



# Kensington and Crest Manor Storm Water Management May 22, 2008 Update

Balancing storm water management with  
aesthetic, environmental and recreational  
interests in the basins

# Agenda

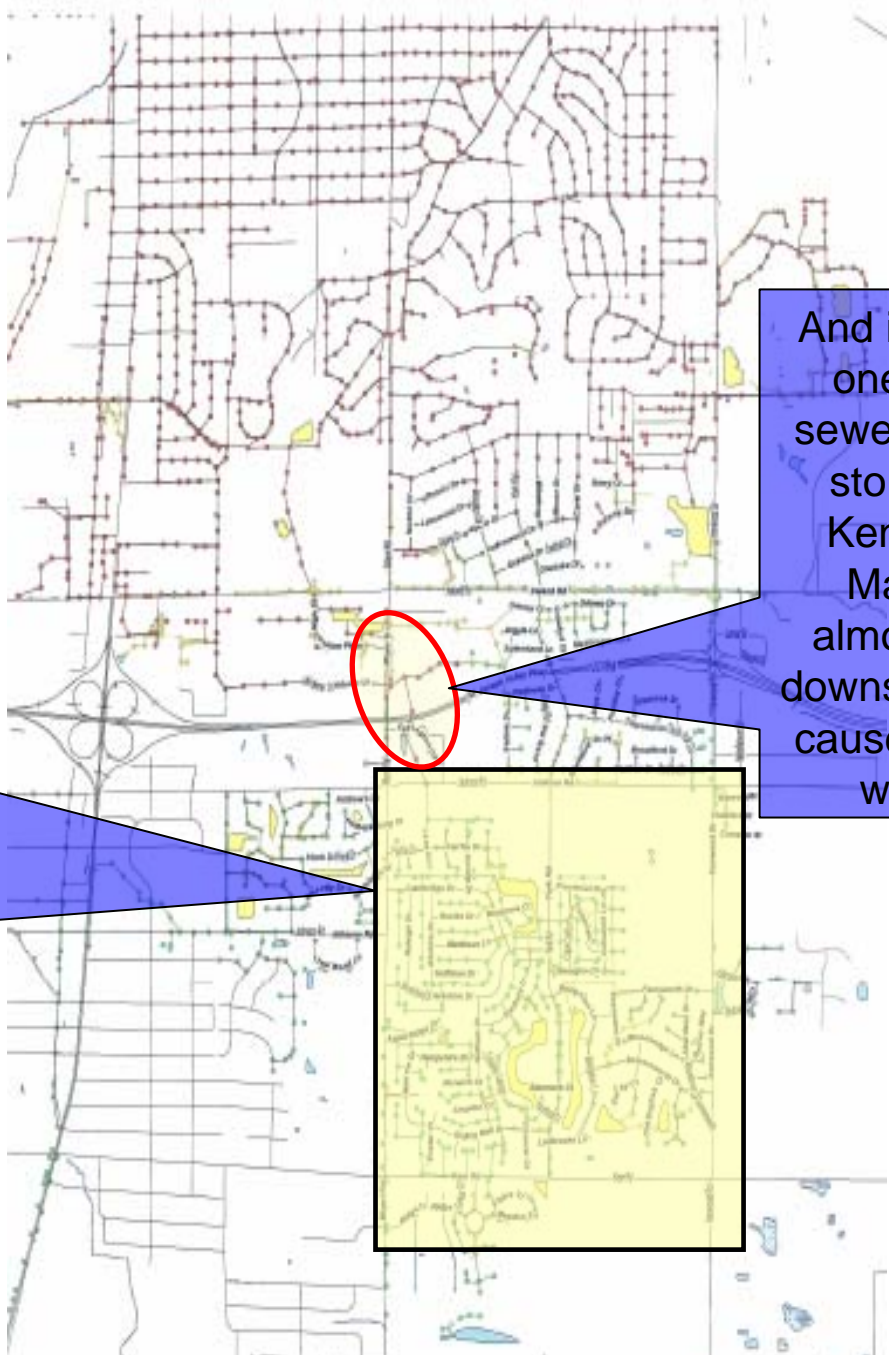
- Brief review of project purpose and need
- Progress on early operation
- Data on pond level versus rain
- Operating Strategy Review
- Monthly Data Posting on web page
- Questions and comments

# Project Purpose and Need

- Basement flooding and street flooding
- Downstream combined sewer capacity limitations
- Maintain ambiance of waterfront property and maintain recreational use enjoyment in balance with original stormwater storage basis of design

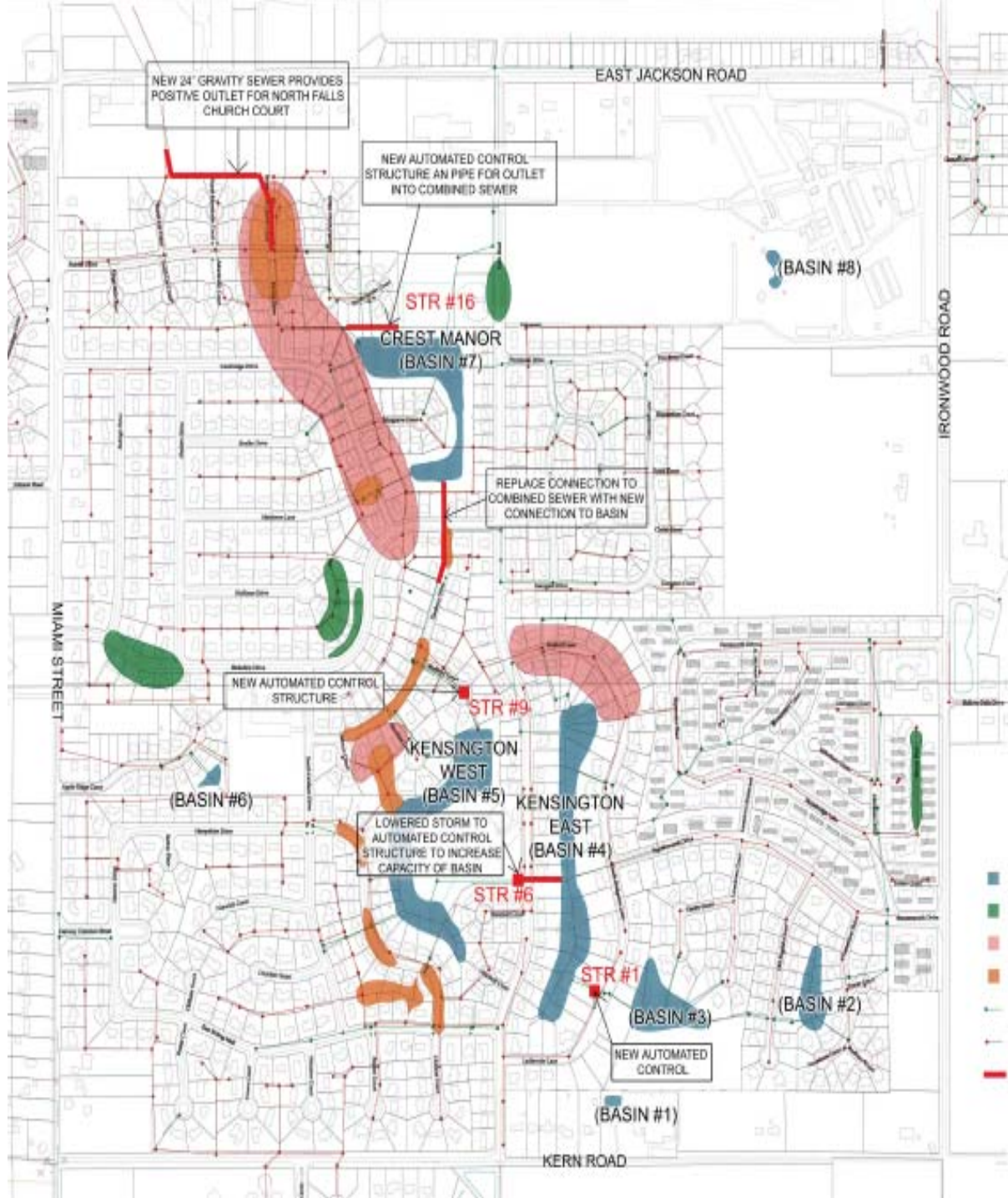
How does Kensington and Crest Manor fit in the big picture of how storage and conveyance of wastewater and storm water works in South Bend ?

All of this area of separate storm water and sanitary sewage system discharges through a combined sewer system to the City Wastewater plant



And it all passes through one 21 inch diameter sewer—draining 2 feet of storm water from the Kensington and Crest Manor basins takes almost 3 days or floods downstream basements or causes/contributes to dry weather overflows

A closer review of what we set out to solve

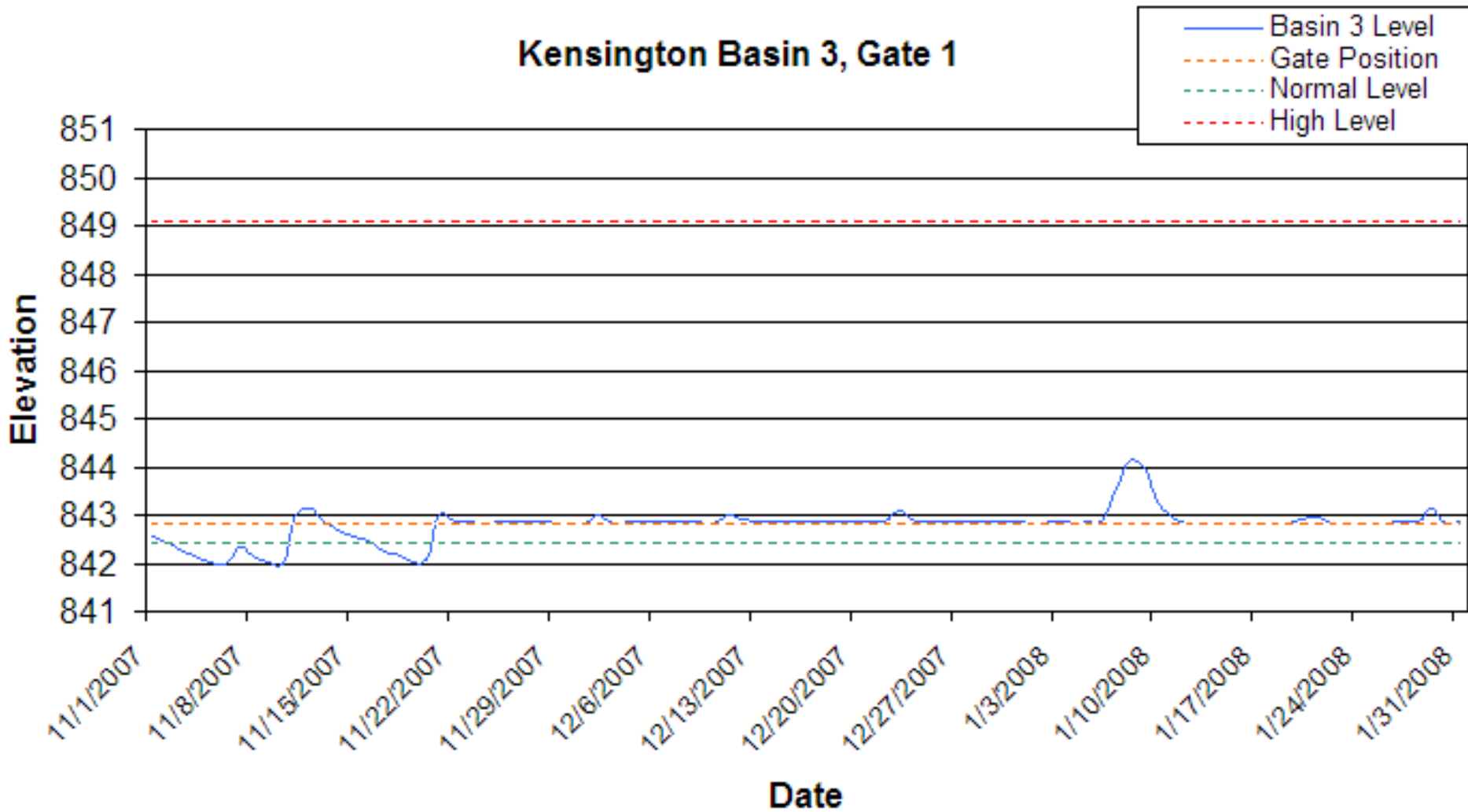


**LEGEND**

- BASINS
- GRADING PROBLEMS
- BASEMENT FLOODING
- STORAGE PROBLEM
- STORM SEWER
- SANITARY SEWER
- IMPROVEMENTS

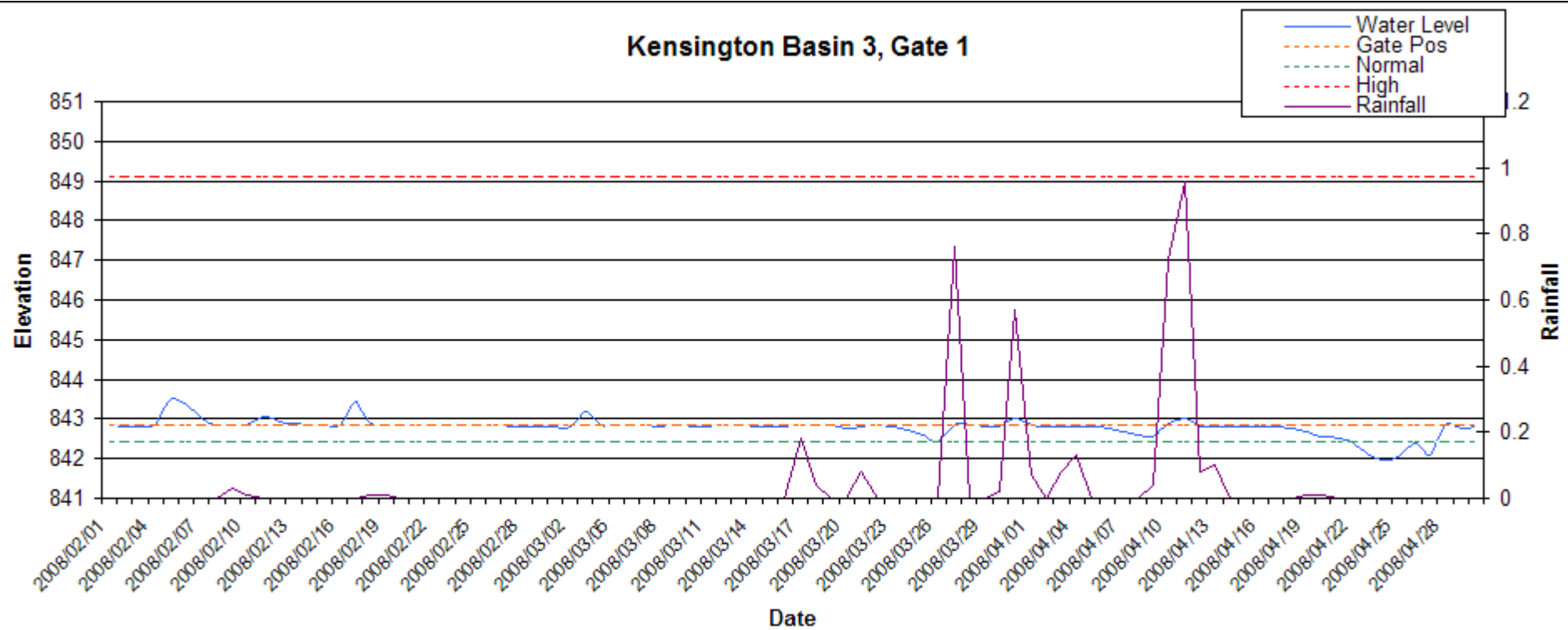


# Data on Pond Level Versus Rain



# Data on Pond Level Versus Rain

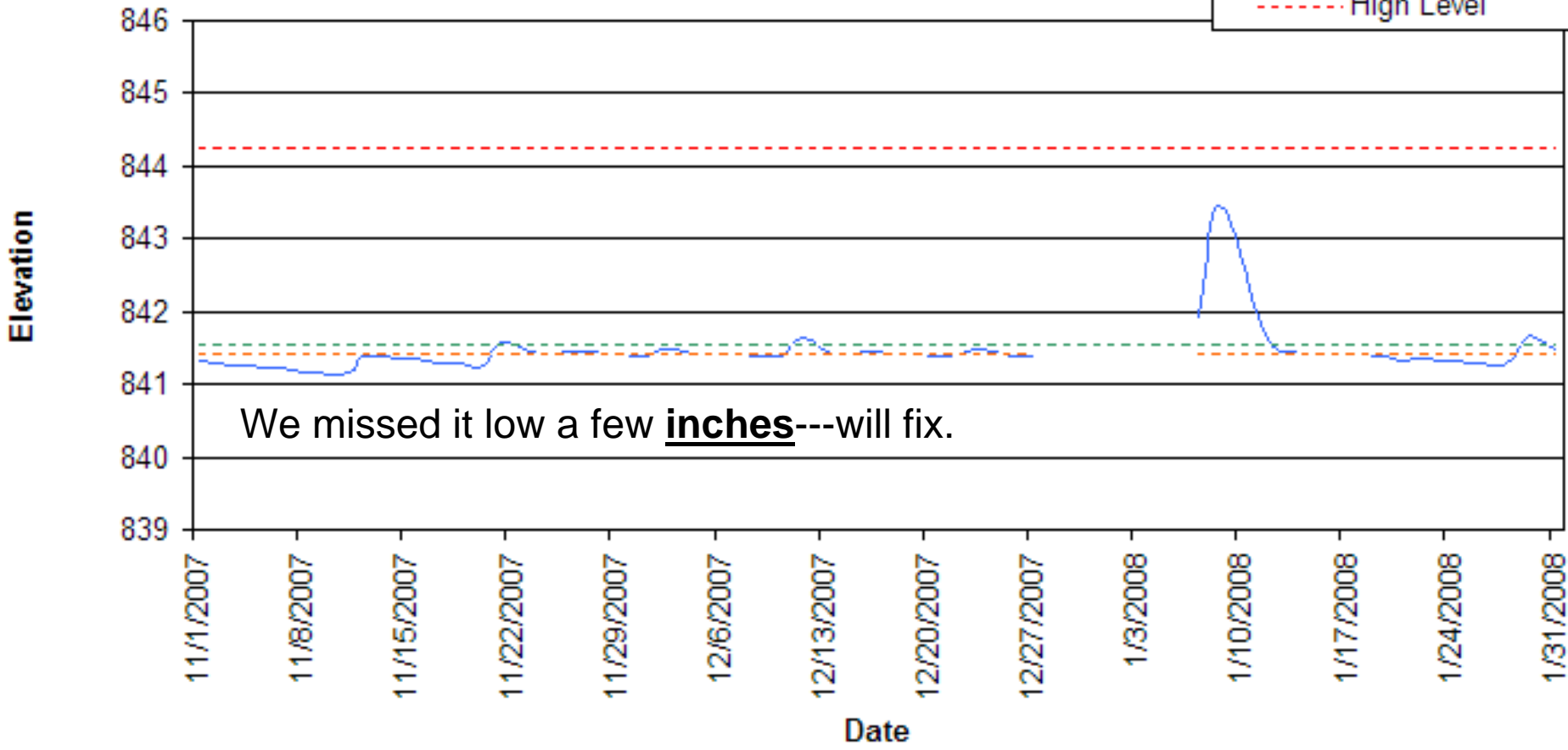
Latest Data



# Data on Pond Level Versus Rain

Kensington East, Basin 4, Gate 2

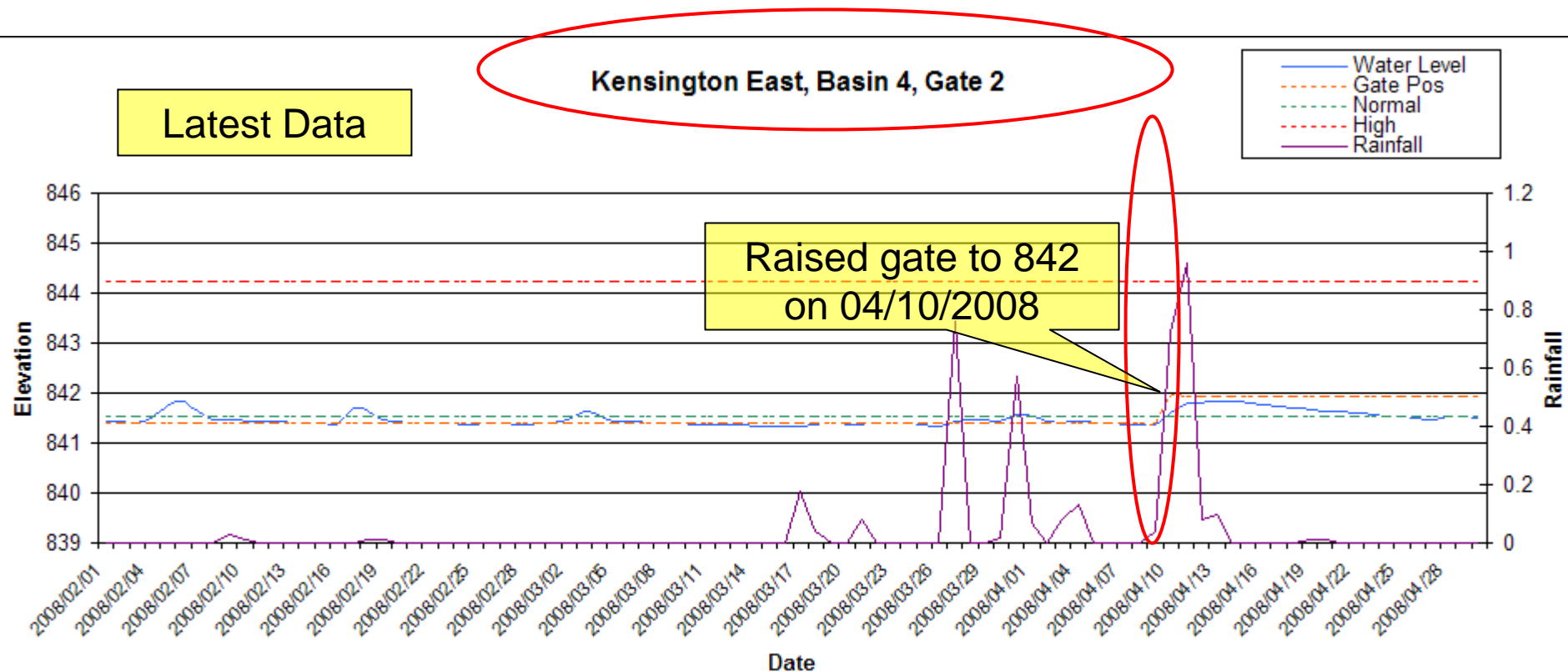
- Basin 4 Level
- - - Gate Position
- · - · Normal Level
- · - · High Level



We missed it low a few inches---will fix.

# Data on Pond Level Versus Rain

We made some adjustment manually, now doing automated reprogram to move from crawl to walk...still not ready to run...thanks for patience.



**Raised gate to 842.3 on 5-21-2008**

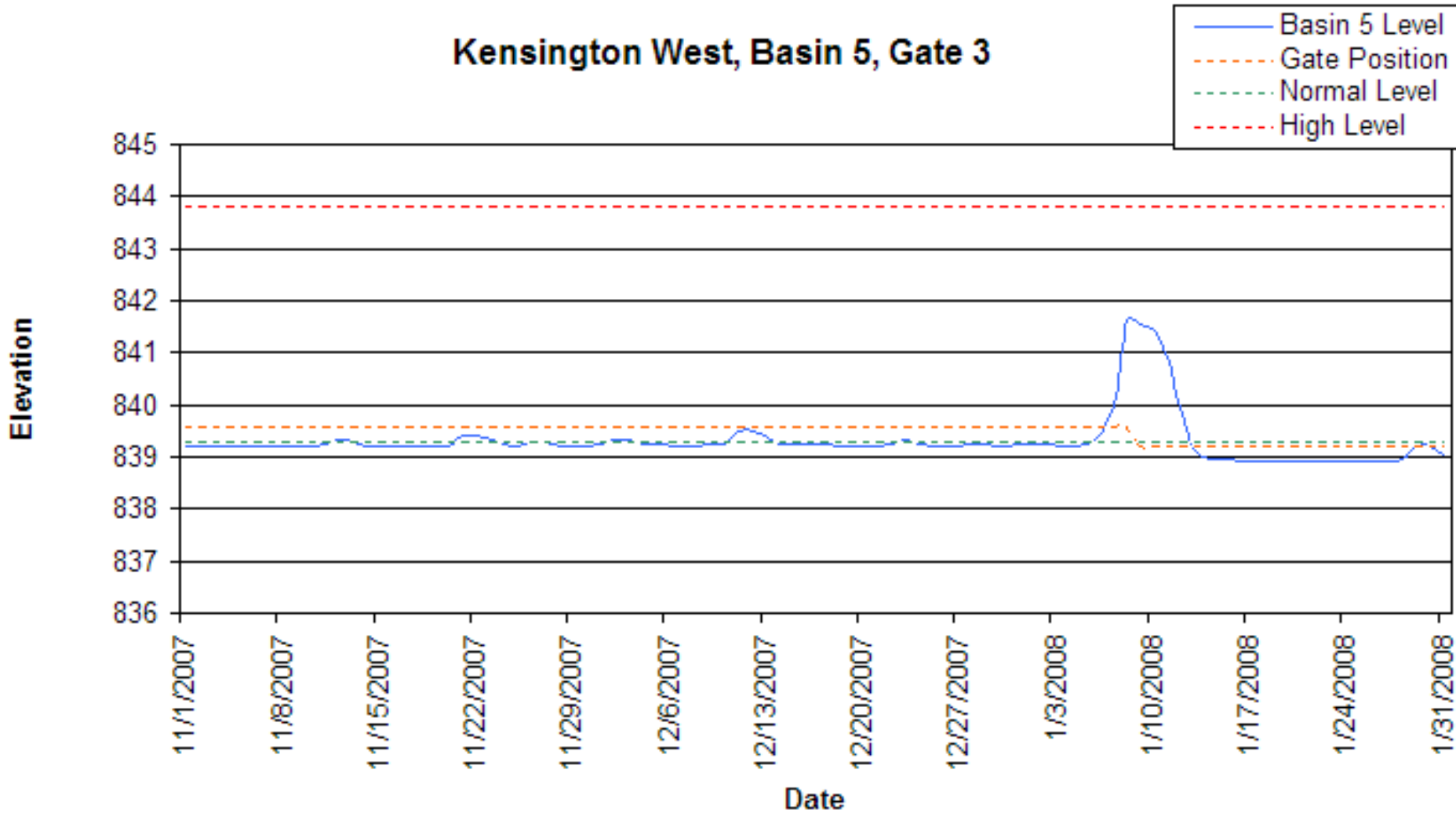
# Report from Project Engineer – Patrick Henthorn

- *I have been working on the Programmable Logic Controller (PLC) automation of the gates. I have most of the work done for gate #4. I am in testing mode at this time here at the office.*
- *Once I am sure things are working on gate #4, I will need to make some changes to the remaining gates. Then I will load the updated programs at each site and start field testing.*

The automatic logic has the following goals:

- Maintain desired level in the basin.
- Store water during a storm event.
- Release water at a controlled rate to the combined sewer system.

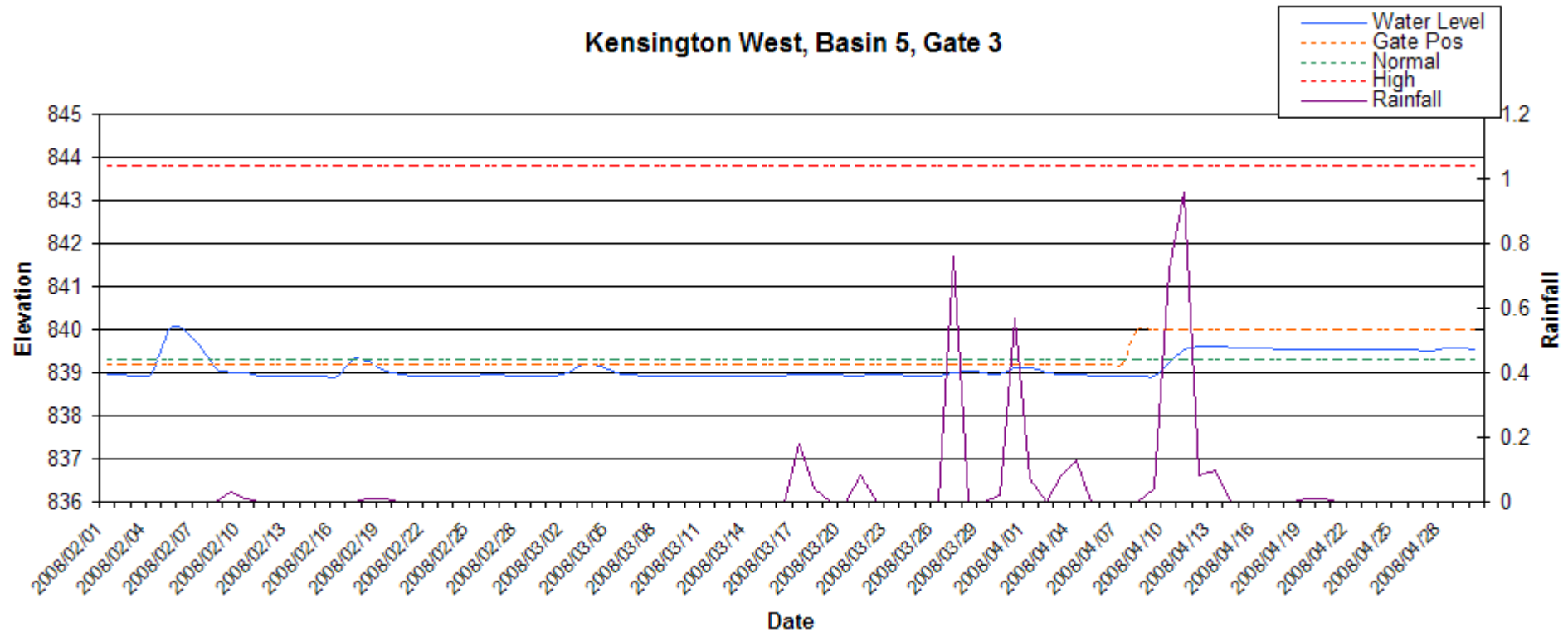
# Data on Pond Level Versus Rain



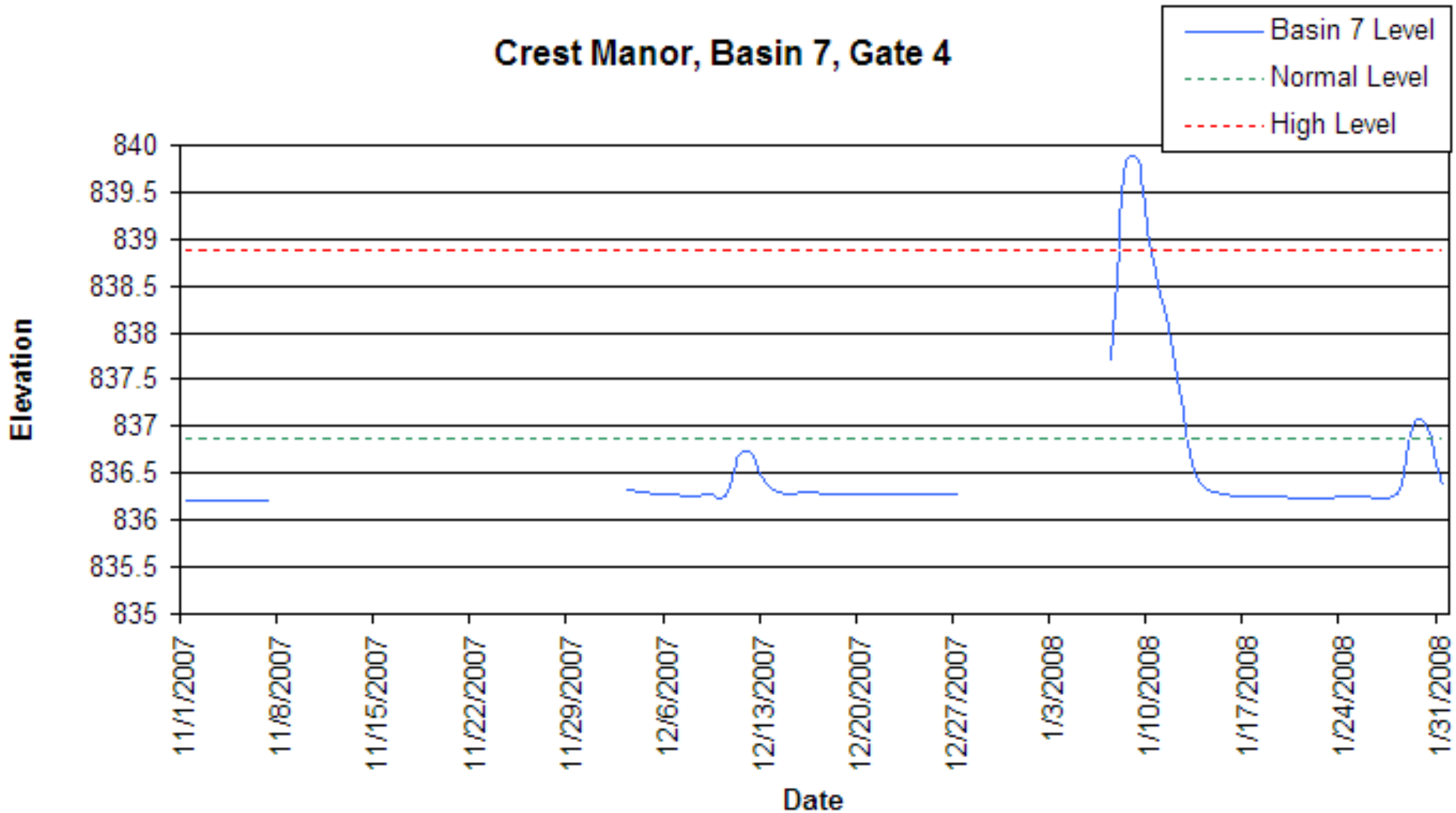
# Data on Pond Level Versus Rain

Latest Data

Kensington West, Basin 5, Gate 3

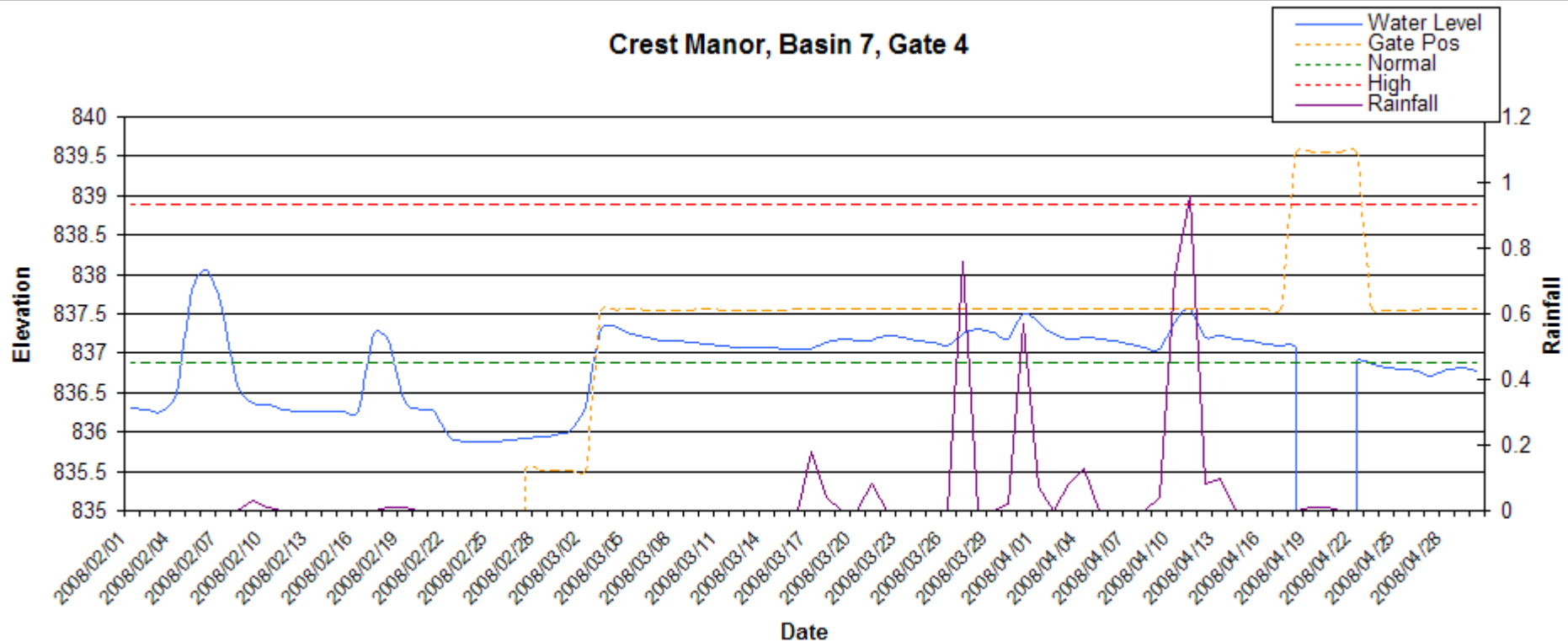


# Data on Pond Level Versus Rain



# Data on Pond Level Versus Rain

Latest Data

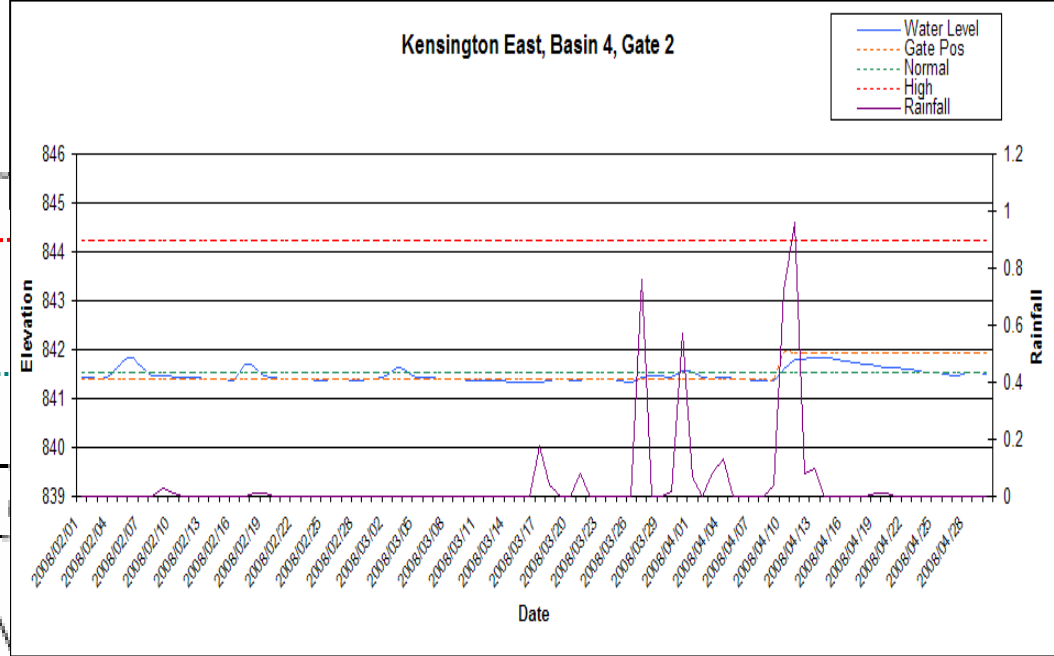
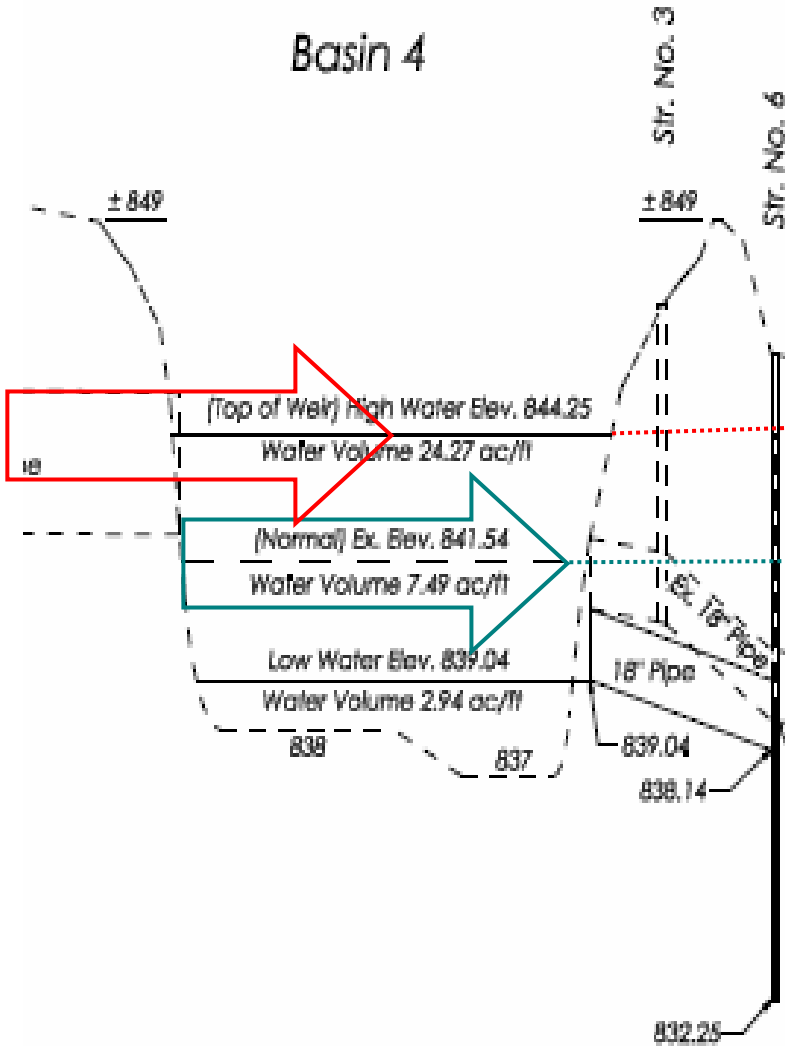




# KENSINGTON EAST

## Basin 4

# Focus on Kensington East Basin

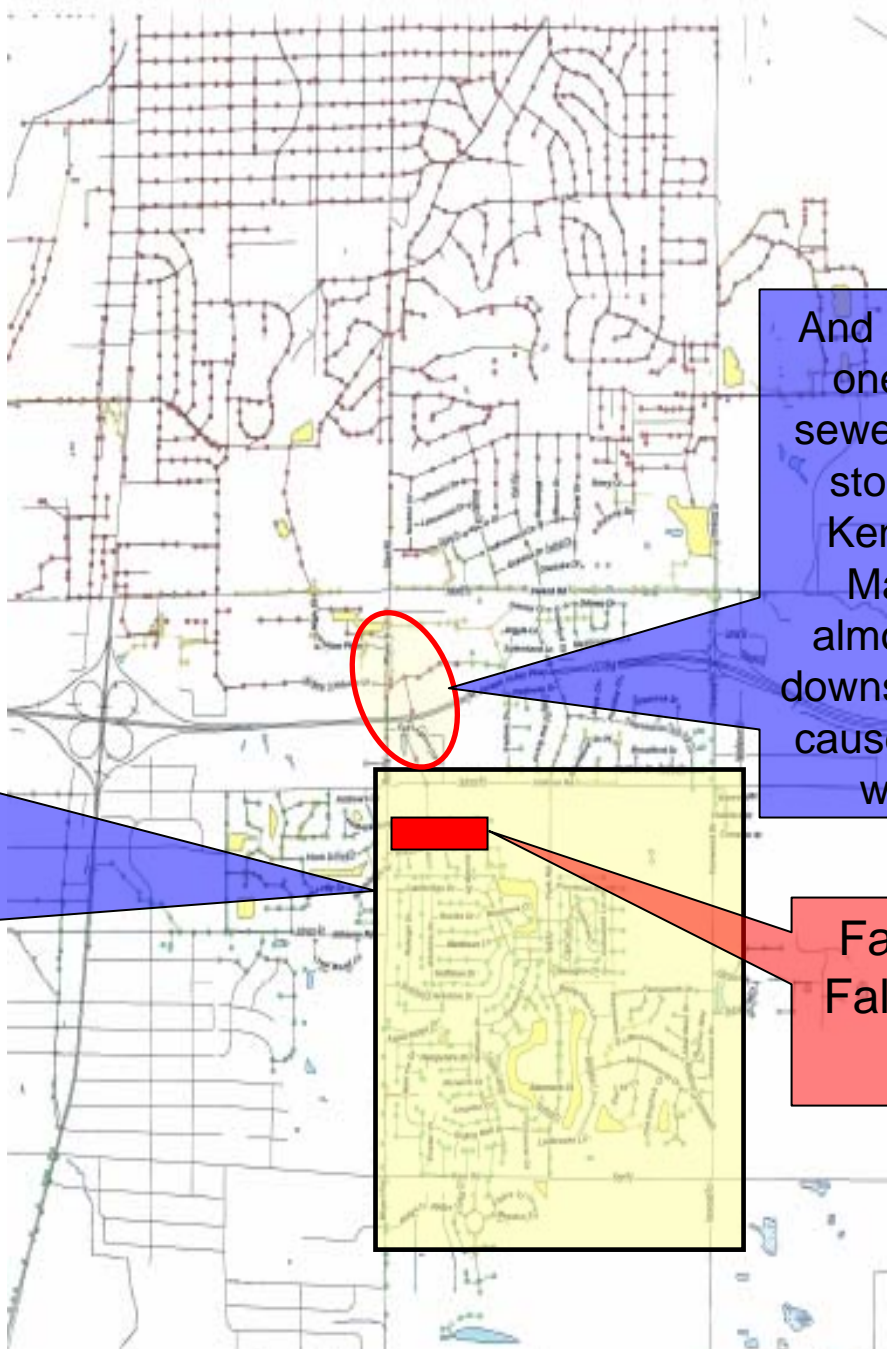


Automated Weir  
 Top - 844.25  
 Bottom - 838.25



How does Kensington and Crest Manor and North Falls Church Court fit in the big picture of how storage and conveyance of wastewater and storm water works in South Bend ?

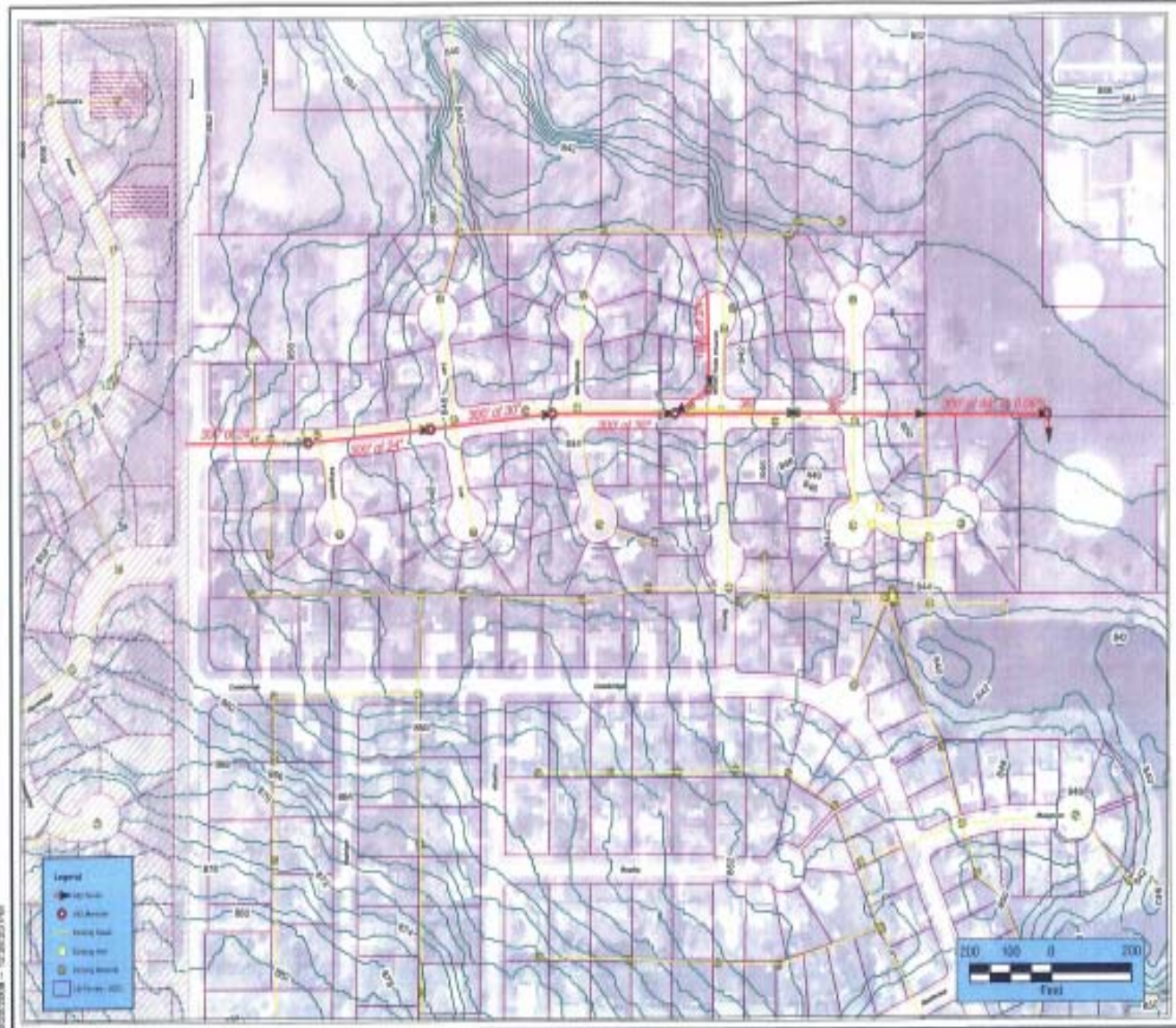
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Fairfax and North Falls Church Court in particular

# Fairfax and North Falls Church Court 2008 Drainage Project



Map Document: IZ-2008-000007 Figure 5.mxd  
2008-02-08 10:26:20 PM

<p>City of South Bend, Indiana CSO 022 Watershed Improvements</p>	
<p>Alternative No. 3</p>	
<p>LAWSON-FESLER LAWSON-FESLER CONSULTING ENGINEERS 825 W. WASHINGTON AVENUE SOUTH BEND, INDIANA 46601 PH: (574) 234-0387</p>	
<p>Figure 5</p>	
<p>200802.00</p>	
<p>February 2008</p>	





# Keeping You Informed

- Quarterly Review, Monthly Data Posting
- Still need to help North Falls Church Court in 2008---fits in Southside storm water management master plan
- This project has helped flooding some, but is not optimized yet
- Questions and comments
- Thanks