and preparation of as-built plans. The project construction has been awarded to Coral Sands in May 2010.

### Budget and Estimated Time for Completion of Projects

The KHA contract is for \$43,873.16. The project is expected to be complete prior to end of the City's fiscal year in September 2010.

## **8, 9, & 10. DROP STRUCTURES (DS) #132, 133, 139 REPLACEMENT**

### Summary of Project Accomplishments

As part of the City's continual water control structure rehabilitation/replacement program, three additional water control structures have been identified as in dire need of replacement. The structures were installed in the 1960's as corrugated metal pipe (CMP) vertical drop structures which continues as horizontal culvert pipes under major roadways. These structures serve to convey flow under a roadway where the roadway bisects a canal. Over time these metal drop structures has become severely corroded and any collapse can cause major washout of the roadway and flooding.

DMK Associates has been selected to design and obtain SWFWMD permitting for the replacement of three structures, DS 132 at Jeannin Drive/Bass Point Waterway, DS 133 at Price Blvd/Bass Point Waterway, and DS 139 at Price Blvd/New Castle Waterway. An open weir is designed with concrete culvert pipes under the roadway to replace each of the drop structures. Currently, all three new structures have been designed and permitted by SWFMWD. The temporary construction easements are currently under acquisition and the maintenance of traffic plan is evaluated to detour traffic during construction.

### Budget and Estimated Time for Completion of Projects

The DMK contract is for \$89,952.35. The project is expected to be completed late 2010 to early 2011. Replacement of DS #132 and 133 is expected to go for bid later in 2010.



Old Water Control Structure #109 on Cocoplum Waterway with corroded metal weirs and 6 corroded gates. Note water pouring through large holes in the corroded metal weirs.



Newly retrofitted Water Control Structure #109 on Cocoplum Waterway with concrete weir and 6 new stainless steel gates

Type of Project – Water Control Structure #109 Retrofit

Project - Construct new concrete weir and Replace existing corroded gates with 6 new stainless steel gates

Project Program - Community Budget Issue Requests (CBIRS) 50% Reimbursable

Completion Date - May 2009

Design Cost - \$49,594.36

Construction Cost -\$311,650



Old Water Control Structure #504 on Jupiter Waterway - Note corroded metal drop pipe design which is subject to clogging



Newly constructed Water Control Structure #504 on Jupiter Waterway with fiberglass skimmer to prevent clogging and triple 72" concrete culvert pipes under Chancellor Blvd through a cooperative joint project with Charlotte County Public Works

Type of Project – Water Control Structure #504 at Jupiter and Chancellor Blvd Replacement

Project - Construct new concrete Water Control Structure #504 and triple 72" concrete pipes under Chancellor Blvd

Project Program - Cooperative joint (50/50 Funded) project Between City of North Port Public Works Dept and Charlotte County Public Works Dept. Community Budget Issue Requests (CBIRS) 50% Reimbursable.

Completion Date - August 2009

Design Cost - \$16,623

Construction Cost -\$432,032



Old Water Control Structure #503 on Apollo Waterway - Note corroded metal drop pipe design which is subject to clogging



Newly constructed Water Control Structure #503 on Apollo Waterway with fiberglass skimmer to prevent clogging and triple 72" concrete culvert pipes under Chancellor Blvd through a cooperative joint project with Charlotte County Public Works

Type of Project – Water Control Structure #503 at Apollo and Chancellor Blvd Replacement

Project - Construct new Water Control Structure #503 and triple 72" concrete pipes under Chancellor Blvd.

Project Program - Cooperative joint (50/50 Funded) project Between City of North Port Public Works Dept and Charlotte County Public Works Dept. Community Budget Issue Requests (CBIRS) 50% Reimbursable.

Completion Date - September 2009

Design Cost - \$16,623

Construction Cost - \$ 400,464



Old Water Control Structure #501 Discharging into Cheshire Waterway – 60” metal pipe connect to this concrete structure is corroded under Chancellor Blvd



Water Control Structure #501 on Cheshire Waterway – Replacing concrete structure and 60” diameter corroded metal pipe with concrete pipe

Type of Project – Water Control Structure #501 at Cheshire and Chancellor Blvd Replacement

Project - Construct new Water Control Structure #501 and 60” concrete pipe under Chancellor Blvd

Project Program - Cooperative joint (50/50 Funded) project Between City of North Port Public Works Dept and Charlotte County Public Works Dept. Community Budget Issue Requests (CBIRS) 50% Reimbursable.

Completion Date - July 2009

Design Cost - \$16,623

Construction Cost -\$171,908

# APPENDIX E



PZE Inspections and Maintenance of City Facilities

Project	SWFWMD Permit	Type of System	Maintenance Entity	2009 Inventory			2009 Inspections			2009 Maintenance		
				Date Transferred to Operation	No. of Ponds	Inlets Catch Basins MH	Date Inspected	Deadline (1 yr from last inspection)	Date Maintained	No. of Ponds	Inlets Catch Basins MH	Comments
City Hall and Police Station	44016316.003	1 Wet Pond	Property Maintenance	12/28/07	2	24	8/14/09, 12/11/2009 (SWFWMD Recert)	12/11/10	8/12/09	1		Removed shell pile around large north pond
Fire Station 81 and Mullen Center at City Center Blvd	44016316.000	1 Wet Pond	Property Maintenance	11/4/03	1	11	8/12/09 and 8/14/09	8/12/10 and 8/14/10	9/10/09	1		
Fire Station 82 at North Port Blvd	440025522.002 440025522.003	2 Dry with 2 Underdrains	Property Maintenance	2/22/10	2	7	10/21/2009 by E Wong, 12/16/09 by Mike Shannon	10/21/10				
Fire Station 83 at East Price / Haberland	46029686.000	2 Wet Ponds	Property Maintenance	10/20/08	2	4	4/28/09	4/28/10	N/A			
Fire Station 84 (next to PW)	46014050.001	1 Dry Pond	Property Maintenance	3/1/2004	1		4/28/09	4/28/10	N/A			
Fire Station 84 (Citizen's Parkway)	46035178.000	2 Dry Pond	Property Maintenance	Under Const.		3			N/A			
Fleet Maintenance Yard	Prior to ERP	2 Dry Ponds	Property Maintenance	<1984	2	1	10/16/2009	10/16/10	11/3/09	1		
Pan American Blvd Campus	46007313.002	1 Dry Pond	Property Maintenance	12/17/08	1		10/16/2009	10/16/10	11/3/09			General Site
Biscayne Gardens Drainage Improvement Project	44024955.000	no ponds	Public Works	2/26/10		11	10/16/2009	10/16/10	11/3/09		1	
Biscayne Drive and Price Blvd	46017688.001	pipes under sidewalks	Public Works				12/14/09	12/14/10	1/20/10			8" pipes under sidewalks cleaned
Choclaw Blvd Extension	44016977.000						10/23/09	10/23/10	N/A			
	44016977.001						10/23/09	10/23/10	N/A			
	44016977.002	4 Dry Ponds with 3 Underdrains	Public Works	11/3/03	4	2	10/23/09	10/23/10	N/A			
Control Structure Replacement (DS-132, DS-133, DS-134 Bass Point and New Castle Waterways)	44035193.000		Public Works	Under Construction					N/A			
Cranberry Blvd	4001804.000	1 Wet Pond	Public Works		1		7/13/09	7/13/10	N/A			
Price and Cranberry	44033077.000	4 dry ponds with ditch blocks and 5 inlets/CB	Public Works	Drainage modification under construction					N/A			
Intersection of Price and Salford (Elementary School H Intersection Improvement)	44031205.000	7 Underdrains tied into catch basins	Public Works	6/30/08	7	7	10/8/09	10/8/10	N/A			
	44032843.000	2 Wet Ponds and 33 inlets	Public Works	under construction					N/A			
	44032843.001	1 Weir	Public Works	4/15/94	1	7	10/9/09	10/9/10	11/3/09	1	7	
	40006004.000	1 Dry Pond	Public Works	6/8/08	1	2	11/18/09	11/18/10	N/A			
R226 Outfall Improvements	44024208.000	1 Dry Pond	Public Works	12/5/05	1	1	10/9/09	10/9/10	10/16/09	1	1	
Salford Pond Near USA-1	44014445.001	1 Dry Pond	Public Works	Under Construction		8			N/A			
Spring Haven Dr. Phase I (Price to Youth Center Entrance Road)	44030825.001	Under Construction	Public Works	Under Construction					N/A			

PZE Inspections and Maintenance of City Facilities

Project	SWFWM Permit	Type of System	Maintenance Entity	2009 Inventory			2009 Inspections			2009 Maintenance		
				Date Transferred to Operation	No. of Ponds	Inlets Catch Basins MH	Date Inspected	Deadline (1 yr from last inspection)	Date Maintained	No. of Ponds	Inlets Catch Basins MH	Comments
Spring Haven Dr. Phase II (Youth Center Drive and Parking)	44007490.003	Under Construction	Public Works	Under Construction		2	Under Construction		N/A			
Sumter Green (Greenway, Pocatella)	40006954.000	2 Dry Ponds	Public Works	9/30/93	2	14	10/9/09	10/9/10	11/3/09	1		
Sumter Blvd - Between Chancellor Blvd and US 41	44016724.000	2 Dry Pond	Public Works	2/5/99	2		10/23/09	10/23/10				
Sumter Blvd Improvements - Between Chancellor Blvd and US 41	44016724.001	Not Constructed yet	Public Works	Not Constructed					N/A			
Sumter Phase II Between US 41 and Heron Creek	44027659.000	2 Dry with Underdrains 3 Wet Ponds, 6 pollution control boxes inside CB	Public Works	Sept 2008	5	67	10/23/09	10/23/10	11/8/09	5		Swale and two MIES pipes cleaned
Sumter Blvd. Phase III between Heron Creek Blvd. to Morandi Ave.	44032911.000	28 ponds Segment Under Construction	Public Works	Under Construction					N/A			
Sumter Blvd Near I-75	44016090.000	16 Wet Ponds	Public Works		16	19	12/29/09	12/29/10	11/18/09	5		
	44016090.001						12/29/09	12/29/10	11/18/09			
Toledo Blade Widening	44031797.002	37 Ponds (8 effluent filtration ponds & 1 retention pond & 28 conveyance ponds)	Public Works	Under Construction					N/A			
	44031797.003	64 inlets/CB Under Construction							N/A			
North Port Utilities Yard	Prior to ERP	3 Dry Ponds	Utilities	<1984	3	3	10/16/2009	10/16/10	11/3/09	2	1	
North East Booster Station (Price Blvd. near Haberland)	58-0283712-001 FDEP	1 Wet Pond	Utilities - Jerry Manning	Construction completed 12/09	1		Construction completed 12/09		N/A			
Utilities Southwest Booster Station (a.k.a. WVID pump station)	44027994.000	1 Wet Pond	Utilities	9/14/06	1		10/16/2009	10/16/10	N/A			
Atwater Park	44034254.001	3 wet & 1 dry pond	Property Maintenance	under construction			Under Design	Under Design	N/A			
Blue Ridge Park (2155 Blue Ridge)	47035104.000	N/A	Property Maintenance	10/14/09			10/14/09	10/14/10	N/A			
Butler Park (6205 Price Blvd.) adjacent to Youth Center	40007490.000	4 Interconnect Ponds with one Control structure	Property Maintenance	4/12/90	4		12/14/09	12/14/10	N/A			
Dallas White Park (Greenwood)	44002522.001	1 Pond with Side drain	Property Maintenance	2/12/90	1		10/14/09	10/14/10	N/A			
Garden of Five Senses (4299 Pan American)	44029294.000	2 dry ponds	Property Maintenance	2/1/08	2	4	7/28/09	7/28/10	7/31/09	1		Erosion on pond banks near sidewalk

PZE Inspections and Maintenance of City Facilities

Project	SWFWMD Permit	Type of System	Maintenance Entity	2009 Inventory			2009 Inspections			2009 Maintenance			
				Date Transferred to Operation	No. of Ponds	Inlets Catch Basins MH	Date Inspected	Deadline (1 yr from last inspection)	Date Maintained	No. of Ponds	Inlets Catch Basins MH	Comments	
Glennallen Soccer Fields (Glenn/Allen/Narramore)	44019384.002	2 Wet Ponds	Property Maintenance	8/9/07	2	13	8/20/09	8/20/10	8/29/09		2		
Highland Ridge Bike Park (6225 Kenwood)	46033881.000	1 Dry Pond with side drain	Property Maintenance	6/3/09	1	3	10/14/09	10/14/10	11/3/09			Fixed swale ruts	
Hope Park (8161 Lombra)		N/A	Property Maintenance				10/14/09	10/14/10	N/A				
Kirk Park (8305 Trionfo)		N/A	Property Maintenance				10/14/09	10/14/10	N/A				
LaBrea Park (6340 LaBrea)	Donated to City 5/12/69	N/A	Property Maintenance				10/9/09	10/9/10	N/A				
Marina Park (7030 Chancellor)		N/A	Property Maintenance				10/9/09	10/9/10	N/A				
Marius Park (Marius)		N/A	Property Maintenance				10/9/09	10/9/10	N/A				
McKibben Park (5500 Trekell)	47035103.000	N/A	Property Maintenance	10/14/09			10/14/09	10/14/10	N/A				
Myakkahatchee Creek Trailhead Parking Lot	44034910.001		Property Maintenance	Under design			Under Design		N/A				
Myakkahatchee Creek Environmental Park (6968 Reisterstown)	46013953.000	Retention Swale Ponds	Property Maintenance		2	1	12/16/09	12/16/10	N/A				
Narramore Sports Complex (7508 Glenallen)	43020825.001	3 Dry with 1 Underdrain	Property Maintenance	9/10/08	3	2	8/20/09	8/20/10	1/20/10			Maintenance performed in 2/3/10	
North Port Family YMCA (5925 Greenwood)		1 Dry Pond	Property Maintenance		1	2	10/14/09	10/14/10	11/3/09		1		
North Port Town Center Athletic West	44016316.001		Property Maintenance				11/20/09	11/20/10	N/A				
North Port Town Center Athletic East	44016316.002	N/A	Property Maintenance	10/11/07			8/14/09	8/14/10	9/21/09			Garbage removed	
Oaks Park (Mandrake)			Property Maintenance				12/11/09	12/11/10	N/A				
Pine Park (4556 McKibben)		N/A	Property Maintenance				10/14/09	10/14/10	N/A				
Paw Park (Appomatox)	44034925.000	2 effluent filtration ponds	Property Maintenance	Under Construction			Under Design		N/A				
Skate Park (5651 North Port)	44020920.000	2 Dry with 2 Underdrains	Property Maintenance	4/12/07	2	1	10/23/09	10/23/10	11/3/09		1		
Youth Center	44007490.002		Property Maintenance	Under Construction			Under Construction		N/A				
Youth Center Aquatic Center	44007490.004		Property Maintenance	Under Construction			Under Construction		N/A				
<b>Total</b>		<b>21 Sidedrains &amp; underdrains and 6 GIBs</b>			<b>74</b>	<b>219</b>					<b>16</b>	<b>31</b>	

## Part III.A.2 and III.A.9.a - New Development Review- 2009

Type	Number Rec'd	Stormwater Review	BMPs reviewed	
			Private Site	City Sites
Annexations	0	0	0	
Comprehensive Plan Amendment	3	0	0	
Conditional Use Permit	3	3	0	
Development Concept Plan (DCP)	5	5	4	1
Subdivision Plans and Plat (FPS)	2	2	2	
General Petitions	14	2	0	2
Major Site Development (MAS)	23	23	14	9
Final Plat (PLF)	2	2	0	
Plat Vacation	3	0	0	
Rezone	1	0	0	
Subdivisions (SCP)	1	1	1	
Temp Use Permit (TUP)	11	0	0	
Text Amendment	2	0	0	
Vacation of Easement	1	1	0	
Variance	1	0	0	
Village District Pattern Book Amend	1	1	0	
Village Proposed/Final VDPP	1	1	0	
<b>Total</b>	<b>74</b>	<b>41</b>	<b>21</b>	<b>12</b>

Part III.A.6 Public Outreach

Brochure Type	Date Available	Amount Available	Date Remaining Brochures Counted	Amount Remaining	Amount Distributed	No. in Participants	Neighborhood Presentation	Seminar/ Workshop	Special Events	Public Displays	Event
Fertilizer Presentation to Kiwanis	01/14/09	0	01/04/09	0	0	20	Y				E. Wong gave a powerpoint presentation to about 20 members at Early Bird Kiwanis
ACSE Presentation	01/22/09				55	500		Y	Y		E. Wong gave a powerpoint presentation to ASCE on Stormwater design and rule changes E. Wong and S. Frank host booth at Environmental Festival at Garden of 5 Senses
Fertilizer Fact Sheet	01/31/09	36	01/31/09	0	36	10000			Y		E. Wong and S. Frank host booth at Environmental Festival at Garden of 5 Senses
SWFWMD Stormwater Consequences Poster	02/28/09	196	02/28/09	0	196	10000			Y		PZE Staff and other City Staff at City's 50th Anniversary Parade
Sustainability North Port Go Green Brochure	03/07/09	104	03/07/09	0	104	2000			Y		PZE Staff at North Port Business and Community Expo
Fertilizer Fact Sheet	03/07/09	25	03/07/09	0	25	40	Y		Y		PZE Staff at North Port Business and Community Expo
Fertilizer Fact Sheet	03/10/09	50	03/10/09	0	50	50					S. Frank gave presentation to Jockey Club Homeowners Association
Fertilizer Ordinance Summary	03/10/09	50	03/10/09	0	50						S. Frank gave presentation to Jockey Club Homeowners Association
Fertilizer Fact Sheet	04/25/09	100	04/25/09	0	100	300			Y	Y	E. Wong and R. Pieper host both Annual Tree Festival at Community Center on Pan American Drive
SWFWMD Stormwater Game Poster	04/25/09	50	04/25/09	0	50						Community Center on Pan American Drive
Fertilizer Fact Sheet	05/21/09	4	05/21/09	0	4	200			Y		PZE staff at Woodland Elementary School
Fertilizer Fact Sheet	06/04/09	100	06/04/09	0	100	100			Y	Y	1st Floor Kiosk, 2nd Floor Kiosk, 1st Floor PZE, 3rd Floor PZE
Sustainability North Port Go Green Brochure	06/04/09	100	06/04/09	0	100	100			Y	Y	1st Floor Kiosk, 2nd Floor Kiosk, 1st Floor PZE, 3rd Floor PZE
Know Where Your Drinking Water Comes From	06/04/09	100	06/04/09	0	100	100			Y	Y	1st Floor Kiosk, 2nd Floor Kiosk, 1st Floor PZE, 3rd Floor PZE
Fertilizer Fact Sheet	06/08/09	50		0	50					Y	Kiosk at North Port Library
Sustainability North Port Go Green Brochure	06/08/09	50		0	50					Y	Kiosk at North Port Library
Know where your drinking water comes from	06/08/09	50		0	50					Y	Kiosk at North Port Library
PZAB Workshop	08/05/09	50		0	50	50		Y			SWFWMD and E. Wong gave a powerpoint presentations on upcoming new flood maps and timelines
Fertilizer Fact Sheet	08/30/09	50	08/30/09	20	30	20	Y		Y	Y	Fertilizer Ordinance review at Community Garden Presentation by Barbara McKeethon at the North Port Library
Stormwater Educational Game from SWFWMD	09/26/09	50	09/26/09	11	39	300					E. Wong and S. Frank host booth at Eco-Blast for Kids organized by People for Trees
Welland Coloring Sheet from SWFWMD	09/26/09	50	09/26/09	11	39						E. Wong and S. Frank host booth at Eco-Blast for Kids organized by People for Trees
Florida Friendly Plant Coloring Sheet from SWFWMD	09/26/09	50	09/26/09	11	39						E. Wong and S. Frank host booth at Eco-Blast for Kids organized by People for Trees
Fertilizer Fact Sheet	09/26/09	50	09/26/09	32	18						E. Wong and S. Frank host booth at Eco-Blast for Kids organized by People for Trees
Know Where Your Drinking Water Comes From	09/26/09	50	09/26/09	45	5						E. Wong and S. Frank host booth at Eco-Blast for Kids organized by People for Trees
Fertilizer Fact Sheet	10/17/09				3	40			Y	Y	S. Frank, Jane Harry and Michelle Norton Regional hosted a booth at Regional Planning Council Green Region Expo
Know where your drinking water comes from	10/17/09				10						S. Frank, Jane Harry and Michelle Norton Regional hosted a booth at Regional Planning Council Green Region Expo
Stormwater Educational Game from SWFWMD	10/17/09				5						S. Frank, Jane Harry and Michelle Norton Regional hosted a booth at Regional Planning Council Green Region Expo
Welland Coloring Sheet from SWFWMD	10/17/09				5						S. Frank, Jane Harry and Michelle Norton Regional hosted a booth at Regional Planning Council Green Region Expo
Florida Friendly Plant Coloring Sheet from SWFWMD	10/17/09				5						S. Frank, Jane Harry and Michelle Norton Regional hosted a booth at Regional Planning Council Green Region Expo
Fertilizer Fact Sheet	11/01/09	30	11/01/09	16	14	600			Y	Y	S. Frank, Jane Harry and Michelle Norton Regional hosted a booth at Regional Planning Council Green Region Expo
Stormwater Educational Game from SWFWMD	11/01/09	30	11/01/09	5	25						E. Wong, Sherry Ridera and Cathy Miller hosted a booth at Charlotte County Green Expo
Welland Coloring Sheet from SWFWMD	11/01/09	30	11/01/09	5	25						E. Wong, Sherry Ridera and Cathy Miller hosted a booth at Charlotte County Green Expo
Presentation to Peace River Engineering Society	11/10/09				2	2		Y			E. Wong gave a powerpoint presentation to PRES on Stormwater design and rule changes
Fertilizer Fact Sheet	11/14/09				2	2			Y	Y	Toledo Blade Business Group Expo
North Port Fertilizer Ordinance Fact Sheet	11/21/2009				25	3000			Y	Y	CHNEP Nature Festival Stan Frank and John Evans
Landscape & Fertilizer Tips (SWFWMD)	11/21/2009				17						
Stormwater game from SWFWMD	11/21/2009				10						
Who Lives in a Wetland? coloring sheet	11/21/2009				29						
Preventing Septic System Problems	11/21/2009				9						
Protecting Your Springs	11/21/2009				5						
<b>Total</b>		<b>1510</b>			<b>1479</b>	<b>17192</b>	<b>3</b>	<b>3</b>	<b>10</b>	<b>15</b>	
<b>Total No. of Participants</b>						<b>80</b>		<b>170</b>	<b>16942</b>	<b>16742</b>	

## Part III.A.6 - Newspaper &amp; Newsletters and TV

Date	Description	No. of Newsletters	No. of Newspaper Article	No. of TV
April 2009	North Port Magazine Article "Green Grass - What's It Worth?"	5000		
May 2009	City of North Port News Letter - "Volunteers Help Get City Clean" - 4/18/09 Great American Cleanup	565		
May 2009	City of North Port News Letter - "Tree Festival"	565		
May 2009	North Port Magazine Article "Where the River Flows?"	5000		
Aug 2009	City of North Port News Letter - "Adopt a Street:	565		
Sept 2009	Journal for Surface Water Quality Professionals Article "Permeable Pavers"	26000		
Sept 2009	City of North Port News Letter - "Teamwork at its Best" - Chancellor water control structures	565		
Oct 2009	City of North Port News Letter - "Coastal Cleanup a Success"	565		
<b>Total</b>		<b>33825</b>	<b>0</b>	<b>0</b>

## Part III.A.6 - Fertilizer Training

<b>Date of Training</b>	<b>Name</b>
10/22/2007	Bennett, Tammy
10/22/2007	Hoffman, William
1/25/2008	Alexander, Scott
1/25/2008	Ayres, George, Jr
1/25/2008	Brennan, Shawn
1/25/2008	Emrich, Pete
1/25/2008	Gogliettino, Steve
1/25/2008	Ribas, Shaun
1/25/2008	Short, Ken
1/25/2008	Sorrentino, Stephen
1/25/2008	Stawowy, Rich
1/25/2008	Steele, Daniel
1/25/2008	Tucker, Joseph
1/25/2008	Willis, James
1/25/2008	Wong, Elizabeth
4/11/2008	Dula, Robert
5/8/2008	Blackmer, Walter
5/8/2008	Payne, Teresa
8/23/2008	Holland, Bryan
8/23/2008	Pieper, Ryan
8/23/2008	Prindiville, Tom
8/25/2009	Schmucker, Todd
10/20/2009	Harry, Jane
10/20/2009	Miller, Catherine
<b>Total Trained</b>	<b>24</b>

## Part III.A.7.c - Proactive Inspections for Illicit Discharges

Name of Business	Address	2008 Date of Inspection	2009 Date of Inspection
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**Apartments/ Condos**

Willow Creek Apartments	6851 Willow Creek Circle		9/23/2009
			11/3/2009
			12/4/2009

**Churches**


**Daycares, Foster Homes, AC**

Quality Health Care	6940 Outreach Way		
North Port Pines Retirement	4950 Pocatella Ave		

**Golf Courses**

Bobcat Golf Course	1350 Bobcat Trail		
Heron Creek Golf Course	5301 Heron Creek Blvd.		

**Industrial Sites**

King Plastic	1100 N. Toledo Blade	11/25/2008	9/23/2009
Don's Recycling	5054 Trott Circle		9/23/2009
			11/3/2009
			11/5/2009
			12/10/2009
Toledo Blade Self Storage	1001 Executive Way		12/4/2009
			12/29/2009
Curb Systems	1061 Technology Ave.		
Martin Septic	2308 Tropicaire Blvd.		
VLC Recycling and Mulching	6726 joejeff St		

**Medical Sites**


**Recreation/Club Sites**


**Restaurants**

Olde World Restaurant	14415 Tamiami Trail		9/22/2009
			11/3/2009
Family Table	14132 S. Tamiami Trail		9/22/2009



## Part III.A.7.c - Proactive Inspections for Illicit Discharges

Name of Business	Address	2008 Date of Inspection	2009 Date of Inspection
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**Retail, Office**

Publix	14809 Tamiami Trail		12/8/2009
			12/16/2009
Winn Dixie	14275 Tamiami Trail		12/9/2009
			12/16/2009
			12/21/2009
Walmart Super Center	17000 Tamiami Trail		
Home Depot	18000 Tamiami Trail		

**Service Sites**

Tuffy Auto Service	14970 Tamiami Trail	2/20/2008	
Vavoline Instant Oil Change	14914 Tamiami Trail	2/27/2008	
Sunshine Cleaners	14251 Tamiami Trail		12/8/2009
Hi Tech Cleaners	14849 Tamiami Trail		12/8/2009
Hashem's Auto World	5085 Pan American Blvd		
Quality Auto Painting	5084 Trott Circle		

**School Sites**

Total Inspections			20

## Part III.A.7.c - Illicit Discharge Reported

Date	Description	Staff Follow Up
6/23/09	Cathy Miller sent e-mail on 6/23/09 to Tim Roane of KHA regarding need to clean up debris on Hospital Road.	Cathy Miller followed up 8/04/09
7/24/09	Duck Key HOA rep Fred Koenig asked E.Wong to visit Duck Key development to provide recommendations on Stormwater systems maintenance. See inspection report dated 7/24/09	Fred Koenig e-mailed on 9/25/09 re status of maintenance
7/31/09	Cathy Miller sent e-mail on 7/31/09 to Michael Woolery regarding erosion on bacnks of Cedar Grove retention pond	Michael Woolery sent e-amil 7/31/09 on plan to follow up
8/14/09	Cathy Miller sent e-mail on 8/14/09 to Jason Sepanski to clean up dirt that fell off from dirt hauling operations into gutters along Citizens Parkway.	Jason Sepanski emailed on 8/17/09 and reported dirt cleaned up following Saturday

## Part III.A.7.c - Illicit Discharge Training

Date	Description	Staff Trained
9/30/09	USEPA Stormwater Program Webcast Series - Illicit Discharge Detection and Elimination (IDDE) 301 - Finding and Fixing Illicit Discharge and Connections	Cathy Miller and Jane Harry
11/10/09	Internal City Staff Training on Illicit Discharge and City Fertilizer Ordinance By Stormwater Manager Elizabeth Wong	11 City staff see sign-in sheet

Solid Waste Community Outreach

Date	Event	Participants	Brochures Distributed	Neighborhood	Type of Outreach		
					School	Seminar/ Workshop	Special Event
1/10/09	NP Newcomer Day	171	75			1	
1/31/09	Environmental Festival	150	70				1
2/28/09	North Port 50 <sup>th</sup> Anniversary Parade	5000					1
3/7/09	North Port Business and Community	2000	200				1
3/14/09	HHW Event	182					1
4/24/09	Toledo Blade Earth Day Celebration	420	50		1		
5/2/09	NP Newcomer Day	50	30			1	
8/1/09	NP Newcomer Day	220	90			1	
10/24/09	Harvest Fest	400	145				1
10/27/09	Atwater Elementary Government Week	350			1		
11/7/09	NP Newcomer Day	200	80			1	
11/7/09	Lamarque Elementary Fall Festival	300	95		1		
11/18/09	Lamarque Elementary Cub Scout Troop	25		1			
11/21/09	Kid's Fest	500	80				1
12/3/09	Toledo Blade Science Night	350	20		1		
12/5/09	Hope for Homeowners	100	65				1
12/12/09	Poinsettia Parade	6000					1
Total Number			1000	1	4	4	8
Total Participants				25	1420	641	14332

2009 Solid Waste HHW Collection Data

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	Total
Electronic Waste	6.27	6.97			1.13		3.11	4.63	5.79	5.21	5.32	4.90	43.33
Waste Oil		1.64	2.36	1.00	0.60		3.17	0.92	1.92	0.88		1.428	13.92
Vehicle Batteries				0.30						0.81		0.36	1.47
HHW Collection Event			2.28										61.00

reported in tons

## -Part III.A.2 and III.A.9.a - New Development Review- 2009

Type	Number Rec'd	Stormwater Review	BMPs reviewed	
			Private Site	City Sites
Annexations	0	0	0	
Comprehensive Plan Amendment	3	0	0	
Conditional Use Permit	3	3	0	
Development Concept Plan (DCP)	5	5	4	1
Subdivision Plans and Plat (FPS)	2	2	2	
General Petitions	14	2	0	2
Major Site Development (MAS)	23	23	14	9
Final Plat (PLF)	2	2	0	
Plat Vacation	3	0	0	
Rezone	1	0	0	
Subdivisions (SCP)	1	1	1	
Temp Use Permit (TUP)	11	0	0	
Text Amendment	2	0	0	
Vacation of Easement	1	1	0	
Variance	1	0	0	
Village District Pattern Book Amend	1	1	0	
Village Proposed/Final VDPP	1	1	0	
<b>Total</b>	<b>74</b>	<b>41</b>	<b>21</b>	<b>12</b>

## Part III.A.9.c - Construction Site BMP Training

Date	Description	Staff Trained
5/19/09	Exfiltration Trench Design and Inspection during Construction Training by Elizabeth Wong	Cathy Miller and Jane Harry
8/14/09	Stormwater Inspection and Maintenance	Cathy Miller, Jane Harry, and Pete Emerich
10/20/09	Florida Green BMP	Cathy Miller and Jane Harry
11/10/09	Internal City Staff Training on Stormwater System BMPs and Maintenance By Stormwater Manager Elizabeth Wong	11 City staff see sign-in sheet

Total = 11 + 3 = 14