Appendix B
Hydraulic Modeling Software Recommendation

Hydraulic Modeling Software Recommendation

PREPARED FOR: Greater New Haven Water Pollution Control Authority

COPY TO: File

PREPARED BY: CH2M HILL

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PROJECT NUMBER: 492601

This memorandum describes the review and screening process used to recommend the hydraulic and hydrologic (H&H) modeling software for the Greater New Haven Water Pollution Control Authority's (Authority) wastewater collection system modeling.

Background

The Authority's system-wide collection system H&H 1997 model was originally developed in DHI Mike Urban Mouse and calibrated in 1998 to support the combined sewer overflow (CSO) Long-Term Control Plan (LTCP). This planning-level model was initially delivered in December 1998 and documented in LTCP Technical Memorandum #3. Sewer plan maps and as-built drawings were used to construct the model. The planning-level model was calibrated using several data sources collected in the late 1990s, and then the 2007 model was verified with data presented in the 2008 Hydraulic Modeling Update.

During recent flow monitoring activities, it was found that the planning-level hydraulic modeling scenarios previously developed to support the Authority's long-term control plan (LTCP) using the 2007 model was over-predicting the combined sewer overflow under current condition. As a part of facilities plan update effort, the 2007 hydraulic model needs update and calibration with current flow monitoring data to refine prediction of hydraulic condition during wet weather as well as flows conveyed to the East Shore Water Pollution Abatement Facility (WPAF).

The Authority authorized CH2M HILL to updated and recalibrate the 2007 model in June 2014. As part of the model update tasks, CH2M HILL will recommend an Environmental Protection Agency (EPA) Storm Water Management Model (SWMM) based H&H modeling program to perform the future modeling tasks.

Model Platform Selection

As the needs of the modelers and other users of the system-model evolved, the software needed to progress as well. The proposed software package would combine robust data management capabilities with a user friendly graphic interface. The primary feature required from a software package is that it uses the EPA SWMM computation engine to power the model. Other key features required include the following:

- The ability to model real time controls,
- Version control and tracking of changes to the model input files for sizing and alternative evaluation,
- Ease of operation and updating of the model,
- Presentation of results,
- Low Impact Development (LID) control,
- Green Infrastructure (GI) modeling, and
- Seamless interaction with EPA SWMM 5.0.

Software Packages

Several of the software packages on the market today were first screened to determine if they met the modeling needs of this task. This eliminated all steady state models, those that could not model real time controls and those that did not utilize SWMM as the model engine. CH2M Hill developed a list of five software packages (other than EPA SWMM) to be evaluated. The list included Mike Urban by Danish Hydraulic Institute (DHI), InfoSWMM by Innovyze (formerly MWH Soft), PCSWMM by CHI Software, SewerGEMS by Bentley and XPSWMM by XP Software. However, XPSWMM was developed based on EPA SWMM 4.0 with improvements and it cannot seamlessly interact with EPA SWMM 5.0. The resulting software packages that were chosen for evaluation are listed in Exhibit 1.

EXHIBIT 1
Software Packages

Software	Vendor
Mike Urban*	Danish Hydraulic Institute
InfoSWMM	Innovyze (MWH Soft)
PCSWMM	CHI Software
SewerGEMS*	Bentley
EPA SWMM 5.0	USEPA**

*Using the SWMM 5 Engine

**EPA SWMM 5.0 is freeware available from USEPA

Evaluation Matrix

A matrix consisting of the model selection criteria was developed as shown in Appendix A. These criteria were chosen to identify the main features of each software package. They were grouped into categories that delved into specific details of the software in that area.

1. The matrix is divided into these main categories:
2. Hydraulic / Hydrologic Engine Criteria - The Hydraulic/Hydrologic Engine Criteria evaluates the model engine and how this software calculates data.
3. User Interface Criteria - The User Interface Criteria evaluates how the user will interact with the software and the ease of understanding the results, displaying these results and working with the software vendor to solve problems.
4. Database and Mapping Criteria- The Database and Mapping Criteria evaluates how the software interacts with external systems such as the GIS, Excel or Access.
5. Qualitative Criteria- The Qualitative Criteria evaluates how much training would be required to utilize the software package.
6. Vendor Support and Costs – The Vendor Support and Costs criteria evaluates the costs associated with each software package and the support provided by each vendor.

Each of the criteria was given a weighting factor ranging from 1 to 5, with 5 representing those criteria that are most important. The criteria included in the categories above with a weighting of 5 are:

- Use of EPA SWMM 5.0 in the native format
- Presentation of results
- Pipe Network Graphics

- Pipe Profile Graphics
- Track Changes

Evaluations

The model evaluation is based on the survey of a group of modelers experienced with each software package on the software matrix described above.

After the evaluation of the software packages, the modelers completed the software evaluation matrix for the first three evaluation categories for each software package. The modelers rated the hydraulic capabilities, user interface, graphics and the ease of use of the software based on their experience with the software package during the evaluation. The fourth and fifth category list criteria related to initial license costs, maintenance costs, customer service and technical support. These were evaluated by a team of CH2M Hill modelers consisting of experienced professionals with several years of experience with the software packages.

The process enabled the modelers to quantify the ability of each software package to meet the needs of the modeling tasks and the extent of customer service and vendor support available. Quality control was performed of the criteria rating process included a review of the scores by another senior modeler, within CH2M Hill, experienced with each software package. The scored criteria was weighted using the criteria weighting factors. The individual results of the weighted scoring are shown in Appendix B.

The cost of each software package was requested from the vendors and the packages were evaluated to gain an understanding of their cost-benefit. Even though the actual quote from each vendor may vary with customers, time, and number of licenses, the quotes from different vendors based on similar conditions are comparable. Based on the quotes received from their respective company representative for a two seat license, the general pricing information for the software packages is as follows:

1. InfoSWMM (Innovyze) was the most expensive software in the study, priced at $22,000.00 per year for a single license of the Executive suite, with additional $5,250.00 annual maintenance and upgrading charges.
2. SewerGEMS (Bentley) was the second most costly, with an initial cost of $14,000.00 per license, and an additional $3,600.00 annual maintenance and upgrading charges.
3. Mike Urban (DHI) was the third most costly, with an initial cost of $14,040.00 per license (additional $2,000.00 for online database feature for concurrent multi-user capabilities), with an additional $2,704.00 annual maintenance and upgrading charges.
4. PCSWWM (CHI Software) quoted a price of $9995.95 for the initial purchase of an unlimited user license. Their maintenance fees included a payment of $2,995.95 plus $299.95 for each user.

Exhibit 2 shows the pricing information with discounts for the 2 seat floating license software package for the first year and the second year as per the quotations submitted by the vendors.

EXHIBIT 2
Pricing information with Discounts

Software	Mike Urban	InfoSWMM	SewerGEMS	PCSWMM
Price (Initial Purchase)	**$18,040**	**$19,400**	**$28,000**	**$1,759**
Price (2nd Year)	**$3,348**	**$7,350**	**$7,200**	**$1,399**

Results

The scores from the first three categories were totaled and ranked on a scale of 1-10. Qualitative Criteria, the fourth category and Vendor Support, were value ranked (score/cost). Overall, the PCSWMM was ranked as the most user friendly software with most of the functionalities desired in a software package. The InfoSWMM was ranked as the second choice. SewerGEMS was ranked third. Mike Urban was ranked fourth. Appendix C contained a short summary of each software package including strengths and weaknesses.

The rankings of the software packages were combined and the averaged results are shows in Exhibit 3. PCSWMM by CHI Software was evaluated as the overall best software package based on features and ease of use. Cost evaluation of each software indicated that PCSWMM was also the most economical software package available with an average cost (based on a 2 license quote) of $880 for the first year and $700 per year after that.

EXHIBIT 3
Results Summary

Software	Mike Urban	InfoSWMM	SewerGEMS	PCSWMM	EPA SWMM 5
Ranked Score (Performance) (1-10)	8.6	9.8	8.7	10.0	6.4
Value Rank (Score/ Cost)	8.04	7.36	4.93	63.33	NA*

*EPA SWMM5 is a free software and not applicable to give a value rank.

PCSWMM is the only software package, in the evaluation study, that enables the users to switch the SWMM engine version of the input file and the model run allowing the user to choose any version from 5.0.013 to 5.0.022 they wish. All other software packages are upgraded and maintained in accordance with the latest SWMM engine version.

Recommendations

The conclusions drawn from this analysis reveal that all of the software packages meet the basic needs of this modeling task. PCSWMM is the most economical software package available that met the basic needs including ease of use, graphical features, GIS integration and EPA SWMM 5.0 integration. Based on the evaluation by a group of modelers, it is recommended that the Authority select PCSWMM for the wastewater collection system modeling.

Appendix A
Model Evaluation Matrix

Evaluation Matrix - CH2M HILL Rankings

GNHWPCA Hydraulic Model Systems Evaluation

July 2014

	Weighting	DHI Mike Urban SWMM 5	Innovyze Info SWMM	EPA EPA SWMM 5	Bentley SewerGEMS	CHI PC SWMM
		Dingfang Liu/BOS and Helen Lu/ATL	Shad Roundy/CVO	Dingfang Liu/BOS	Dingfang Liu/BOS	Dingfang Liu/BOS, Dan O'Leary/SEA and Hong Zhang/DSO
1. Hydraulic / Hydrologic Engine Criteria						
Area of Principal Application						
Open / natural channel conveyance	1	2	3	5	3	3
Urban systems	3	4	5	5	5	5
Hydraulics						
Computes hydraulic gradelines / water surface elevations	3	4	5	5	5	5
Parallel pipe systems (looped networks)	2	4	5	5	5	5
Pipe surcharge	3	4	5	5	5	5
Pressurized flow and flow reversal	2	3	5	5	5	5
Accepts minor losses	1	4	3	4	4	4
Real time controls	3	3	3	3	4	4
Ability to model non custom pipe geometry	2	4	5	3	4	5
Routing						
Numerical stability	2	3	3	3	4	4
Time step control	1	4	4	4	4	4
Continuous and event simulation	3	4	5	5	5	5
Infrastructure Components						
Pump stations	3	4	4	4	4	4
Orifices, weirs, & diversions	3	4	4	4	4	4
BMPs	1	0	2	3	3	3
Irregular cross-sections / natural channels	1	4	4	3	3	3
Inline storage	2	4	5	4	4	4
Offline storage	1	4	5	5	5	5
Hydrology						
Runoff model	2	4	3	4	4	4
Infiltration (RDII and GWI)	3	4	4	4	4	4
Tide or river stage boundaries	3	4	0	5	4	5
LID/Green	2	0	0	4	3	4
Dry weather flow generation	1	5	4	3	0	3
Model Engine						
SWMM 5 - Native Format	5	4	5	5	3	5
Water Quality						
BMPs / Treatment	1	3	2	4	2	4
Pollutograph routing	1	4	2	4	2	4
Sediment transport	1	0	2	2	2	2
2. User Interface Criteria						
Input/Output						
Menu driven	1	3	4	2	4	5
Presentation of Results	5	3	3	2	3	5
Batch data can be loaded in input files	1	2	4	0		5
Pipe network graphics	5	4	5	1	4	4
Pipe profile graphics	5	4	3	1	3	5
Ease of new model construction	1	3	5	1	4	5
Ability to edit existing system	3	3	5	1	4	4
Inference routines for missing data	2	2	4	0	3	4
Background images	2	4	5	1	4	5
Computes design metrics (e.g. pipe capacity)	5	4	5	1	4	4
Generates statistics / objective functions	2	2	5	1	3	4
Documentation Support						
Complete & understandable documentation	2	2	4	2	2	2
Online help system	2	2	4	1	2	2
Organizational Features						
Track Changes	5	4	4	0	1	1
Error Definition - Easy to understand	2	3	4	1	2	1
Ability to evaluate and compare alternatives	3	4	5	0	3	4
3. Database and Mapping Criteria						
Interface with other Systems						
Interface with MS Excel/Access	1	4	5	1	4	5
Interface with GIS	4	5	5	1	5	5
Can take advantage of networked/integrated environments	2	4	4	1	4	4
Total Score		153	180	128	159	186
4. Qualitative Criteria						
Performance						
Relative computational ease for identical networks	2	3	3	3	3	3
Estimated training effort required	3	3	4	3	2	2
5. Vendor Support and Cost						
Vendor technical support	2	5	4	1	4	3
Training events / In-house training	2	4	4	1	4	5
Customer Service	2	4	4	1	4	4

Weighting Factors
0 - Not Applicable
1- Applicable but not high priority
2-Medium Priority
3- High Priority

Rankings
0 - Does not Apply to this software
1- Low
2- Applies but does not perform well
3- Applies and average performance
4- Above average performance
5- Excellent performance

Appendix B
Weighted Matrix

Evaluation Matrix - CH2M HILL Weighted Rankings

GNHWPCA Hydraulic Model Systems Evaluation

July 2014

	Weighting	DHI Mike Urban SWMM 5	MWH Soft Info SWMM	EPA EPA SWMM 5	Bentley SewerGEMS	CHI PC SWMM
		Dingfang Liu/BOS and Helen Lu/ATL	Shad Roundy/CVO	Dingfang Liu/BOS	Dingfang Liu/BOS	Dingfang Liu/BOS, Dan O'Leary/SEA and Hong Zhang/DSO
1. Hydraulic / Hydrologic Engine Criteria						
Area of Principal Application						
Open / natural channel conveyance	1	2	3	5	3	3
Urban systems	3	12	15	15	15	15
Hydraulics						
Computes hydraulic gradelines / water surface elevations	3	12	15	15	15	15
Parallel pipe systems (looped networks)	2	8	10	10	10	10
Pipe surcharge	3	12	15	15	15	15
Pressurized flow and flow reversal	2	6	10	10	10	10
Accepts minor losses	1	4	3	4	4	4
Real time controls	3	9	9	9	12	12
Ability to model non custom pipe geometry	2	8	10	6	8	10
Routing						
Numerical stability	2	6	6	6	8	8
Time step control	1	4	4	4	4	4
Continuous and event simulation	3	12	15	15	15	15
Infrastructure Components						
Pump stations	3	12	12	12	12	12
Orifices, weirs, & diversions	3	12	12	12	12	12
BMPs	1	0	2	3	3	3
Irregular cross-sections / natural channels	1	4	4	3	3	3
Inline storage	2	8	10	8	8	8
Offline storage	1	4	5	5	5	5
Hydrology						
Runoff model	2	8	6	8	8	8
Infiltration (RDII and GWI)	3	12	12	12	12	12
Tide or river stage boundaries	3	12	0	15	12	15
LID/Green	2	0	0	8	6	8
Dry weather flow generation	1	5	4	3	0	3
Model Engine						
SWMM 5 - Native Format	5	20	25	25	15	25
Water Quality						
BMPs / Treatment	1	3	2	4	2	4
Pollutograph routing	1	4	2	4	2	4
Sediment transport	1	0	2	2	2	2
2. User Interface Criteria						
Input/Output						
Menu driven	1	3	4	2	4	5
Presentation of Results	5	15	15	10	15	25
Batch data can be loaded in input files	1	2	4	0	0	5
Pipe network graphics	5	20	25	5	20	20
Pipe profile graphics	5	20	15	5	15	25
Ease of new model construction	1	3	5	1	4	5
Ability to edit existing system	3	9	15	3	12	12
Inference routines for missing data	2	4	8	0	6	8
Background images	2	8	10	2	8	10
Computes design metrics (e.g. pipe capacity)	5	20	25	5	20	20
Generates statistics / objective functions	2	4	10	2	6	8
Documentation Support						
Complete & understandable documentation	2	4	8	4	4	4
Online help system	2	4	8	2	4	4
Organizational Features						
Track Changes	5	20	20	0	5	5
Error Definition - Easy to understand	2	6	8	2	4	2
Ability to evaluate and compare alternatives	3	12	15	0	9	12
3. Database and Mapping Criteria						
Interface with other Systems						
Interface with MS Excel/Access	1	4	5	1	4	5
Interface with GIS	4	20	20	4	20	20
Can take advantage of networked/integrated environments	2	8	8	2	8	8
Total Score		385	441	288	389	448
RANK		**8.6**	**9.8**	**6.4**	**8.7**	**10.0**
4. Qualitative Criteria						
Performance						
Relative computational ease for identical networks	2	6	6	6	6	6
Estimated training effort required	3	9	12	9	6	6
5. Vendor Support and Cost						
Base package purchase cost (> 7000 nodes) - based on a 2 seat quote from the vendor		$18,040.00	$19,400.00	$0.00	$28,000.00	$1,759.20
Annual update costs		$3,348.80	$7,350.00	$0.00	$7,200.00	$1,399.00
Vendor technical support	2	10	8	2	8	6
Training events / In-house training	2	8	8	2	8	10
Customer Service	2	8	8	2	8	8
VALUE SCORE		**8.04**	**7.36**	**n/a**	**4.93**	**63.33**

Weighting Factors
0 - Not Applicable
1- Applicable but not high priority
2-Medium Priority
3- High Priority

Rankings
0 - Does not Apply to this software
1- Low
2- Applies but does not perform well
3- Applies and average performance
4- Above average performance
5- Excellent performance

Appendix C
Summary of Software Packages

InfoSWMM

InfoSWMM is a software package developed by MWH Soft which provides an interface for developing, running, and reviewing SWWM 5 models. InfoSWMM is fully integrated with ArcGIS and includes tools for model development, database management, scenario management, and results viewing. Add-on extensions are available for load allocation, calibration, design, subcatchment delineation, and other independent routines. The benefits of InfoSWMM include the ArcGIS integration, mapping, database management, and scenario management functionality. The facility and domain management tools allow for quick activation and inactivation of improvement options. The data exchange functionality between excel and access are excellent. Disadvantages include a profile viewer with limited flexibility and limited hydrologic calculation options.

Mike Urban

To summarize, comparing with other software with SWMM engines, Mike Urban SWMM has the following advantages:

1) Fully GIS integration with ESRI (InfoSWMM has the same feature though)
2) Better data management: taking advantage of the ACCESS database structure for direct data editing within the database (with extreme cautious though)
3) Data flag tracking changes (manual input, not automatic tracking as InfoWorks)

However, there are also major limitations:

1) The GIS integration caused significant overhead which may cause occasional model crush and slow down the calculation (XPSWMM and PCSWMM will have a better speed)
2) The interchange between Mike Urban SWMM and EPA SWMM is not seamless, still need manual check (PCSWMM is the best in this aspect). For example: When Mike Urban exports a dataset to run SWMM, it omits fields that are blank (null). It runs its export routine successfully, but the SWMM engine will generate an error. Esp. for RTK method, if there is a null value presented in the RTK data set, the exported SWMM inp file will ignore the entire set
3) No sediment transport feature
4) Limited result presentation options (PCSWMM is the best in this aspect, it provides very helpful statistics summary for model calibration in addition to flexible graphic display)
5) No options to switch between different SWMM versions like PC SWMM (it could cause problems considering the frequent update of EPA SWMM)

PCSWMM

PCSWMM 2010 is hydraulic model used primarily for the analysis of urban wastewater collection systems. The software vendor is Computational Hydraulics Institute (CHI) and can be contacted at www.chiwater.com.

PCSWMM is a cost-effective tool that has several benefits:

- The hydraulic engine of PCSWMM is EPA's SWMM 5.0 engine, a widely used and industry-accepted dynamic engine. The tool allows a toggle to select the engine version of 5.0.013 to the most current version, 5.0.021.
- The interface provides for relatively straightforward input/output functionality including copy/paste into and out of the model tables; very good import/export features with external data sources including Excel, ArcGIS shapefiles or geodatabases;
- The latest version of PCSWMM allows for full use of the SWMM 5.0.021 improvements including a "*Low Impact Development (LID)*" module. The LID module allows for simulating the hydrological impact that employ LID practices including vegetative swells, porous pavement, infiltration trenches, rain barrels, and biorention cells. With PCSWMM's good ability to import from text or Excel files, external tools can be created to quickly evaluate the extent and appropriate LID best management practice (e.g., impact of 10 percent of private parcels using rain barrels versus 30 percent, or impact with or without infiltration trenches).

PCSWMM is an inexpensive dynamic model, but the tradeoff is limited support by CHI or in its documentation. Online manuals are not generally helpful and CHI is often unresponsive in support questions. Offsetting this is the wide availability of SWMM user groups on the web.

SewerGEMS

SewerGEMS was originally developed by Haestad Methods, which was later purchased by Bentley. The software vendor and can be contacted at www.bentley.com/en-US/.

The benefits of SewerGEMS include:

- It can be run using a stand-alone Windows interface or inside AutoCAD or ArcGIS.
- It includes EPA's SWMM computation engine and proprietary methods.
- Design functionality.

Disadvantages include:

- Limited results presentation for time series or profiles
- No options to switch between different SWMM versions.
- The interchange between SewerGEMS and EPA SWMM is not seamless, still need manual check

Appendix C
Flow Monitoring Program-Meter Installation Reports

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
TEMPORARY FLOWMETER RIM ELEVATIONS
SEPTEMBER 2014

Site	Address	Elevation (NAVD 88)	Northing	Easting	Final Meter Location - MH ID
FM-1	On East Rock Park Road between East Rock Road and Whitney Ave	28.49	N.A.	N.A.	HWV01M0115
FM-2	920 Winchester Ave in middle of street	55.70	682629.22	951971.27	HWP03M0253
FM-3	Outside 809 Dixwell Ave	61.12	683007.49	949160.89	HDX07M0582
FM-4	Across from 351 Sherman Ave	47.04	676788.03	947437.01	NBU08M0623
FM-5	1456 Ella T Grasso Blvd	49.10	676838.21	945243.71	NBU09M0676
FM-6	Whalley Ave 50 yards past Lily Pond Ave	79.35	684425.68	937677.34	NWR01M0614
FM-7	Across from 149 Derby Ave (Across from Broadway Pizza)	24.45	673823.32	944381.12	NBU10M1021
FM-8	152 Fitch St	18.21	679996.29	943928.28	NBU07M0255
FM-9	On North Frontage Road in middle right turn lane at Ella T Grasso Blvd	13.72	672487.11	944445.11	NBU12M1036
FM-10	Across from 408 Davenport Ave	19.16	669629.44	946043.88	NBM02M0347
FM-11	188 Lamberton Street	23.29	666515.04	947756.49	NBM05M0144
FM-12	761 Orchard Street in middle of street	49.40	678068.36	949007.34	NBU06M1371
FM-13	On Canal St. between Henry St. and Gregory St.	39.56	677551.51	950723.72	NHU07M1120
FM-14	Across from 50 Derby Ave in front of church	37.29	674211.11	945807.42	NBU10M1054
FM-15	Mitchell Ave. and Willow Ave., in the school parking lot	18.06	677089.85	956935.82	NHU05M0733
FM-16	James St. between State St. and Humphrey St. (at RR overpass)	11.08	675423.91	957670.77	NFH01M0001
FM-17	554 Woodward Ave (in rear of parking lot)	7.62	664206.65	959449.54	NES03M0768
FM-18	Water St. between Hamilton St. and East St.	9.72	670416.68	955550.42	NEA03M0250
FM-19	In middle of James St. between 230 and 238 James	23.40	673334.67	957893.46	NFH03M0160

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
TEMPORARY FLOWMETER RIM ELEVATIONS
SEPTEMBER 2014

Site	Address	Elevation (NAVD 88)	Northing	Easting	Final Meter Location - MH ID
FM-20	On River St. close to Poplar St., in middle of street	8.20	671291.53	960009.11	NFH07M0761
FM-21	Outside of 69 Poplar St. in middle of street	8.74	671431.55	959802.83	NFH07M0742
FM-22	Across from 315 Front St. on sidewalk	8.61	675493.45	962231.26	NFH04M0797
FM-23	80 E Ferry Street (in parking lot of Buchanan Marine)	13.67	670435.34	960767.60	NQL05M0399

Site Name / Manhole # FM-1

Investigation Date: 4/23/14 Time: 12:00 Crew Members: KE/BR

Installation Date: 5/2/14 Time: 9:45 Crew Members: KE/ME

Address/Location: On East Rock Park Road, between E. Rock Road & Whitney Avenue

Latitude: N 41°19.926' Longitude: W 72°54.667'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 2.90 ft/sec

Depth 29.25 in ± 0.50"

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	30"		30"
Width	30"		30"
Material	RCP		RCP
Shape	Round		Round

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 5'
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

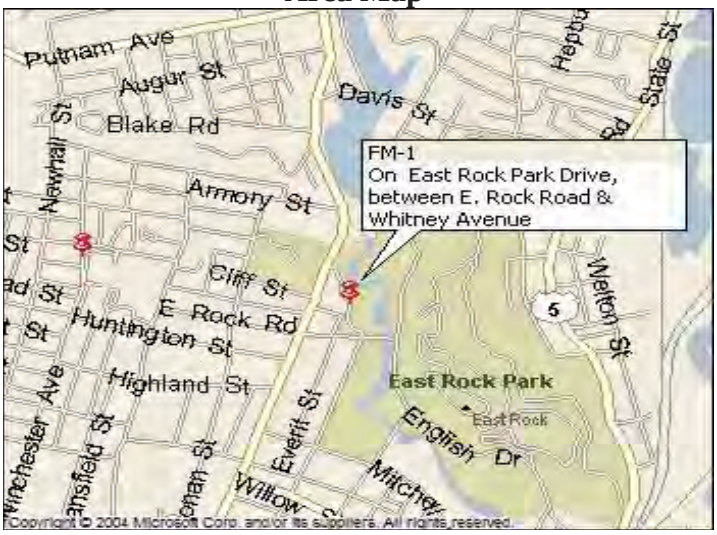
Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary: 0813-1083
	Redundant:
Velocity	Primary: 0813-1083
	Redundant:
Meter Logger	FloWav 293452

Comments: *MH is offset from pipe*

Area Map

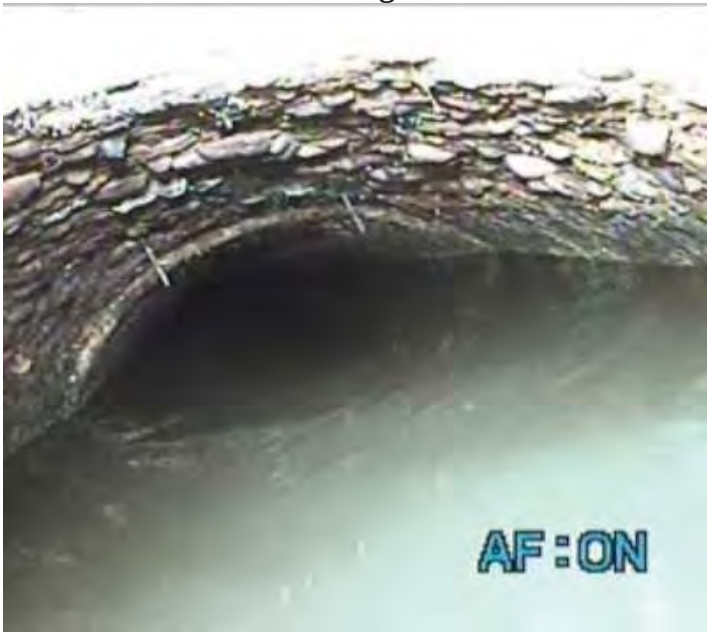


Detail Map

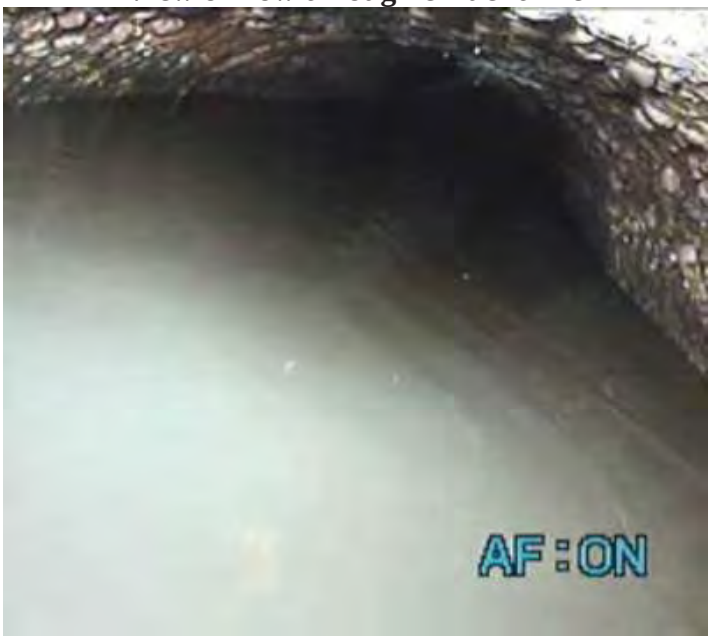
View from top of MH

Site Overview

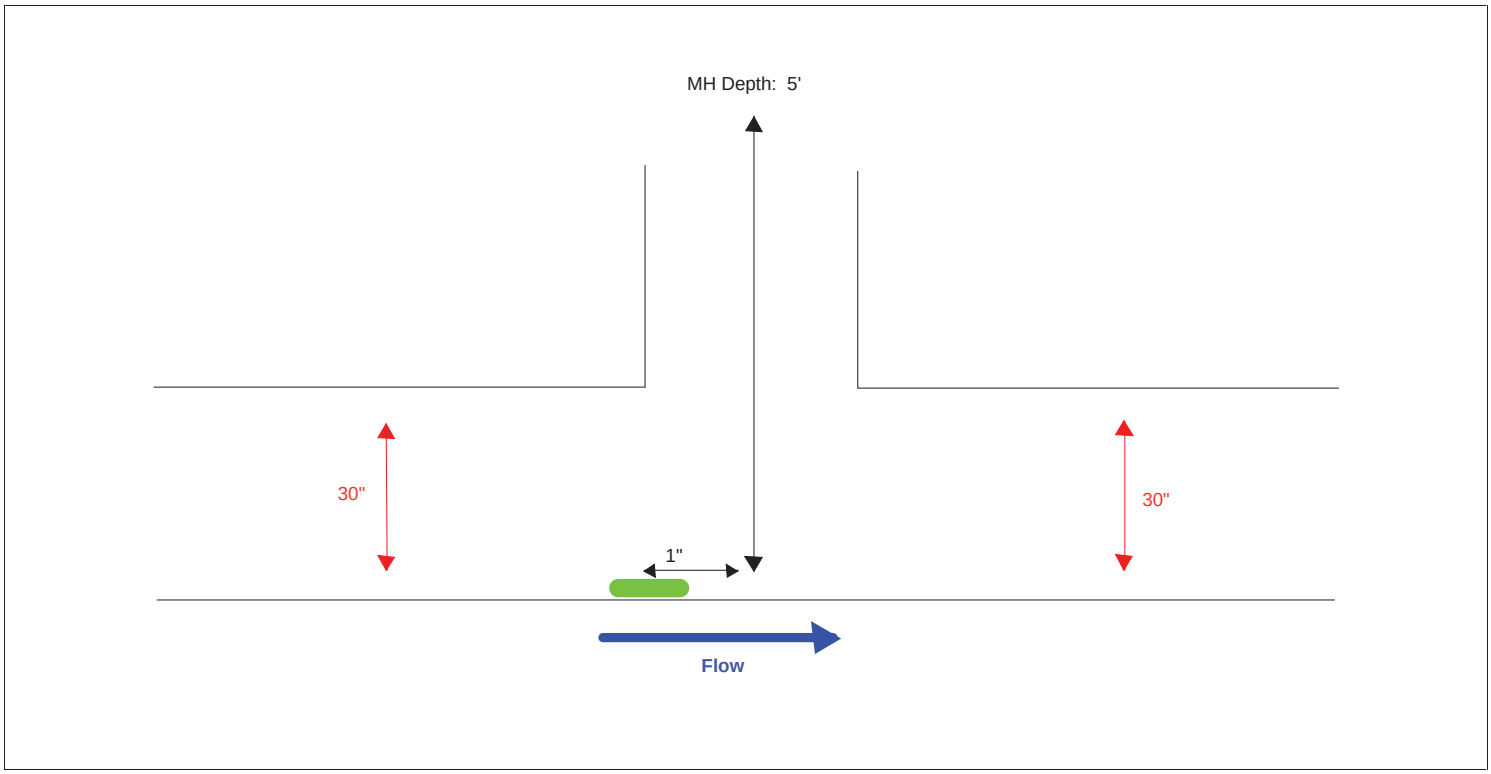
View of flow through influent line



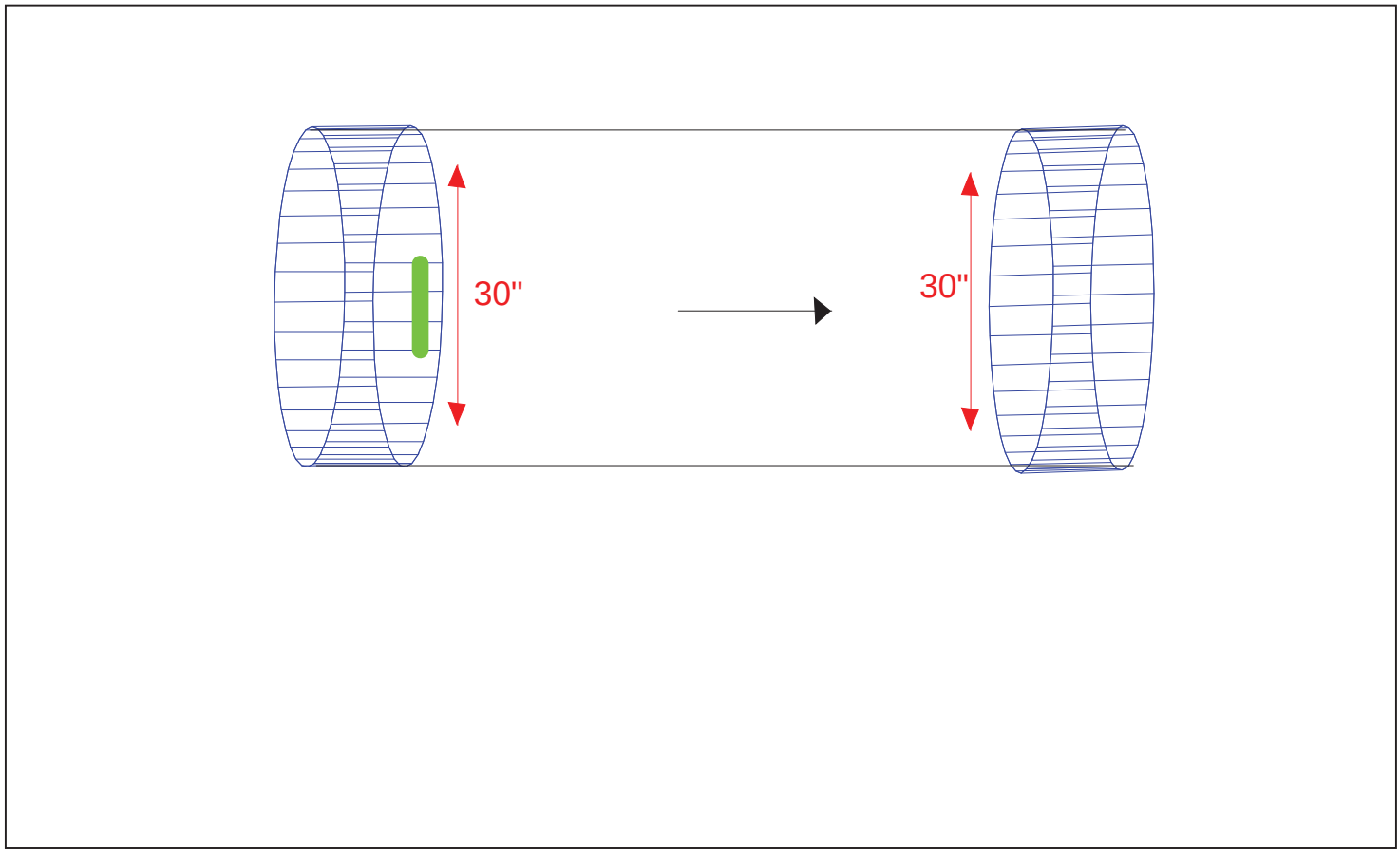
View of flow through effluent line



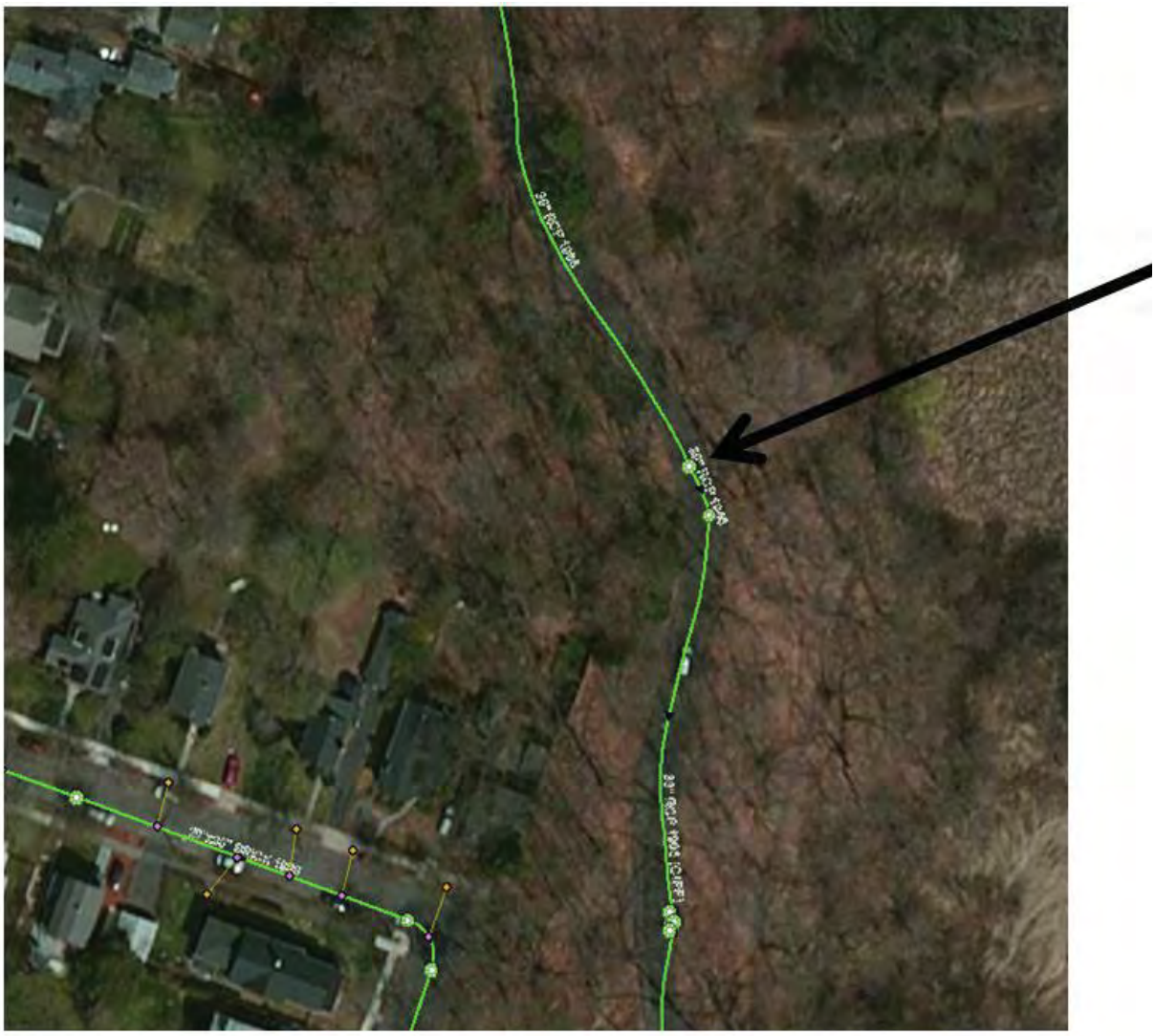
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # FM-2

Investigation Date: 4/23/14 Time: 11:00 Crew Members: KE/BR

Installation Date: 4/30/14 Time: 12:35 Crew Members: KE/ME/JS/LR

Address/Location: 920 Winchester Avenue (in the middle of the street)

Latitude: N 41°20.074' Longitude: W 72°55.490'

Weather Conditions: (Wet) Dry

Hydraulic Conditions

Influent Flow:

Velocity 0.98 ft/sec

Depth 10.0 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	24"		24"
Width	24"		24"
Material	RCP		RCP
Shape	Round		Round

Sediment Present:

(Yes) Hard packed: _____ in. deep

No Soft: 1.0 in. deep

Surcharge / Backwater Influence:

No evidence visible
(Remains in pipe)
___ ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 10' 5"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

Sensor Configuration:

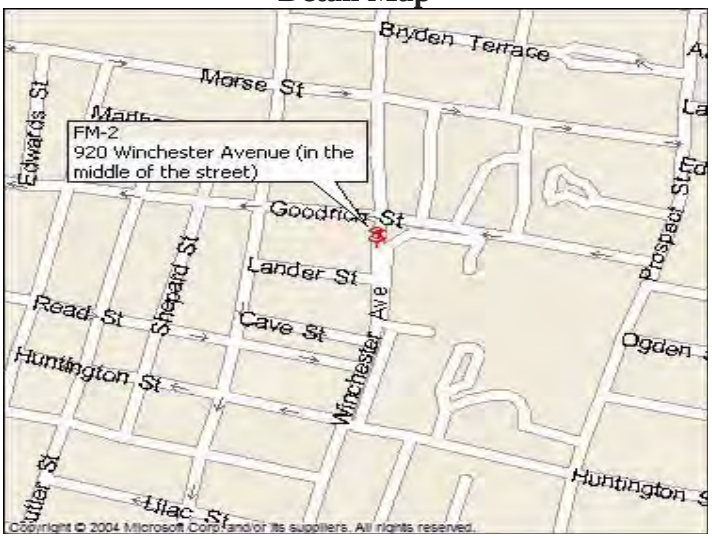
(Please include Serial Numbers when possible)

Level	Primary: 0713-1055
	Redundant:
Velocity	Primary: 0713-1055
	Redundant:
Meter Logger	FloWav 294529

Comments: *Requires blocking 1 lane of a 2-way street*

Area Map

Detail Map



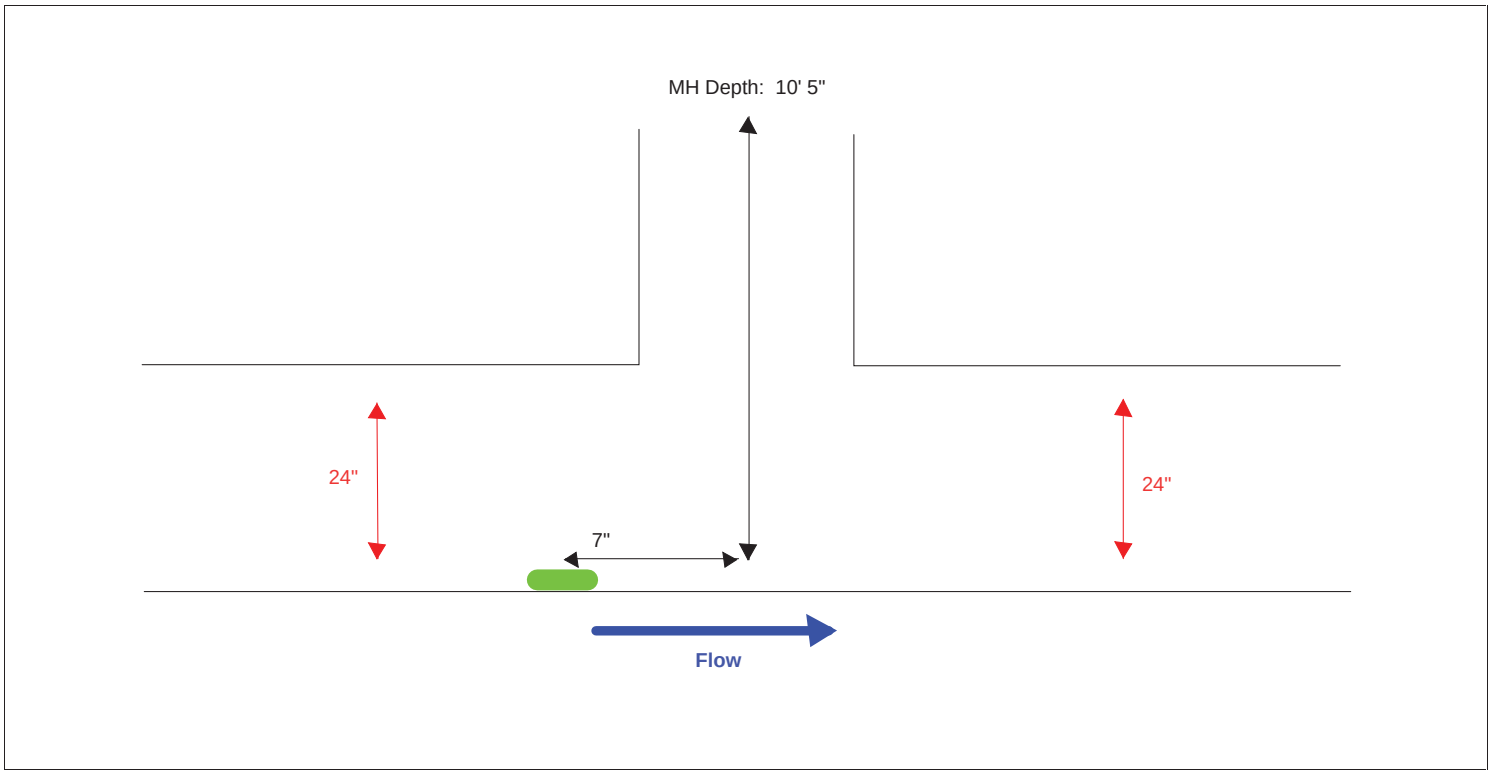
View from top of MH

Site Overview

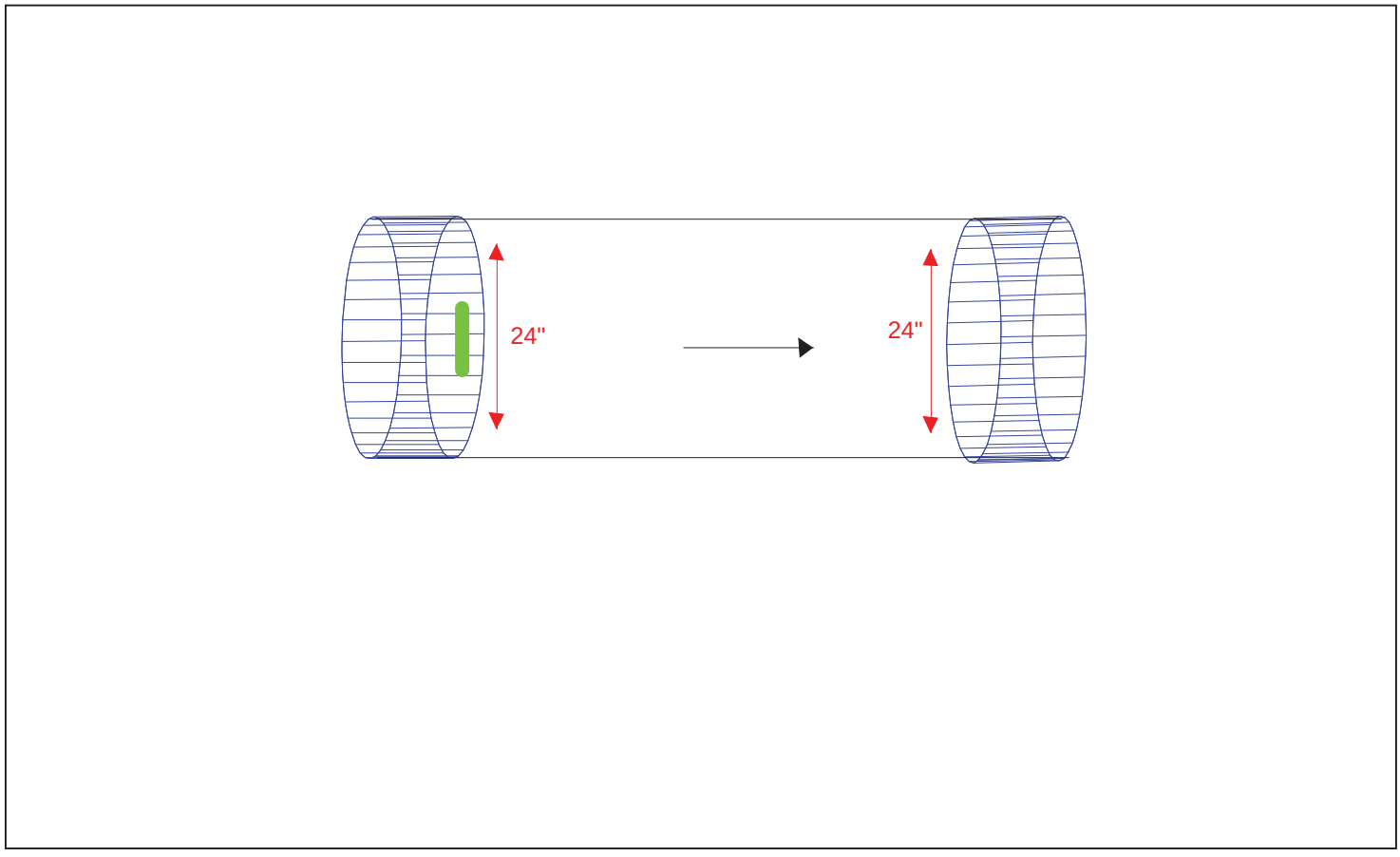
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View

Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-3

Investigation Date: 4/23/14 Time: 10:13 Crew Members: KE/BR

Installation Date: 4/30/14 Time: 11:22 Crew Members: LR/JS/KE/ME

Address/Location: Outside of 809 Dixwell Avenue (on Dixwell Ave at Cherry Ann St.)

Latitude: N 41°20.135' Longitude: W 72°56.113'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 1.0 ft/sec

Depth 1.75 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	12"		12"
Width	12"		12"
Material	Concrete		Concrete
Shape	Round		Round

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
3.0 ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 12' 9"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends:

Influent Effluent (Manhole)
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

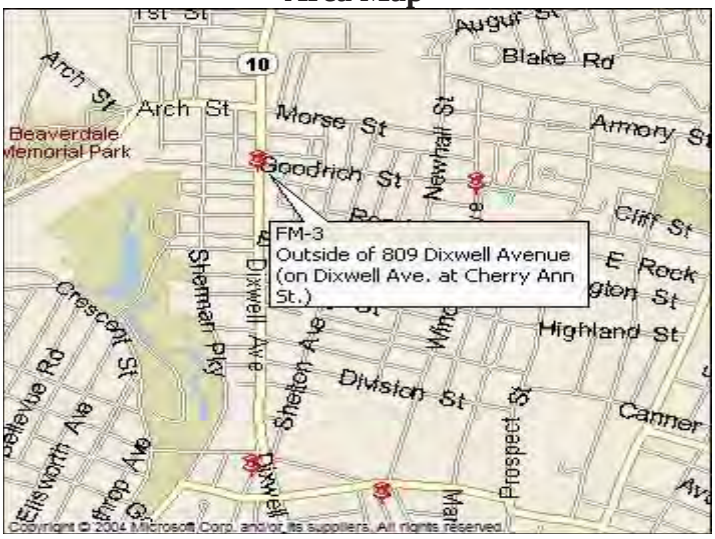
Crew Member: Can you maintain this site?
(Yes) No Maybe

Sensor Configuration:
(Please include Serial Numbers when possible)

Level	Primary: 713-1057
	Redundant:
Velocity	Primary:
	Redundant:
Meter Logger	FloWav 294535

Comments:

Area Map



Detail Map

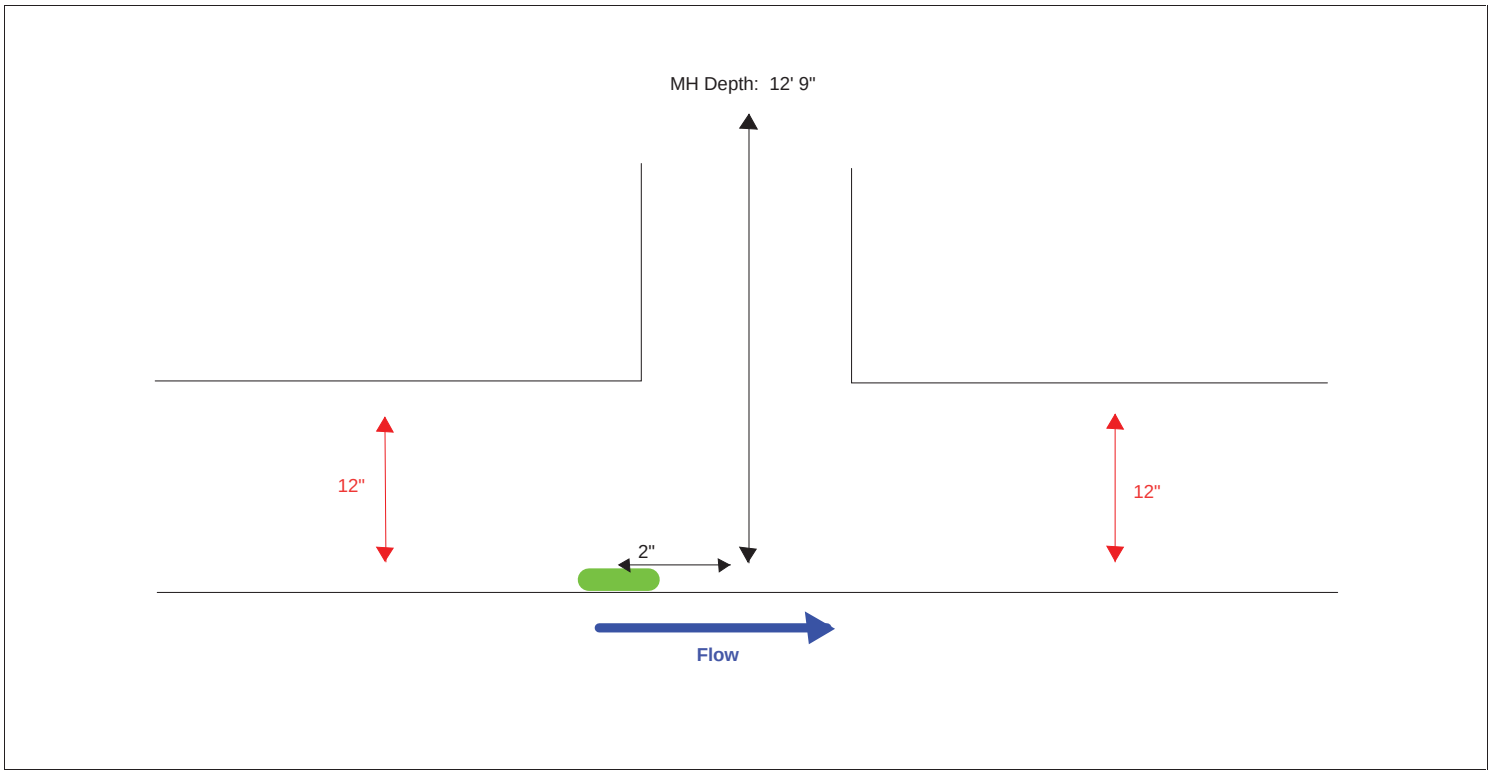
View from top of MH

Site Overview

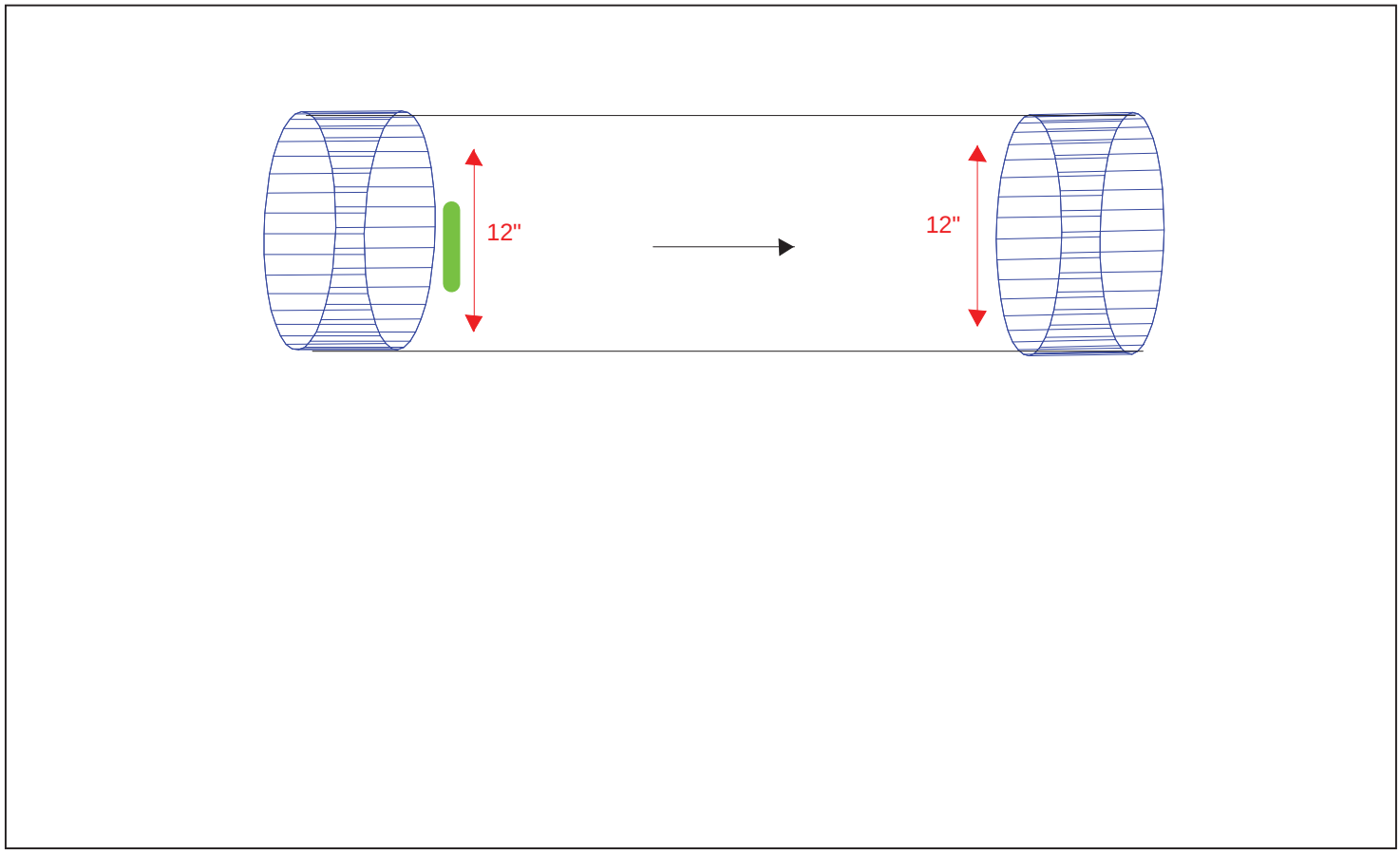
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-4

Investigation Date: 4/22/14 Time: 14:41 Crew Members: KE/BR

Installation Date: 5/1/14 Time: 14:28 Crew Members: LR/JS

Address/Location: Across from 351 Sherman Avenue

Latitude: N 41°219.093' Longitude: W 72°56.485'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 2.15 ft/sec

Depth 10.5 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	48"		48"
Width	48"		48"
Material	Brick		Brick
Shape	Round		Round

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
3.0 ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 25'
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

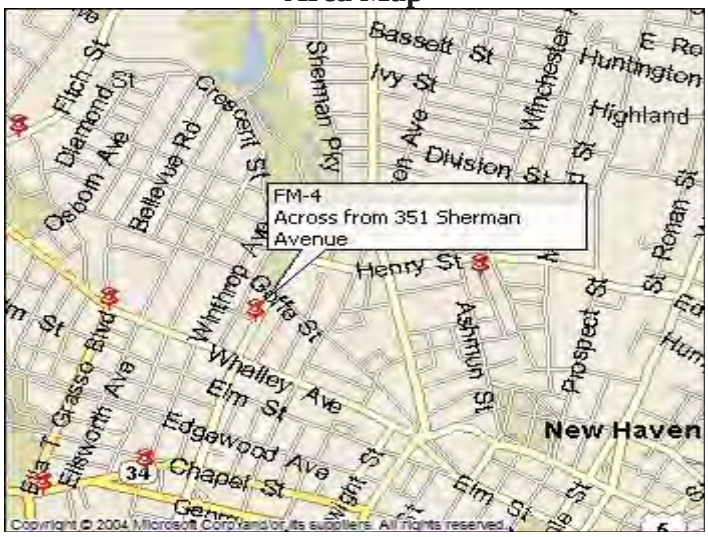
Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary: 813-1087
	Redundant:
Velocity	Primary:
	Redundant:
Meter Logger	Flowav 294552

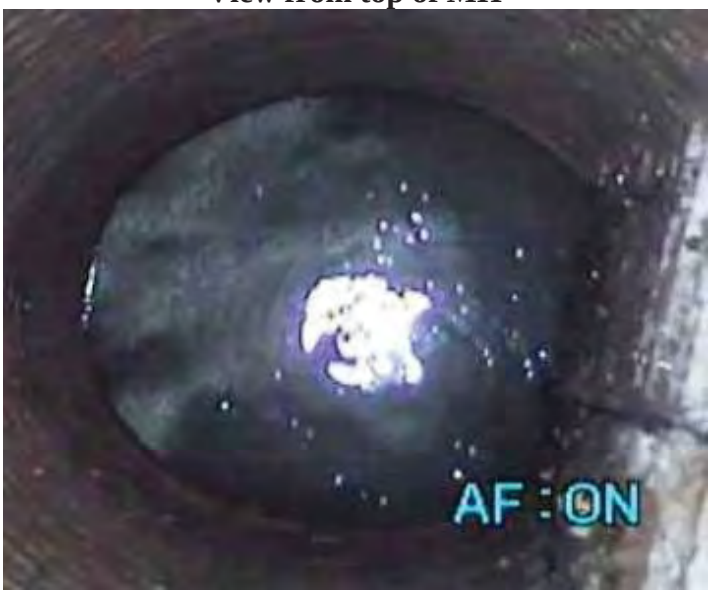
Comments:

Area Map



Detail Map

View from top of MH

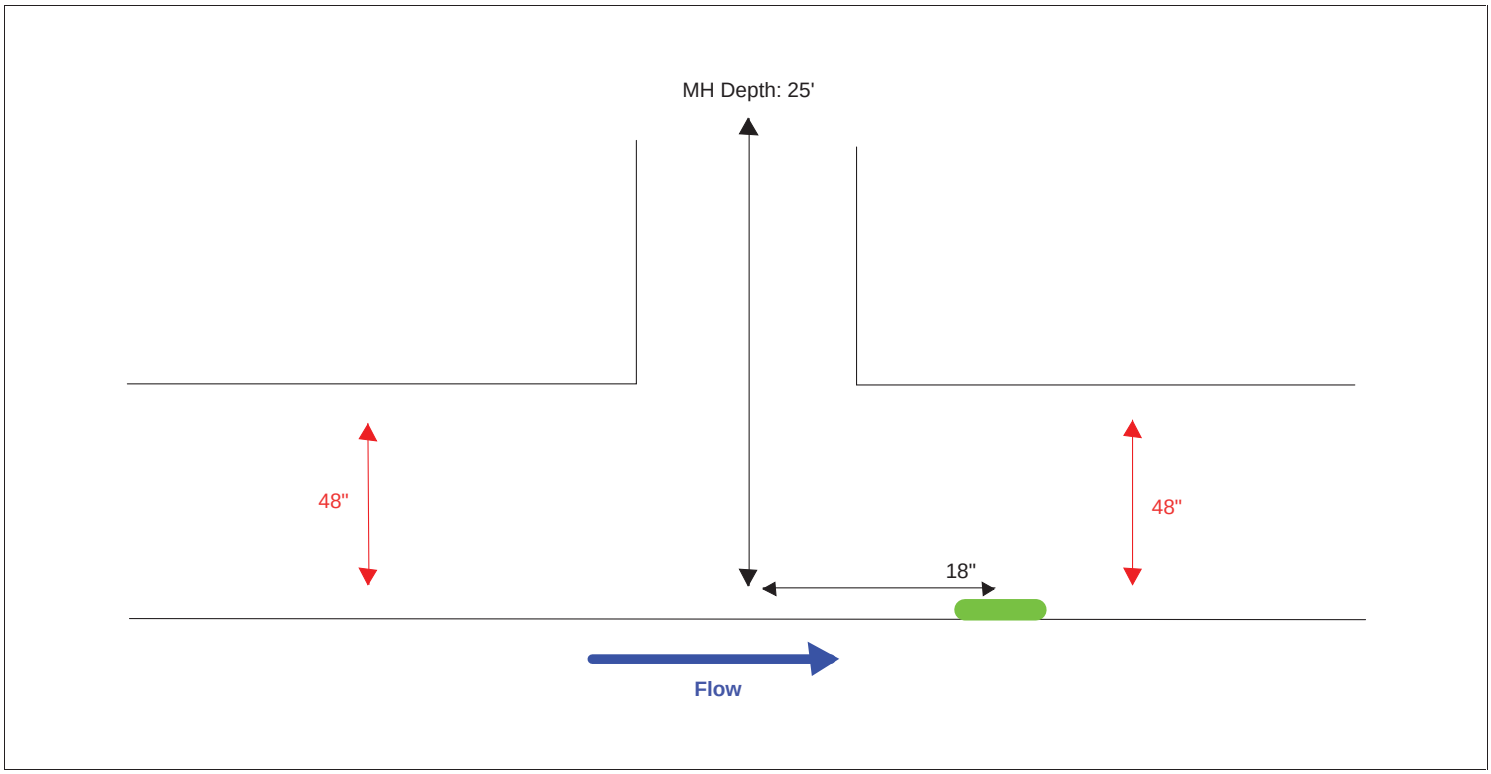


Site Overview

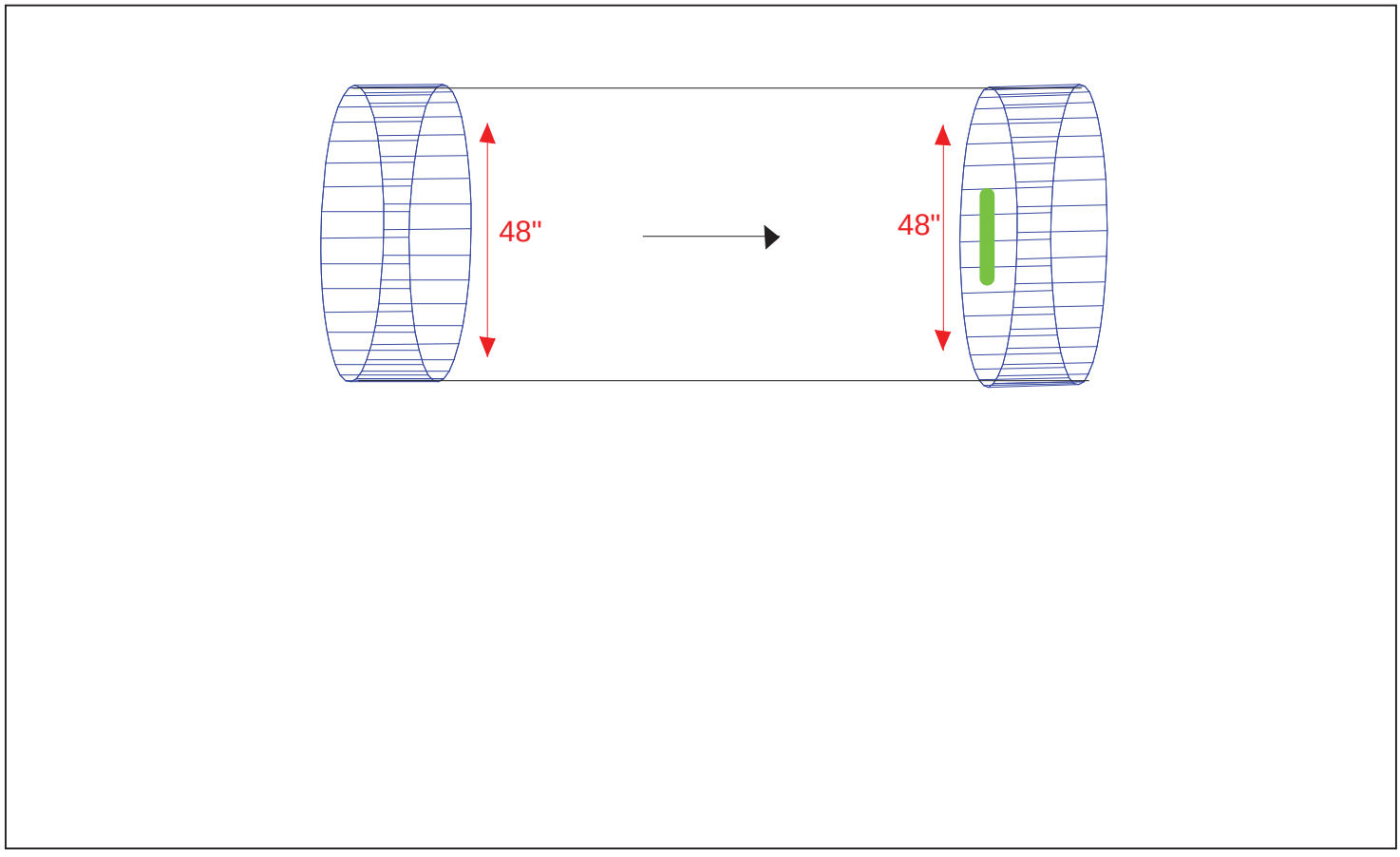
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-5

Investigation Date: 4/25/14 Time: 10:26 Crew Members: KE/BR

Installation Date: 5/3/14 Time: 13:30 Crew Members: LR/JS

Address/Location: 1456 Ella T. Grasso Boulevard

Latitude: N 41°19.095' Longitude: W 72°56.965'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 2.68 ft/sec

Depth 27.0 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	64"		64"
Width	66.5"		66.5"
Material	Brick		Brick
Shape	Round		Round

Sediment Present:

(Yes) Hard packed: _____ in. deep
No Soft: 7.5 in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 35'
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

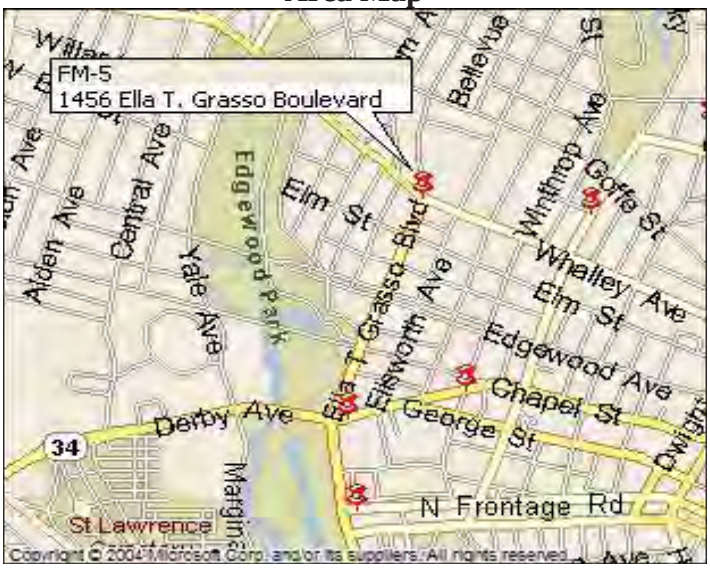
Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary: 713-1033	
	Redundant:	
Velocity	Primary:	
	Redundant:	
Meter Logger	FloWav 294539	

Comments:

Area Map



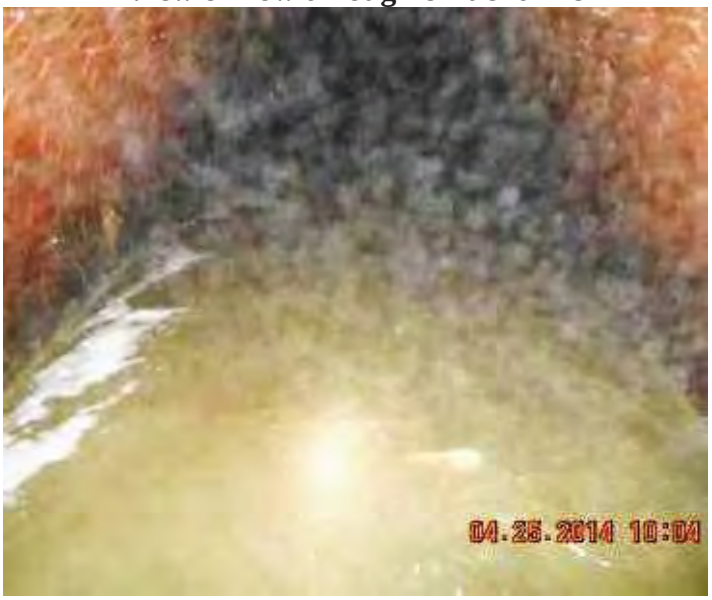
Detail Map

View from top of MH

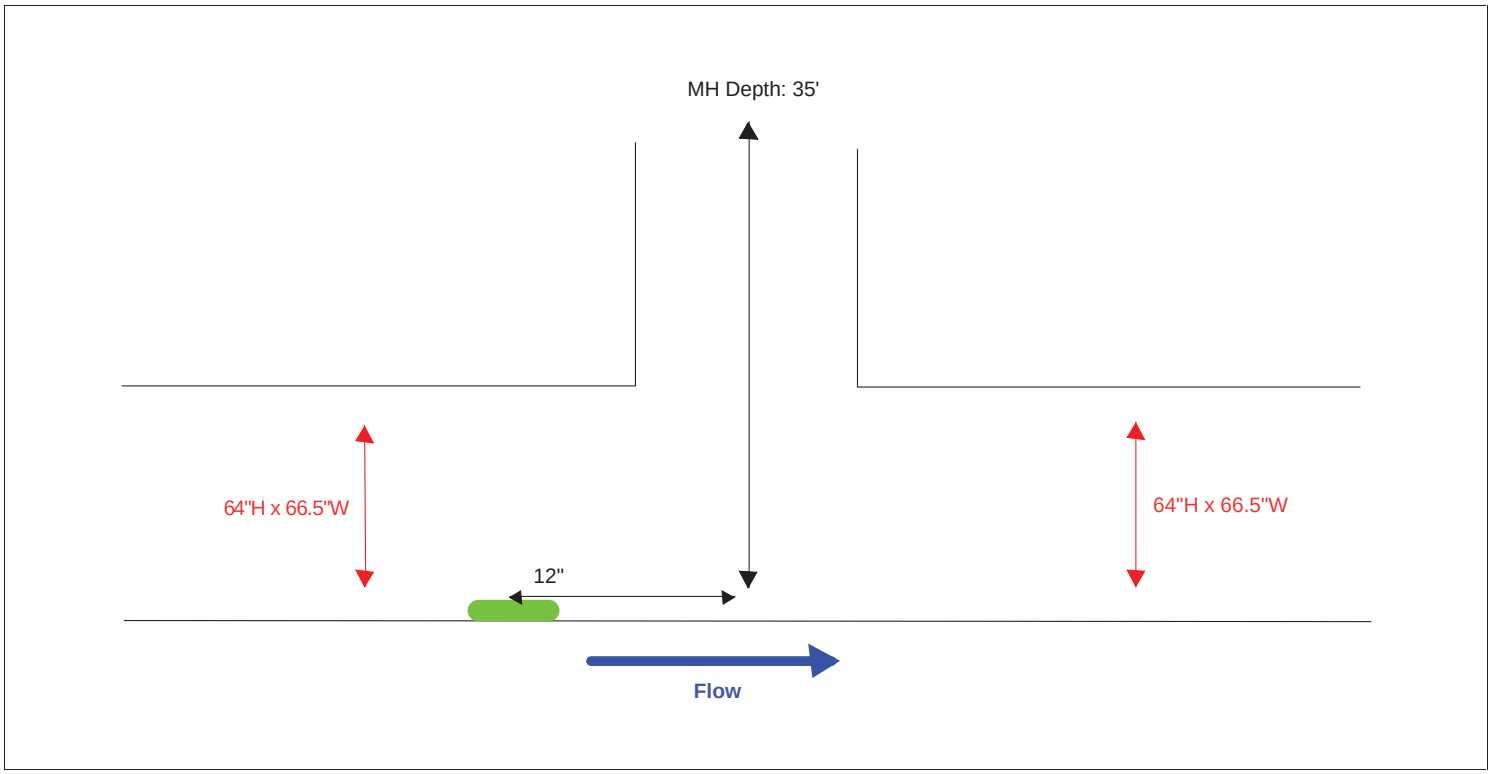
Site Overview

View of flow through influent line

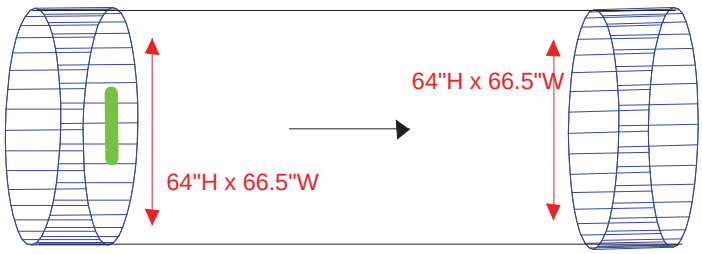
View of flow through effluent line



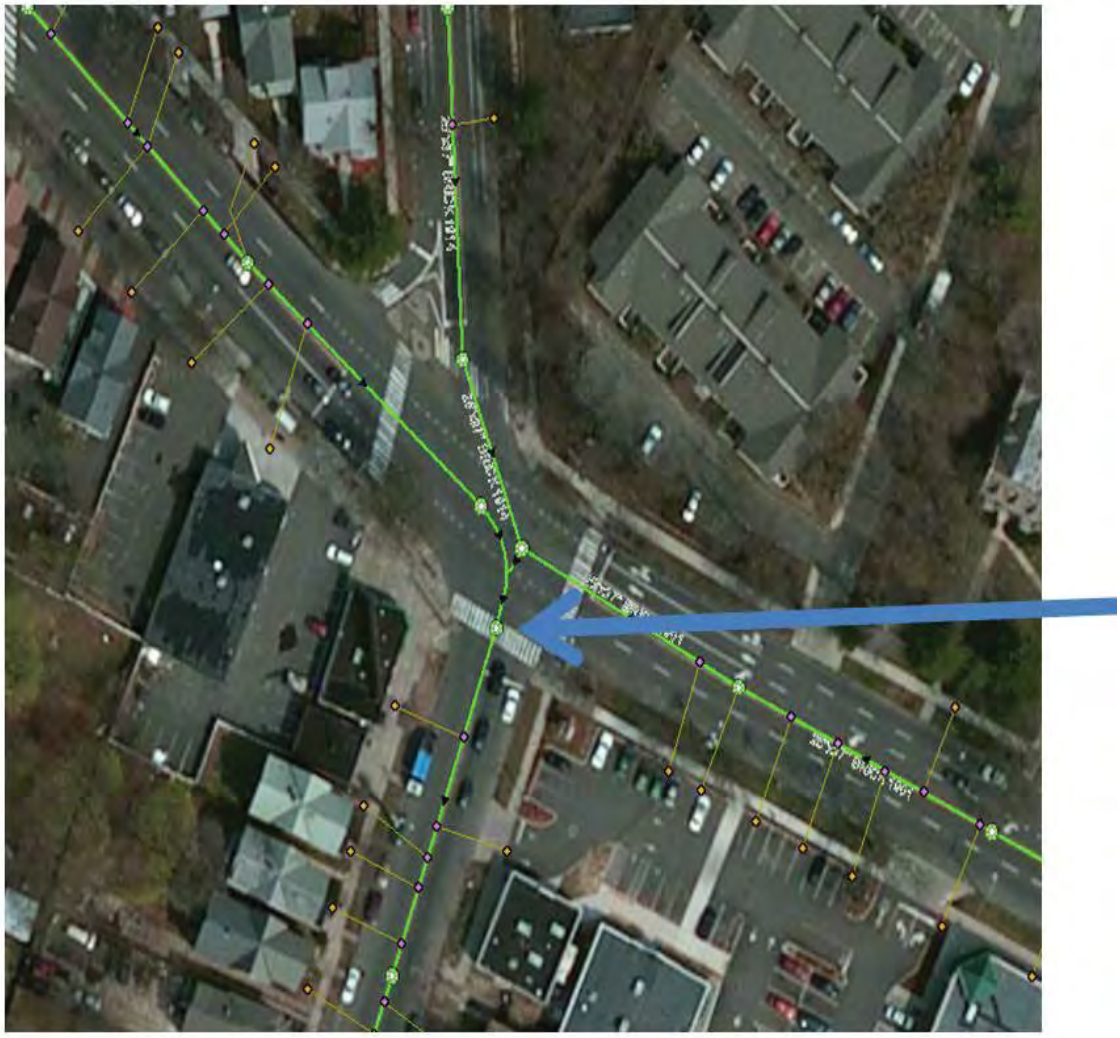
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # FM-6

Investigation Date: 4/25/14 Time: 12:28 Crew Members: KE/BR

Installation Date: 5/1/14 Time: 9:43 Crew Members: KE/ME

Address/Location: On Whalley Avenue, 50 yards past Pond Lily Avenue (in left turn lane)

Latitude: N 41°20.835' Longitude: W 72°58.616'

Weather Conditions: (Wet) Dry

Hydraulic Conditions

Influent Flow:

Velocity 2.60 ft/sec

Depth 8.75 to 9.5 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	24"		24"
Width	24"		24"
Material	Clay		Clay
Shape	Round		Round

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 9' 2"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

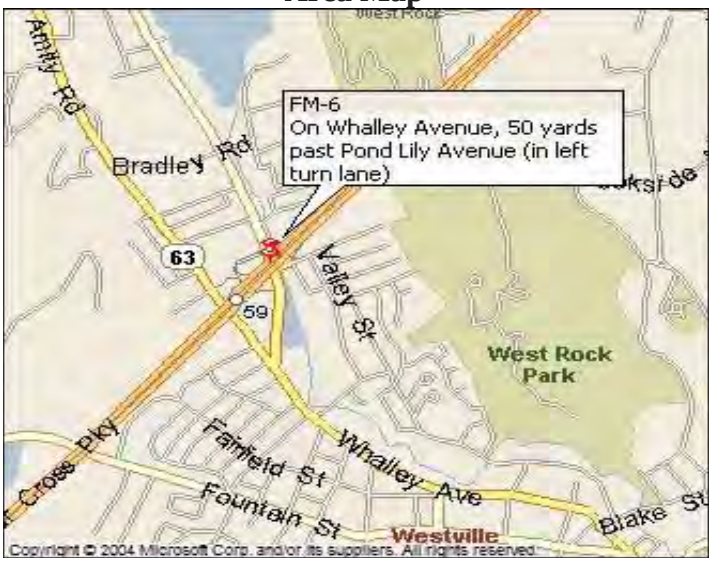
Sensor Configuration:

(Please include Serial Numbers when possible)

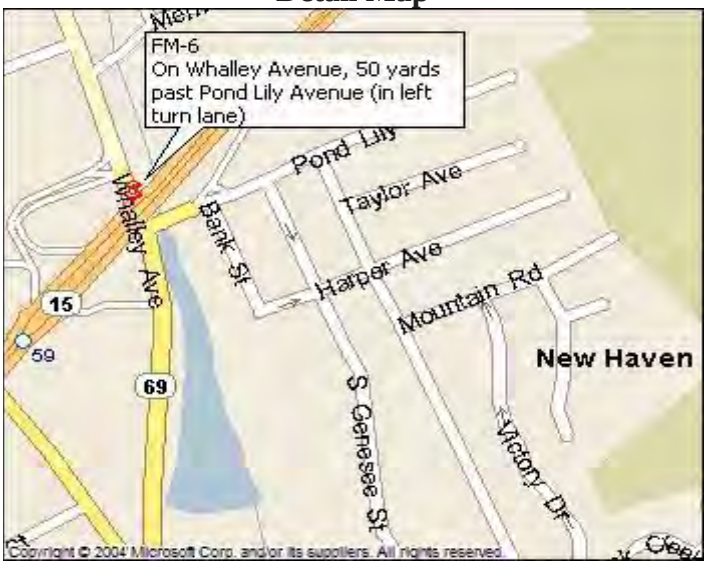
Level	Primary: 0613-1012
	Redundant: 0613-1020
Velocity	Primary: 0613-1012
	Redundant: 0613-1020
Meter Logger	FloWav 294538

Comments: *Access after 10:00, before 14:00*

Area Map



Detail Map



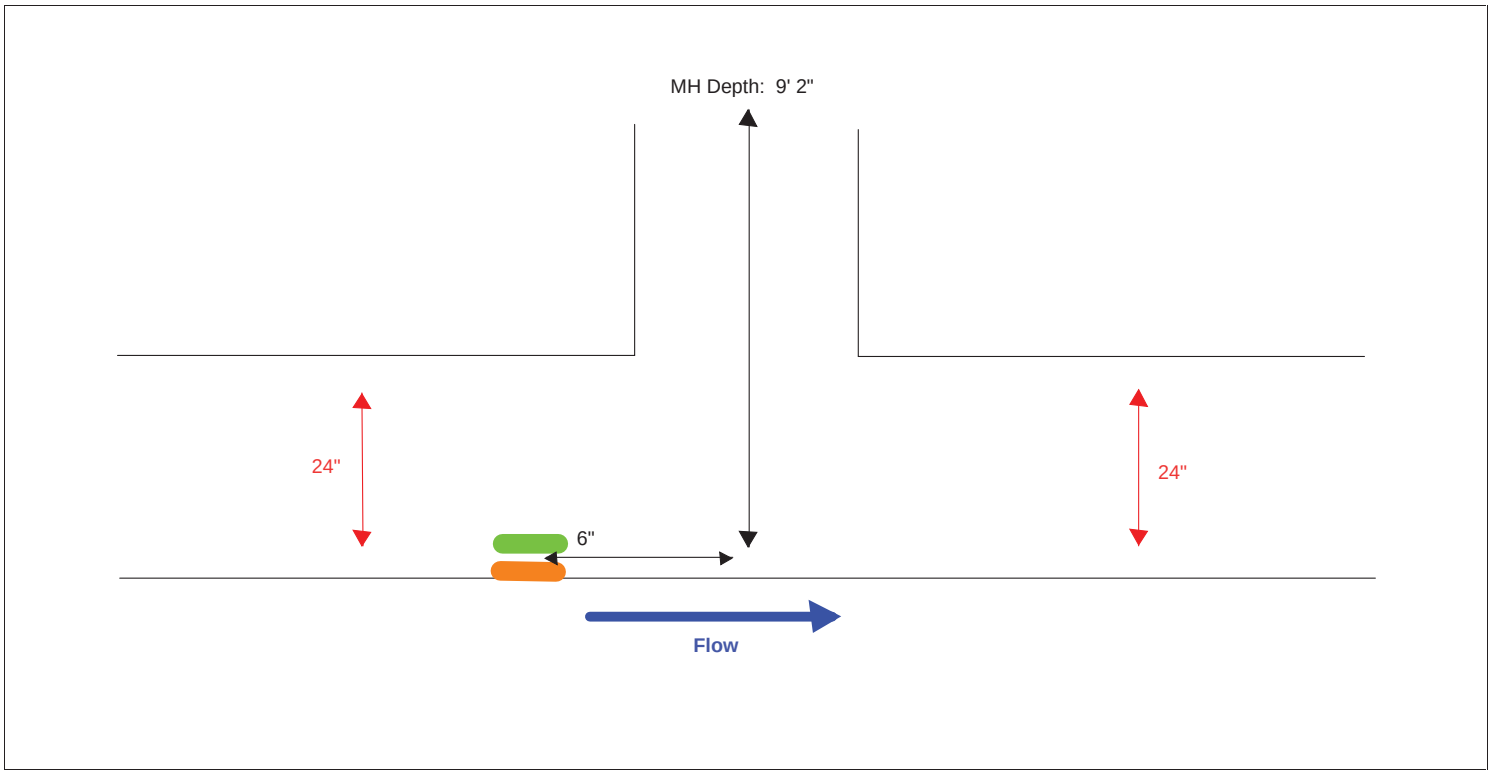
View from top of MH

Site Overview

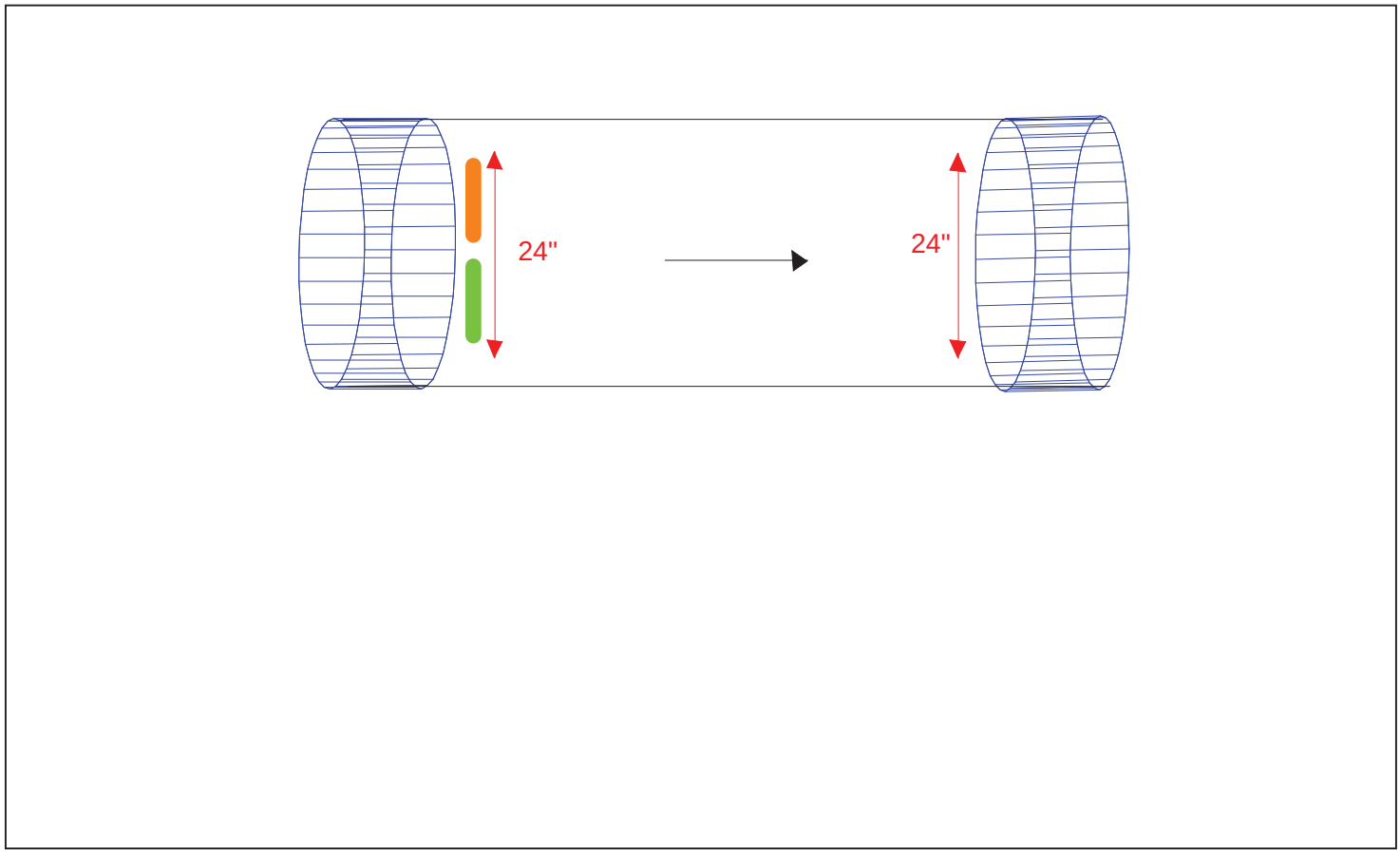
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-7

Investigation Date: 4/24/14 Time: 12:21 Crew Members: KE/BR

Installation Date: 5/3/14 Time: 9:30 Crew Members: KE/ME

Address/Location: Across from Broadway Pizza at 185 Derby Avenue

Latitude: N 41°18.612' Longitude: W 72°57.148'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 3.33 ft/sec

Depth 9.50 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	49"		49"
Width	52"		52"
Material	Brick		Brick
Shape	Egg		Egg

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 13' 6"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

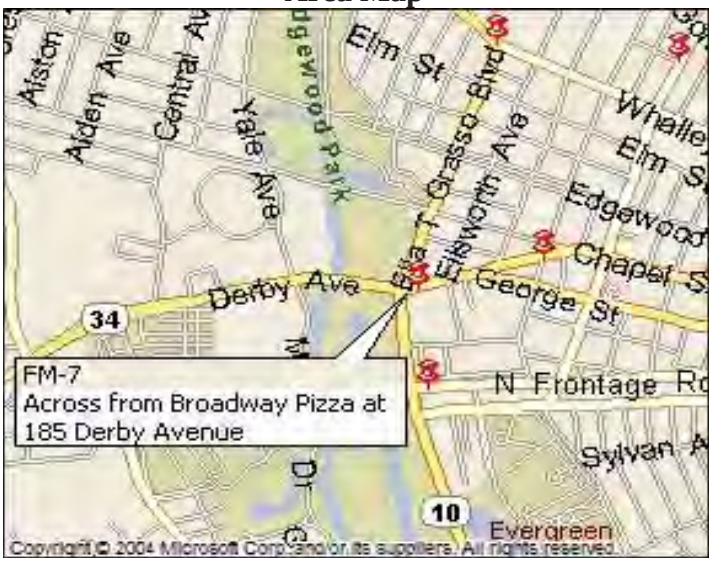
Sensor Configuration:

(Please include Serial Numbers when possible)

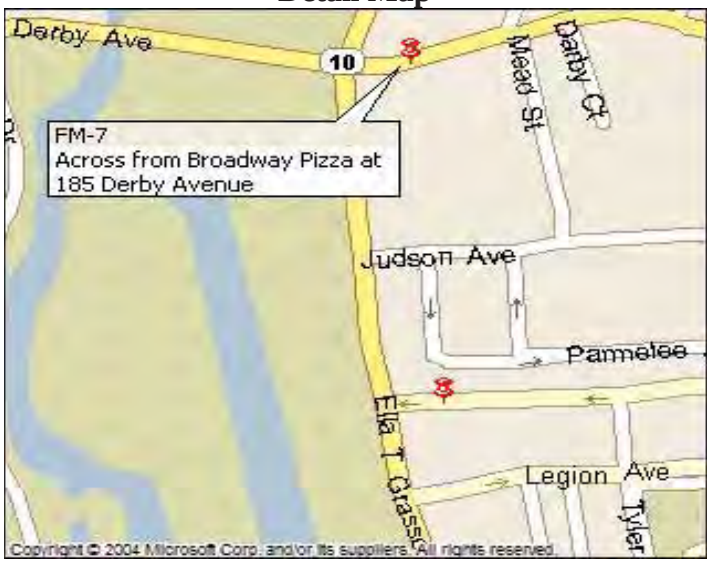
Level	Primary: 0613-1021
	Redundant:
Velocity	Primary: 0613-1021
	Redundant:
Meter Logger	FloWav 293667

Comments:

Area Map



Detail Map



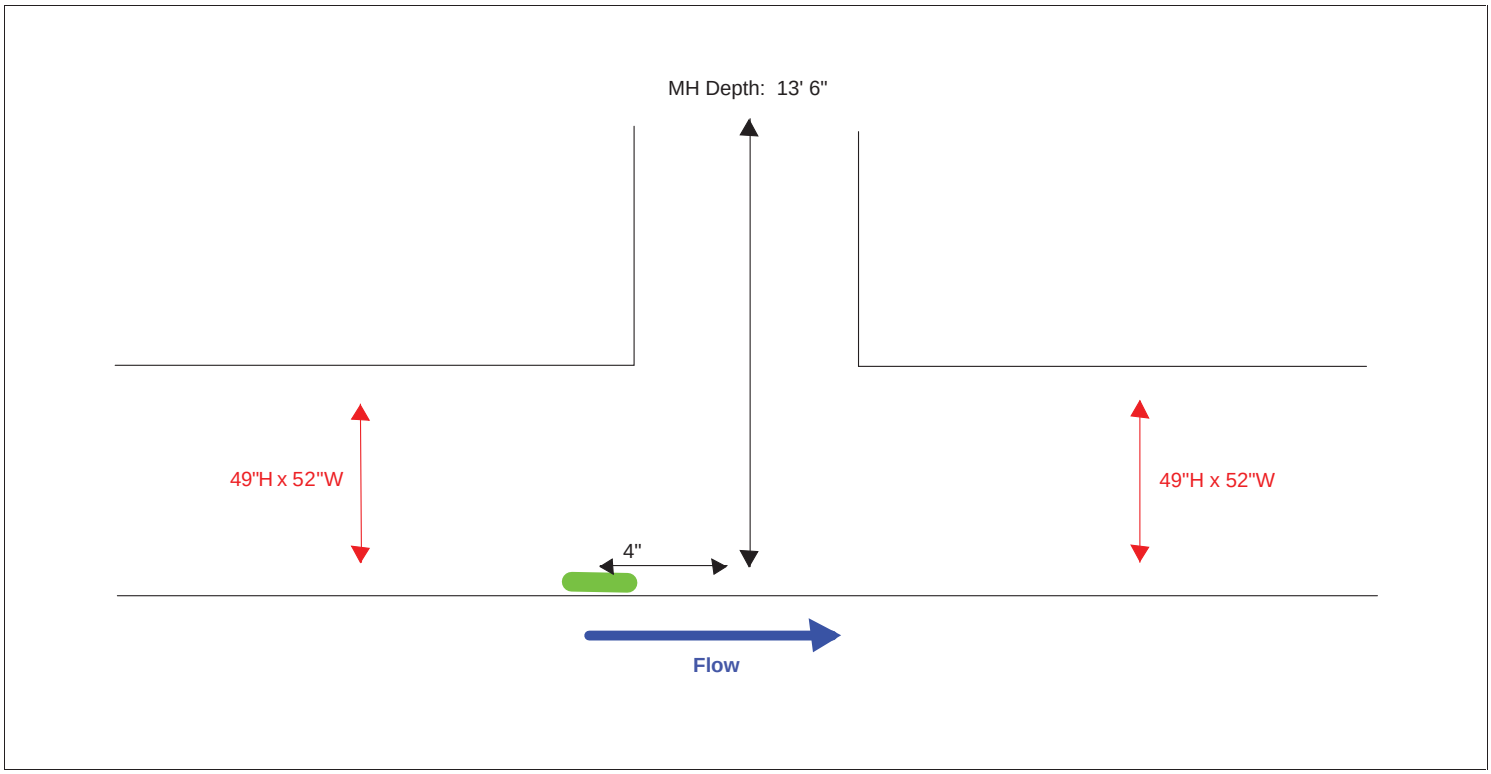
View from top of MH

Site Overview

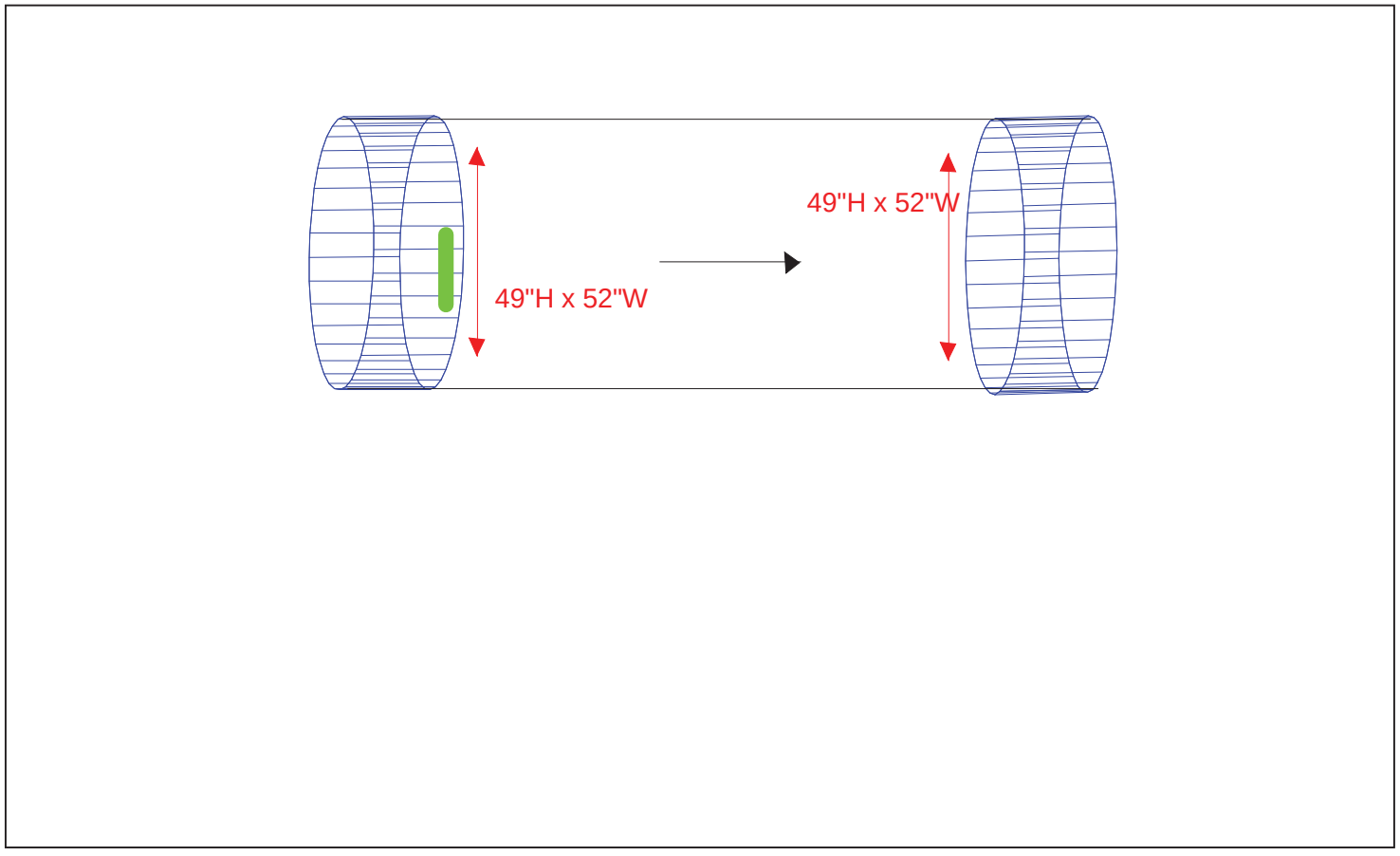
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-8

Investigation Date: 4/25/14 Time: 11:44 Crew Members: KE/BR

Installation Date: 5/2/14 Time: 12:50 Crew Members: KE/ME

Address/Location: 152 Fitch Street

Latitude: N 41°19.629' Longitude: W 72°57.244'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 1.63 ft/sec

Depth 20.5 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	42"		42"
Width	42"		42"
Material	RCP		RCP
Shape	Round		Round

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
(Traffic Control only (Requires extra traffic control)
Unusable (~~Document in Comments~~ section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 10' 2"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary: 0713-1045
	Redundant:
Velocity	Primary: 0713-1045
	Redundant:
Meter Logger	FloWav 291181

Comments:

Area Map

Detail Map

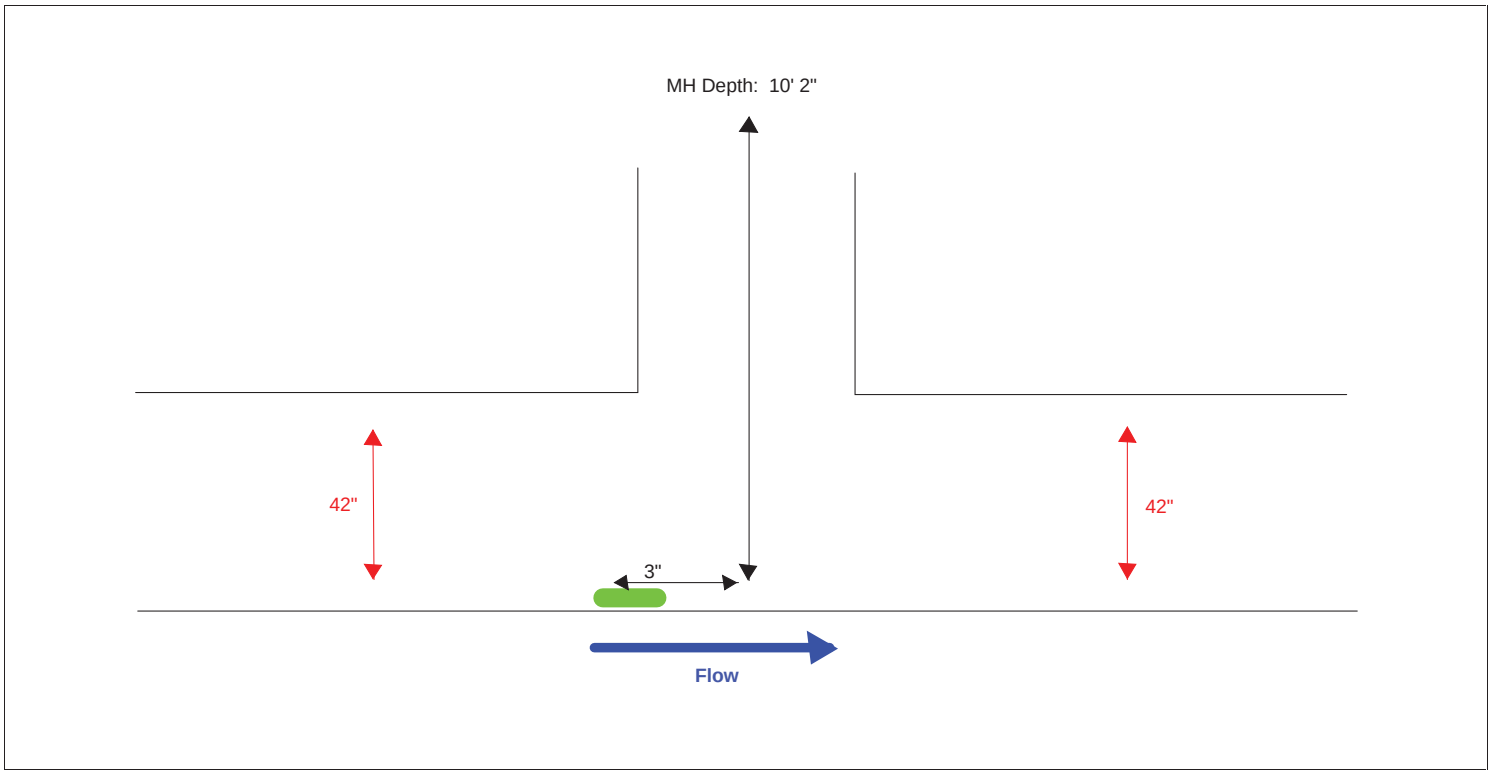
View from top of MH

Site Overview

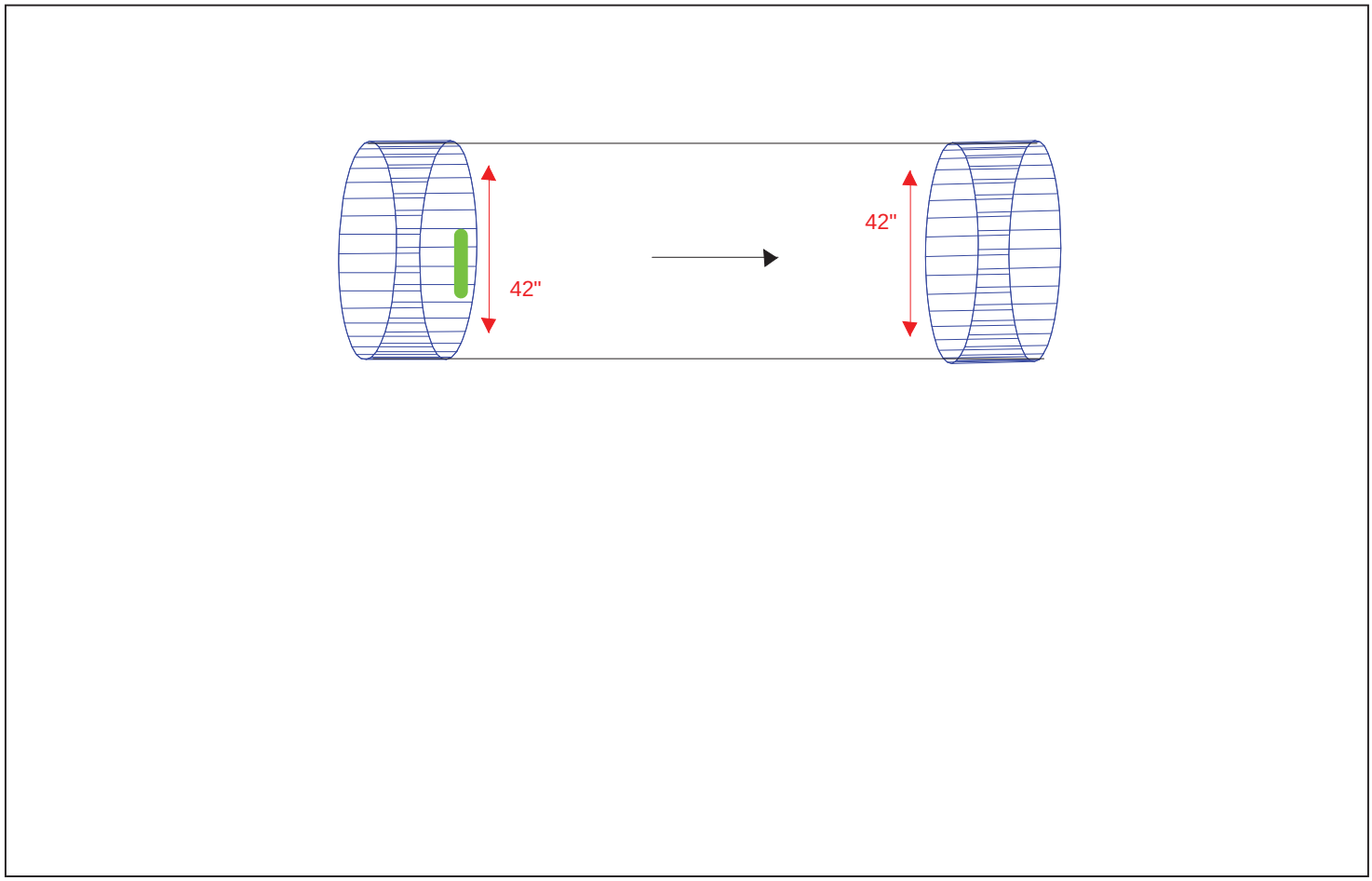
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-9

Investigation Date: 4/22/14 Time: 11:14 Crew Members: KE/BR

Installation Date: Time: Crew Members:

Address/Location: On N. Frontage Road, in the right left turning lane at Ella T. Grasso Blvd.

Latitude: N 41°19.392' Longitude: W 72°57.138'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 0.76 ft/sec

Depth 4.75 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	29"	15"	35"
Width	45"	15"	35"
Material	Concrete	Brick	Concrete
Shape	Elliptical	Round	Round

Sediment Present:

(Yes) Hard packed: _____ in. deep
No Soft: *Trace* in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
(Traffic Control only (Requires extra traffic control)
Unusable (~~Document in Comments section~~)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 8' 3"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent (Manhole)
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

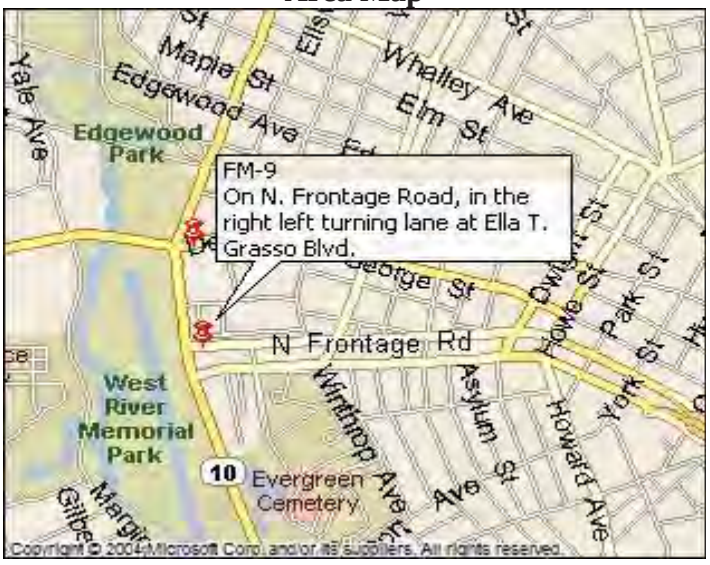
Sensor Configuration:

(Please include Serial Numbers when possible)

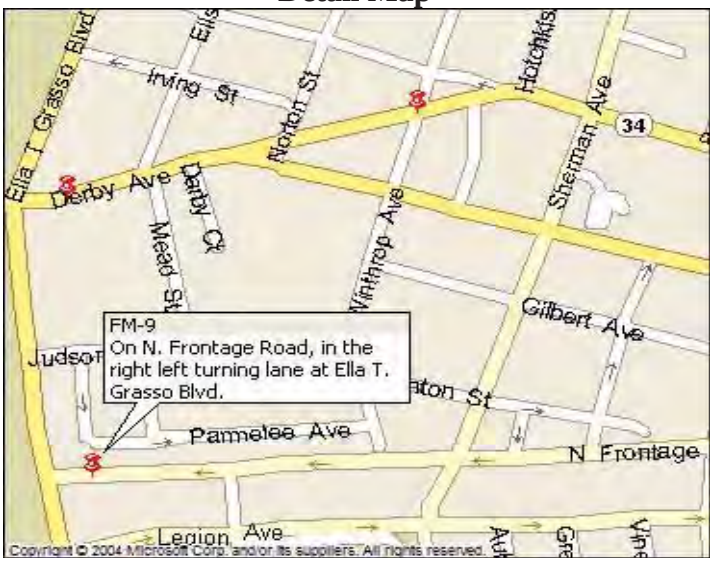
Level	Primary: 613-1013	
	Redundant:	
Velocity	Primary:	
	Redundant:	
Meter Logger	FloWav 291689	

Comments: *Material changes at the MH from RCP to brick and back to RCP*

Area Map



Detail Map



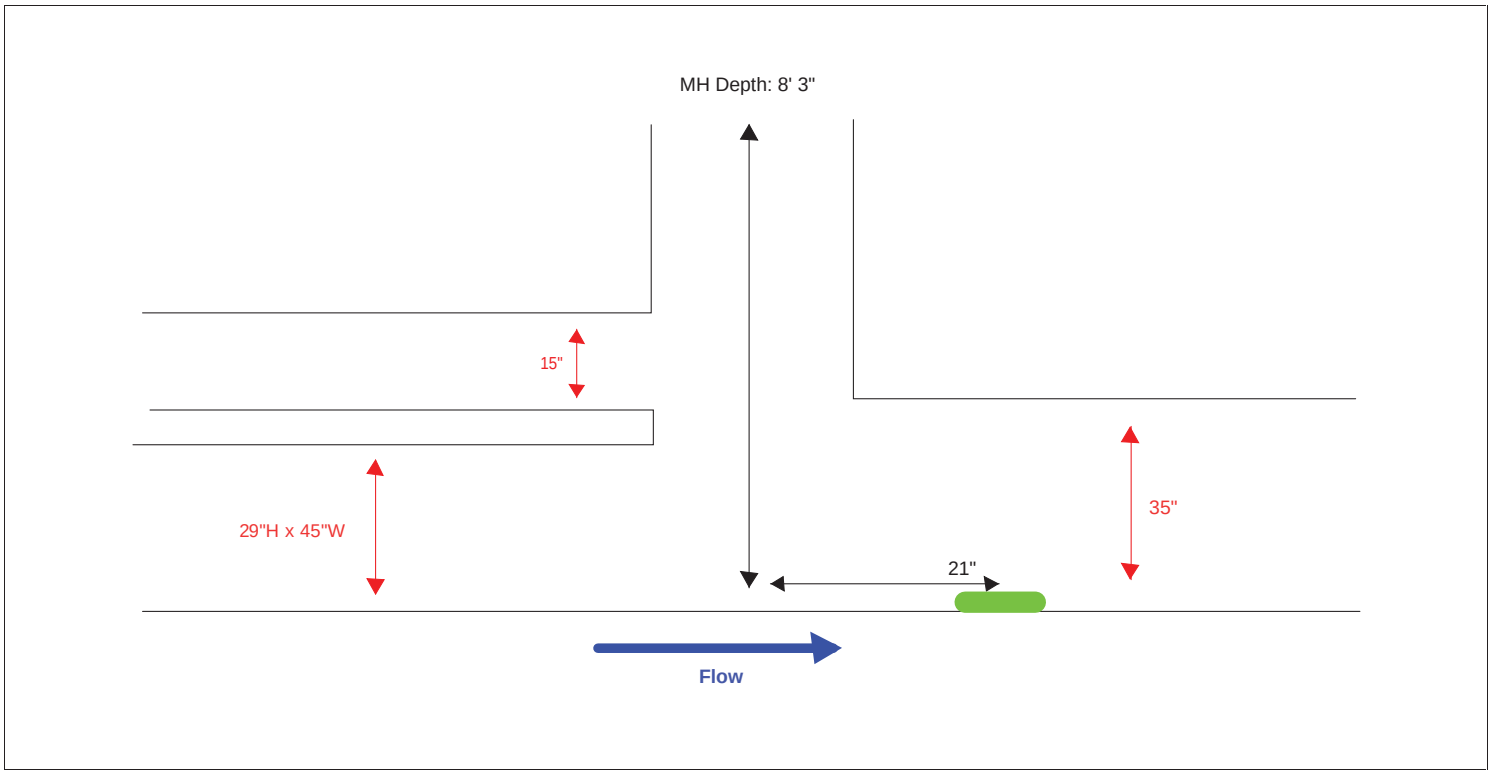
View from top of MH

Site Overview

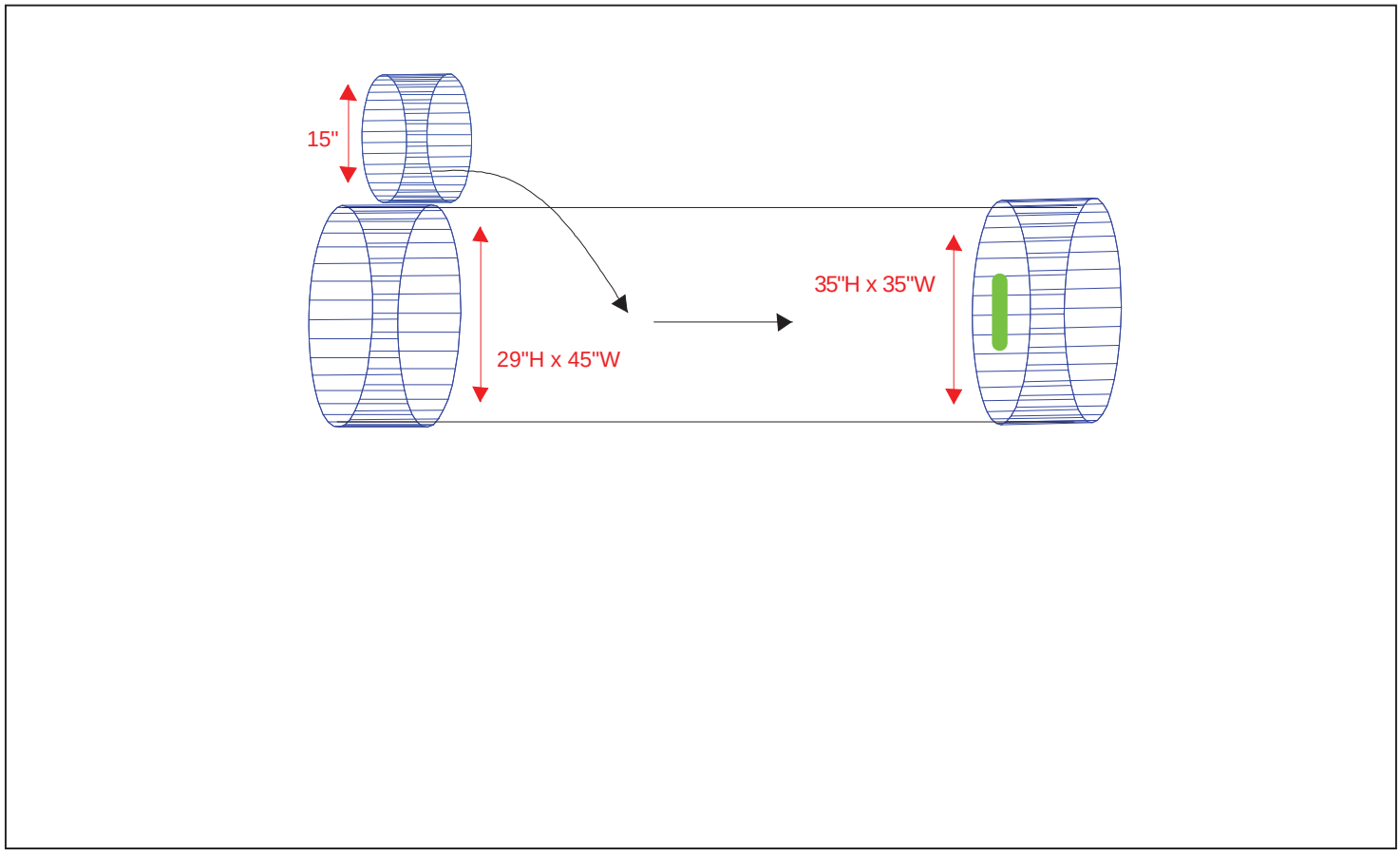
View of flow through influent line

View of flow through effluent line

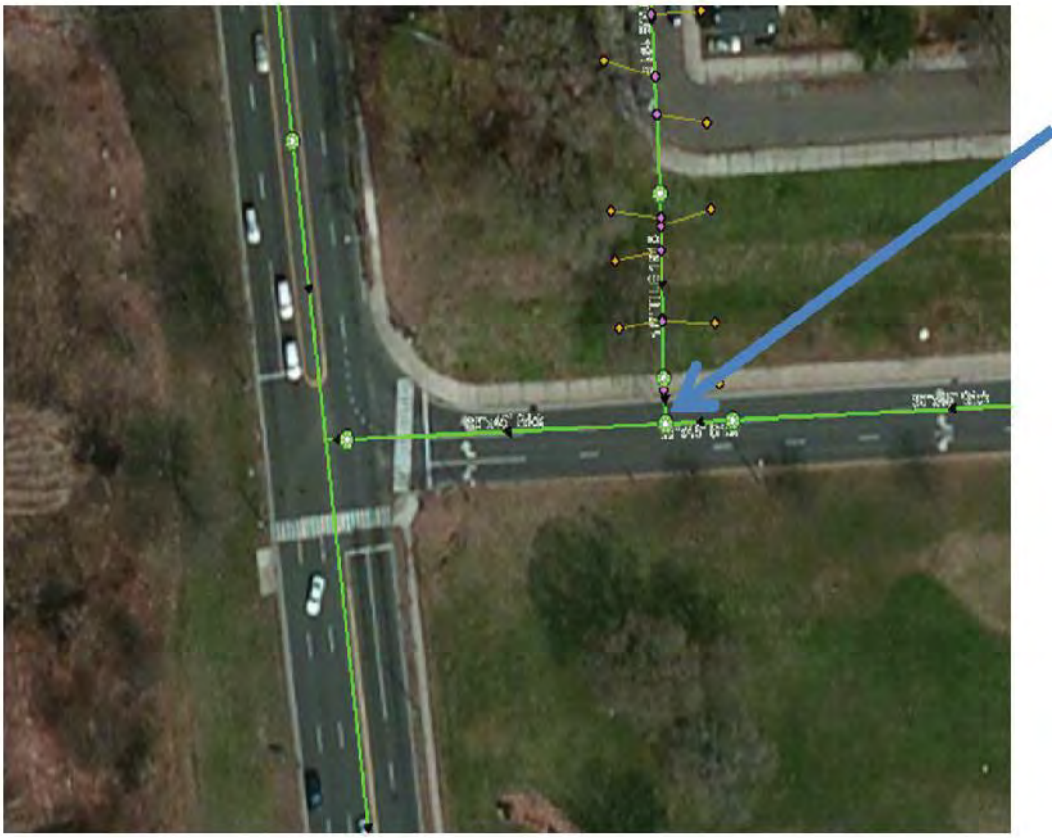
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # FM-10

Investigation Date: 4/23/14 Time: 10:22 Crew Members: KE/BR

Installation Date: 5/2/14 Time: 10:50 Crew Members: LR/JS

Address/Location: Across from 408 Davenport Avenue (in the middle of the street)

Latitude: N 41°17.920' Longitude: W 72°56.782'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 2.53 ft/sec

Depth 2.50 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	30"		30"
Width	45"		45"
Material	Brick		Brick
Shape	Egg		Egg

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 12'
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

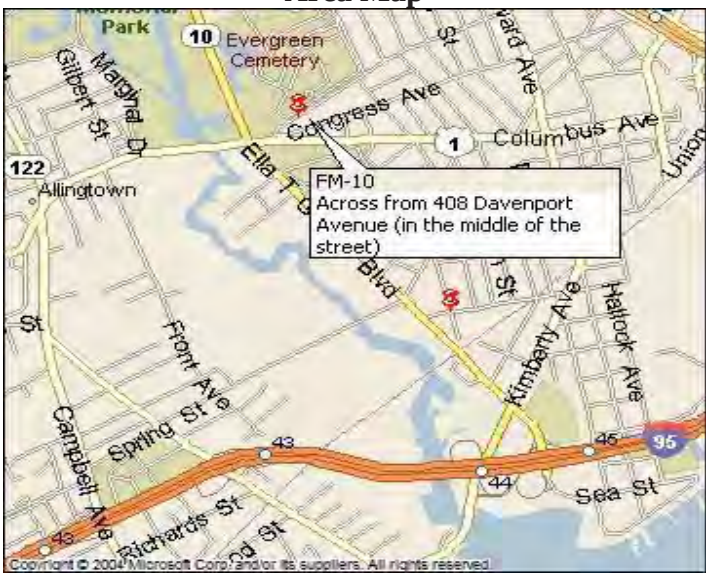
Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary: 713-1044	
	Redundant:	
Velocity	Primary:	
	Redundant:	
Meter Logger	FloWav 294532	

Comments:

Area Map

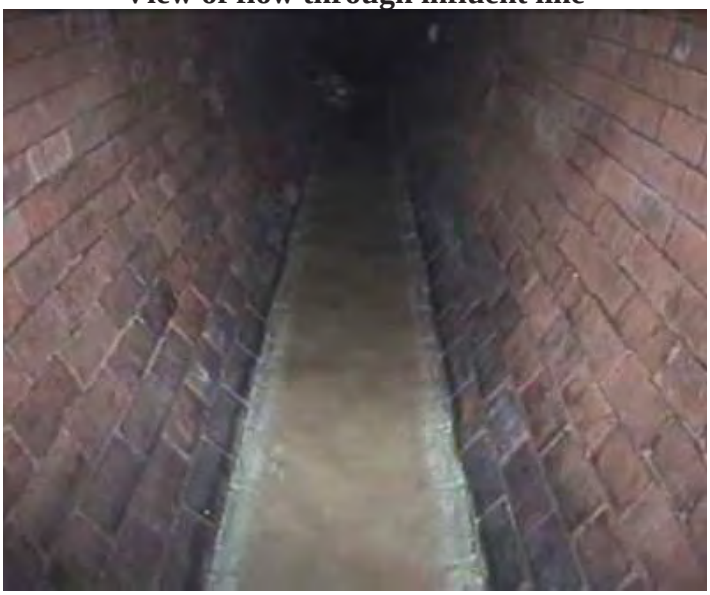


Detail Map

View from top of MH

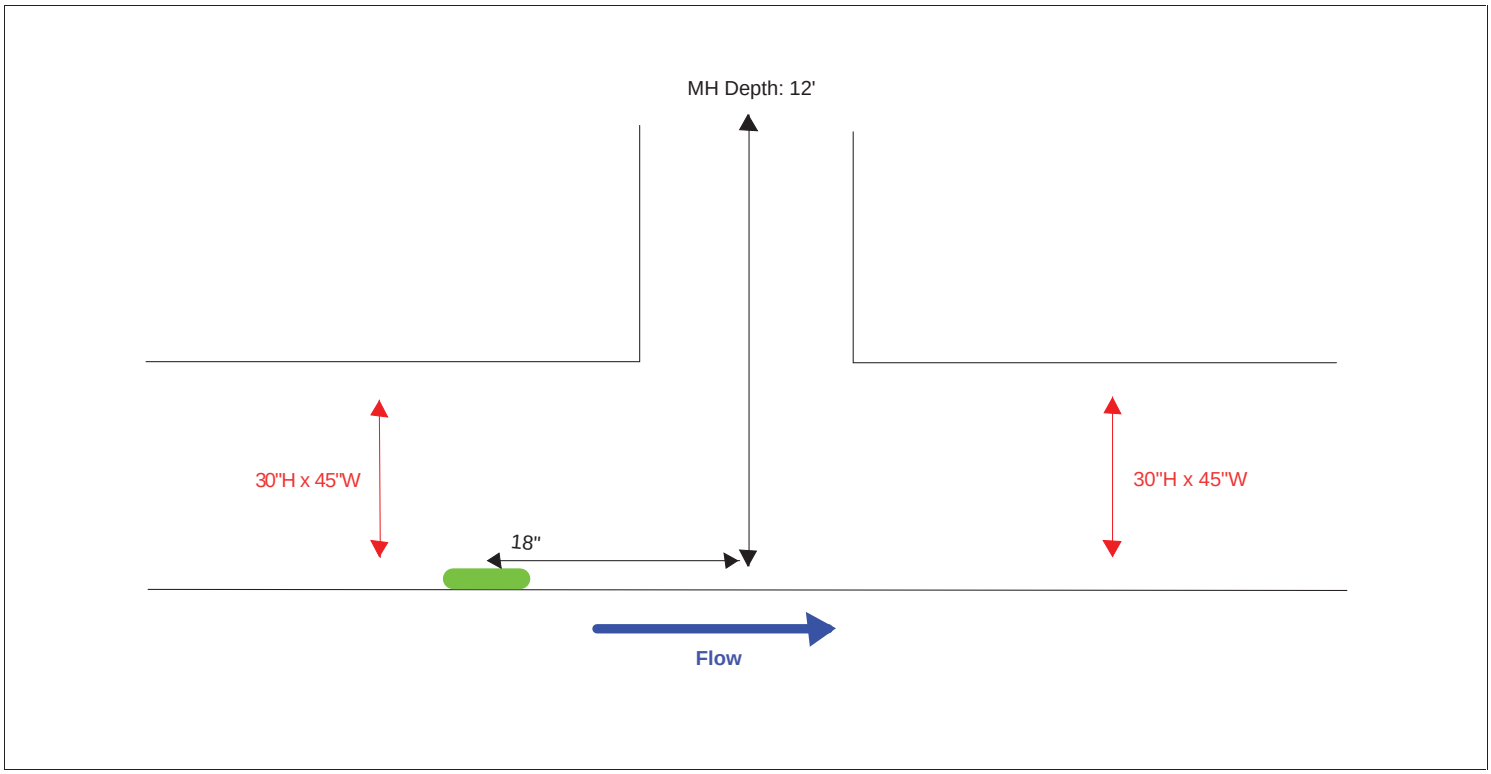
Site Overview

View of flow through influent line

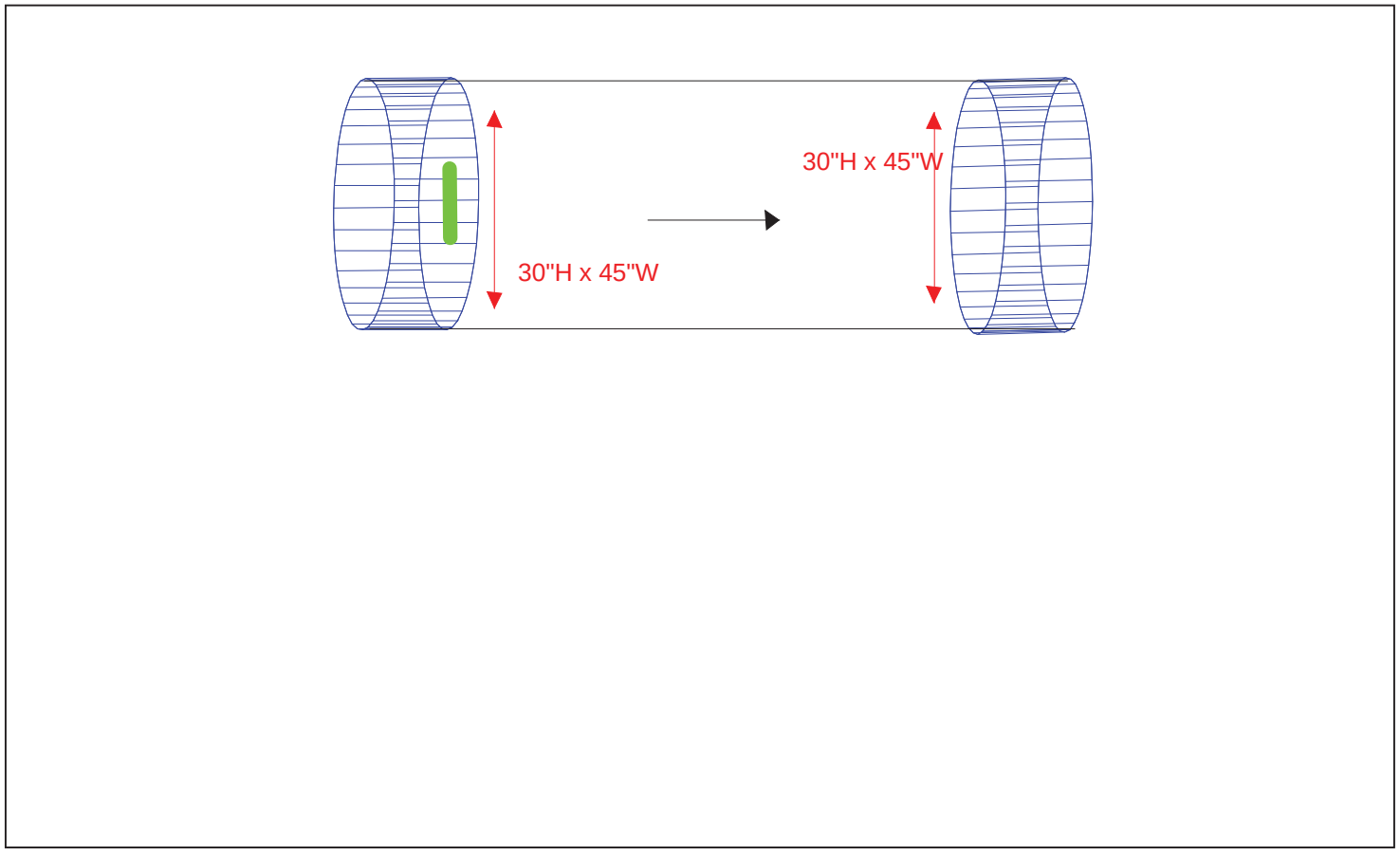


View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-11

Investigation Date: 5/1/14 Time: 13:05 Crew Members: KE/ME

Installation Date: 5/1/14 Time: 13:40 Crew Members: KE/ME

Address/Location: 215 Lamberton Street

Latitude: N 41°17.409' Longitude: W 72°56.407'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 0.15 ft/sec

Depth 15.0 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	45.5"	54"	54"
Width	29"	54"	54"
Material	Brick	RCP	RCP
Shape	Egg	Round	Round

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
(Traffic Control only (Requires extra traffic control)
Unusable (~~Document in Comments section~~)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 23' 5"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent (Manhole)
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary:
	Redundant:
Velocity	Primary:
	Redundant:
Meter Logger	

Comments: *Material changes at the MH from RCP to brick and back to RCP*

Area Map

Detail Map

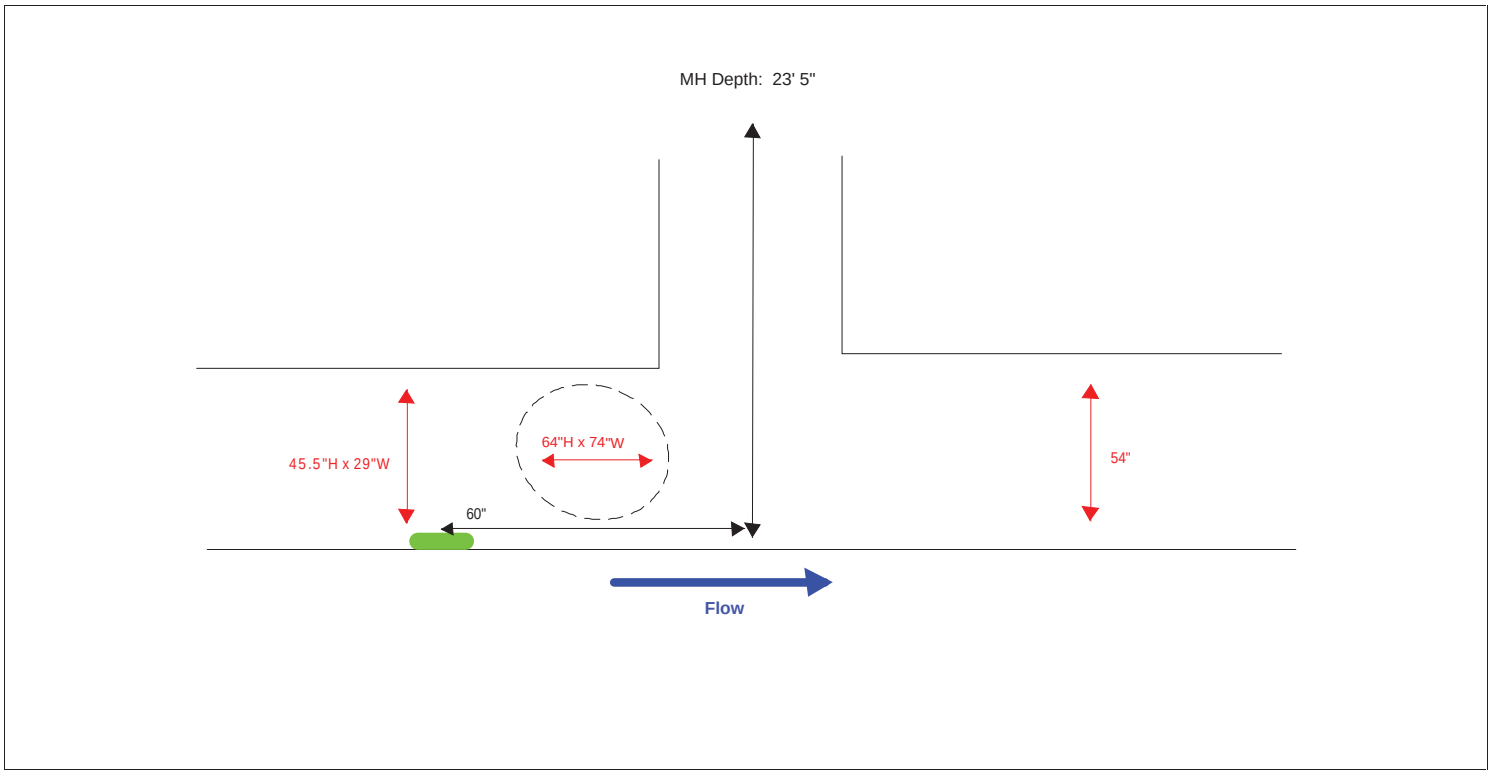
View from top of MH

Site Overview

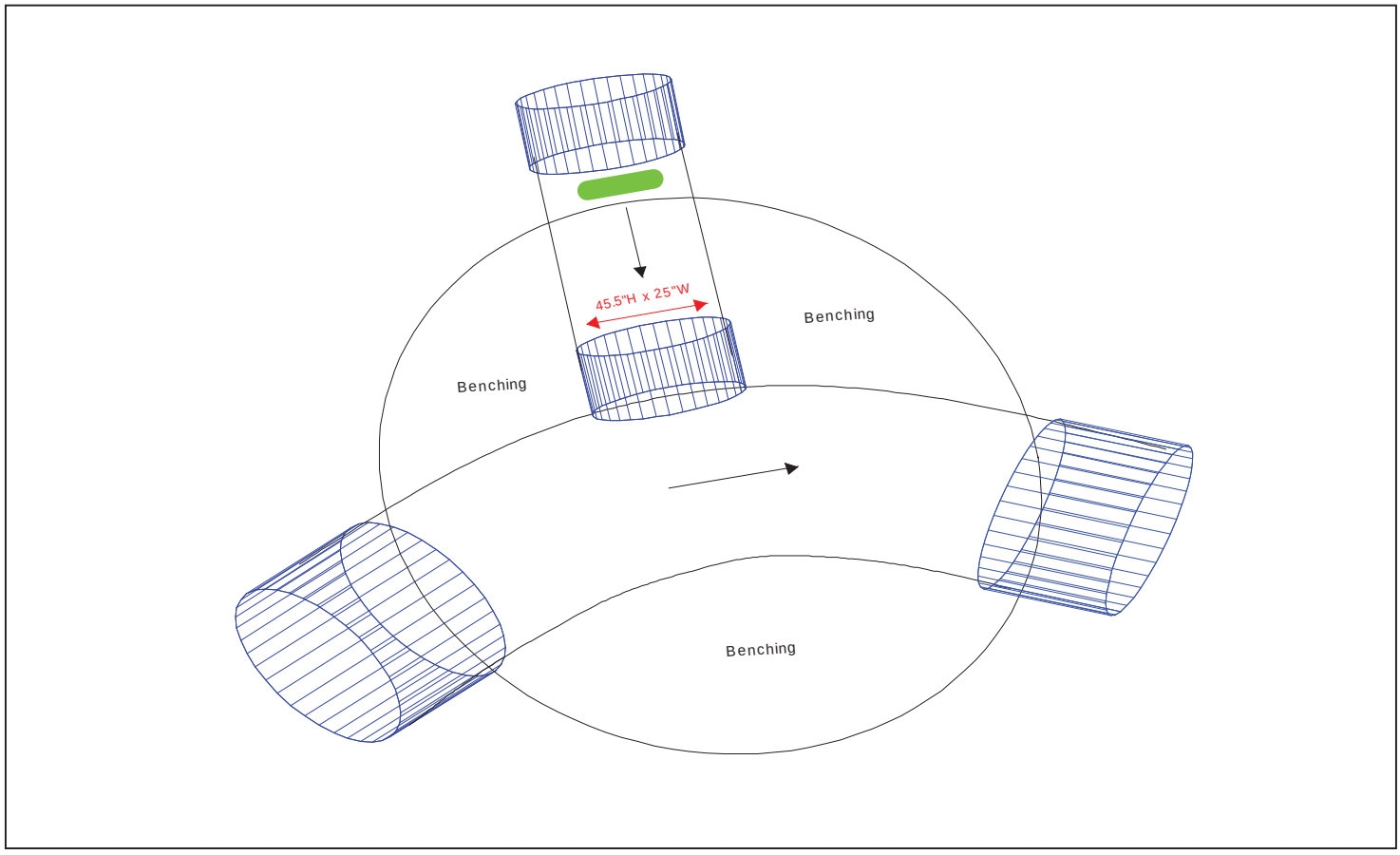
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-12

Investigation Date: 4/23/14 Time: 13:34 Crew Members: KE/BR

Installation Date: 4/30/14 Time: 14:49 Crew Members: KE/ME

Address/Location: 781 Orchard Street (in the middle of the street)

Latitude: N 41°19.315' Longitude: W 72°56.137

Weather Conditions: (Wet) Dry

Hydraulic Conditions

Influent Flow:

Velocity 1.72 ft/sec

Depth 13.5 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	40"		40"
Width	25"		25"
Material	Brick		Brick
Shape	Egg		Egg

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

No evidence visible
(Remains in pipe)
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 15' 9"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

Sensor Configuration:

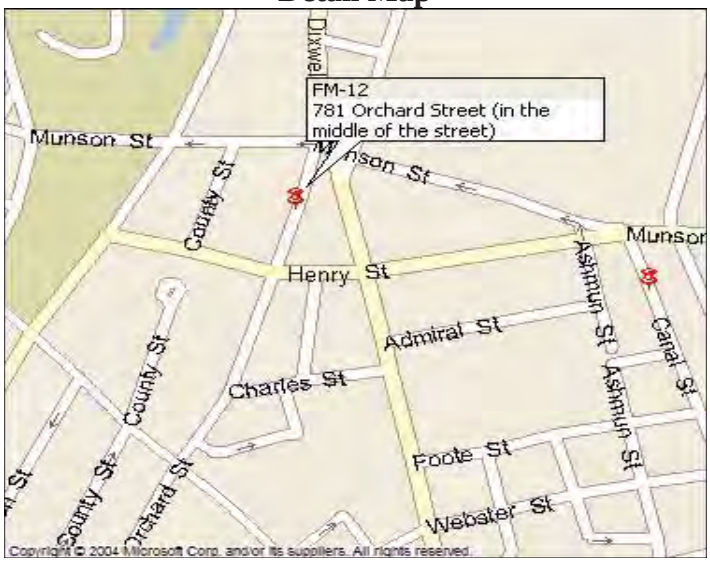
(Please include Serial Numbers when possible)

Level	Primary: 0713-1053
	Redundant:
Velocity	Primary: 0713-1053
	Redundant:
Meter Logger	FloWav 294533

Comments:

Area Map

Detail Map



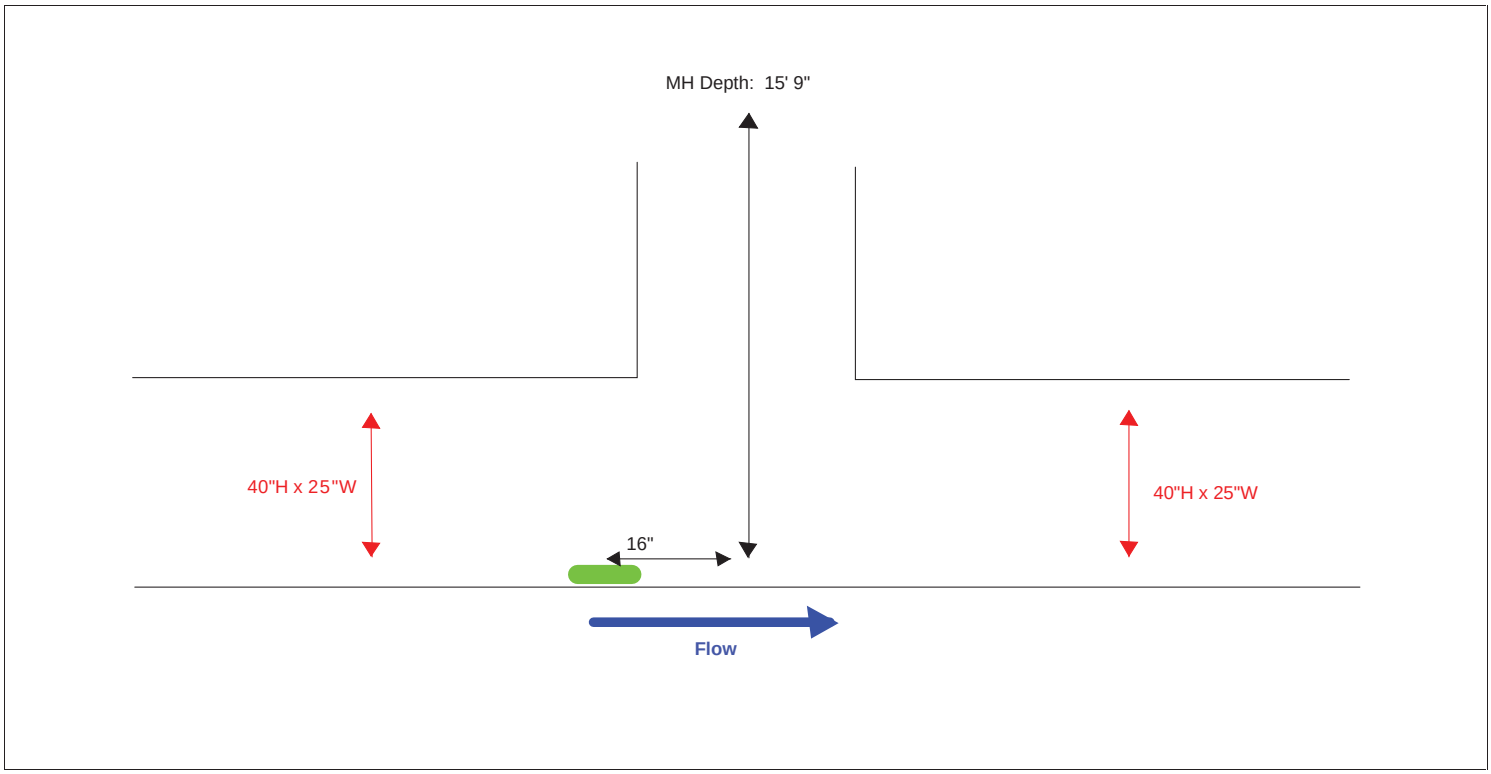
View from top of MH

Site Overview

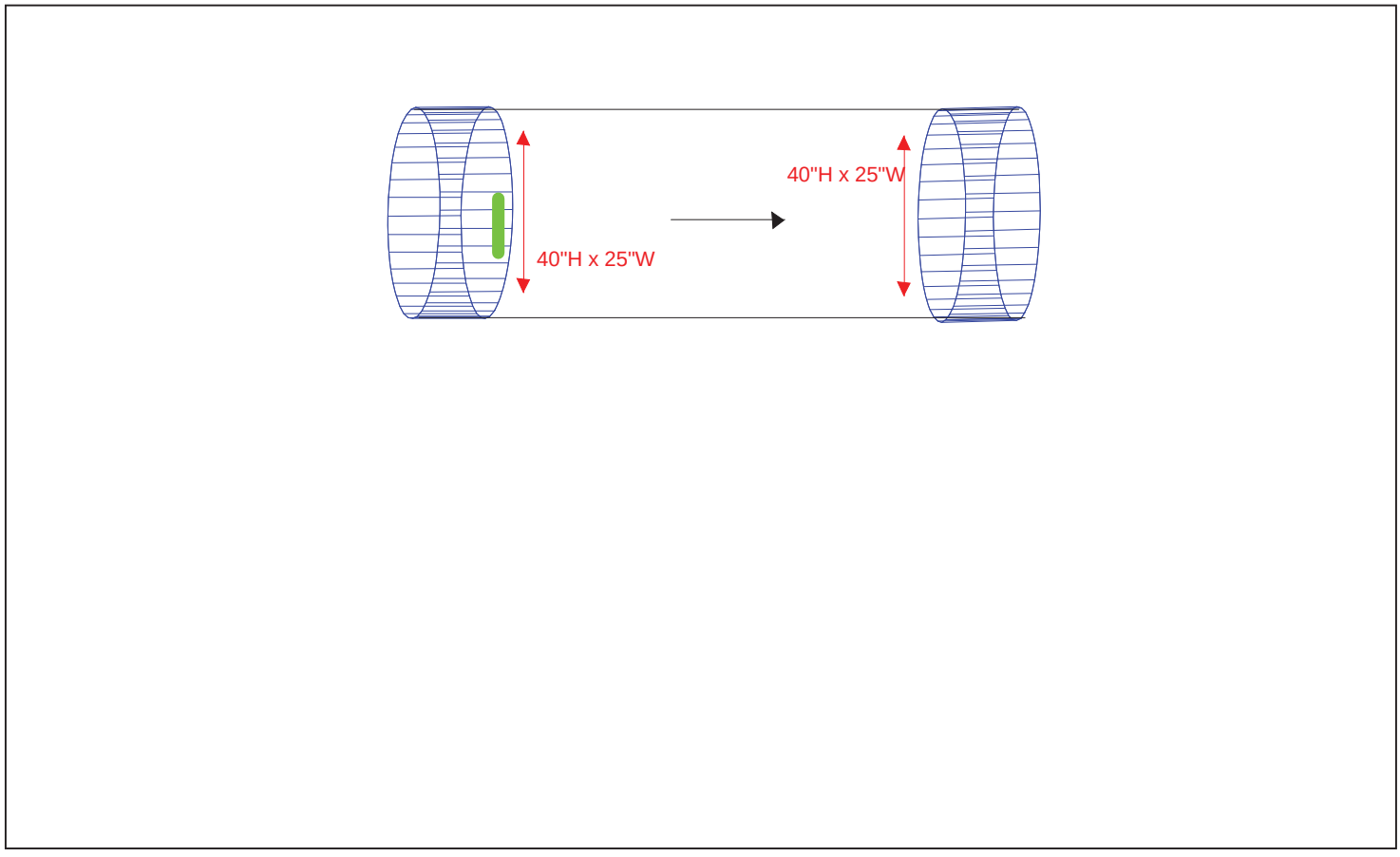
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-13

Investigation Date: 4/23/14 Time: 12:46 Crew Members: KE/BR

Installation Date: 5/1/14 Time: 16:50 Crew Members: LR/JS

Address/Location: On Canal Street, between Henry & Gregory Streets

Latitude: N 41°19.232' Longitude: W 72°55.762'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 3.08 ft/sec

Depth 8.25 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	55"		55"
Width	57"		57"
Material	Brick		Brick
Shape	Egg		Egg

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 13' 9"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

Sensor Configuration:

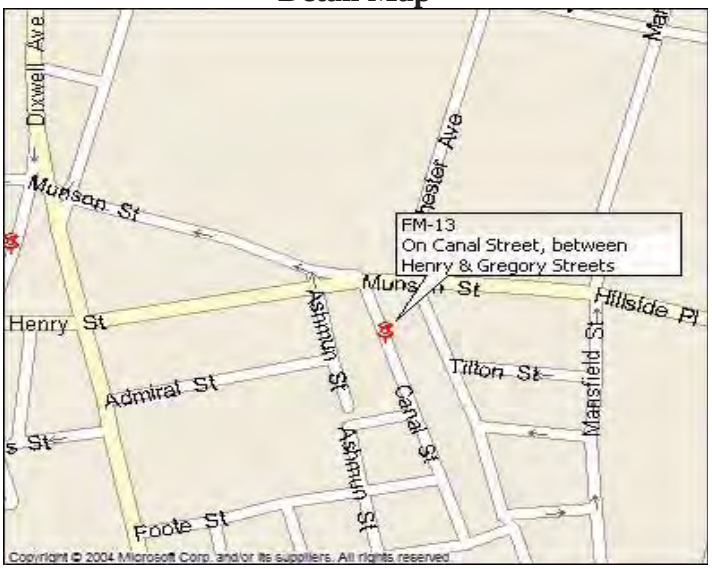
(Please include Serial Numbers when possible)

Level	Primary: 613-1018	
	Redundant:	
Velocity	Primary:	
	Redundant:	
Meter Logger	FloWav 294498	

Comments:

Area Map

Detail Map



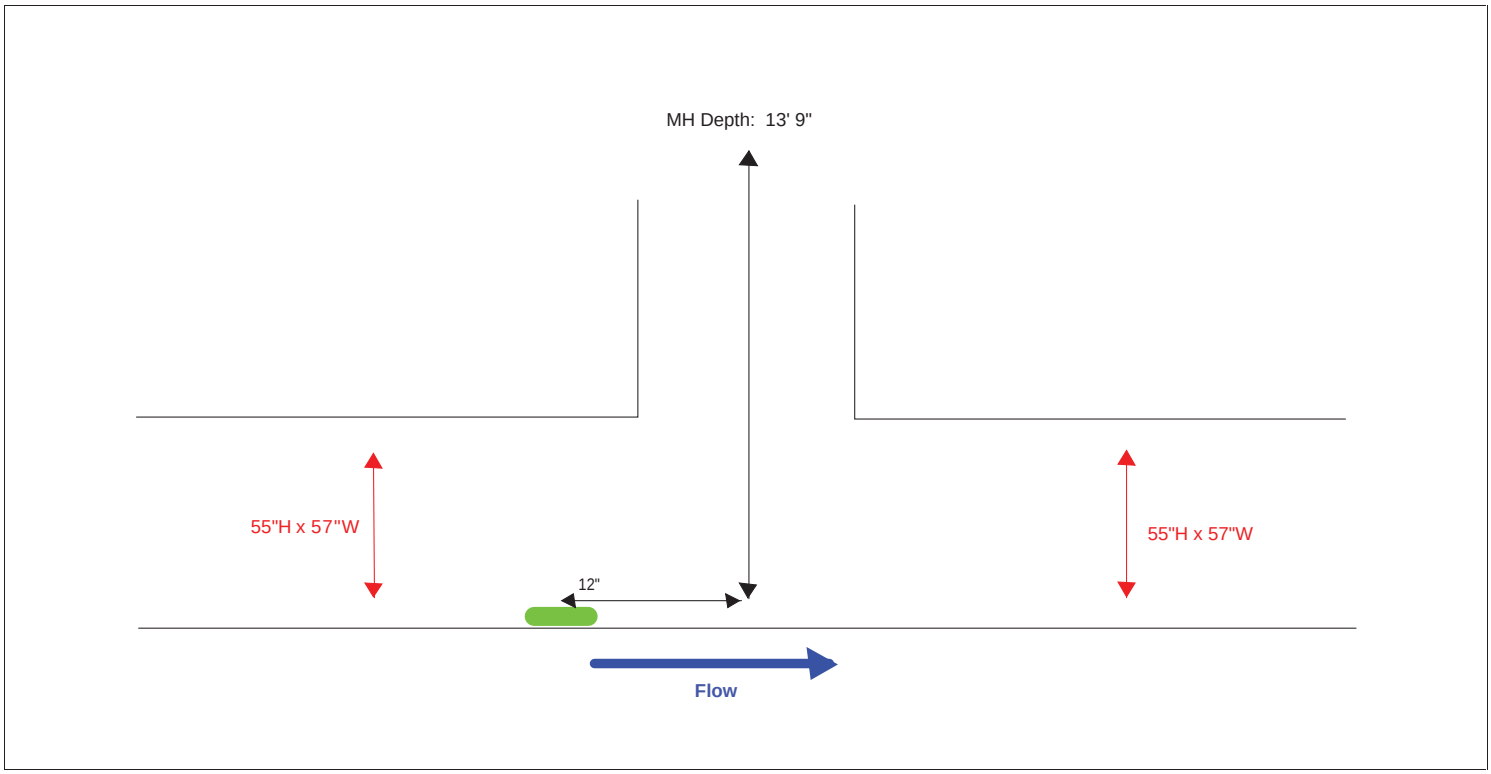
View from top of MH

Site Overview

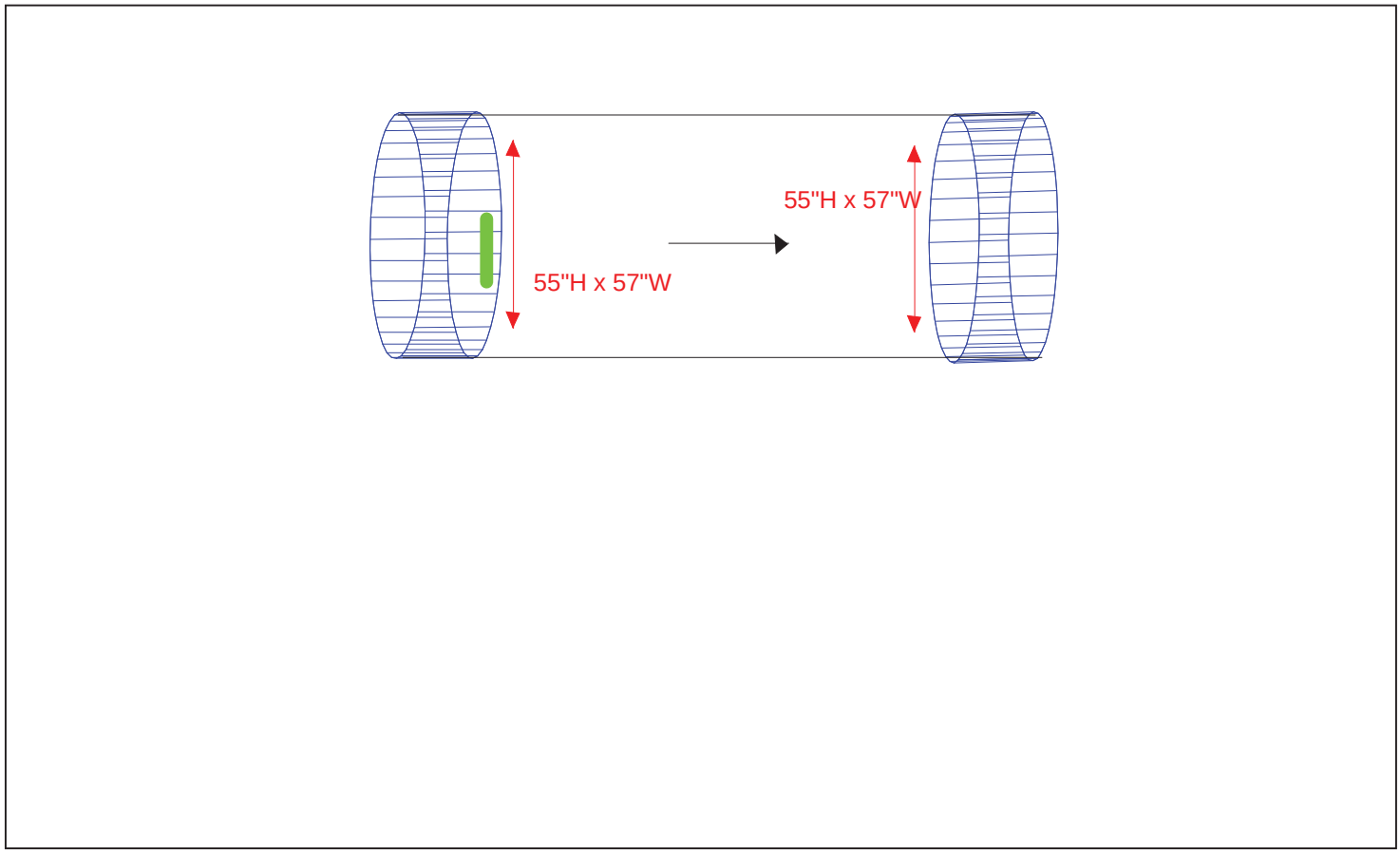
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-14

Investigation Date: 4/23/14 Time: 13:35 Crew Members: KE/BR

Installation Date: 5/3/14 Time: 11:34 Crew Members: ME/KE

Address/Location: Across from 50 Derby Avenue (crosswalk in front of the church)

Latitude: N 41°18.677' Longitude: W 72°56.833'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 3.31 ft/sec

Depth 11.0 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	54"		54"
Width	54"		54"
Material	Brick		Brick
Shape	Round		Round

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 21' 5"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends:

Influent (Effluent) Manhole
Approx Distance to bend: 10 ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?
(Yes) No Maybe

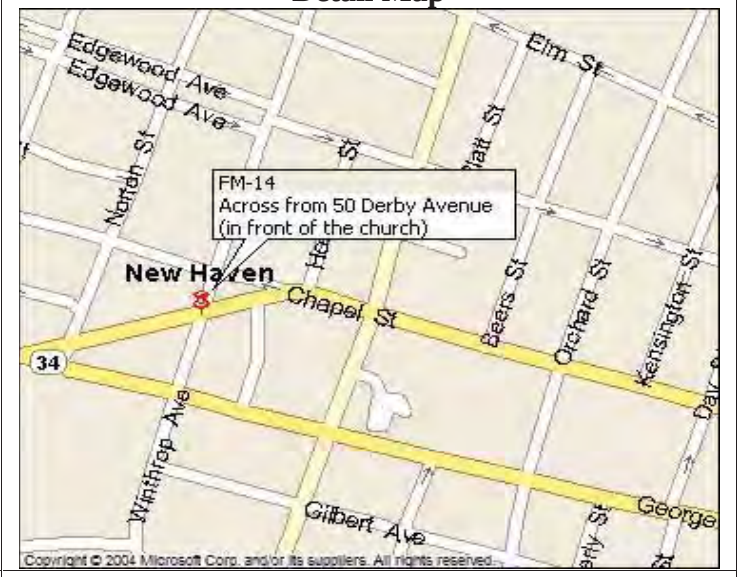
Sensor Configuration:
(Please include Serial Numbers when possible)

Level	Primary: 0813-1084
	Redundant:
Velocity	Primary: 0813-1084
	Redundant:
Meter Logger	FloWav 293632

Comments:

Area Map

Detail Map



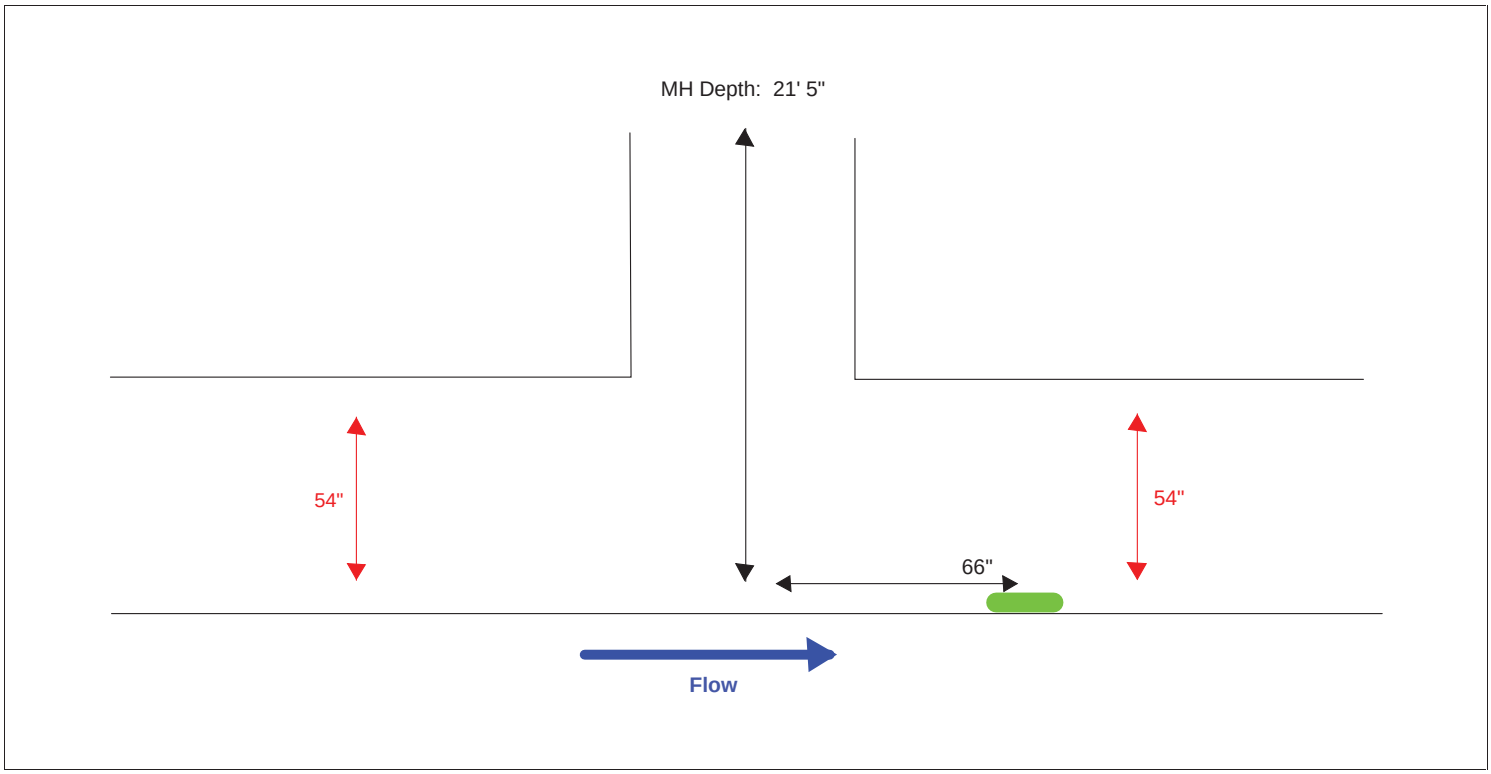
View from top of MH

Site Overview

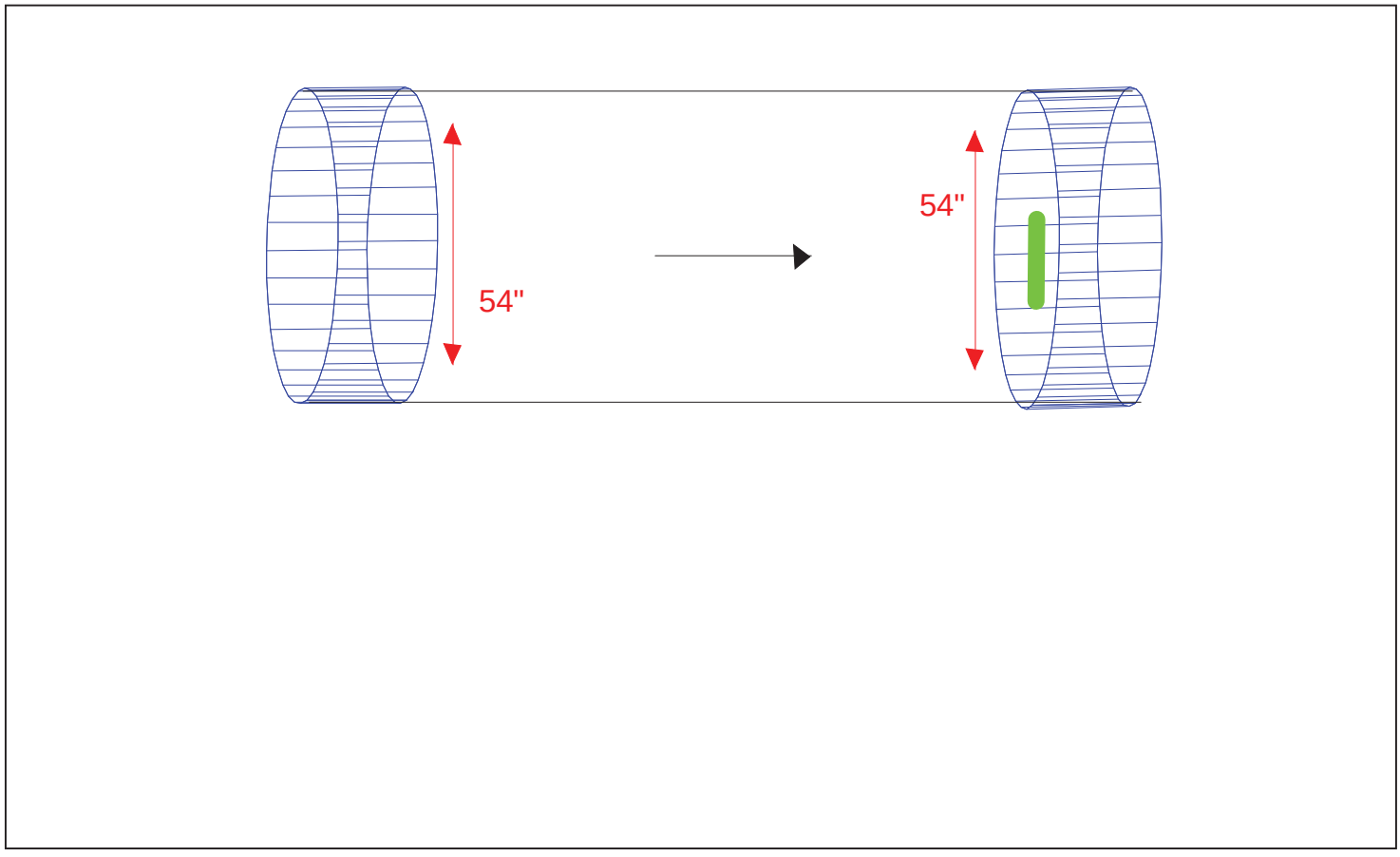
View of flow through influent line

View of flow through effluent line

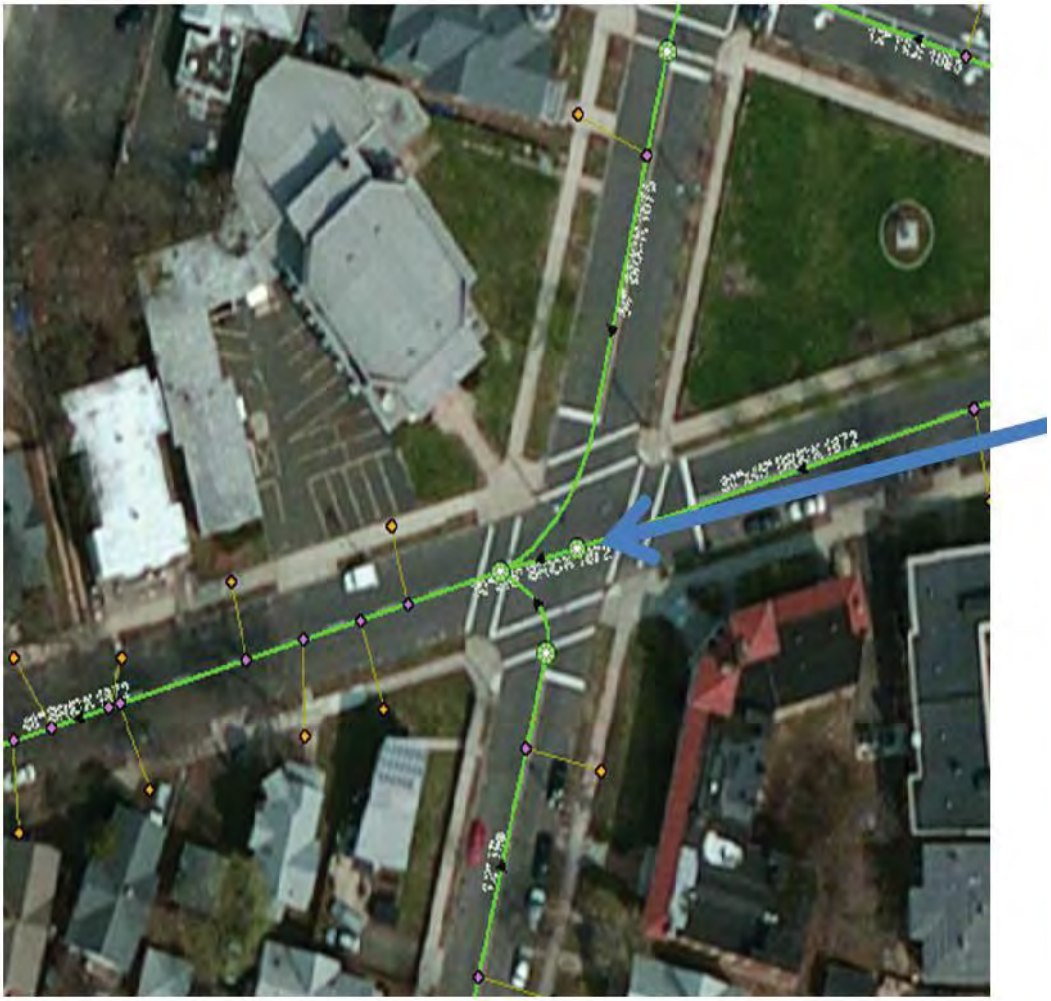
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # FM-15

Investigation Date: 4/21/14 Time: 10:29 Crew Members: KE/BR/GM

Installation Date: 4/28/14 Time: 16:59 Crew Members: KE/ME/JS/LR

Address/Location: Willow Street & Mitchell Drive (in the driveway of the East Rock School)

Latitude: N 41°19.151' Longitude: W 72°54.416'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 2.75 ft/sec

Depth 23.75 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	50"		50"
Width	37"		37"
Material	PVC-lined		PVC-lined
Shape	Egg		Egg

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

(Good (no problems accessing site))
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 8' 4"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

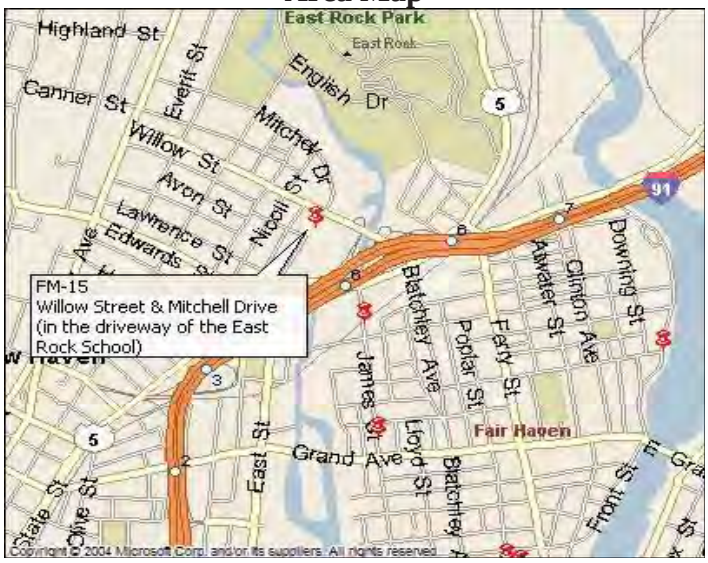
Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary: 0713-1066	
	Redundant:	
Velocity	Primary: 0713-1066	
	Redundant:	
Meter Logger	FloWav 294542	

Comments: *Located in the driveway of a school*

Area Map



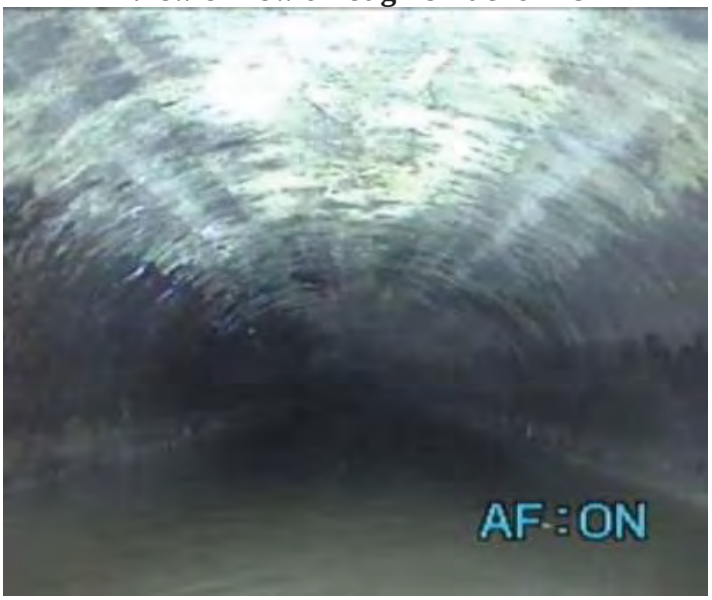
Detail Map

View from top of MH

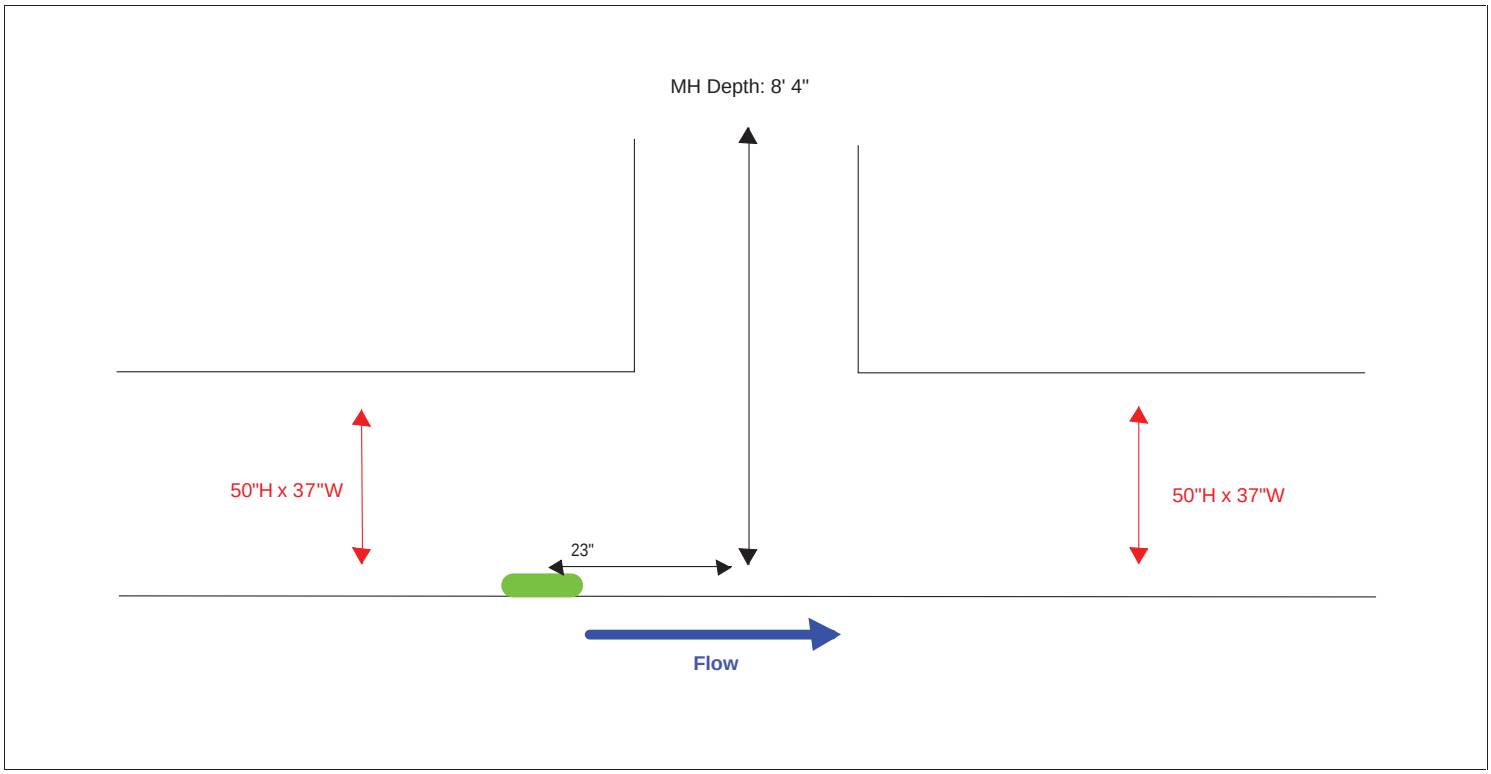
Site Overview

View of flow through influent line

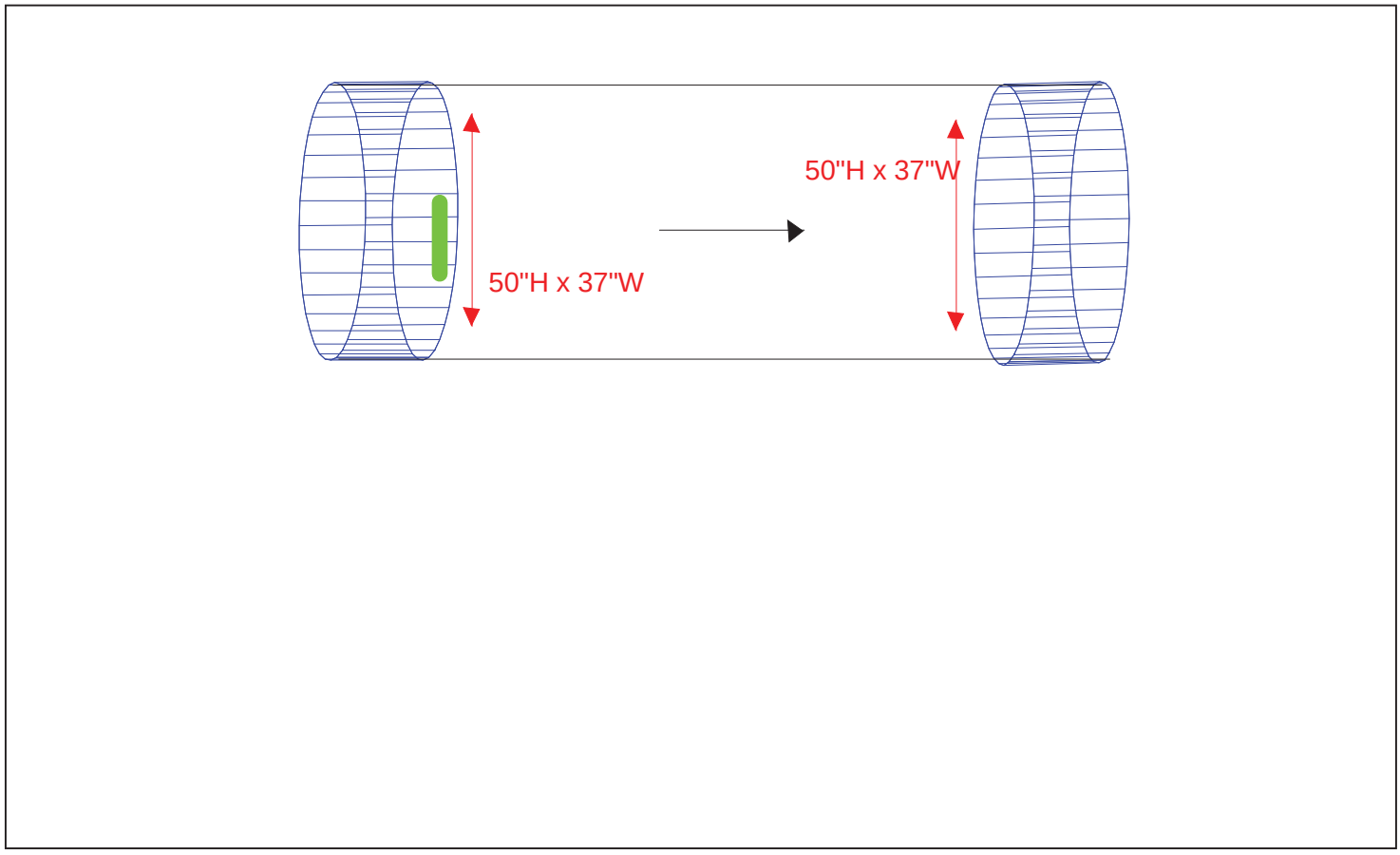
View of flow through effluent line



Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-16

Investigation Date: 4/21/14 Time: 12:28 Crew Members: KE/BR/GM

Installation Date: Time: Crew Members:

Address/Location: On James Street (between State & Humphrey Streets, before the RR overpass)

Latitude: N 41°18.880' Longitude: W 72°54.243'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 2.22 ft/sec

Depth 13.5 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	25"		?
Width	37"		?
Material	Brick		Brick
Shape	Egg		Egg

Sediment Present:

(Yes) Hard packed: _____ in. deep
No Soft: .50 in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

Bad 19.5 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 5' 4"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary:
	Redundant:
Velocity	Primary:
	Redundant:
Meter Logger	

Comments:

Area Map

Detail Map

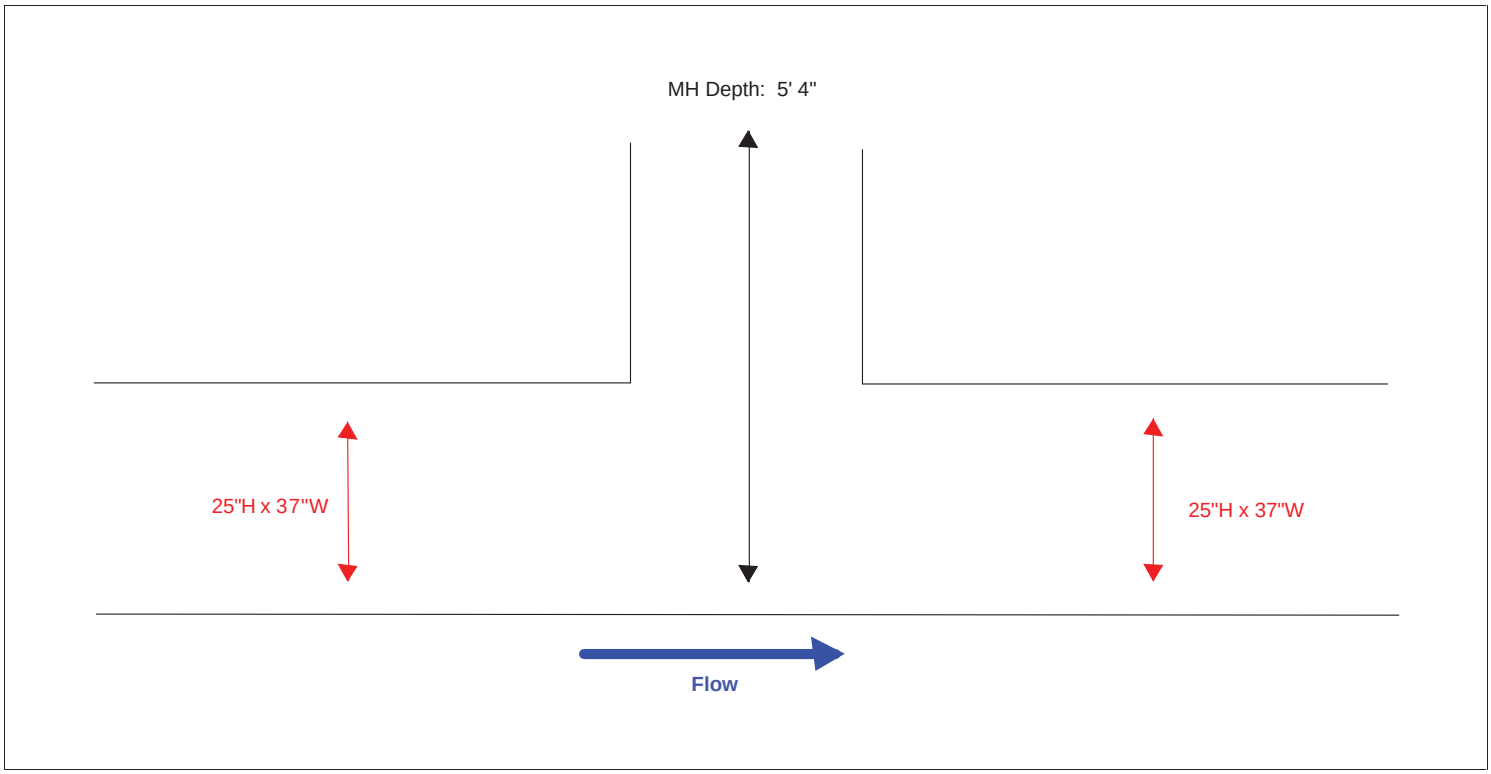
View from top of MH

Site Overview

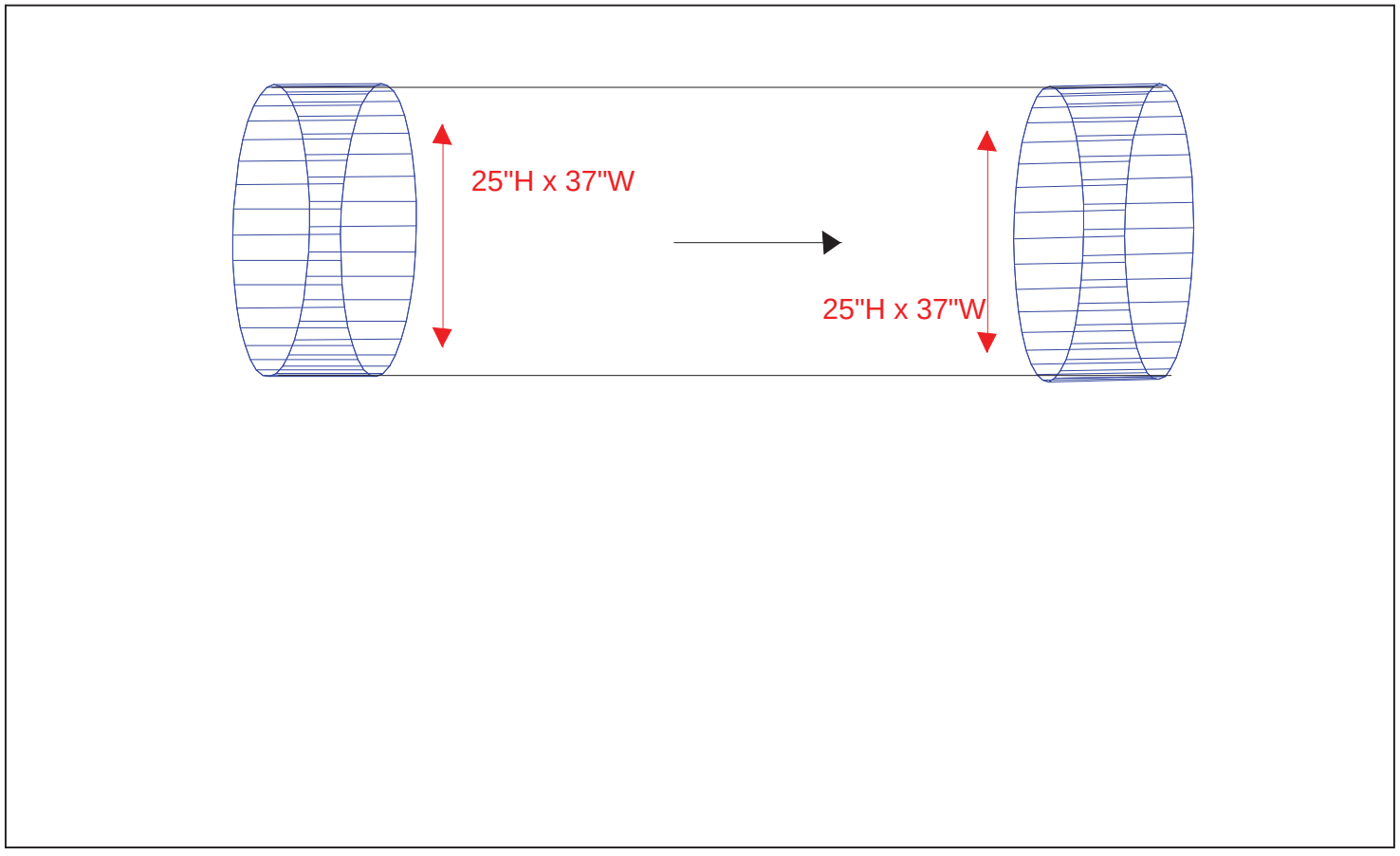
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM - 17

Investigation Date: 4/29/14 Time: 13:50 Crew Members: JS/LR

Installation Date: 5/2/14 Time: 5:28 Crew Members: KE/ME/LR/JS

Address/Location: 554 Woodward Avenue (in the rear of the parking lot)

Latitude: N 41°17.041' Longitude: W 72°53.846'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 16.33 ft/sec

Depth 7.5 in ± 0.50

Turbulence Amplitude:

Less than 0.25"
0.25" to 0.75"
0.75" to 1.5"
(1.5" to 3")
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	42"		42"
Width	42"		42"
Material	PVC		PVC
Shape	Round		Round

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

(Surcharge) / Backwater Influence:

No evidence visible
Remains in pipe
___ ft from rim
Reaches Rim (potential meter damage)
(Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

(Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 9' 9"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary: Sigma
	Redundant:
Velocity	Primary:
	Redundant:
Meter Logger	Telog 294508

Comments: *Must use 2 crews for sensor changes*

Area Map

Detail Map

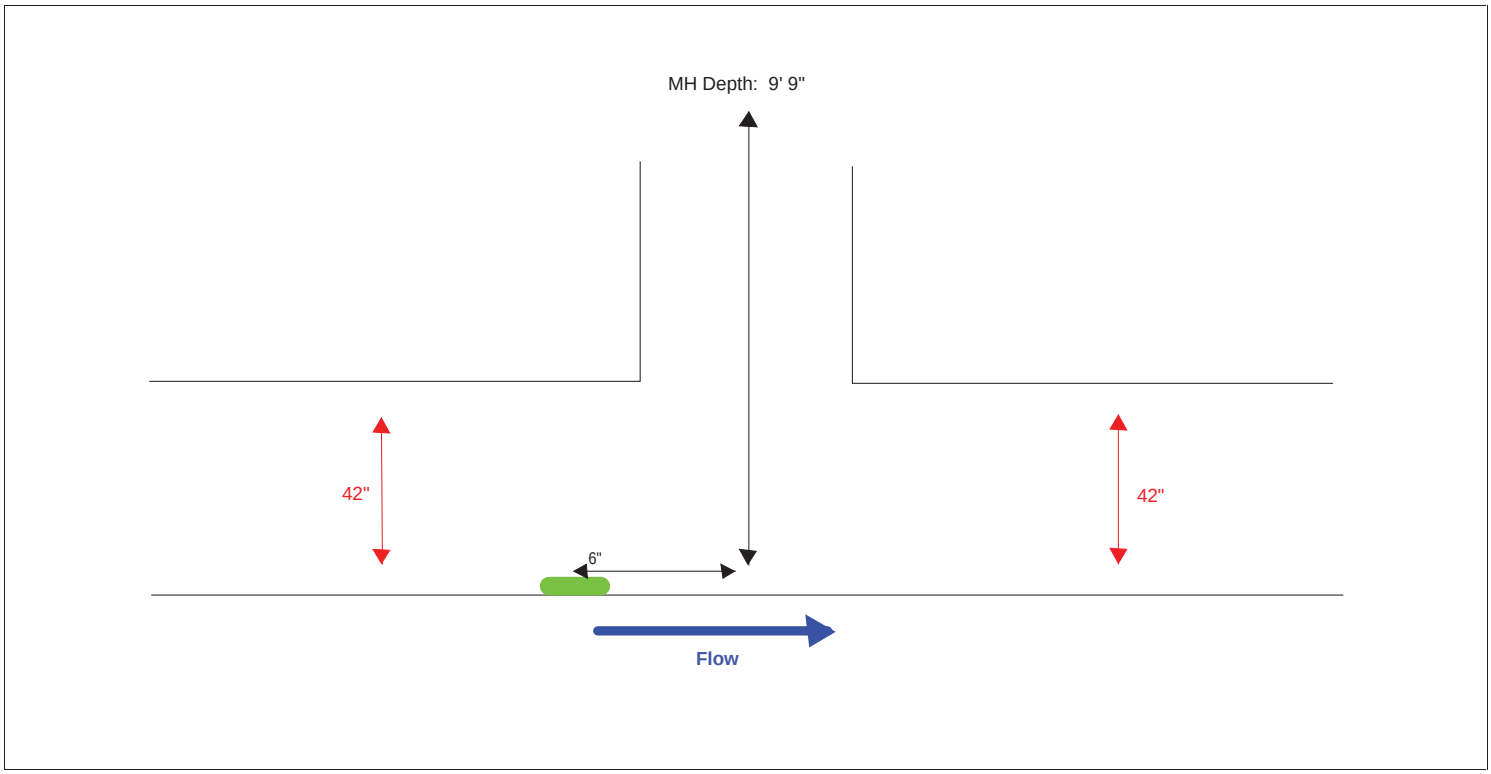
View from top of MH

Site Overview

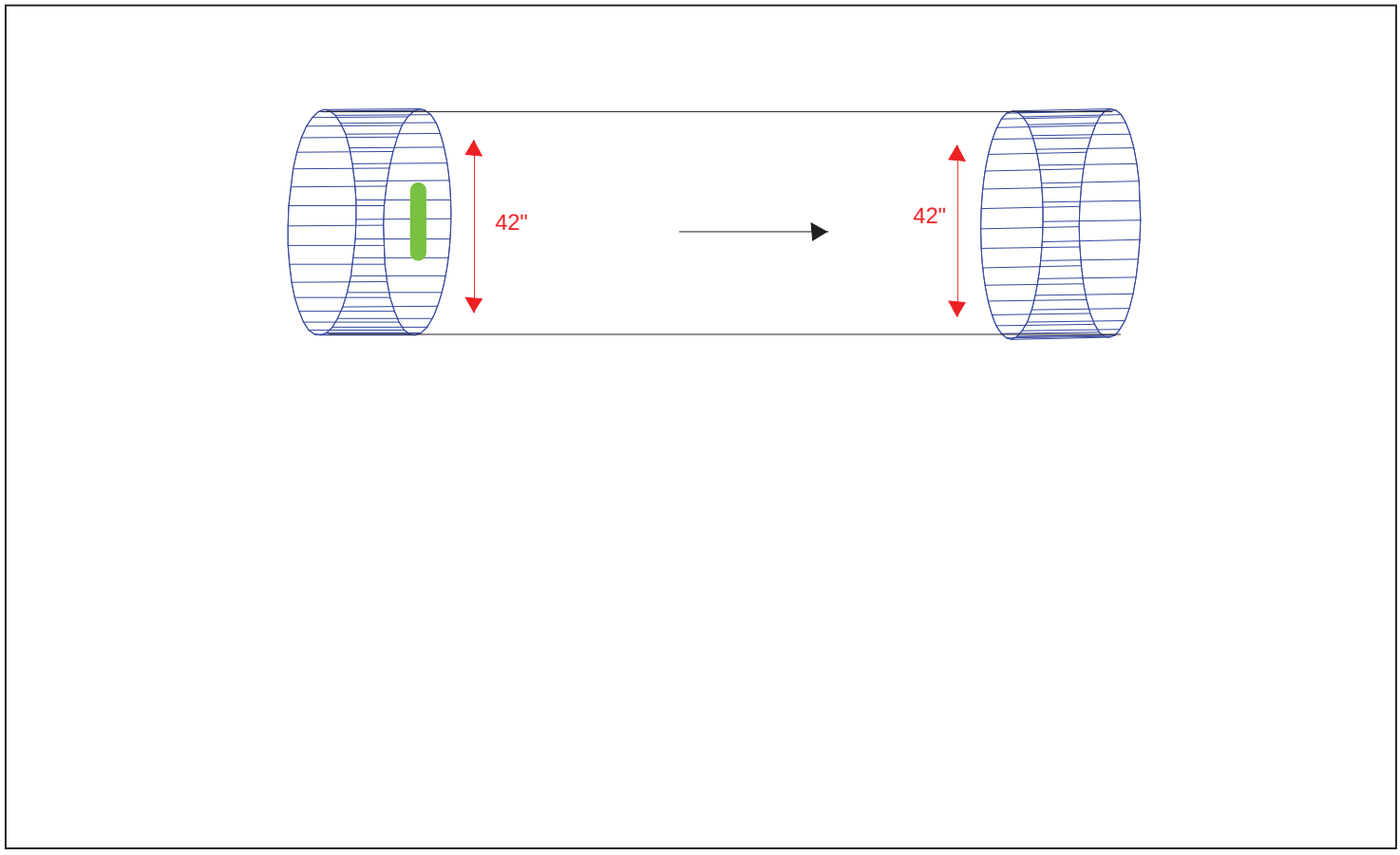
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-18

Investigation Date: 4/22/14 Time: 11:37 Crew Members: KE/BR

Installation Date: 5/2/14 Time: 14:00 Crew Members: LR/JS

Address/Location: On Water Street under the overpass between East & Hamilton Streets

Latitude: N 41°19.049' Longitude: W 72°54.714'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 0.85 ft/sec

Depth 33.25 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	52"		52"
Width	52"		55"
Material	Concrete		Concrete
Shape	Round		Round

Sediment Present:

(Yes) Hard packed: _____ in. deep
No Soft: 8.75 in. deep

Surcharge / Backwater Influence:

No evidence visible
Remains in pipe
(4 ft from rim)
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 10' 6"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary: 813-1086	
	Redundant:	
Velocity	Primary:	
	Redundant:	
Meter Logger	FloWav 293462	

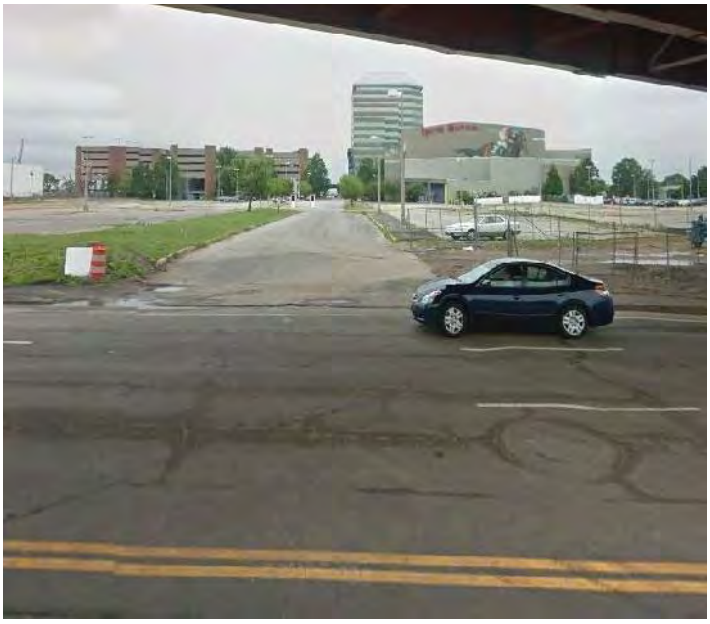
Comments: *Pipe is offset from MH*

Area Map

Detail Map

View from top of MH

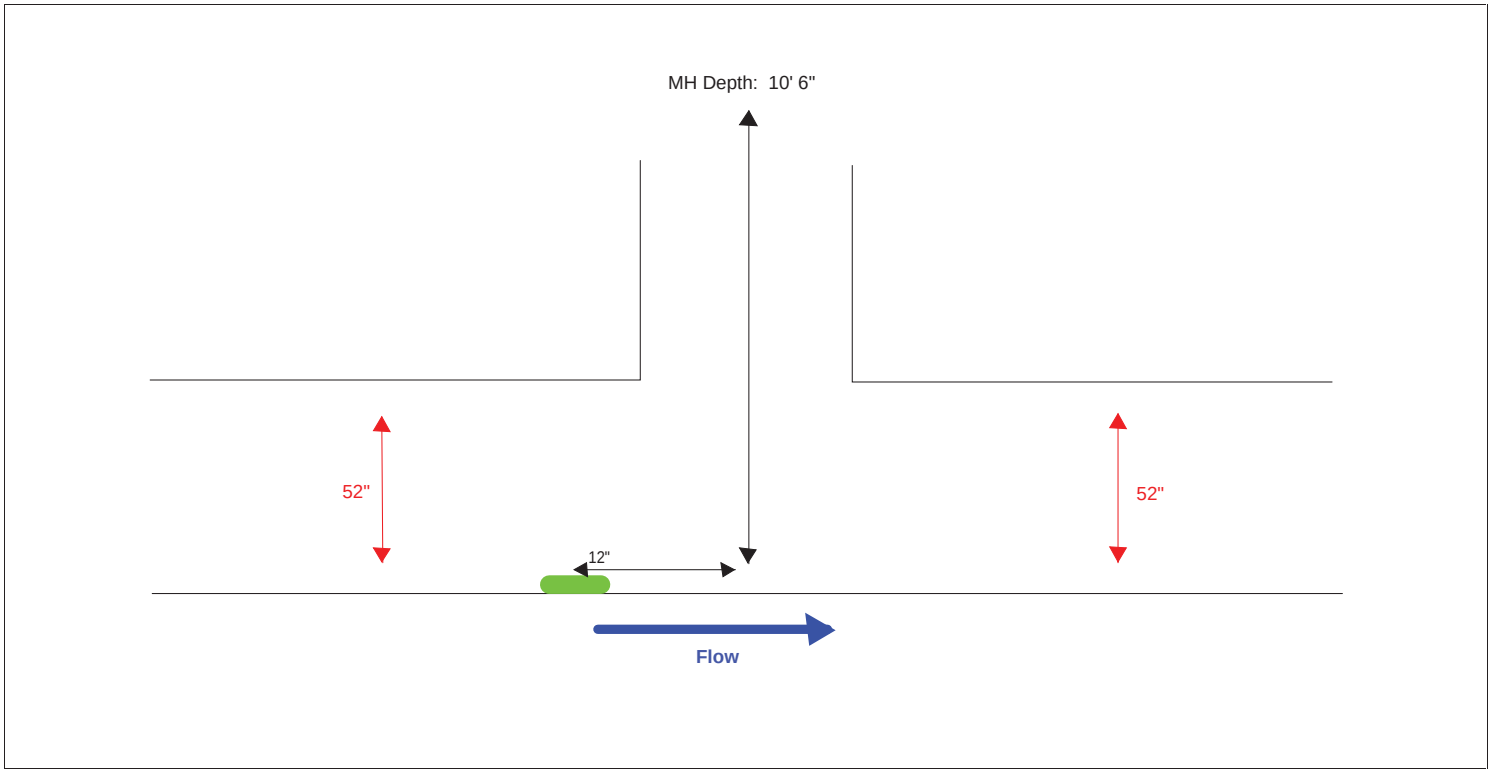
Site Overview



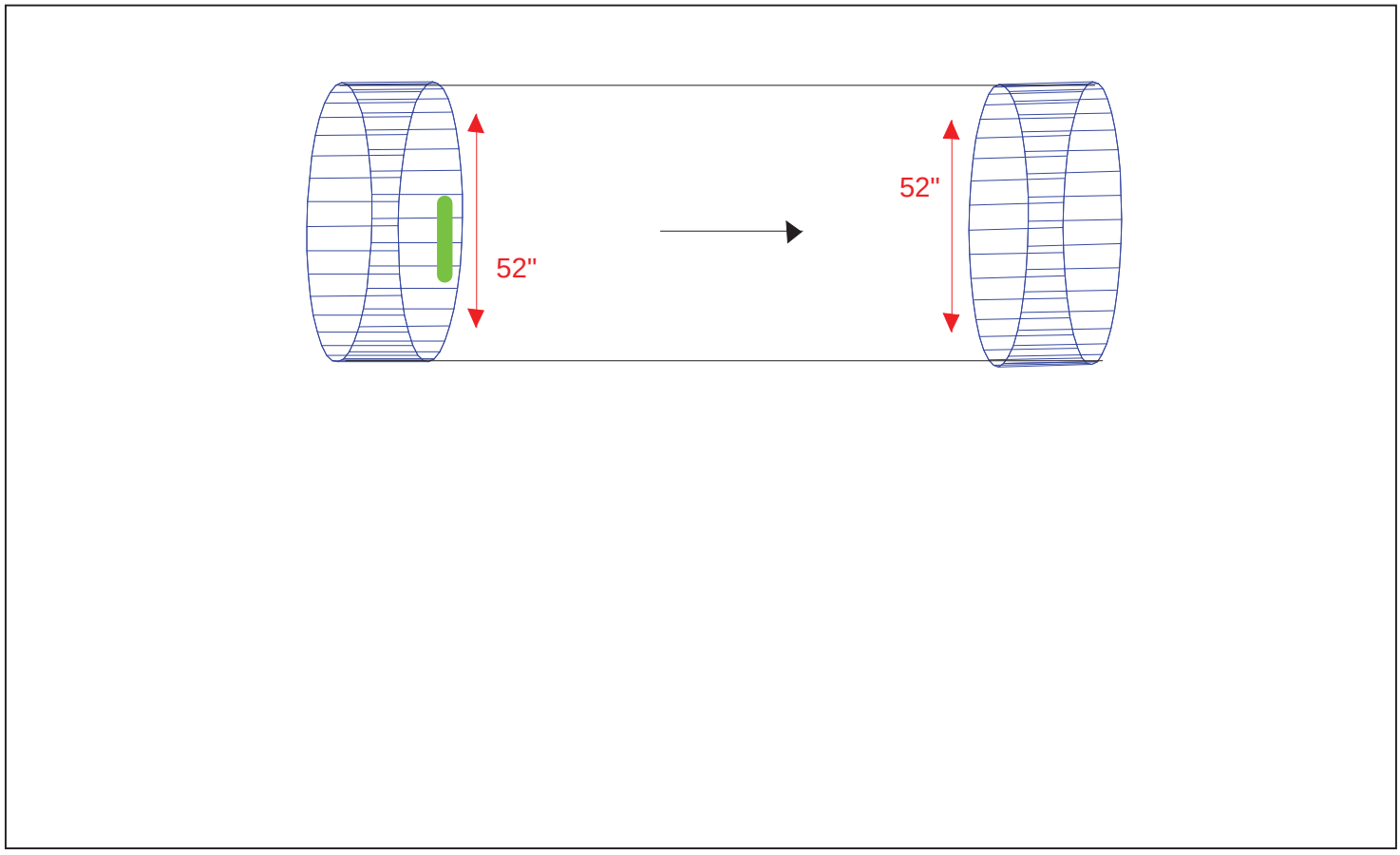
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View

Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-19

Investigation Date: 4/22/14 Time: 12:30 Crew Members: KE/BR

Installation Date: 4/29/14 Time: 9:21 Crew Members: KE/ME

Address/Location: Between 230 & 238 James Street (in the middle of street)

Latitude: N 41°18.541' Longitude: W 72°54.195'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 0.90 ft/sec

Depth 19.0 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	54"		54"
Width	36"		36"
Material	Brick		Brick
Shape	Egg		Egg

Sediment Present: *Trace*

Yes Hard packed: _____ in. deep
No Soft: _____ in. deep

Surcharge / Backwater Influence:

~~No evidence visible~~
(Remains in pipe)
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 21' 3"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

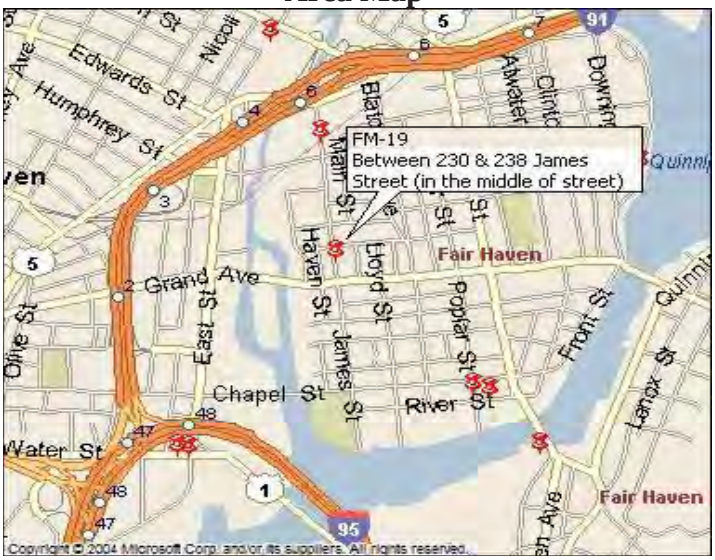
Sensor Configuration:

(Please include Serial Numbers when possible)

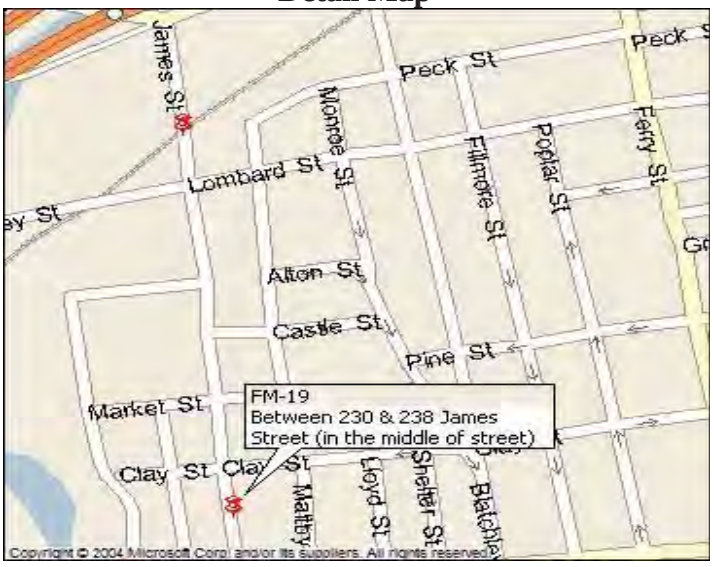
Level	Primary: 0613-1008
	Redundant: 0613-1016
Velocity	Primary: 0613-1008
	Redundant: 0613-1016
Meter Logger	FloWav 294527

Comments:

Area Map



Detail Map



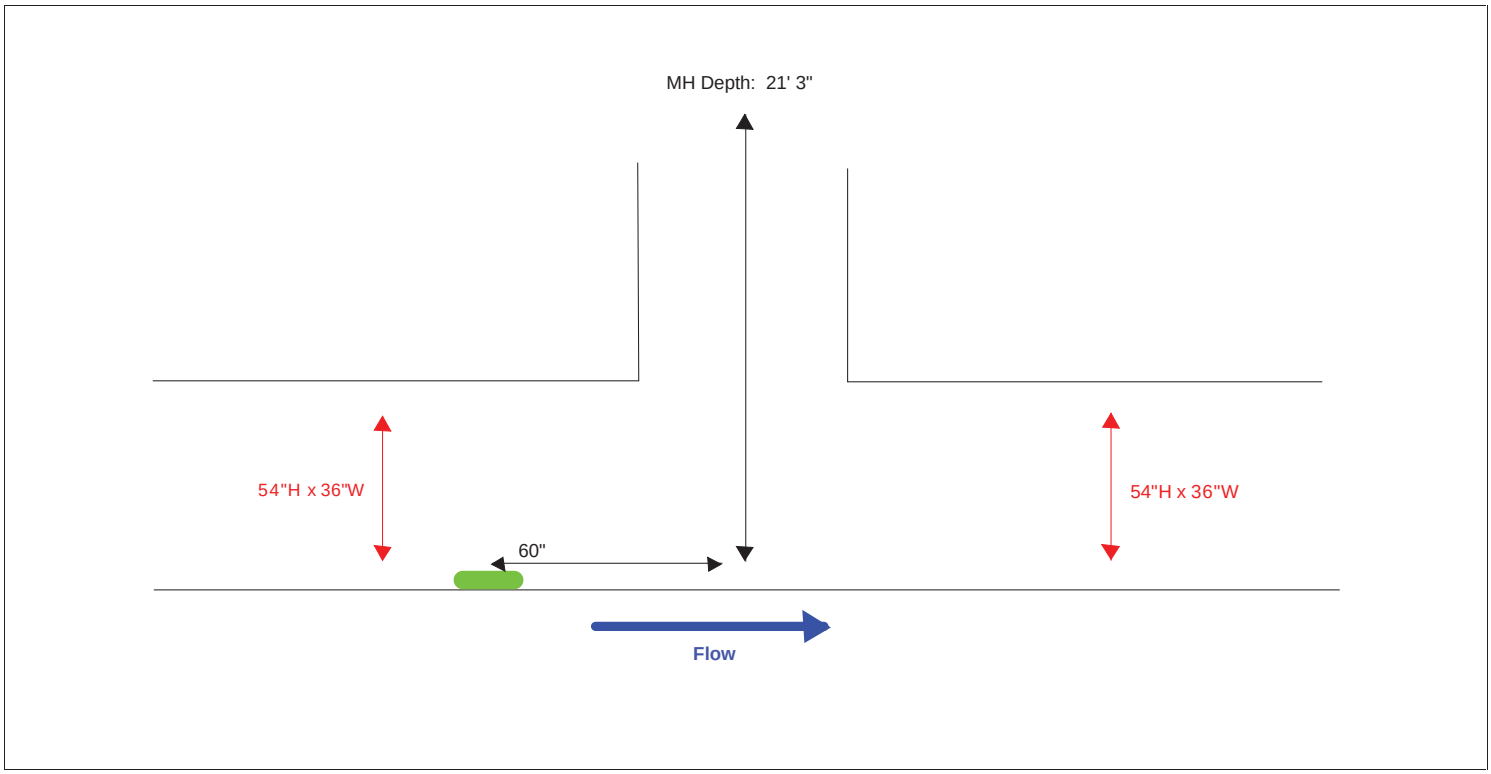
View from top of MH

Site Overview

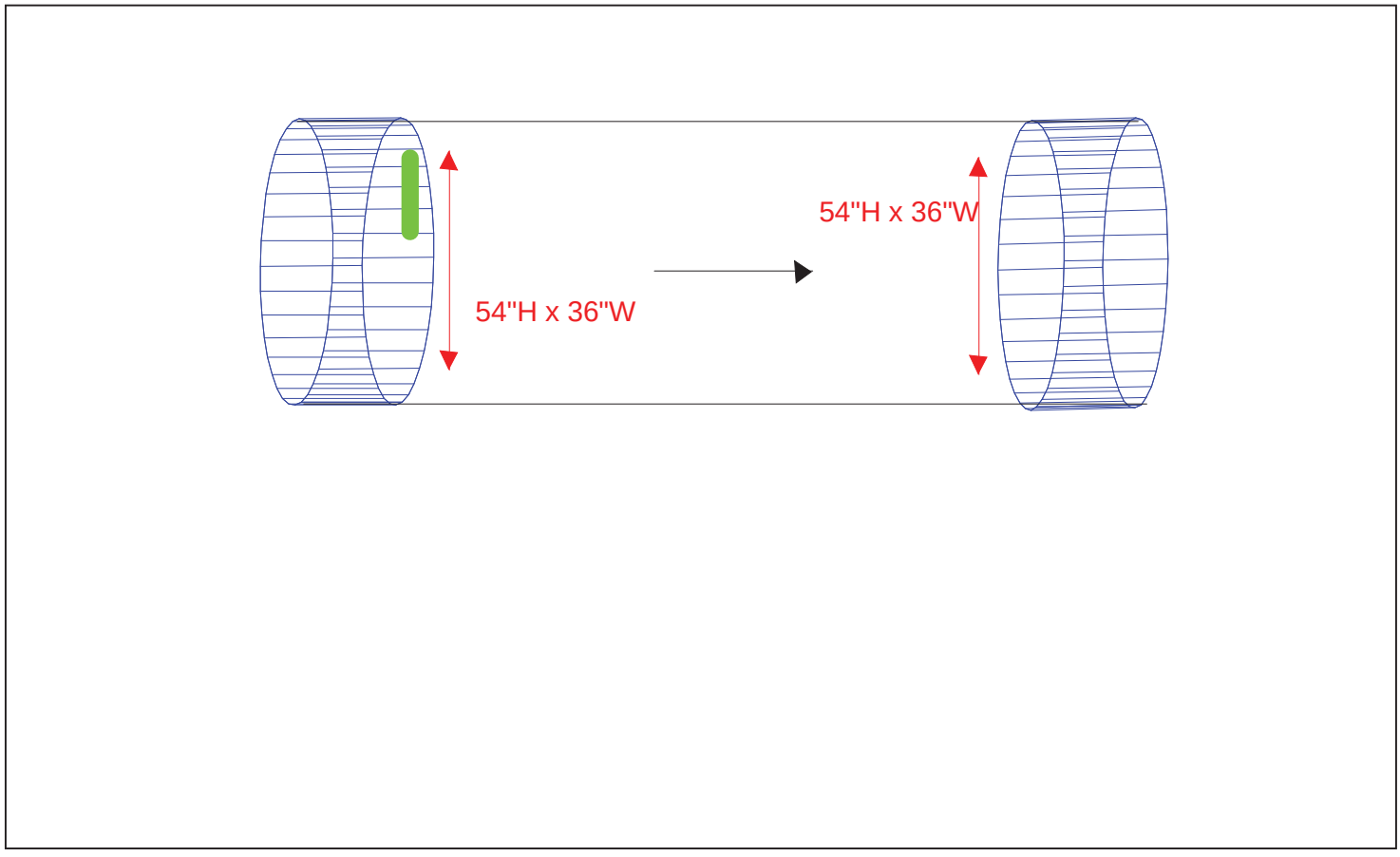
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-20

Investigation Date: 4/22/14 Time: 14:32 Crew Members: KE/BR

Installation Date: 4/29/14 Time: 13:52 Crew Members: KE/ME

Address/Location: On River Street, close to Poplar Street (driveway of scrap yard, in the street)

Latitude: N 41°18.197' Longitude: W 72°53.761'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 0.54 ft/sec

Depth 17.0 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	36"		36"
Width	36"		36"
Material	Brick		Brick
Shape	Round		Round

Sediment Present:

(Yes) Hard packed: 16 in. deep
No Soft: ___ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

Good 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 6' 3"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary: 0613-1024	
	Redundant:	
Velocity	Primary: 0613-1024	
	Redundant:	
Meter Logger	FloWav 294558	

Comments:

Area Map

Detail Map

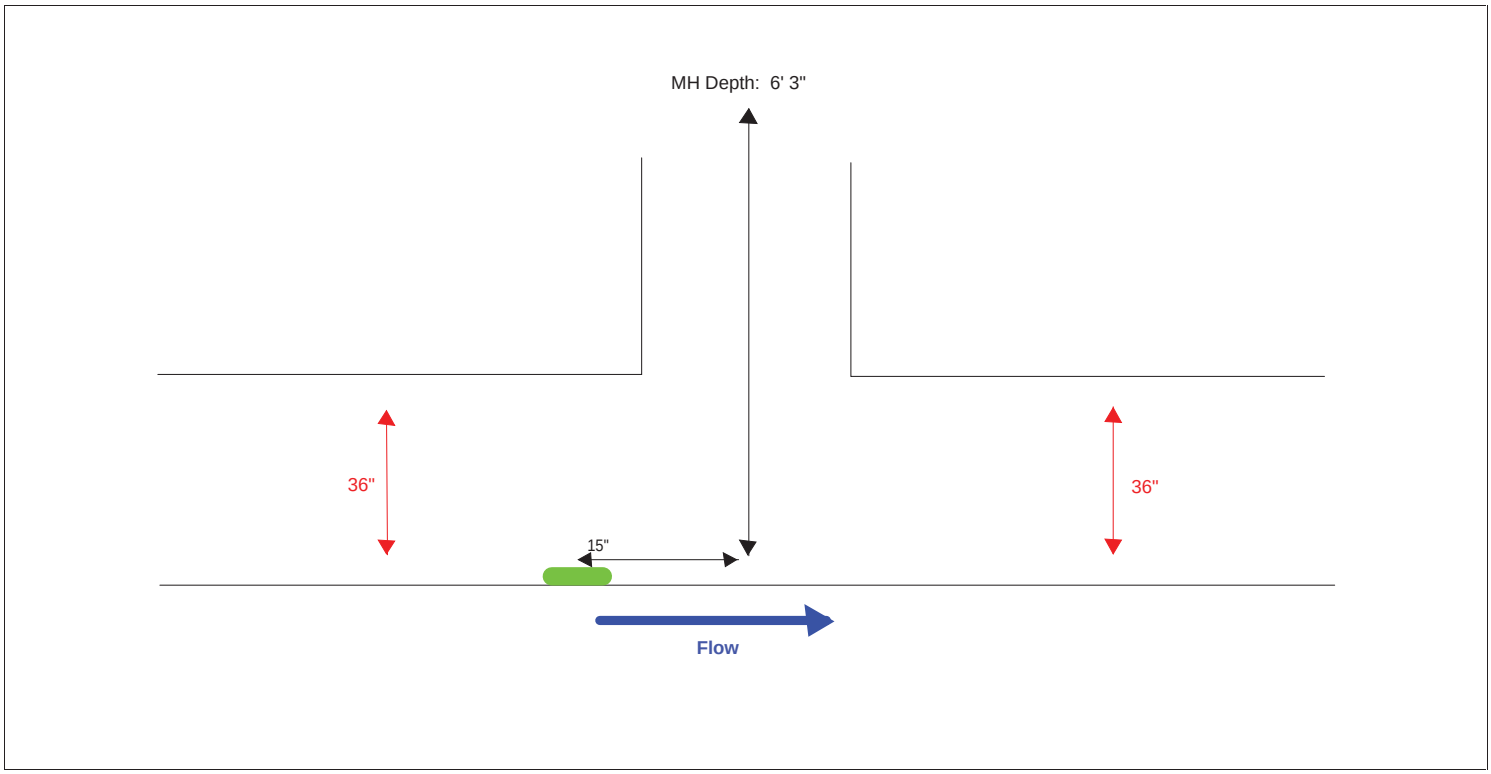
View from top of MH

Site Overview

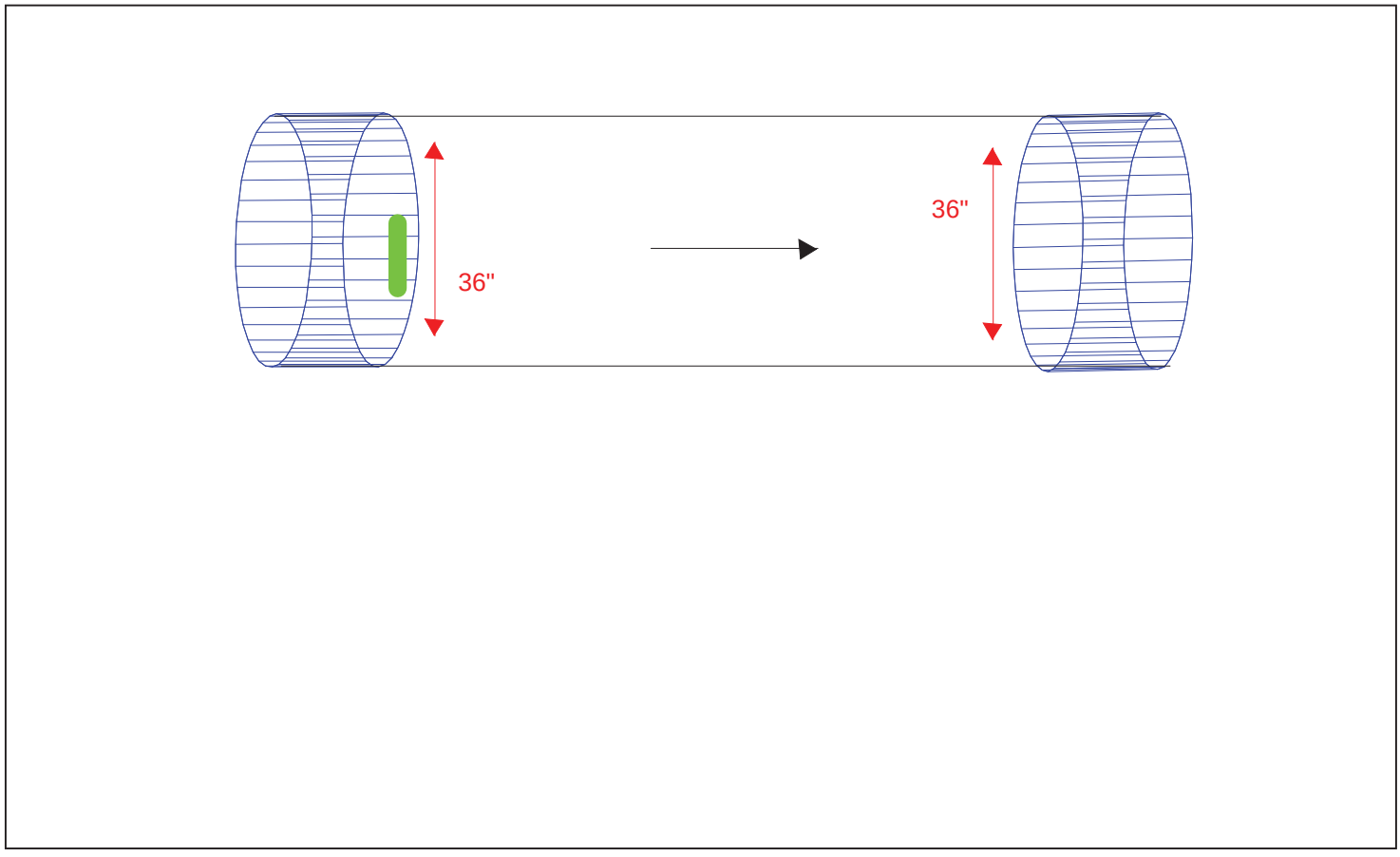
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-21

Investigation Date: 4/22/14 Time: 13:53 Crew Members: KE/BR

Installation Date: 5/1/14 Time: 17:29 Crew Members: KE/ME

Address/Location: 69 Poplar Street (in the middle of the street)

Latitude: N 41°18.223' Longitude: W 72°53.776'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 0.20 ft/sec

Depth 24.0 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	50.5"		50.5"
Width	48"		48"
Material	Brick		Brick
Shape	Round		Round

Sediment Present:

(Yes) Hard packed: _____ in. deep

No Soft: 2.0 in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 8' 7"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

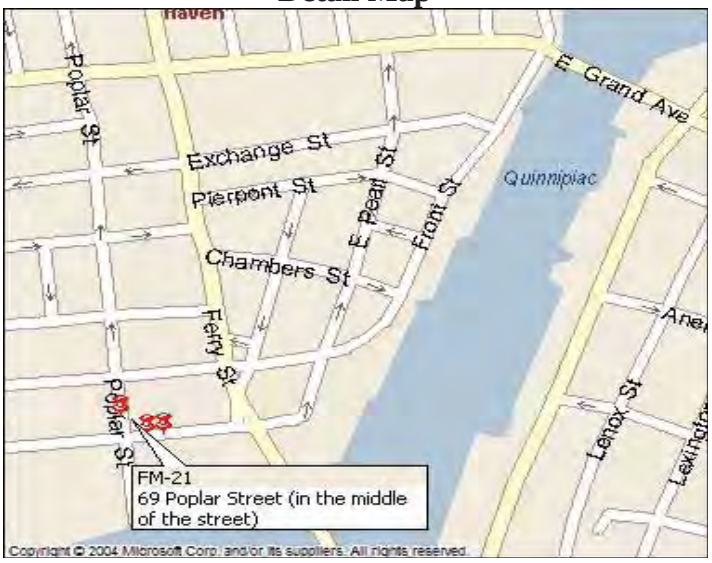
Sensor Configuration:
(Please include Serial Numbers when possible)

Level	Primary: 070500056764
	Redundant:
Velocity	Primary: 070500056764
	Redundant:
Meter Logger	Sigma 293458

Comments:

Area Map

Detail Map



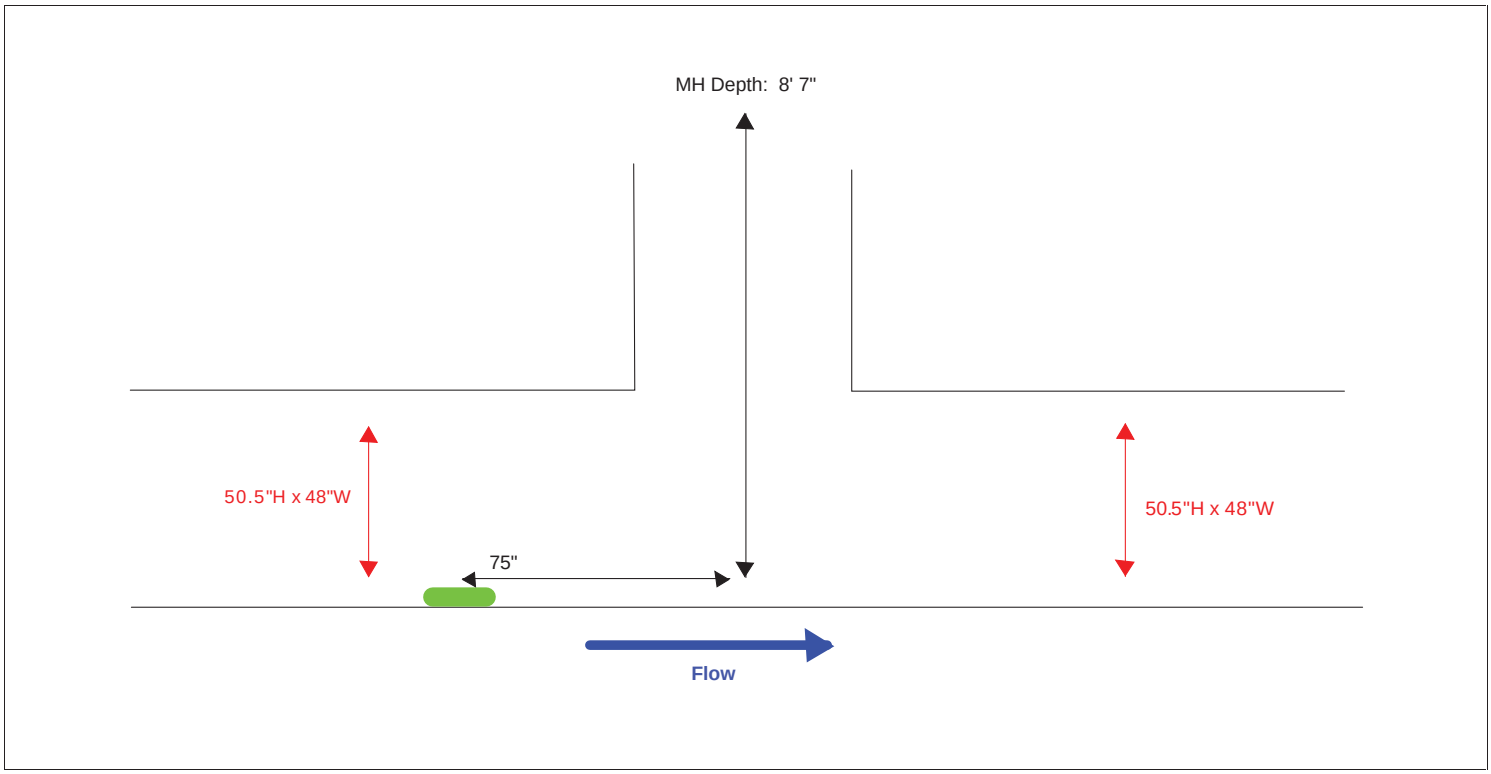
View from top of MH

Site Overview

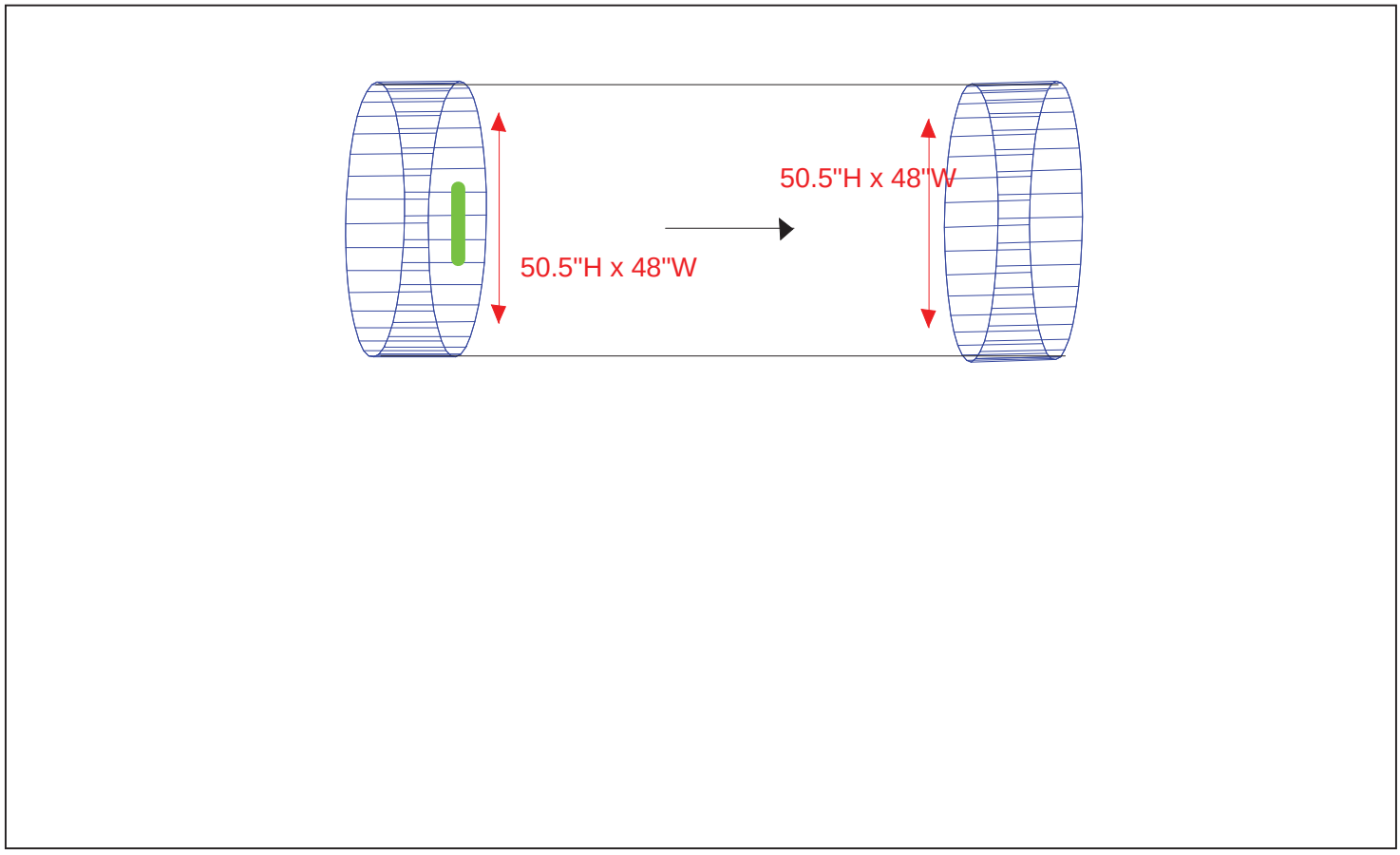
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-22

Investigation Date: 4/24/14 Time: 15:07 Crew Members: KE/BR

Installation Date: 4/29/14 Time: 16:16 Crew Members: LR/JS

Address/Location: On the sidewalk at 315 Front Street

Latitude: N 41°18.897' Longitude: W 72°53.242'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 1.07 ft/sec

Depth 9.25 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	30"		30"
Width	30"		30"
Material	Concrete		Concrete
Shape	Round		Round

Sediment Present:

(Yes) Hard packed: _____ in. deep
No Soft: 7.0 in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good ~~(no problems accessing site)~~
(Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site))
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 4' 3"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary: 713-1054	
	Redundant:	
Velocity	Primary: 713-1054	
	Redundant:	
Meter Logger	FloWav 294526	

Comments:

Area Map

Detail Map

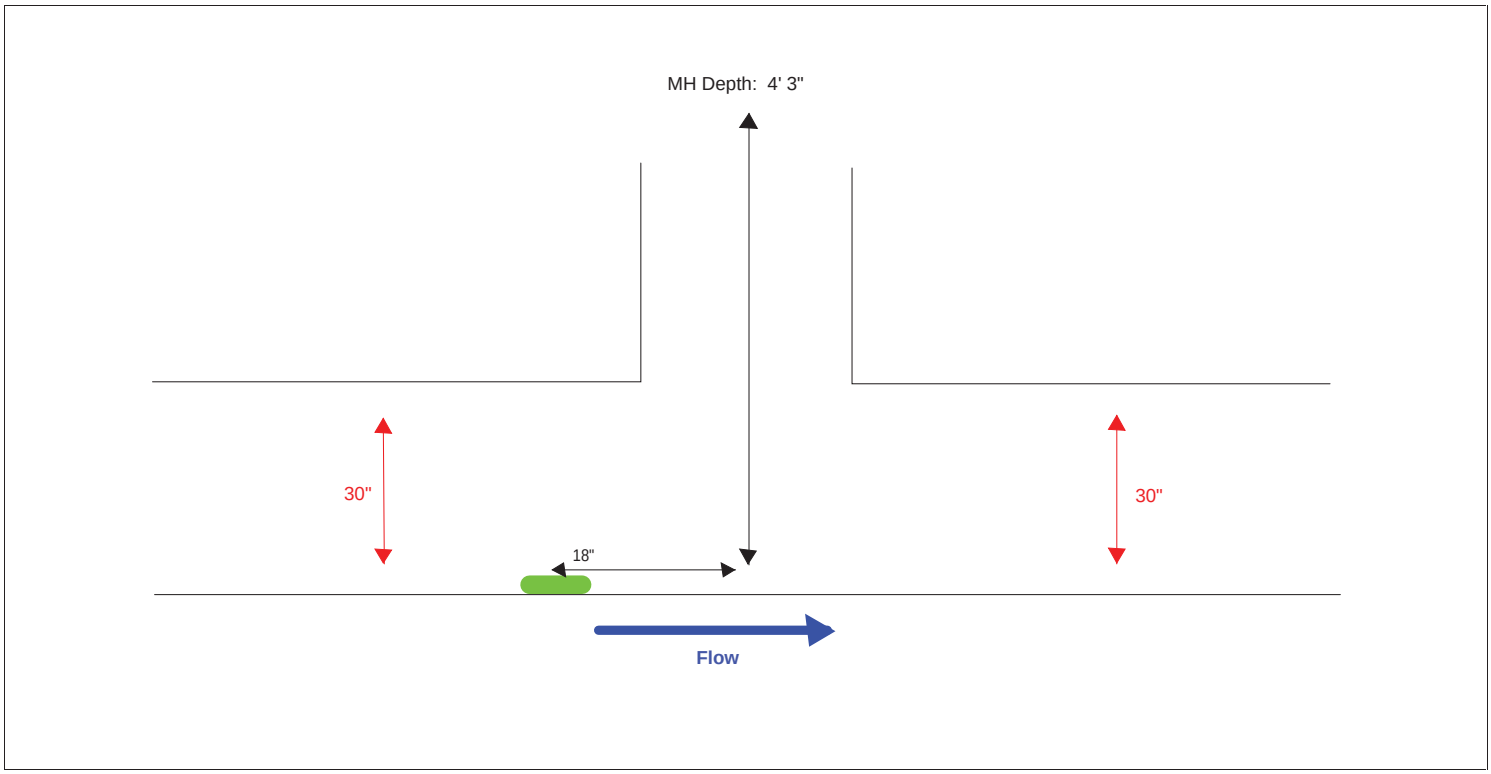
View from top of MH

Site Overview

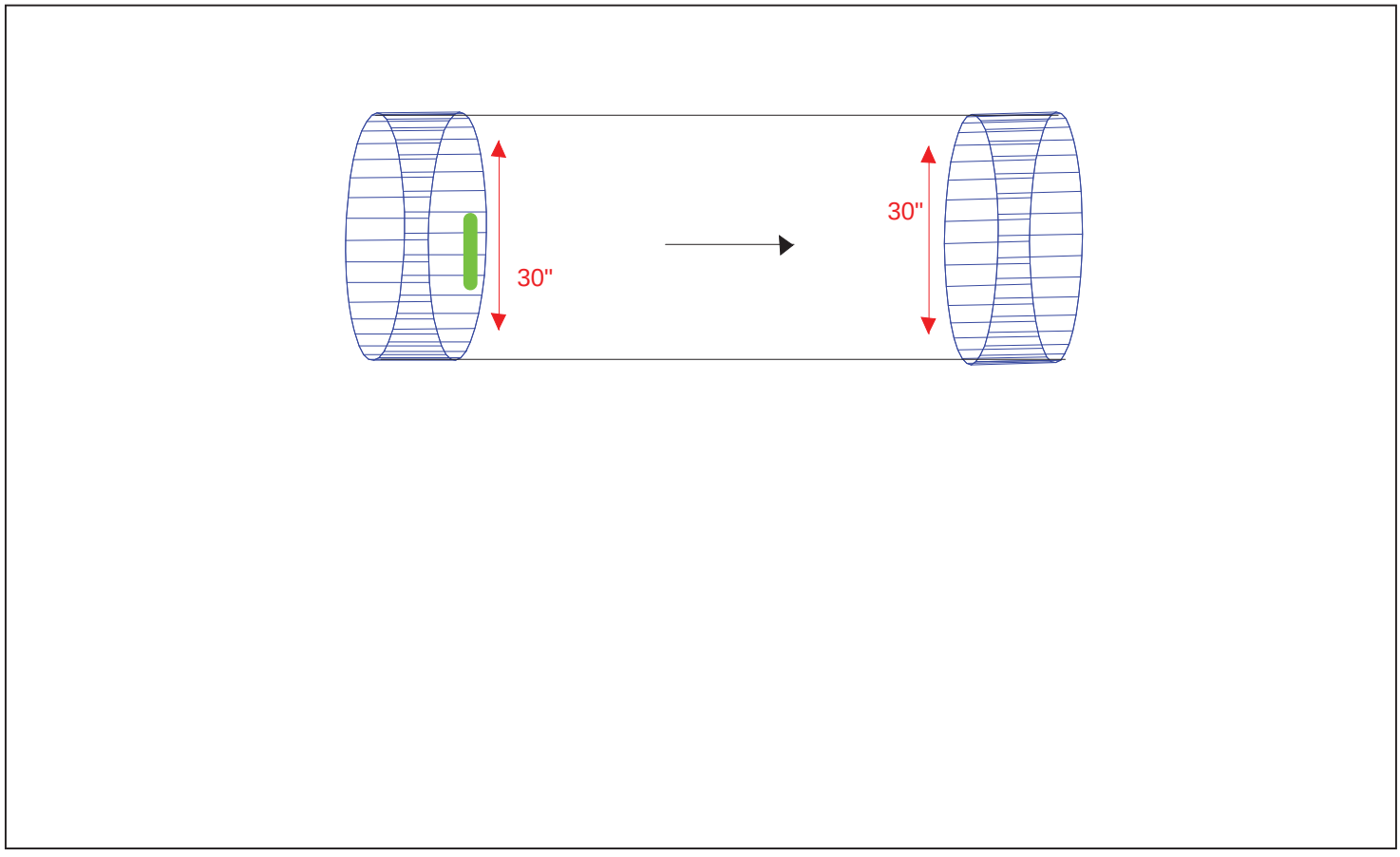
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # FM-23

Investigation Date: 4/25/14 Time: 8:24 Crew Members: KE/BR

Installation Date: 4/30/14 Time: 8:25 Crew Members: LR/JS/KE/ME

Address/Location: 80 E. Ferry Street (Buchanan Marine's Ferry Street Shipyard)

Latitude: N 41°18.067' Longitude: W 72°53.538'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 2.22 ft/sec

Depth 18.0 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	24"		24"
Width	24"		24"
Material	Concrete		Concrete
Shape	Round		Round

Sediment Present:

(Yes) Hard packed: _____ in. deep
No Soft: 5.0 in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access: ** 8a – 2p, see Comments*

(Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 11' 7"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary:
	Redundant:
Velocity	Primary:
	Redundant:
Meter Logger	

Comments: *Access 8:00 to 14:00 only and no access to the site on any Friday*

Area Map

Detail Map

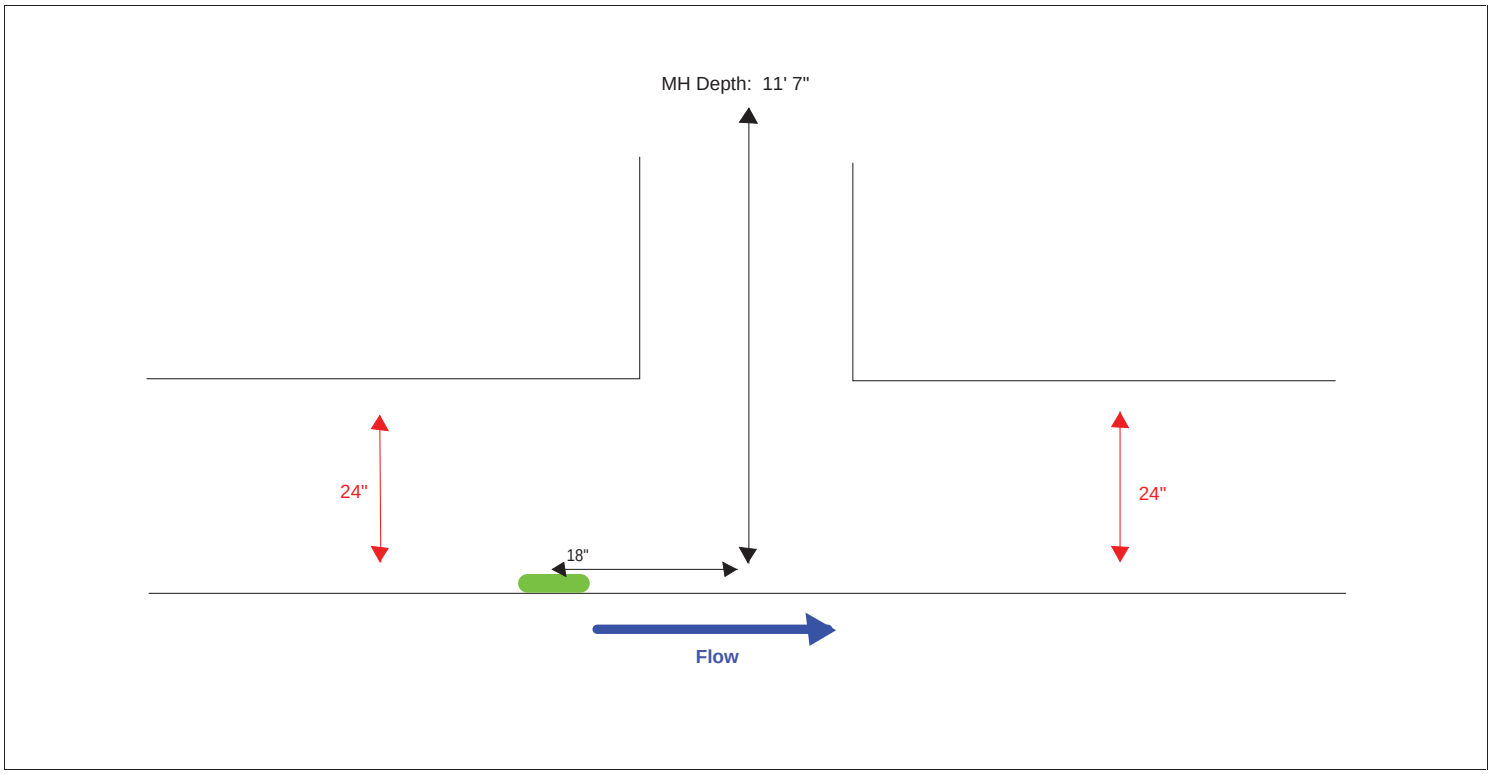
View from top of MH

Site Overview

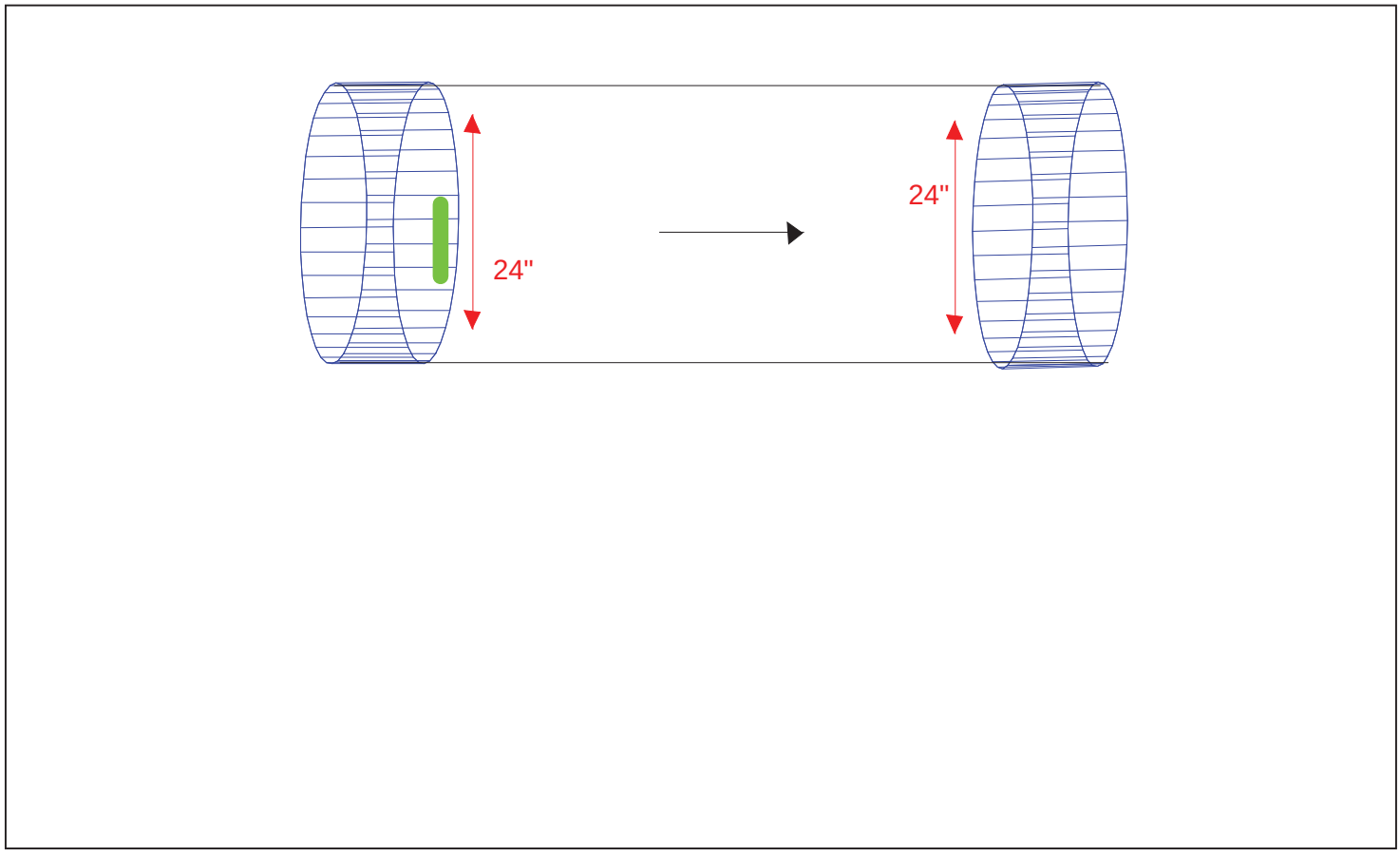
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # East Street PS Sewer

Investigation Date: 9/12/12 Time: 14:00 Crew Members: LR/CL

Installation Date: 9/12/12 Time: 14:00 Crew Members: LR/CL

Address/Location: 85 East Street

Latitude: N 41°18.000' Longitude: W 72°54.648'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 1.54 ft/sec

Depth 32.0 in

~~Turbulence Amplitude:~~

(Less than 0.25")
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	60.5"		60.5"
Width	60.5"		60.5"
Material	Brick		Brick
Shape	Round		Round

Sediment Present:

(Yes) Hard packed: _____ in. deep
No Soft: 1 to 2 in. deep

Surcharge / Backwater Influence:

No evidence visible
Remains in pipe
_____ft from rim
(Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 10' 1"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*
Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:
Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

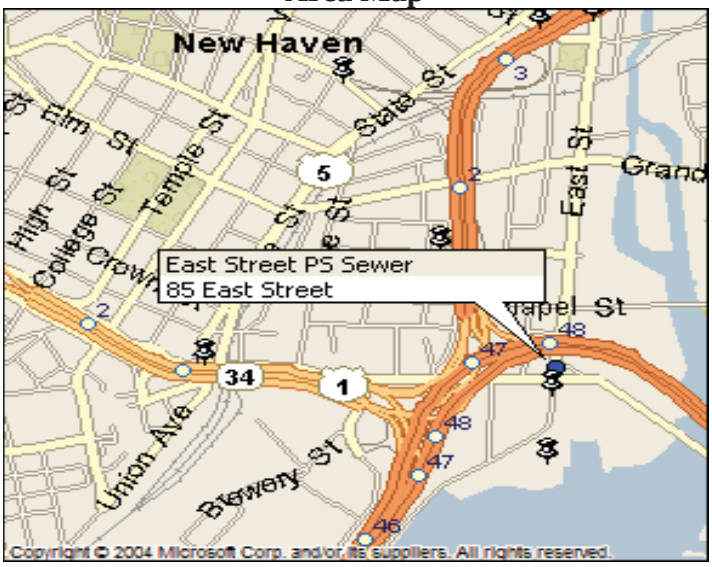
Crew Member: Can you maintain this site?
(Yes) No Maybe

Sensor Configuration:
(Please include Serial Numbers when possible)

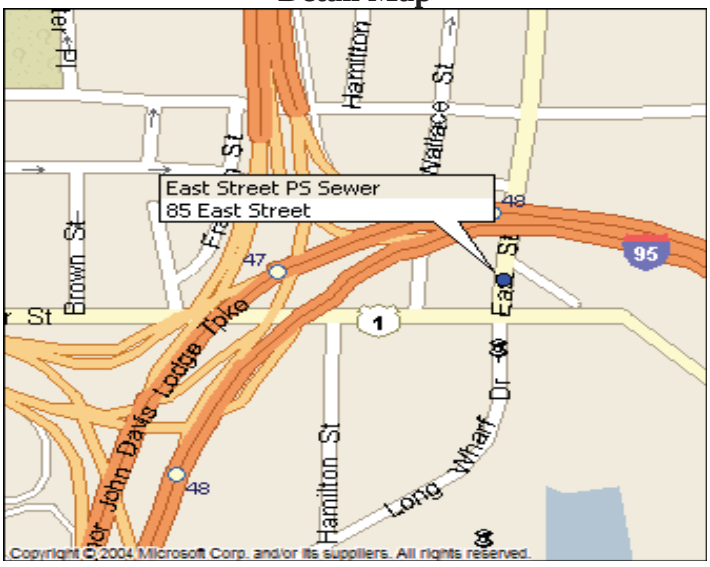
Level	Primary: Pressure	
	Redundant: Pressure	
Velocity	Primary: Doppler	
	Redundant: Doppler	
Meter Logger	FloWav 293663	

Comments: Sensors are 48" from mouth of the pipe

Area Map

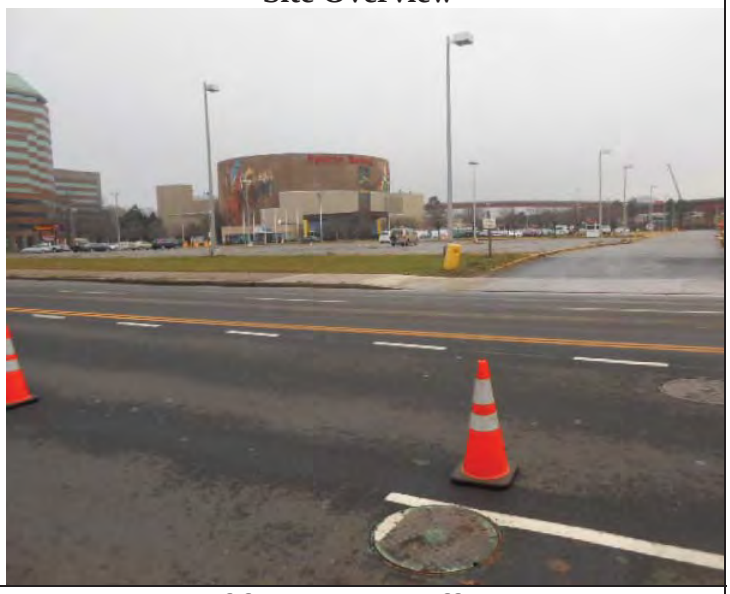


Detail Map



View from top of MH

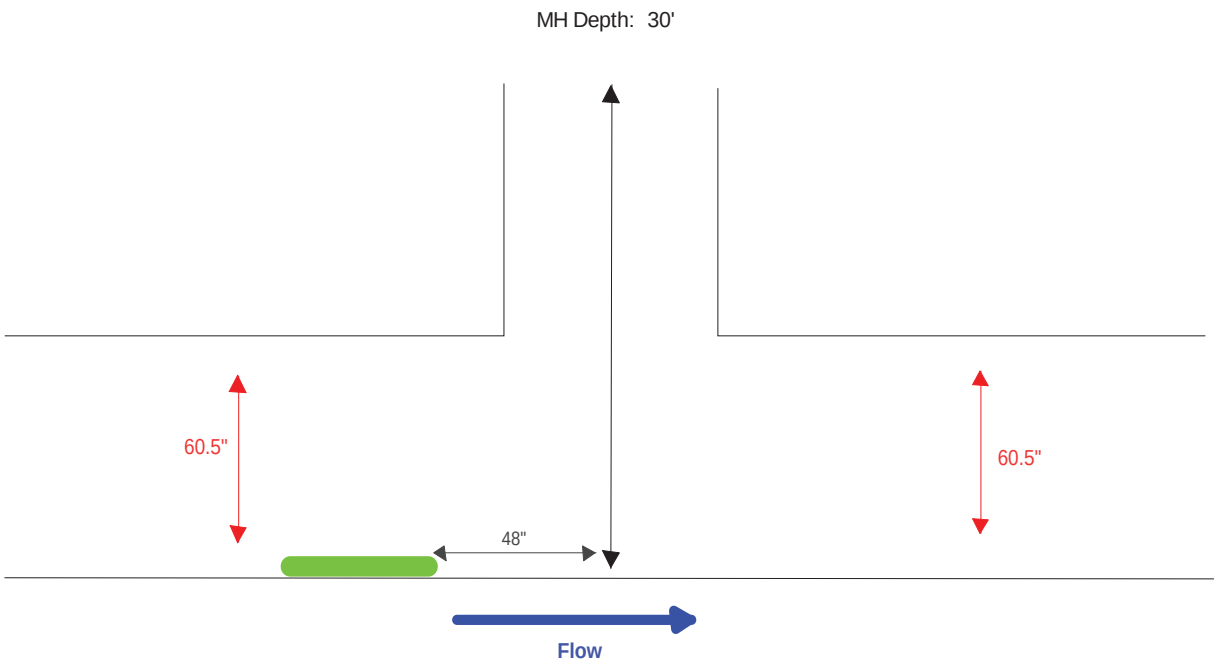
Site Overview



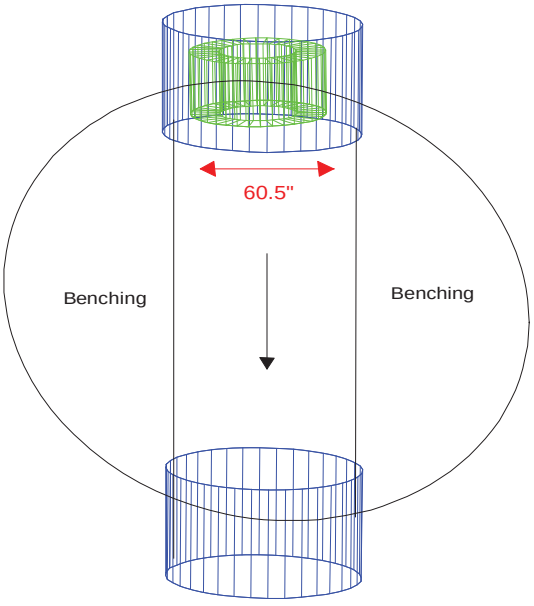
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # OF-003 Sewer

Investigation Date: 5/23/12 Time: 9:05 Crew Members: LR/RO/GW

Installation Date: 6/7/12 Time: 7:50 Crew Members: RD/LR

Address/Location: Intersection of Ella T Grasso Blvd. and Orange Ave.

Latitude: N 41°17.841' Longitude: W 72°56.933'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 1.09 ft/sec

Depth 33.50 to 33.75 in

Turbulence Amplitude:

~~Less than 0.25"~~

(0.25" to 0.75")

0.75" to 1.5"

1.5" to 3"

Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	64.5"		64.5"
Width	74"		74"
Material	Brick		Brick
Shape	Oval		Oval

Sediment Present: *Trace*

(Yes) Hard packed: _____ in. deep

No Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)

~~Remains in pipe~~

_____ft from rim

Reaches Rim (potential meter damage)

Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)

Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)

Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~

(Traffic Control only (Requires extra traffic control)

Unusable (~~Document in Comments section~~)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __

Manhole depth 6'8"

Structural Integrity of Manhole:

(Good) Fair Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole

Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole

Approx Distance to change:_____ft

(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

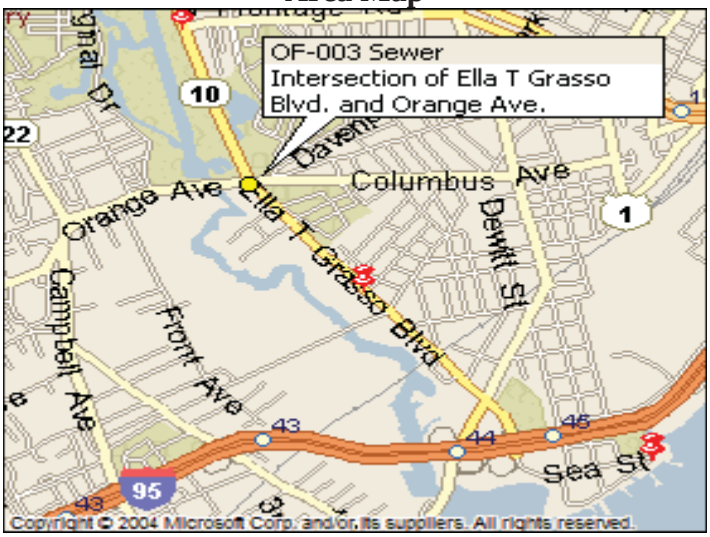
Sensor Configuration:

(Please include Serial Numbers when possible)

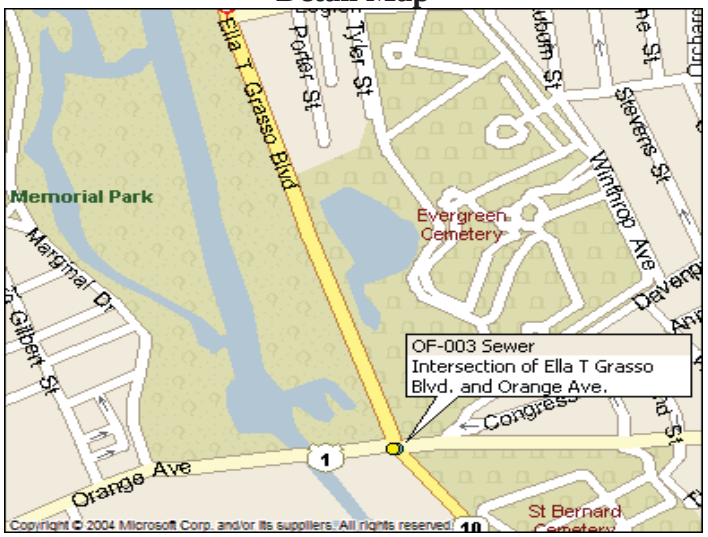
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293660

Comments:

Area Map



Detail Map



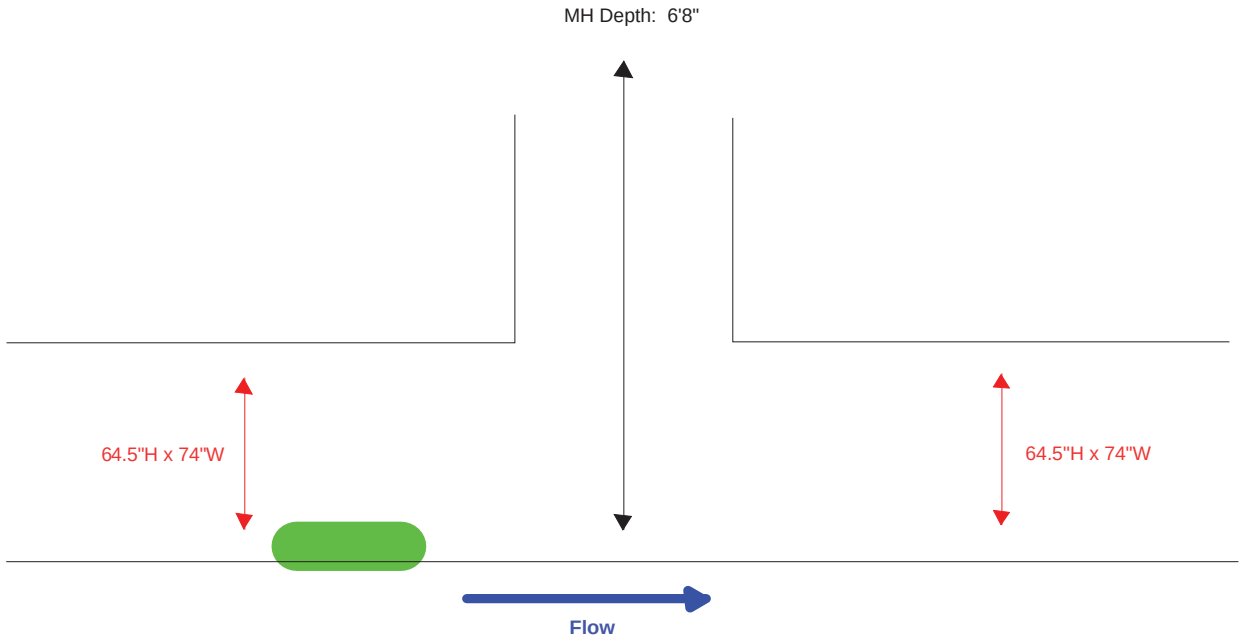
View from top of MH

Site Overview

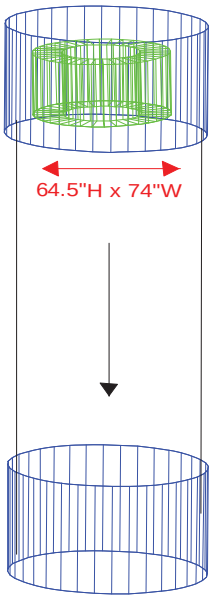
View of flow through influent line

View of flow through effluent line

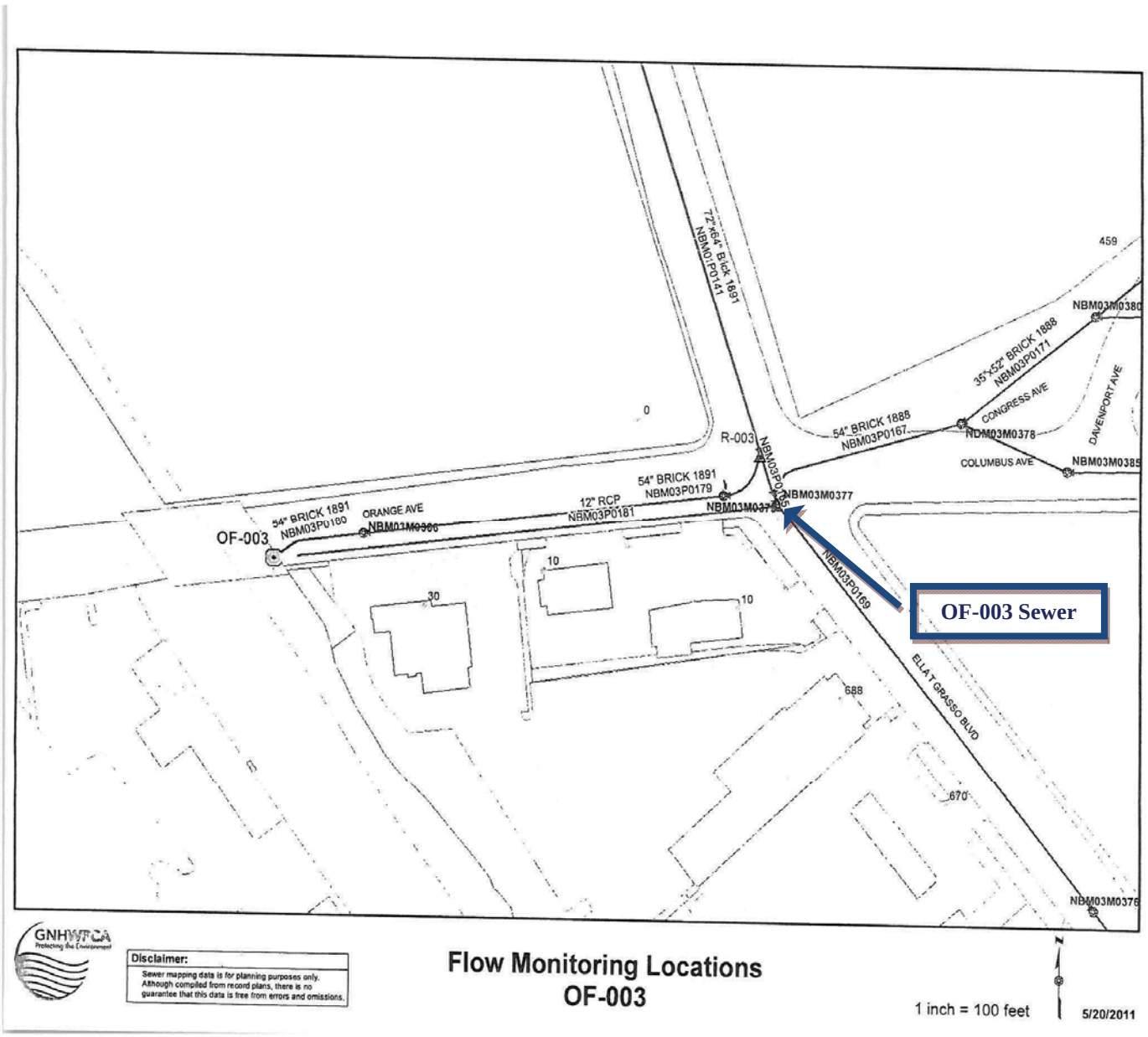
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-003 Overflow

Investigation Date: 5/23/12 Time: 11:40 Crew Members: LR/RO/GW

Installation Date: 6/5/12 Time: 9:30 Crew Members: RD/LR

Address/Location: On Orange Ave. at intersection of Ella T Grasso Blvd. (in crosswalk)

Latitude: N 41°17.847' Longitude: W 72°56.954'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow: *Standing*

Velocity _____ ft/sec

Depth 2.0 in

Turbulence Amplitude: *Standing water*

Less than 0.25"
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	55"		55"
Width	55"		55"
Material	Brick		Brick
Shape	Round		Round

Sediment Present:

(Yes) Hard packed: _____ in. deep
No Soft: 0.25 in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control)
Unusable (~~Document in Comments section~~)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 7'8"
Structural Integrity of Manhole:
(Good) Fair Poor

Pipe Bends: *None within camera view*

(Influent) Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

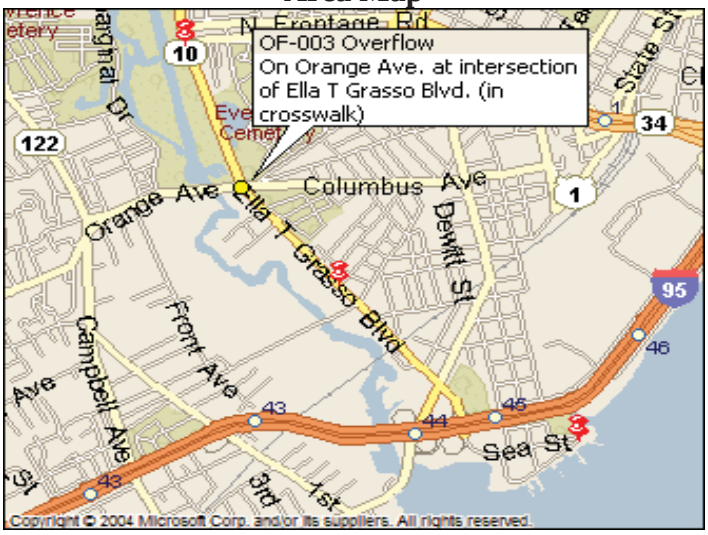
Sensor Configuration:

(Please include Serial Numbers when possible)

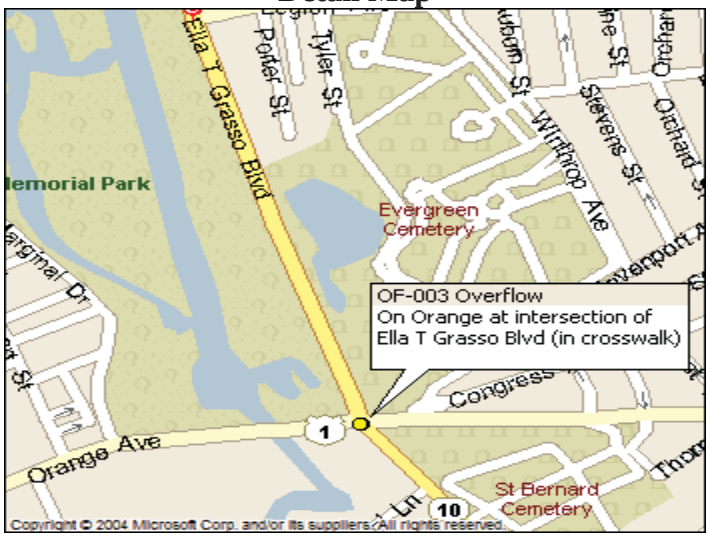
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293664

Comments:

Area Map



Detail Map

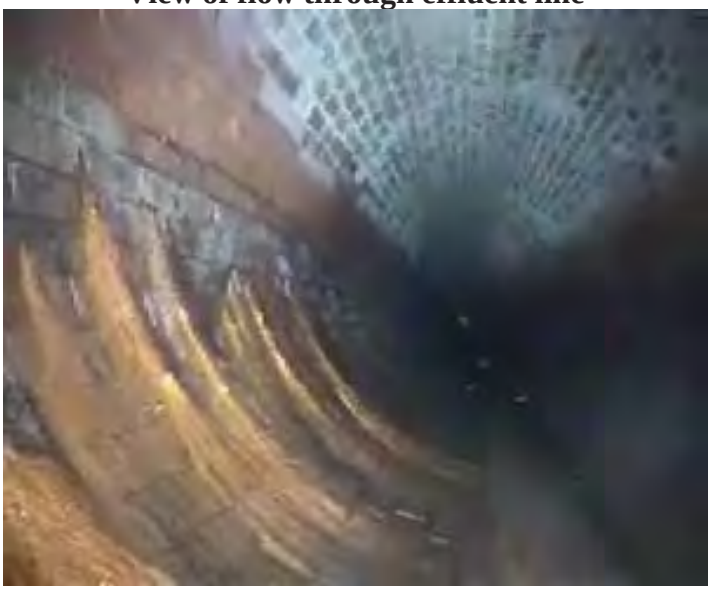


View from top of MH

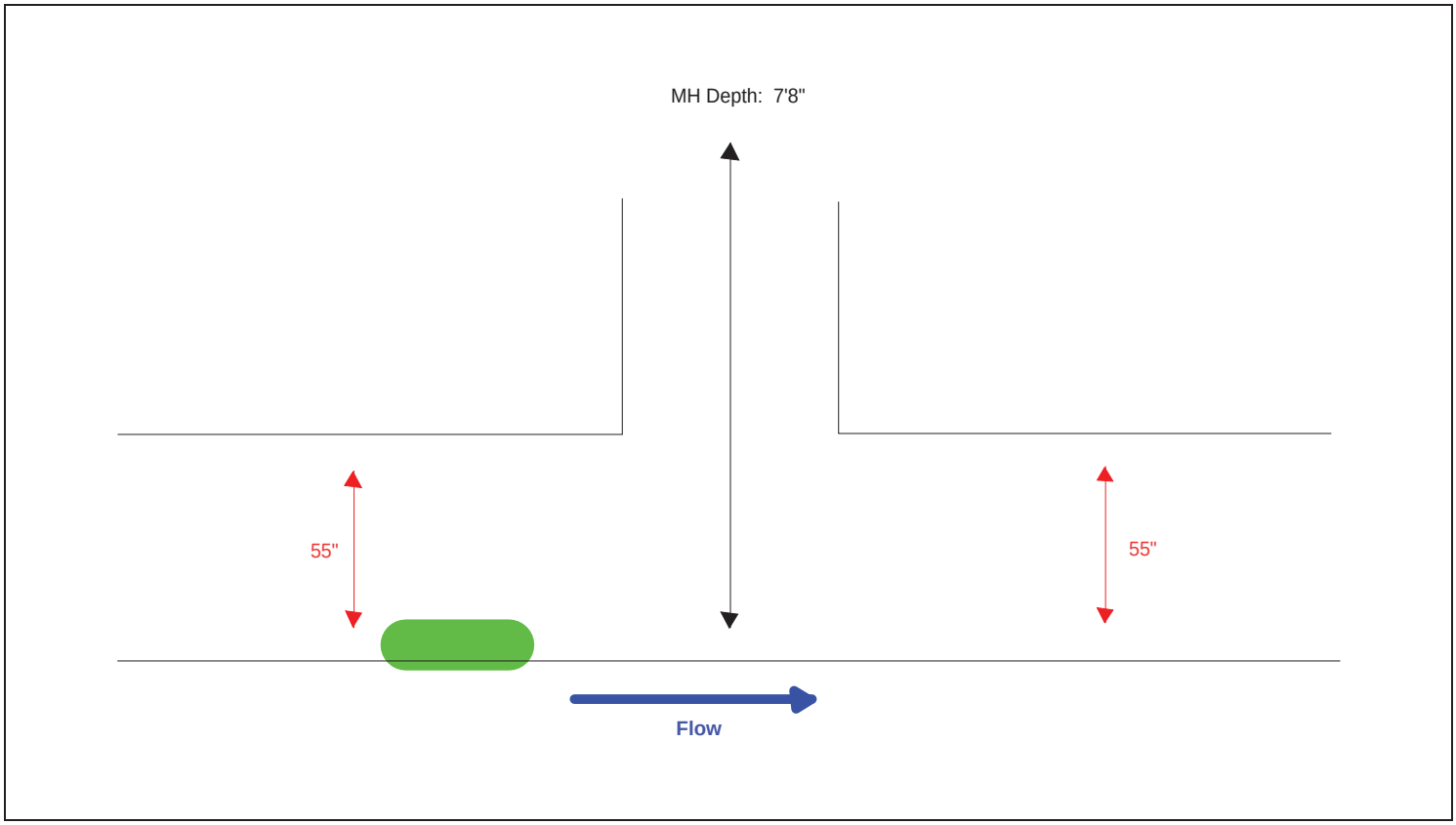
Site Overview

View of flow through influent line

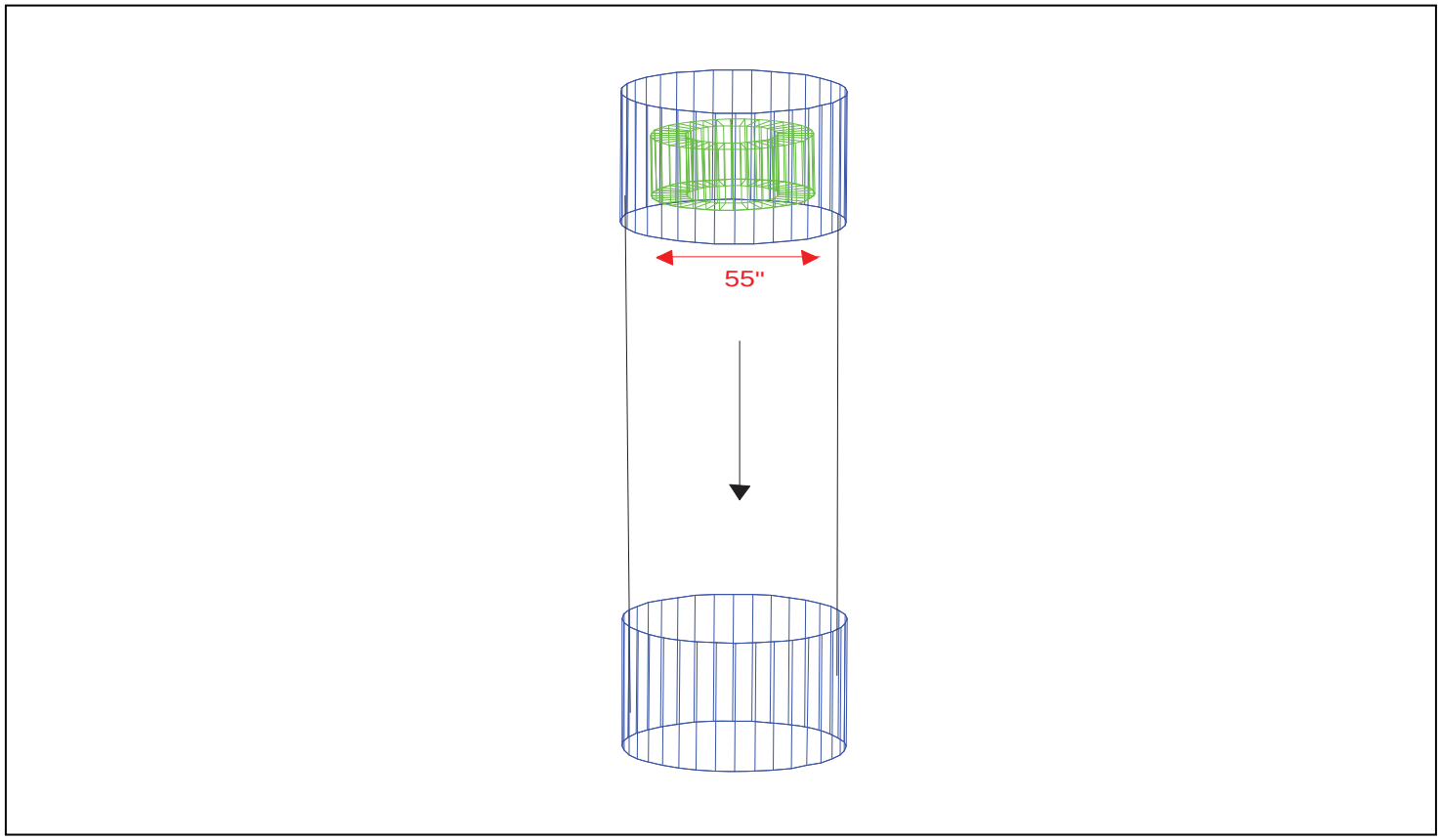
View of flow through effluent line



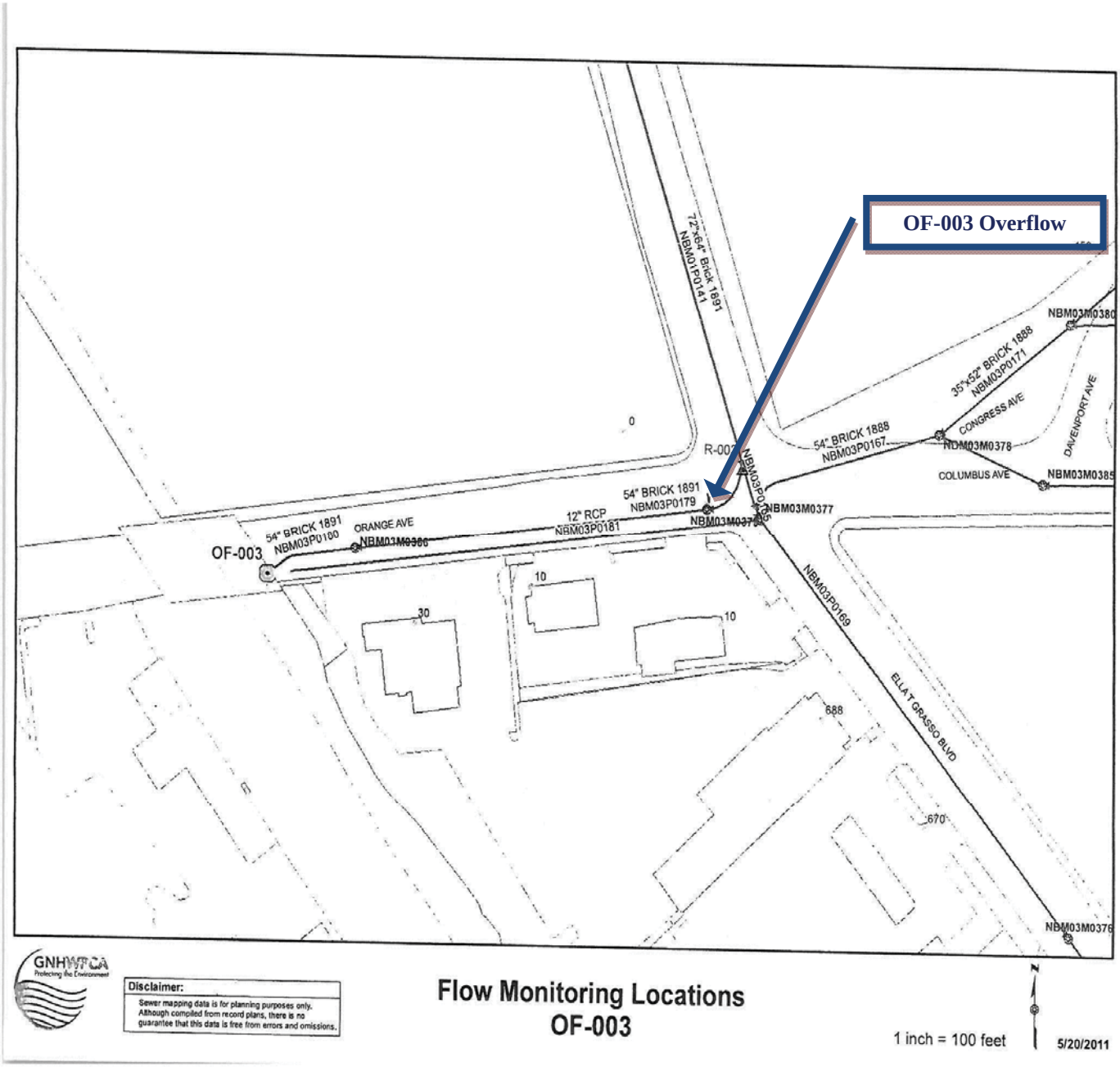
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-004 Sewer

Investigation Date: 5/24/12 Time: 12:15 Crew Members: LR/RO/GW

Installation Date: 6/6/12 Time: 11:15 Crew Members: RD/LR

Address/Location: Intersection of Ella T. Grasso Boulevard & Legion Avenue

Latitude: N 41°17.337' Longitude: W 72°57.154'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 1.61 ft/sec

Depth 25.25 to 25.50 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	63.5"		63.5"
Width	66.5"		66.5"
Material	Brick		Brick
Shape	Round		Round

Sediment Present:

(Yes) Hard packed: _____4"_____ in. deep
No Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
~~Remains in pipe~~
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control
Unusable (~~Document in Comments section~~)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 10'9"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

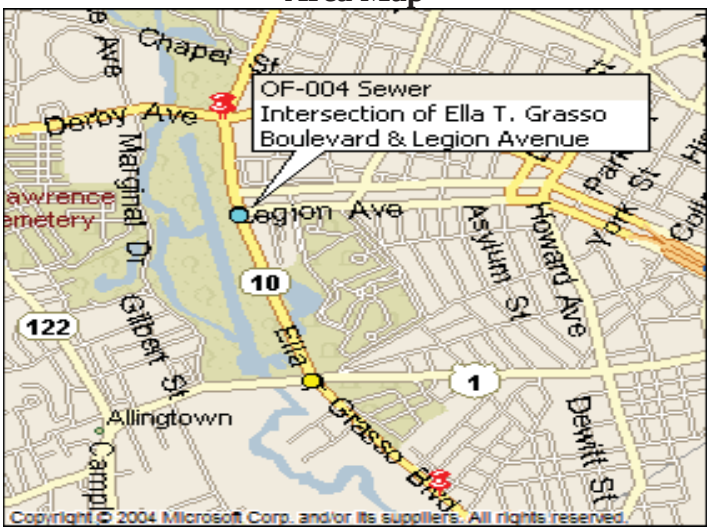
Crew Member: Can you maintain this site?
(Yes) No Maybe

Sensor Configuration:
(Please include Serial Numbers when possible)

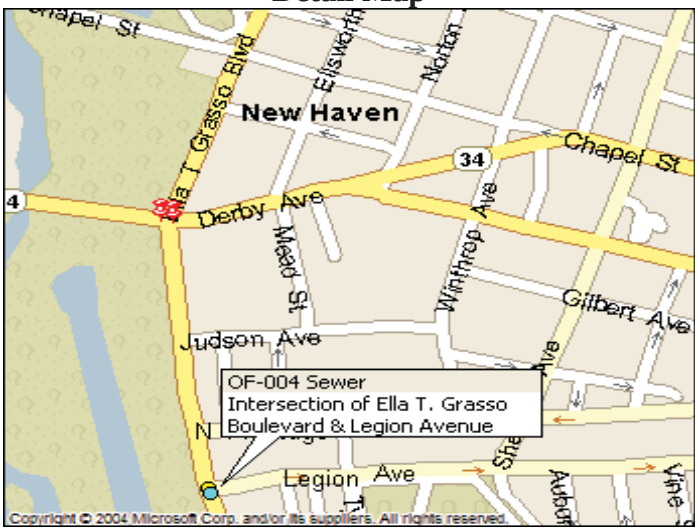
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293665

Comments: *Chest waders needed*

Area Map



Detail Map



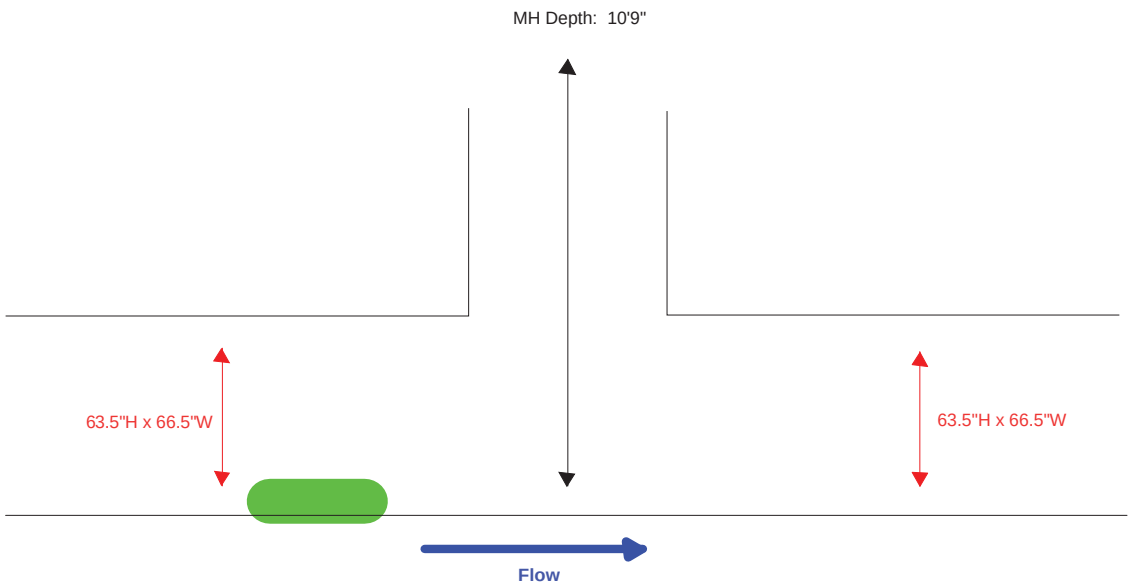
View from top of MH

Site Overview

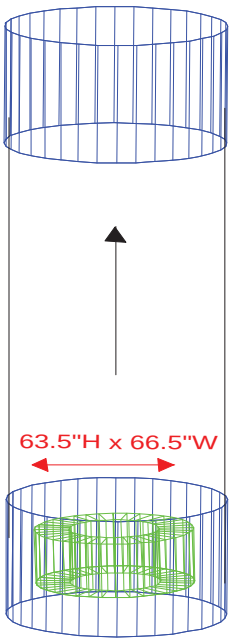
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)

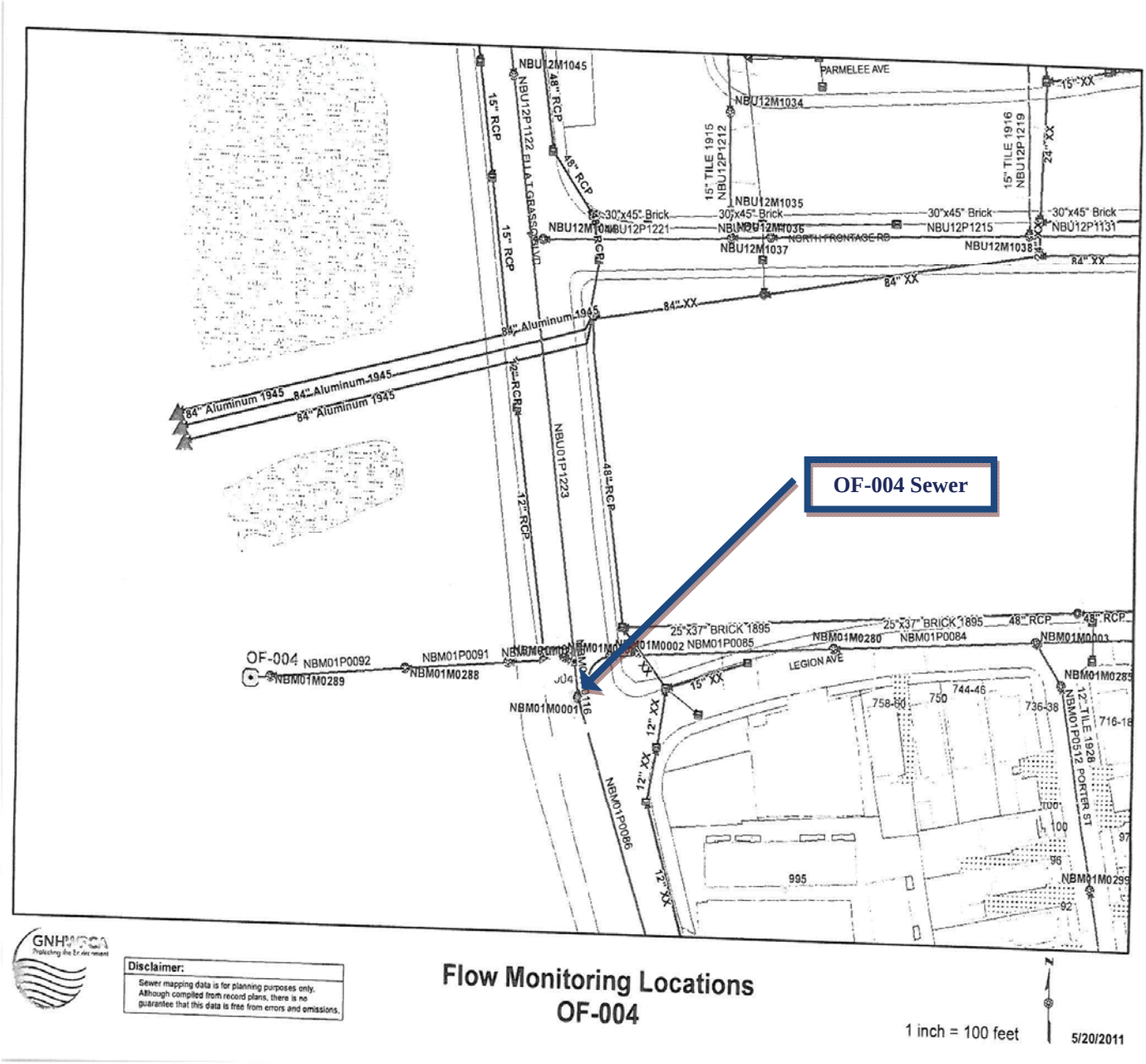


Plan View



Site Location Plan View

Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-004 Overflow

Investigation Date: 5/24/12 Time: 13:25 Crew Members: LR/RO/GW

Installation Date: 6/6/12 Time: 9:22 Crew Members: RD/LR

Address/Location: On Ella T. Grasso Blvd., 20 yds. north of Legion Ave.

Latitude: N 41°18.332' Longitude: W 72°57.161'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow: *Dry Pipe*

Velocity 0.00 ft/sec

Depth 0.00 in

Turbulence Amplitude: *Dry pipe*

Less than 0.25"
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	36"		36"
Width	61"		61"
Material	Concrete		Concrete
Shape	Concrete		Concrete

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
~~Remains in pipe~~
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control)
Unusable (~~Document in Comments section~~)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 10'9"
Structural Integrity of Manhole:
(Good) Fair Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

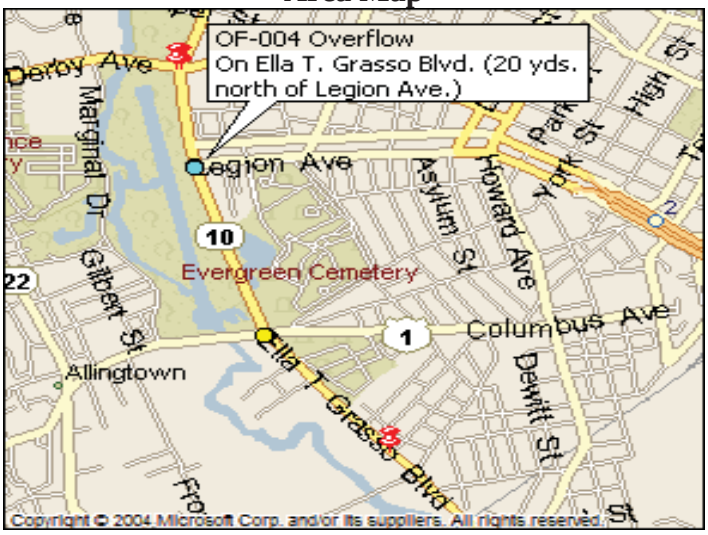
Crew Member: Can you maintain this site?
(Yes) No Maybe

Sensor Configuration:
(Please include Serial Numbers when possible)

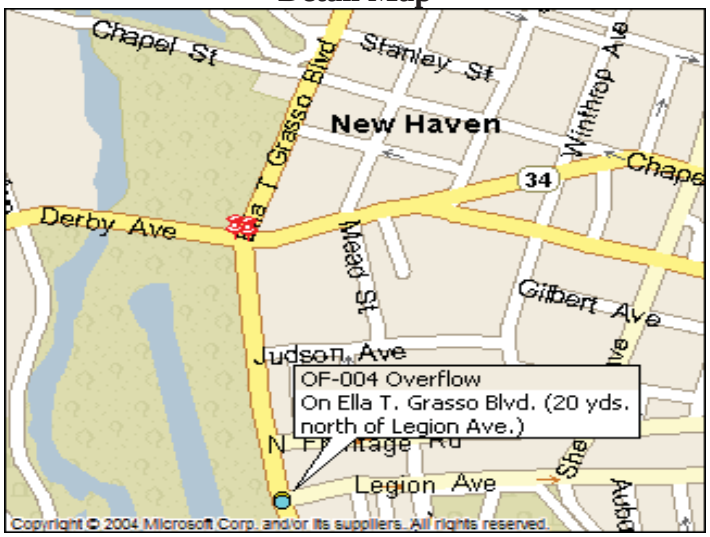
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Velocity
	Redundant: Velocity
Meter Logger	FloWav 293661

Comments:

Area Map



Detail Map



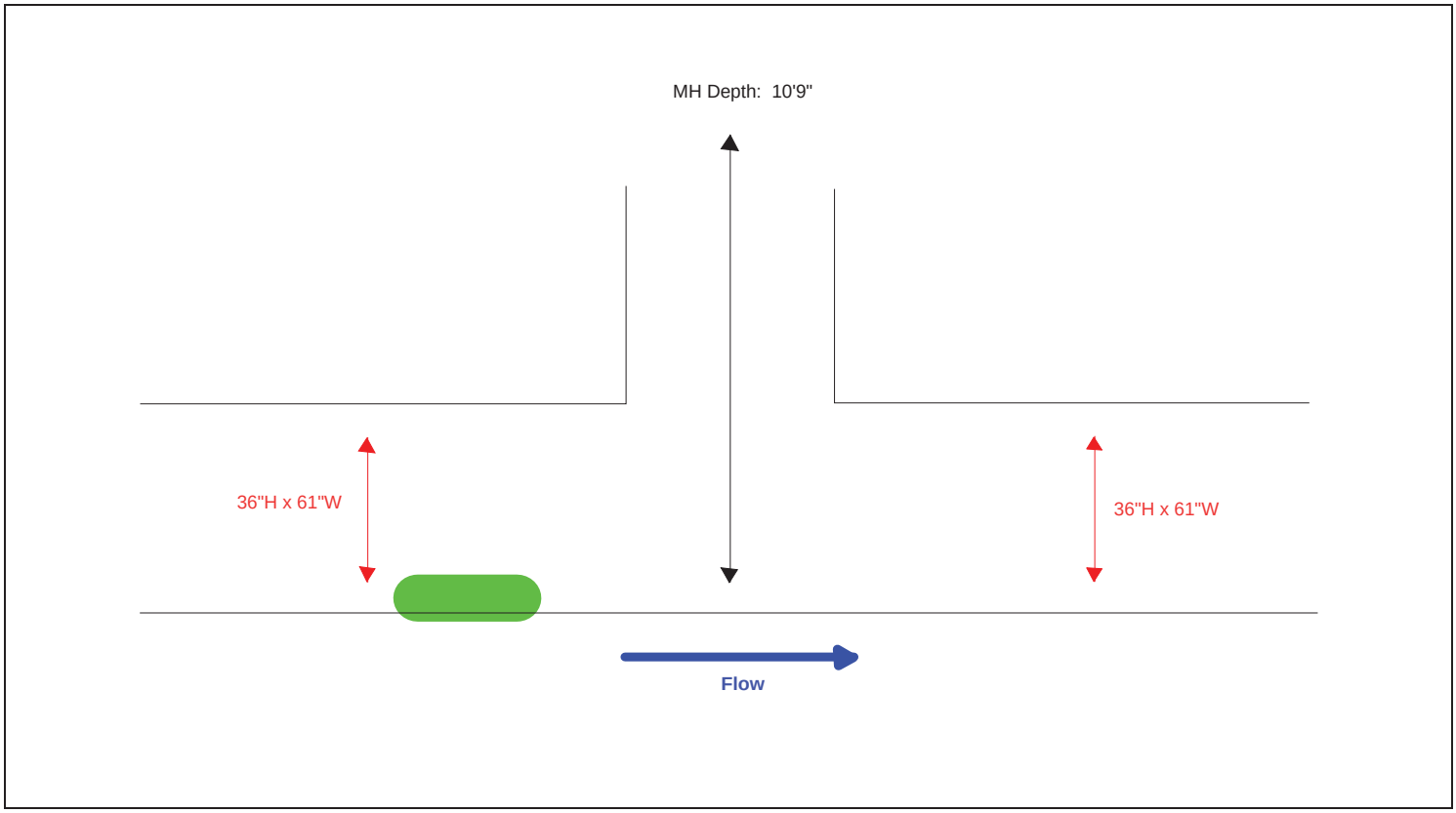
View from top of MH

Site Overview

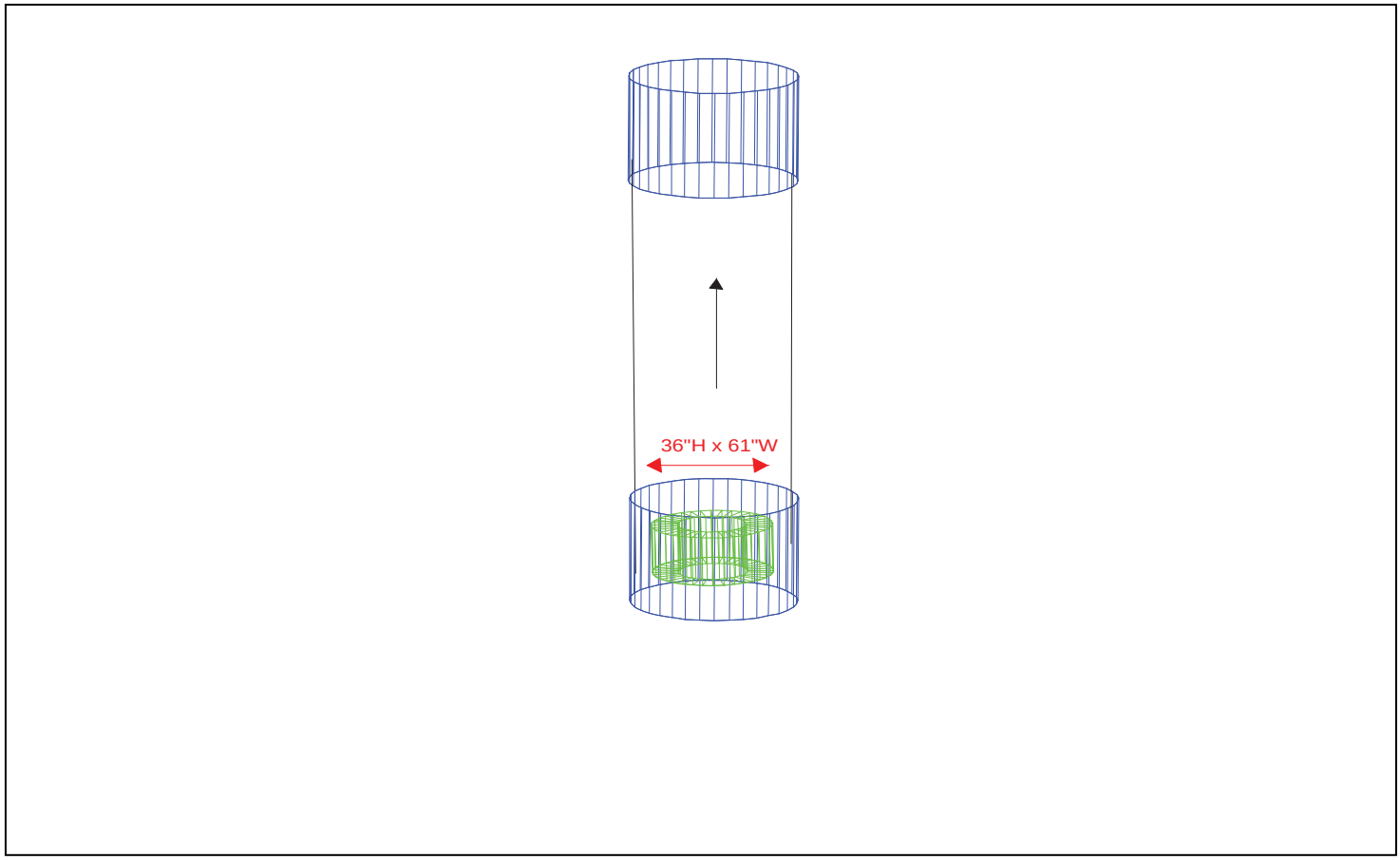
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)

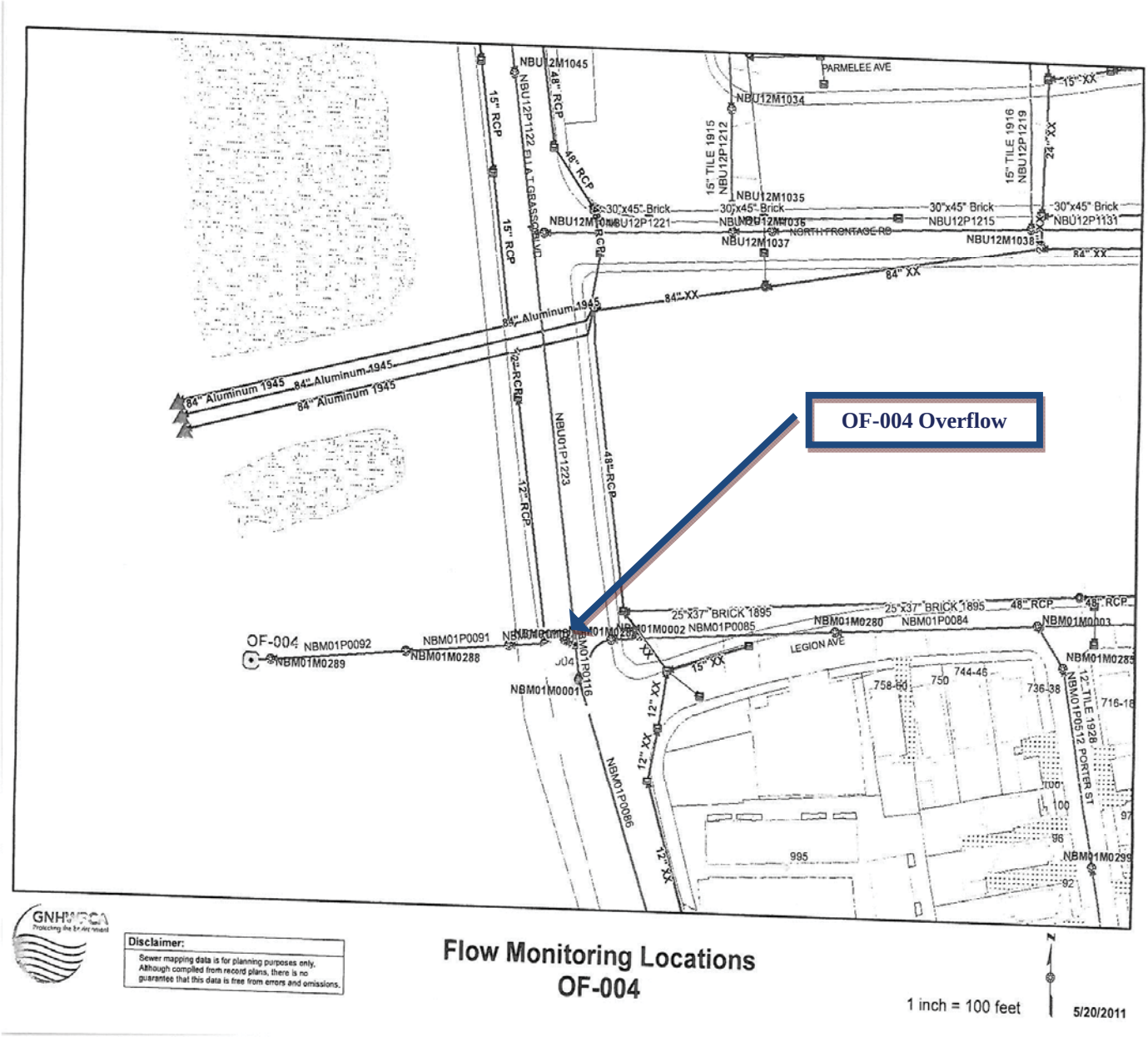


Plan View



Site Location Plan View

Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-005 Sewer

Investigation Date: 5/23/12 Time: 13:35 Crew Members: LR/RO/GW

Installation Date: 6/7/12 Time: 11:50 Crew Members: RD/LR

Address/Location: Intersection of Derby Ave. & Ella T. Grasso Blvd.

Latitude: N 41°18.604' Longitude: W 72°57.196'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 1.13 ft/sec

Depth 24.75 in

Turbulence Amplitude:

Less than 0.25"
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	60"		60"
Width	63.5"		63.5"
Material	Brick & Concrete		Brick & Concrete
Shape	Oval		Oval

Sediment Present:

(Yes) Hard packed: 4.0 in. deep
No Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
~~Remains in pipe~~
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control)
Unusable (~~Document in Comments section~~)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 14'
Structural Integrity of Manhole:
(Good) Fair Poor

Pipe Bends:

Influent (Effluent) Manhole
Approx Distance to bend: 15 ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

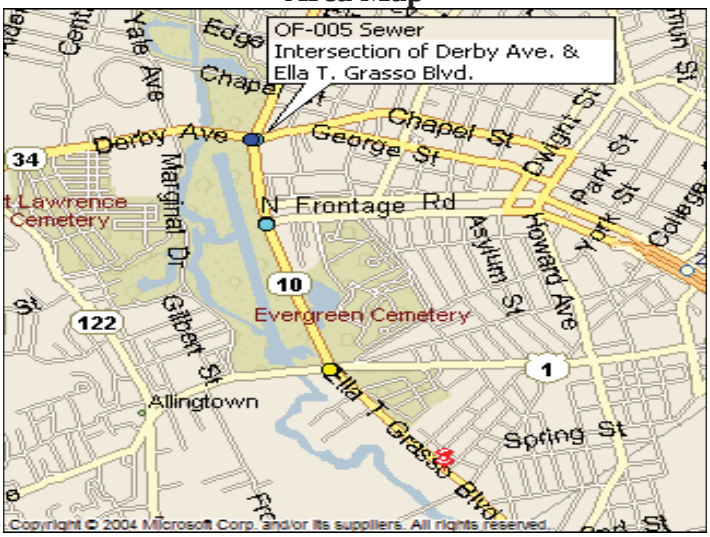
Crew Member: Can you maintain this site?
(Yes) No Maybe

Sensor Configuration:
(Please include Serial Numbers when possible)

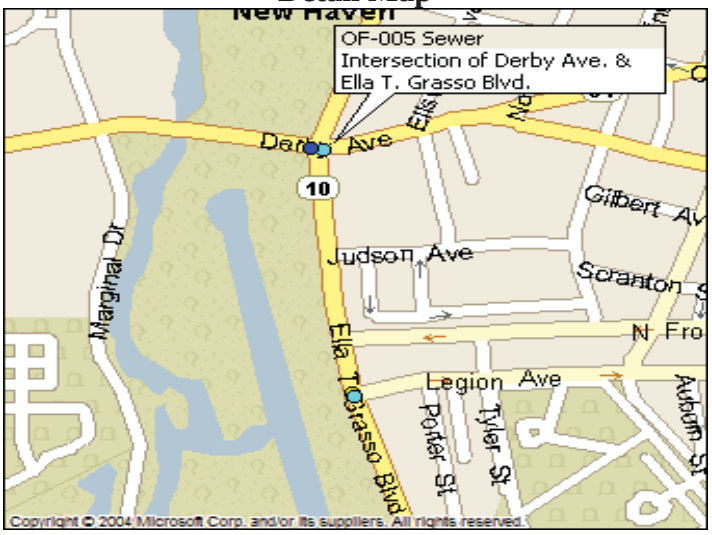
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293659

Comments:

Area Map



Detail Map



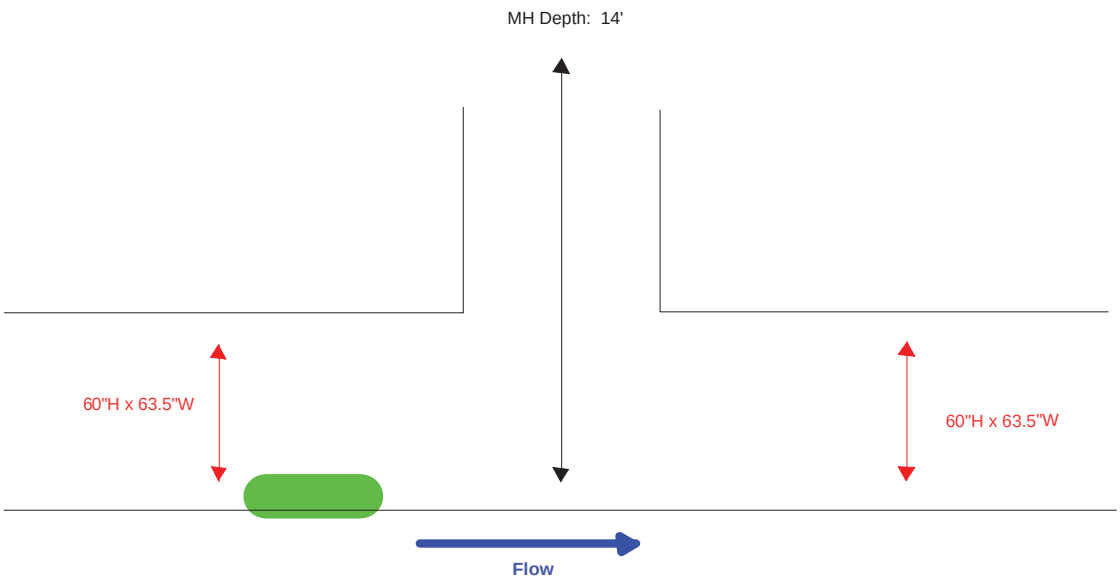
View from top of MH

Site Overview

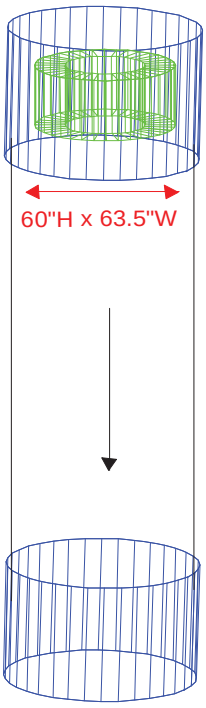
View of flow through influent line

View of flow through effluent line

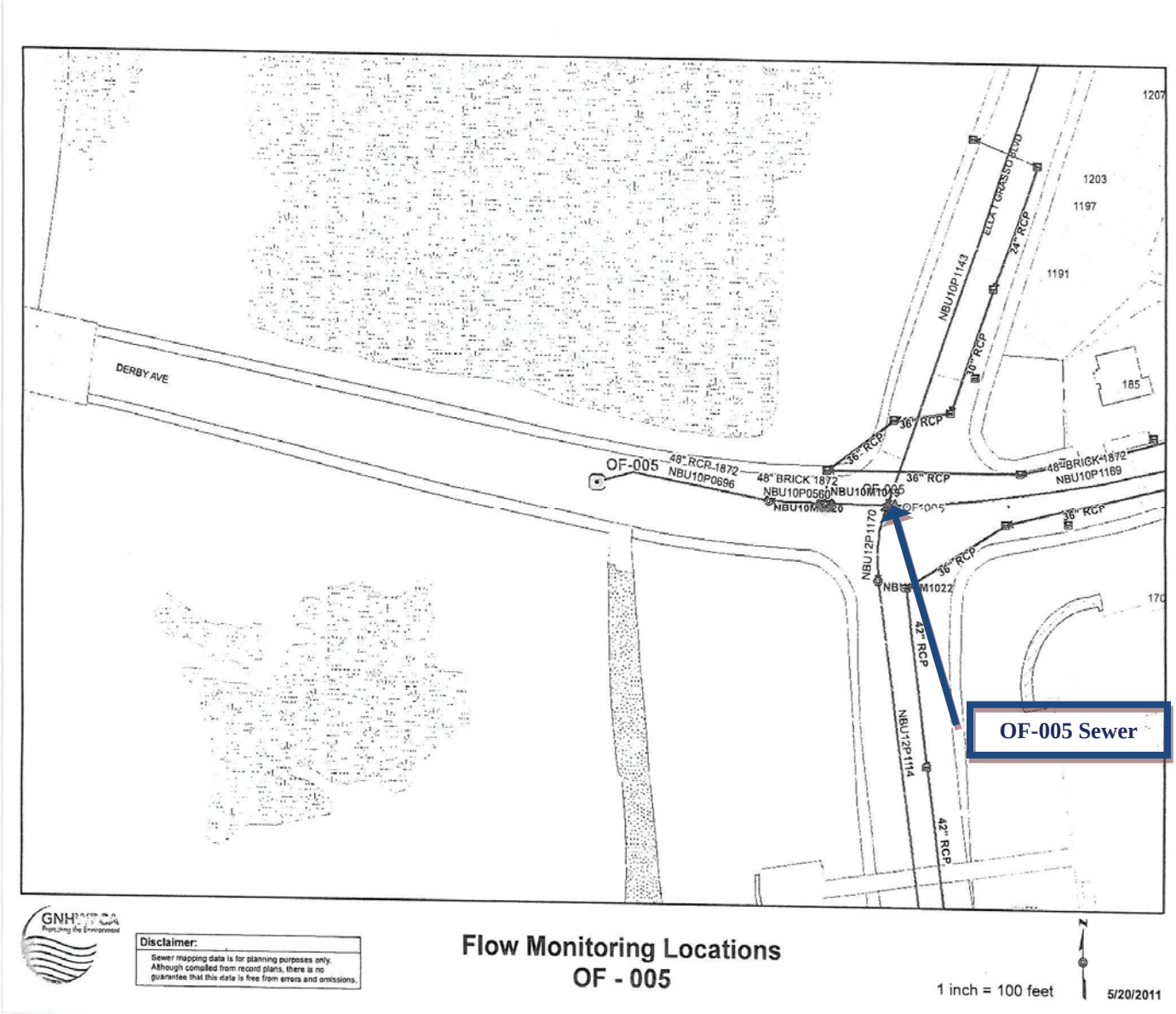
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-005 Overflow

Investigation Date: 5/24/12 Time: 9:25 Crew Members: LR/RO/GW

Installation Date: 6/7/12 Time: 13:47 Crew Members: RD/LR

Address/Location: On Derby Ave., 20 yds. east of Ella T. Grasso Blvd.

Latitude: N 41°18.612' Longitude: W 72°57.238'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow: *Dry pipe*

Velocity 0.0 ft/sec

Depth 0.0 in

Turbulence Amplitude: *Dry pipe*

Less than 0.25"
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	48"		48"
Width	48"		48"
Material	Brick		Brick
Shape	Round		Round

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
~~Remains in pipe~~
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control)
Unusable (~~Document in Comments section~~)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 8'2"
Structural Integrity of Manhole:
(Good) Fair Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

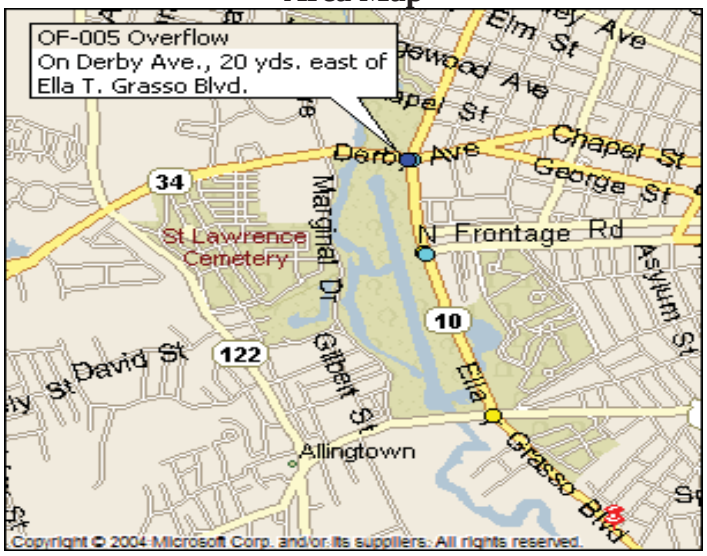
Crew Member: Can you maintain this site?
(Yes) No Maybe

Sensor Configuration:
(Please include Serial Numbers when possible)

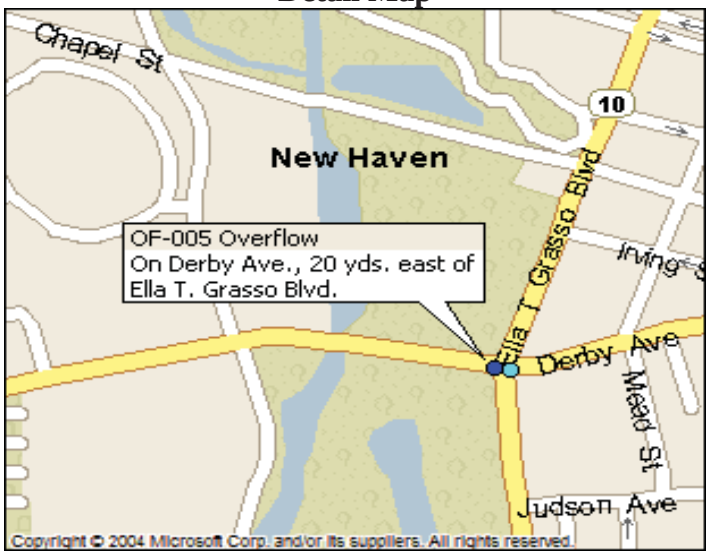
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293658

Comments:

Area Map



Detail Map



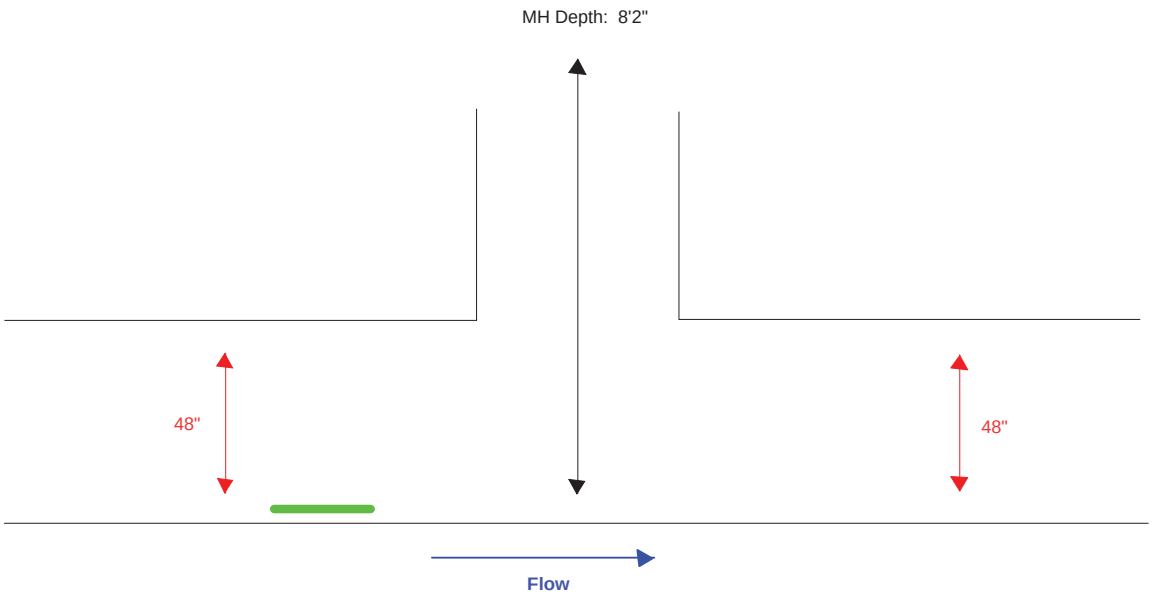
View from top of MH

Site Overview

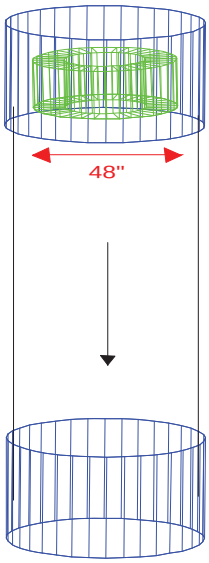
View of flow through influent line

View of flow through effluent line

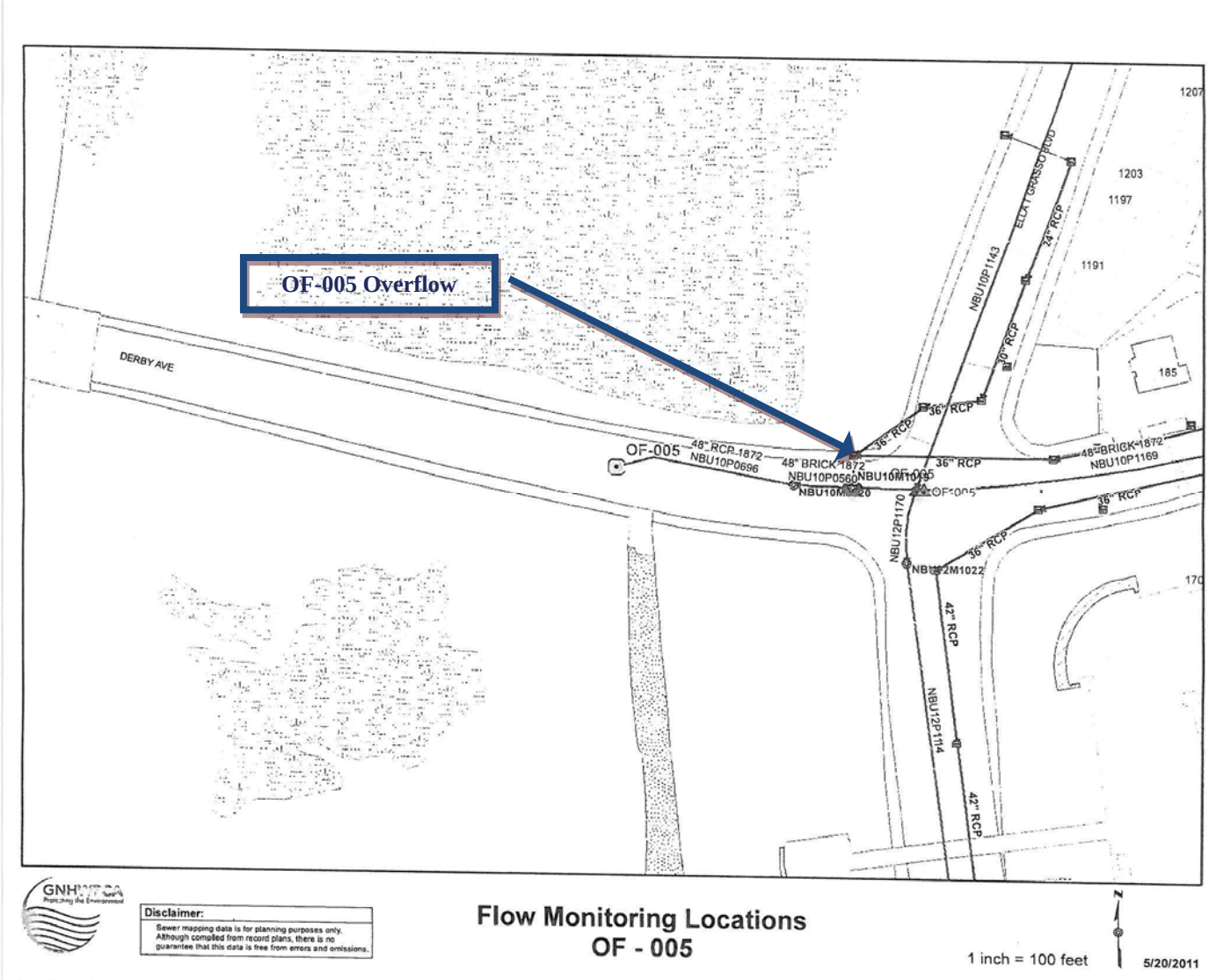
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-006 Sewer

Investigation Date: 5/24/12 Time: 9:25 Crew Members: LR/RO/GW

Installation Date: 6/4/12 Time: 13:47 Crew Members: RD/LR

Address/Location: On Whalley Ave., 30 yds from Fitch St.

Latitude: N 41°19.504'' Longitude: W 72°57.433'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 1.55 ft/sec

Depth 18.50 to 18.75 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	36"		36"
Width	36"		36"
Material	Wood-lined Brick		Wood-lined Brick
Shape	Round		Round

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
~~Remains in pipe~~
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~
(Traffic Control only (Requires extra traffic control)
Unusable (~~Document in Comments~~ section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 6'
Structural Integrity of Manhole:
(Good) Fair Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

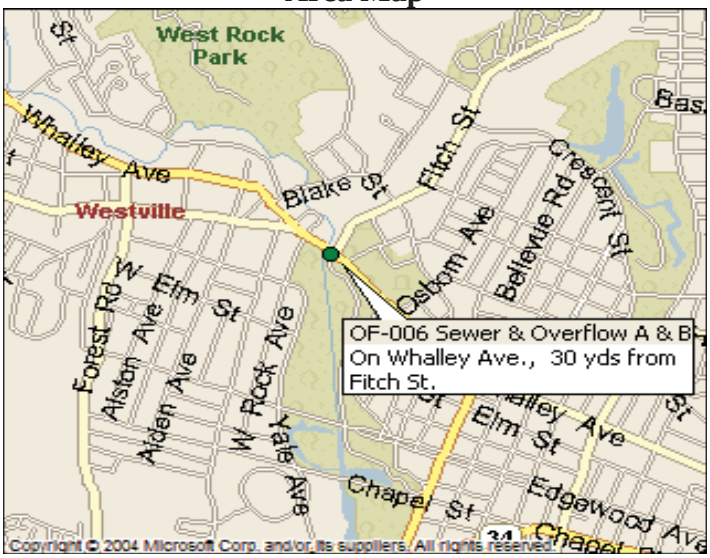
Sensor Configuration:

(Please include Serial Numbers when possible)

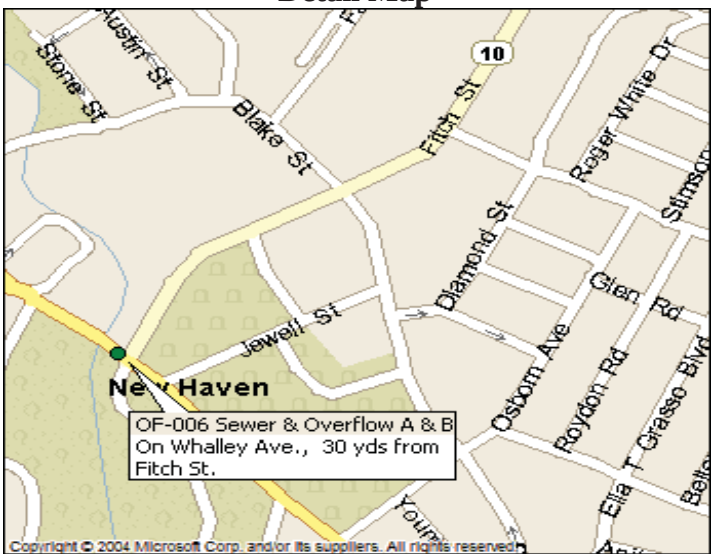
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293655

Comments:

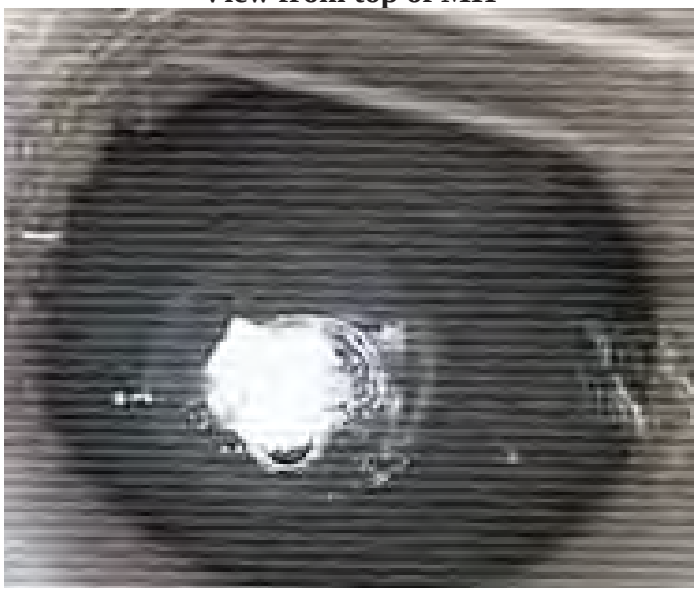
Area Map



Detail Map



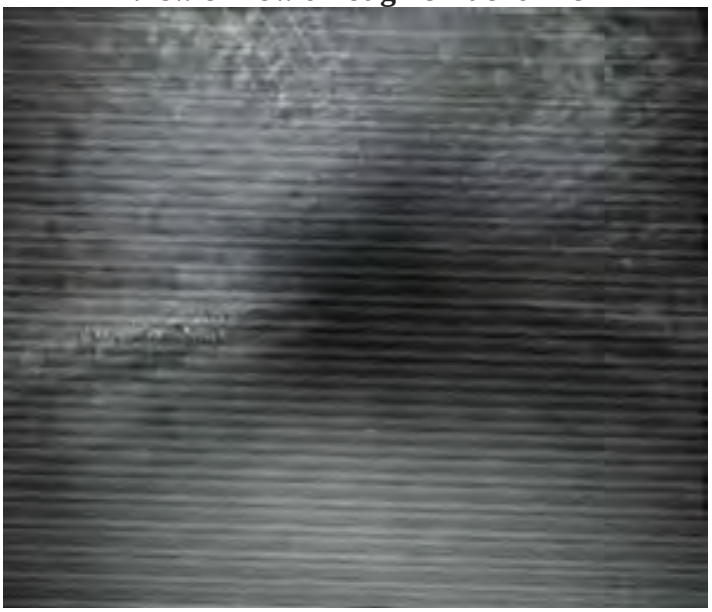
View from top of MH



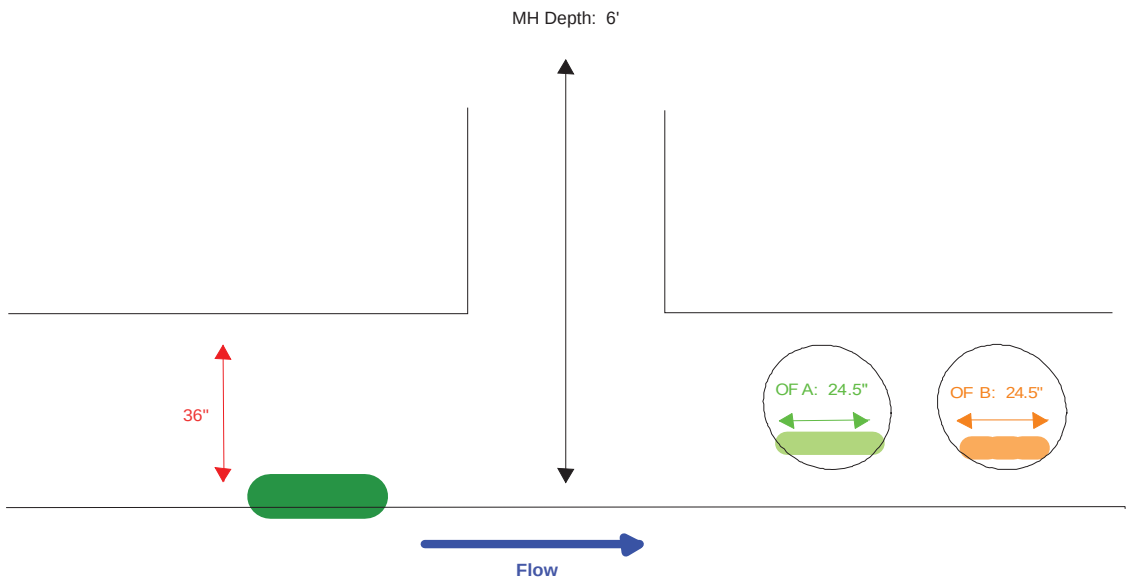
Site Overview

View of flow through influent line

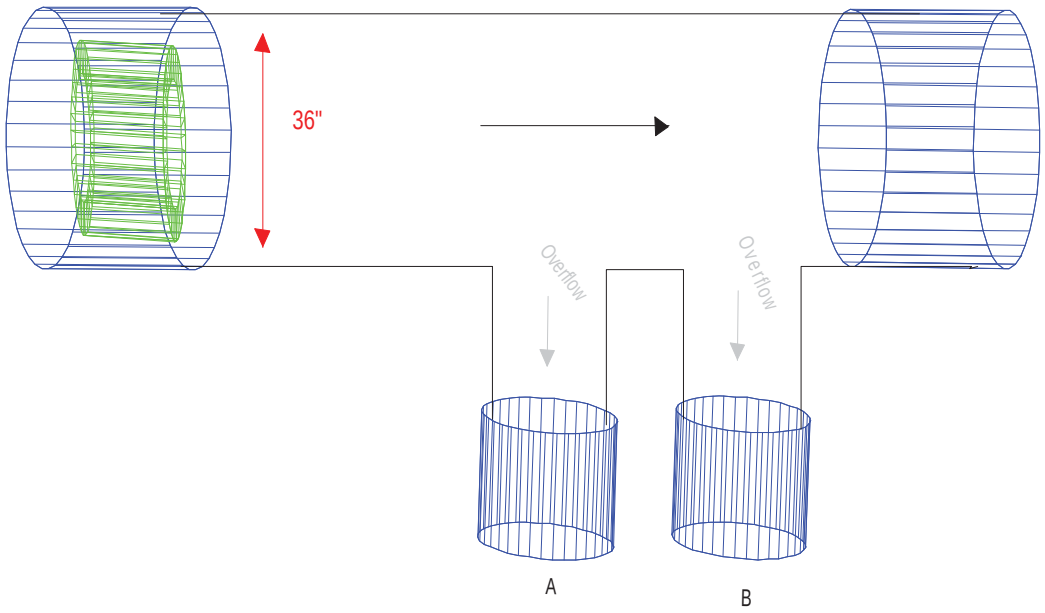
View of flow through effluent line



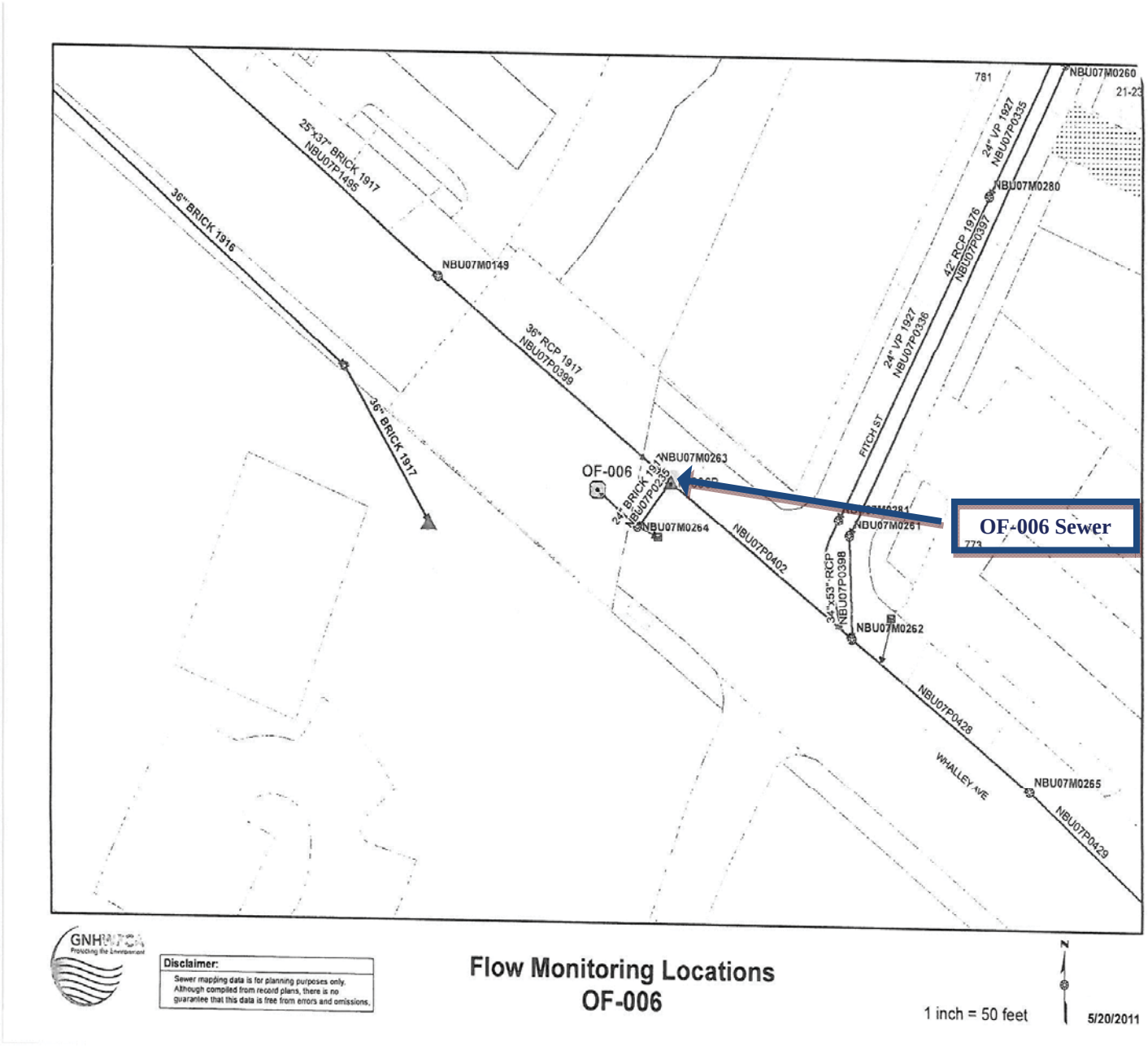
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-006 AA

Investigation Date: 8/3/12 Time: 8:00 Crew Members: RD/GM/AP

Installation Date: 8/3/12 Time: 10:00 Crew Members: RD/GM/AP

Address/Location: On Whalley Ave. & Fitch St., in the creek

Latitude: N 41°19.458'' Longitude: W 72°57.465'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 0.00 ft/sec

Depth 00.0 in

Turbulence Amplitude:

Less than 0.25"
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	24"		34"
Width	24"		37"
Material	Concrete/Steel		Brick
Shape	Round		Chamber

Sediment Present: *Trace*

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

No evidence visible
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) ____ (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
(Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information: *Chamber*

Elevated Manhole: (Yes) No

Height above ground __
Manhole depth 6'5"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

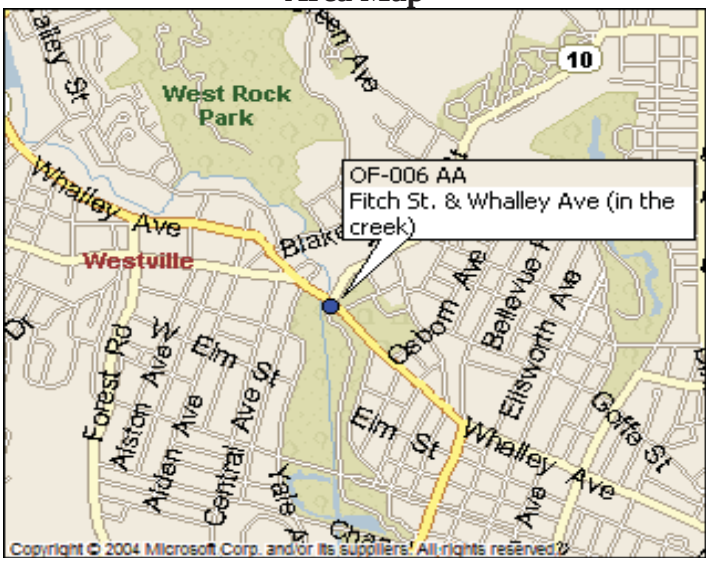
Sensor Configuration:

(Please include Serial Numbers when possible)

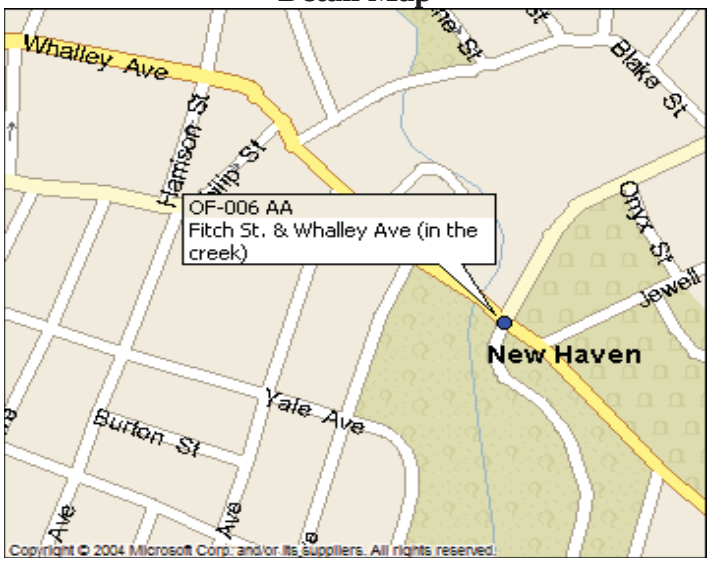
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293652

Comments:

Area Map



Detail Map



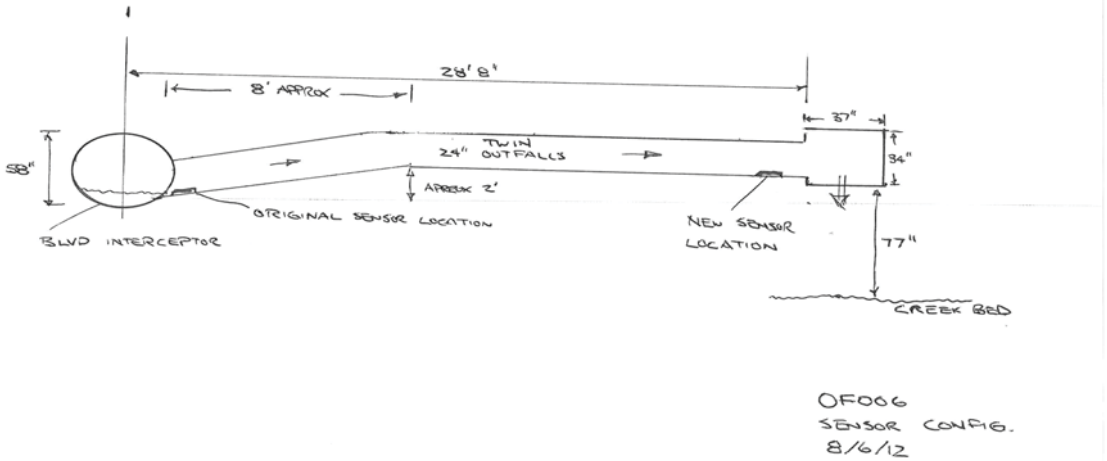
View from top of MH

Site Overview

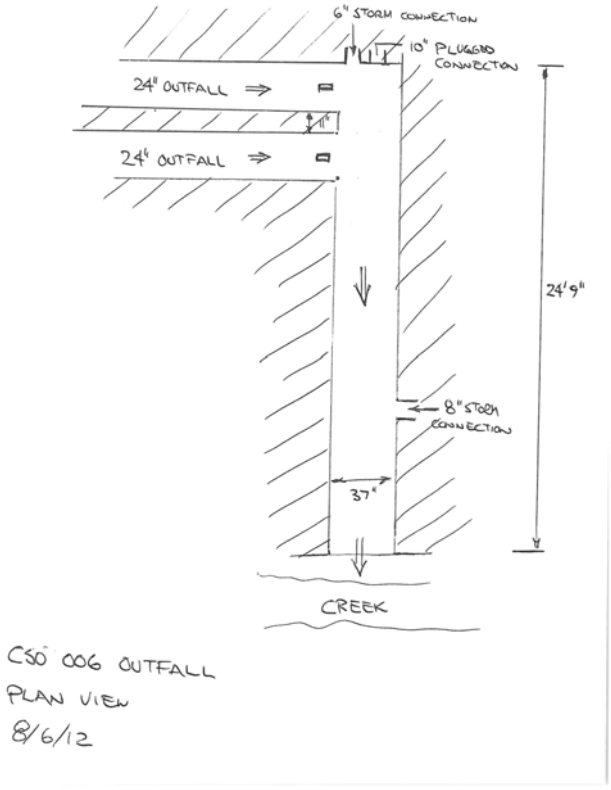
View of flow through influent line

View of flow through effluent line

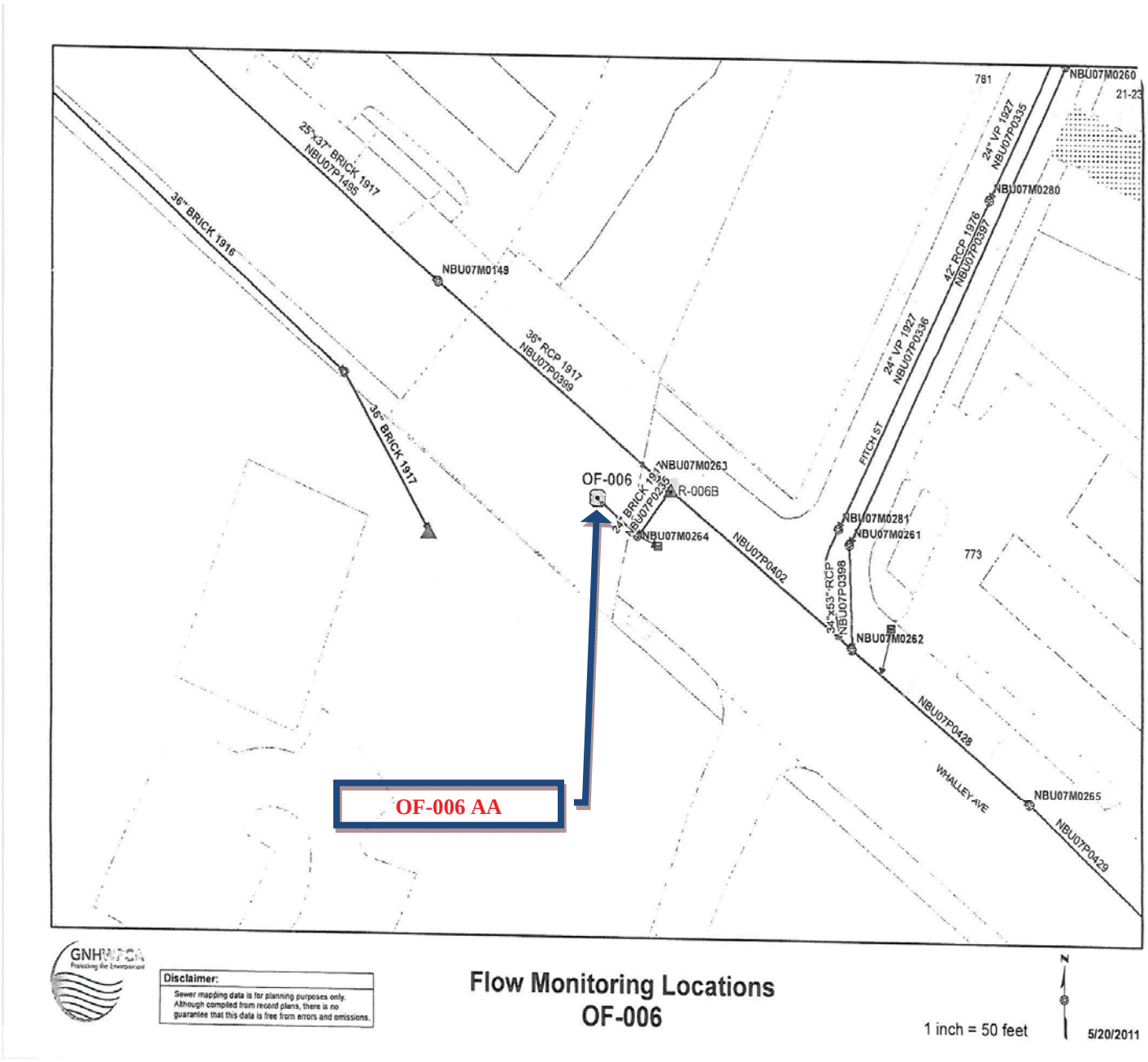
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-006 BB

Investigation Date: 8/3/12 Time: 8:00 Crew Members: RD/GM/AP

Installation Date: 8/3/12 Time: 11:00 Crew Members: RD/GM/AP

Address/Location: On Whalley Ave. & Fitch St., in the creek area

Latitude: N 41°19.458'' Longitude: W 72°57.465'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow: *Standing water*

Velocity 0.00 ft/sec

Depth 00.0 in

Turbulence Amplitude:

Less than 0.25"
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	24"		34"
Width	24"		37"
Material	Concrete/Steel		Brick
Shape	Round		Chamber

Sediment Present: *Trace*

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

No evidence visible
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
(Evidence unclear:) _____ft from rim

Gas Investigation:

(Good) ____ (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
(Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site))
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information: *Chamber*

Elevated Manhole: (Yes) No

Height above ground __
Manhole depth 6'5"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

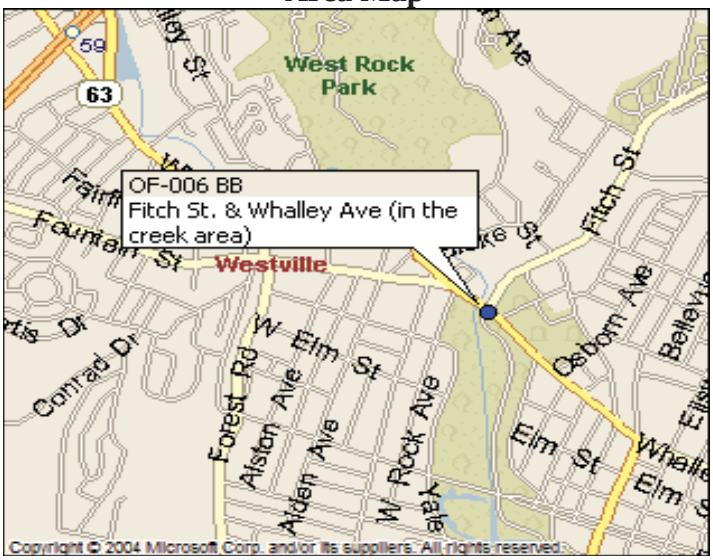
Sensor Configuration:

(Please include Serial Numbers when possible)

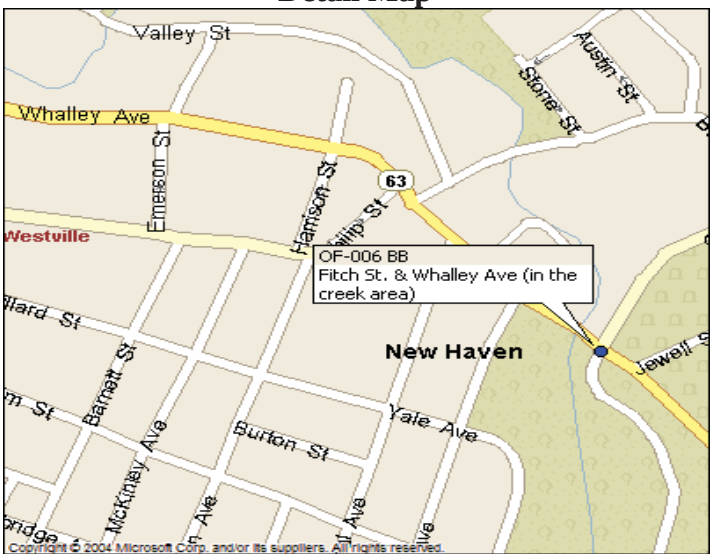
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293451

Comments:

Area Map



Detail Map



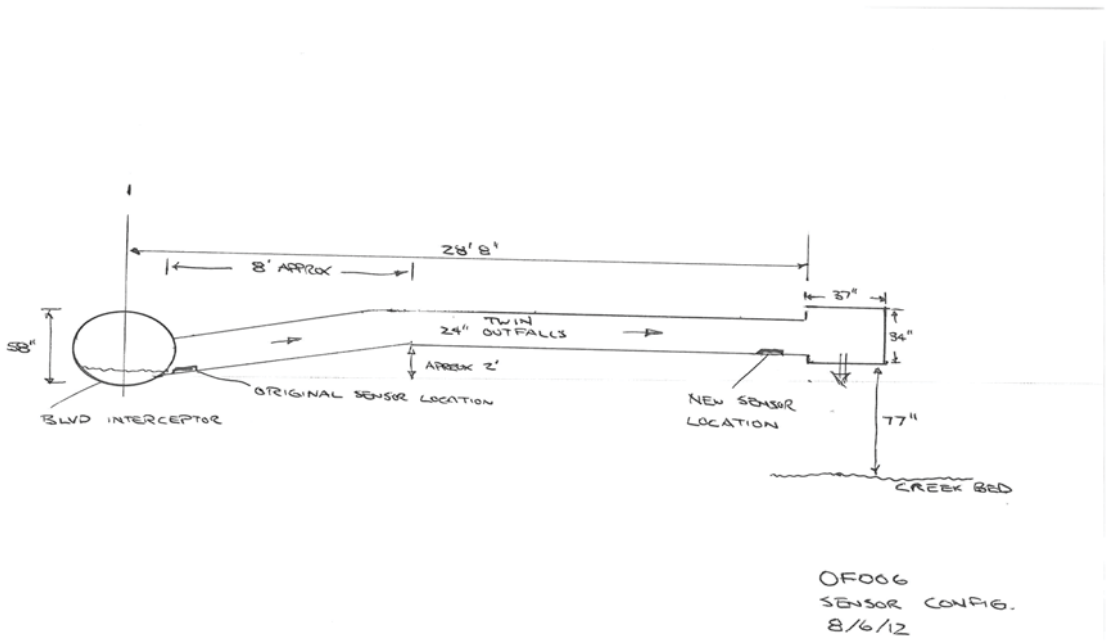
View from top of MH

Site Overview

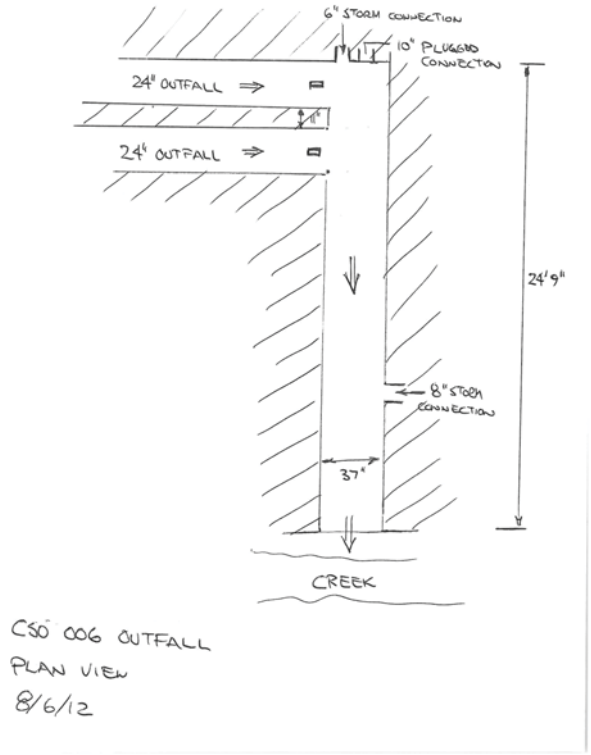
View of flow through influent line

View of flow through effluent line

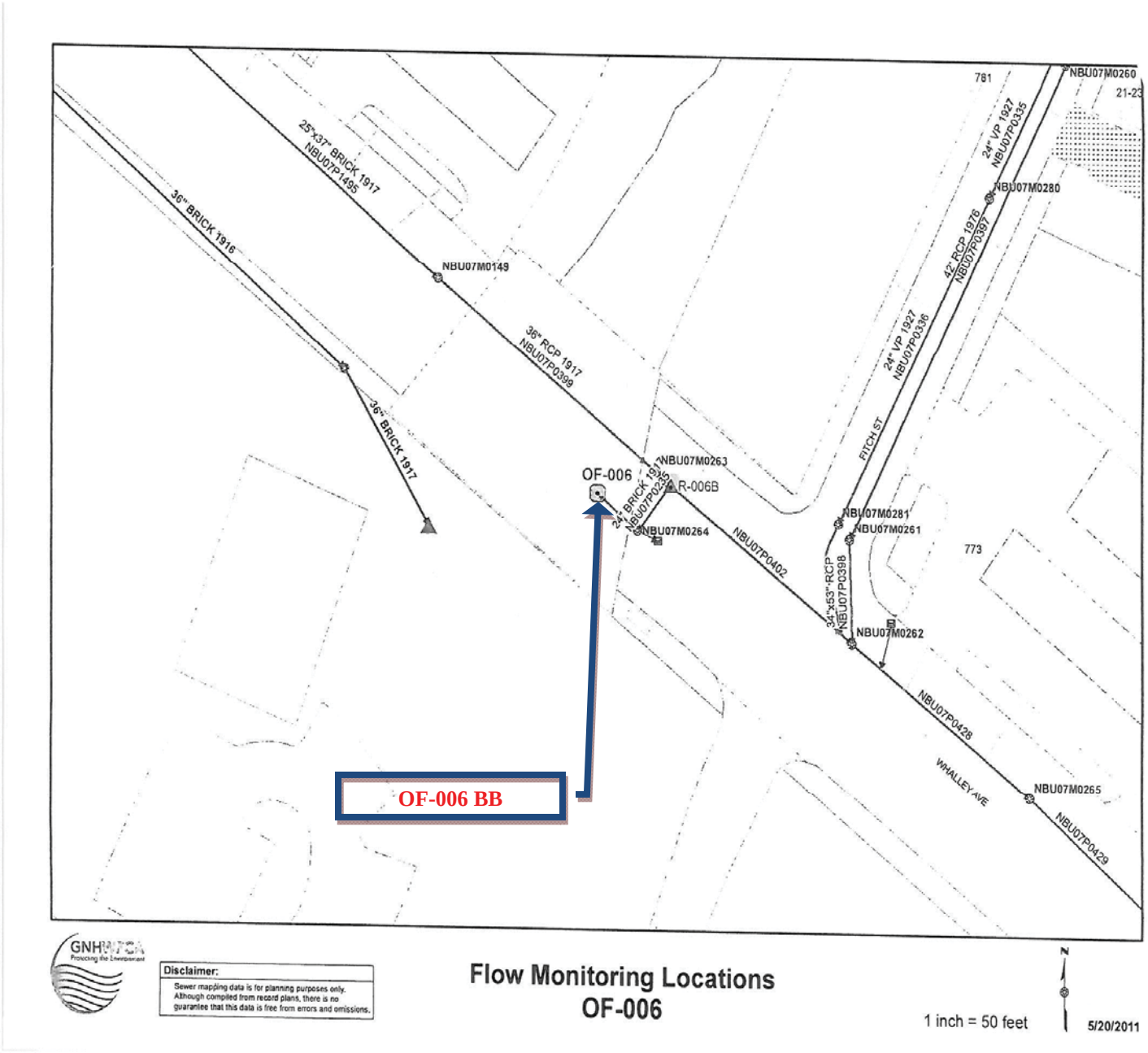
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-09

Investigation Date: 10/3/12 Time: 9:51 Crew Members: RD/LR/BW

Installation Date: 10/3/12 Time: 9:51 Crew Members: RD/LR/BW

Address/Location: Grand Avenue and James Street

Latitude: N 41°18.503' Longitude: W 72°54.229'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow: *Dry Pipe*

Velocity ____ ft/sec

Depth ____ in

Turbulence Amplitude: *Dry Pipe*

Less than 0.25"
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	36"		36"
Width	36"		36"
Material	Brick		
Shape	Round		Round

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

(Good (no problems accessing site))
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 21'6"
Structural Integrity of Manhole:
(Good) Fair Poor

Pipe Bends:

(Influent) Effluent (Manhole)
Approx Distance to bend: 5 ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

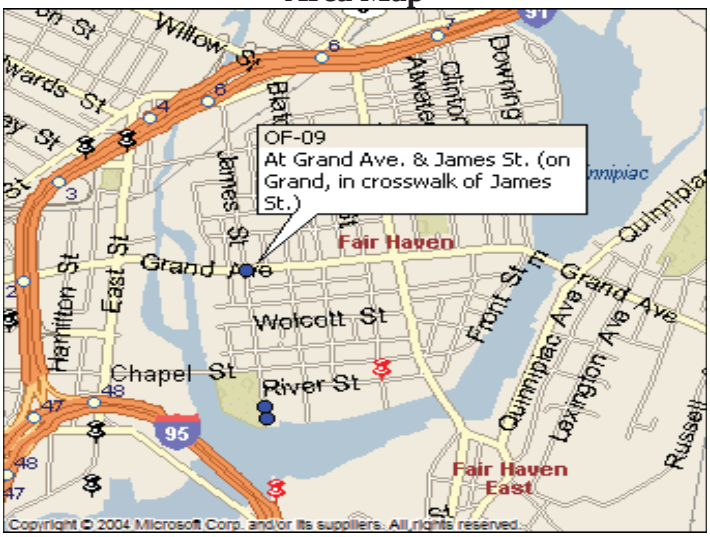
Sensor Configuration:

(Please include Serial Numbers when possible)

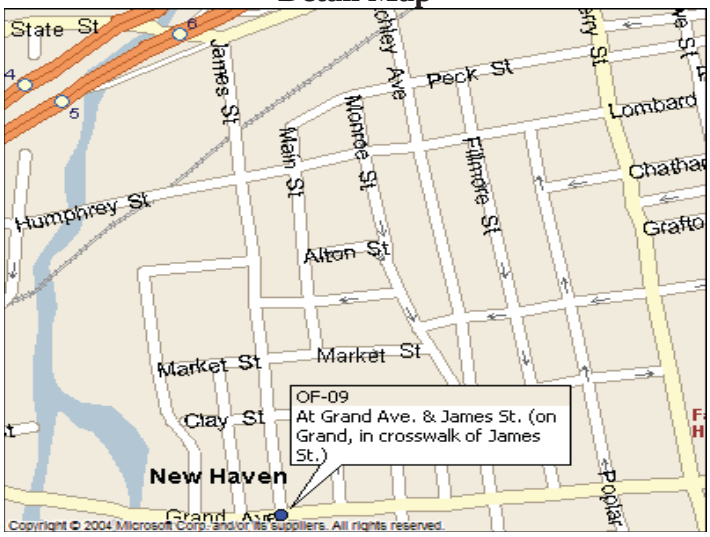
Level	Primary: Flo Wav 0912-625
	Redundant: Flo Wav 0812-631
Velocity	Primary: Flo Wav 0912-625
	Redundant: Flo Wav 0812-631
Meter Logger	293723

Comments:

Area Map



Detail Map



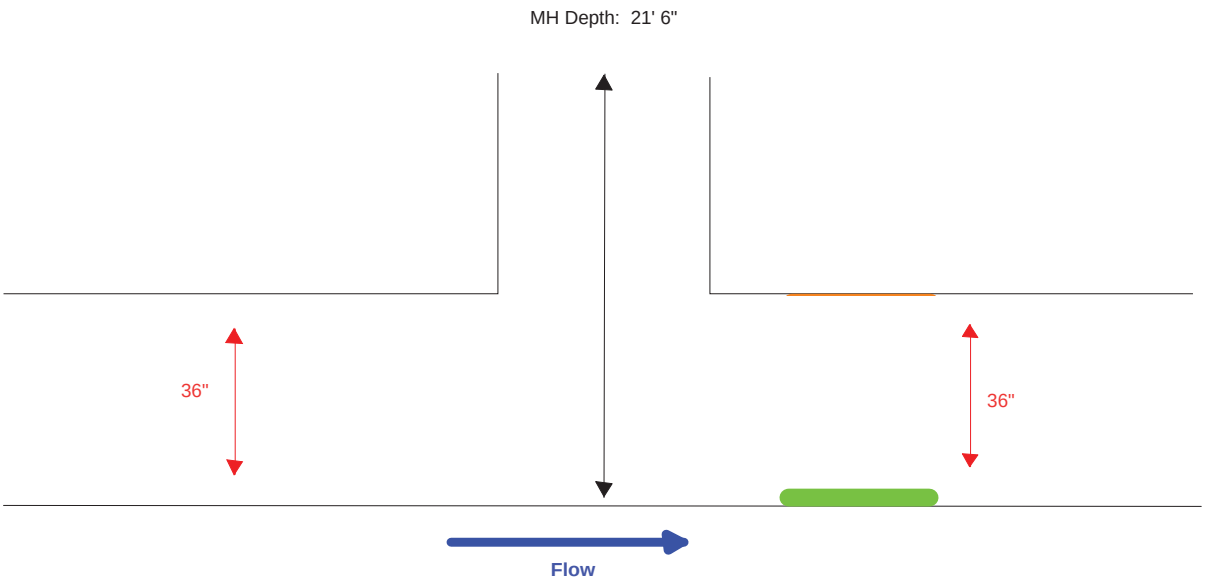
View from top of MH

Site Overview

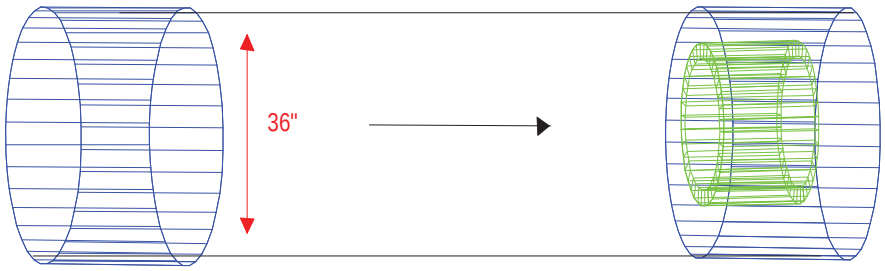
View of flow through influent line

View of flow through effluent line

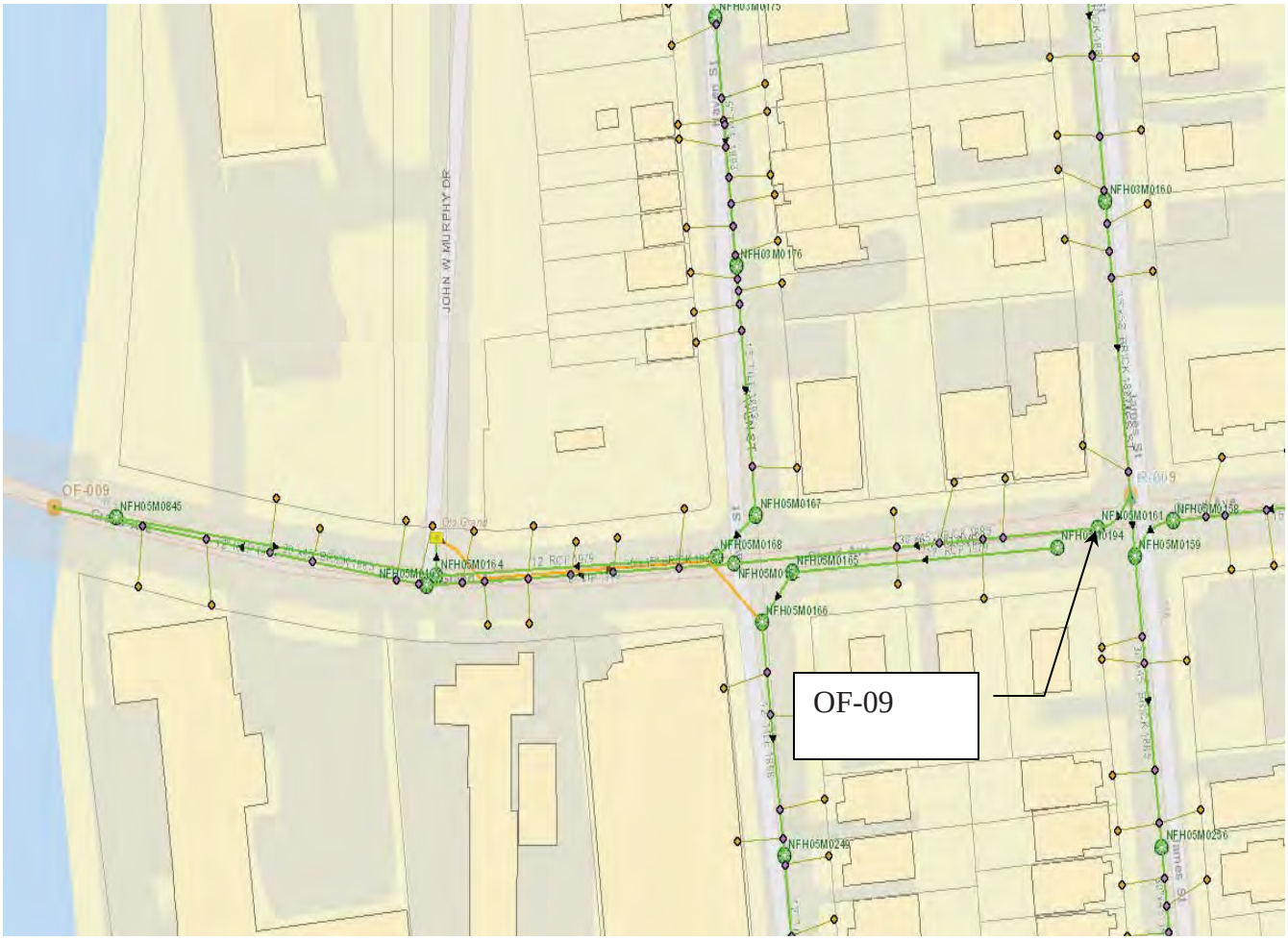
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-010A Sewer

Investigation Date: 8/1/12 Time: 13:00 Crew Members: RD/GM

Installation Date: 9/12/12 Time: 10:00 Crew Members: LR/CL

Address/Location: 547 East St. (under the overpass)

Latitude: N 41°18.846' Longitude: W 72°54.549'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow: *No flow*

Velocity 0.00 ft/sec

Depth 0.00 in

Turbulence Amplitude: *Standing water*

- ☐ Less than 0.25"
- ☐ 0.25" to 0.75"
- ☐ 0.75" to 1.5"
- ☐ 1.5" to 3"
- ☐ Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height			60"
Width			60"
Material			Concrete
Shape			Round

Sediment Present:

☐ Yes Hard packed: _____ in. deep

☐ (No) Soft: _____ in. deep

Surcharge / Backwater Influence:

- ☐ (No evidence visible)
- ☐ Remains in pipe
- ☐ _____ft from rim
- ☐ Reaches Rim (potential meter damage)
- ☐ Evidence unclear: _____ft from rim

Gas Investigation:

☐ (Good) 20.9 (condition)

Site Conditions

Site Access:

- ☐ Good (no problems accessing site)
- ☐ Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
- ☐ Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
- ☐ (Traffic Control only (Requires extra traffic control)
- ☐ Unusable (~~Document in Comments section~~)

Manhole Information:

Elevated Manhole: ☐ Yes ☐ (No)

Height above ground __

Manhole depth 15'

Structural Integrity of Manhole:

☐ (Good) ☐ Fair ☐ Poor

Pipe Bends: *None within camera view*

☐ Influent ☐ Effluent ☐ Manhole

Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

☐ Influent ☐ Effluent ☐ Manhole

Approx Distance to change:_____ft

(detail is comments)

Crew Member: Can you maintain this site?

☐ (Yes) ☐ No ☐ Maybe

Sensor Configuration:

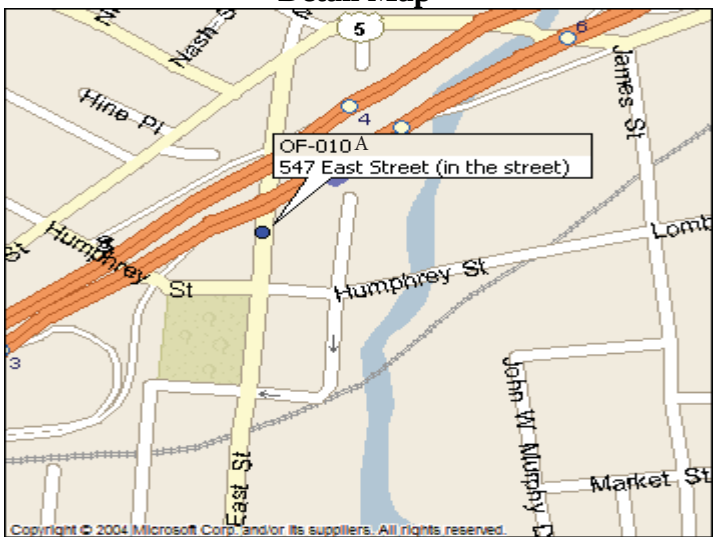
(Please include Serial Numbers when possible)

Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293667

Comments:

Area Map

Detail Map



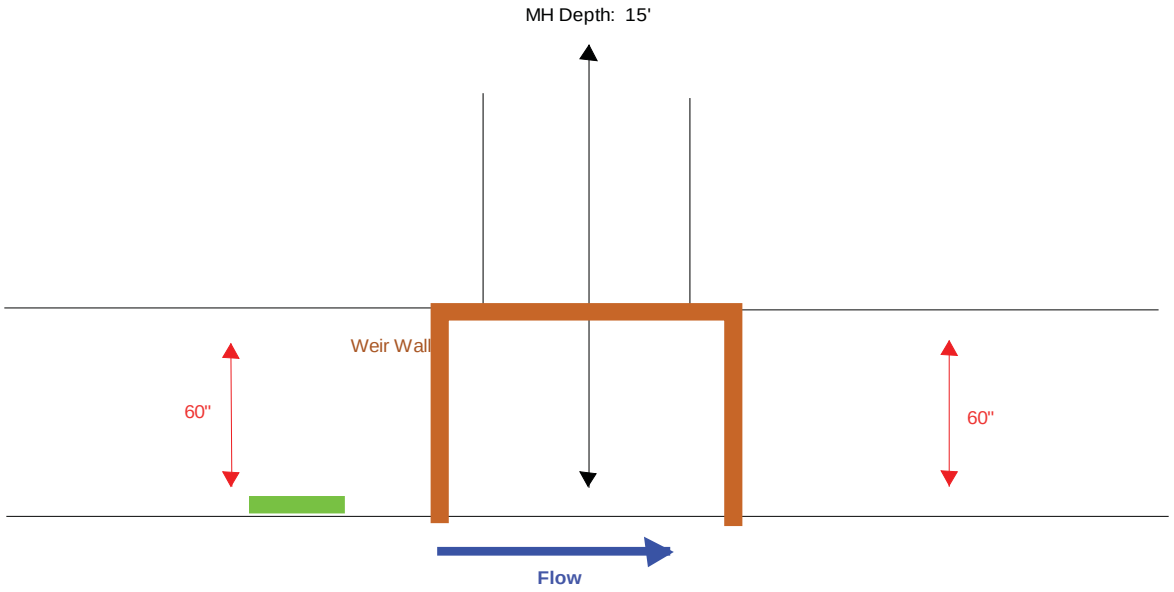
View from top of MH

Site Overview

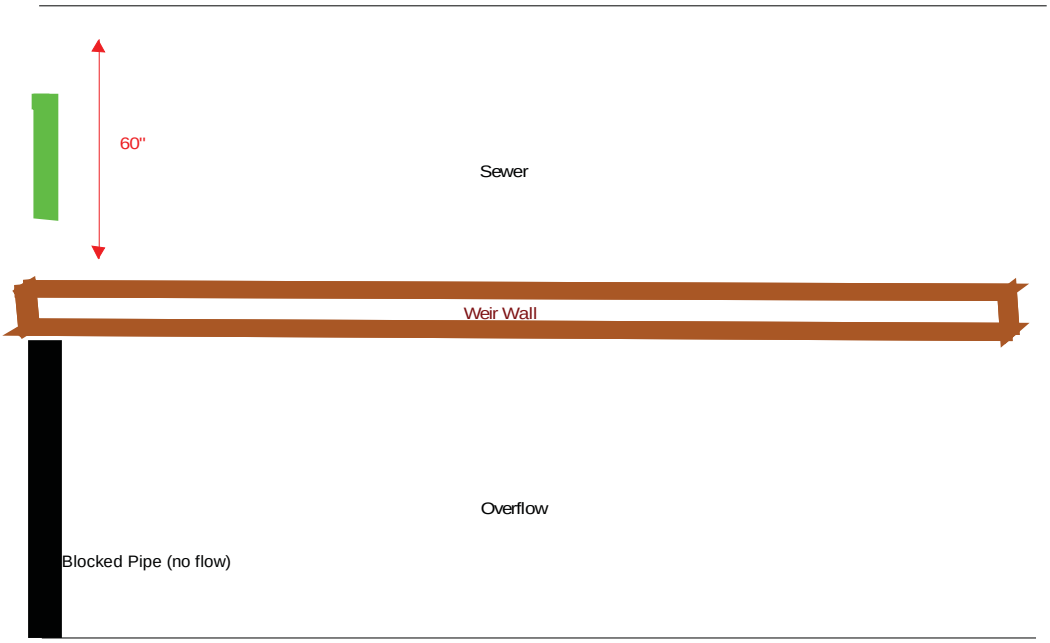
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View

Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # OF-11-631

Investigation Date: 12/4/12 Time: 11:33 Crew Members: LR/RW/RD

Installation Date: 12/4/12 Time: 11:33 Crew Members: LR/RW/RD

Address/Location: 855 State Street (intersection of Clark & State Sts.)

Latitude: N 41°18.808' Longitude: W 72°54.784'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 1.90 ft/sec

Depth 12.0 in ± .25"

Turbulence Amplitude:

- ☐ Less than 0.25"
- ☐ (0.25" to 0.75")
- ☐ 0.75" to 1.5"
- ☐ 1.5" to 3"
- ☐ Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	36"	64"	64"
Width	24"	70"	70"
Material	Brick	Brick	Brick
Shape	Egg	Odd	Odd

Sediment Present:

- ☐ (Yes) Hard packed: _____ in. deep
- ☐ No Soft: _____3_____ in. deep

Surcharge / Backwater Influence:

- ☐ (No evidence visible)
- ☐ Remains in pipe
- ☐ _____ft from rim
- ☐ Reaches Rim (potential meter damage)
- ☐ Evidence unclear: _____ft from rim

Gas Investigation:

☐ (Good) 20.9 (condition)

Site Conditions

Site Access:

- ☐ Good (no problems accessing site)
- ☐ Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
- ☐ Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
- ☐ (Traffic Control only (Requires extra traffic control)
- ☐ Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: ☐ Yes ☐ (No)

Height above ground __

Manhole depth 16'2"

Structural Integrity of Manhole:

☐ Good ☐ (Fair) ☐ Poor

Pipe Bends: *None within camera view*

☐ Influent ☐ Effluent ☐ Manhole

Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

☐ Influent ☐ Effluent ☐ Manhole

Approx Distance to change:_____ft

(detail is comments)

Crew Member: Can you maintain this site?

☐ (Yes) ☐ No ☐ Maybe

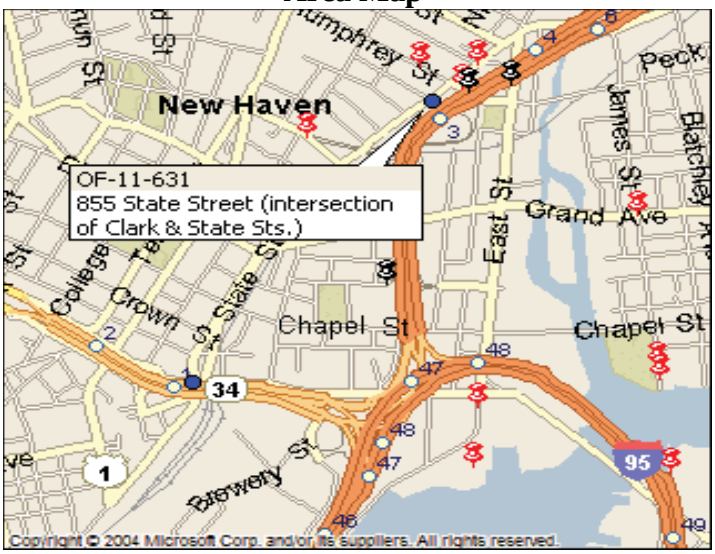
Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary: 0812-613
	Redundant:
Velocity	Primary: 0812-643
	Redundant:
Meter Logger	293733

Comments:

Area Map



Detail Map

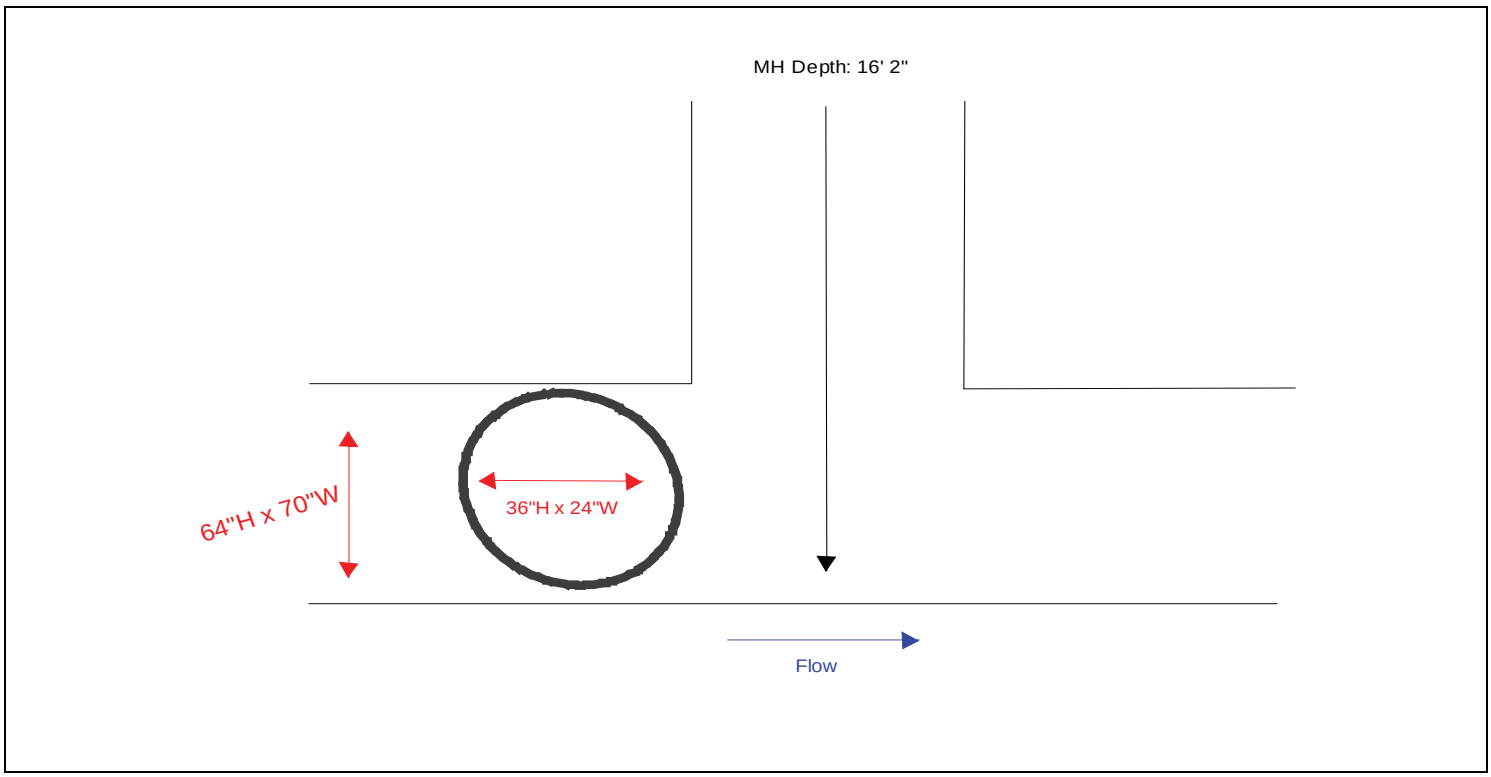
View from top of MH

Site Overview

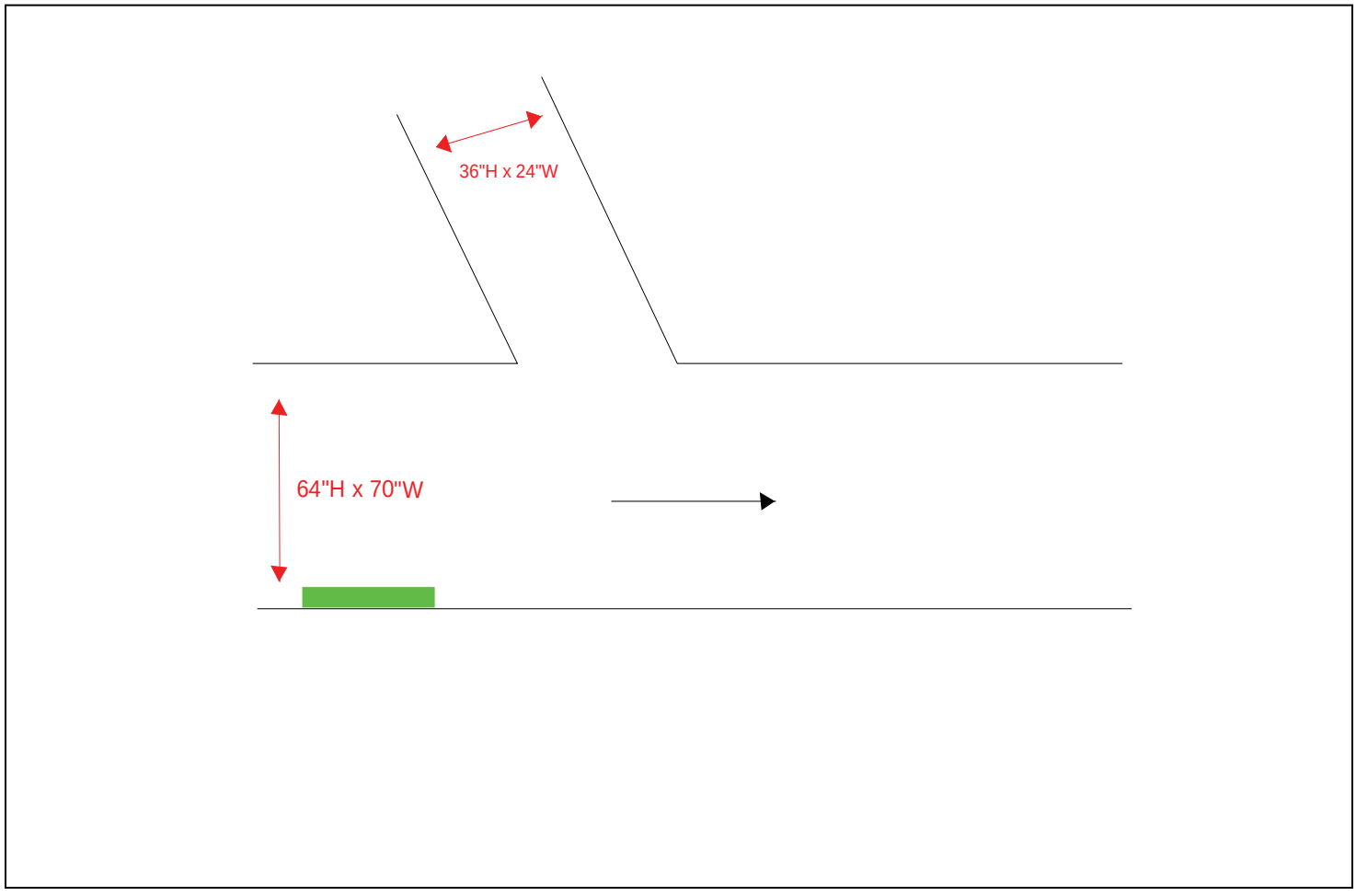
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # OF-11-819

Investigation Date: 12/4/12 Time: 15:42 Crew Members: LR/RW/RD

Installation Date: 12/4/12 Time: 15:42 Crew Members: LR/RW/RD

Address/Location: In the sidewalk on Humphrey Street, at the bottom of I-91 Exit 4 off-ramp

Latitude: N 41°18.838' Longitude: W 72°54.705'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 2.13 ft/sec

Depth 11.25 to 11.50 in

Turbulence Amplitude:

- ☐ Less than 0.25"
- ☑ 0.25" to 0.75"
- ☐ 0.75" to 1.5"
- ☐ 1.5" to 3"
- ☐ Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	42"		42"
Width	42"		42"
Material	RCP		RCP
Shape	Round		Round

Sediment Present:

- ☑ Yes Hard packed: 2 in. deep
- ☐ No Soft: _____ in. deep

Surcharge / Backwater Influence:

- ☑ No evidence visible
- ☐ Remains in pipe
- ☐ _____ft from rim
- ☐ Reaches Rim (potential meter damage)
- ☐ Evidence unclear: _____ft from rim

Gas Investigation:

☑ Good 20.9 (condition)

Site Conditions

Site Access:

- ☑ Good (no problems accessing site)
- ☐ Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
- ☐ Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
- ☐ Traffic Control only (Requires extra traffic control
- ☐ Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: ☐ Yes ☑ No

Height above ground __

Manhole depth 16'4"

Structural Integrity of Manhole:

☐ Good ☑ Fair ☐ Poor

Pipe Bends:

Influent ☐ Effluent ☐ Manhole

Approx Distance to bend: 0 ft

Pipe Size/Geometry/Material Change:

☐ Influent ☐ Effluent ☐ Manhole

Approx Distance to change:_____ft

(detail is comments)

Crew Member: Can you maintain this site?

☑ Yes ☐ No ☐ Maybe

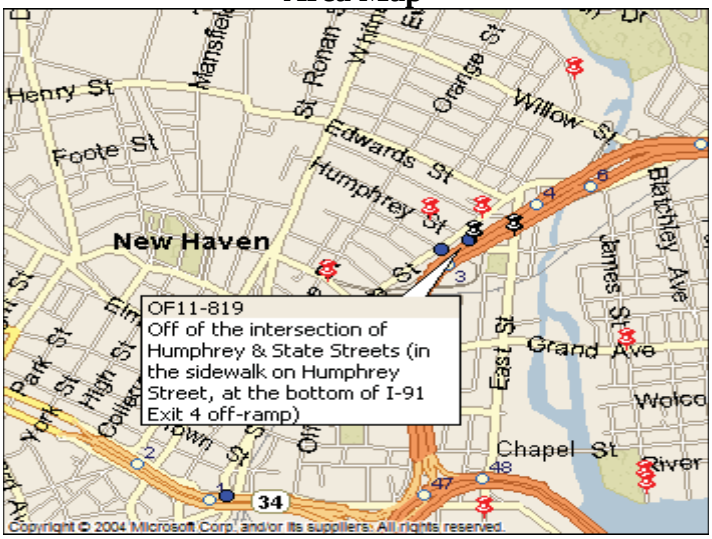
Sensor Configuration:

(Please include Serial Numbers when possible)

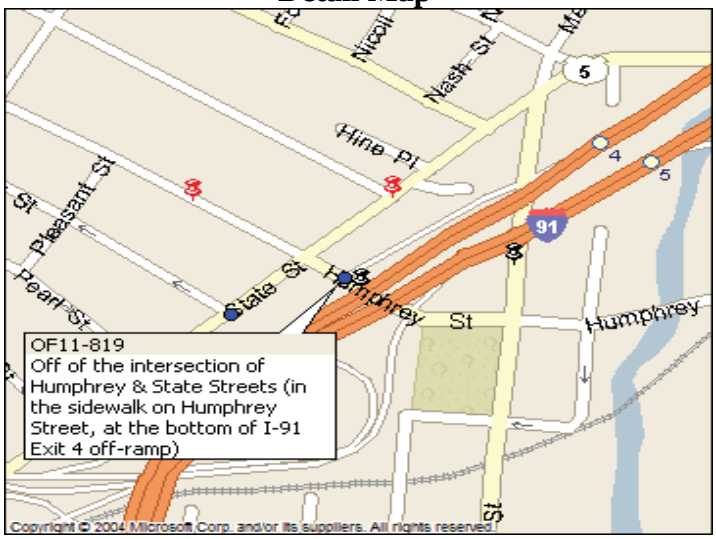
Level	Primary: 1012-724
	Redundant:
Velocity	Primary: 1012 -724
	Redundant:
Meter Logger	293726

Comments:

Area Map



Detail Map



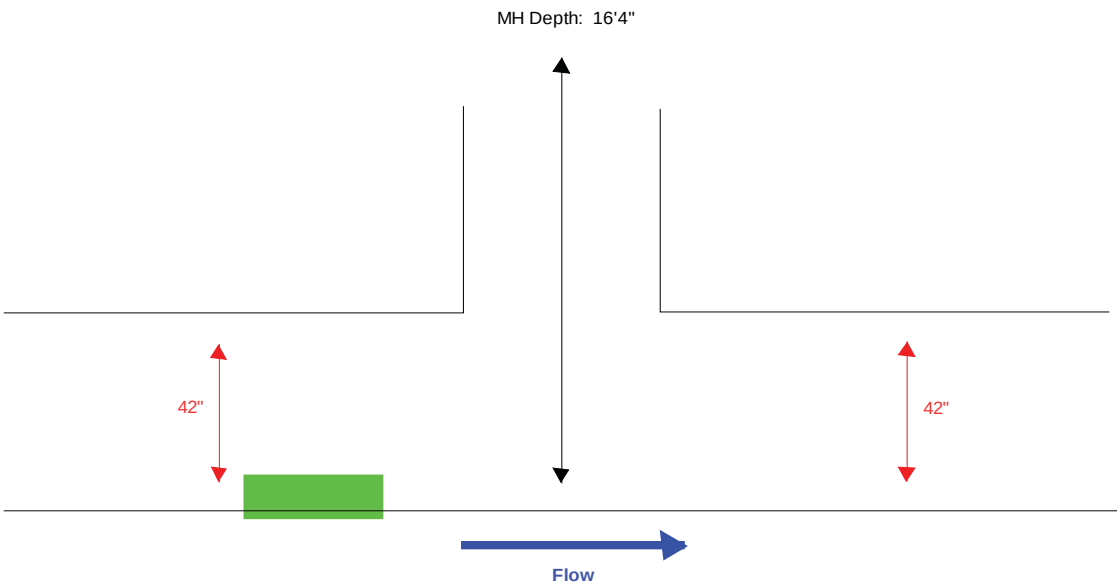
View from top of MH

Site Overview

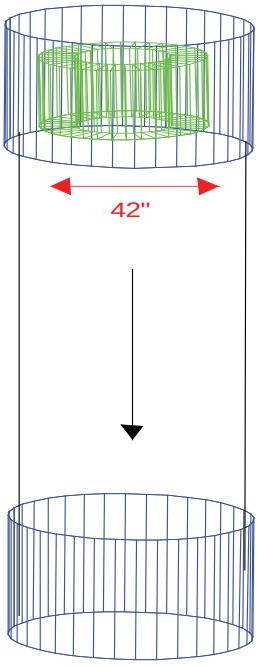
View of flow through influent line

View of flow through effluent line

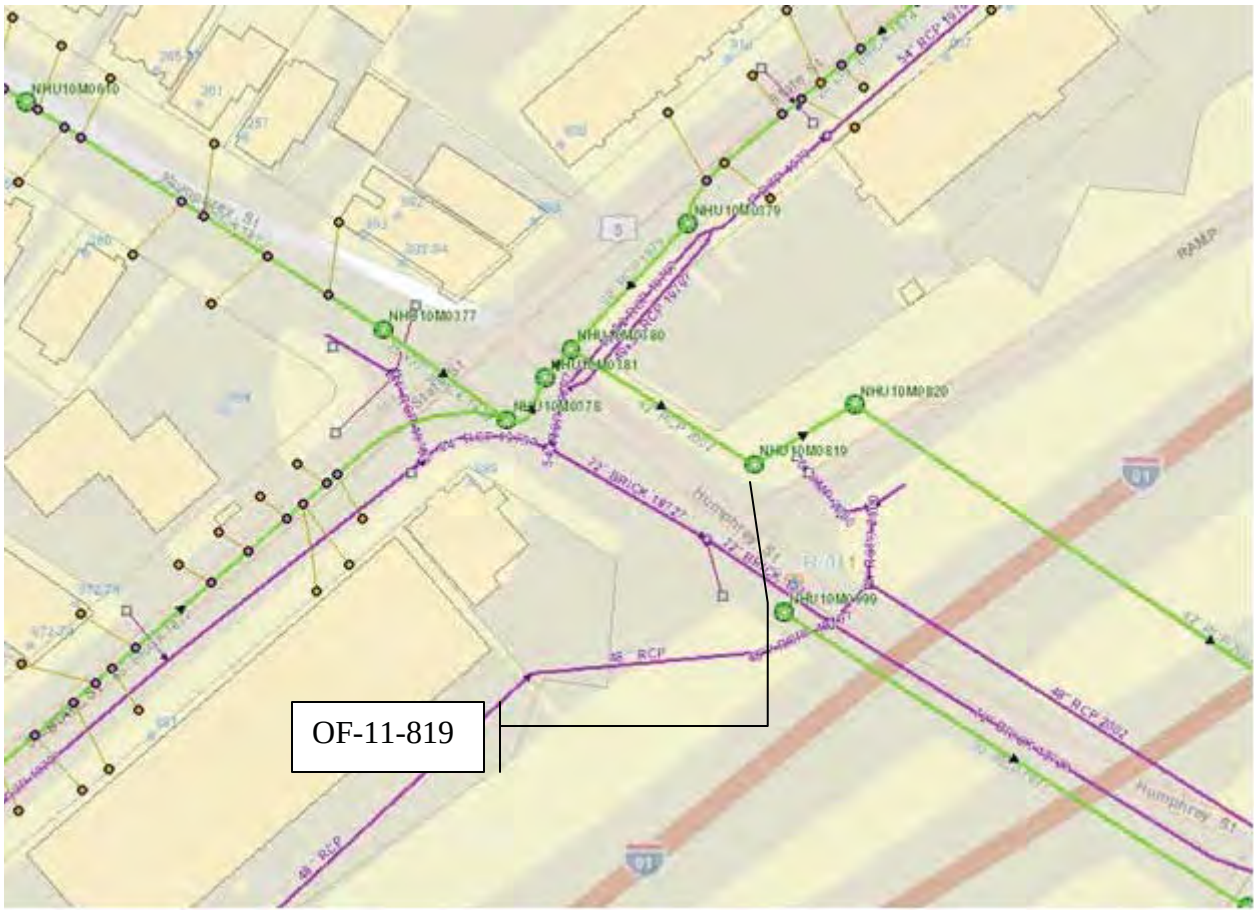
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF 012A

Investigation Date: 7/11/12 Time: 15:58 Crew Members: RD/LR/KE

Installation Date: 8/13/12 Time: 15:00 Crew Members: RD/LR/KE

Address/Location: 75 Mitchell Drive (across from Wilbur Cross Field)

Latitude: N 41°19.254' Longitude: W 72°54.350'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow: *Dry pipe*

Velocity ____ ft/sec

Depth ____ in

Turbulence Amplitude: *NA*

Less than 0.25"
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	24"		36"
Width	24"		36"
Material	Concrete		Brick
Shape	Round		Round

Sediment Present:

Yes Hard packed: _____in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good ~~(no problems accessing site)~~
(Fair) (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 7'6"
Structural Integrity of Manhole:
(Good) Fair Poor

Pipe Bends: *Drop-in (2 tiers)*

(Influent) Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

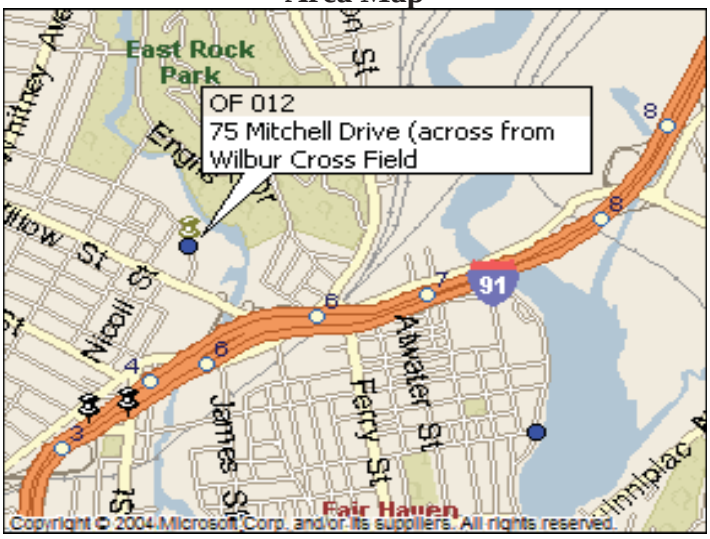
Sensor Configuration:

(Please include Serial Numbers when possible)

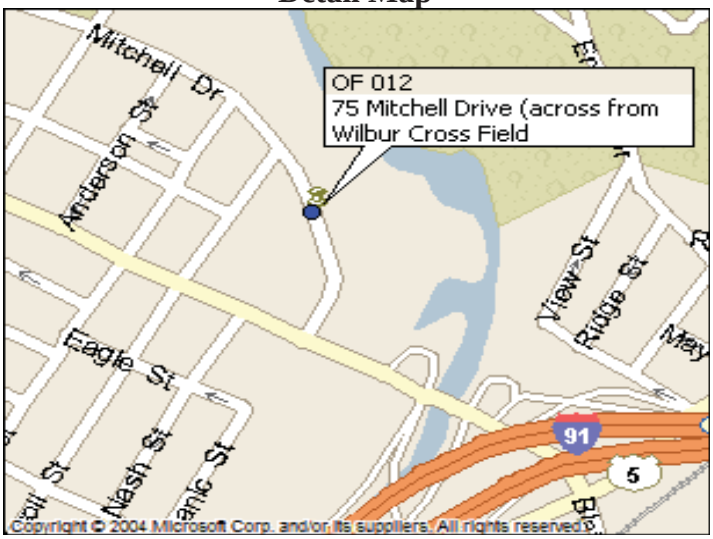
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293698

Comments: *MH is located in the grass next to the sidewalk*

Area Map



Detail Map



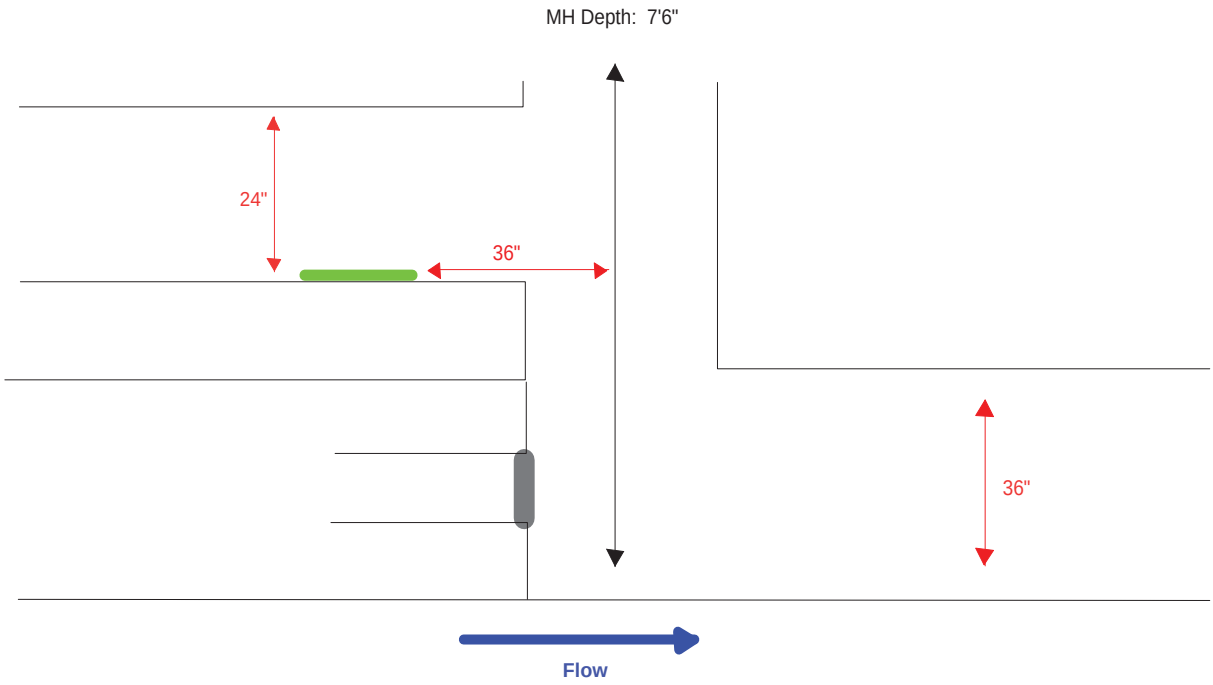
View from top of MH

Site Overview

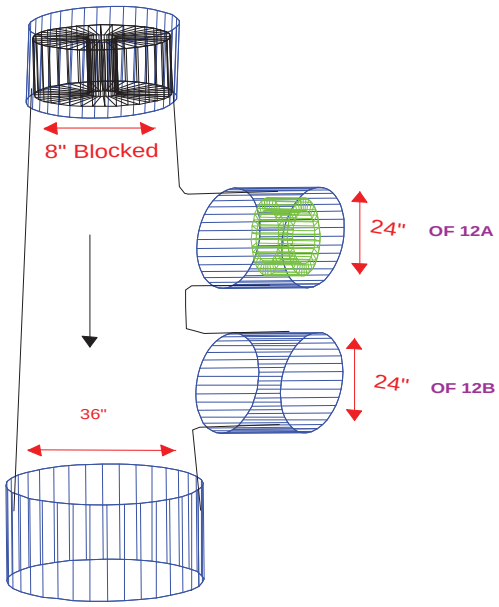
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Name / Manhole # OF-012B

Investigation Date: 7/11/12 Time: 15:58 Crew Members: RD/LR/KE

Installation Date: 8/13/12 Time: 15:00 Crew Members: RD/LR/KE

Address/Location: 75 Mitchell Drive (across from Wilbur Cross Field)

Latitude: N 41°19.254' Longitude: W 72°54.350'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow: *Dry pipe*

Velocity ____ ft/sec

Depth ____ in

Turbulence Amplitude: *NA*

Less than 0.25"
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	24"		36"
Width	24"		36"
Material	Concrete		Concrete
Shape	Round		Brick

Sediment Present:

Yes Hard packed: _____in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) ___ (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
(Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site))
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 7'6"
Structural Integrity of Manhole:
(Good) Fair Poor

Pipe Bends: *Drop-in (2 tiers)*

(Influent) Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

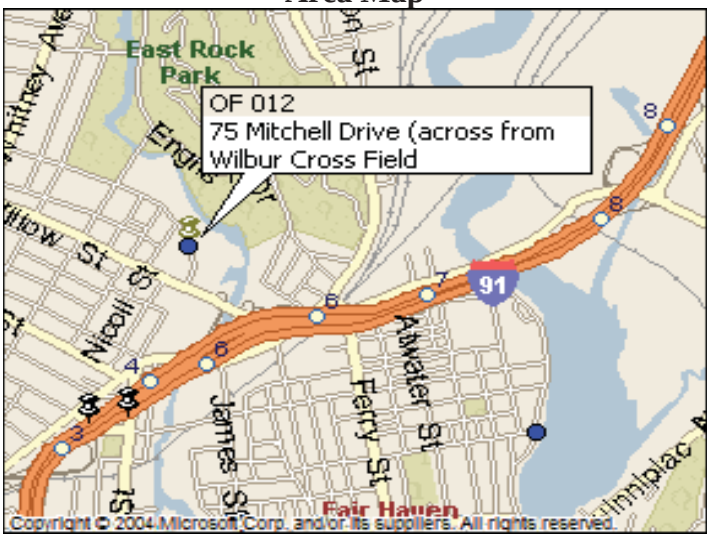
Sensor Configuration:

(Please include Serial Numbers when possible)

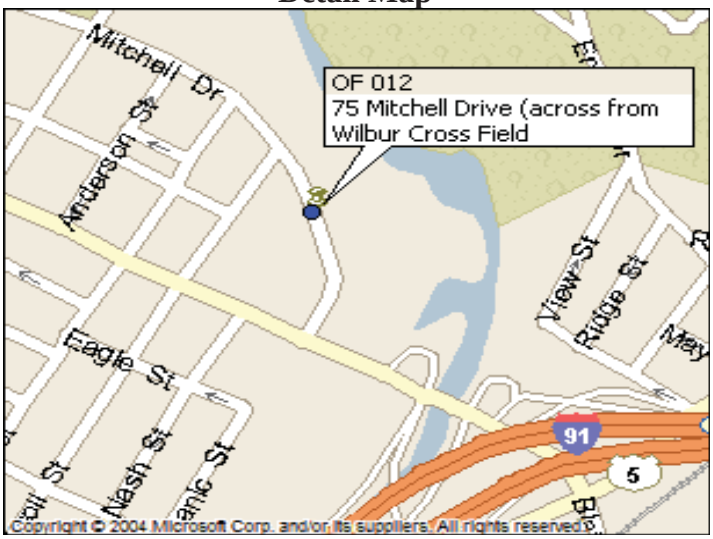
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293702

Comments: *MH is located in the grass next to the sidewalk*

Area Map



Detail Map



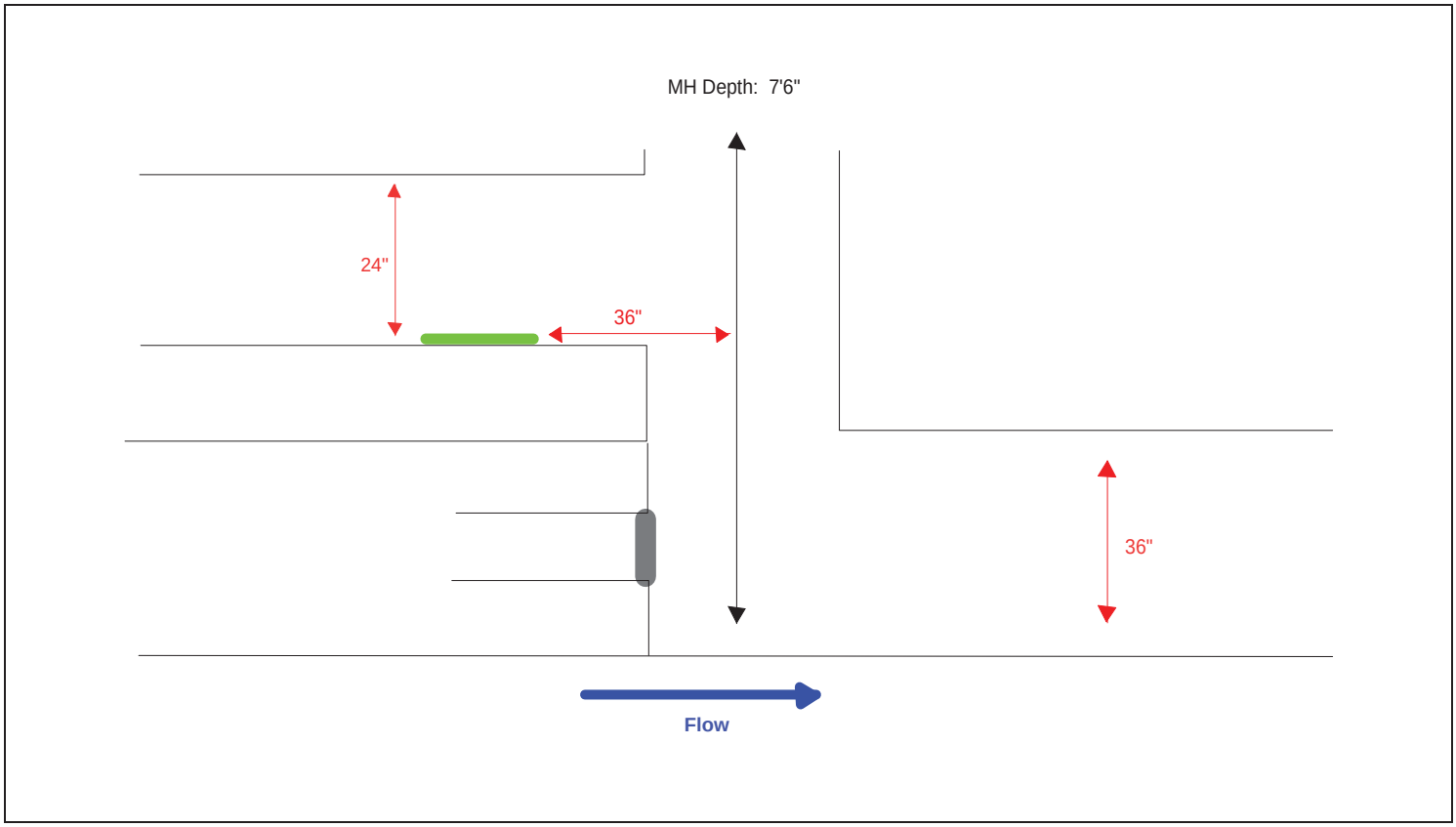
View from top of MH

Site Overview

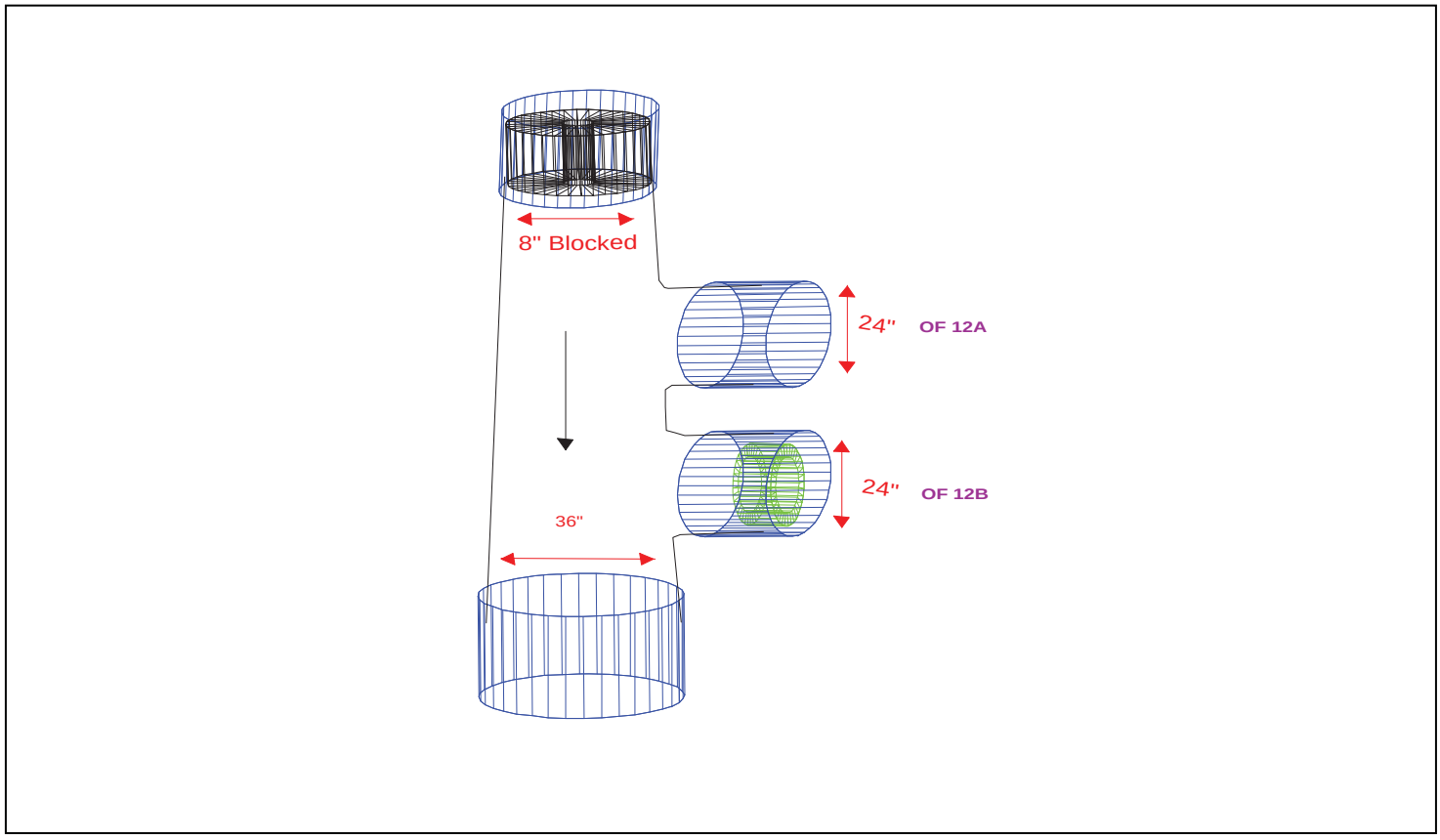
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Name / Manhole # OF-15 DS

Investigation Date: 10/3/12 Time: 15:30 Crew Members: RD/LR/RW

Installation Date: 10/3/12 Time: 15:30 Crew Members: RD/LR/RW

Address/Location: End of James Street

Latitude: N 41°18.123' Longitude: W 72°54.135'

Weather Conditions: (Wet) Dry

Hydraulic Conditions

Influent Flow:

Velocity 0.74 ft/sec

Depth 18.0 in

Turbulence Amplitude:

Less than 0.25"
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	46"		48"
Width	46"		48"
Material	Brick		Concrete
Shape	Round		Round

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

No evidence visible
(Remains in pipe)
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

(Good (no problems accessing site))
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 9'4"
Structural Integrity of Manhole:
(Good) Fair Poor

Pipe Bends: *None within camera view*

(Influent) Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

(Influent) Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

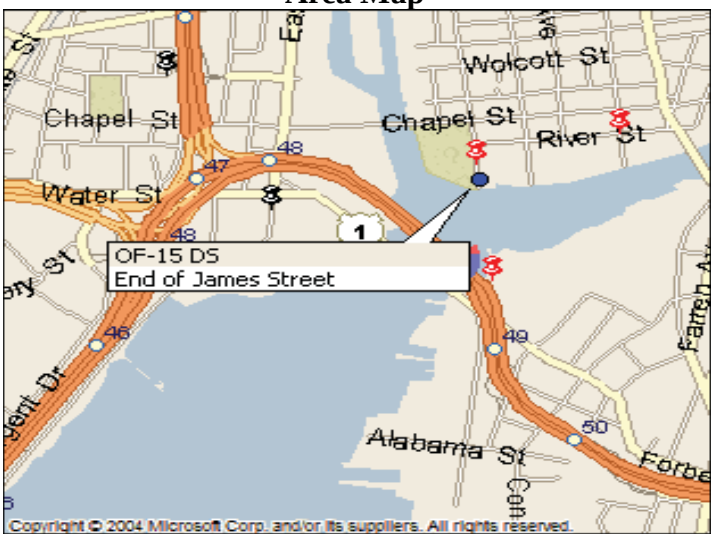
Sensor Configuration:

(Please include Serial Numbers when possible)

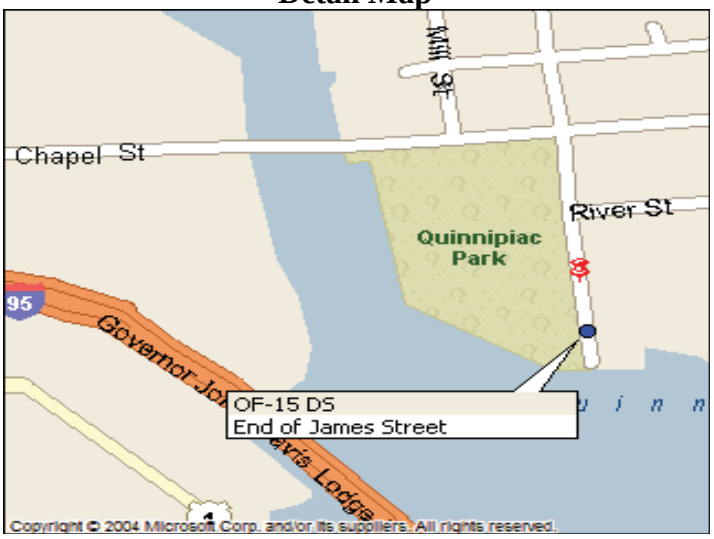
Level	Primary: 0812-629
	Redundant: 0812-637
Velocity	Primary: 0812-629
	Redundant: 0812-637
Meter Logger	Triton 293721

Comments:

Area Map



Detail Map



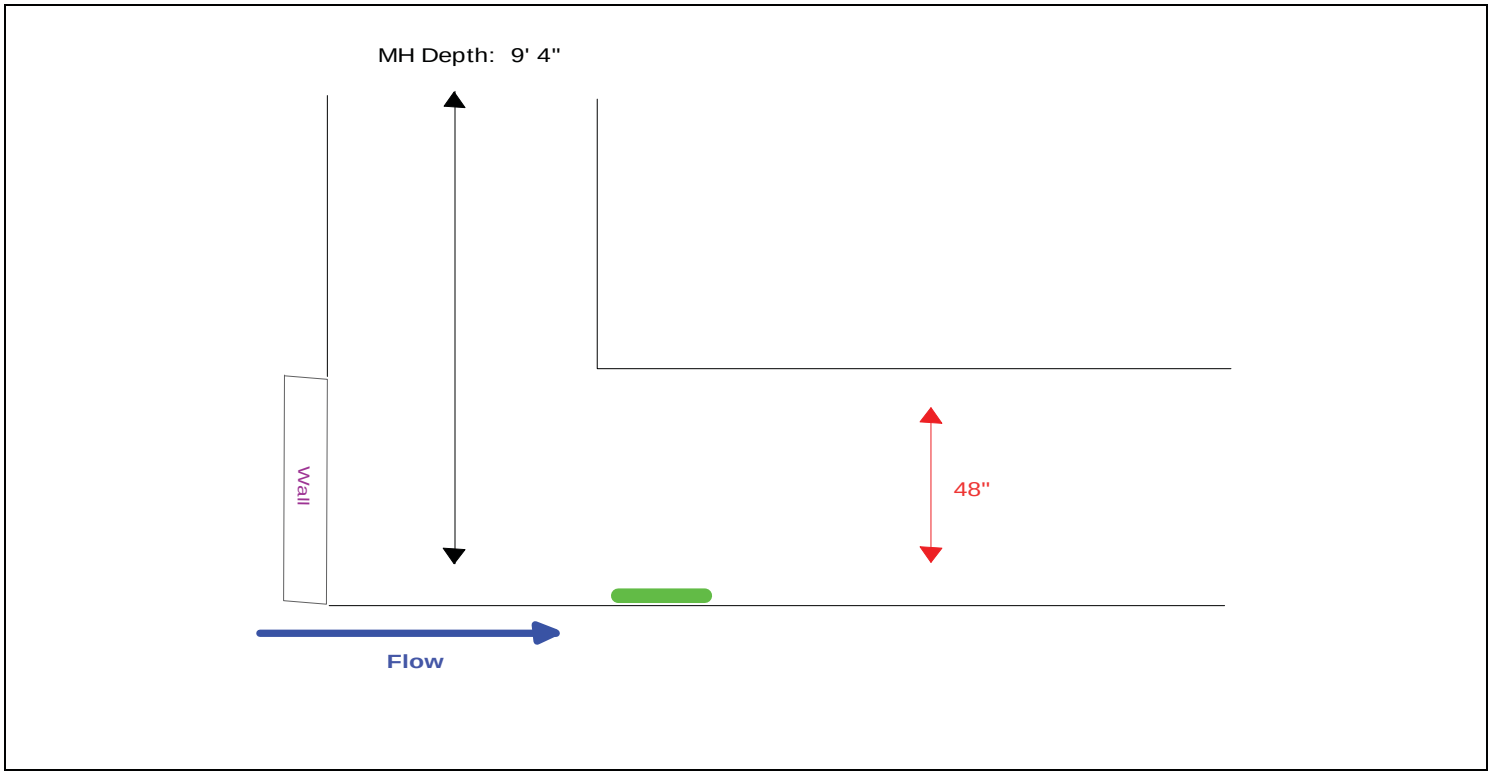
View from top of MH

Site Overview

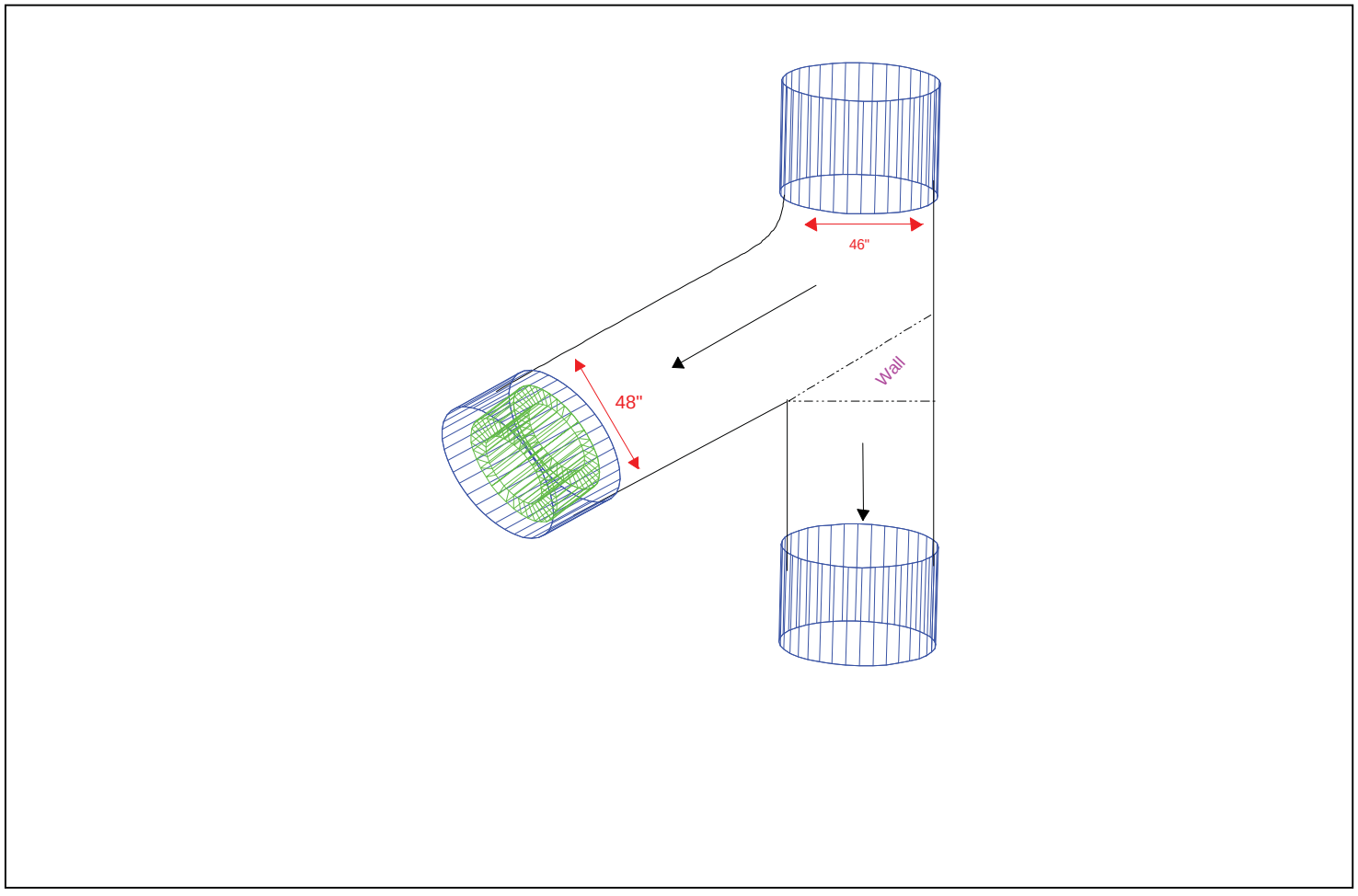
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Name / Manhole # OF-15 US

Investigation Date: 10/3/12 Time: 12:30 Crew Members: RD/LR/RW

Installation Date: 10/3/12 Time: 12:30 Crew Members: RD/LR/RW

Address/Location: 15 James Street

Latitude: N 41°18.123' Longitude: W 72°54.135'

Weather Conditions: (Wet) Dry

Hydraulic Conditions

Influent Flow:

Velocity 0.94 ft/sec

Depth 23.5 in

Turbulence Amplitude:

(Less than 0.25")
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	46"		
Width	46"		
Material	Brick		
Shape	Round		

Sediment Present:

(Yes) Hard packed: _____ in. deep
No (Soft:) __trace___ in. deep

Surcharge / Backwater Influence:

No evidence visible
(Remains in pipe)
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

(Good (no problems accessing site))
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 9'4"
Structural Integrity of Manhole:
(Good) Fair Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

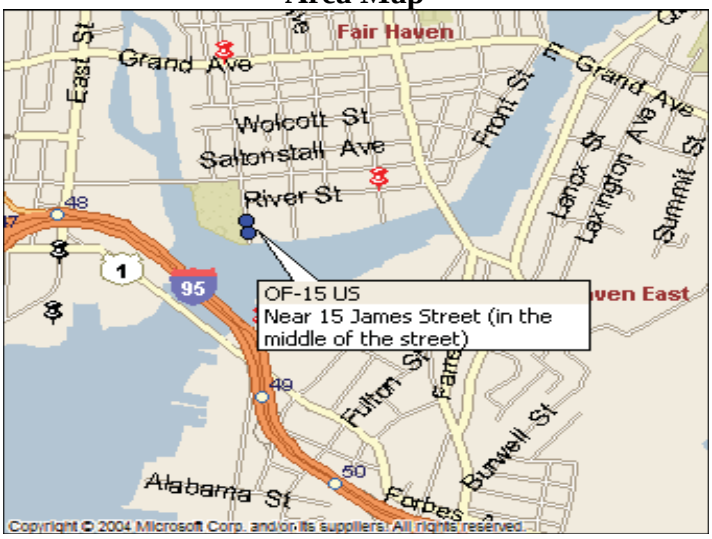
Sensor Configuration:

(Please include Serial Numbers when possible)

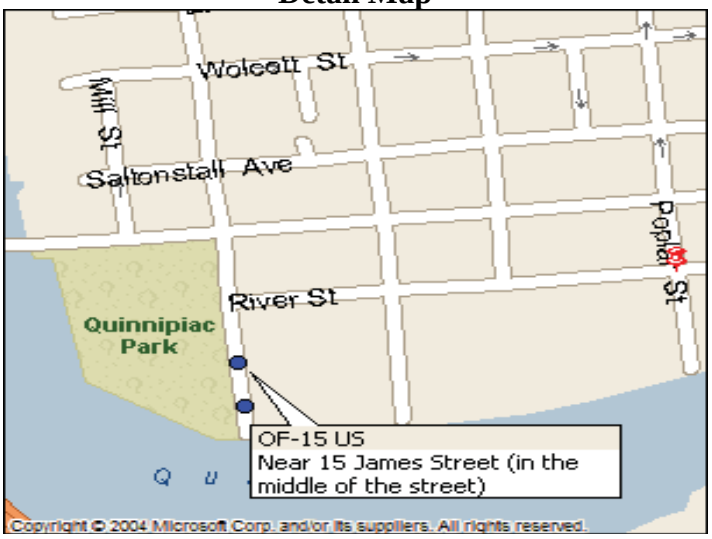
Level	Primary: 0912-624
	Redundant: 0812-633
Velocity	Primary: 0912-624
	Redundant: 0812-633
Meter Logger	Triton 293722

Comments:

Area Map



Detail Map



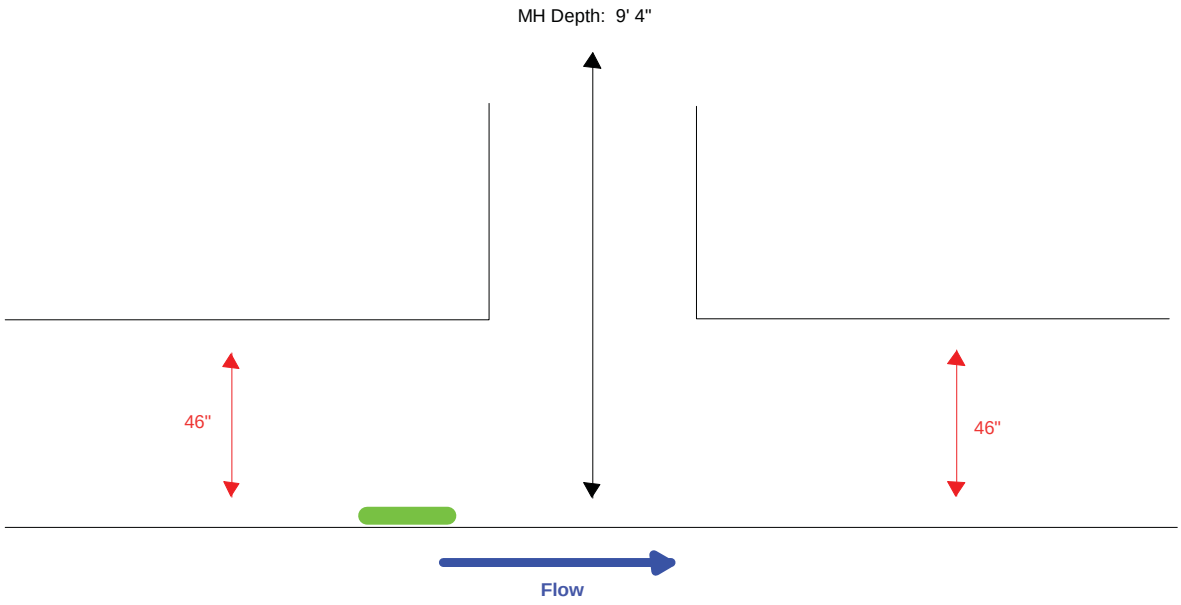
View from top of MH

Site Overview

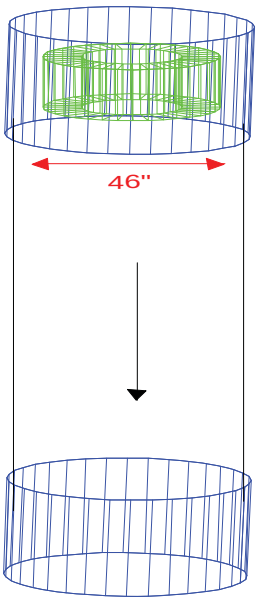
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Name / Manhole # OF-016

Investigation Date: 8/1/12 Time: 12:00 Crew Members: RD/GM

Installation Date: 8/30/12 Time: 14:00 Crew Members: RD/LR/KE

Address/Location: Intersection of Poplar & River Sts. (in the crosswalk of Poplar St.)

Latitude: N 41°18.189' Longitude: W 72°53.772'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow: *Standing water*

Velocity 0.00 ft/sec

Depth ____ in

Turbulence Amplitude:

Less than 0.25"
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	48"		48"
Width	60.5"		60.5"
Material	Brick		Brick
Shape	Odd		Odd

Sediment Present: *not measurable*

(Yes) Hard packed: _____ in. deep
No (Soft:) _____ in. deep

Surcharge / Backwater Influence:

No evidence visible
(Remains in pipe)
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) _____(condition)

Site Conditions

Site Access:

Good (no problems accessing site)
(Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site))
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 7'7"
Structural Integrity of Manhole:
(Good) Fair Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

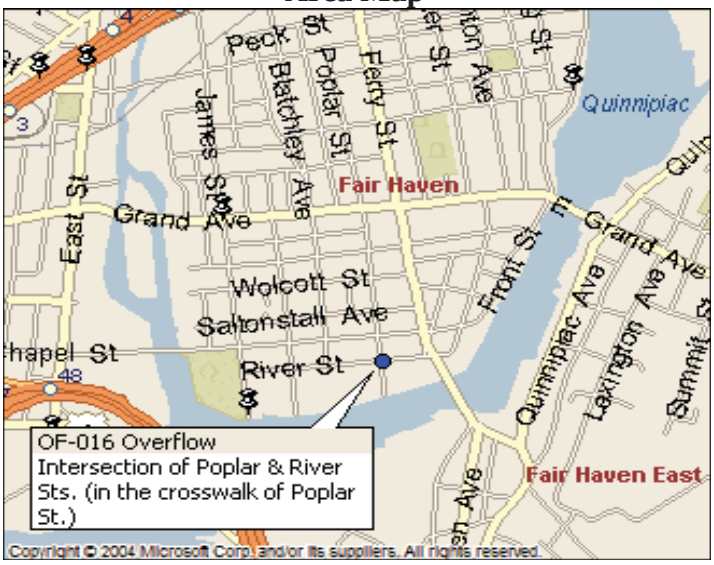
Sensor Configuration:

(Please include Serial Numbers when possible)

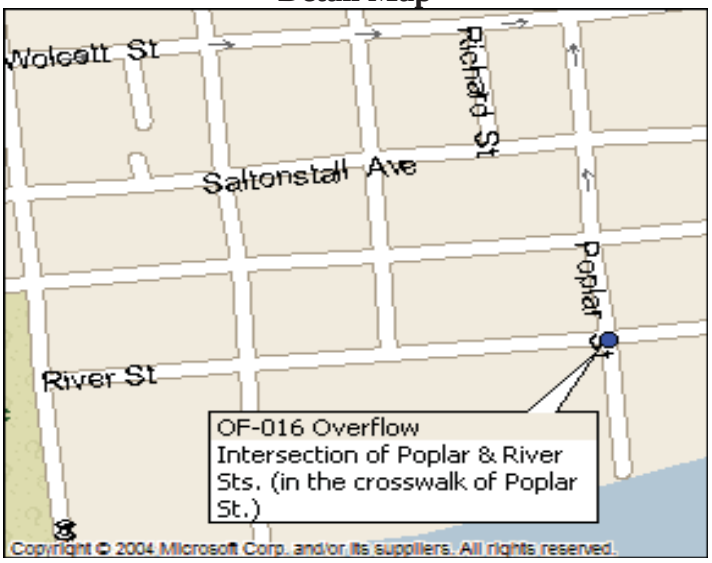
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293706

Comments: *Sensors 5' down pipe, 15' DS from weir wall facing upstream 1) 5:50 2) 6:10*

Area Map



Detail Map



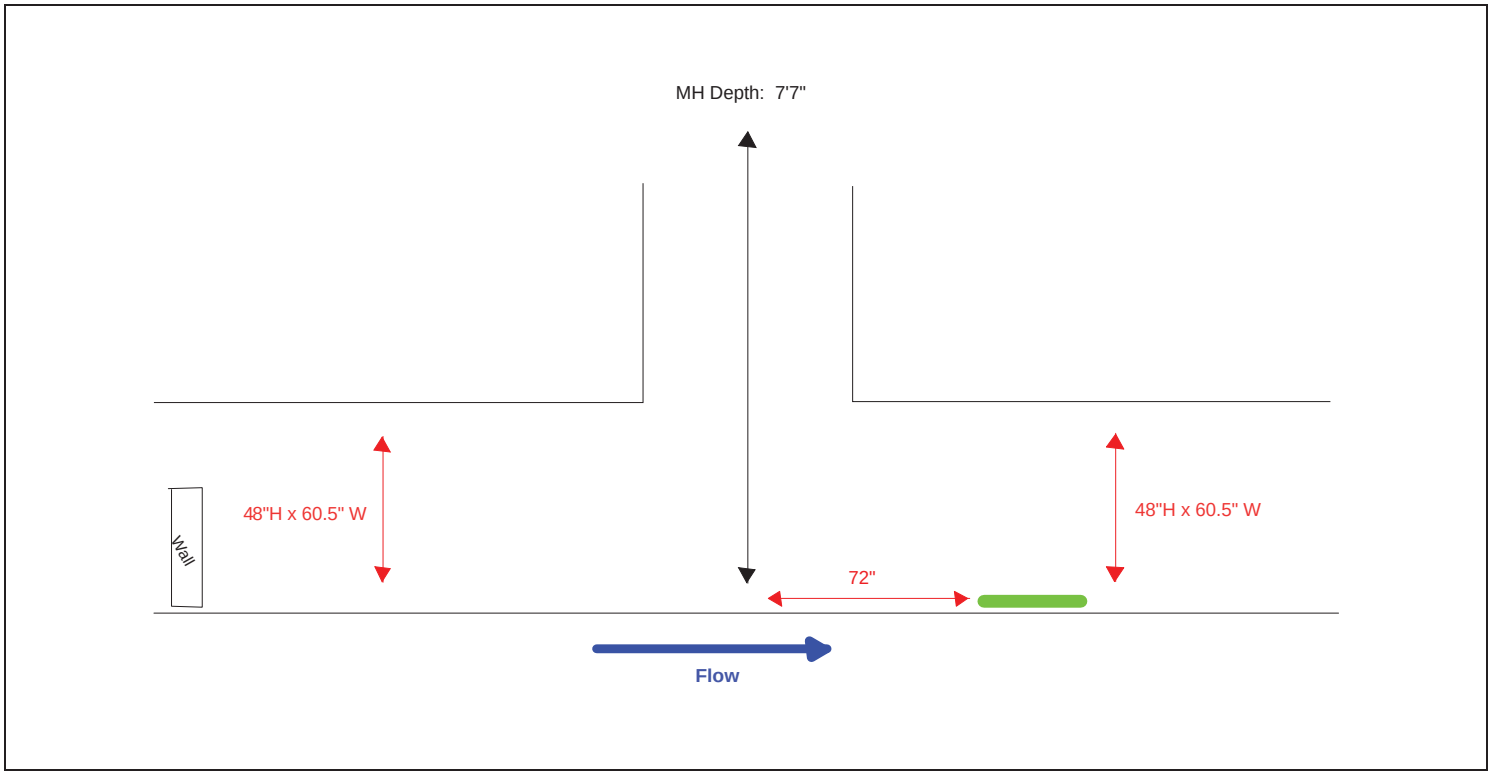
View from top of MH

Site Overview

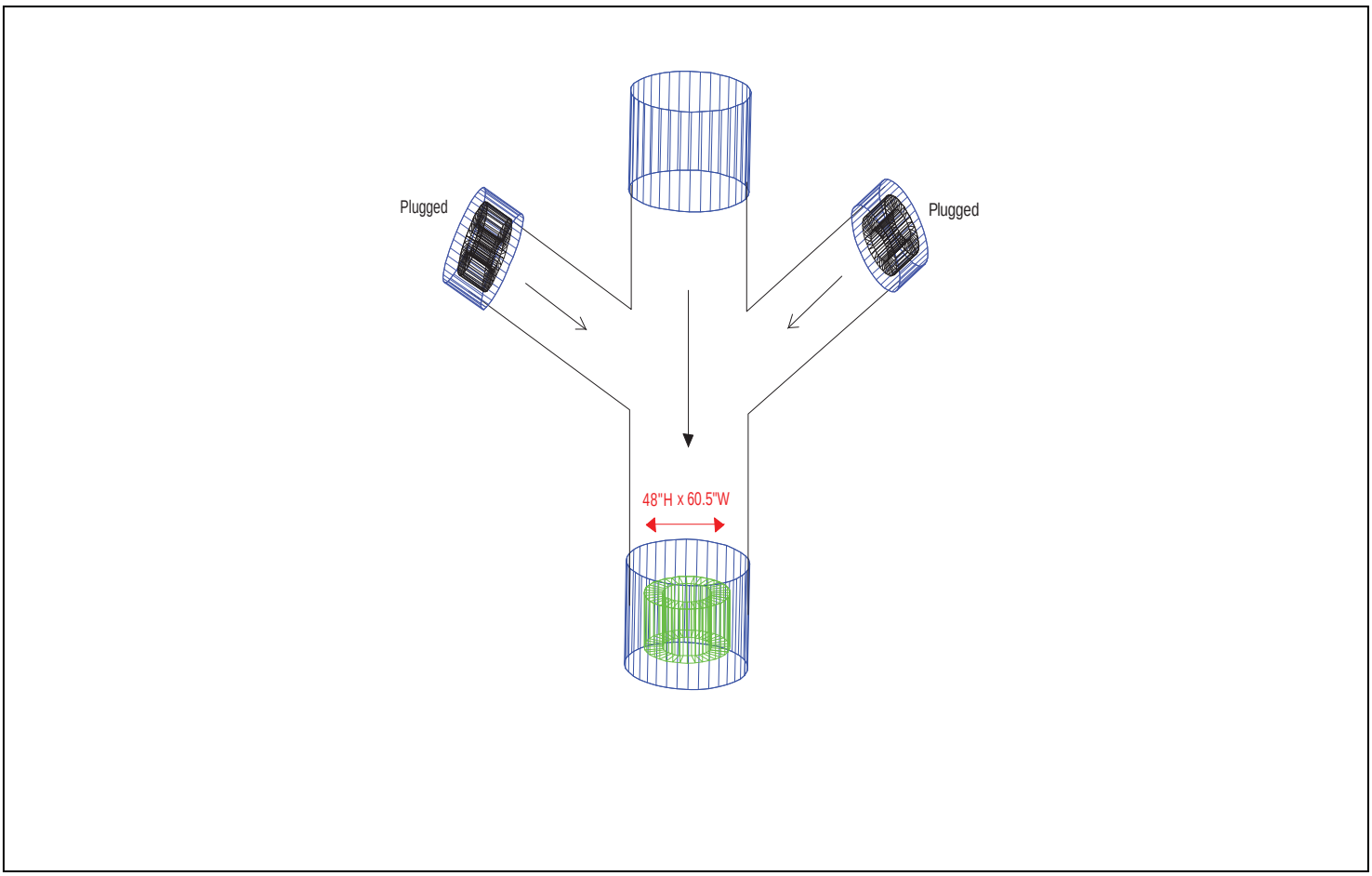
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)

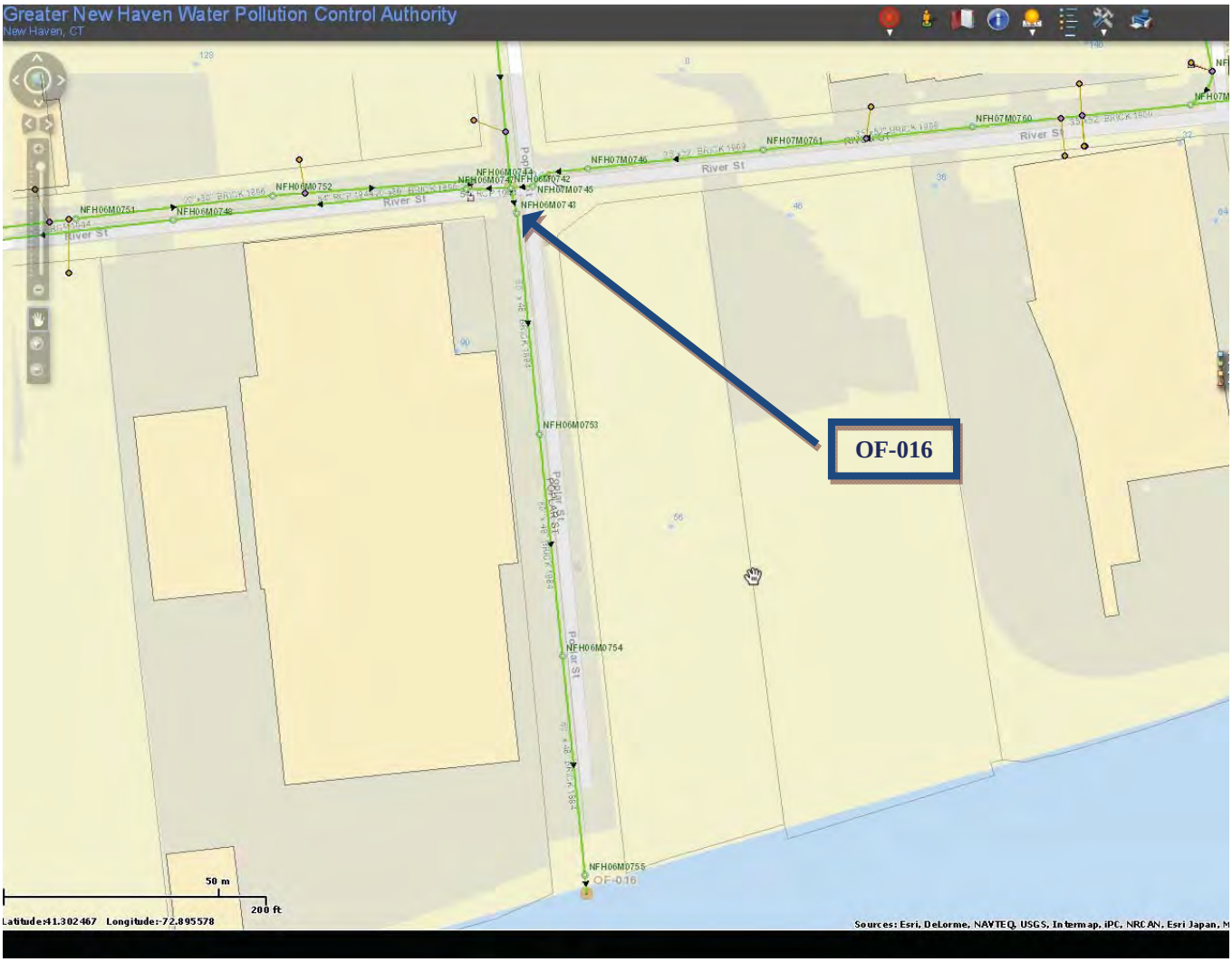


Plan View



Site Location Plan View

Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-019

Investigation Date: 7/12/12 Time: 15:14 Crew Members: RD/LR/KE

Installation Date: 8/13/12 Time: 10:25 Crew Members: RD/LR/KE

Address/Location: 279 Front Street (in front of Waucoma Yacht Club)

Latitude: N 41°18.801' Longitude: W 72°53.265'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow: *Dry Pipe*

Velocity 0.0 ft/sec

Depth 0.0 in

Turbulence Amplitude: *Dry Pipe*

Less than 0.25"
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	24"		24"
Width	24"		24"
Material	Clay		Clay
Shape	Round		Round

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good ~~(no problems accessing site)~~
(Fair) (minor traffic control, truck accessible off-road site, can ~~safely carry equipment~~ to site)
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground ___ ft.
Manhole depth 6'7"
Structural Integrity of Manhole:
(Good) Fair Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend: 0.0 ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change: ____ ft
(detail is comments)

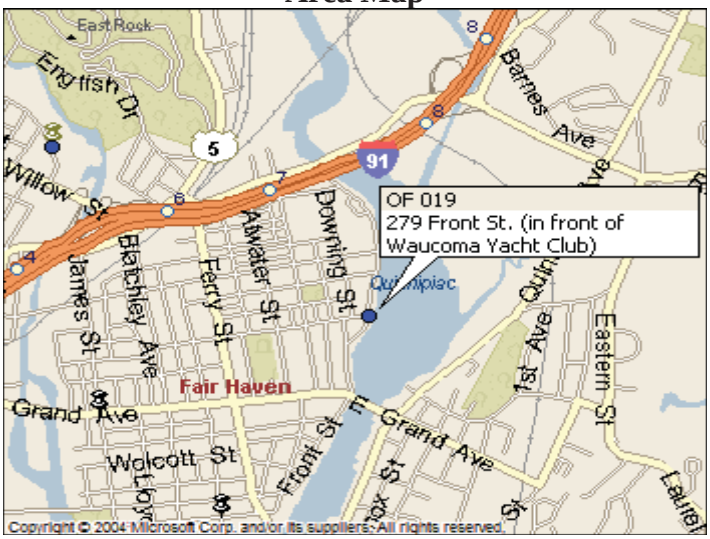
Crew Member: Can you maintain this site?
(Yes) No Maybe

Sensor Configuration:
(Please include Serial Numbers when possible)

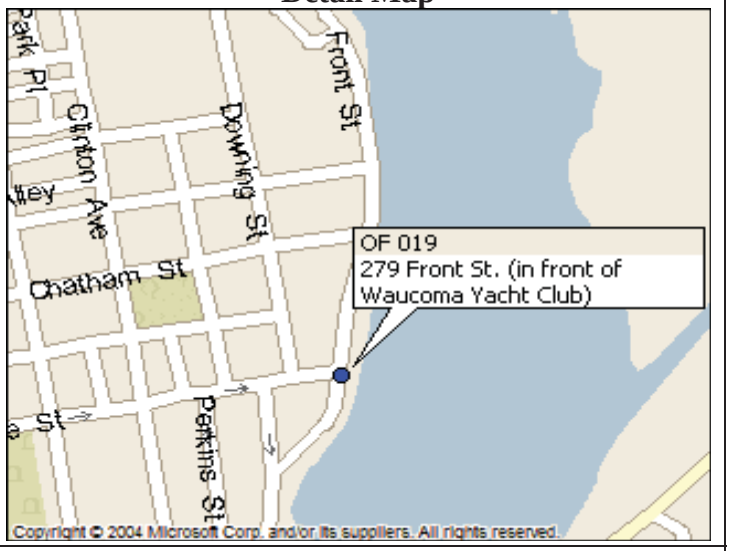
Level	Primary:	
	Redundant:	
Velocity	Primary:	
	Redundant:	
Meter Logger	FloWav 293701	

Comments:

Area Map



Detail Map



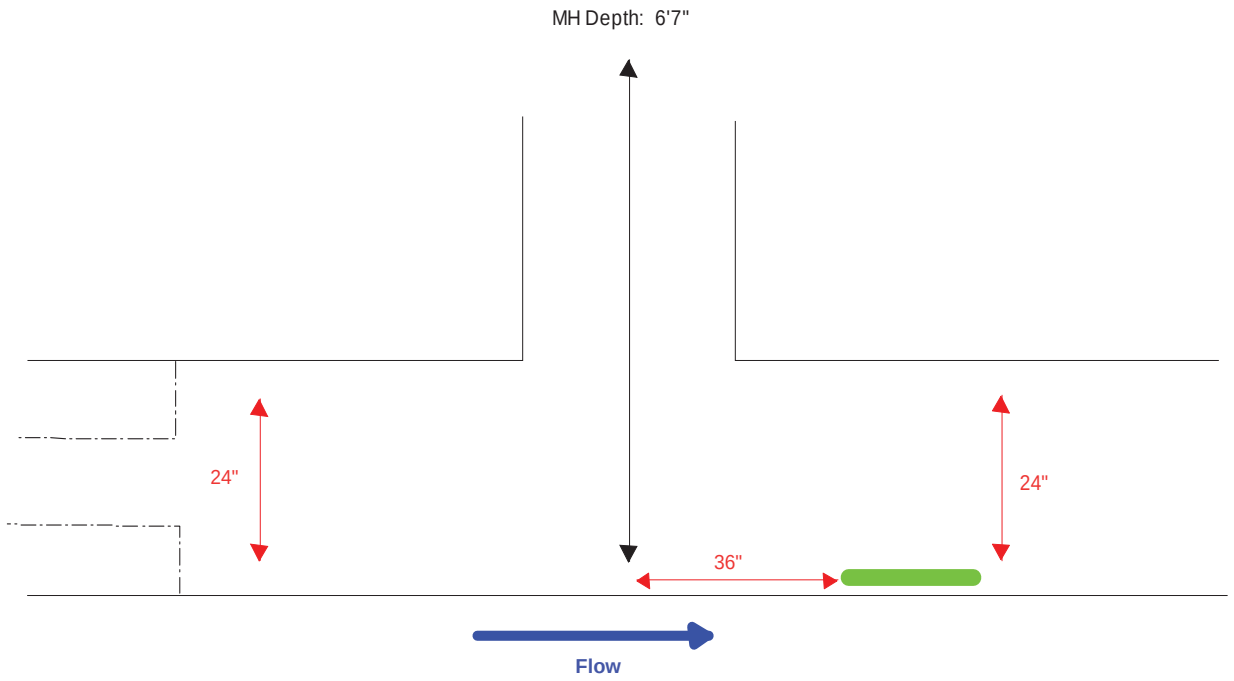
View from top of MH

Site Overview

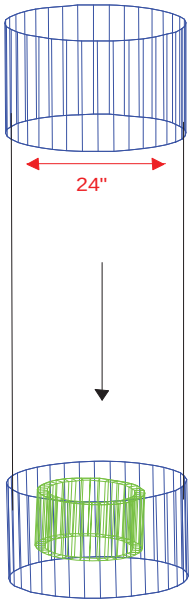
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)

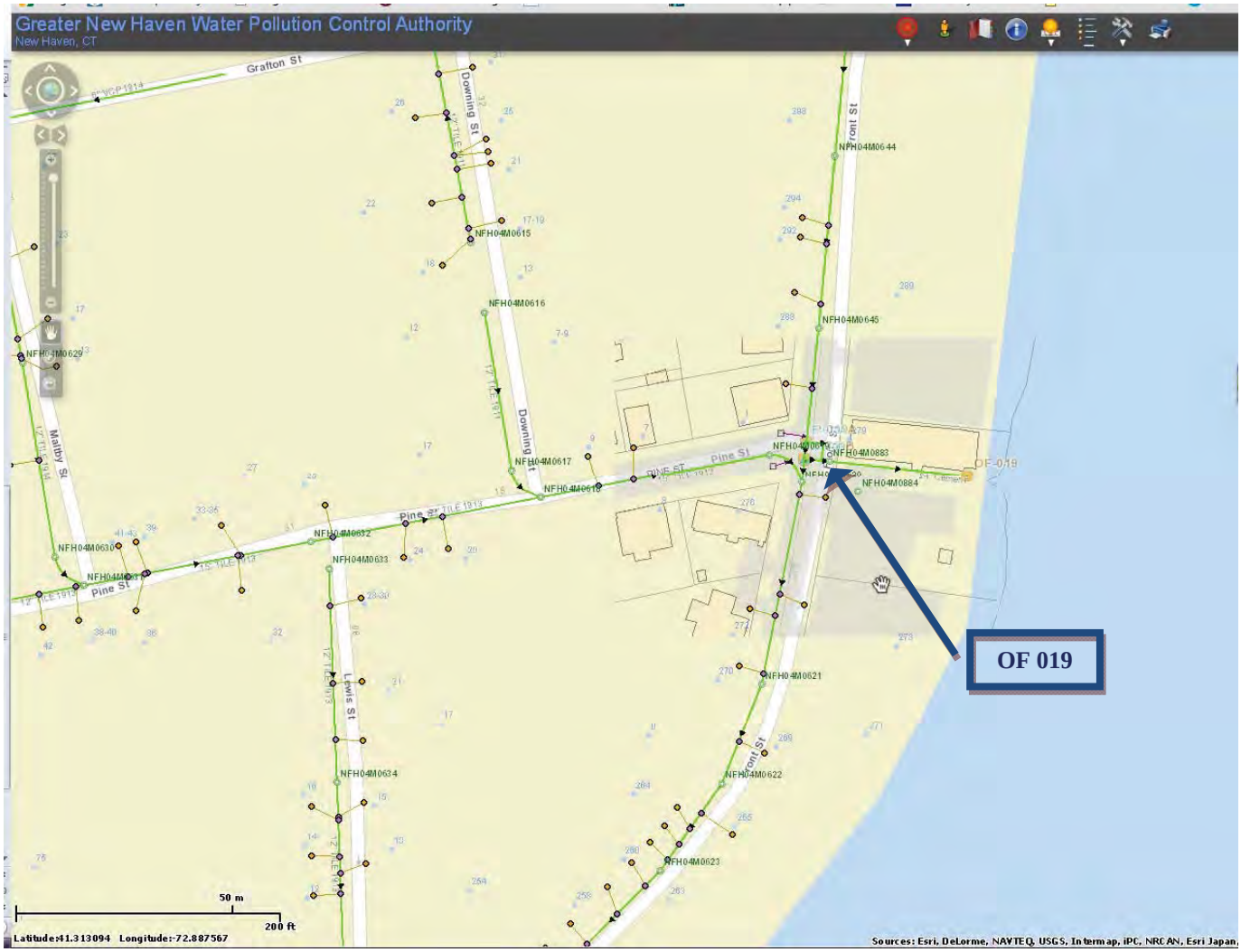


Plan View



Site Location Plan View

Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-20

Investigation Date: 3/6/13 Time: 11:00 Crew Members: GM/LL/RW

Installation Date: 3/27/13 Time: 12:20 Crew Members: LR/LL/KE

Address/Location: Intersection of Clifton Street & Quinnipiac Avenue

Latitude: N 41°19.564' Longitude: W 72°53.089'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 1.75 ft/sec

Depth 18.0 in

Turbulence Amplitude:

- (Less than 0.25"
- ☐ 0.25" to 0.75"
- ☐ 0.75" to 1.5"
- ☐ 1.5" to 3"
- ☐ Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Influent 3	Effluent	Overflow
Height	24"	12"	3"	24"	16"
Width	24"	12"	3"	24"	16"
Material	Concrete	Cast Iron	Steel	Concrete	Cast Iron
Shape	Round	Round	Round	Round	Oval

Sediment Present:

☐ (Yes) Hard packed: _____ in. deep

☐ No Soft: 1.25 in. deep

Surcharge / Backwater Influence:

- (No evidence visible
- ☐ Remains in pipe
- ☐ _____ft from rim
- ☐ Reaches Rim (potential meter damage)
- ☐ Evidence unclear: _____ft from rim

Gas Investigation:

☐ (Good) 20.9 (condition)

Site Conditions

Site Access:

- ☐ Good (no problems accessing site)
- ☐ Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
- ☐ Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
- ☒ (Traffic Control only (Requires extra traffic control
- ☐ Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: ☐ Yes (☐ No)

Height above ground __

Manhole depth 4' 2"

Structural Integrity of Manhole:

☐ Good ☐ (Fair) ☐ Poor

Pipe Bends: *None within camera view*

☐ Influent ☐ Effluent ☐ Manhole

Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

☐ Influent ☐ Effluent ☐ Manhole

Approx Distance to change:_____ft

(detail is comments)

Crew Member: Can you maintain this site?

☐ (Yes) ☐ No ☐ Maybe

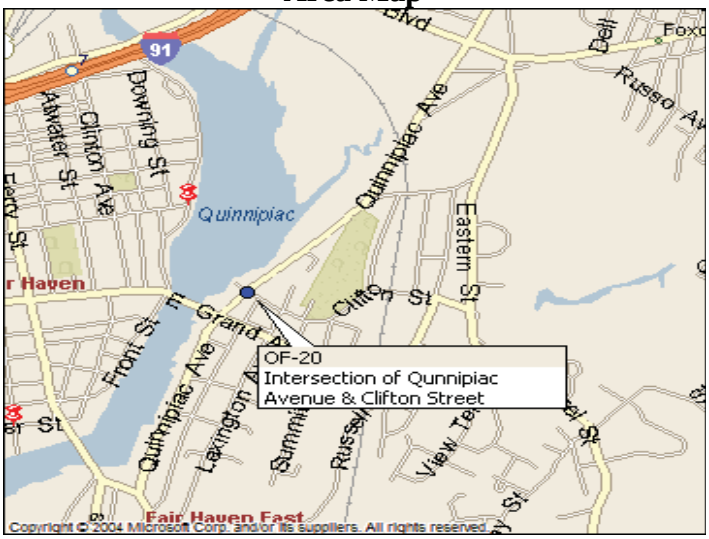
Sensor Configuration:

(Please include Serial Numbers when possible)

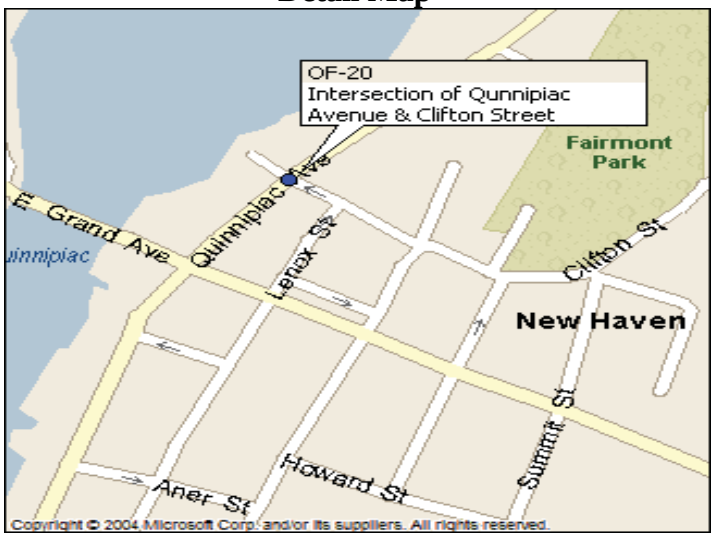
Level	Primary: Pressure
	Redundant: Doppler
Velocity	Primary: Pressure
	Redundant: Doppler
Meter Logger	Flowav 293468

Comments: *34.75" bottom of the pipe to the bottom of the connection*

Area Map



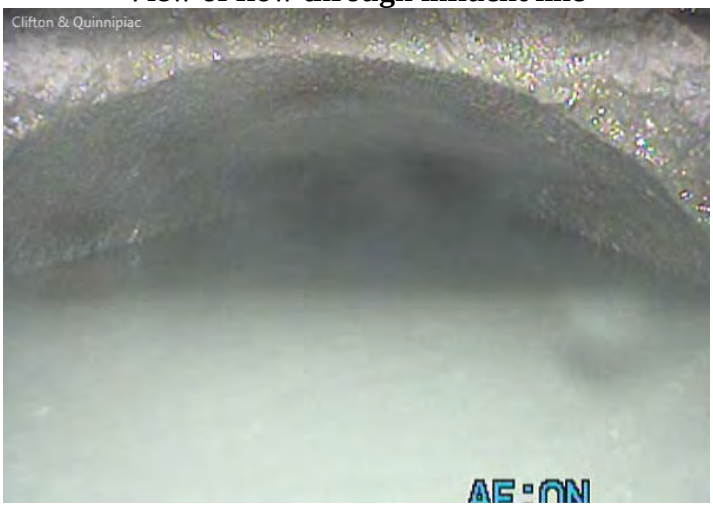
Detail Map



View from top of MH

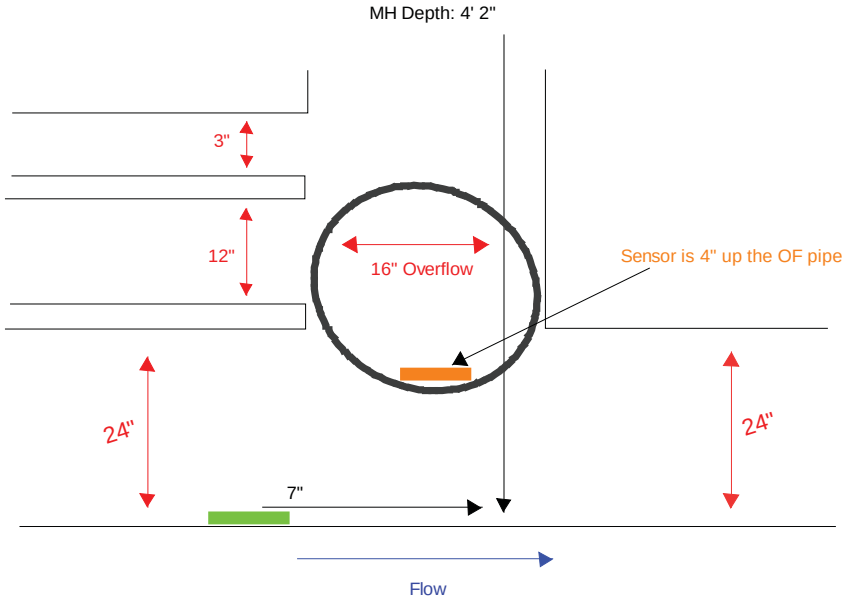
Site Overview

View of flow through influent line



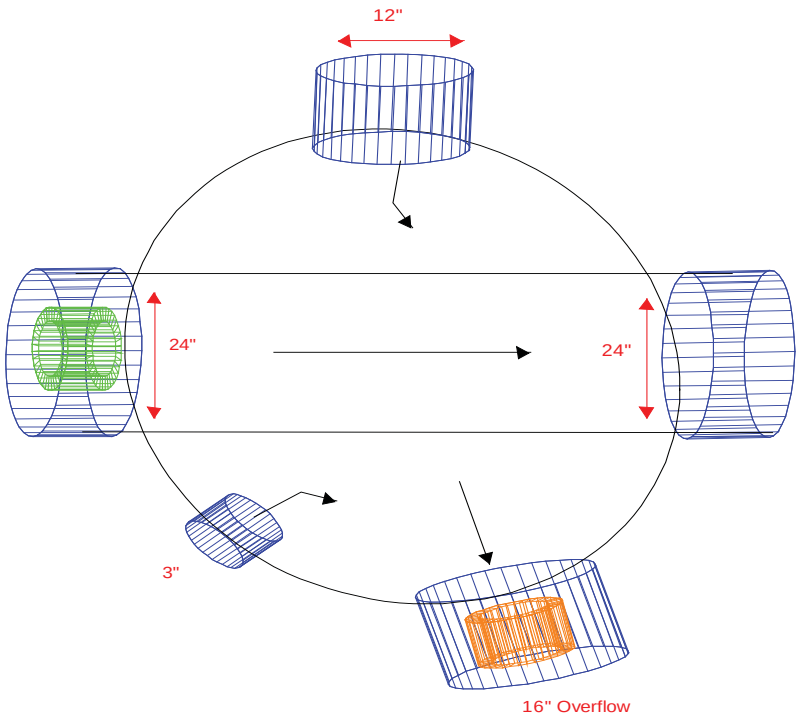
View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Sensor #1 is 7” up pipe at 5:00. Sensor #2 is 4” up the overflow pipe.
The base of the overflow pipe is 31” from the invert.

Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # OF-021 Primary: [X] Alternate: [ ] Grade: [ ]

Investigation Date: 7/12/12 Time: 14:18 Crew Members: RD/LR/KE

Installation Date: 11/15/12 Time: 8:38 Crew Members: LR/KE/BW

Address/Location: 638 Long Wharf Dr. (East St. Pump Station)

Latitude: N 41°17.845' Longitude: W 72°54.657'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 1.76 ft/sec

Depth 46.50 in

Turbulence Amplitude: *Standing water*

Less than 0.25"
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	66"		
Width	66"		
Material	Concrete		
Shape	Round		

Sediment Present: *Could not determine*

(Yes) Hard packed: _____ in. deep
No (Soft:) _____ in. deep

Surcharge / Backwater Influence:

No evidence visible
(Remains in pipe)
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

(Good (no problems accessing site))
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground ____
Manhole depth 12'2"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends:

(Influent) Effluent Manhole
Approx Distance to bend: 3.0 ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change: ___ ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

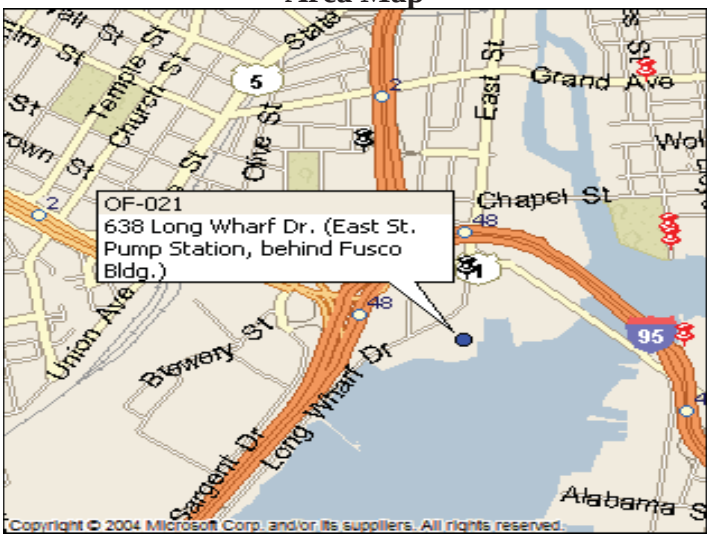
Sensor Configuration:

(Please include Serial Numbers when possible)

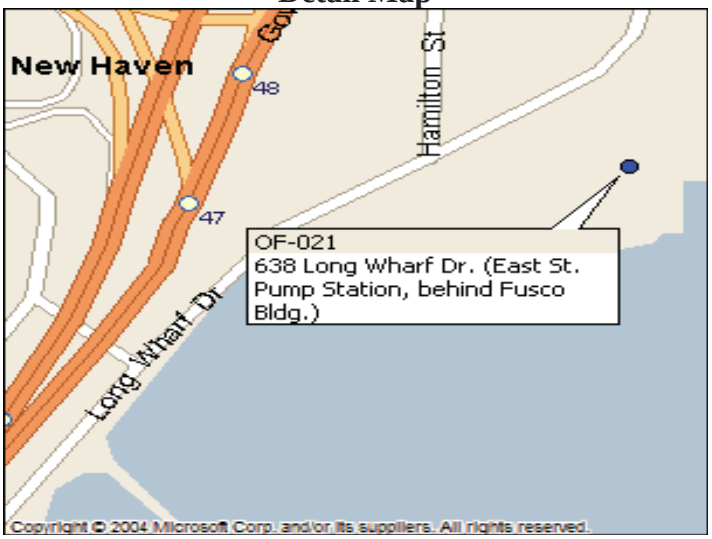
Level	Primary: 0812-592
	Redundant: 0712- 588
Velocity	Primary: 0812-592
	Redundant: 0712- 588
Meter Logger	Telog 293697

Comments: Key needed for access

Area Map

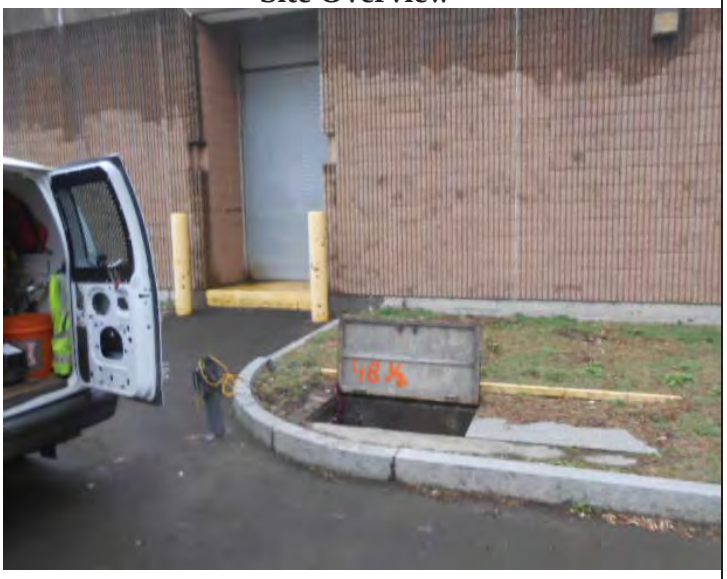


Detail Map



View from top of MH

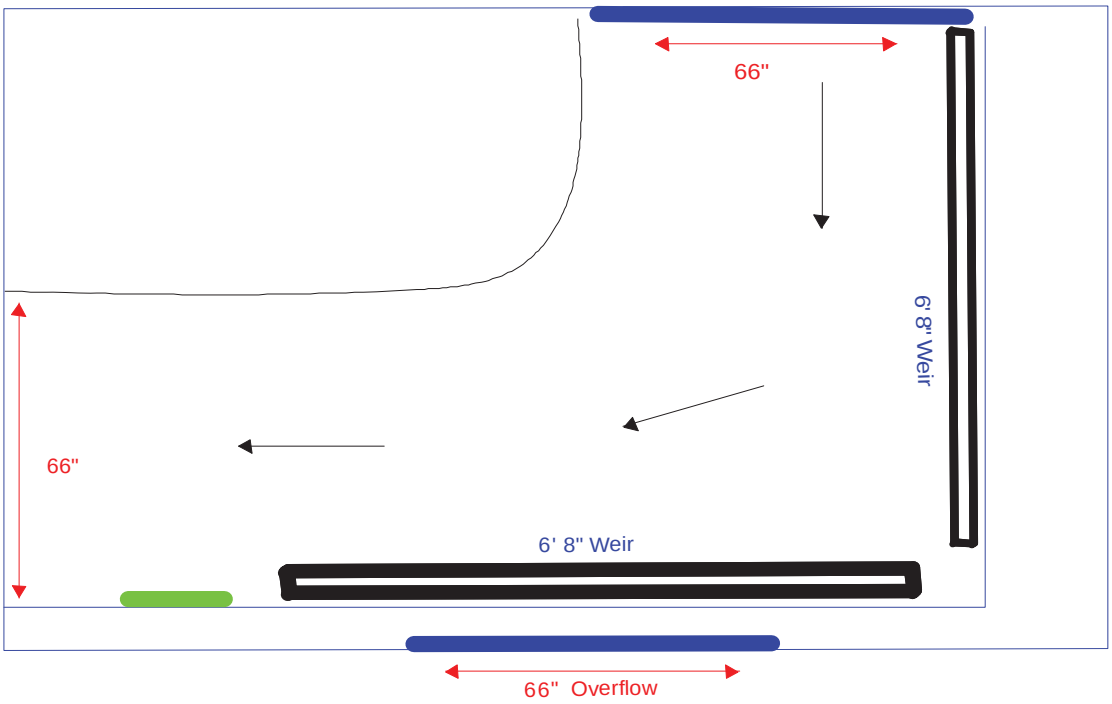
Site Overview



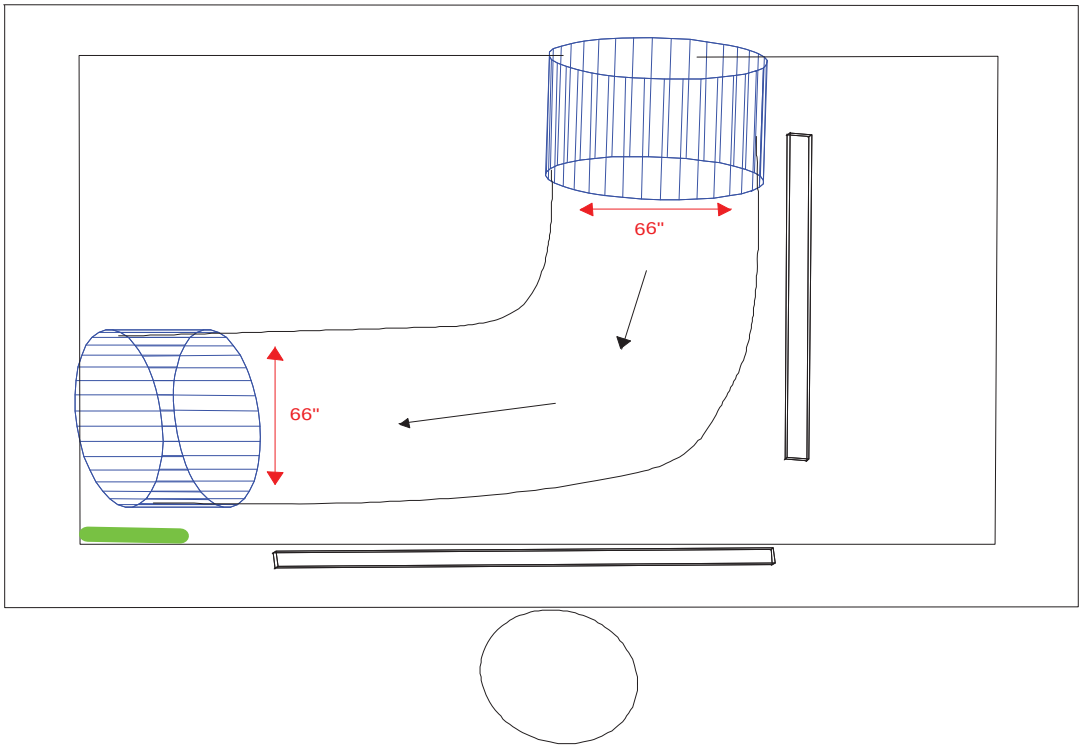
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # OF-024 DS

Investigation Date: 6/21/12 Time: 16:02 Crew Members: LR/CL/RO

Installation Date: 7/31/12 Time: 14:30 Crew Members: RD/GM/EW

Address/Location: Between Sea St. & Blvd. Pump Station (tall fence between 2 baseball fields

Latitude: N 41°17.023' Longitude: W 72°55.612'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 2.82 ft/sec

Depth 18.0 in.

Turbulence Amplitude:

Less than 0.25"
~~0.25" to 0.75"~~
(0.75" to 1.5")
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	48"		48"
Width	48"		48"
Material	Ductile Iron		Ductile Iron
Shape	Round		Round

Sediment Present:

~~Yes~~ (No) Hard packed: _____in. deep
Soft: _____ in. deep

Surcharge / Backwater Influence:

No evidence visible
Remains in pipe
____ ft from rim
(Reaches Rim (potential meter damage))
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) ___ (condition)

Site Conditions

Site Access:

Good ~~(no problems accessing site)~~
(Fair (minor traffic control, truck accessible off-road site, can ~~safely carry equipment~~ to site))
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 11'1"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*
Influent (Effluent) Manhole
Approx Distance to bend: 8 ft

Pipe Size/Geometry/Material Change:
Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

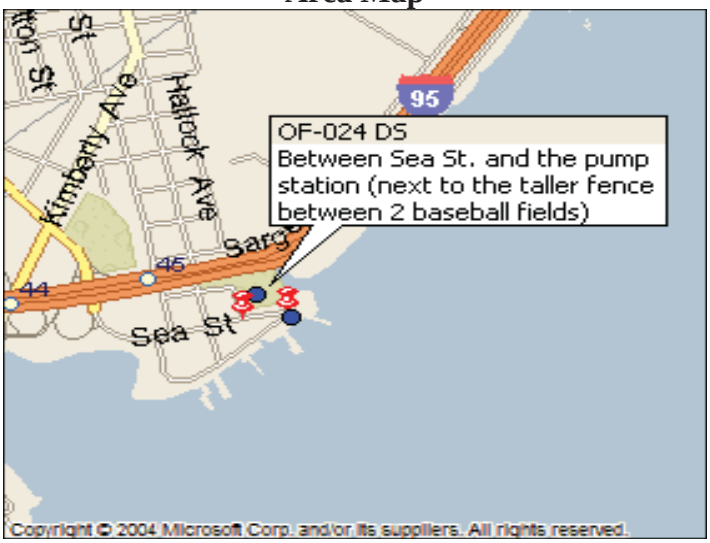
Crew Member: Can you maintain this site?
(Yes) No Maybe

Sensor Configuration:
(Please include Serial Numbers when possible)

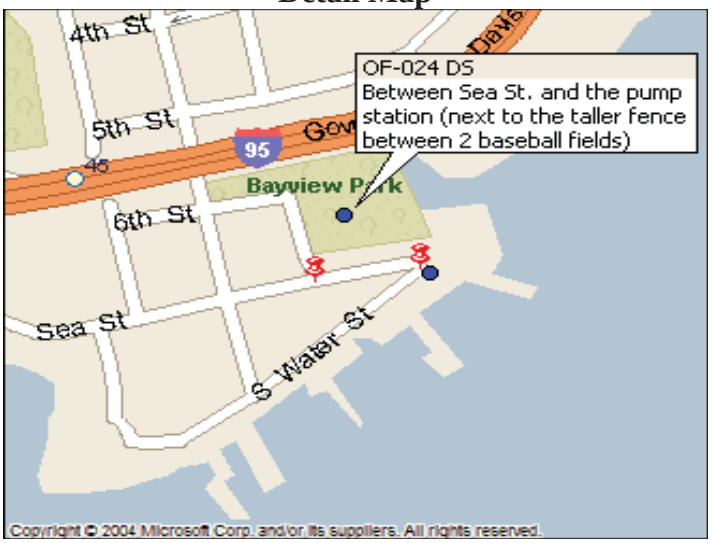
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293657

Comments: Next to the taller fence between 2 baseball fields

Area Map



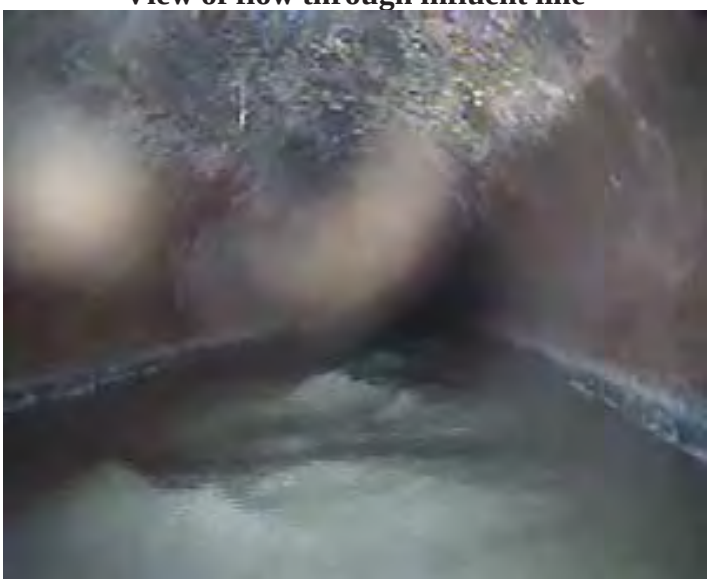
Detail Map



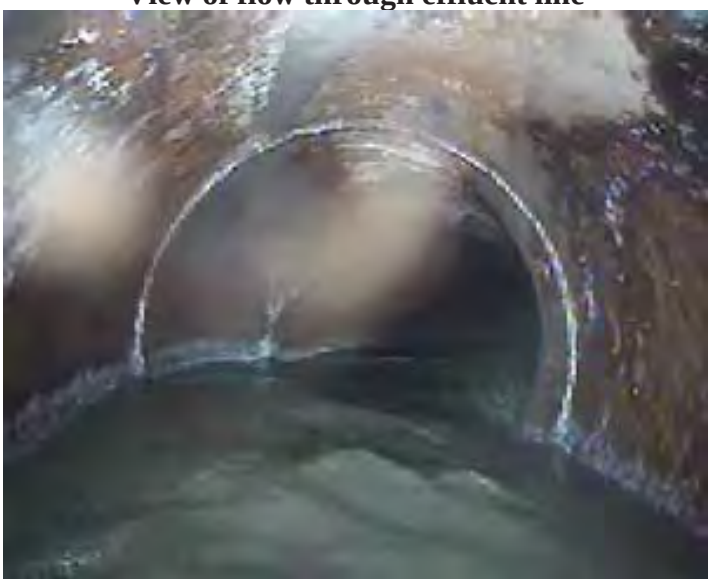
View from top of MH

Site Overview

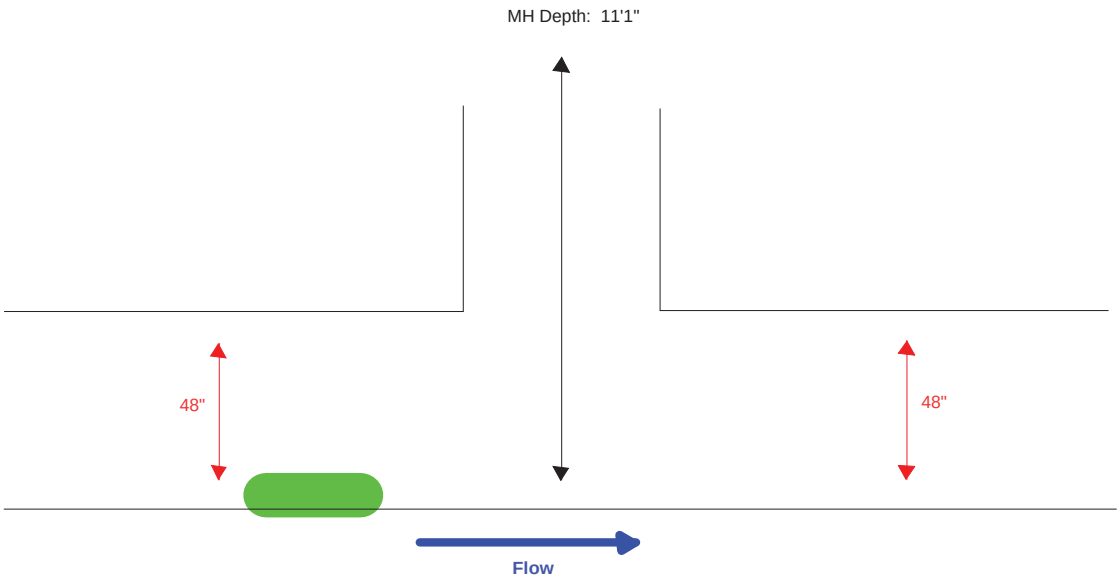
View of flow through influent line



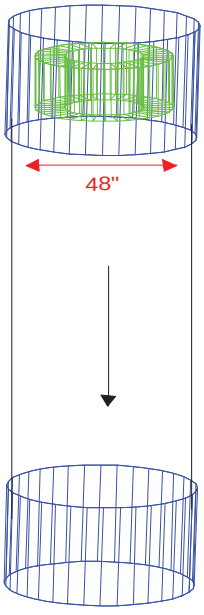
View of flow through effluent line



Dimensional Structure Profile View (profile sketch showing location of sensors)

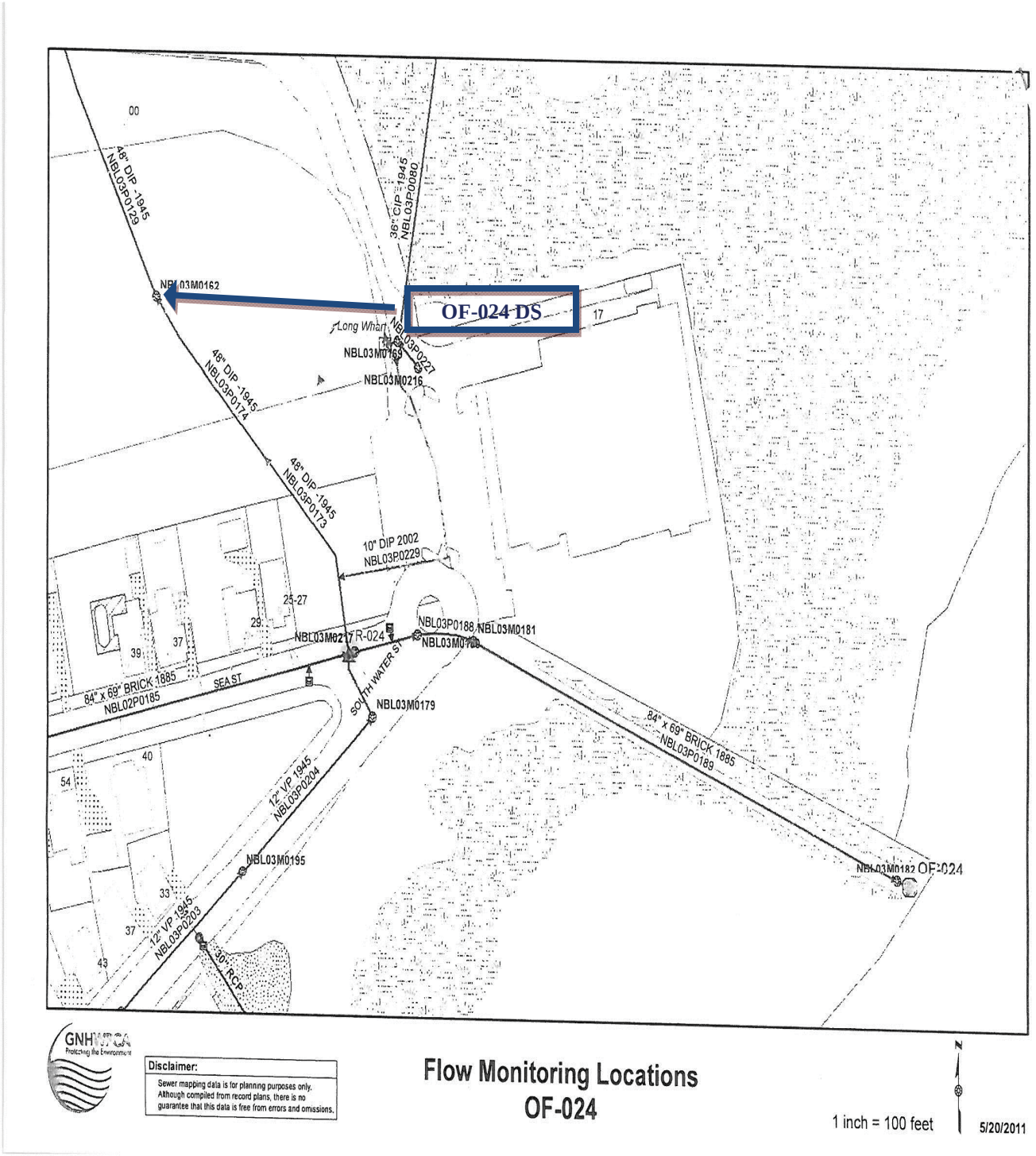


Plan View



Site Location Plan View

Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-024 US

Investigation Date: 6/21/12 Time: 16:42 Crew Members: LR/CL/RO

Installation Date: 7/31/12 Time: 10:00 Crew Members: RD/GM/EW

Address/Location: 75 Sea Street

Latitude: N 41°16.981' Longitude: W 72°55.706'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 2.52 ft/sec

Depth 18.25 in.

Turbulence Amplitude:

Less than 0.25"
0.25" to 0.75"
(0.75" to 1.5")
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	69"		69"
Width	84"		84"
Material	Brick		Brick
Shape	Oval		Oval

Sediment Present:

(Yes) Hard packed: 2.0 in. deep
No Soft: 3.0 in. deep

Surcharge / Backwater Influence:

(No evidence visible)
Remains in pipe
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) ____ (condition)

Site Conditions

Site Access:

Good ~~(no problems accessing site)~~
(Fair) (minor traffic control, truck accessible off-road site, can ~~safely carry equipment~~ to site)
Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)
Traffic Control only (Requires extra traffic control
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 13'2"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*
Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:
Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

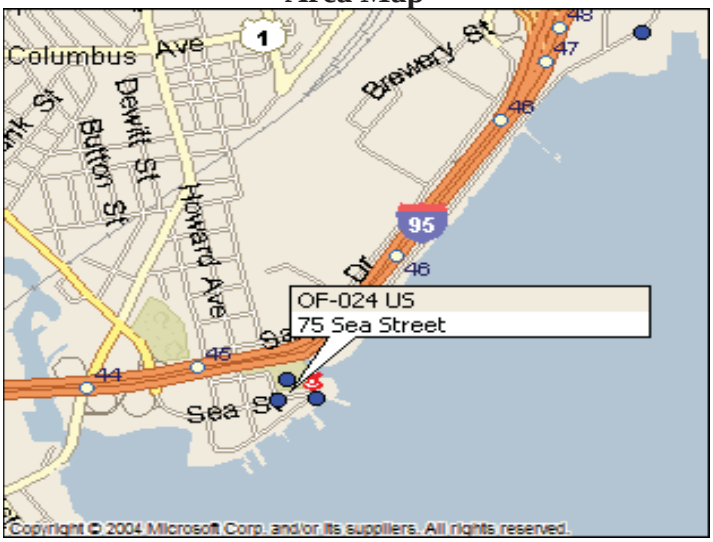
Crew Member: Can you maintain this site?
(Yes) No Maybe

Sensor Configuration:
(Please include Serial Numbers when possible)

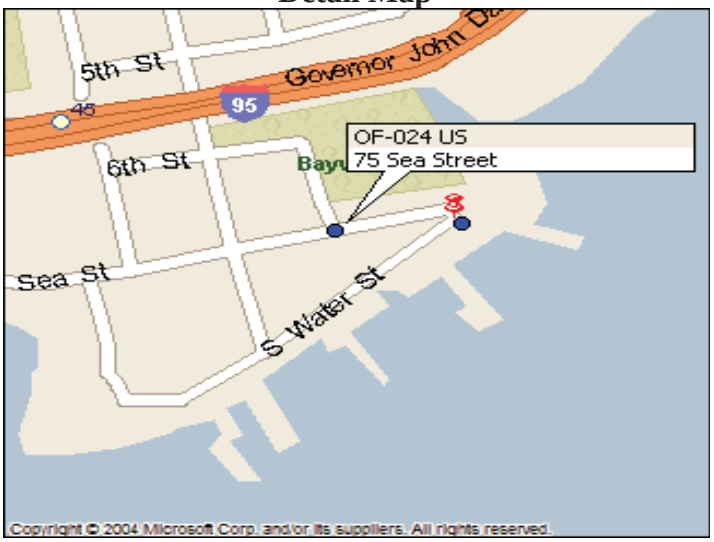
Level	Primary: Pressure
	Redundant: Pressure
Velocity	Primary: Doppler
	Redundant: Doppler
Meter Logger	FloWav 293662

Comments: Possible parked car

Area Map



Detail Map



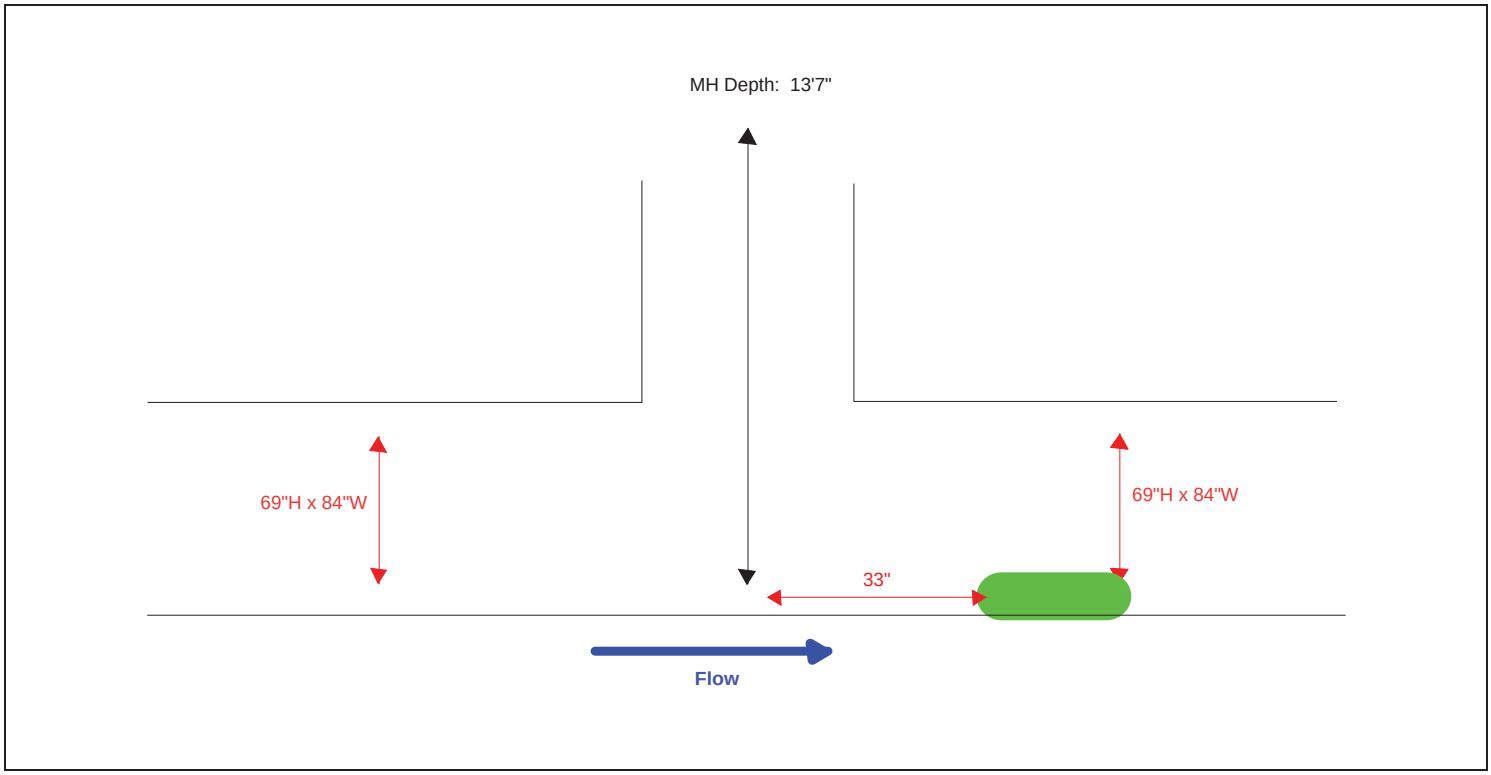
View from top of MH

Site Overview

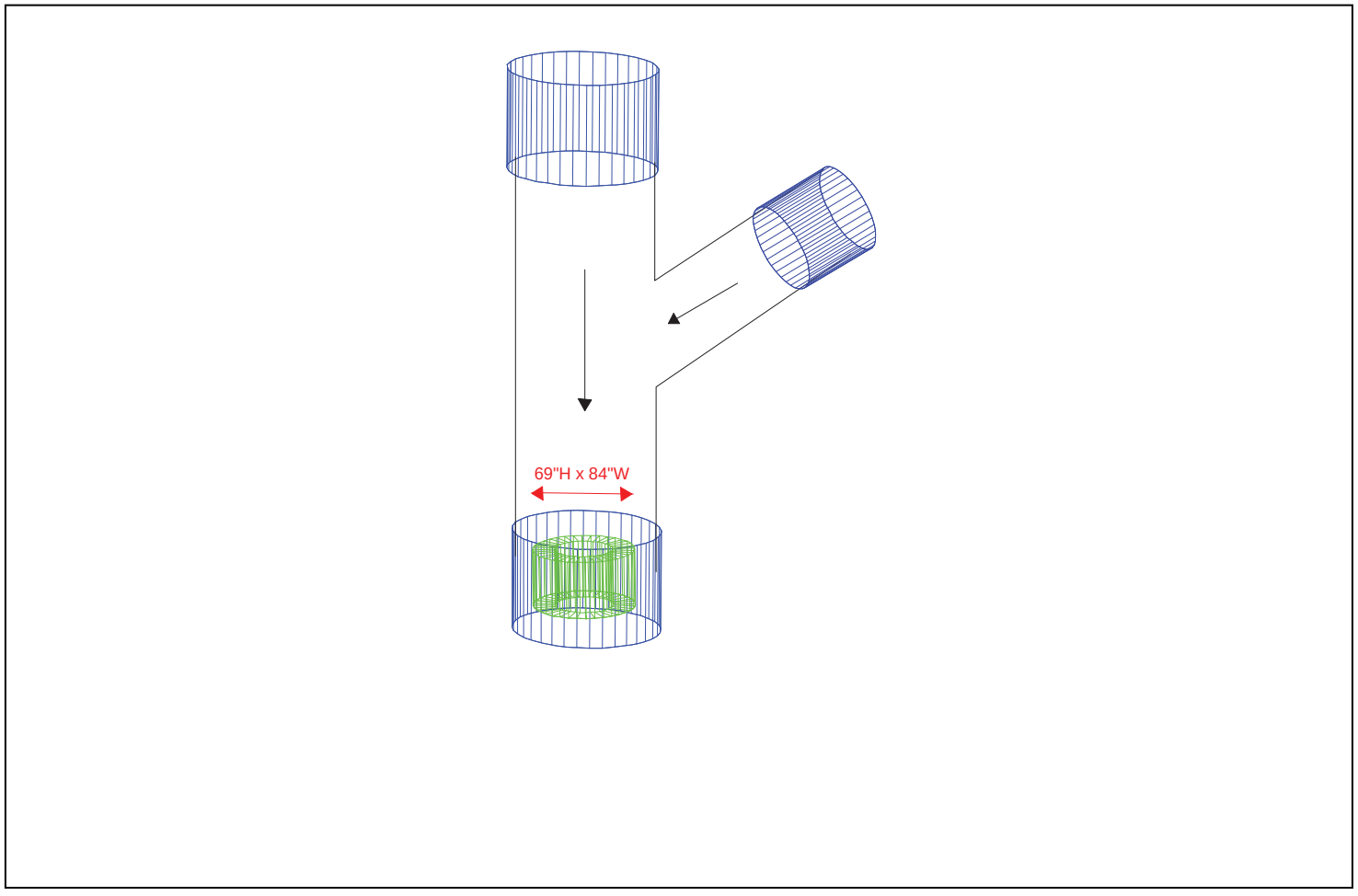
View of flow through influent line

View of flow through effluent line

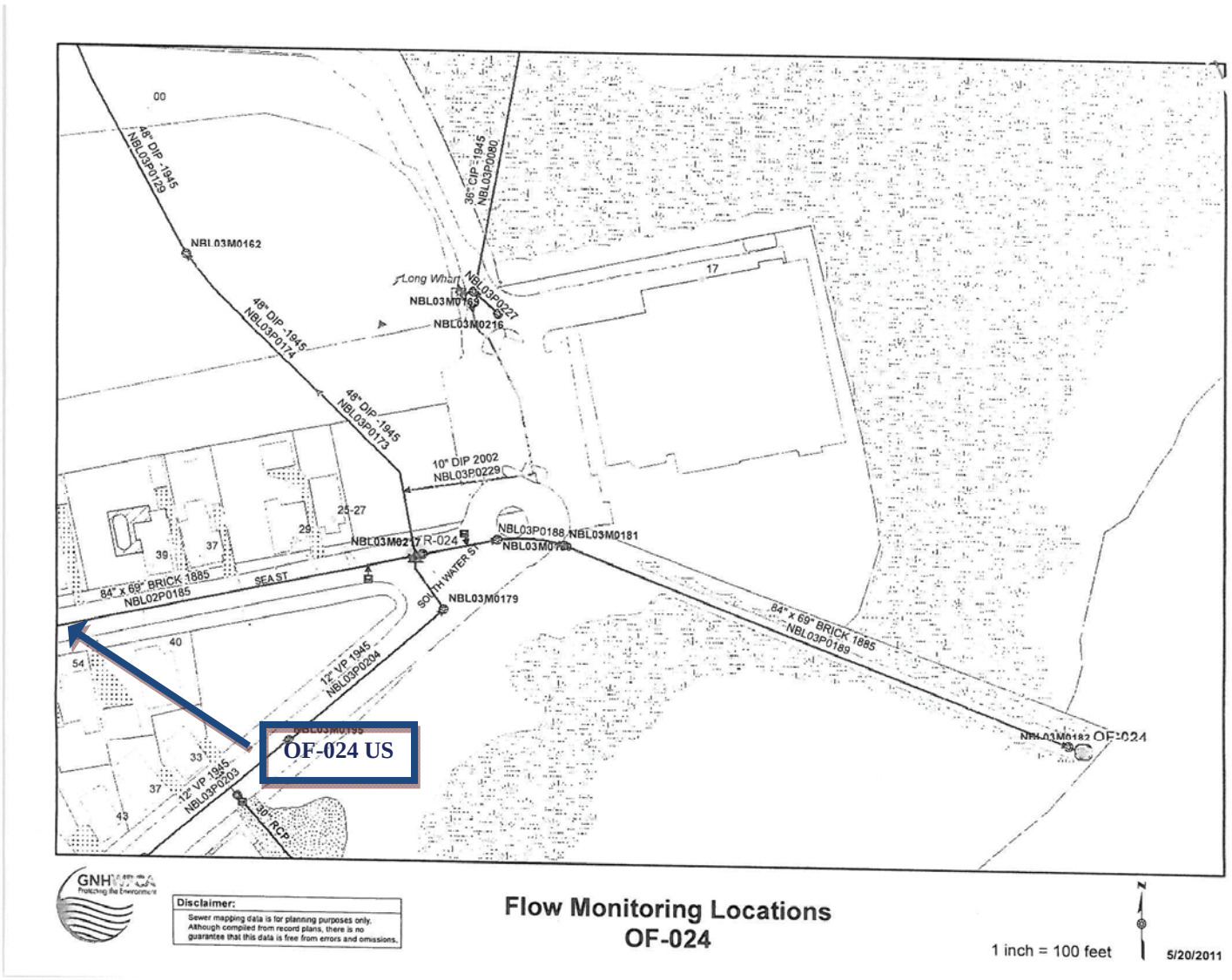
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-025 - Weir

Investigation Date: Time: Crew Members:

Installation Date: 11/20/13 Time: 11:35 Crew Members: CL/ME

Address/Location: Intersection of State Street and N. Frontage Road

Latitude: N 41° Longitude: W 72°

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow: *Stagnant*
Velocity 0.0 ft/sec
Depth 4.0 in

Turbulence Amplitude:
~~Less than 0.25"~~
(0.25" to 0.75")
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	47		
Width	61		
Material	Brick		
Shape	Weir Wall		

Sediment Present:

(Yes) Hard packed: _____ in. deep
No Soft: _____ in. deep

Surcharge / Backwater Influence:

~~No evidence visible~~
~~Remains in pipe~~
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:
Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:
Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 15'
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*
Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:
Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

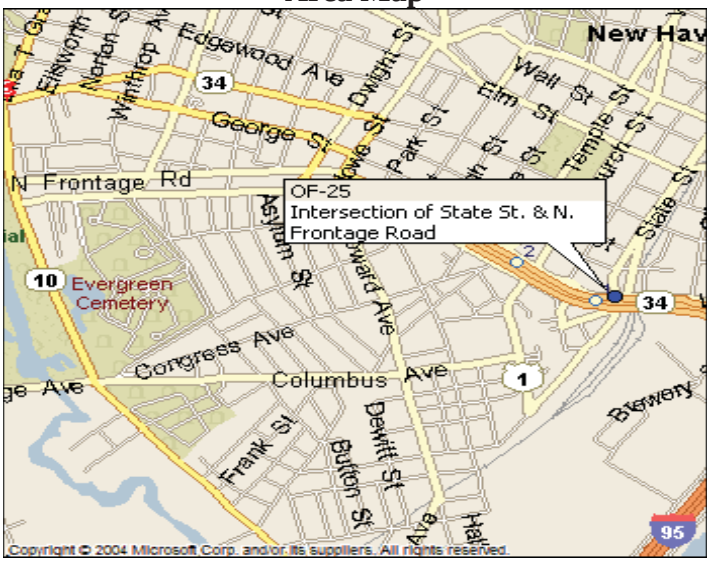
Crew Member: Can you maintain this site?
(Yes) No Maybe

Sensor Configuration:
(Please include Serial Numbers when possible)

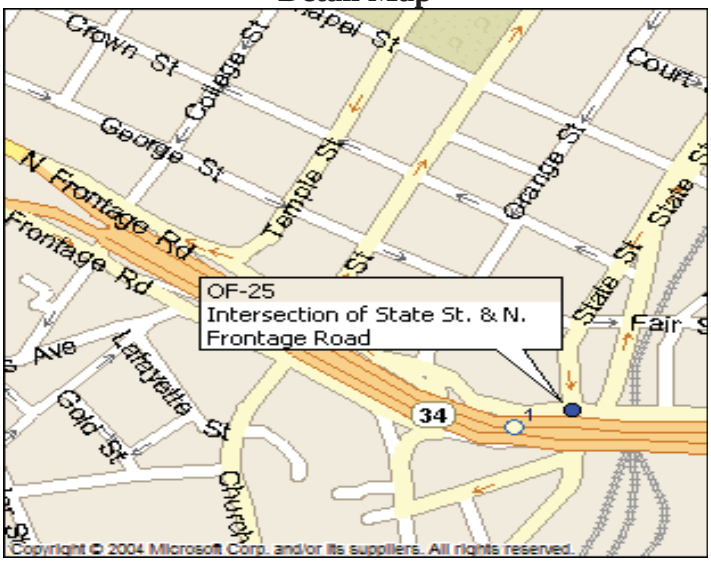
Level	Primary:
	Redundant:
Velocity	Primary:
	Redundant:
Meter Logger	Sigma 920 02020000235

Comments:

Area Map



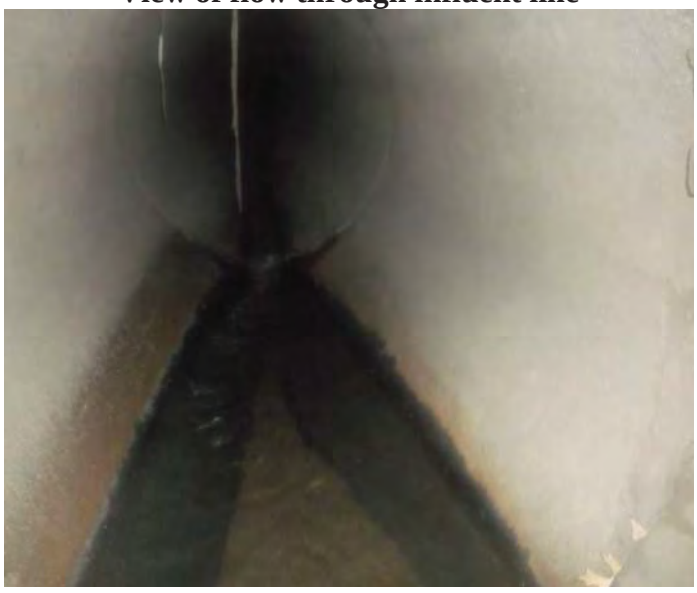
Detail Map



View from top of MH

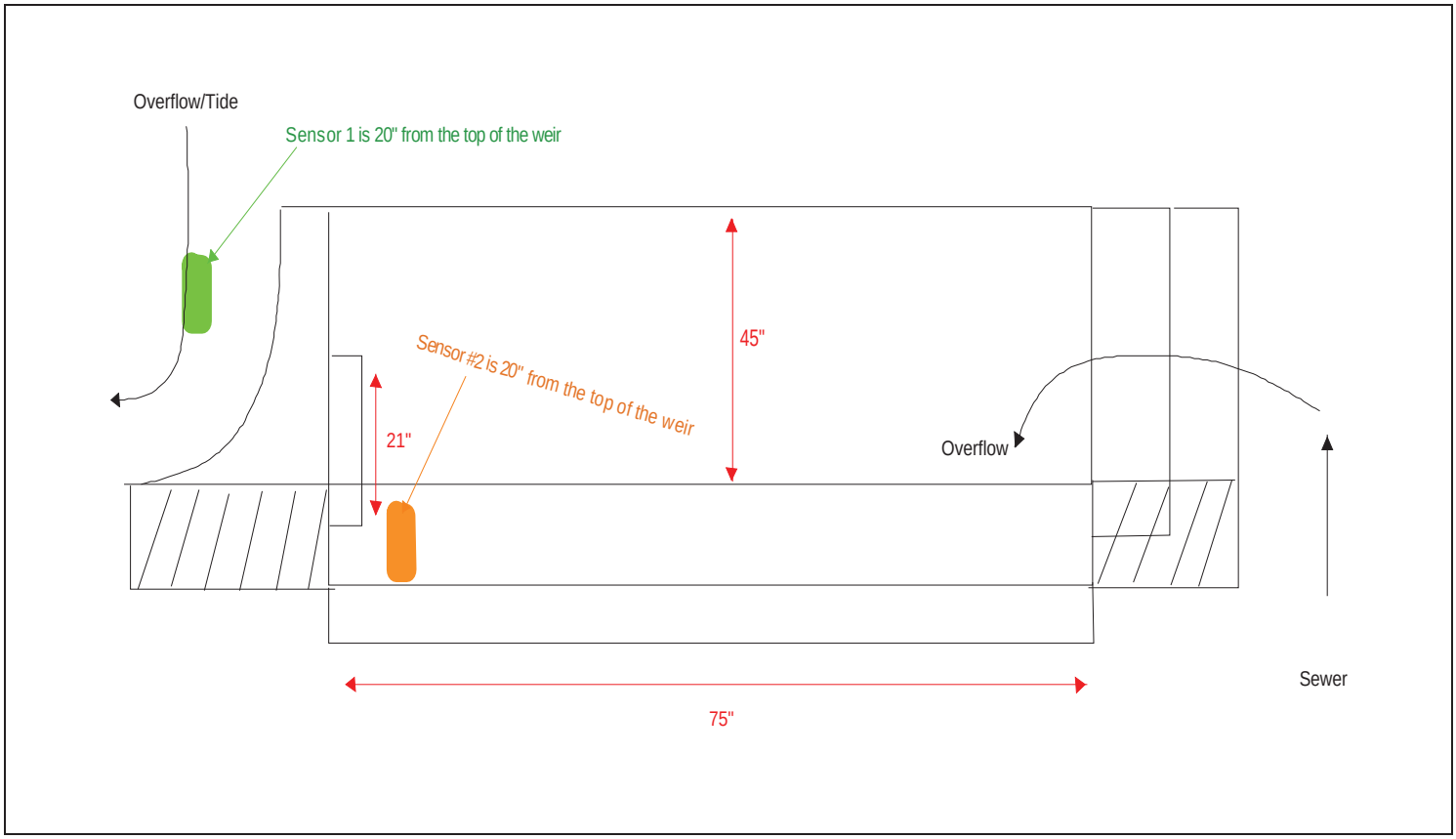
Site Overview

View of flow through influent line

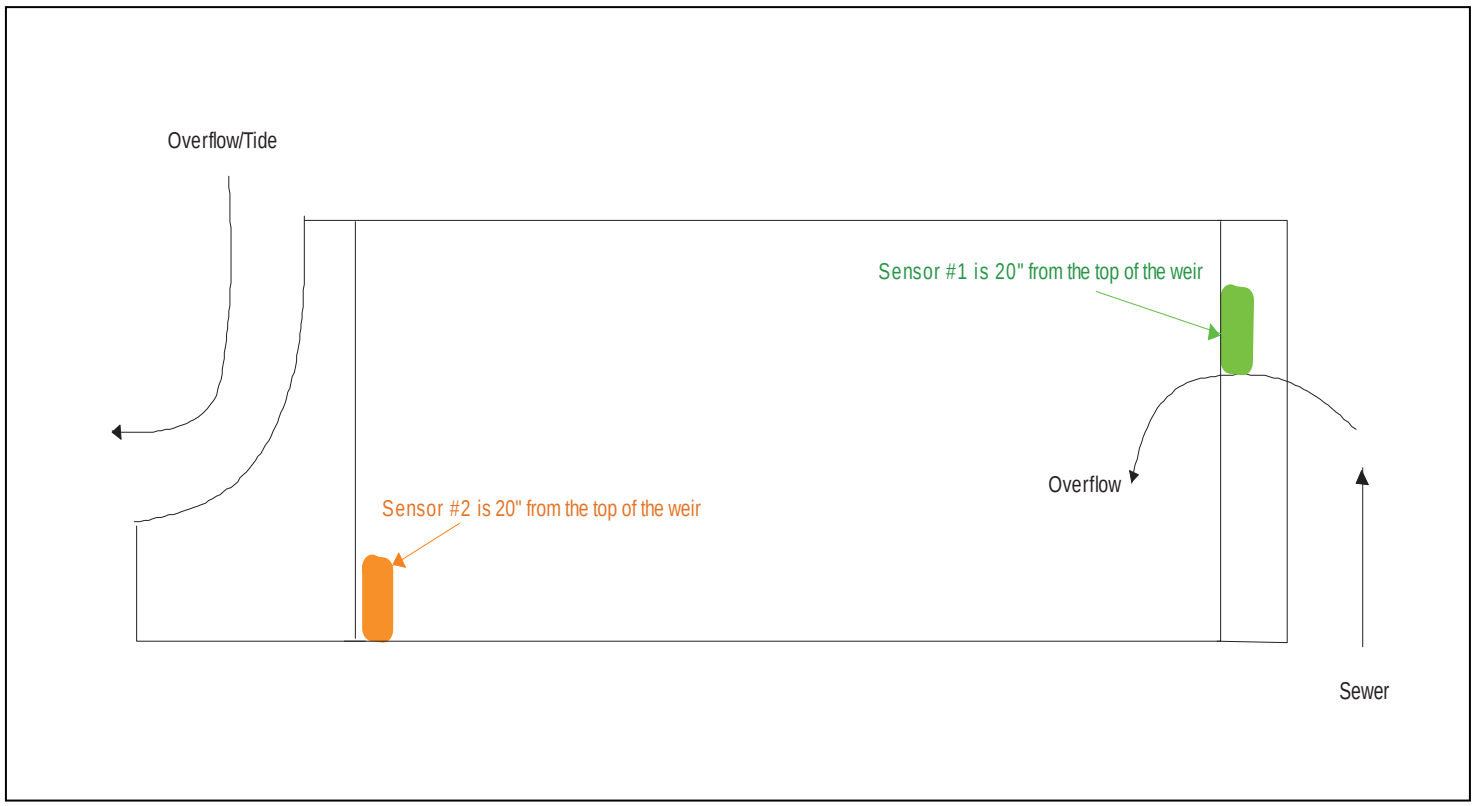


View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View

Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # OF-025_Columbus

Investigation Date: Time: Crew Members:

Installation Date: 11/20/13 Time: 15:00 Crew Members: CL/ME

Address/Location: End of Columbus Ave (on the pavement, MH in the middle)

Latitude: N 41°17.937' Longitude: W 72°55.679'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 7 ft/sec

Depth 5 in

Turbulence Amplitude:

Less than 0.25"

0.25" to 0.75"

(0.75" to 1.5")

1.5" to 3"

Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	30"	12"	32"
Width	30"	12"	32"
Material	Concrete	Concrete	Concrete
Shape	Round	Round	Round

Sediment Present:

Yes Hard packed: _____ in. deep

(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

No evidence visible

(Remains in pipe)

_____ft from rim

Reaches Rim (potential meter damage)

Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)

Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)

Poor (remote areas, steel embankments, No safe place to park, elevated MH >3 ft)

(Traffic Control only (Requires extra traffic control)

Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __

Manhole depth 12'

Structural Integrity of Manhole:

Good (Fair) Poor

Pipe Bends:

Influent Effluent Manhole

Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole

Approx Distance to change:_____ft

(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

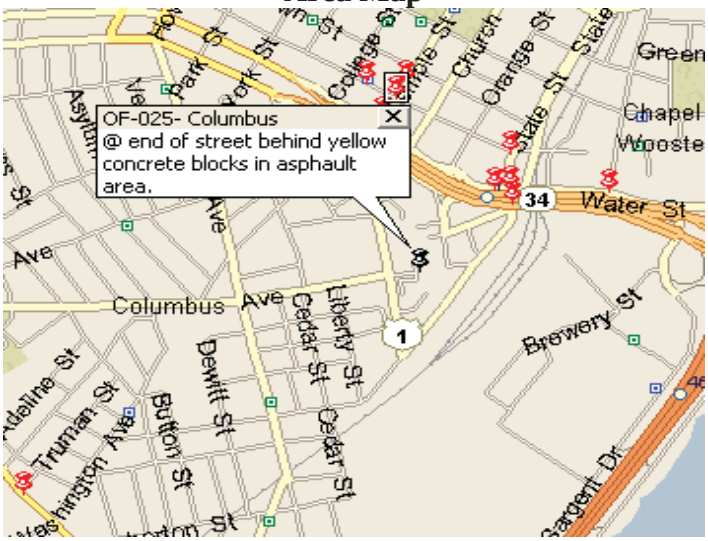
Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary:	
	Redundant:	
Velocity	Primary:	
	Redundant:	
Meter Logger	FloWav 293699	

Comments:

Area Map



Detail Map

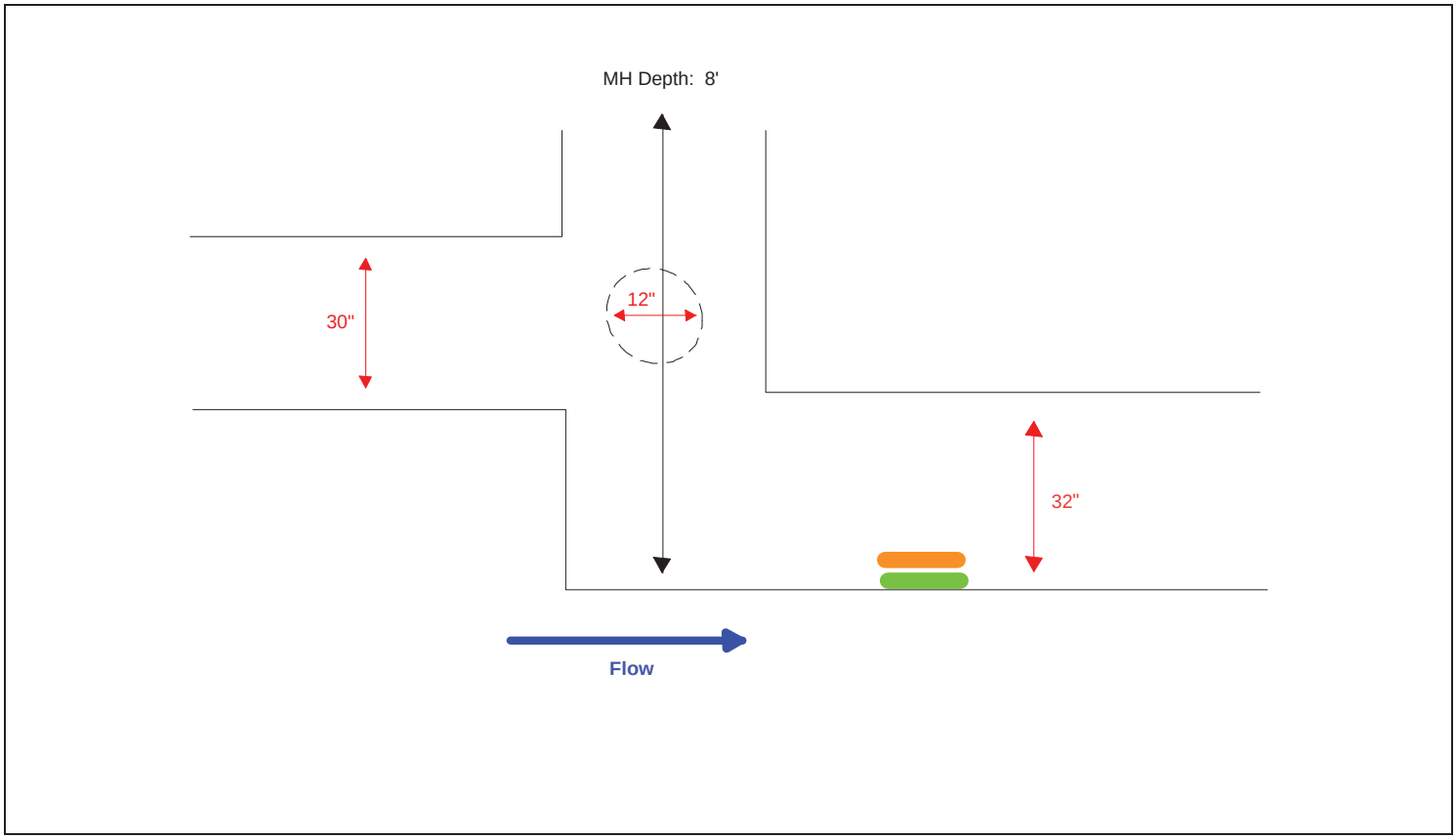
View from top of MH

Site Overview

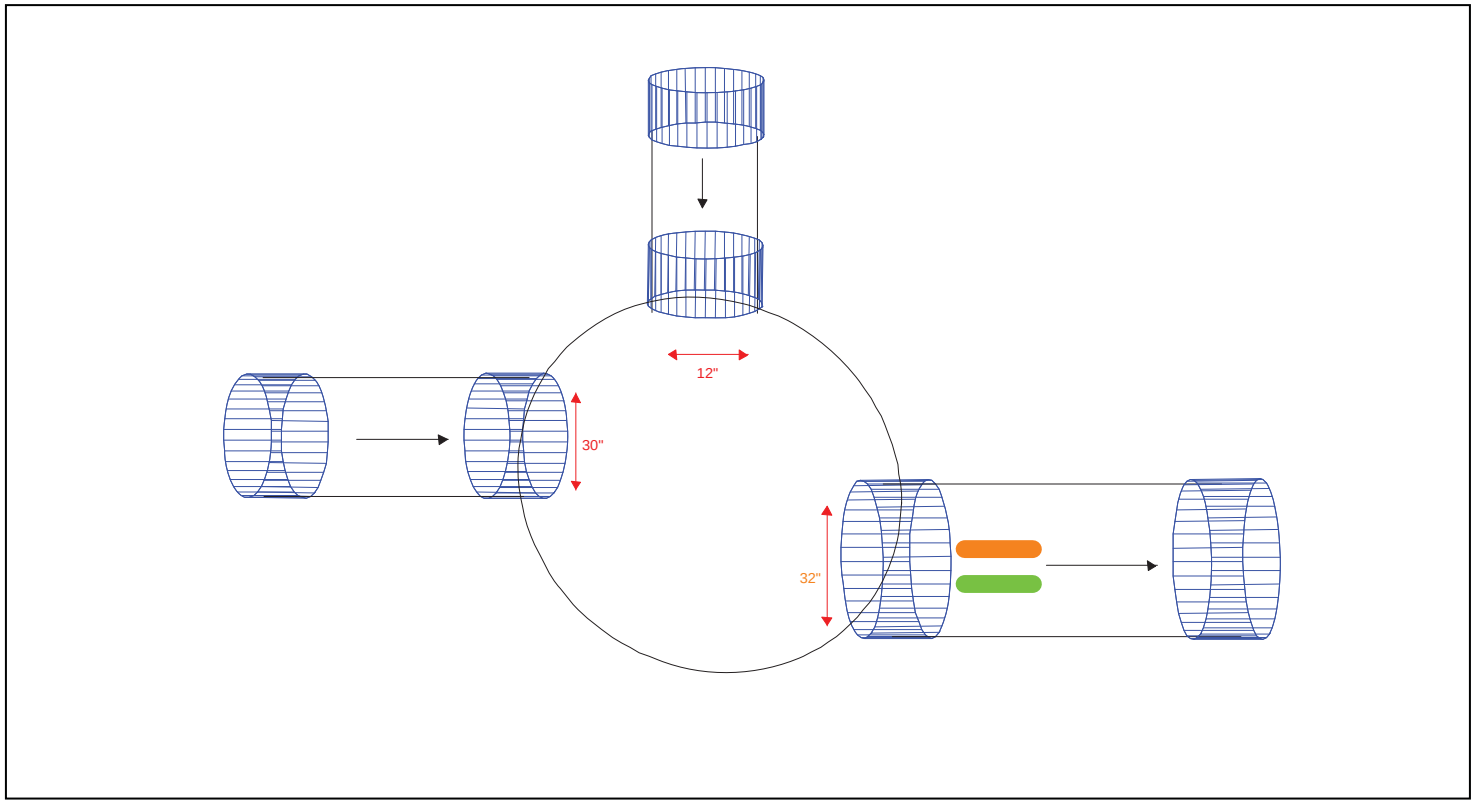
View of flow through influent line

View of flow through effluent line

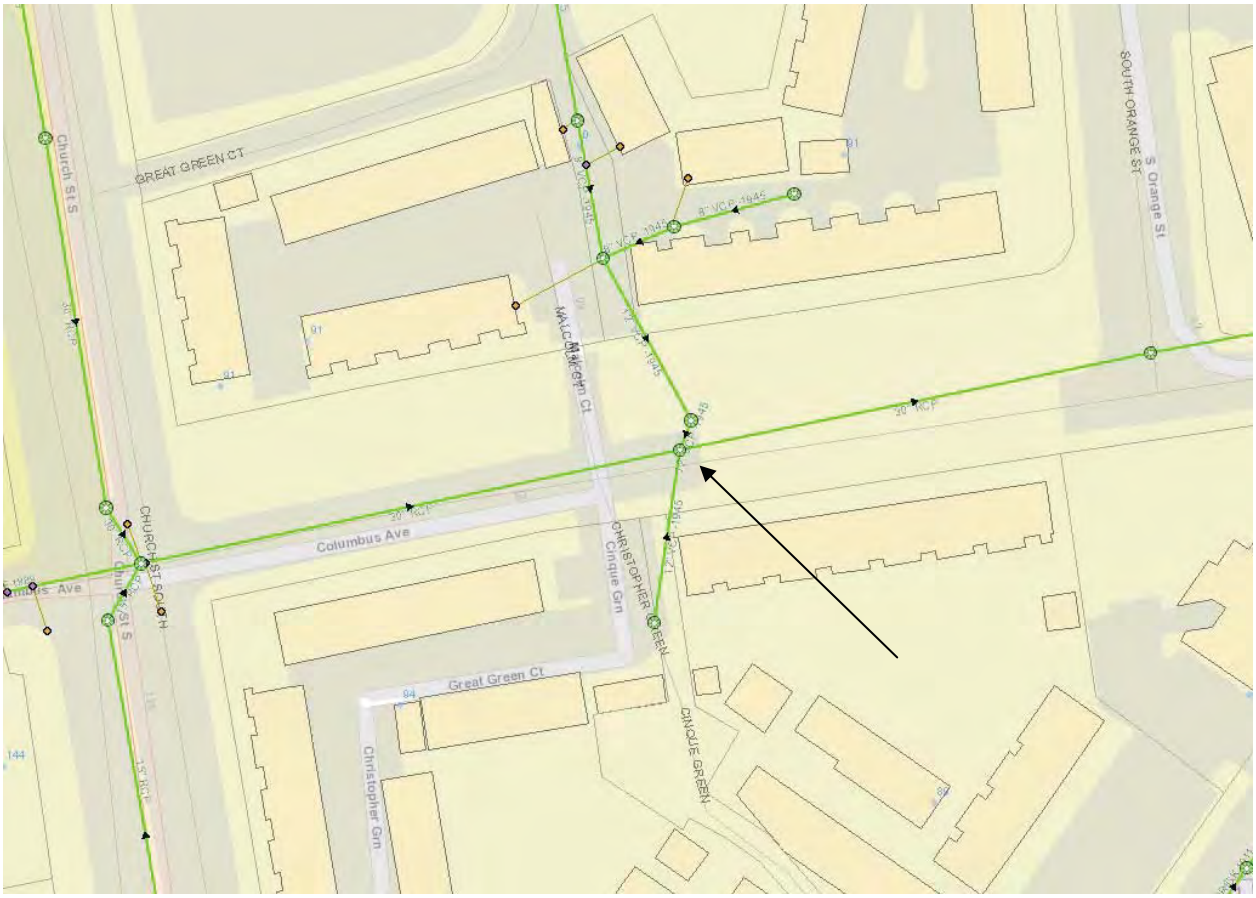
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-025_Frontage

Investigation Date: 8/27/13 Time: 11:44 Crew Members: KE/MH

Installation Date: Time: Crew Members:

Address/Location: On N. Frontage Road, above State Street (across from the bus stop)

Latitude: N 41°18.154' Longitude: W 72°55.488'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 2.05 ft/sec

Depth 11.25 in

Turbulence Amplitude:

~~Less than 0.25"~~

(0.25" to 0.75")

0.75" to 1.5"

1.5" to 3"

Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	30"		30"
Width	30"		30"
Material	RCP		RCP
Shape	Round		Round

Sediment Present:

(Yes) Hard packed: _____ in. deep

No Soft: 3.0 in. deep

Surcharge / Backwater Influence:

~~No evidence visible~~

~~Remains in pipe~~

_____ft from rim

Reaches Rim (potential meter damage)

Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)

Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)

Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)

(Traffic Control only (Requires extra traffic control)

Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __

Manhole depth 15'

Structural Integrity of Manhole:

Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole

Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole

Approx Distance to change:_____ft

(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

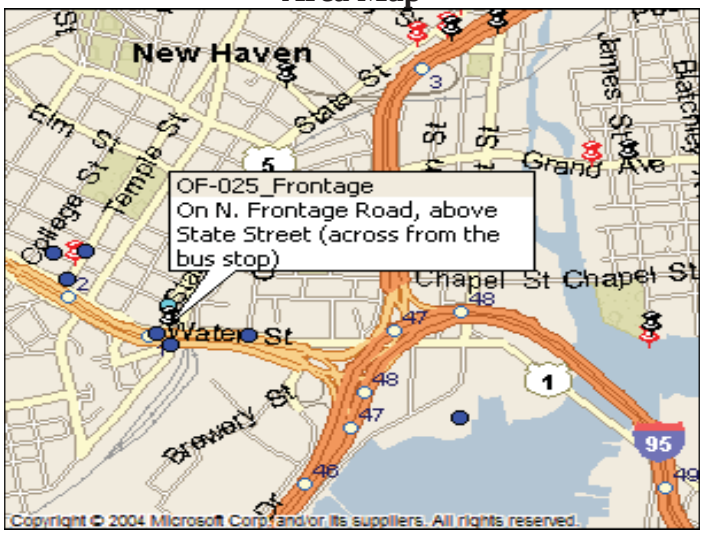
Sensor Configuration:

(Please include Serial Numbers when possible)

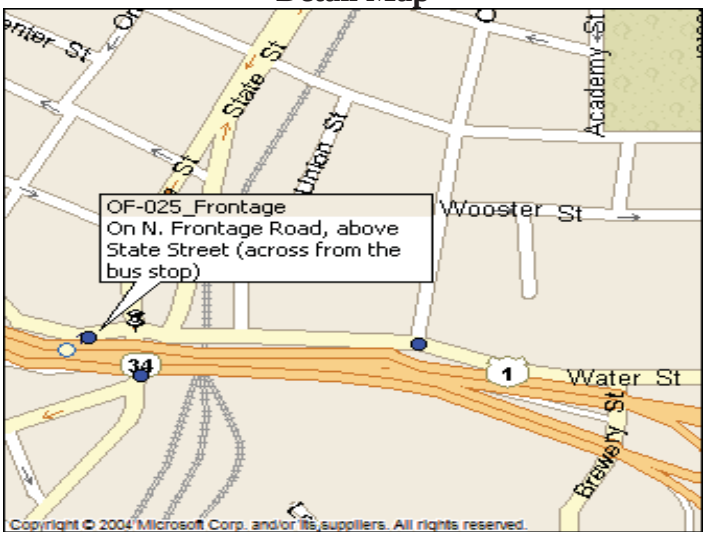
Level	Primary: 222 (Flowav)
	Redundant: 678 (Flowav)
Velocity	Primary: 222 (Flowav)
	Redundant: 678 (Flowav)
Meter Logger	Telog 291630

Comments:

Area Map



Detail Map



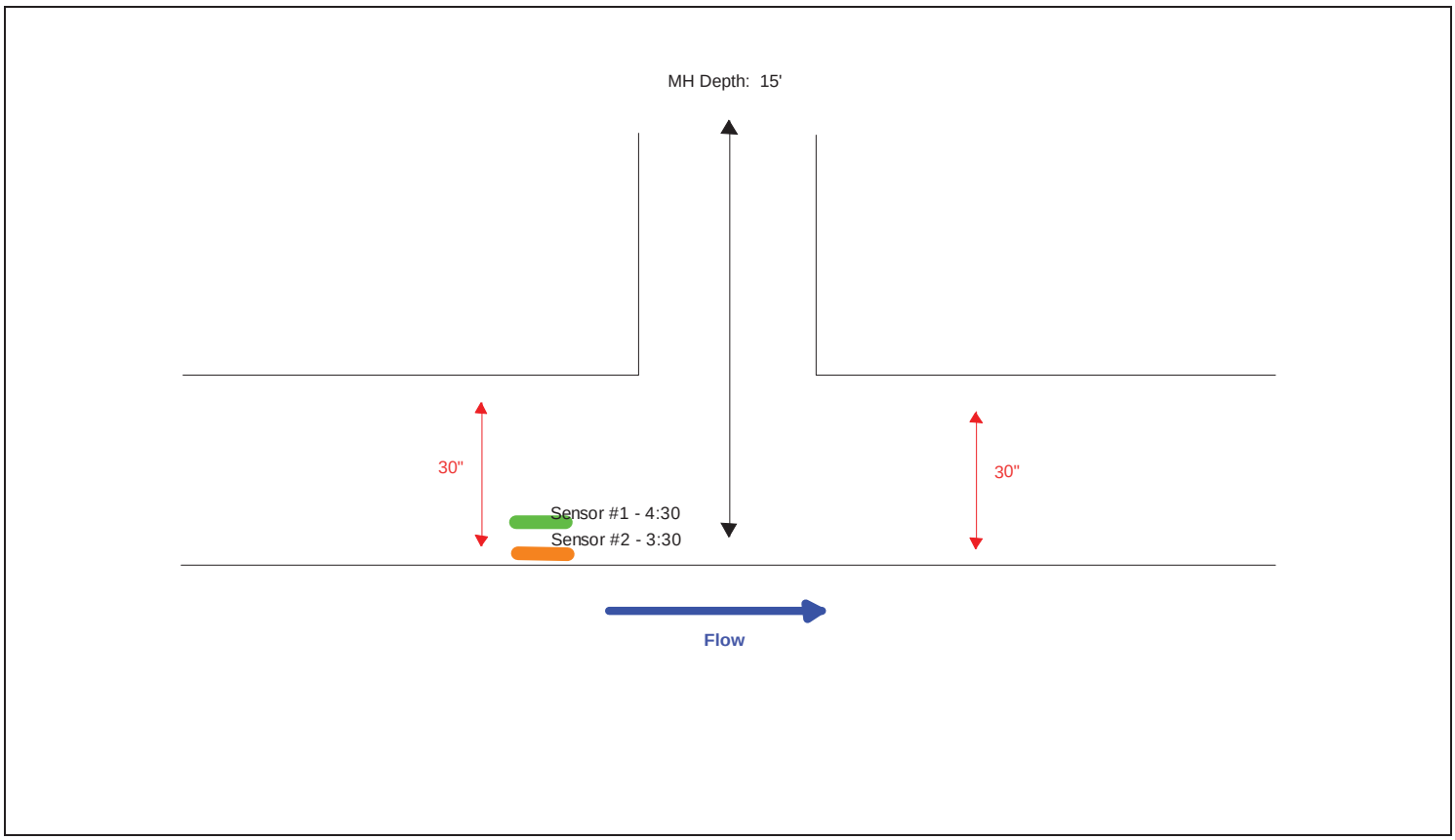
View from top of MH

Site Overview

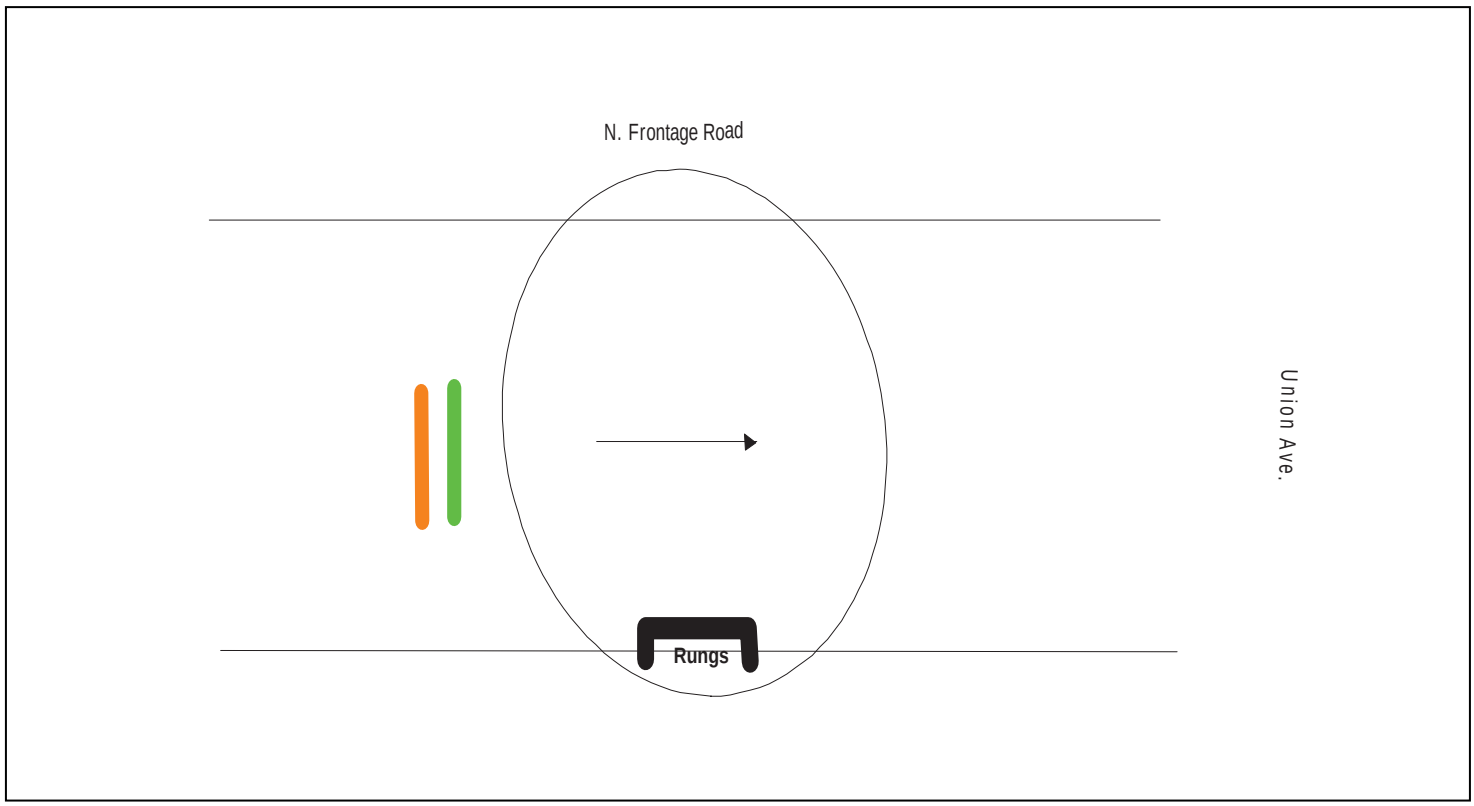
View of flow through influent line

View of flow through effluent line

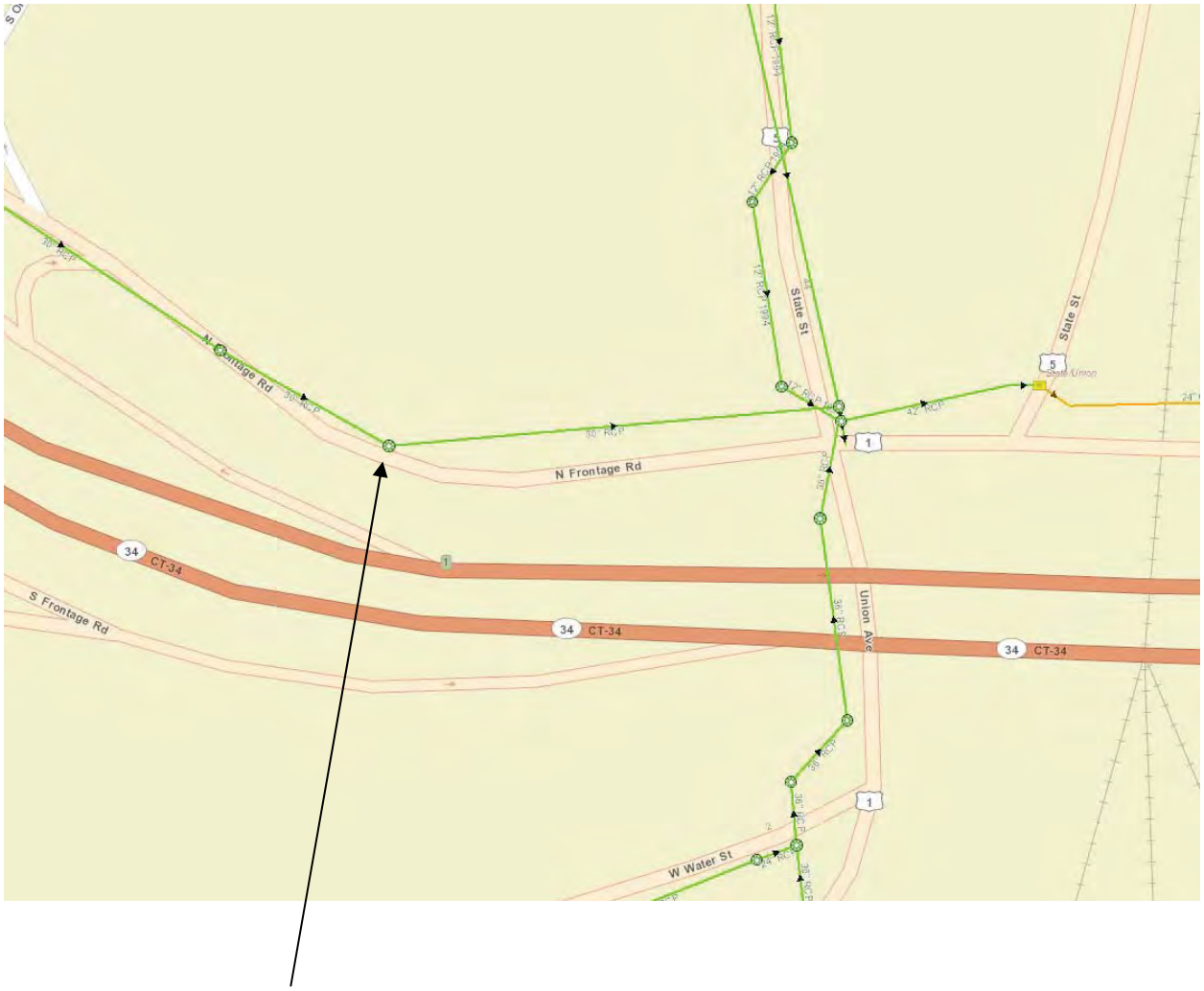
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # OF-025_State

Investigation Date: 8/27/13 Time: 12:40 Crew Members: KE/MH

Installation Date: Time: Crew Members:

Address/Location: Intersection of George &State Streets (on sidewalk, close to the parking lot)

Latitude: N 41°18.154' Longitude: W 72°55.488'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 3.02 ft/sec

Depth 6.25 in

Turbulence Amplitude:

~~Less than 0.25"~~

(0.25" to 0.75")

0.75" to 1.5"

1.5" to 3"

Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	59.5"		59.5"
Width	46"		46"
Material	Brick		Brick
Shape	Elliptical		Elliptical

Sediment Present:

Yes Hard packed: _____ in. deep

(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

No evidence visible

(Remains in pipe)

_____ft from rim

Reaches Rim (potential meter damage)

Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)

Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)

Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)

(Traffic Control only (Requires extra traffic control)

Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __

Manhole depth 11'

Structural Integrity of Manhole:

Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole

Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole

Approx Distance to change:_____ft

(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

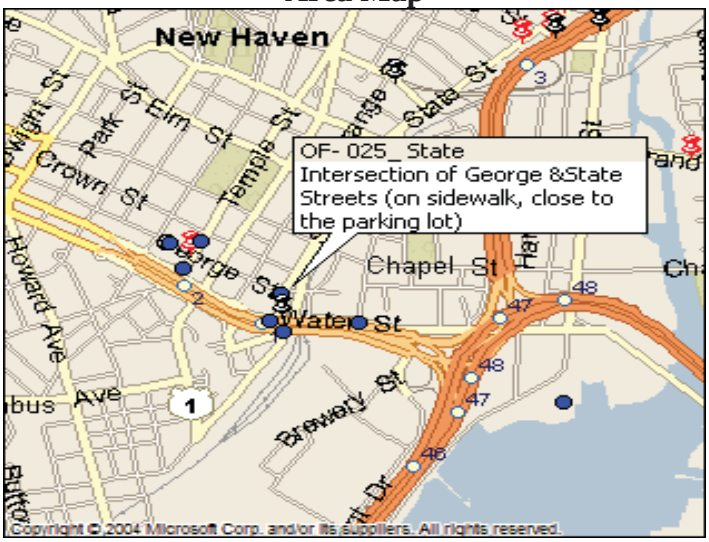
Sensor Configuration:

(Please include Serial Numbers when possible)

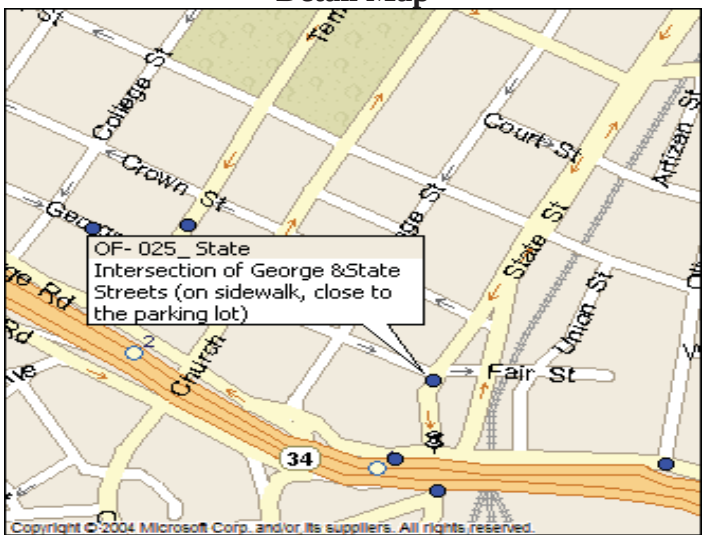
Level	Primary: 489 (Flowav)
	Redundant: 184 (Flowav)
Velocity	Primary: 489 (Flowav)
	Redundant: 184 (Flowav)
Meter Logger	293662

Comments:

Area Map



Detail Map



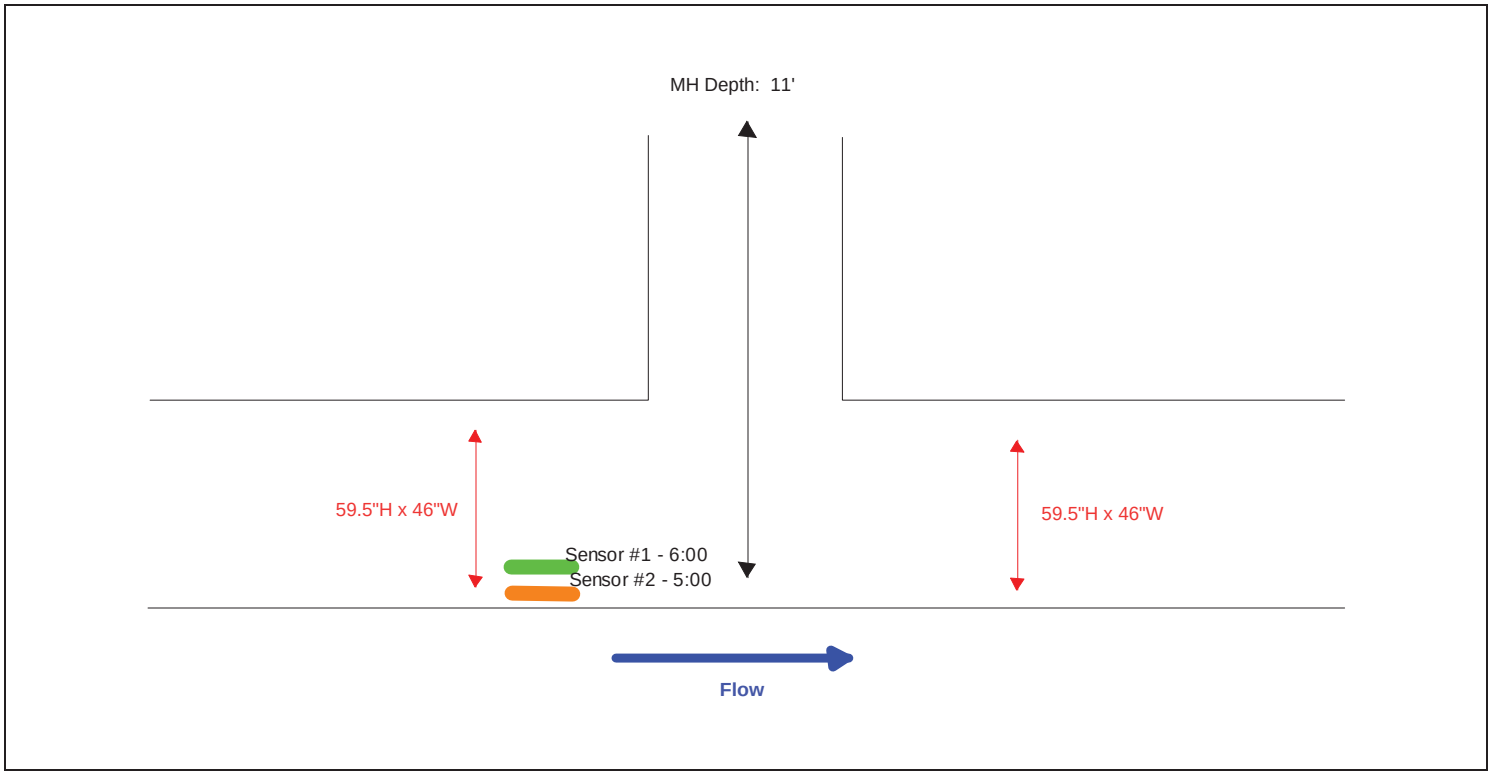
View from top of MH

Site Overview

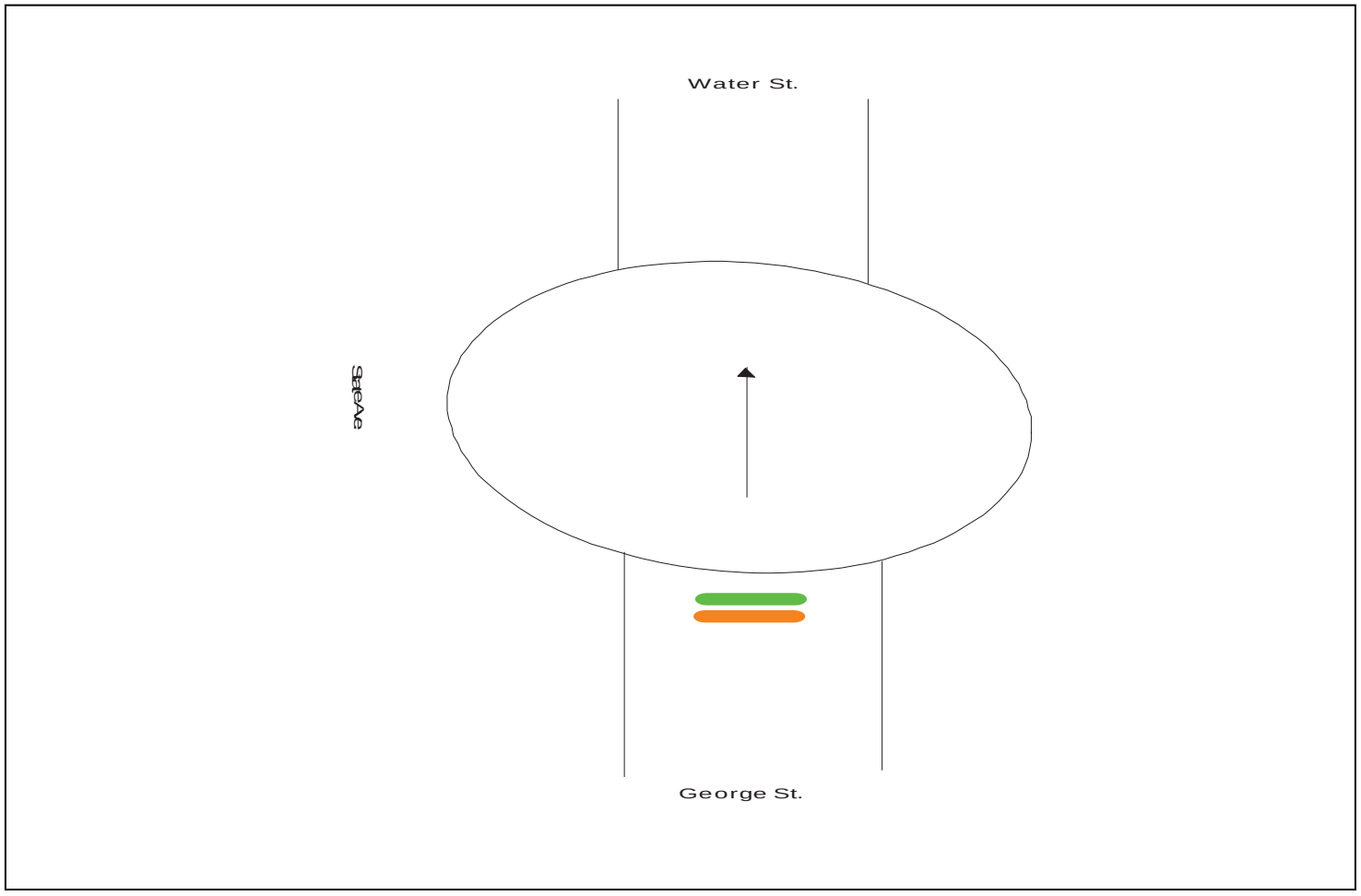
View of flow through influent line

View of flow through effluent line

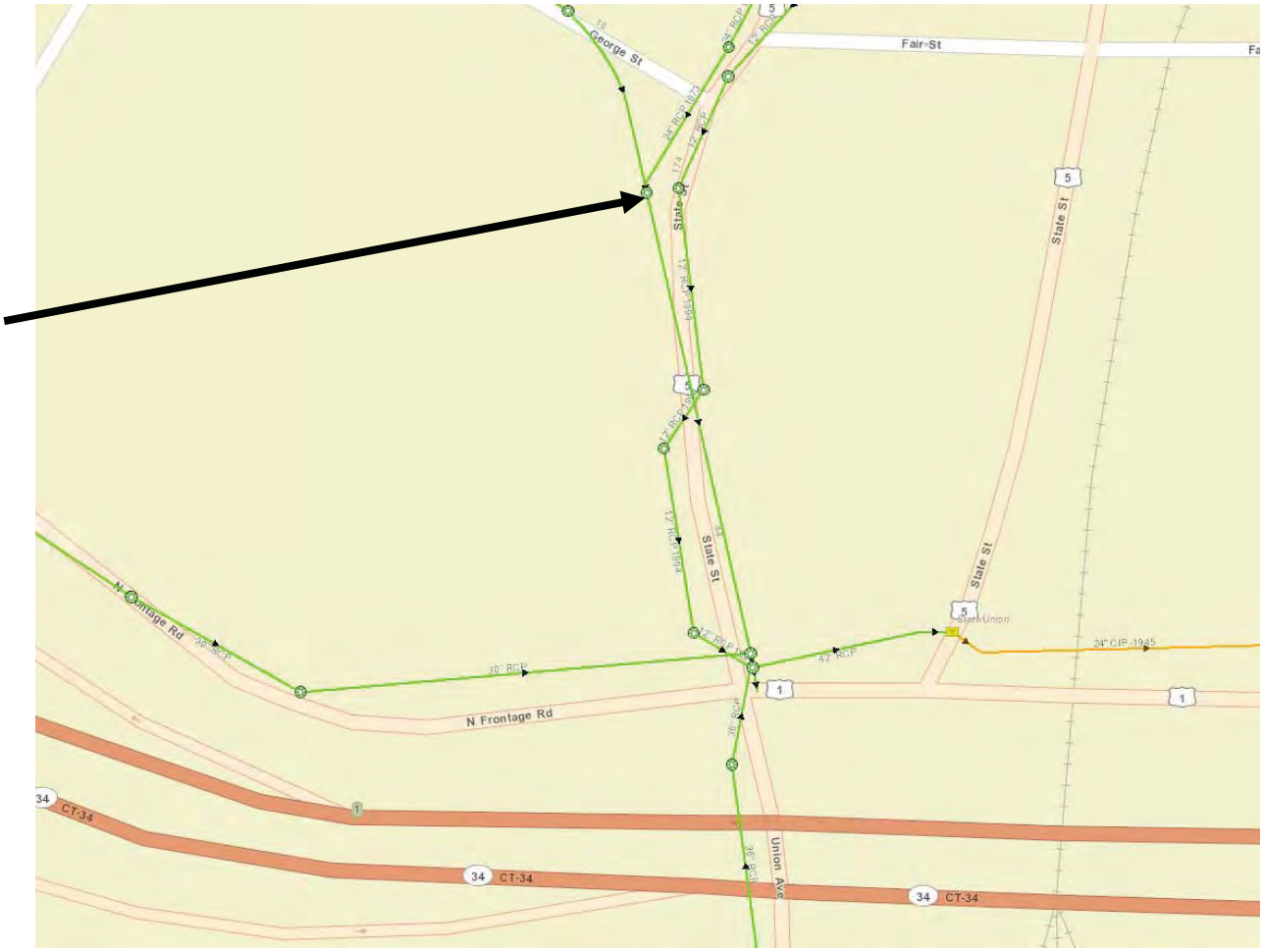
Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # Regulator 34-Weir

Investigation Date: Time: Crew Members:

Installation Date: 11/20/13 Time: 12:54 Crew Members: CL/ME

Address/Location: On Temple Street at George Street, in the crosswalk

Latitude: N 41° Longitude: W 72°

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity N/A ft/sec

Depth N/A in

Turbulence Amplitude:

Less than 0.25”

0.25” to 0.75”

0.75” to 1.5”

1.5” to 3”

Greater than 3”

Sewer Line Characteristics:

	Sewer Influent 1	Sewer Effluent	Storm Influent 1	Storm Influent 2	Overflow Effluent
Height	48”	24”	48”	15”	48”
Width	48”	24”	48”	15”	48”
Material	RCP	RCP	RCP	RCP	RCP
Shape	Round	Round	Round	Round	Round

Sediment Present: *in downstream*

Yes Hard packed: _____ in. deep

(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

No evidence visible

(Remains in pipe)

_____ft from rim

Reaches Rim (potential meter damage)

Evidence unclear: _____ft from rim

Gas Investigation: ( )

Good _____ (condition)

Site Conditions

Site Access:

Good (no problems accessing site)

Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)

Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft)~~

(Traffic Control only (Requires extra traffic control)

Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __

Manhole depth 11’5”

Structural Integrity of Manhole:

Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole

Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole

Approx Distance to change:_____ft

(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

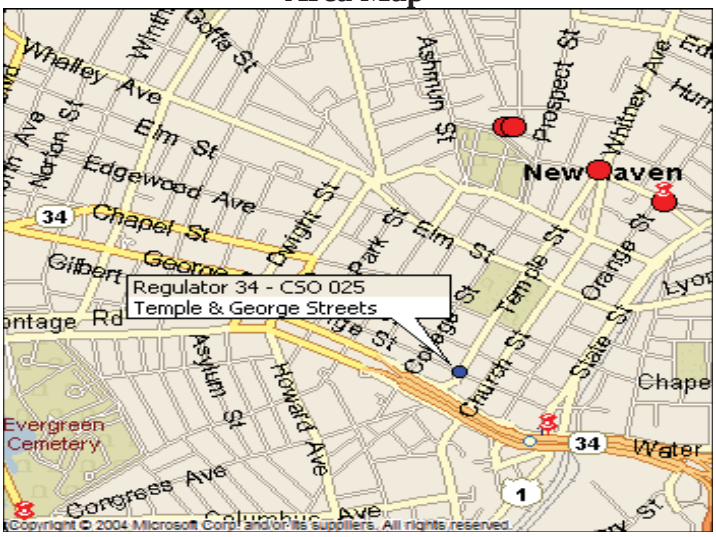
Sensor Configuration:

(Please include Serial Numbers when possible)

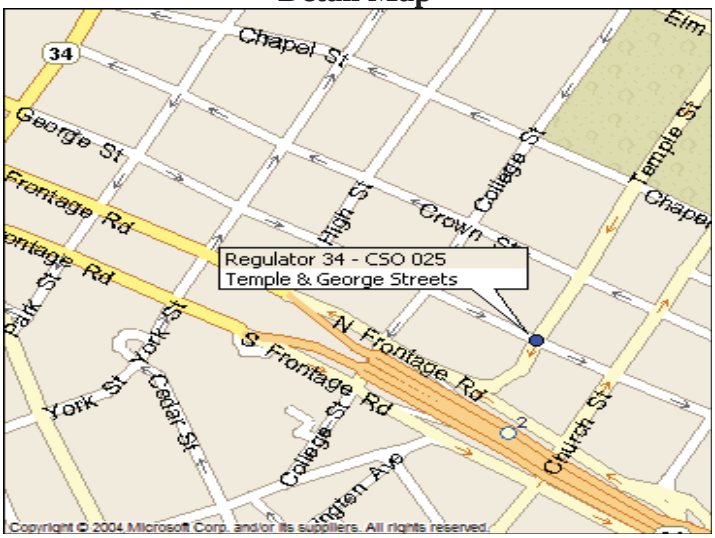
Level	Primary:	
	Redundant:	
Velocity	Primary:	
	Redundant:	
Meter Logger	FloWav 293305	

Comments: *Effluent has silt coming from Influent 2. Effluent is the larger pipe.*

Area Map



Detail Map



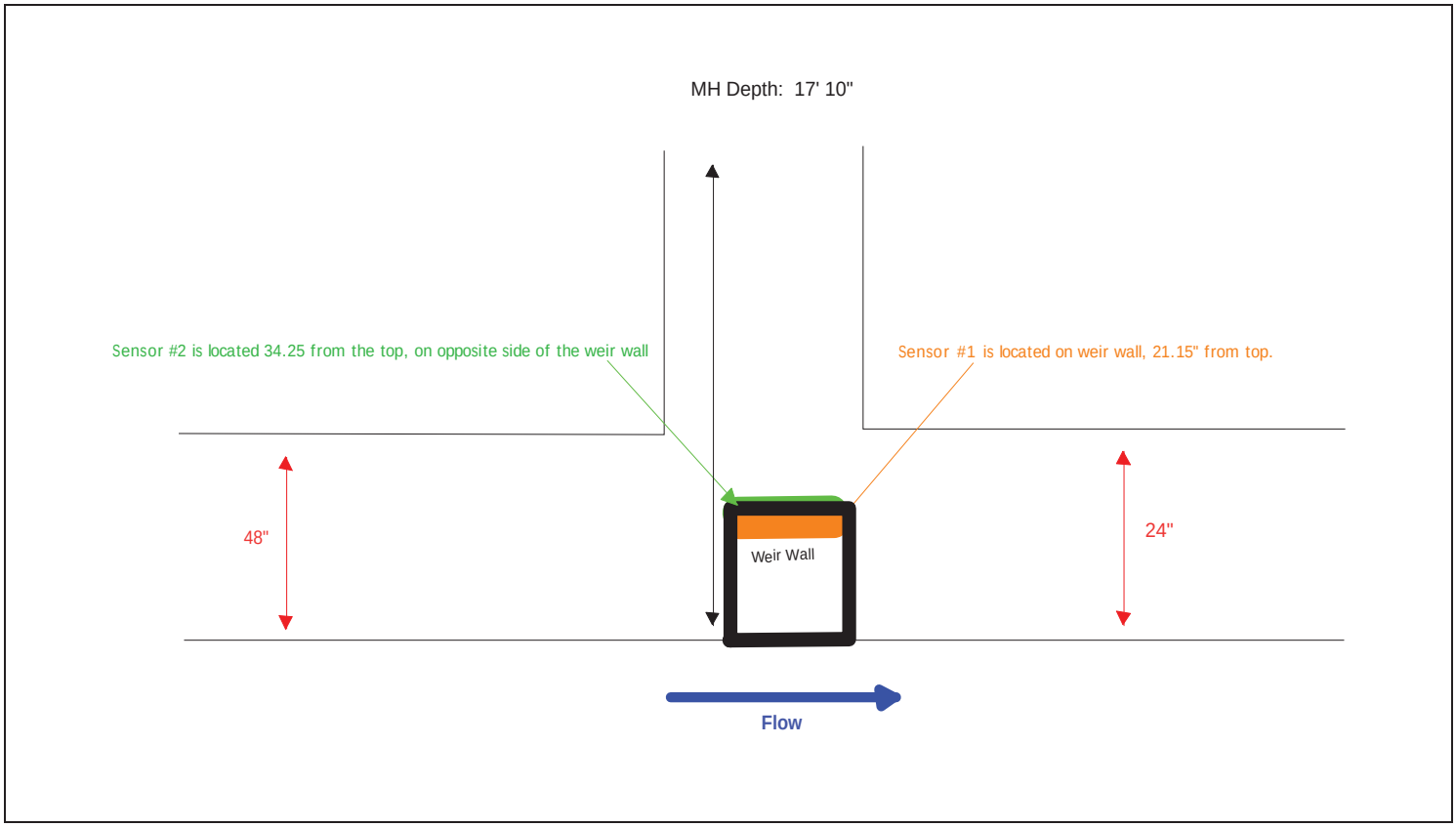
View from top of MH

Site Overview

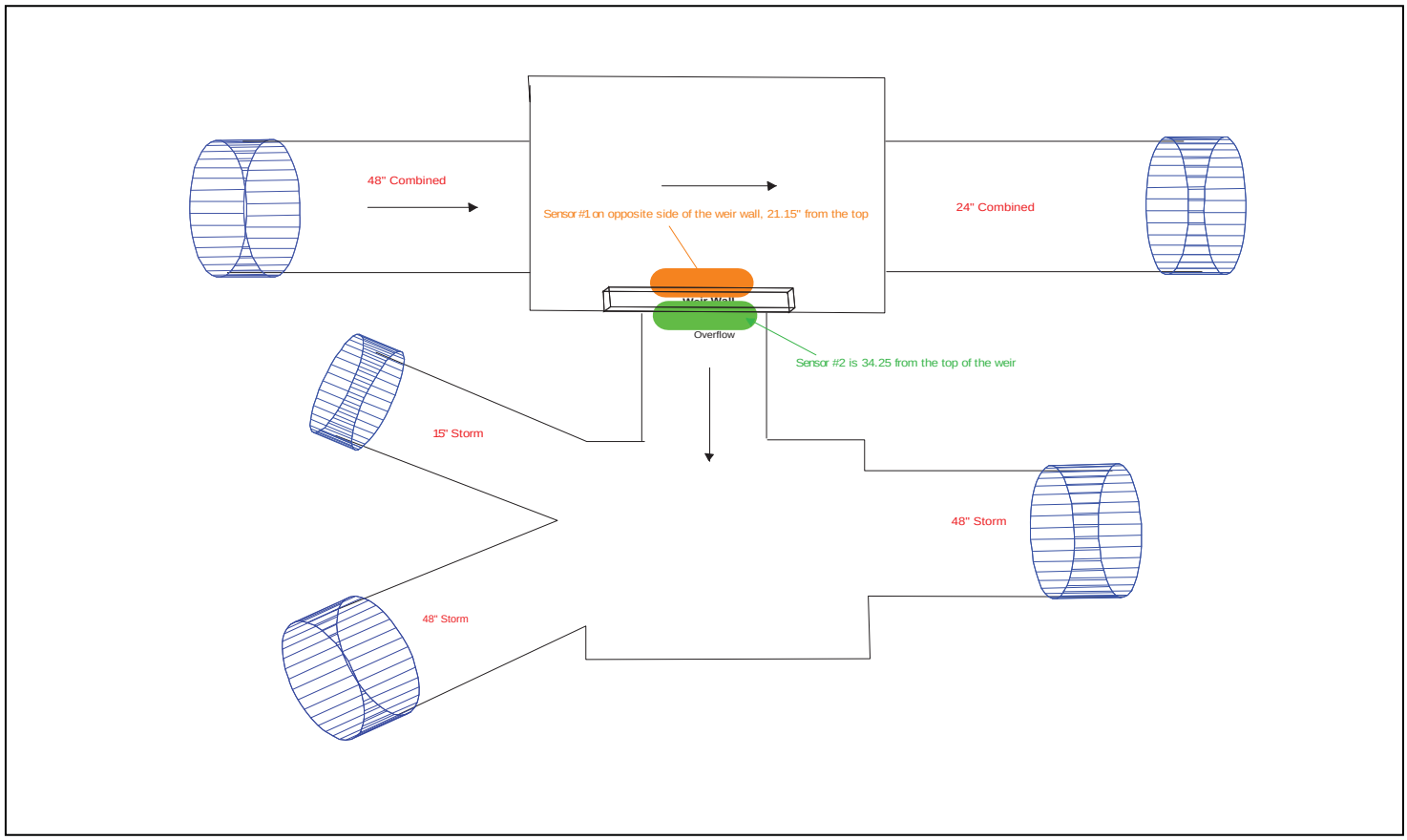
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)

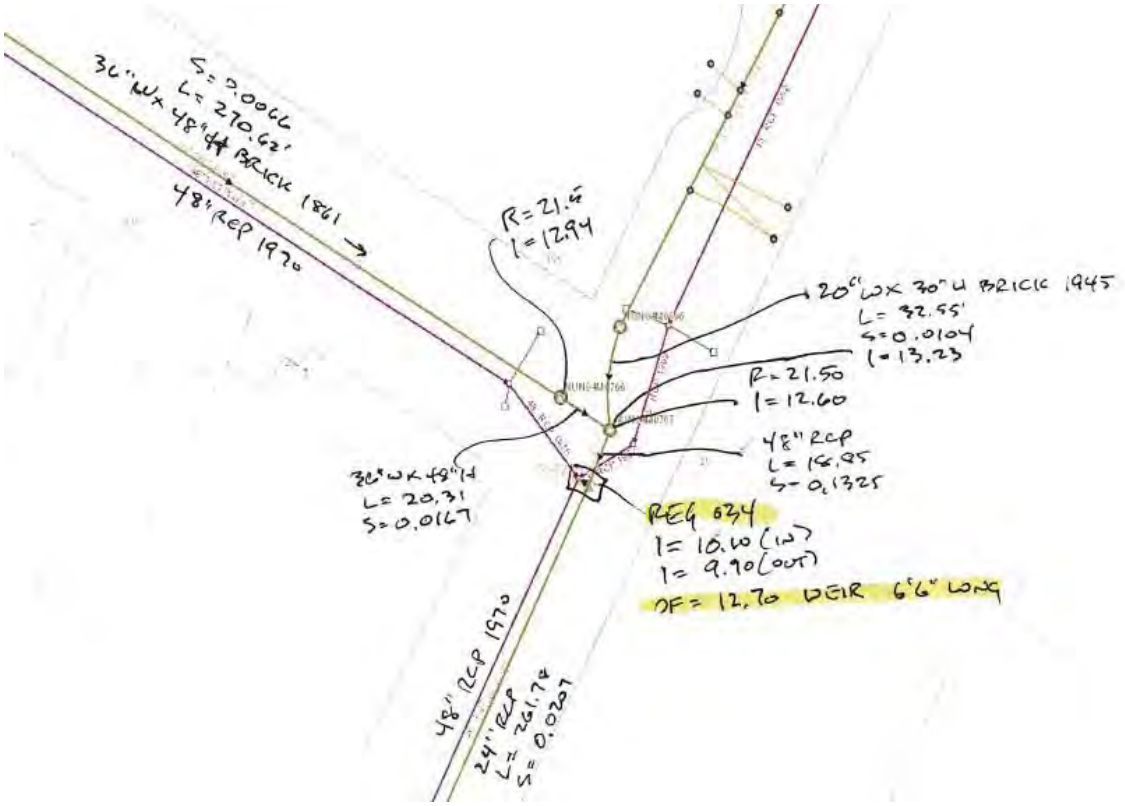


Plan View



Site Location Plan View

Sketch or plat showing upstream and downstream manholes, connections, and bends.



Site Name / Manhole # Regulator 34_George

Investigation Date: 8/27/13 Time: 116:58 Crew Members: KE/MH

Installation Date: Time: Crew Members:

Address/Location: 229 George Street (across from New Haven Hotel, middle lane)

Latitude: N 41°18.283' Longitude: W 72°55.767'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 2.30 ft/sec

Depth 5.75 in

Turbulence Amplitude:

(Less than 0.25")
0.25" to 0.75"
0.75" to 1.5"
1.5" to 3"
Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	48.25"		48.25"
Width	37"		37"
Material	Brick		Brick
Shape	Egg		Egg

Sediment Present:

Yes Hard packed: _____ in. deep
(No) Soft: _____ in. deep

Surcharge / Backwater Influence:

No evidence visible
(Remains in pipe)
_____ft from rim
Reaches Rim (potential meter damage)
Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)
Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)
Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)
(Traffic Control only (Requires extra traffic control)
Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __
Manhole depth 8'6"
Structural Integrity of Manhole:
Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole
Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole
Approx Distance to change:_____ft
(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

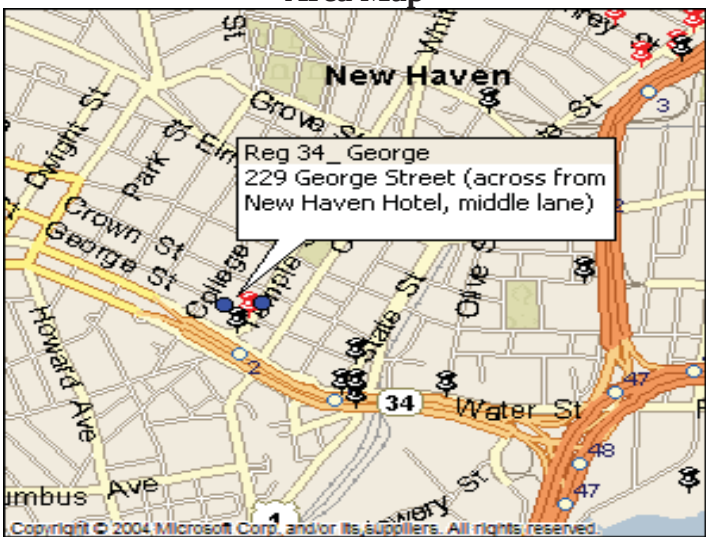
Sensor Configuration:

(Please include Serial Numbers when possible)

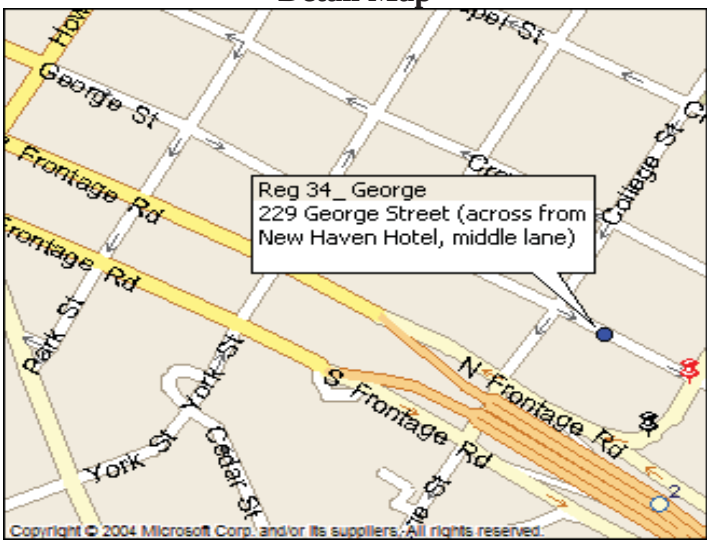
Level	Primary: 878 (Flowav)
	Redundant:
Velocity	Primary: 878 (Flowav)
	Redundant:
Meter Logger	Flowav 293662

Comments:

Area Map



Detail Map



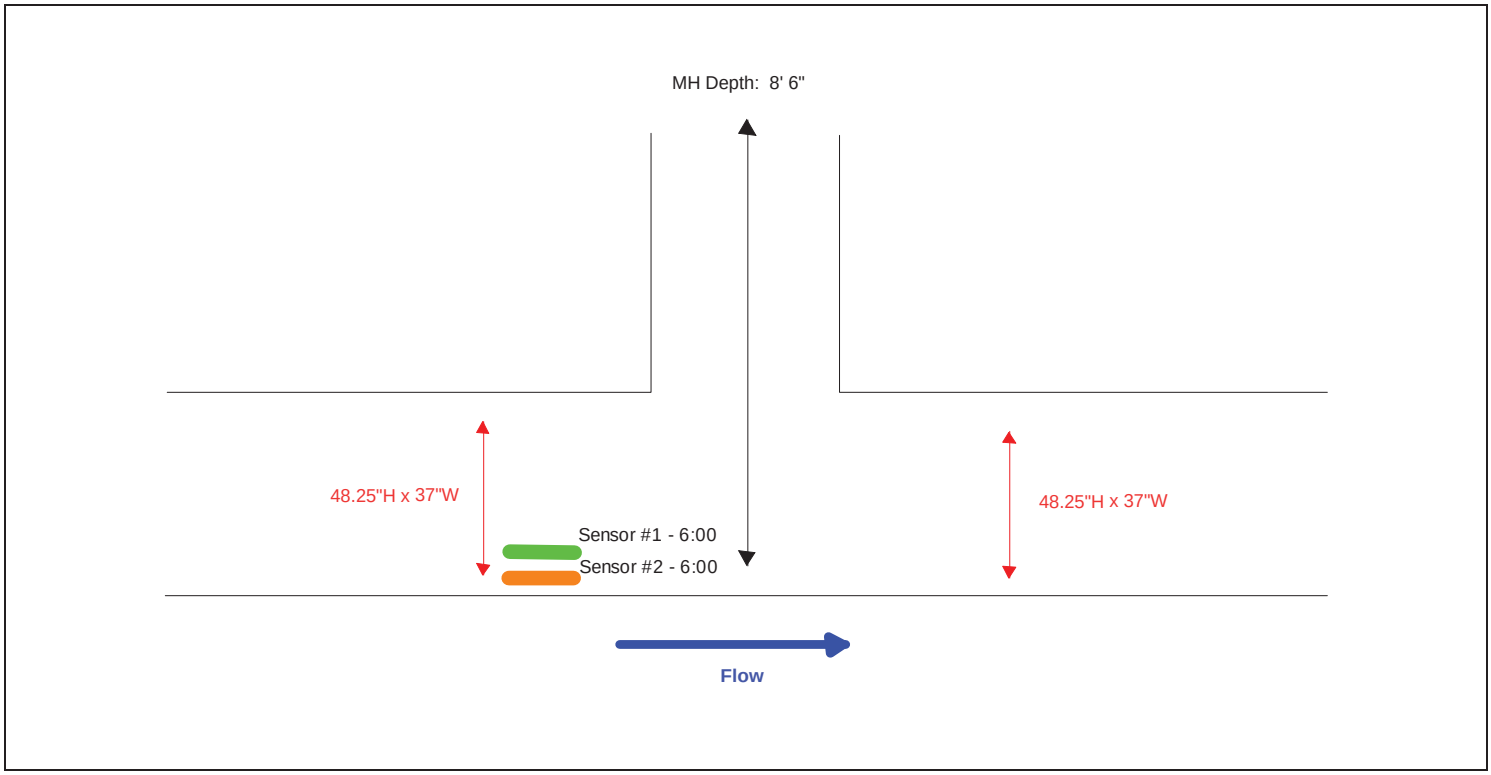
View from top of MH

Site Overview

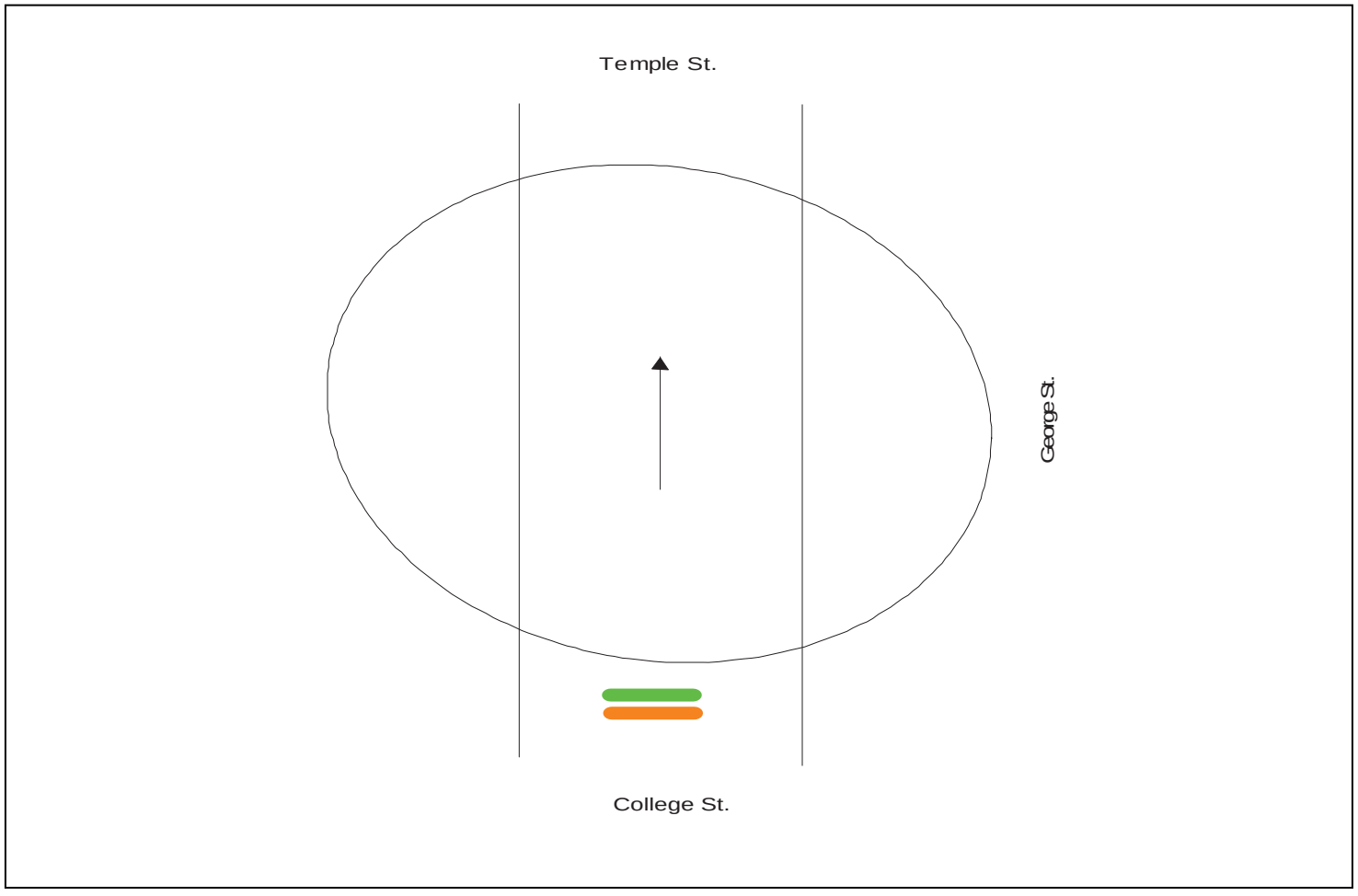
View of flow through influent line

View of flow through effluent line

Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Site Name / Manhole # Regulator 34_Temple

Investigation Date: 8/27/13 Time: 17:56 Crew Members: KE/MH

Installation Date: 8/30/13 Time: 9:00 Crew Members: KE/MH

Address/Location: 100 Temple Street

Latitude: N 41°18.292' Longitude: W 72°55.698'

Weather Conditions: Wet (Dry)

Hydraulic Conditions

Influent Flow:

Velocity 1.01 ft/sec

Depth 10.75 in

Turbulence Amplitude:

~~Less than 0.25"~~

(0.25" to 0.75")

0.75" to 1.5"

1.5" to 3"

Greater than 3"

Sewer Line Characteristics:

	Influent 1	Influent 2	Effluent
Height	38.75"		38.75"
Width	24.75"		24.75"
Material	Brick		Brick
Shape	Egg		Egg

Sediment Present:

(Yes) Hard packed: _____ in. deep

No Soft: Approx. 5.0 in. deep

Surcharge / Backwater Influence:

(No evidence visible)

Remains in pipe

_____ft from rim

Reaches Rim (potential meter damage)

Evidence unclear: _____ft from rim

Gas Investigation:

(Good) 20.9 (condition)

Site Conditions

Site Access:

Good (no problems accessing site)

Fair (minor traffic control, truck accessible off-road site, can safely carry equipment to site)

Poor (remote areas, steel embankments, ~~No safe place to park, elevated MH >3 ft~~)

(Traffic Control only (Requires extra traffic control)

Unusable (Document in Comments section)

Manhole Information:

Elevated Manhole: Yes (No)

Height above ground __

Manhole depth 11'

Structural Integrity of Manhole:

Good (Fair) Poor

Pipe Bends: *None within camera view*

Influent Effluent Manhole

Approx Distance to bend:____ft

Pipe Size/Geometry/Material Change:

Influent Effluent Manhole

Approx Distance to change:_____ft

(detail is comments)

Crew Member: Can you maintain this site?

(Yes) No Maybe

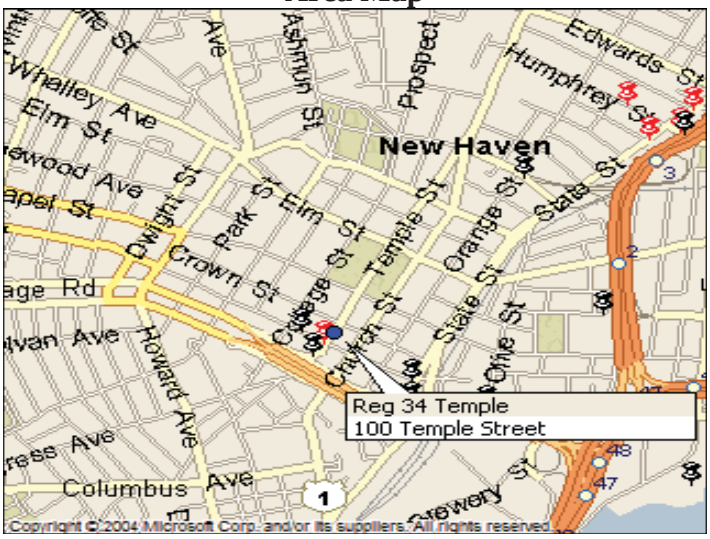
Sensor Configuration:

(Please include Serial Numbers when possible)

Level	Primary: 159 (Flowav)
	Redundant: 757 (Flowav)
Velocity	Primary: 159 (Flowav)
	Redundant: 757 (Flowav)
Meter Logger	Telog 293377

Comments:

Area Map



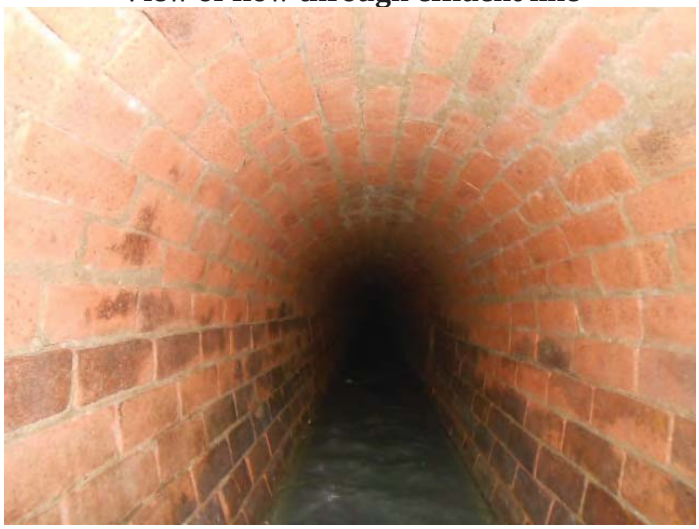
Detail Map

View from top of MH

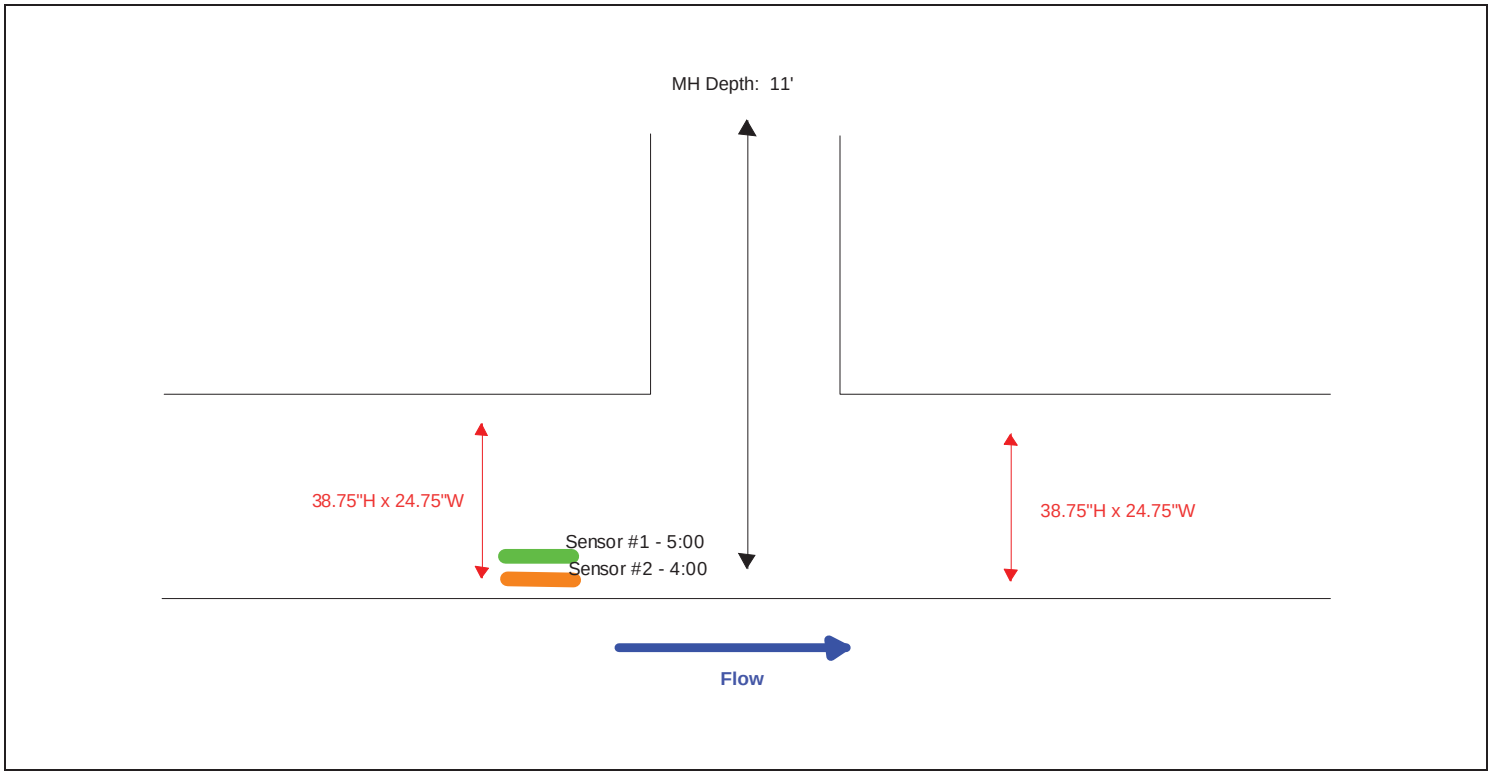
Site Overview

View of flow through influent line

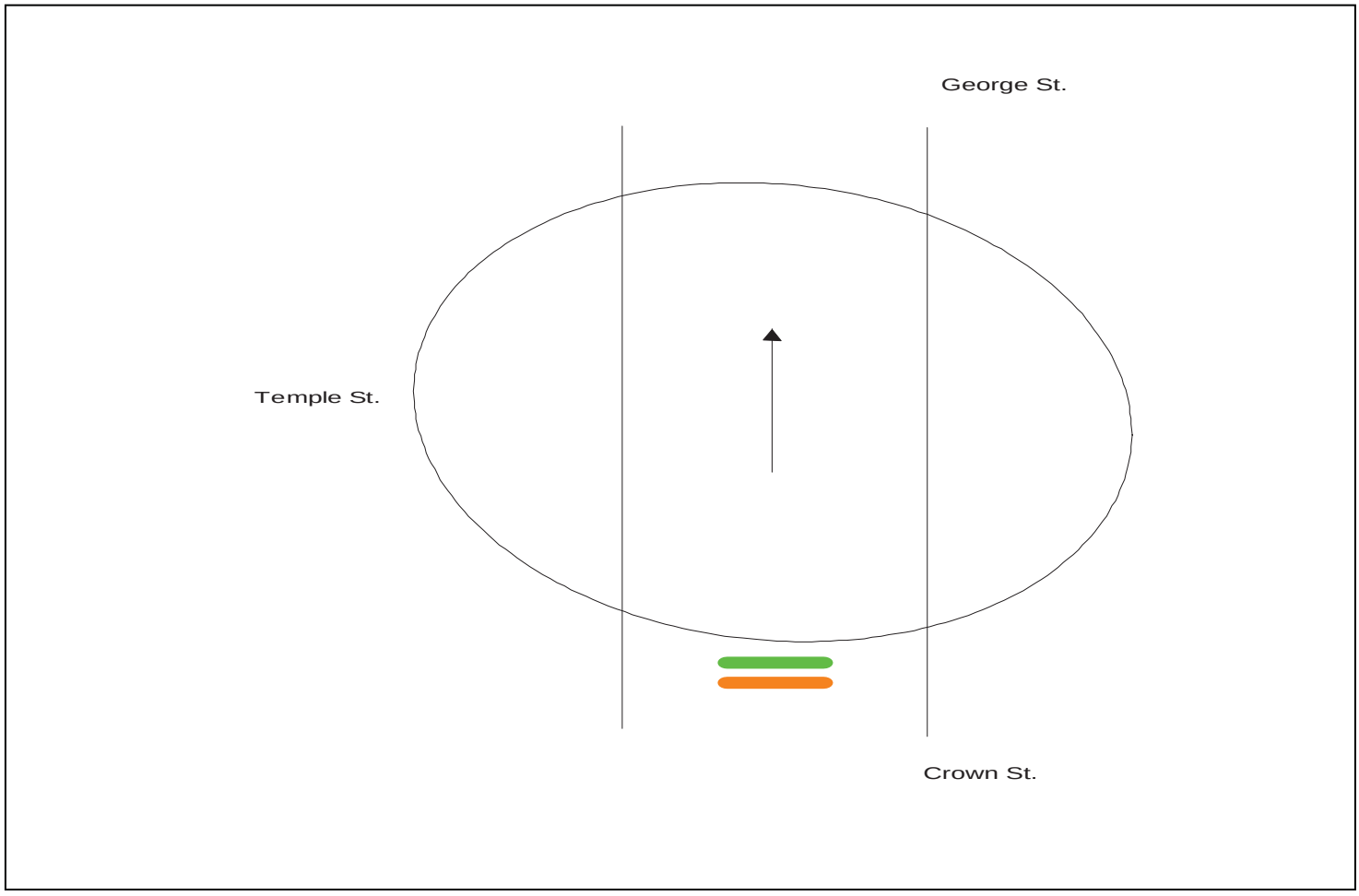
View of flow through effluent line



Dimensional Structure Profile View (profile sketch showing location of sensors)



Plan View



Site Location Plan View
Sketch or plat showing upstream and downstream manholes, connections, and bends.

Appendix D
Monthly CSO Reports for May, June and July, 2014

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - THROUGH MAY 2014

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)	RAINFALL (IN)	METER MONTHS
CSO 006	REGS 006 A, 006 B	30	9.276	86.80	24
CSO 005	REG 005	25	5.483	86.80	24
CSO 004	REG 004	88	40.963	86.80	24
CSO 003	REG 003	66	31.645	86.80	24
CSO 024	REG 024	22	24.344	81.20	22
CSO 009	REG 009	40	2.866	69.46	20
CSO 019	REG 019	26	1.451	81.20	22
CSO 016	REG 016	51	25.994	71.49	22
CSO 015	REG 015	34	5.678	69.46	20
CSO 010	REG 010	14	3.125	70.16	19
CSO 011	REGS 010A, 011, 014, 026	16	10.515	65.09	18
CSO 012	REGS 012A, 012B, 028	35	11.659	81.20	22
CSO 025	REGS 025, 034	3	0.486	24.71	6
CSO 021	REG 021	27	25.608	66.09	19
CSO 020	REG 020	5	0.233	49.54	14
TOTAL		**482**	**199.326**		

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS BASED ON RAINFALL[1]	ANNUAL CSO VOLUME (MG) BASED ON RAINFALL[2]	ANNUAL CSO EVENTS BASED ON MONTHS[3]	ANNUAL CSO VOLUME (MG) BASED ON MONTHS[4]	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
CSO 006	REGS 006 A, 006 B	14	4.410	15	4.638	27	27.0
CSO 005	REG 005	12	2.607	13	2.742	39	22.0
CSO 004	REG 004	42	19.476	44	20.482	44	65.3
CSO 003	REG 003	31	15.046	33	15.823	28	12.5
CSO 024	REG 024	11	12.373	12	13.279	0	1.9
CSO 009	REG 009	24	1.703	24	1.720	27	8.1
CSO 019	REG 019	13	0.737	14	0.791	7	2.4
CSO 016	REG 016	29	15.005	28	14.179	45	20.4
CSO 015	REG 015	20	3.374	20	3.407	9	4.1
CSO 010	REG 010	8	1.838	9	1.974	6	2.4
CSO 011	REGS 010A, 011, 014, 026	10	6.667	11	7.010	15	26.6
CSO 012	REGS 012A, 012B, 028	18	5.926	19	6.359	8	2.9
CSO 025	REGS 025, 034	5	0.812	6	0.972	6	9.0
CSO 021	REG 021	17	15.991	17	16.173	23	35.1
CSO 020	REG 020	4	0.194	4	0.200	8	1.4
TOTAL		**255**	**105.965**	**265**	**109.547**	**292**	**241.1**

(1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date
(2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date
(3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date
(4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - MAY 2014

MONTHLY RAINFALL SUMMARY

4.22 inches of rain (3.44 inches of rain in a typical month)
No snow
12 rain events (10 rain events in a typical month)
One 2 year storm, one 1 year storm, all other storms less than 1 month return frequency

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)
CSO 006	REGS 006 A, 006 B	2	0.431
CSO 005	REG 005	2	0.402
CSO 004	REG 004	8	1.961
CSO 003	REG 003	3	0.155
CSO 024	REG 024	1	0.174
CSO 009	REG 009	2	0.102
CSO 019	REG 019	1	0.008
CSO 016	REG 016	2	0.184
CSO 015	REG 015	3	0.076
CSO 010	REG 010	1	0.296
CSO 011	REGS 010A, 011, 014, 026	1	1.280
CSO 012	REGS 012A, 012B, 028	1	0.064
CSO 025	REGS 025, 034	3	0.486
CSO 021	REG 021	1	0.898
CSO 020	REG 020	1	0.005
TOTAL		**32** (22 CSO events in a typical month)	**6.522** (20.358 MG of CSO volume in a typical month)

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG — Orange Ave. @ Int. of Ella T. Grasso Blvd.
LOCATION: 003
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/2014	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/2014	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	0:55	5:25	4.50	0.549	0.103
8	5/22/2014 - 5/23/2014	4:25	1:40	21.25	0.46	***	5/22/2014	12:20	13:40	1.33	0.068	0.004
9	5/23/20114 - 5/24/2014	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR	5/27/2014	20:35	22:15	1.67	0.691	0.048
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 0.155

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Ella T. Grasso Blvd. - 23 yrds North of Legion Ave.
LOCATION: 004
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***	5/2/2014	0:00	10:00	10.00	0.123	0.051
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***	5/8/2014	10:40	12:25	1.75	0.626	0.046
4	5/9/2014	4:20	6:55	2.58	0.11	***	5/9/2014	7:30	8:05	0.58	0.479	0.012
5	5/10/2014 -5/11/2014	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/2014	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	0:55	5:40	4.75	5.599	1.108
8	5/22/2014 - 5/23/2014	4:25	1:40	21.25	0.46	***	5/22/2014	12:15	20:15	8.00	0.595	0.198
9	5/23/20114 - 5/24/2014	21:45	7:30	9.75	0.19	***	5/23/2014 - 5/24/2014	23:15	0:30	1.25	0.403	0.021
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR	5/27/2014	20:40	23:00	2.33	5.236	0.509
11	5/28/2014	9:50	10:25	0.58	0.10	***	5/28/2014	10:40	11:20	0.67	0.569	0.016
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 1.961

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG — Derby Ave. 20 yrds East of Ella T. Grasso Blvd.
LOCATION: 005
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/2014	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/2014	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	1:05	2:30	1.42	6.236	0.368
8	5/22/2014 - 5/23/2014	4:25	1:40	21.25	0.46	***						
9	5/23/20114 - 5/24/2014	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR	5/27/2014	20:50	21:35	0.75	1.094	0.034
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 0.402

Note: Overflow occurs when Interceptor level reaches 53.5"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whalley Ave. 30 yrds from Fitch Street
LOCATION: 006
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/2014	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/2014	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	1:10	2:30	1.33	1.827	0.380
8	5/22/2014 - 5/23/2014	4:25	1:40	21.25	0.46	***						
9	5/23/20114 - 5/24/2014	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR	5/27/2014	21:00	21:40	0.67	1.827	0.051
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 0.431

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
LOCATION: 009
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/20	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/20	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	2:20	3:25	1.08	2.151	0.097
8	5/22/2014 - 5/23/20	4:25	1:40	21.25	0.46	***	5/22/2014	12:20	13:05	0.75	0.159	0.005
9	5/23/20114 - 5/24/2	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR						
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH
FLOW VOLUME = 0.102

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
LOCATION: 010
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/201	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/20	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	1:15	2:25	1.17	6.093	0.296
8	5/22/2014 - 5/23/20	4:25	1:40	21.25	0.46	***						
9	5/23/20114 - 5/24/2	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR						
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 0.296

Note: Overflow occurs when sewer level reaches 54"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
LOCATION: 010A
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/2014	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/2014	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	1:20	2:05	0.75	4.487	0.140
8	5/22/2014 - 5/23/2014	4:25	1:40	21.25	0.46	***						
9	5/23/20114 - 5/24/2014	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR						
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 0.140

Note: Overflow occurs when sewer level reaches 62"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
LOCATION: 011
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/20	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/20	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	1:15	3:20	2.08	13.134	1.140
8	5/22/2014 - 5/23/20	4:25	1:40	21.25	0.46	***						
9	5/23/20114 - 5/24/2	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR						
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 1.140

Note: OF-011-609 and OF-011-997 removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
LOCATION: 011
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/201	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/20	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	1:15	3:20	2.08	14.769	1.280
8	5/22/2014 - 5/23/20	4:25	1:40	21.25	0.46	***						
9	5/23/20114 - 5/24/2	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR						
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 1.280

Note: Sum of 10A and 11

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
LOCATION: 012
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/20	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/20	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	1:15	2:05	0.92	1.667	0.064
8	5/22/2014 - 5/23/20	4:25	1:40	21.25	0.46	***						
9	5/23/20114 - 5/24/2	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR						
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 0.064

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
LOCATION: 015
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/20	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/20	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	0:55	3:35	2.67	0.109	0.012
8	5/22/2014 - 5/23/20	4:25	1:40	21.25	0.46	***	5/22/2014	12:25	13:00	0.58	0.767	0.019
9	5/23/20114 - 5/24/2	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR	5/27/2014	20:50	21:35	0.75	1.441	0.045
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						
										TOTAL MONTH FLOW VOLUME =		0.076

Note: Overflow can occur with DS sewer depth reaches 40.5"
Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
LOCATION: 016
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/2014	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/2014	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	1:00	2:25	1.42	2.401	0.142
8	5/22/2014 - 5/23/2014	4:25	1:40	21.25	0.46	***	5/22/2014	12:05	13:30	1.42	0.704	0.042
9	5/23/20114 - 5/24/2014	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR						
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 0.184

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
LOCATION: 019
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/2014	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/2014	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	1:15	1:25	0.17	1.091	0.008
8	5/22/2014 - 5/23/2014	4:25	1:40	21.25	0.46	***						
9	5/23/20114 - 5/24/2014	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR						
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 0.008

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinnipiac
LOCATION: 020
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/2014	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/2014	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	1:45	10:45	9.00	0.013	0.005
8	5/22/2014 - 5/23/2014	4:25	1:40	21.25	0.46	***						
9	5/23/20114 - 5/24/2014	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR						
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						
										TOTAL MONTH FLOW VOLUME =		0.005

Note: Overflow occurs when level is 31" in the interceptor.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
LOCATION: 021
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/2014	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/2014	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	1:30	3:55	2.42	8.916	0.898
8	5/22/2014 - 5/23/2014	4:25	1:40	21.25	0.46	***						
9	5/23/20114 - 5/24/2014	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR						
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 0.898

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
LOCATION: 024
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/2014	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/2014	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	1:25	3:25	2.00	2.019	0.174
8	5/22/2014 - 5/23/2014	4:25	1:40	21.25	0.46	***						
9	5/23/20114 - 5/24/2014	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR						
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 0.174

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
LOCATION: 025
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/2014	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/2014	5:55	4:20	22.42	1.62	1 YEAR						
8	5/22/2014 - 5/23/2014	4:25	1:40	21.25	0.46	***						
9	5/23/20114 - 5/24/2014	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR						
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH
FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
LOCATION: Regulator 34
NPDES Permit Outfall #:
MONTH: May YEAR: 2014
Average Low Temp: 51
Average High Temp: 69
Measured Rainfall: 4.22
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2014	0:40	0:45	0.08	0.01	***						
2	5/4/2014	16:20	16:30	0.17	0.02	***						
3	5/8/2014	6:45	16:25	9.67	0.20	***						
4	5/9/2014	4:20	6:55	2.58	0.11	***						
5	5/10/2014 -5/11/2014	5:15	3:30	22.25	0.13	***						
6	5/15/2014	19:50	20:10	0.33	0.03	***						
7	5/16/2014 - 5/17/2014	5:55	4:20	22.42	1.62	1 YEAR	5/17/2014	0:50	2:20	1.50	4.944	0.309
8	5/22/2014 - 5/23/2014	4:25	1:40	21.25	0.46	***	5/22/2014	12:30	12:40	0.17	2.233	0.016
9	5/23/20114 - 5/24/2014	21:45	7:30	9.75	0.19	***						
10	5/27/2014	20:10	21:25	1.25	1.33	2 YEAR	5/27/2014	20:35	21:20	0.75	5.137	0.161
11	5/28/2014	9:50	10:25	0.58	0.10	***						
12	5/30/2014	21:35	21:50	0.25	0.02	***						

TOTAL MONTH FLOW VOLUME = 0.486

Note:

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - THROUGH JUNE 2014

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)	RAINFALL (IN)	METER MONTHS
CSO 006	REGS 006 A, 006 B	32	9.686	91.19	25
CSO 005	REG 005	28	6.040	91.19	25
CSO 004	REG 004	92	42.867	91.19	25
CSO 003	REG 003	70	31.759	91.19	25
CSO 024	REG 024	23	24.487	85.59	23
CSO 009	REG 009	42	2.965	73.85	21
CSO 019	REG 019	28	1.535	85.59	23
CSO 016	REG 016	54	26.196	75.88	23
CSO 015	REG 015	38	6.171	73.85	21
CSO 010	REG 010	15	3.326	74.55	20
CSO 011	REGS 010A, 011, 014, 026	18	11.436	69.48	19
CSO 012	REGS 012A, 012B, 028	36	11.733	85.59	23
CSO 025	REGS 025, 034	6	0.992	29.10	7
CSO 021	REG 021	29	25.975	70.48	20
CSO 020	REG 020	5	0.233	53.93	15
TOTAL		**516**	**205.401**		

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS BASED ON RAINFALL[1]	ANNUAL CSO VOLUME (MG) BASED ON RAINFALL[2]	ANNUAL CSO EVENTS BASED ON MONTHS[3]	ANNUAL CSO VOLUME (MG) BASED ON MONTHS[4]	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
CSO 006	REGS 006 A, 006 B	14	4.384	15	4.649	27	27.0
CSO 005	REG 005	13	2.734	13	2.899	39	22.0
CSO 004	REG 004	42	19.400	44	20.576	44	65.3
CSO 003	REG 003	32	14.373	34	15.244	28	12.5
CSO 024	REG 024	11	11.807	12	12.776	0	1.9
CSO 009	REG 009	23	1.657	24	1.694	27	8.1
CSO 019	REG 019	14	0.740	15	0.801	7	2.4
CSO 016	REG 016	29	14.248	28	13.667	45	20.4
CSO 015	REG 015	21	3.449	22	3.526	9	4.1
CSO 010	REG 010	8	1.841	9	1.996	6	2.4
CSO 011	REGS 010A, 011, 014, 026	11	6.793	11	7.223	15	26.6
CSO 012	REGS 012A, 012B, 028	17	5.657	19	6.122	8	2.9
CSO 025	REGS 025, 034	9	1.407	10	1.701	6	9.0
CSO 021	REG 021	17	15.210	17	15.585	23	35.1
CSO 020	REG 020	4	0.178	4	0.186	8	1.4
TOTAL		**261**	**103.699**	**274**	**108.459**	**292**	**241.1**

(1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date
(2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date
(3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date
(4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - JUNE 2014

MONTHLY RAINFALL SUMMARY

4.39 inches of rain (3.44 inches of rain in a typical month)
No snow
6 rain events (10 rain events in a typical month)
Two 6 month storms, one 1 month storm, all other storms less than 1 month return frequency

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)
CSO 006	REGS 006 A, 006 B	2	0.410
CSO 005	REG 005	3	0.557
CSO 004	REG 004	4	1.904
CSO 003	REG 003	4	0.114
CSO 024	REG 024	1	0.143
CSO 009	REG 009	2	0.099
CSO 019	REG 019	2	0.084
CSO 016	REG 016	3	0.202
CSO 015	REG 015	4	0.493
CSO 010	REG 010	1	0.201
CSO 011	REGS 010A, 011, 014, 026	2	0.921
CSO 012	REGS 012A, 012B, 028	1	0.074
CSO 025	REGS 025, 034	3	0.506
CSO 021	REG 021	2	0.367
CSO 020	REG 020	0	0.000
TOTAL		**34** (22 CSO events in a typical month)	**6.075** (20.358 MG of CSO volume in a typical month)

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Orange Ave. @ Int. of Ella T. Grasso Blvd.
LOCATION: 003
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***	6/5/2014	10:35	11:50	1.25	0.090	0.005
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month	6/9/2014	13:40	15:45	2.08	0.118	0.010
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	11:00	22:10	11.17	0.180	0.084
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month	6/19/2014	7:25	9:40	2.25	0.163	0.015
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.114

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Ella T. Grasso Blvd. - 23 yrds North of Legion Ave.
LOCATION: 004
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***	6/5/2014	10:25	12:15	1.83	1.154	0.088
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month	6/9/2014	13:40	16:00	2.33	3.029	0.294
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	10:50	22:25	11.58	2.461	1.188
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month	6/19/2014	7:20	10:05	2.75	2.918	0.334
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 1.904

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yrds East of Ella T. Grasso Blvd,
LOCATION: 005
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month	6/9/2014	14:30	15:00	0.50	5.206	0.108
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	13:00	14:10	1.17	9.059	0.440
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month	6/19/2014	7:55	8:40	0.75	0.294	0.009
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.557

Note: Overflow occurs when Interceptor level reaches 53.5"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whalley Ave. 30 yrds from Fitch Street
LOCATION: 006
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month	6/9/2014	14:40	14:55	0.25	1.056	0.011
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	13:10	14:50	1.67	5.746	0.399
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month						
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.41

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
LOCATION: 009
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month						
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	12:55	20:55	8.00	0.291	0.097
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month	6/19/2014	7:20	7:55	0.58	0.081	0.002
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.099

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
LOCATION: 010
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month						
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	13:05	14:20	1.25	3.867	0.201
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month						
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.201

Note: Overflow occurs when sewer level reaches 54"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
LOCATION: 010A
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month						
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	13:15	14:05	0.83	5.801	0.201
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month						
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.201

Note: Overflow occurs when sewer level reaches 62"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
LOCATION: 011
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month	6/9/2014	14:35	15:25	0.83	2.348	0.082
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	13:10	15:05	1.92	7.991	0.638
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month						
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.720

Note: OF-011-609 and OF-011-997 removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
LOCATION: 011
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month	6/9/2014	14:35	15:25	0.83	2.348	0.082
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	13:10	15:05	1.92	10.487	0.839
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month						
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.921

Note: Sum of 10A and 11

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
LOCATION: 012
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month						
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	13:10	14:05	1.00	1.779	0.074
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month						
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.074

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
LOCATION: 015
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month	6/9/2014	13:50	15:10	1.33	1.819	0.101
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	13:00	14:30	1.50	4.389	0.274
							6/13/2014	20:55	21:05	0.17	3.816	0.027
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month	6/19/2014	7:30	8:50	1.33	1.644	0.091
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.493

Note: Overflow can occur with DS sewer depth reaches 40.5"
Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
LOCATION: 016
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***	6/5/2014	10:35	12:35	2.00	0.392	0.033
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month	6/9/2014	13:40	15:55	2.25	1.047	0.098
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	11:45	13:45	2.00	0.847	0.071
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month						
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.202

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
LOCATION: 019
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month	6/9/2014	14:30	15:00	0.50	0.639	0.013
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	11:45	13:45	2.00	0.847	0.071
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month						
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.084

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinnipiac
LOCATION: 020
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month						
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month						
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month						
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when level is 31" in the interceptor.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
LOCATION: 021
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month	6/9/2014	14:35	15:30	0.92	0.668	0.025
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	13:25	15:25	2.00	4.104	0.342
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month						
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.367

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
LOCATION: 024
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month						
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	13:10	14:35	1.42	2.422	0.143
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month						
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.143

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
LOCATION: 025
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month						
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month						
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month						
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH
FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG: George and Temple
LOCATION: Regulator 34
NPDES Permit Outfall #:
MONTH: June YEAR: 2014
Average Low Temp: 60
Average High Temp: 78
Measured Rainfall: 4.39
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/5/2014	2:50	12:20	9.50	0.50	***						
2	6/9/2014	7:35	14:55	7.33	1.02	6 Month	6/9/2014	13:45	14:55	1.17	5.300	0.258
3	6/12/2014	12:05	12:35	0.50	0.02	***						
4	6/13/2014	0:00	23:55	23.92	2.08	6 Month	6/13/2014	10:55	14:15	3.33	1.243	0.173
5	6/19/2014	5:20	10:15	4.92	0.74	1 Month	6/19/2014	7:25	8:40	1.25	1.434	0.075
6	6/26/2014	1:55	4:40	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.506

Note:

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - THROUGH JULY 2014

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)	RAINFALL (IN)	METER MONTHS
CSO 006	REGS 006 A, 006 B	34	10.408	95.79	26
CSO 005	REG 005	31	6.882	95.79	26
CSO 004	REG 004	97	44.976	95.79	26
CSO 003	REG 003	74	32.030	95.79	26
CSO 024	REG 024	23	24.487	85.59	23
CSO 009	REG 009	45	3.243	78.45	22
CSO 019	REG 019	29	1.539	90.19	24
CSO 016	REG 016	59	26.510	80.48	24
CSO 015	REG 015	43	6.345	78.45	22
CSO 010	REG 010	16	3.923	79.15	21
CSO 011	REGS 010A, 011, 026	20	13.469	74.08	20
CSO 012	REGS 012A, 012B, 028	38	11.864	90.19	24
CSO 025	REGS 025, 034	9	1.556	33.70	8
CSO 021	REG 021	31	27.407	75.08	21
CSO 020	REG 020	7	0.270	58.53	16
TOTAL		**556**	**214.909**		

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS BASED ON RAINFALL[1]	ANNUAL CSO VOLUME (MG) BASED ON RAINFALL[2]	ANNUAL CSO EVENTS BASED ON MONTHS[3]	ANNUAL CSO VOLUME (MG) BASED ON MONTHS[4]	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
CSO 006	REGS 006 A, 006 B	15	4.484	16	4.804	27	27.0
CSO 005	REG 005	13	2.965	14	3.176	39	22.0
CSO 004	REG 004	42	19.377	45	20.758	44	65.3
CSO 003	REG 003	32	13.800	34	14.783	28	12.5
CSO 024	REG 024	11	11.807	12	12.776	0	1.9
CSO 009	REG 009	24	1.706	25	1.769	27	8.1
CSO 019	REG 019	13	0.704	15	0.770	7	2.4
CSO 016	REG 016	30	13.594	30	13.255	45	20.4
CSO 015	REG 015	23	3.338	23	3.461	9	4.1
CSO 010	REG 010	8	2.046	9	2.242	6	2.4
CSO 011	REGS 010A, 011, 026	11	7.504	12	8.081	15	26.6
CSO 012	REGS 012A, 012B, 028	17	5.429	19	5.932	8	2.9
CSO 025	REGS 025, 034	11	1.906	14	2.334	6	9.0
CSO 021	REG 021	17	15.065	18	15.661	23	35.1
CSO 020	REG 020	5	0.190	5	0.203	8	1.4
TOTAL		**268**	**103.725**	**284**	**109.802**	**292**	**241.1**

(1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date
(2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date
(3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date
(4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - JULY 2014

MONTHLY RAINFALL SUMMARY

4.60 inches of rain (3.44 inches of rain in a typical month)
No snow
8 rain events (10 rain events in a typical month)
One 2 year storm, one 3 month storm, all other storms less than 1 month return frequency

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)
CSO 006	REGS 006 A, 006 B	2	0.722
CSO 005	REG 005	3	0.842
CSO 004	REG 004	5	2.109
CSO 003	REG 003	4	0.271
CSO 024	REG 024	No Data	No Data
CSO 009	REG 009	3	0.278
CSO 019	REG 019	1	0.004
CSO 016	REG 016	5	0.314
CSO 015	REG 015	5	0.174
CSO 010	REG 010	1	0.597
CSO 011	REGS 010A, 011, 026	2	2.033
CSO 012	REGS 012A, 012B, 028	2	0.131
CSO 025	REGS 025, 034	3	0.564
CSO 021	REG 021	2	1.432
CSO 020	REG 020	2	0.037
TOTAL		**40** (22 CSO events in a typical month)	**9.508** (20.358 MG of CSO volume in a typical month)

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Orange Ave. @ Int. of Ella T. Grasso Blvd.
LOCATION: 003
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***	7/2/2014	19:50	20:10	0.33	0.045	0.001
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month	7/3/2014	21:30	23:30	2.00	0.233	0.019
3	7/4/2014	11:00	19:35	8.58	0.36	***	7/4/2014	15:35	15:55	0.33	0.067	0.001
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014 - 7/15/14	20:25	0:10	3.75	0.381	0.250
6	7/15/2014	16:30	22:15	5.75	0.34	***						
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 0.271

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Ella T. Grasso Blvd. - 23 yrds North of Legion Ave.
LOCATION: 004
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***	7/2/2014	19:00	23:00	4.00	0.828	0.138
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month	7/3/2014	21:25	23:50	2.42	4.854	0.489
3	7/4/2014	11:00	19:35	8.58	0.36	***	7/4/2014	15:15	16:25	1.17	0.509	0.025
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014 - 7/15/14	20:20	0:40	4.33	7.709	1.392
6	7/15/2014	16:30	22:15	5.75	0.34	***	7/15/2014	21:45	23:00	1.25	1.254	0.065
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 2.109

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG — Derby Ave. 20 yrds East of Ella T. Grasso Blvd.
LOCATION: 005
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***	7/2/2014	19:05	19:25	0.33	1.073	0.015
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month	7/3/2014	21:35	22:20	0.75	0.509	0.016
3	7/4/2014	11:00	19:35	8.58	0.36	***						
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014	20:25	23:20	2.92	6.671	0.811
6	7/15/2014	16:30	22:15	5.75	0.34	***						
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 0.842

Note: Overflow occurs when Interceptor level reaches 53.5"
weir raised on 7/25/14, new elevation is 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whalley Ave. 30 yrds from Fitch Street
LOCATION: 006
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***						
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month	7/3/2014	21:35	22:40	1.08	5.051	0.228
3	7/4/2014	11:00	19:35	8.58	0.36	***						
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014	20:35	22:05	1.50	7.904	0.494
6	7/15/2014	16:30	22:15	5.75	0.34	***						
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 0.722

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
LOCATION: 009
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***	7/2/14 - 7/3/14	19:05	19:10	0.08	0.058	0.000
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month	7/3/2014	21:30	21:55	0.42	0.076	0.001
3	7/4/2014	11:00	19:35	8.58	0.36	***	7/4/2014	11:50	11:55	0.08	0.056	0.000
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014	20:30	23:15	2.75	2.399	0.275
6	7/15/2014	16:30	22:15	5.75	0.34	***	7/15/2014	21:50	22:30	0.67	0.082	0.002
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 0.278

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG	547 East Street		
LOCATION:	010		
NPDES Permit Outfall #:			
MONTH:	July	YEAR:	2014
Average Low Temp:	67		
Average High Temp:	83		
Measured Rainfall:	4.60		
Measured Snowfall:			

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***						
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month						
3	7/4/2014	11:00	19:35	8.58	0.36	***						
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014	20:40	23:20	2.67	5.37	0.597
6	7/15/2014	16:30	22:15	5.75	0.34	***						
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = **0.597**

Note: Overflow occurs when sewer level reaches 54"
Overflow closed on 7/25

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
LOCATION: 010A
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***						
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month						
3	7/4/2014	11:00	19:35	8.58	0.36	***						
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014	20:40	21:45	1.08	11.130	0.502
6	7/15/2014	16:30	22:15	5.75	0.34	***						
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						
										TOTAL MONTH FLOW VOLUME =		0.502

Note: Overflow occurs when sewer level reaches 62"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
LOCATION: 011
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***						
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month	7/3/2014	21:40	22:35	0.92	3.171	0.121
3	7/4/2014	11:00	19:35	8.58	0.36	***						
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014	20:30	23:50	3.33	10.153	1.410
6	7/15/2014	16:30	22:15	5.75	0.34	***						
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 1.531

Note: OF-011-609 and OF-011-997 removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
LOCATION: 011
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***						
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month	7/3/2014	21:40	22:35	0.92	3.171	0.121
3	7/4/2014	11:00	19:35	8.58	0.36	***						
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014	20:30	23:50	3.33	13.766	1.912
6	7/15/2014	16:30	22:15	5.75	0.34	***						
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 2.033

Note: Sum of 10A and 11

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
LOCATION: 012
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***						
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month						
3	7/4/2014	11:00	19:35	8.58	0.36	***						
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014	20:30	22:50	2.33	1.329	0.129
6	7/15/2014	16:30	22:15	5.75	0.34	***	7/15/2014	20:10	21:25	1.25	0.045	0.002
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 0.131

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
LOCATION: 015
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***	7/2/2014	19:10	19:30	0.33	2.043	0.028
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month	7/3/2014	21:35	22:35	1.00	1.866	0.078
3	7/4/2014	11:00	19:35	8.58	0.36	***	7/4/2014	11:55	12:10	0.25	0.520	0.005
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014	20:35	23:50	3.25	0.453	0.061
6	7/15/2014	16:30	22:15	5.75	0.34	***	7/15/2014	21:40	22:00	0.33	0.162	0.002
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 0.174

Note: Overflow can occur with DS sewer depth reaches 40.5"
Expected capacity of siphon is between 24 and 30 MGD

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
LOCATION: 016
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***	7/2/2014	18:55	22:45	3.83	0.327	0.052
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month	7/3/2014	21:10	23:20	2.17	0.877	0.079
3	7/4/2014	11:00	19:35	8.58	0.36	***	7/4/2014	11:40	12:40	1.00	0.767	0.032
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014	20:20	20:45	0.42	3.026	0.053
6	7/15/2014	16:30	22:15	5.75	0.34	***	7/15/2014	21:30	22:55	1.42	1.664	0.098
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 0.314

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
LOCATION: 019
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***						
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month						
3	7/4/2014	11:00	19:35	8.58	0.36	***						
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014	20:55	21:15	0.33	0.295	0.004
6	7/15/2014	16:30	22:15	5.75	0.34	***						
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 0.004

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinnipiac
LOCATION: 020
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***						
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month						
3	7/4/2014	11:00	19:35	8.58	0.36	***	7/4/2014	16:25	16:30	0.08	0.161	0.001
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014	21:00	21:55	0.92	0.921	0.036
6	7/15/2014	16:30	22:15	5.75	0.34	***						
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						
										TOTAL MONTH FLOW VOLUME =		0.037

Note: Overflow occurs when level is 31" in the interceptor.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
LOCATION: 021
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***						
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month	7/3/2014	22:30	23:00	0.50	0.316	0.007
3	7/4/2014	11:00	19:35	8.58	0.36	***						
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014 - 7/15/14	20:50	0:40	3.83	8.917	1.425
6	7/15/2014	16:30	22:15	5.75	0.34	***						
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 1.432

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
LOCATION: 024
NPDES Permit Outfall #:
MONTH: July **YEAR:** 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***						
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month						
3	7/4/2014	11:00	19:35	8.58	0.36	***						
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year						
6	7/15/2014	16:30	22:15	5.75	0.34	***						
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 0

Meter not installed during Rain Event, removed for line service 6/17/14 to 7/15/14

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
LOCATION: 025
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***						
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month	7/3/2014	22:15	22:20	0.08	1.559	0.005
3	7/4/2014	11:00	19:35	8.58	0.36	***						
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year						
6	7/15/2014	16:30	22:15	5.75	0.34	***						
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 0.005

Note: removed 7/30/14, on 8/6/14 meter reinstalled, CB telog, photos, video, weir wall was not raised it was coated with concrete / plaster, antenna was cut, swapped out, sensors calibrated before installing in flow

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
LOCATION: Regulator 34
NPDES Permit Outfall #:
MONTH: July YEAR: 2014
Average Low Temp: 67
Average High Temp: 83
Measured Rainfall: 4.60
Measured Snowfall:

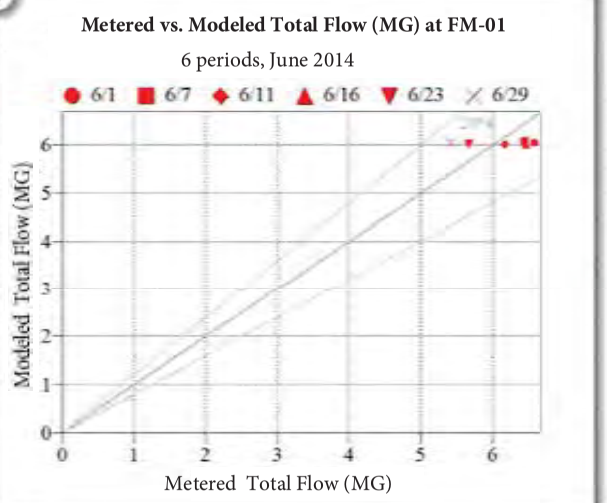
		RAINFALL EVENT					CSO EVENT					
EVENT No.	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/2/2014 - 7/3/14	18:40	0:30	5.83	0.40	***	7/2/2014	19:00	19:20	0.33	4.334	0.060
2	7/3/2014	20:50	22:40	1.83	0.52	3 Month	7/3/2014	21:25	22:15	0.83	10.332	0.359
3	7/4/2014	11:00	19:35	8.58	0.36	***						
4	7/8/2014	1:05	2:10	1.08	0.07	***						
5	7/14/2014 - 7/15/14	19:50	0:05	4.25	2.44	2 year	7/14/2014	21:25	21:45	0.33	10.680	0.140
6	7/15/2014	16:30	22:15	5.75	0.34	***						
7	7/23/2014	22:55	23:15	0.33	0.13	***						
8	7/28/2014	4:15	5:50	1.58	0.20	***						

TOTAL MONTH FLOW VOLUME = 0.559

Note: removed on 7/30/14, on 8/6/14 reinstalled meter, CB telog, photos, video and measurements of new weir wall extension, overall height is 61", 25" added to the wall

Appendix E
Dry Weather Flow Calibration Plots

1



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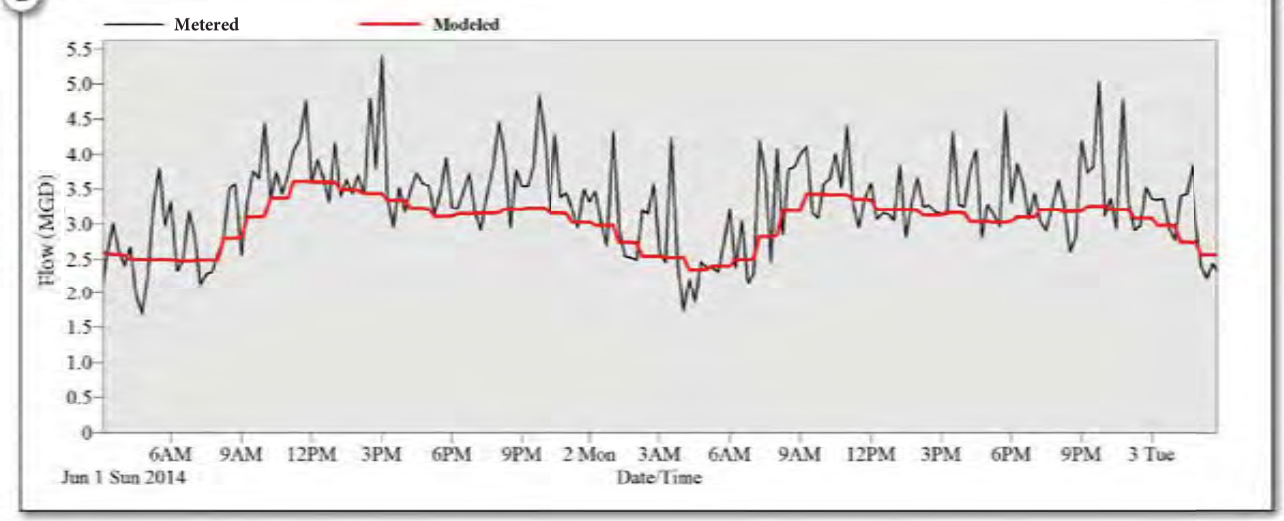

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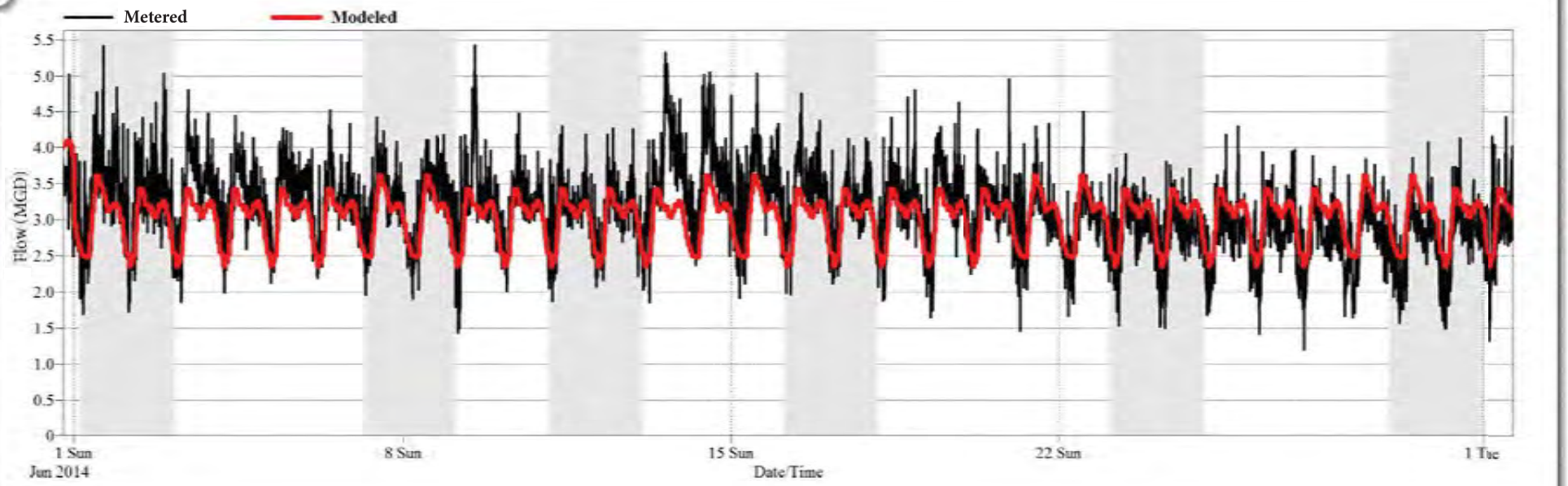


Model Calibration Results

Flow Meter: FM-01

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

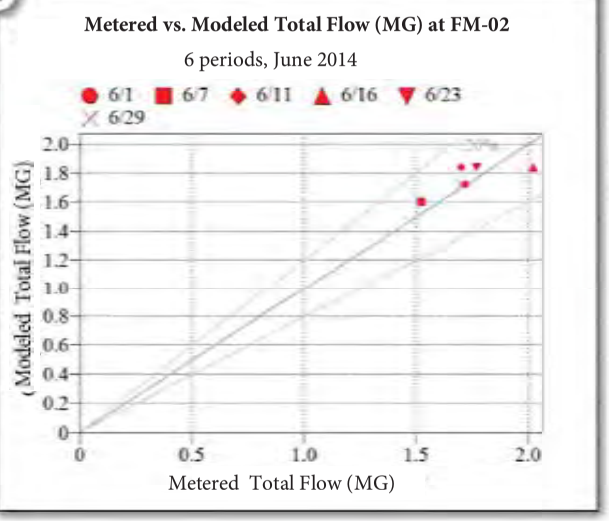
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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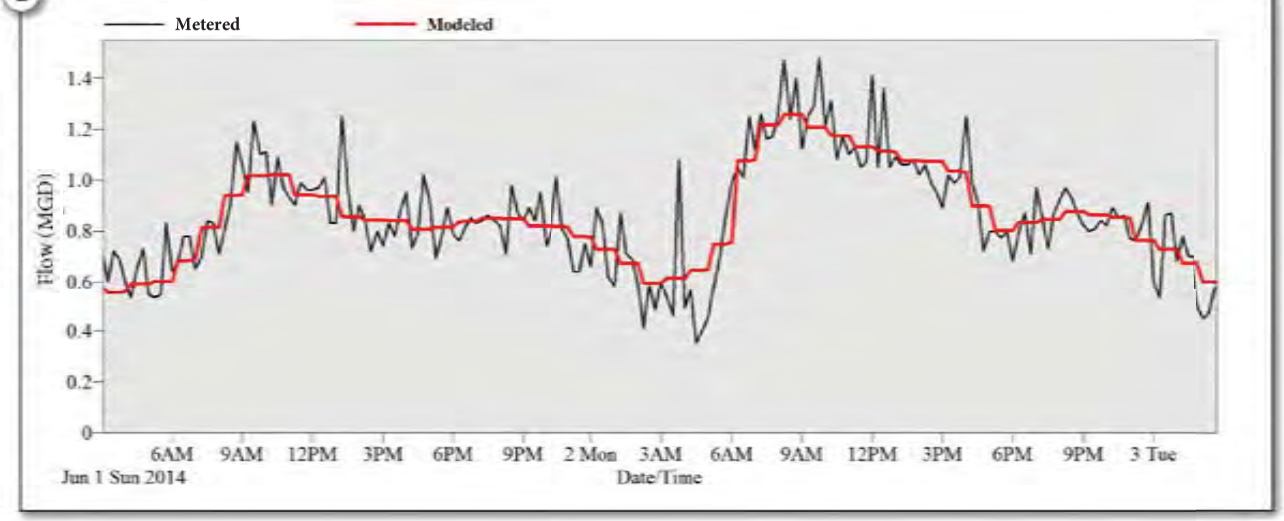

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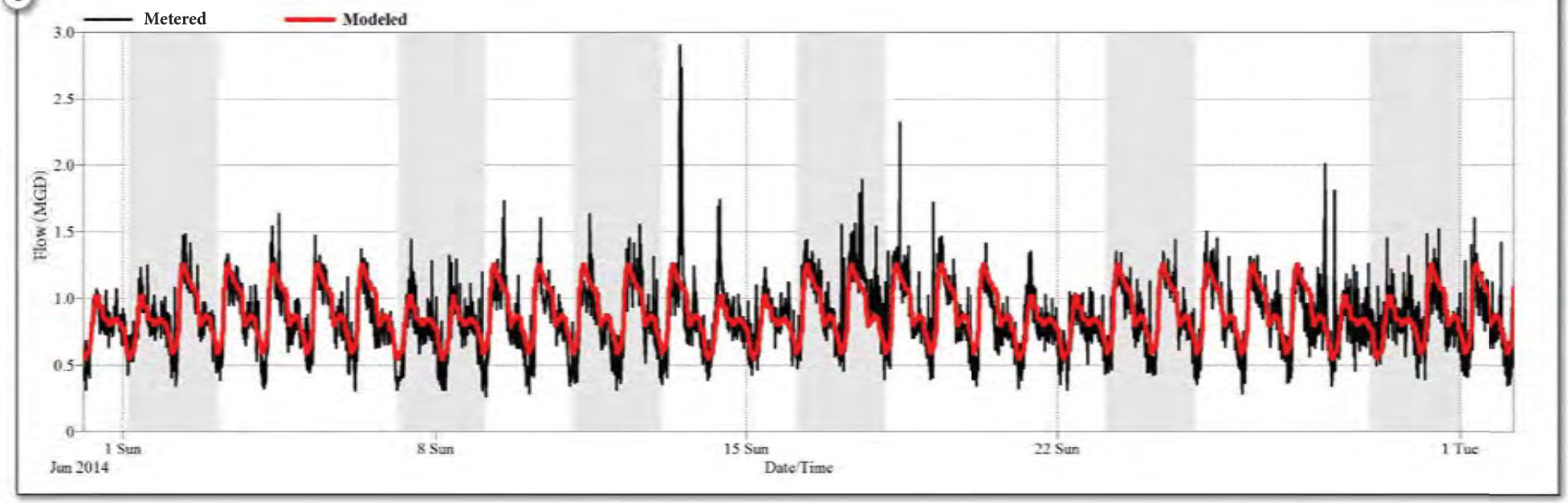


Model Calibration Results

Flow Meter: FM-02

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

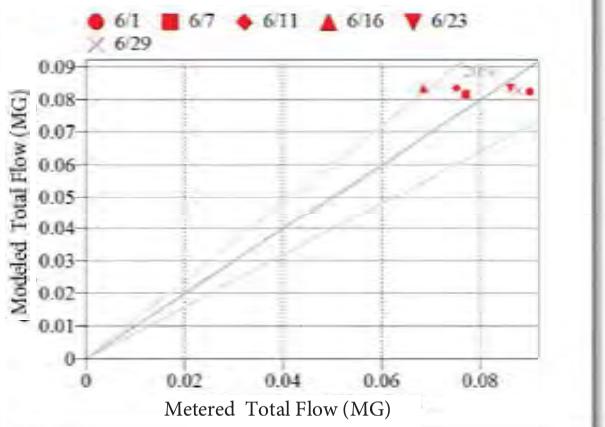
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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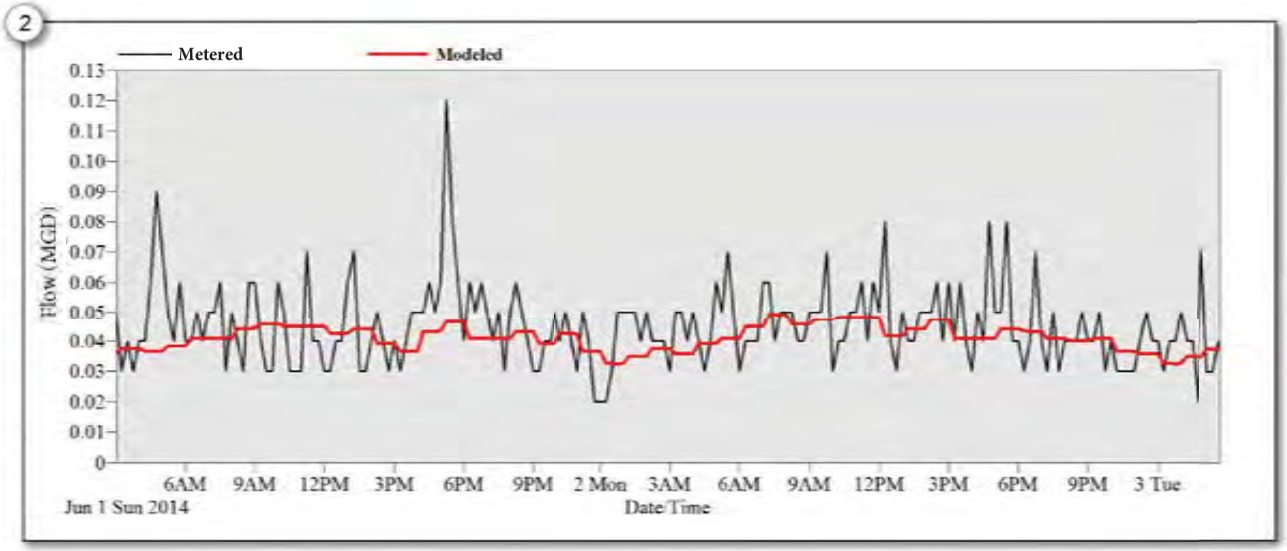

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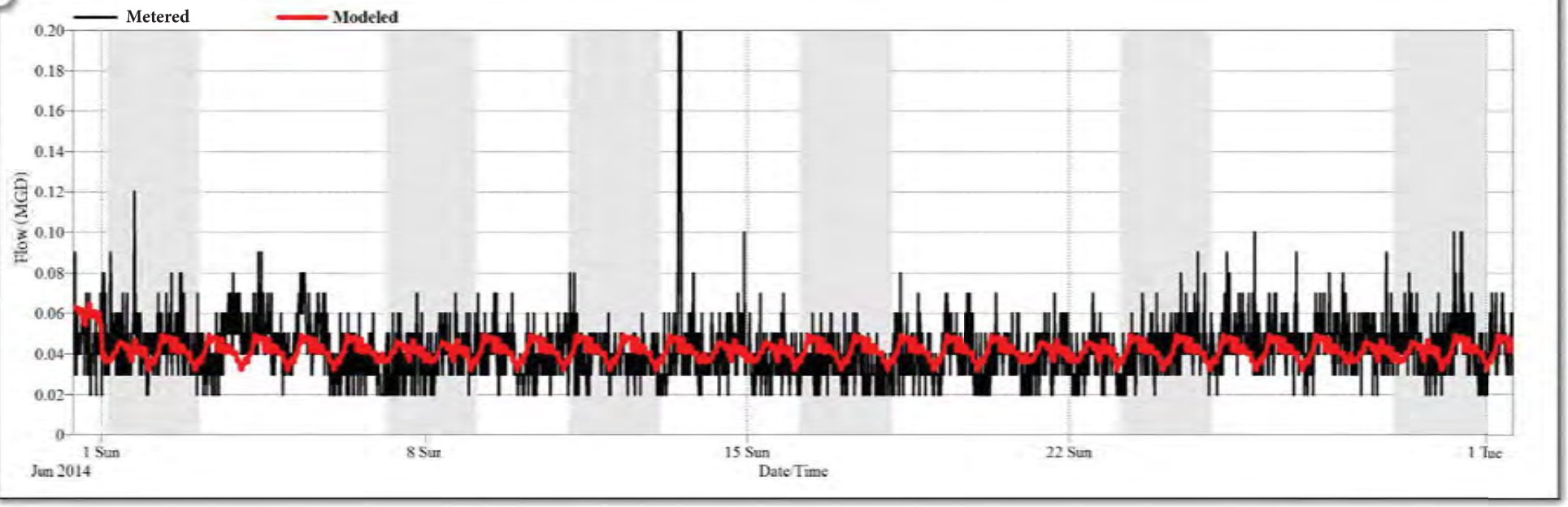


Model Calibration Results

Flow Meter: FM-03

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

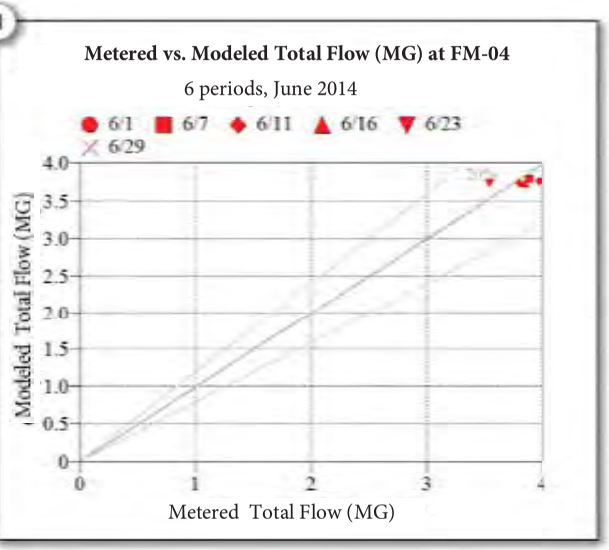
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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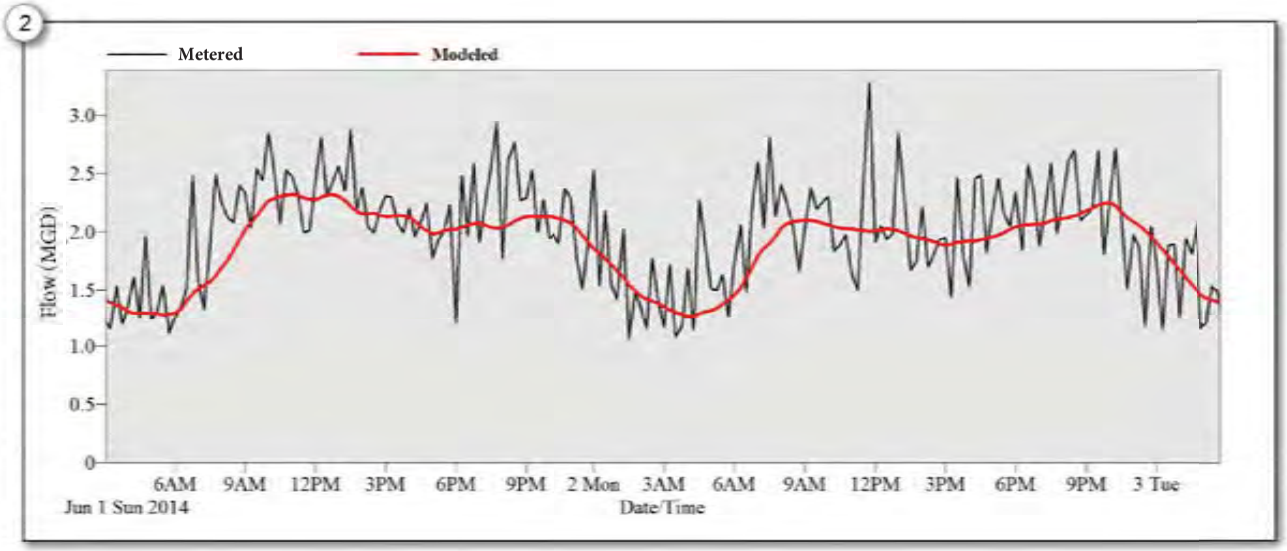

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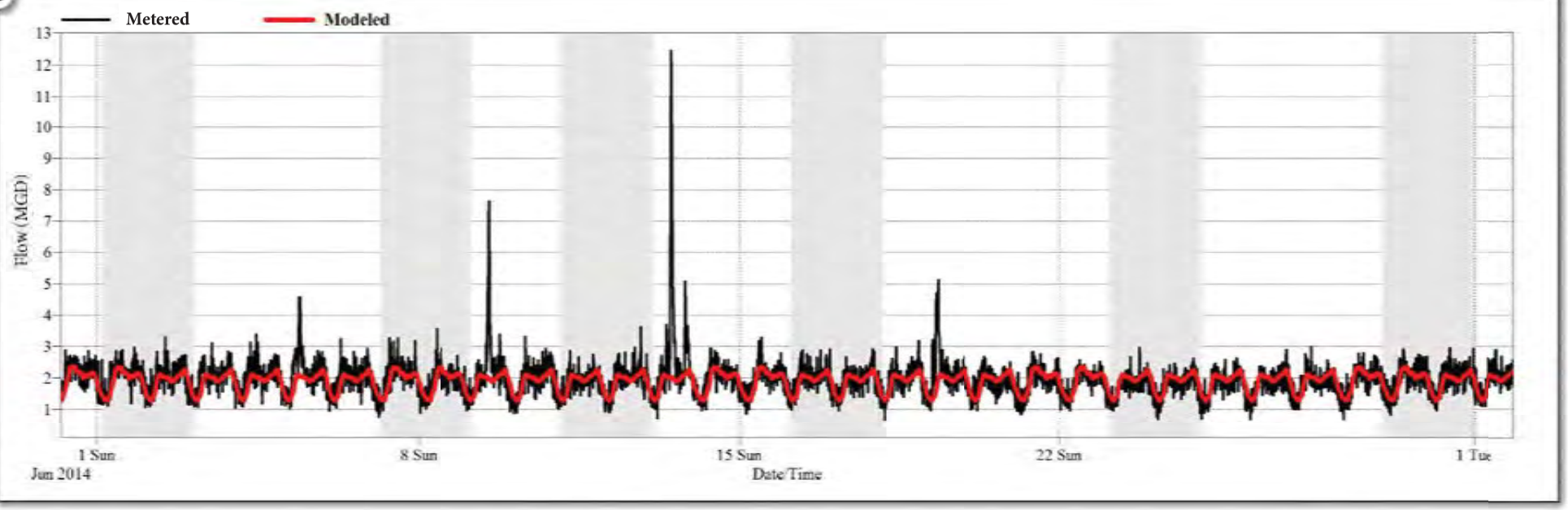


Model Calibration Results

Flow Meter: FM-04

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

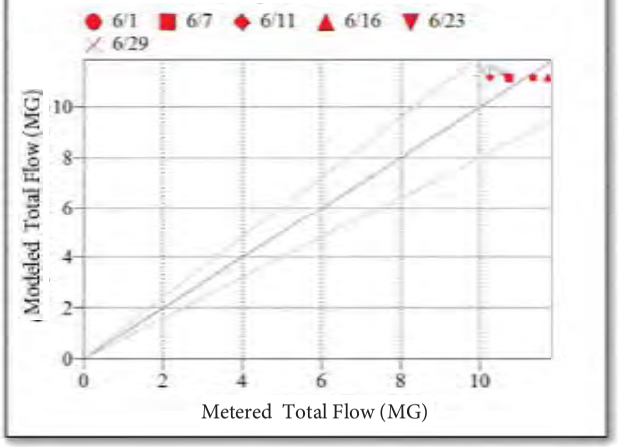
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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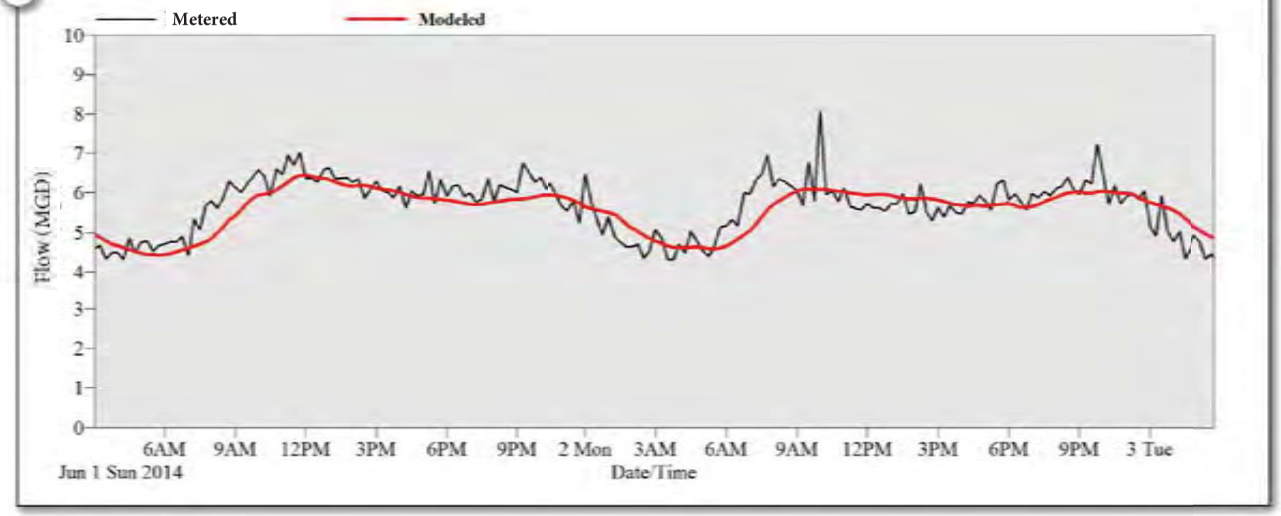

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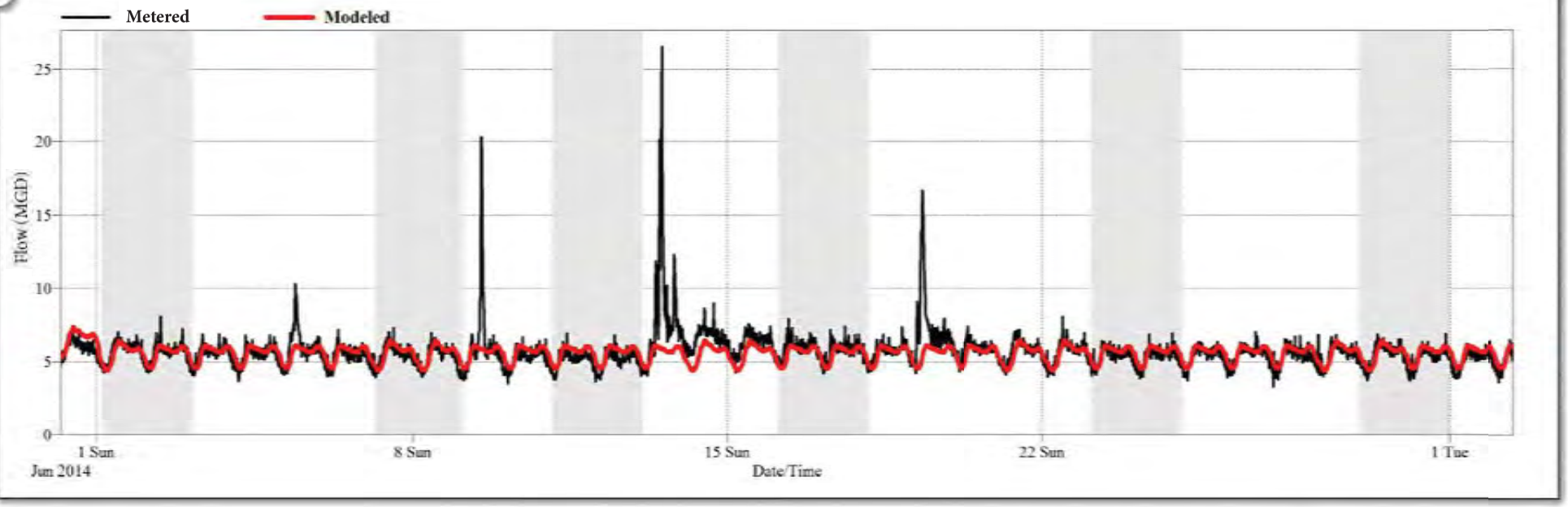


Model Calibration Results

Flow Meter: FM-05

Dry Weather Flow

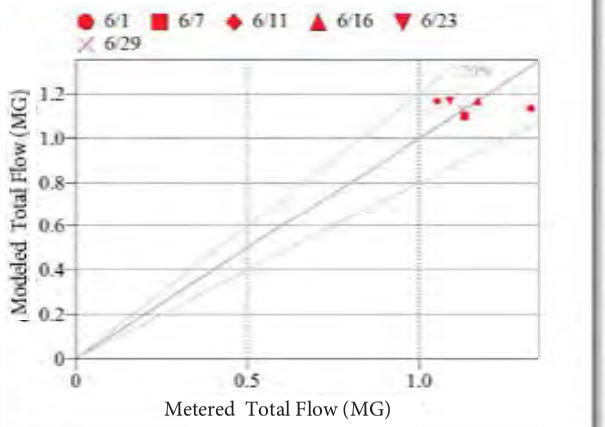
1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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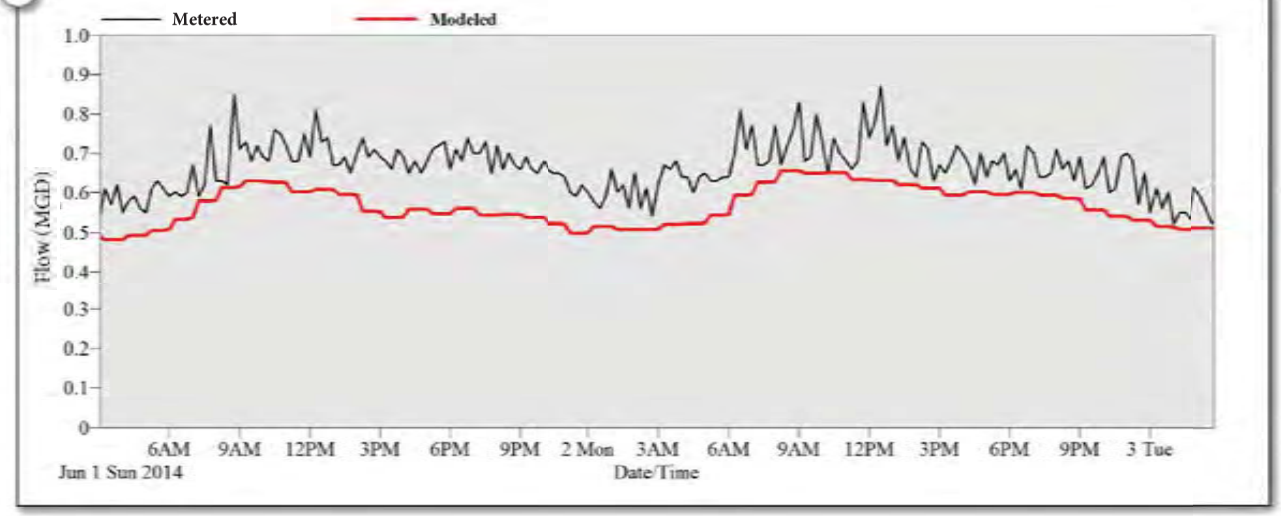

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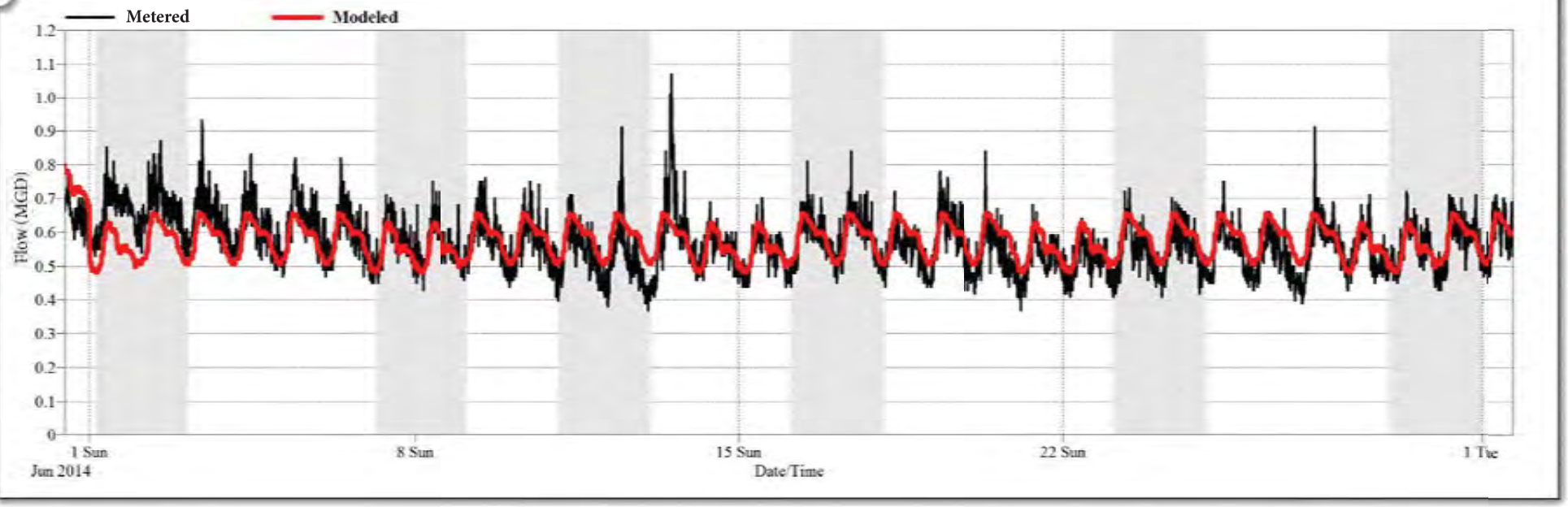


Model Calibration Results

Flow Meter: FM-06

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

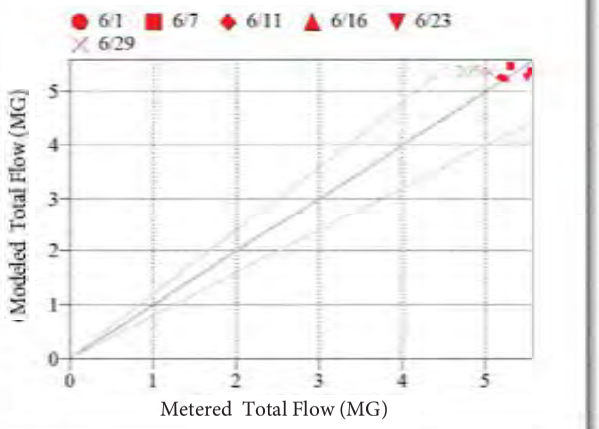
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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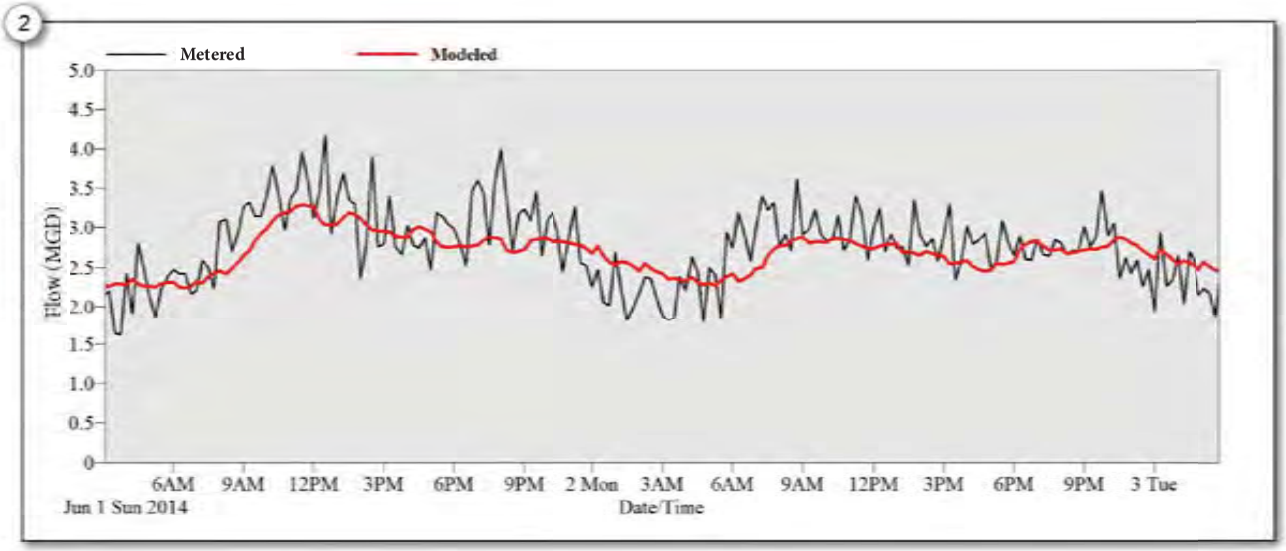

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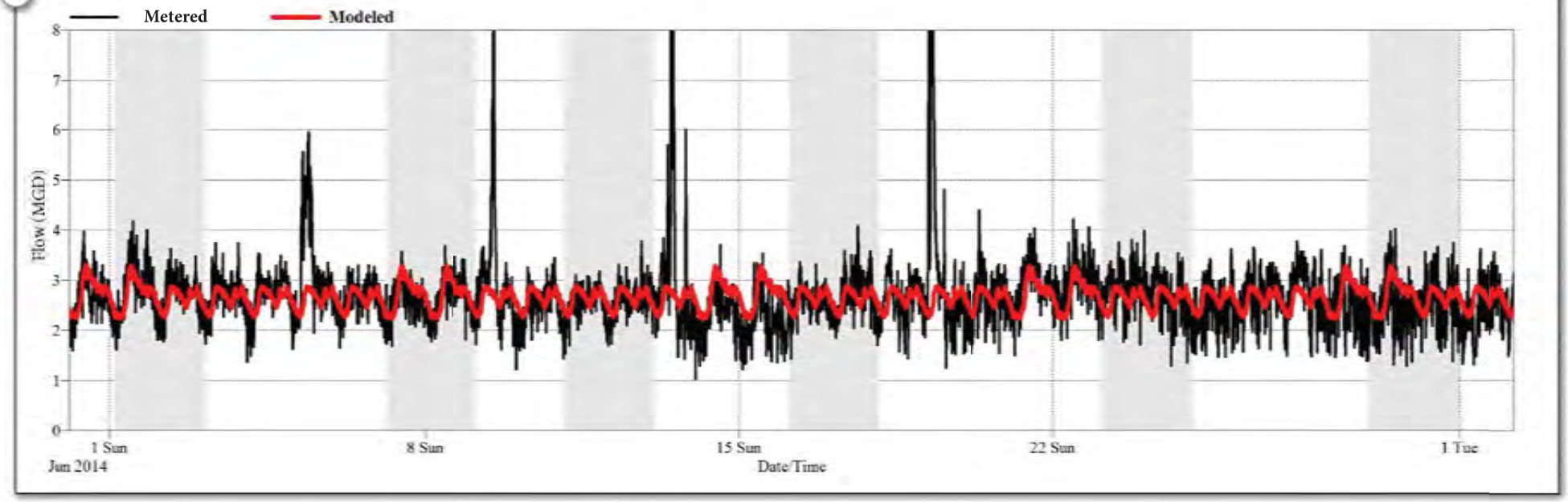


Model Calibration Results

Flow Meter: FM-07

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

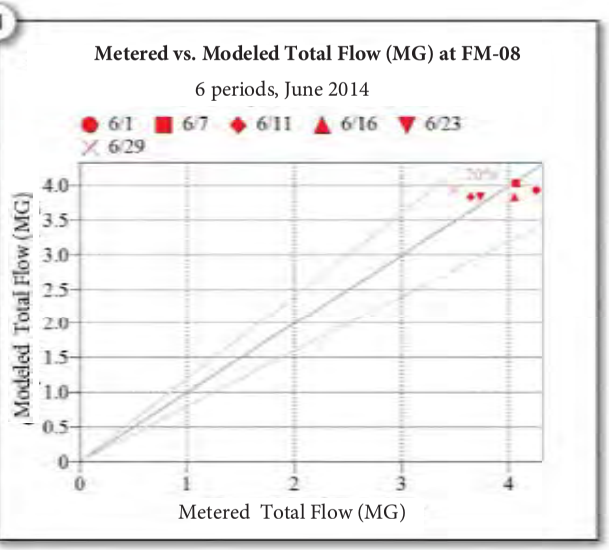
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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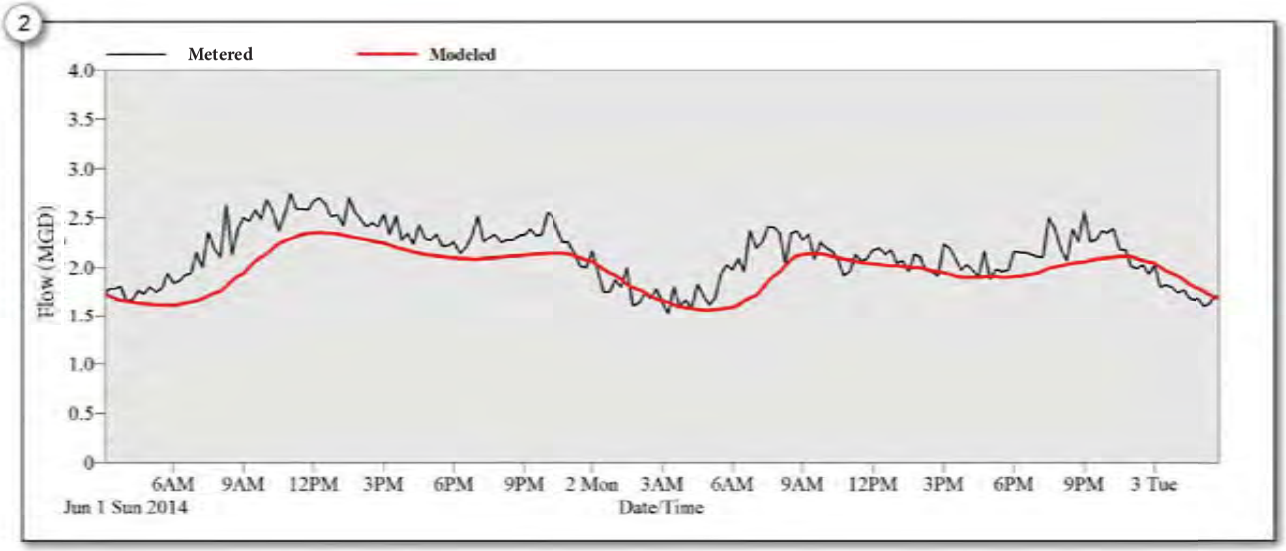

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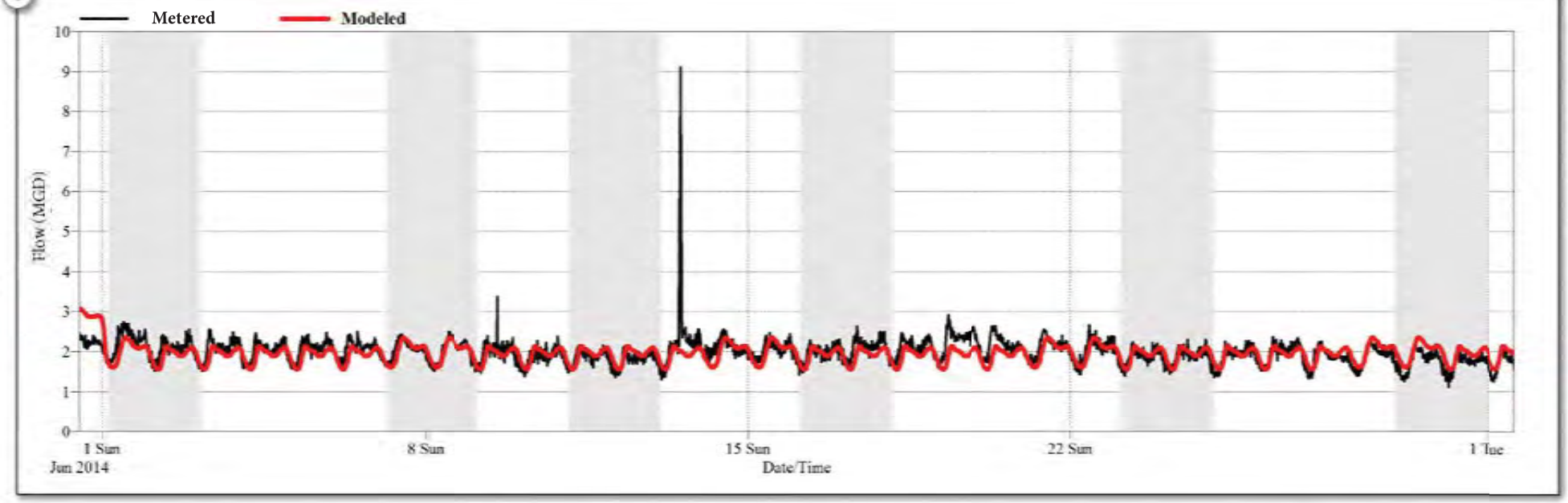


Model Calibration Results

Flow Meter: FM-08

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

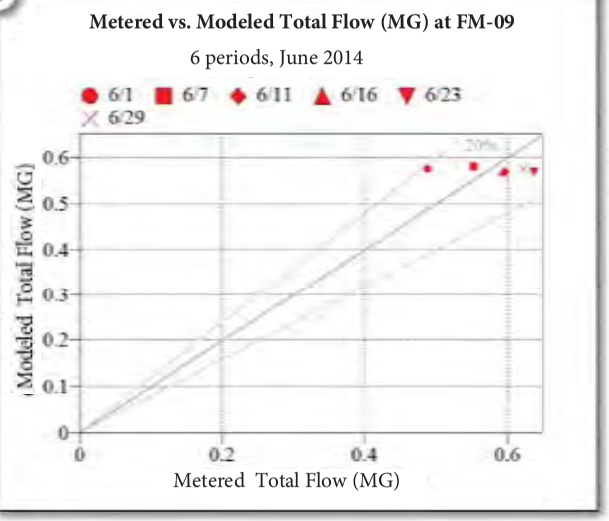
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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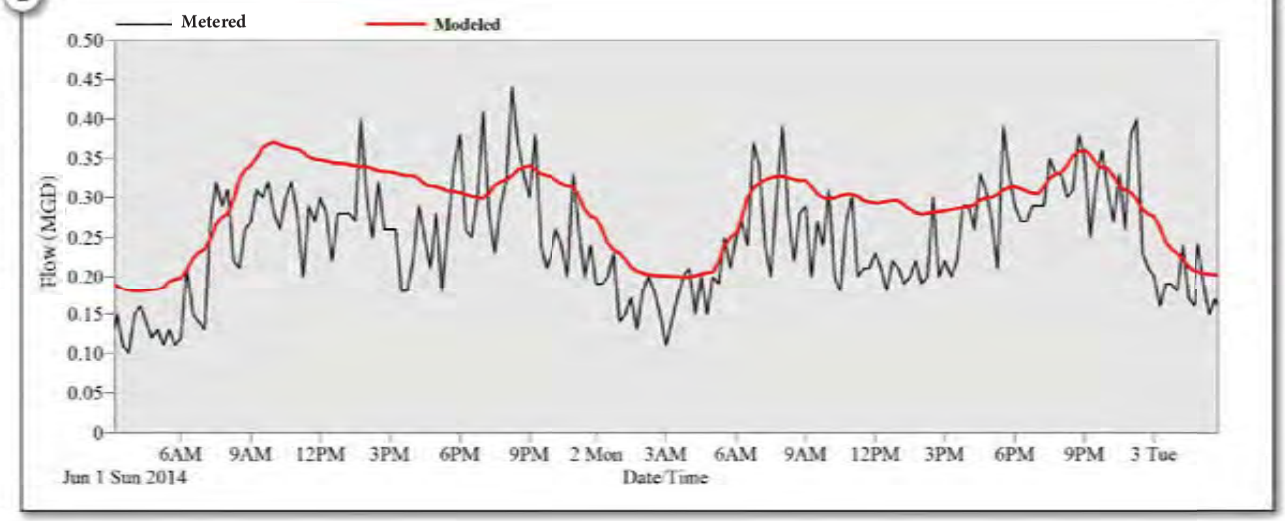

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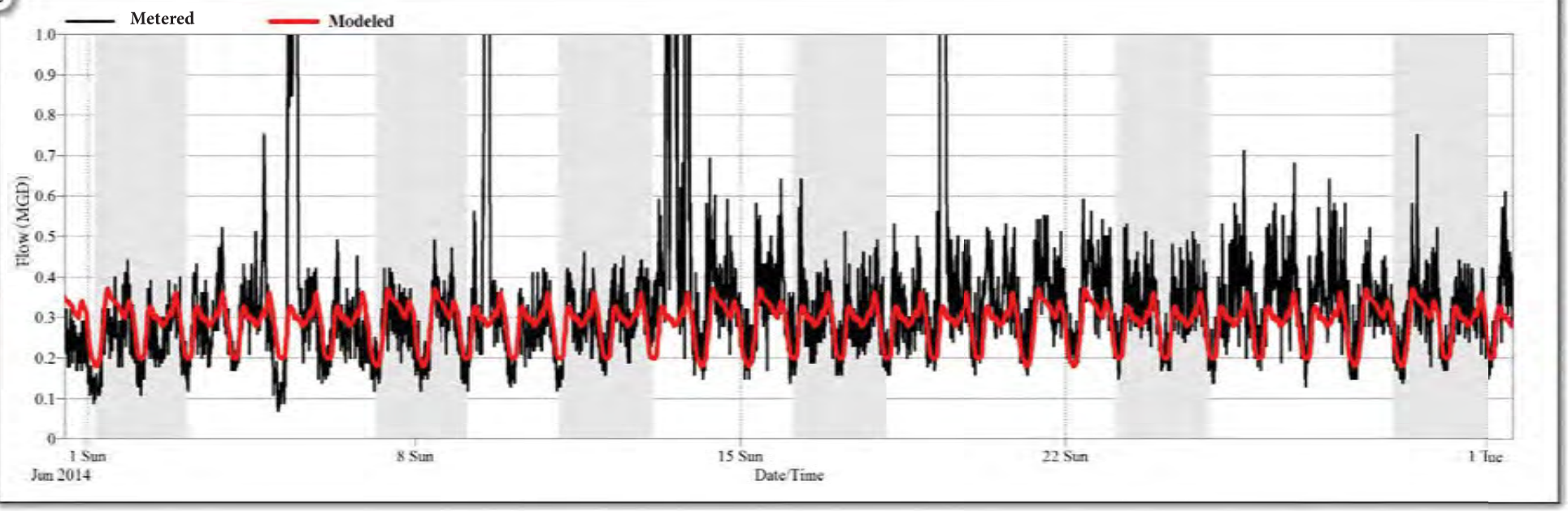


Model Calibration Results

Flow Meter: FM-09

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

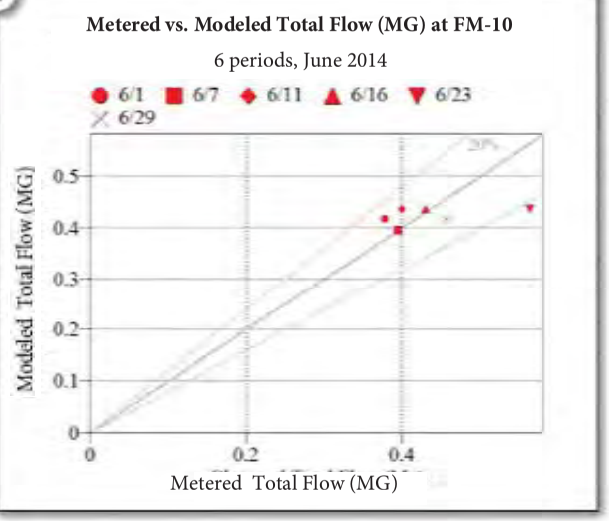
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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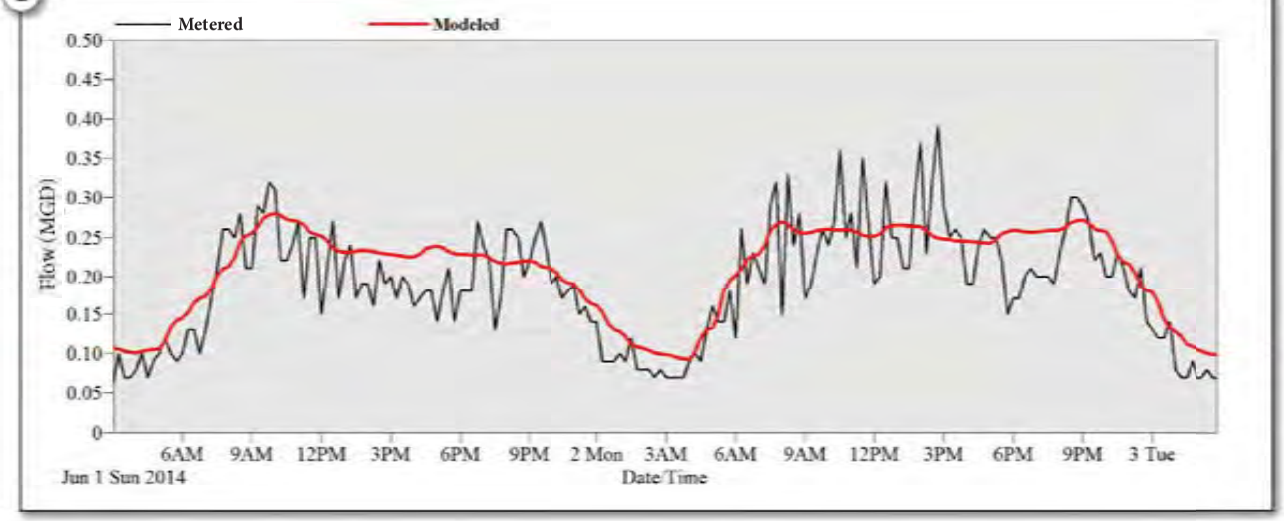

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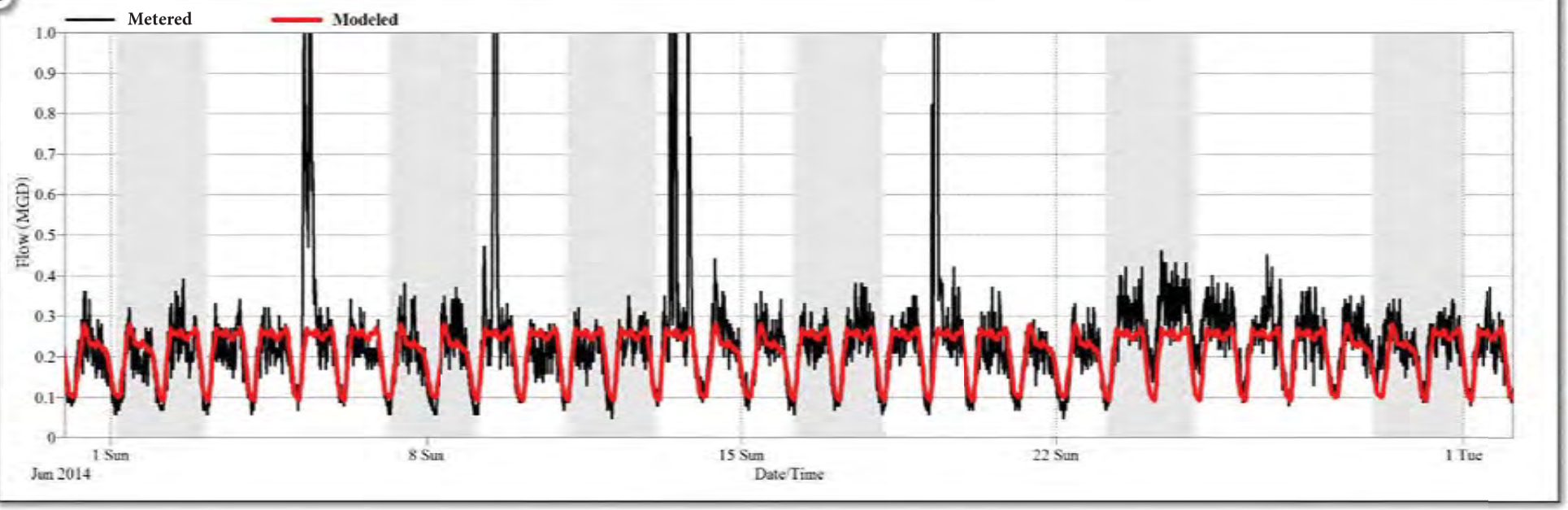


Model Calibration Results

Flow Meter: FM-10

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

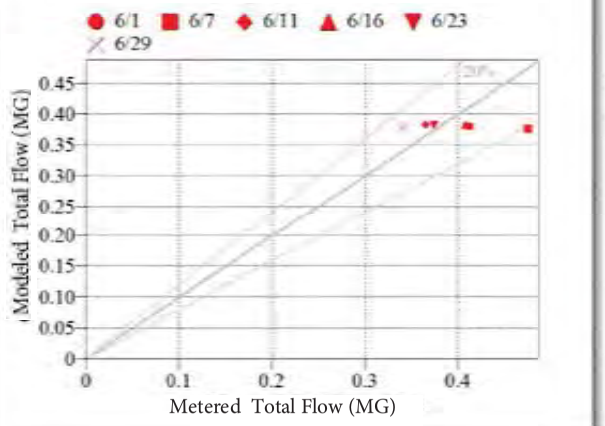
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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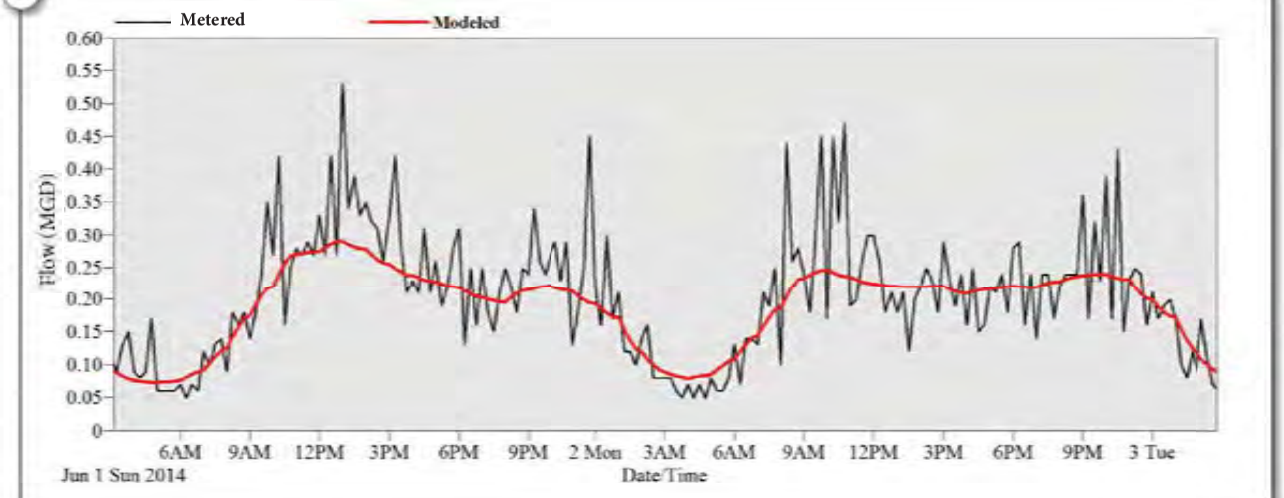

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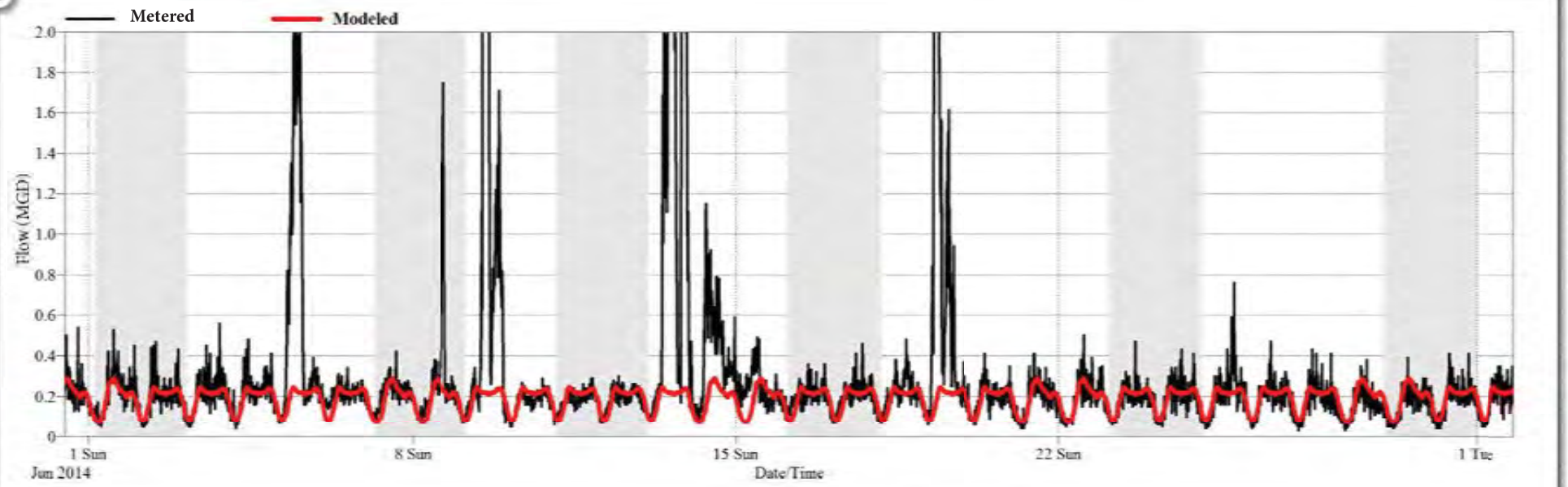


Model Calibration Results

Flow Meter: FM-11

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

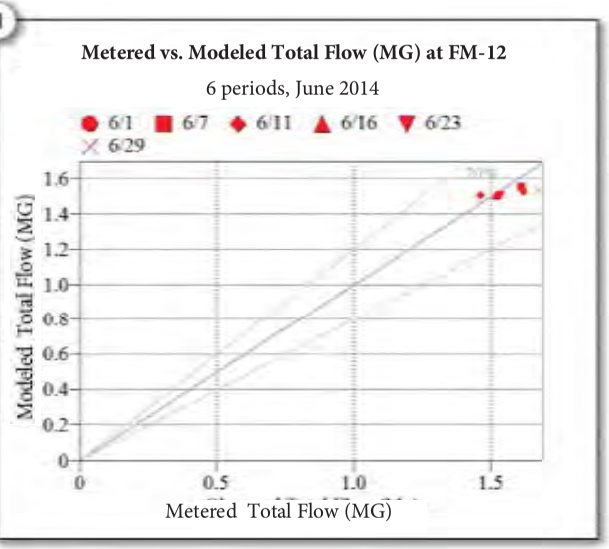
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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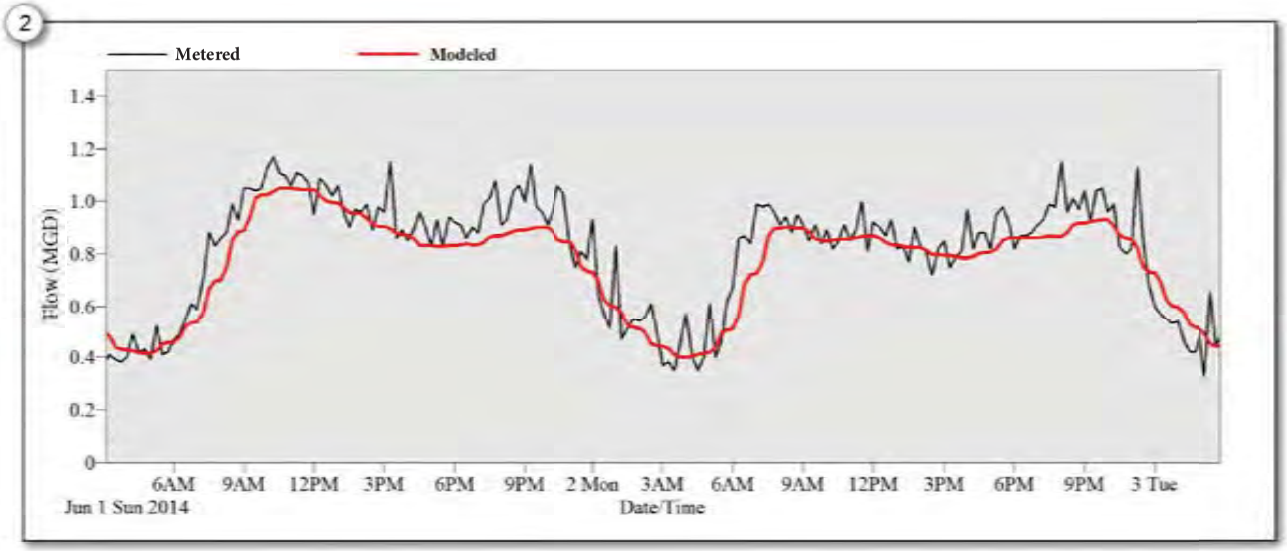

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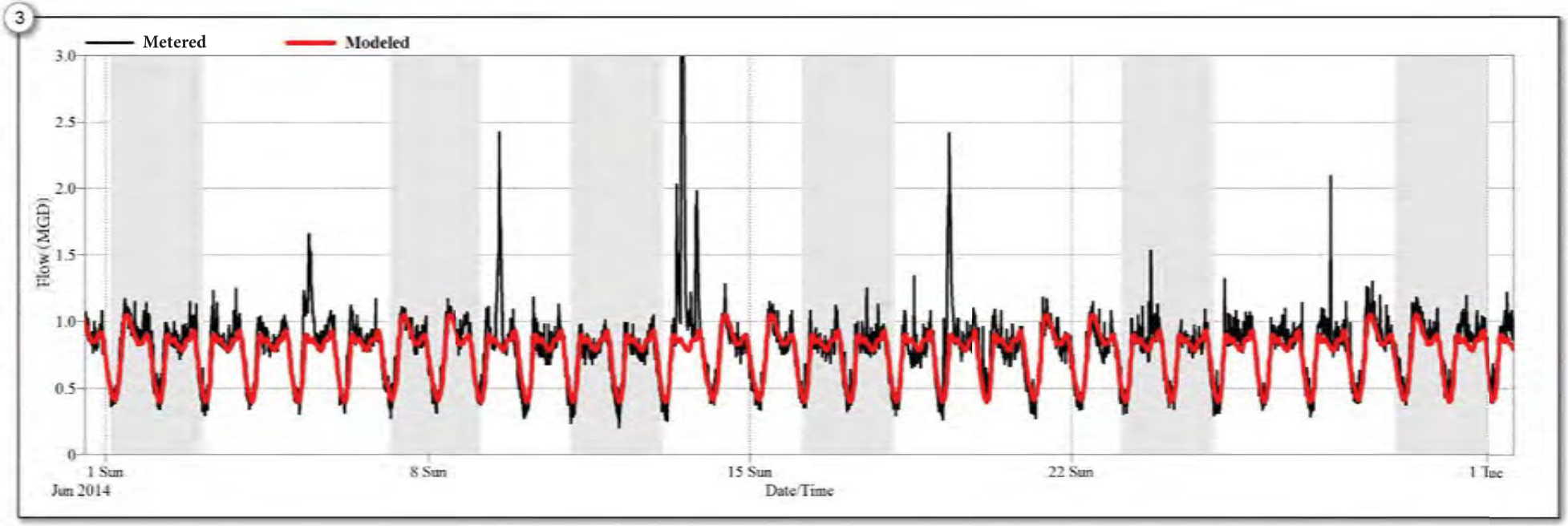


Model Calibration Results

Flow Meter: FM-12

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

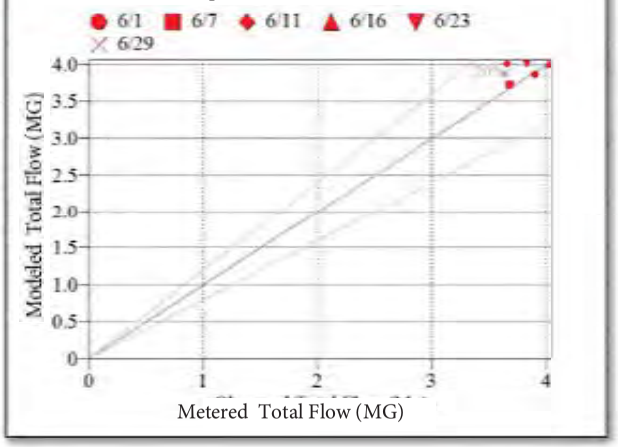
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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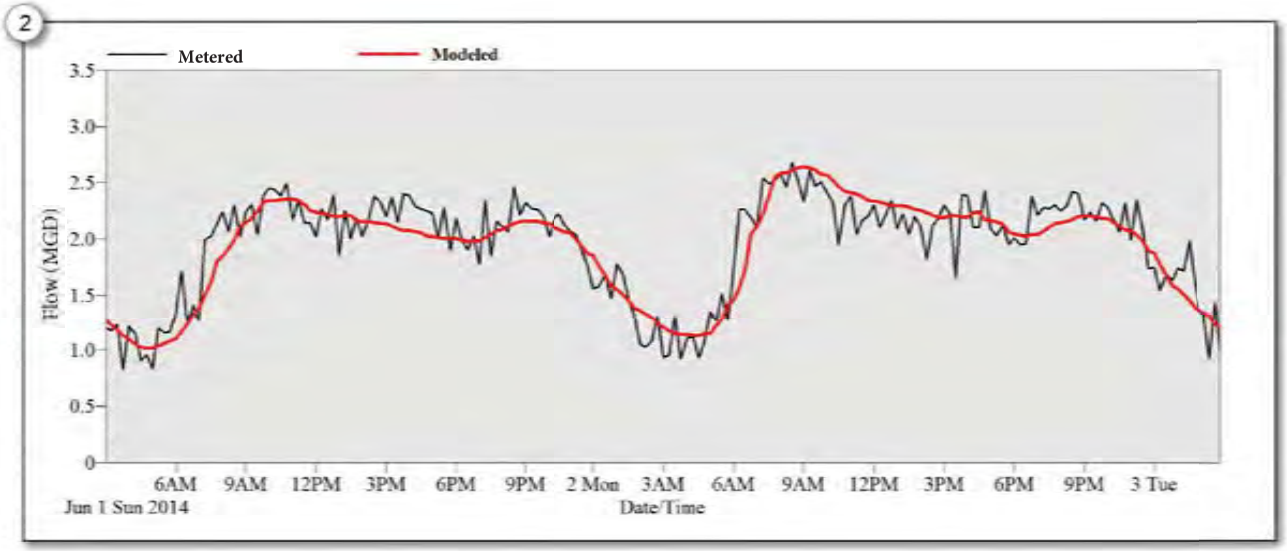

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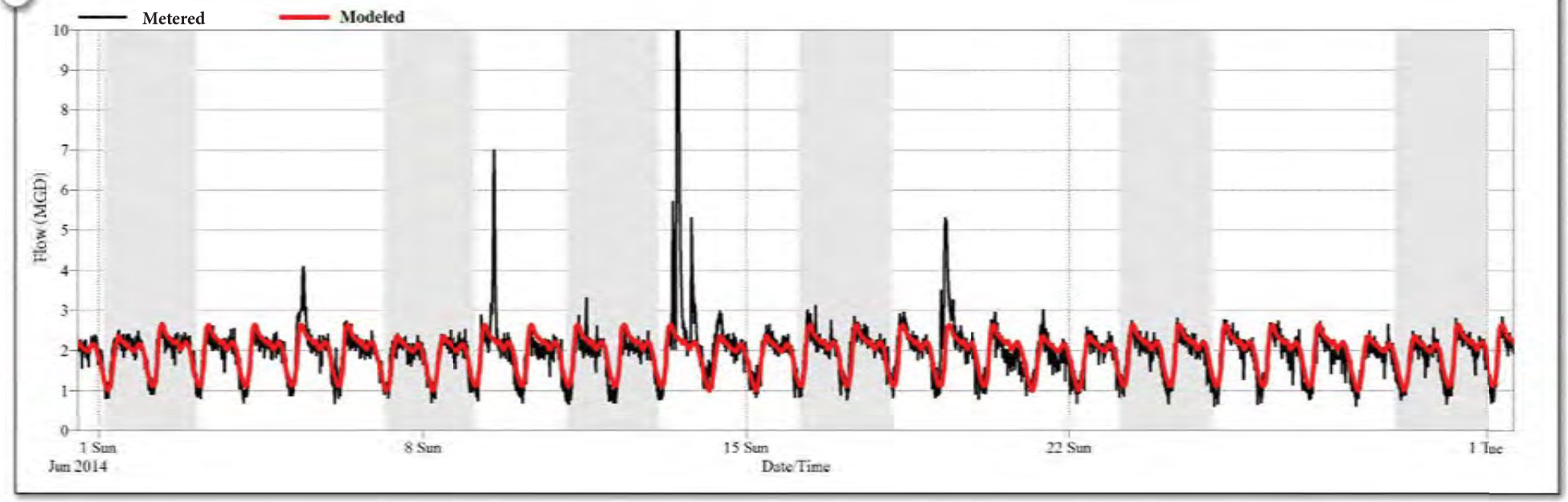


Model Calibration Results

Flow Meter: FM-13

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

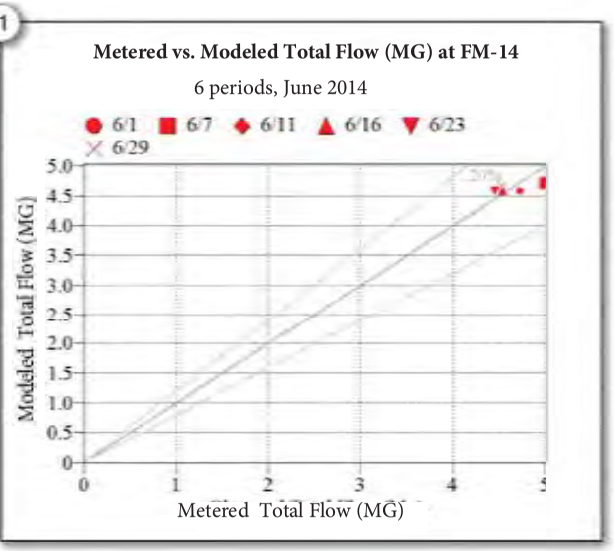
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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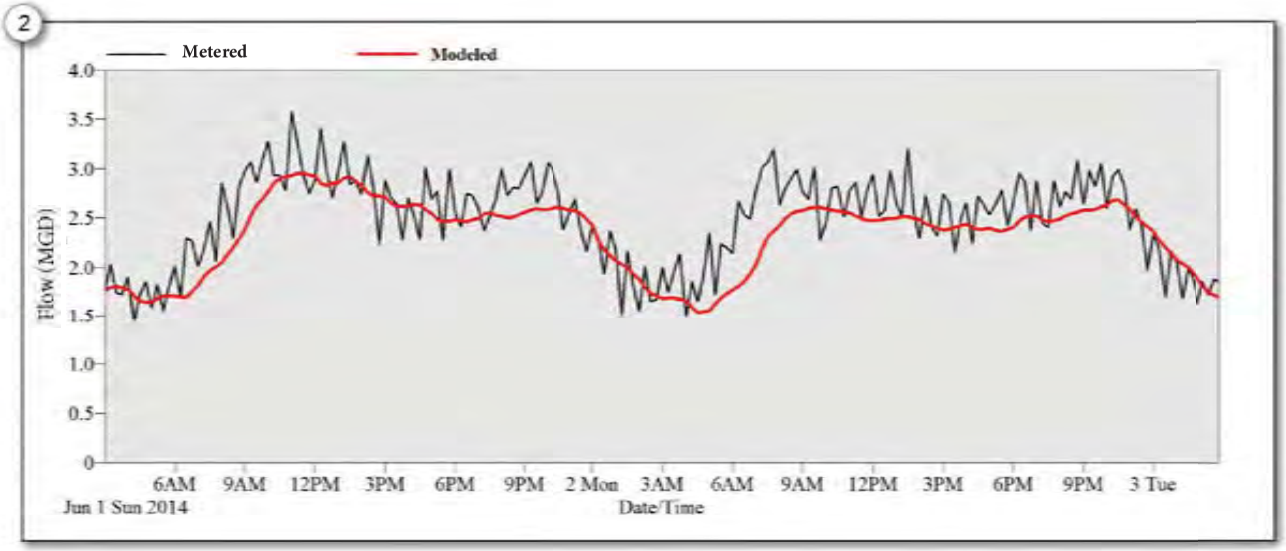

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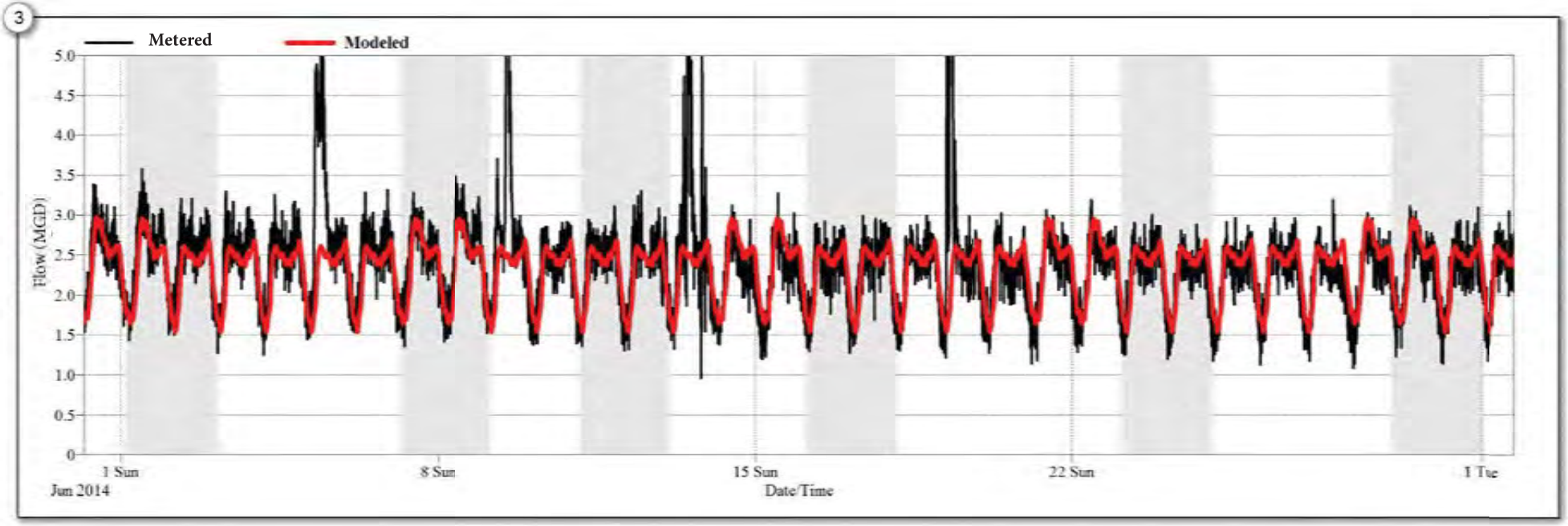


Model Calibration Results

Flow Meter: FM-14

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

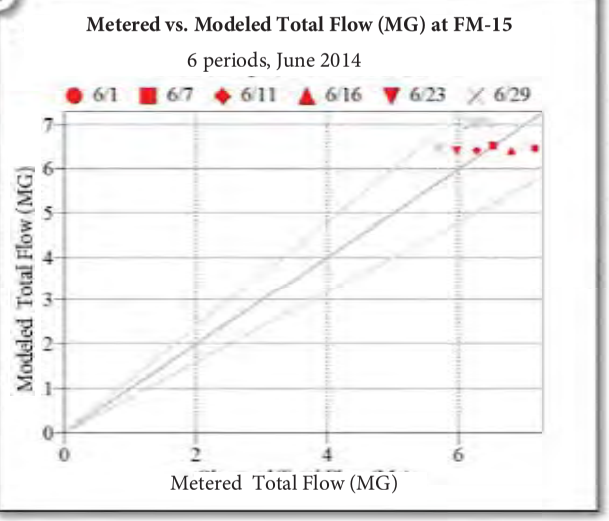
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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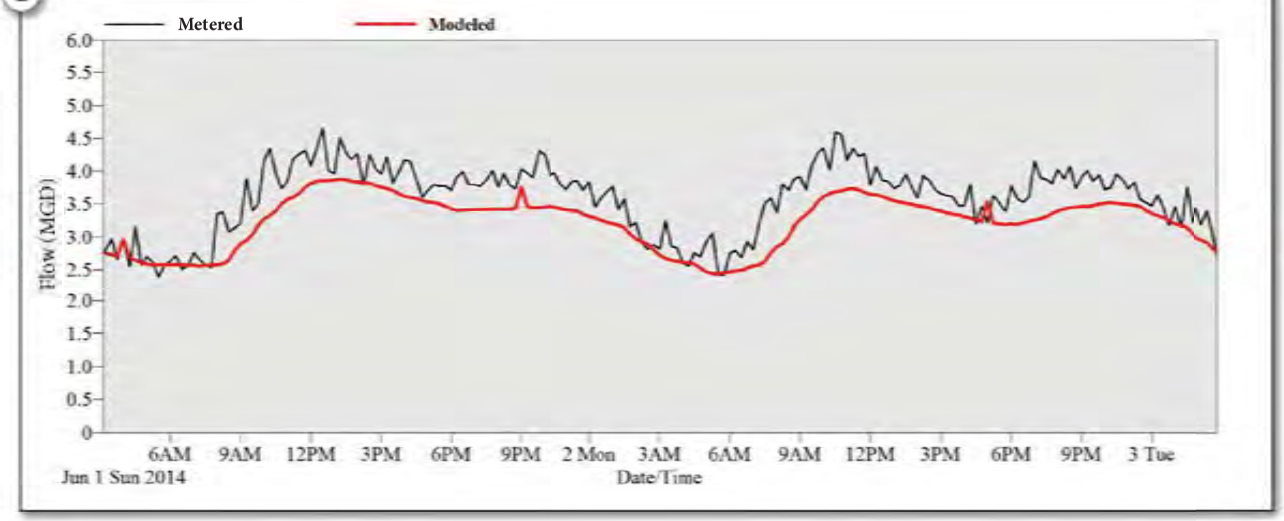

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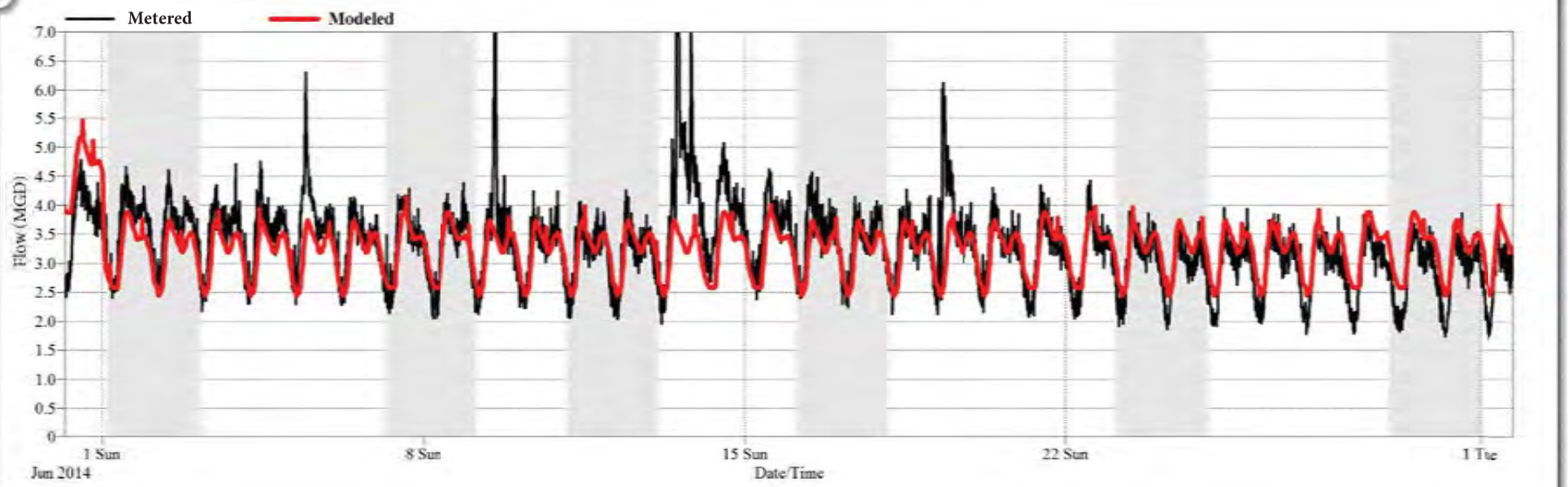


Model Calibration Results

Flow Meter: FM-15

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

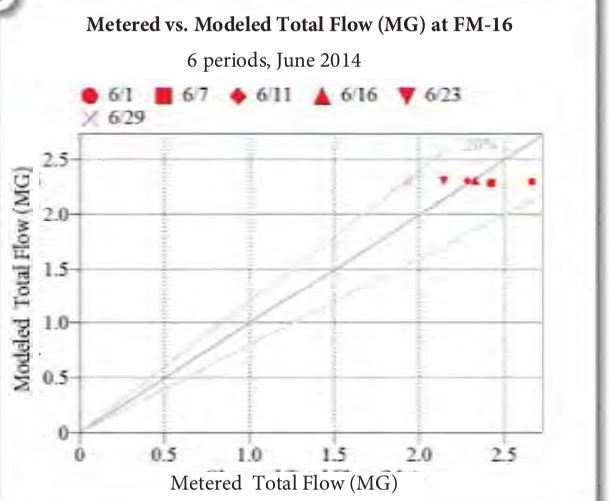
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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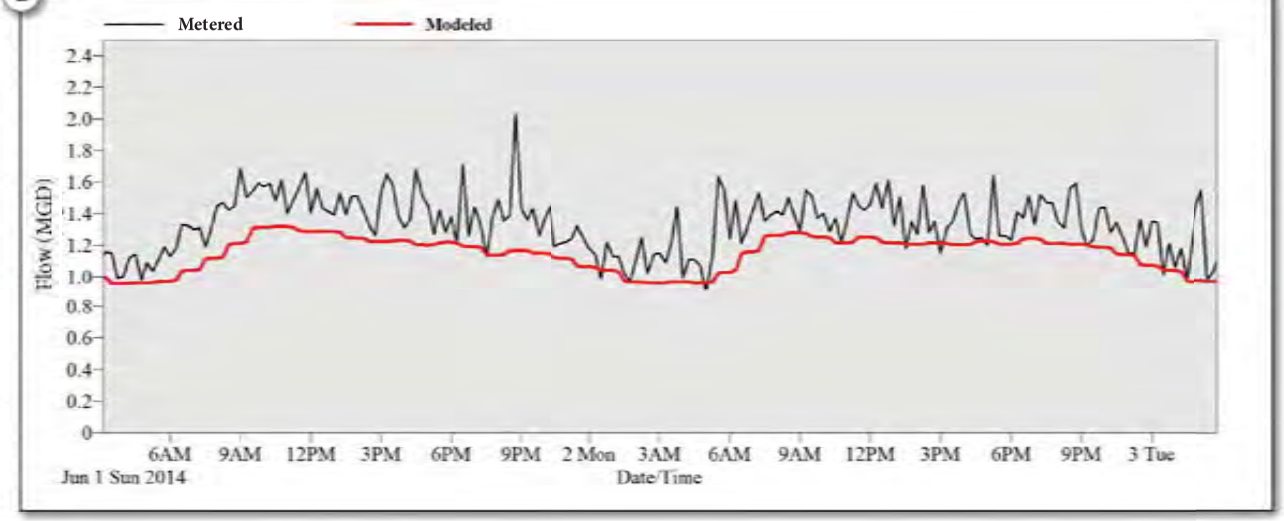

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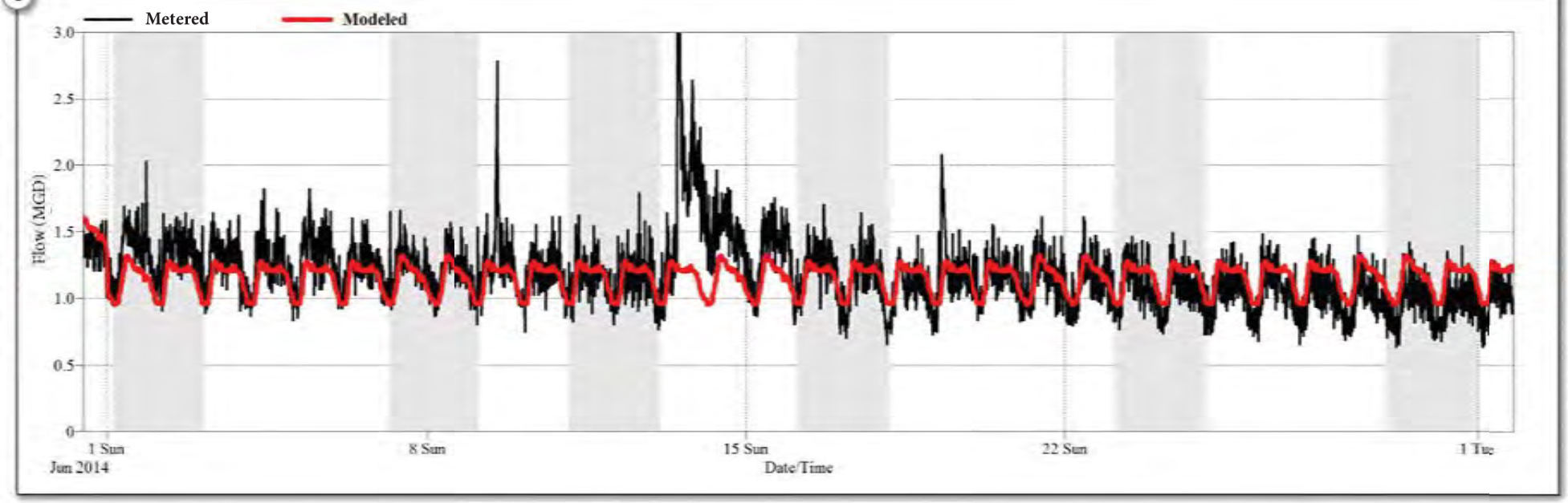


Model Calibration Results

Flow Meter: FM-16

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

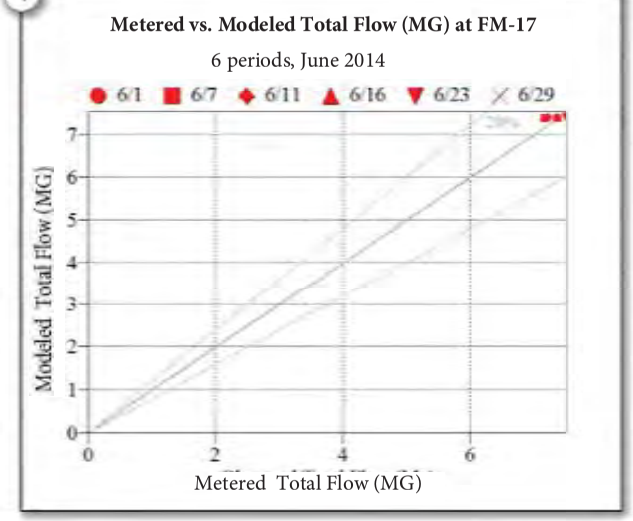
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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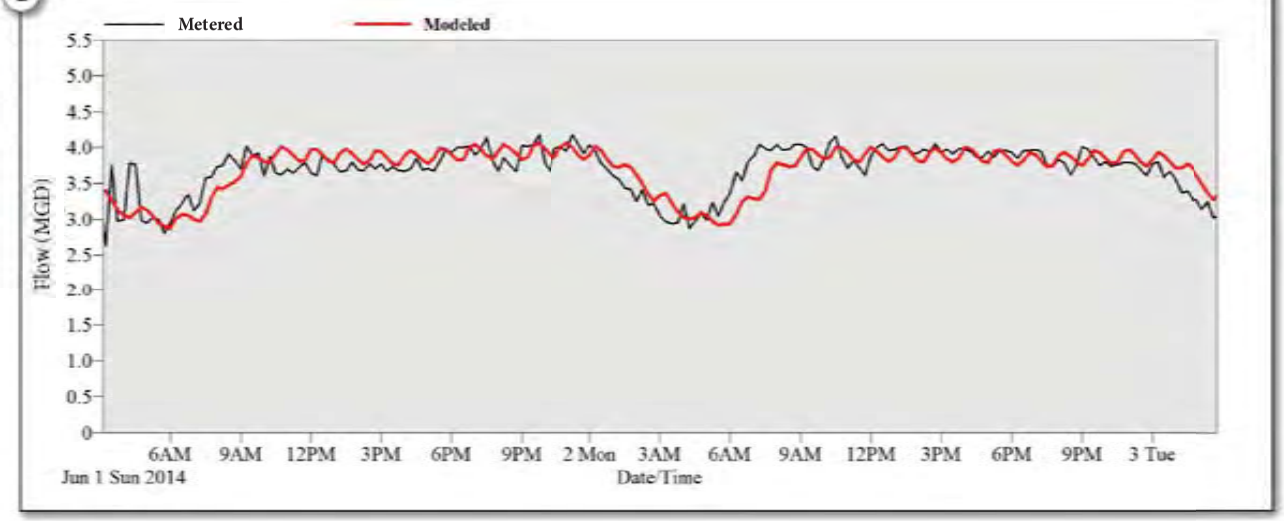

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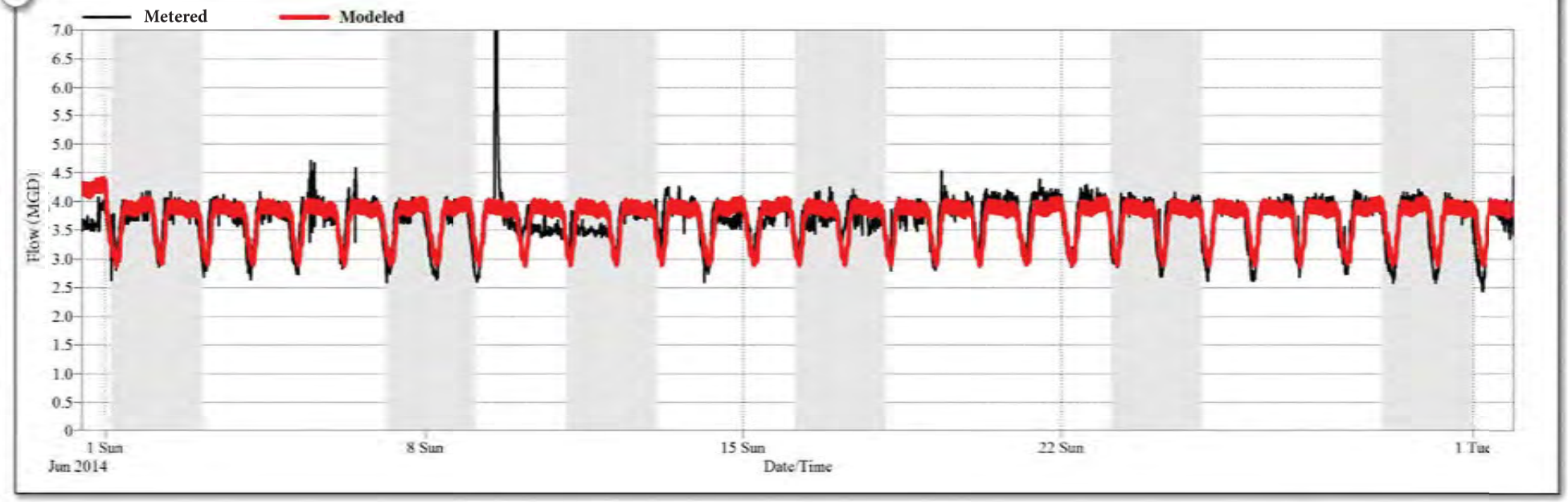


Model Calibration Results

Flow Meter: FM-17

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

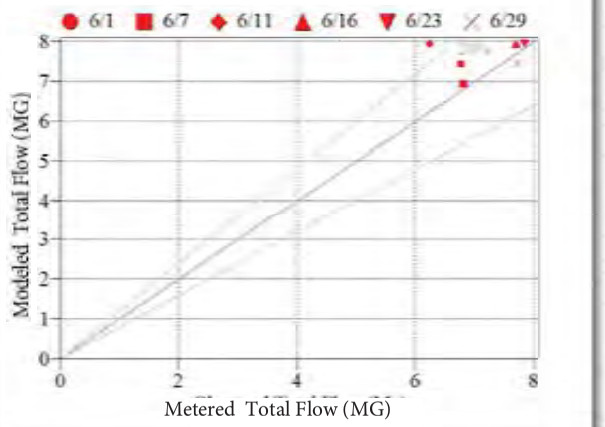
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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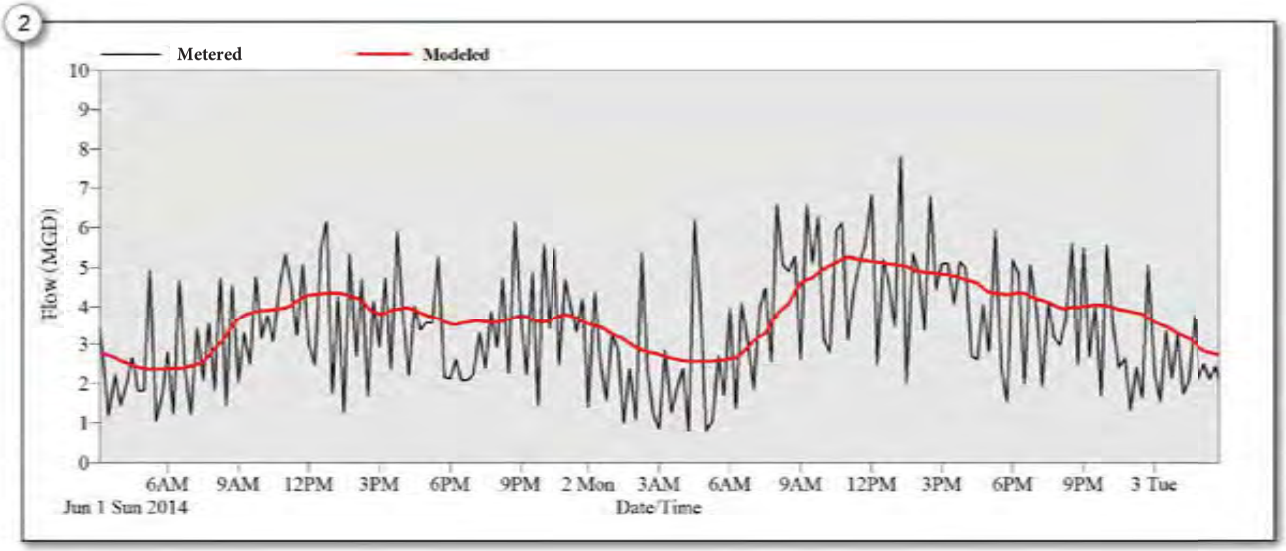

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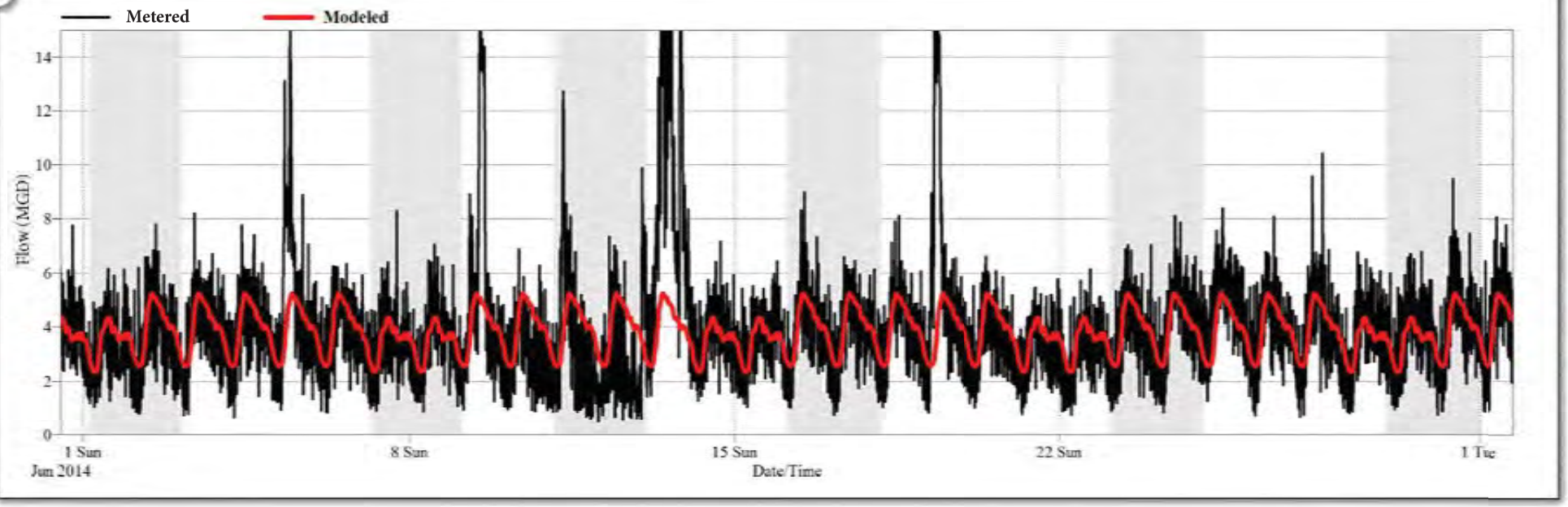


Model Calibration Results

Flow Meter: FM-18

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

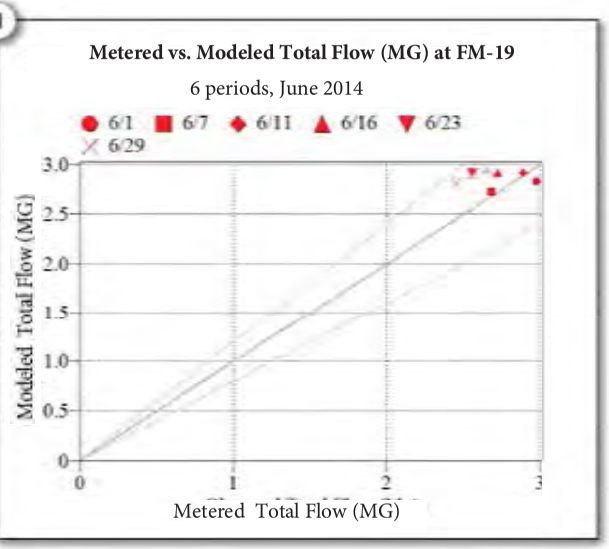
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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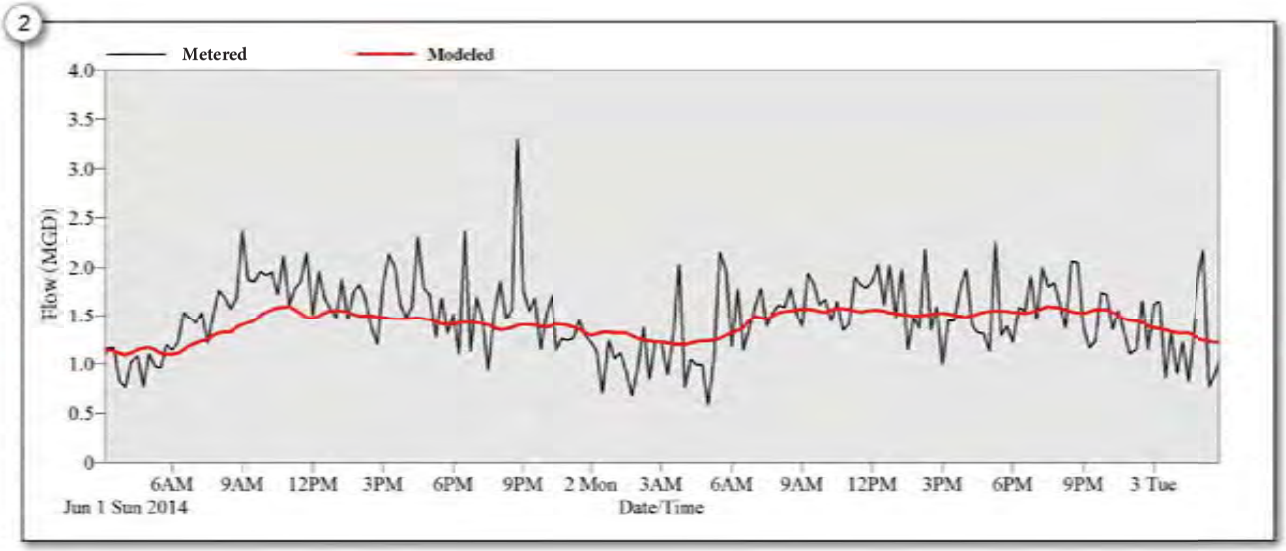

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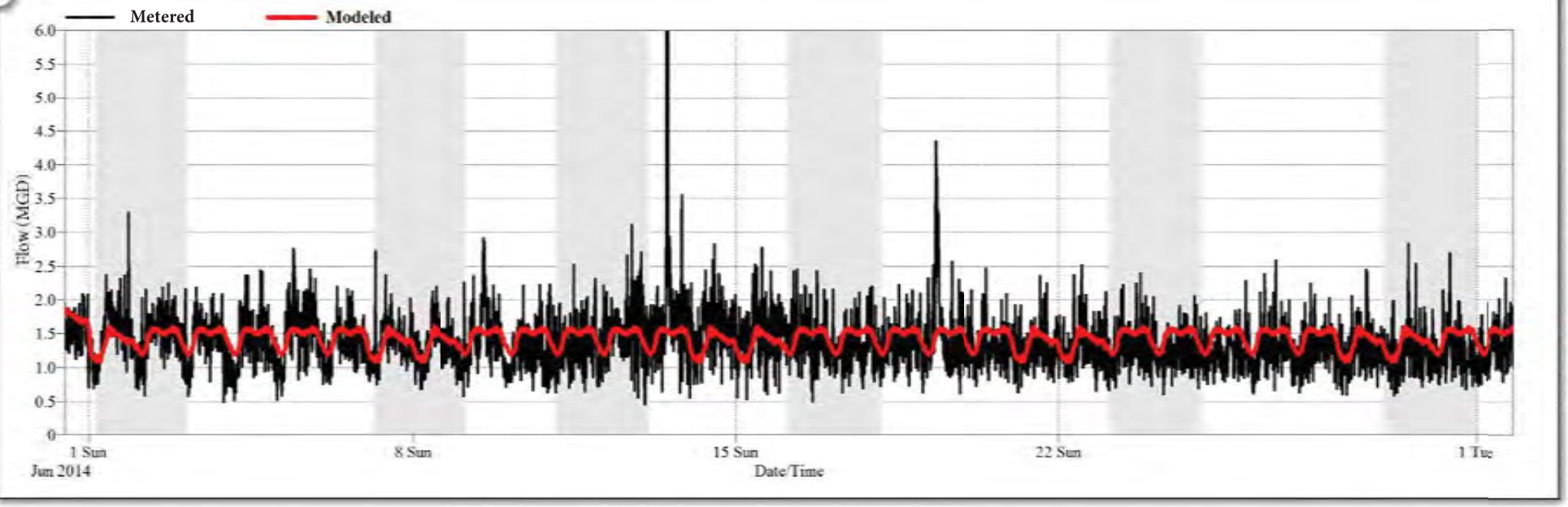


Model Calibration Results

Flow Meter: FM-19

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

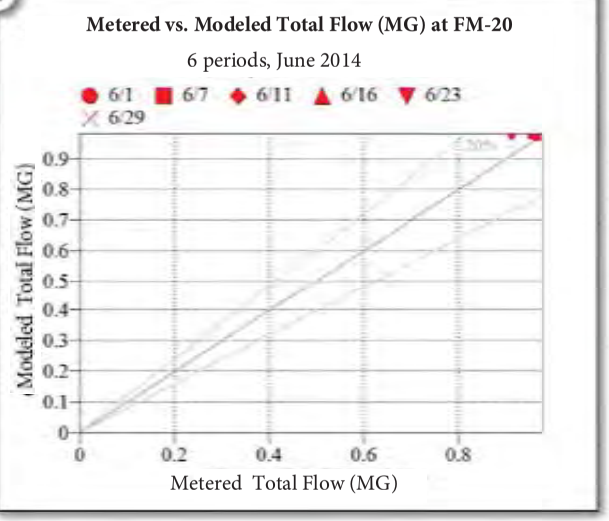
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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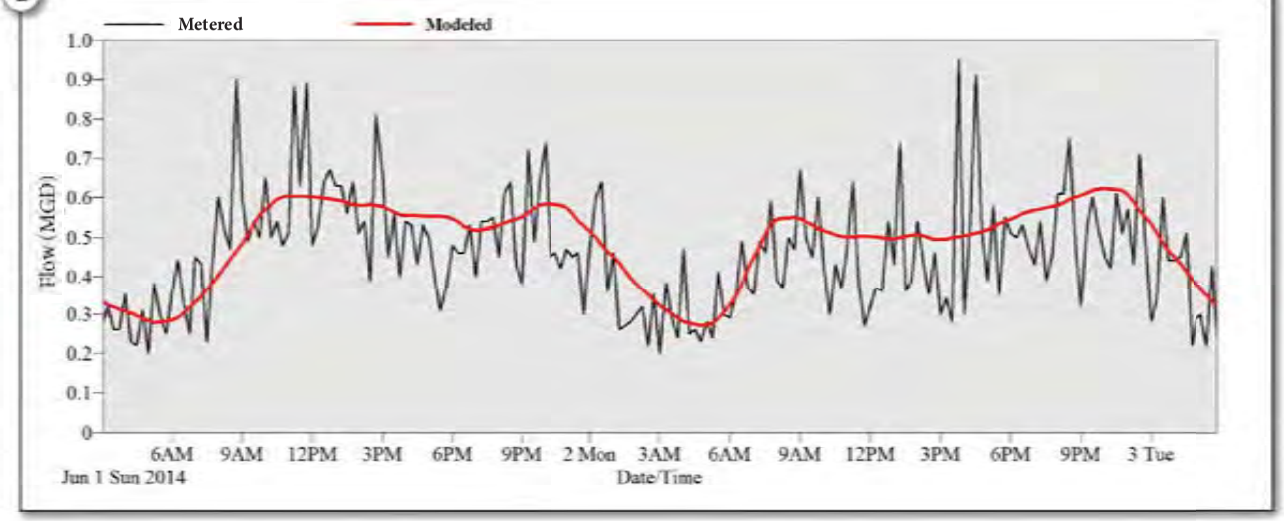

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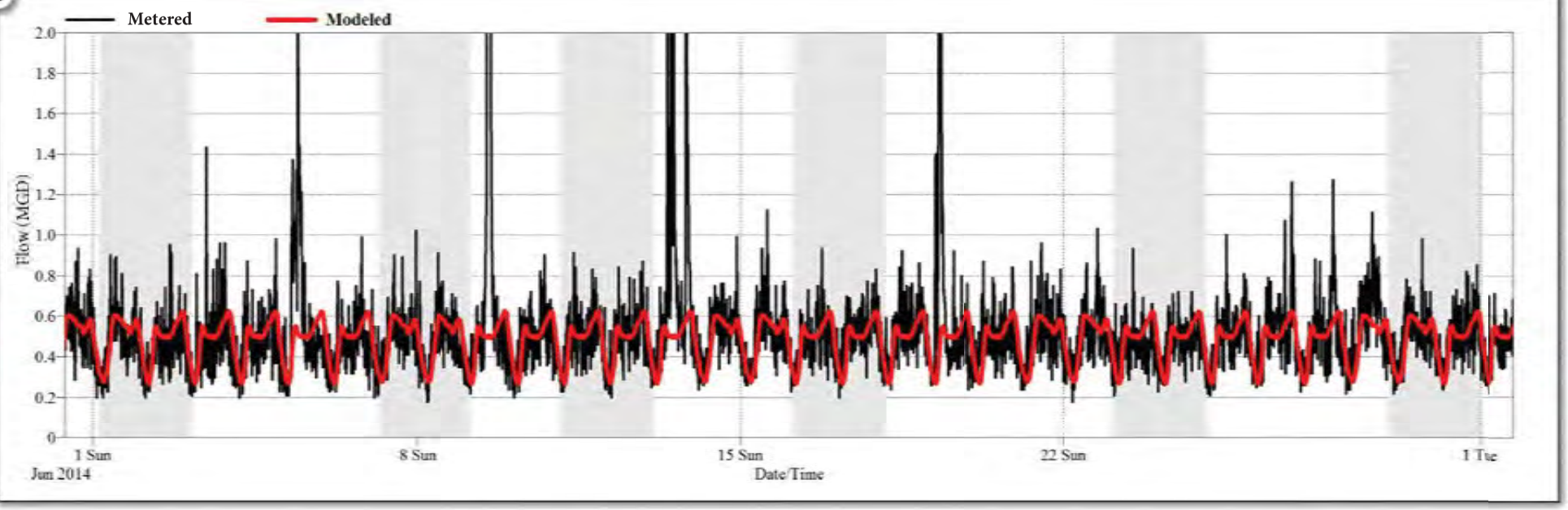


Model Calibration Results

Flow Meter: FM-20

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

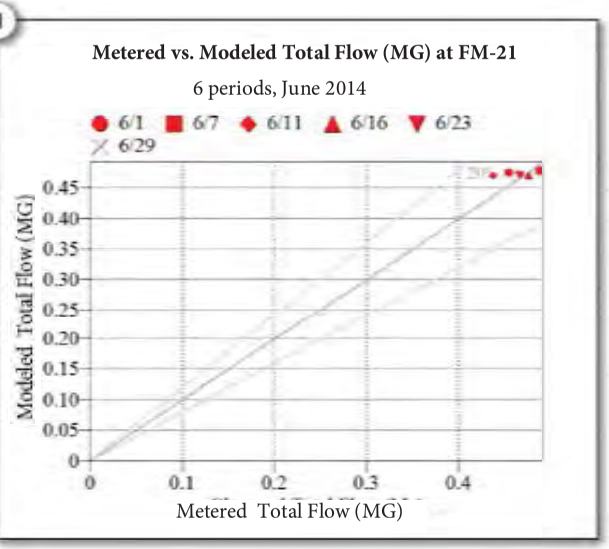
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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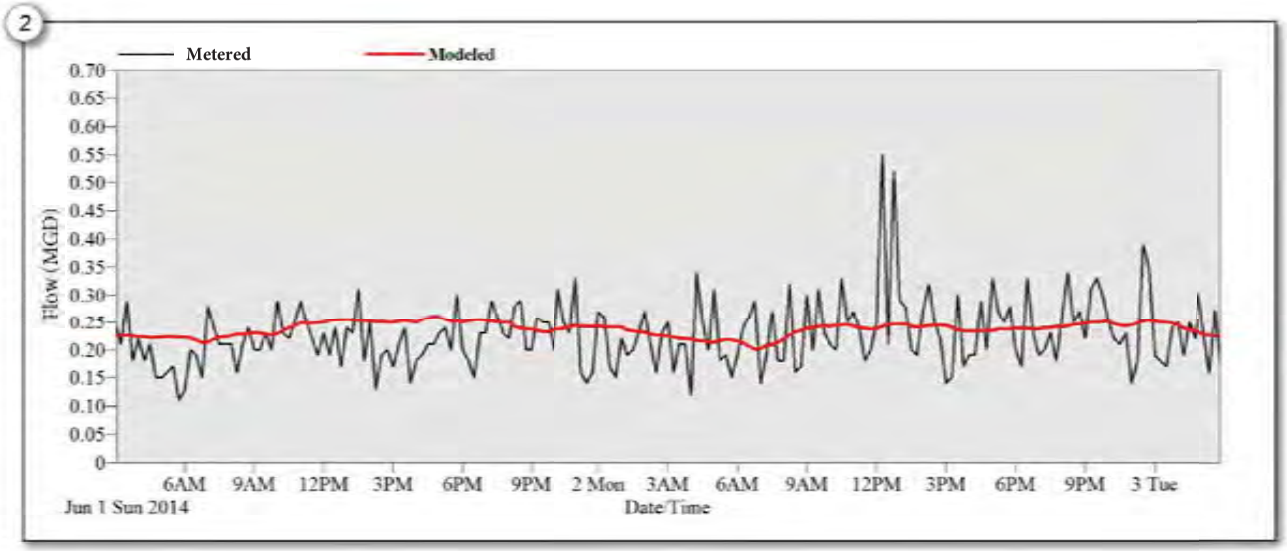

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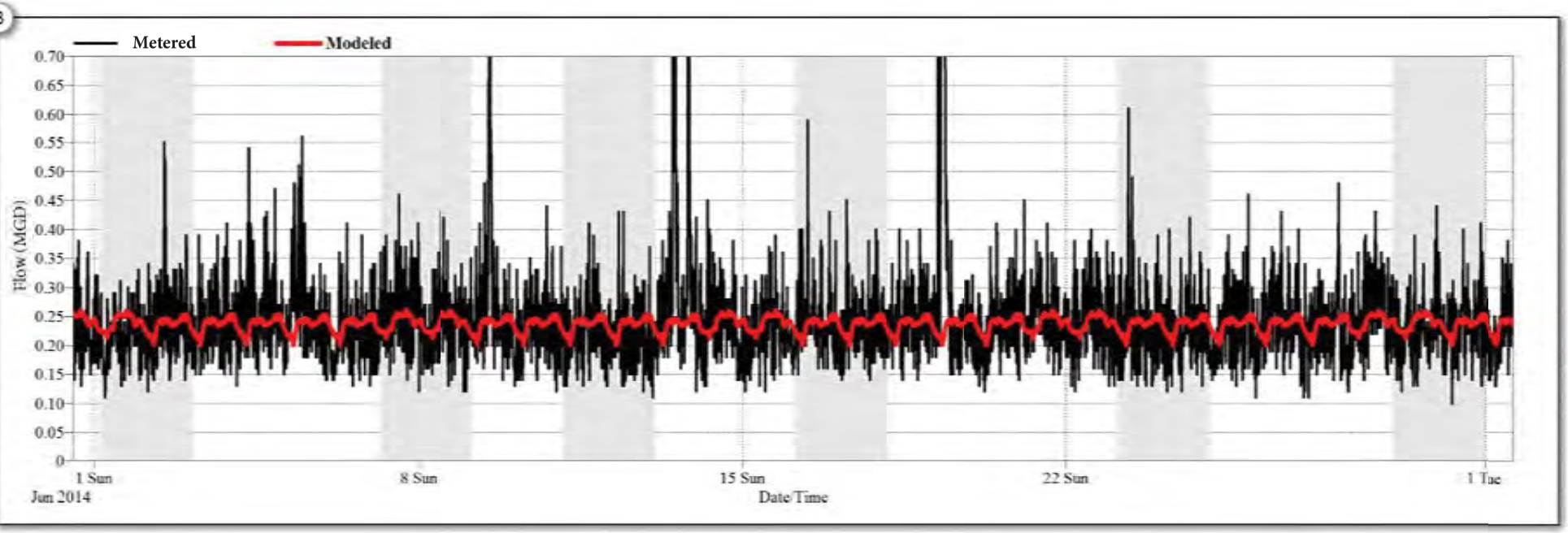


Model Calibration Results

Flow Meter: FM-21

Dry Weather Flow

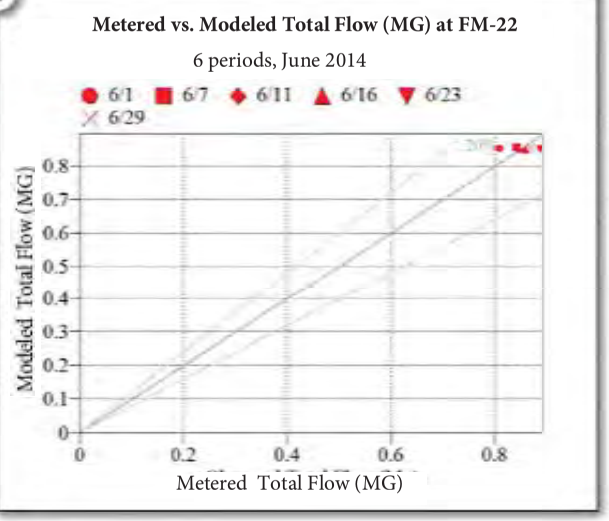
1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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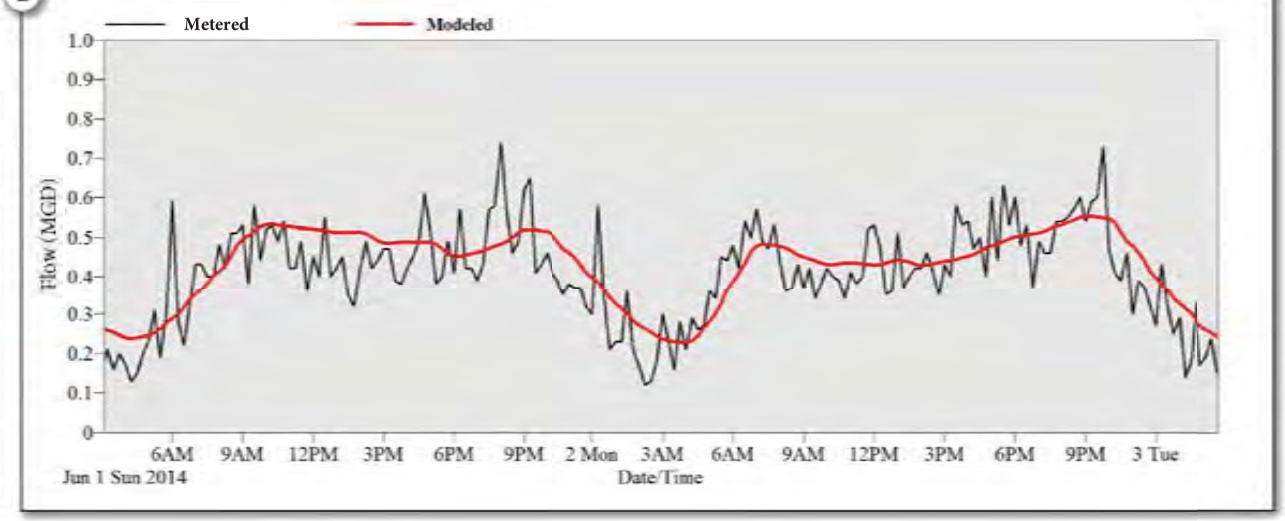

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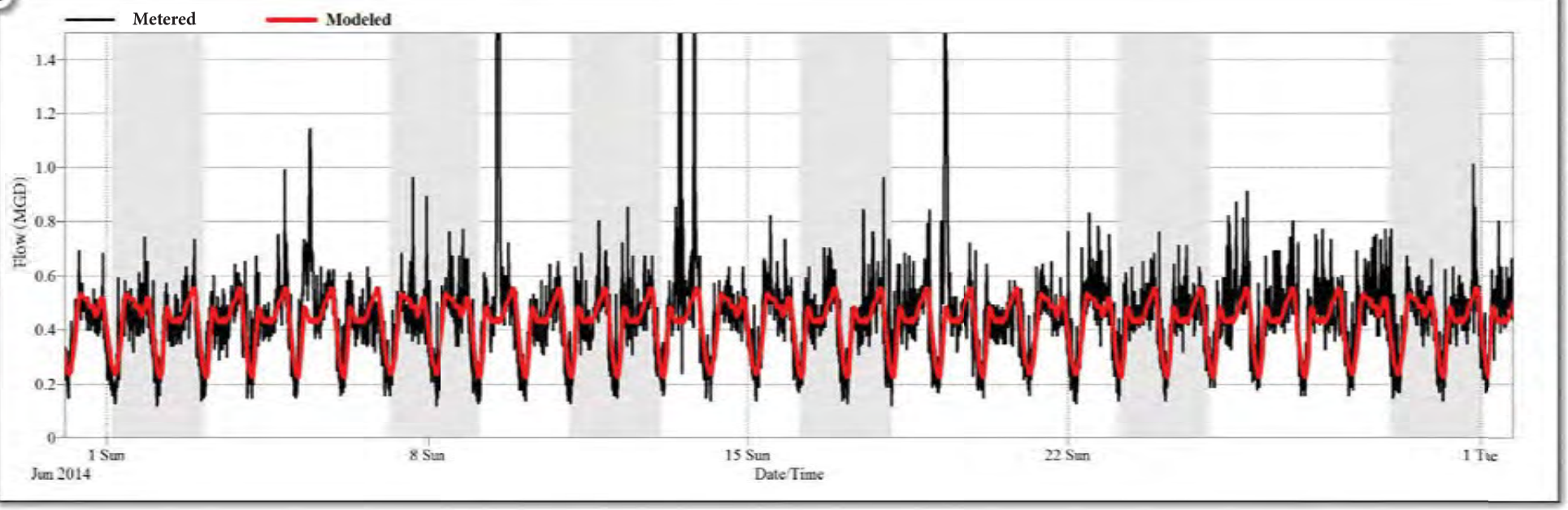


Model Calibration Results

Flow Meter: FM-22

Dry Weather Flow

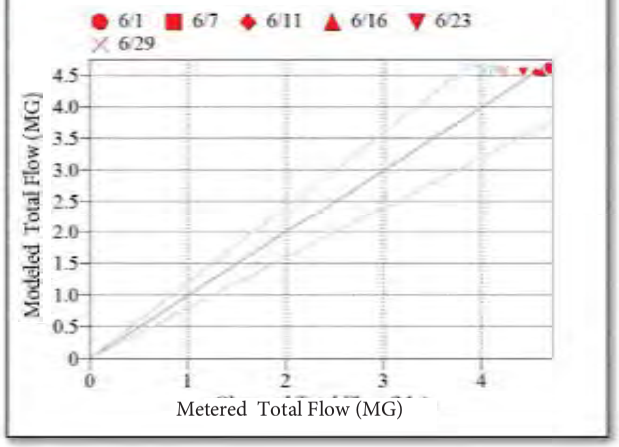
1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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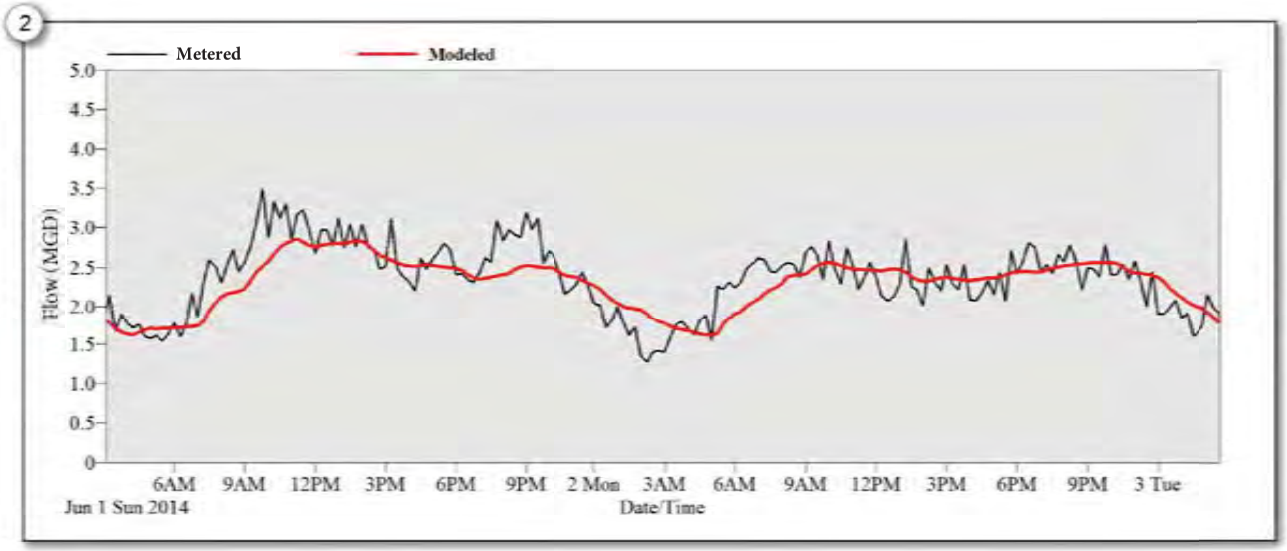

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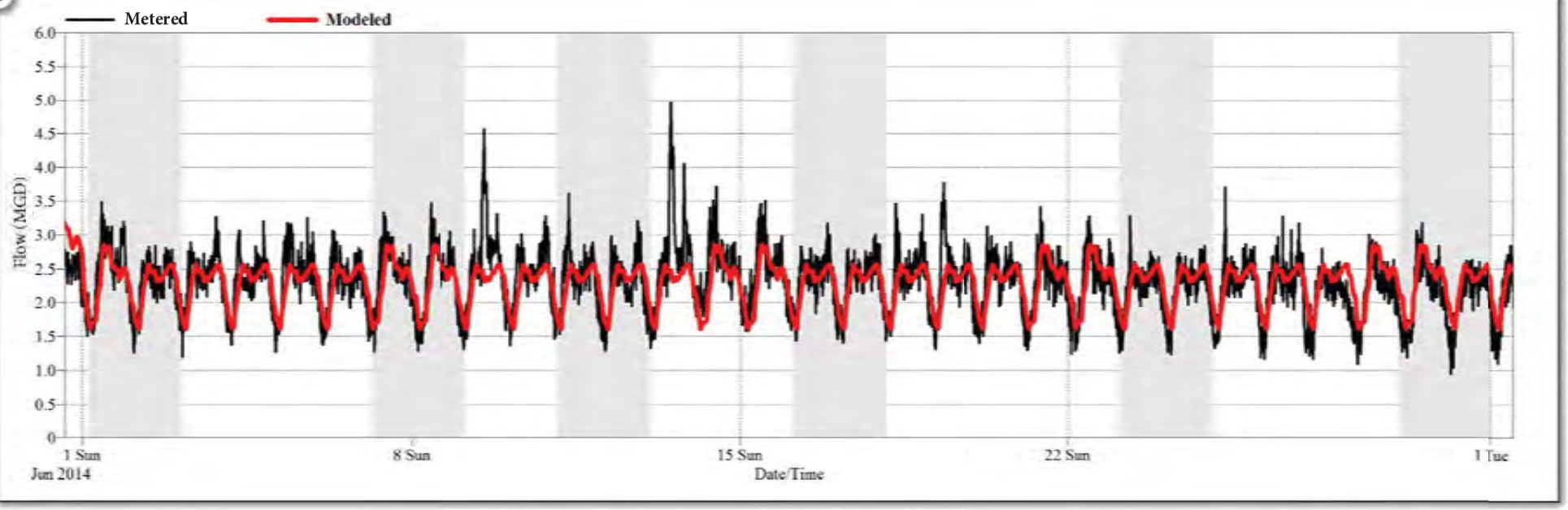


Model Calibration Results

Flow Meter: FM-23

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

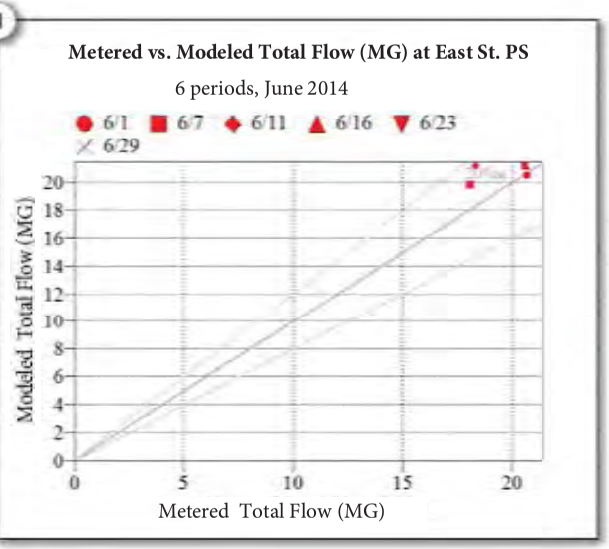
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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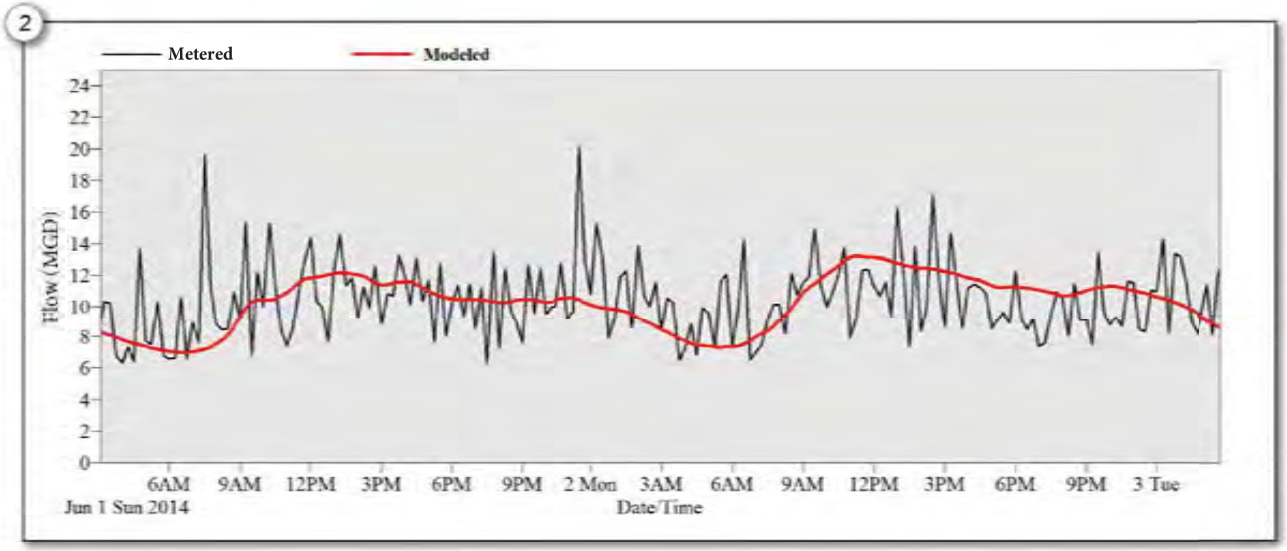

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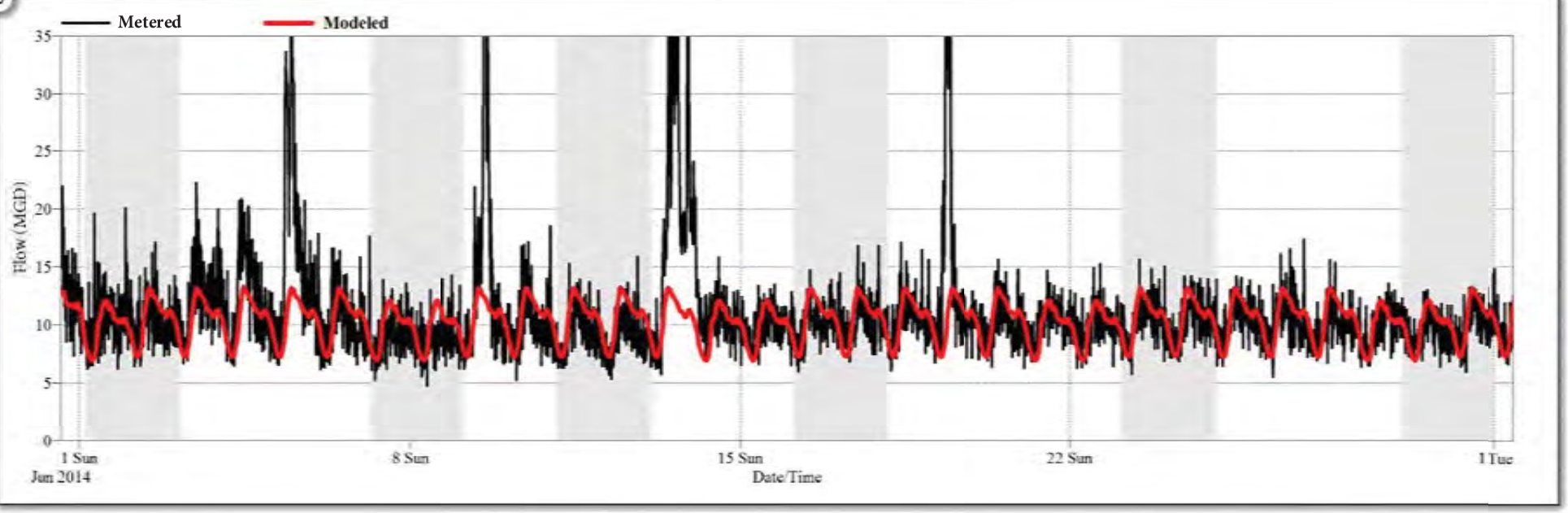


Model Calibration Results

Flow Meter: East St. PS

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

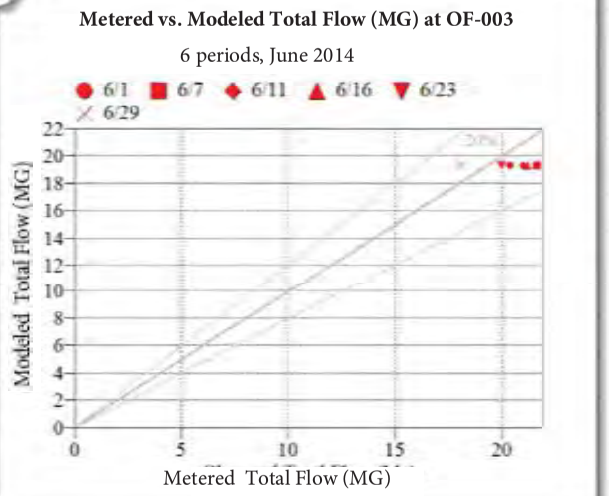
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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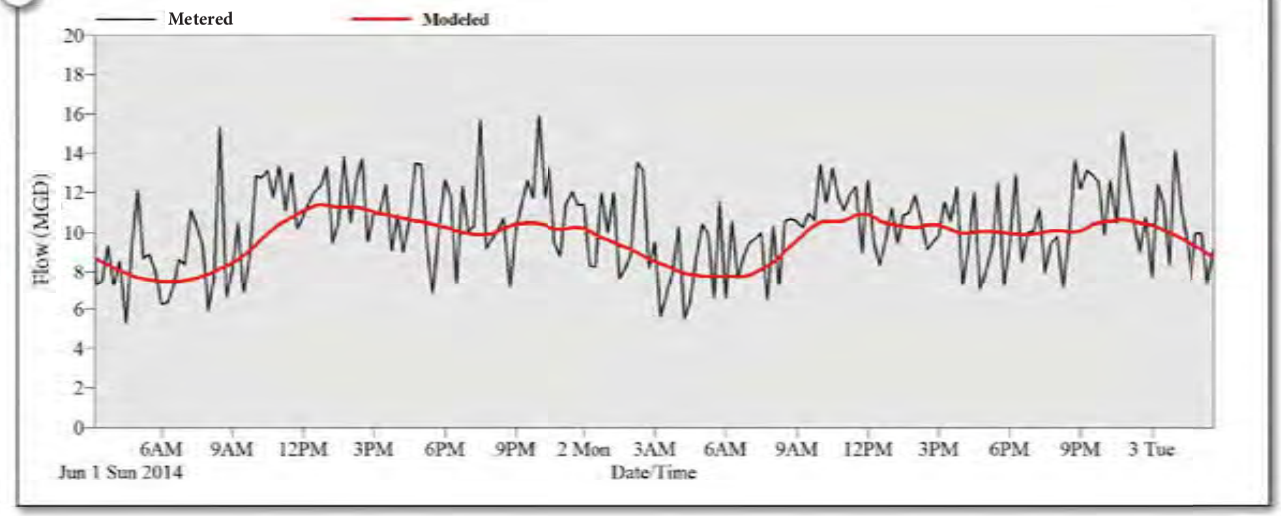

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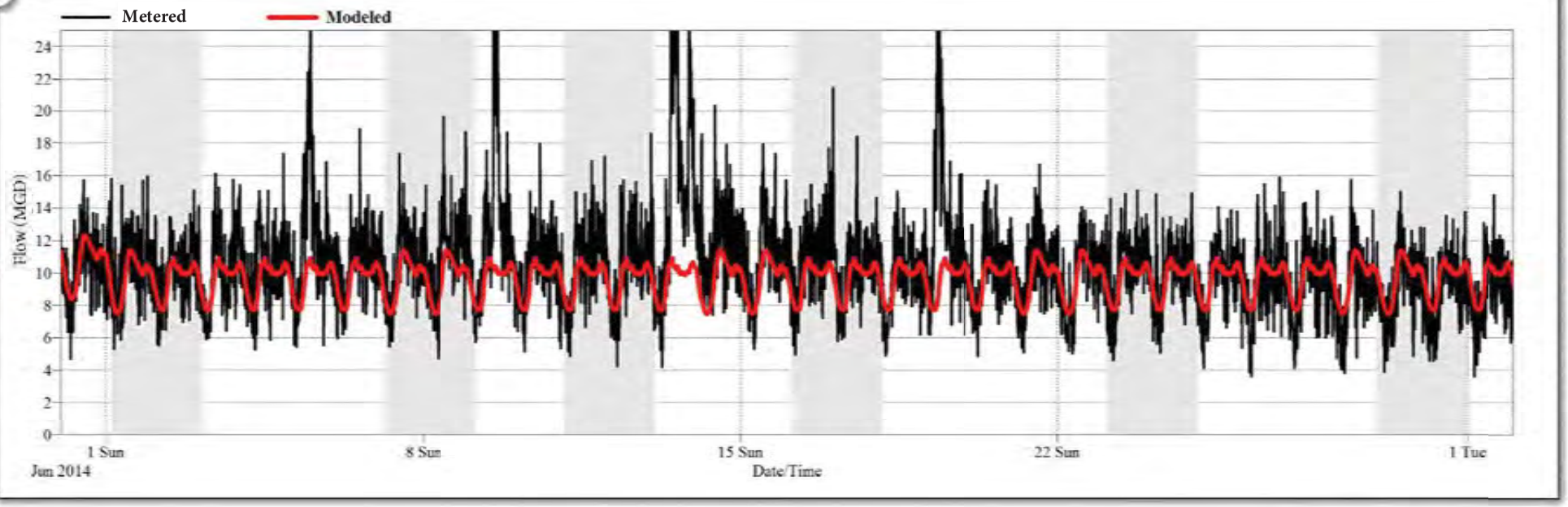


Model Calibration Results

Flow Meter: OF-003

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

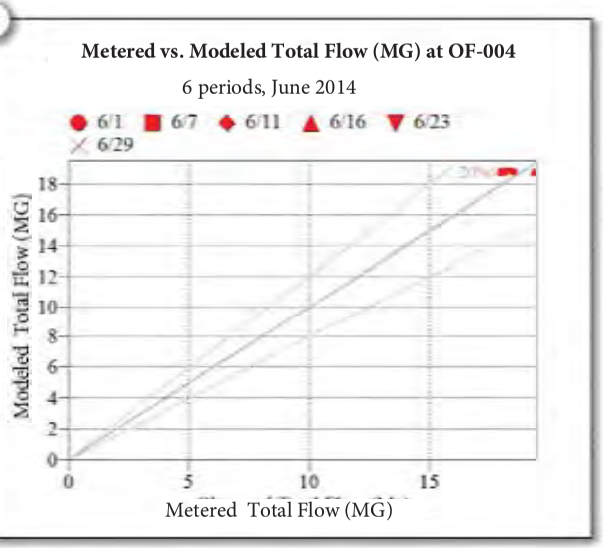
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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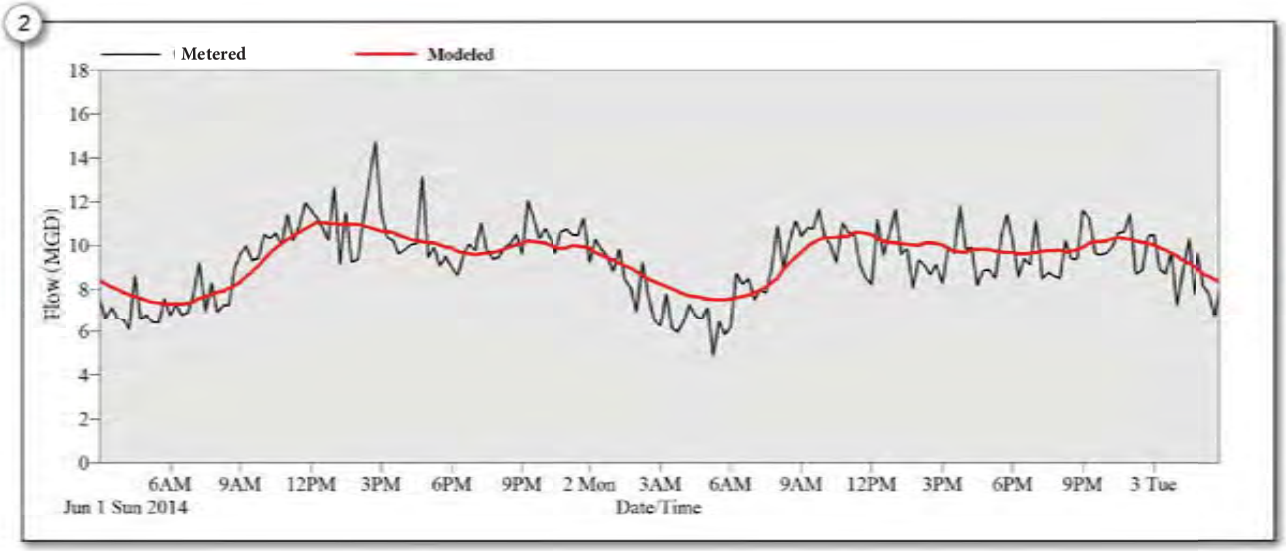

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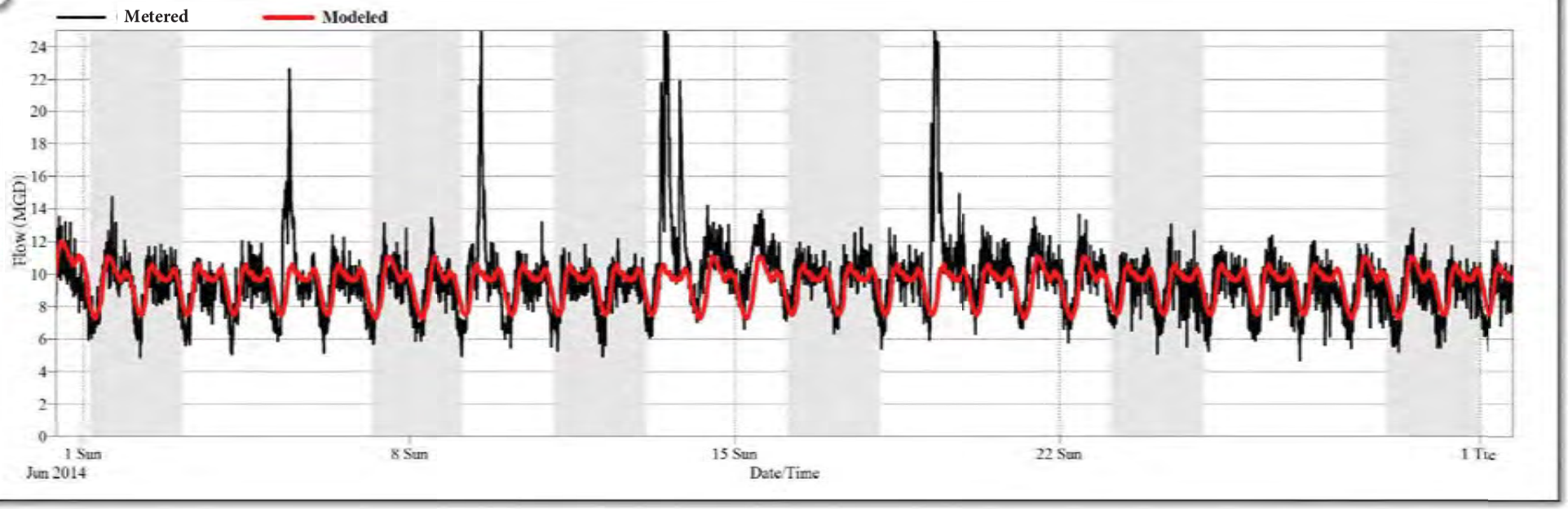


Model Calibration Results

Flow Meter: OF-004

Dry Weather Flow

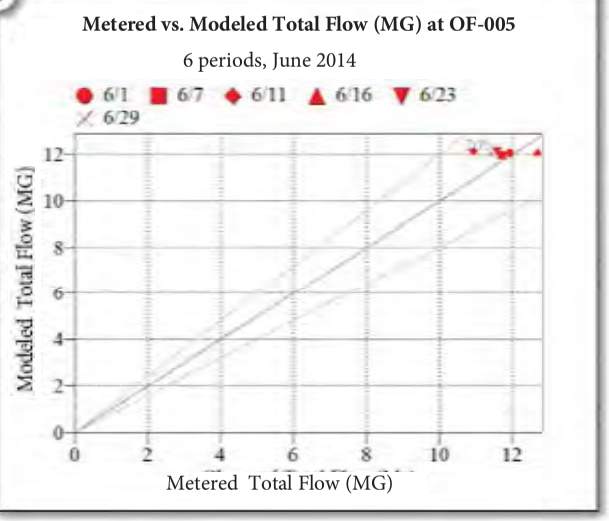
1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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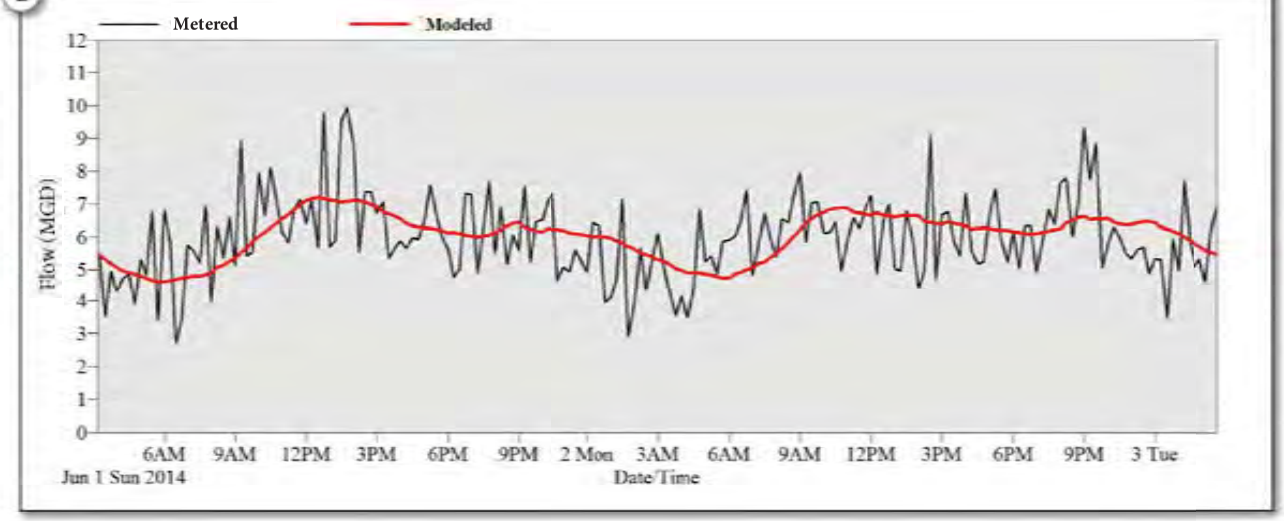

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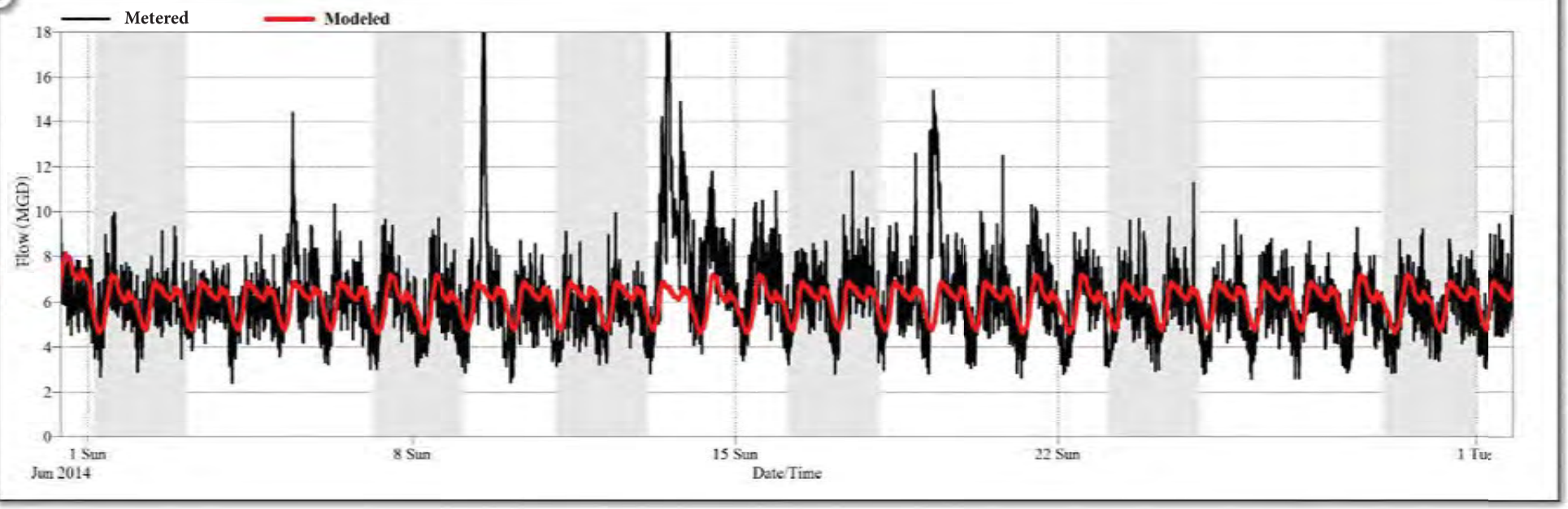


Model Calibration Results

Flow Meter: OF-005

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

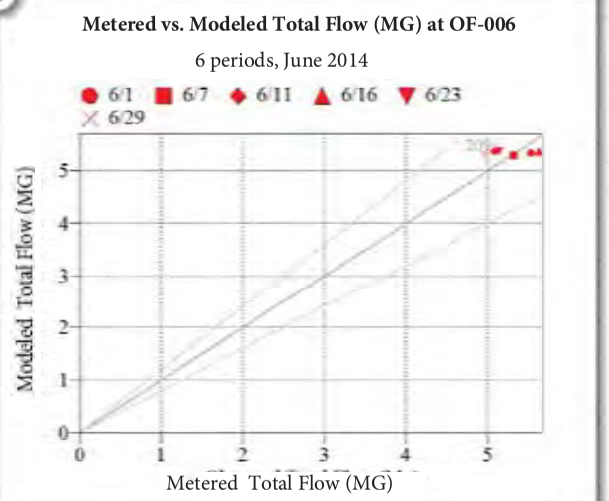
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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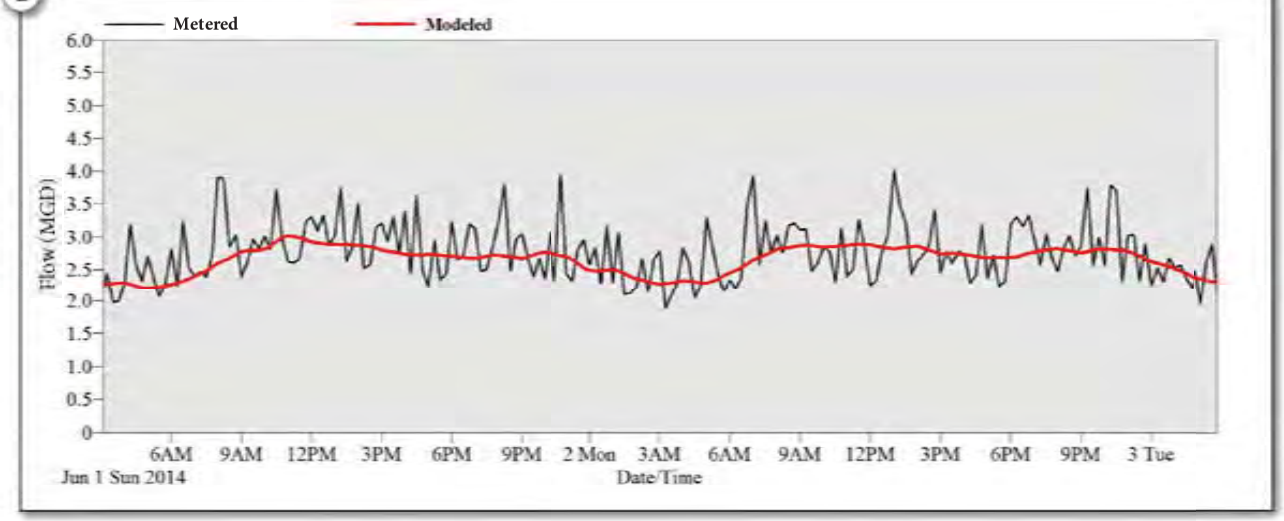

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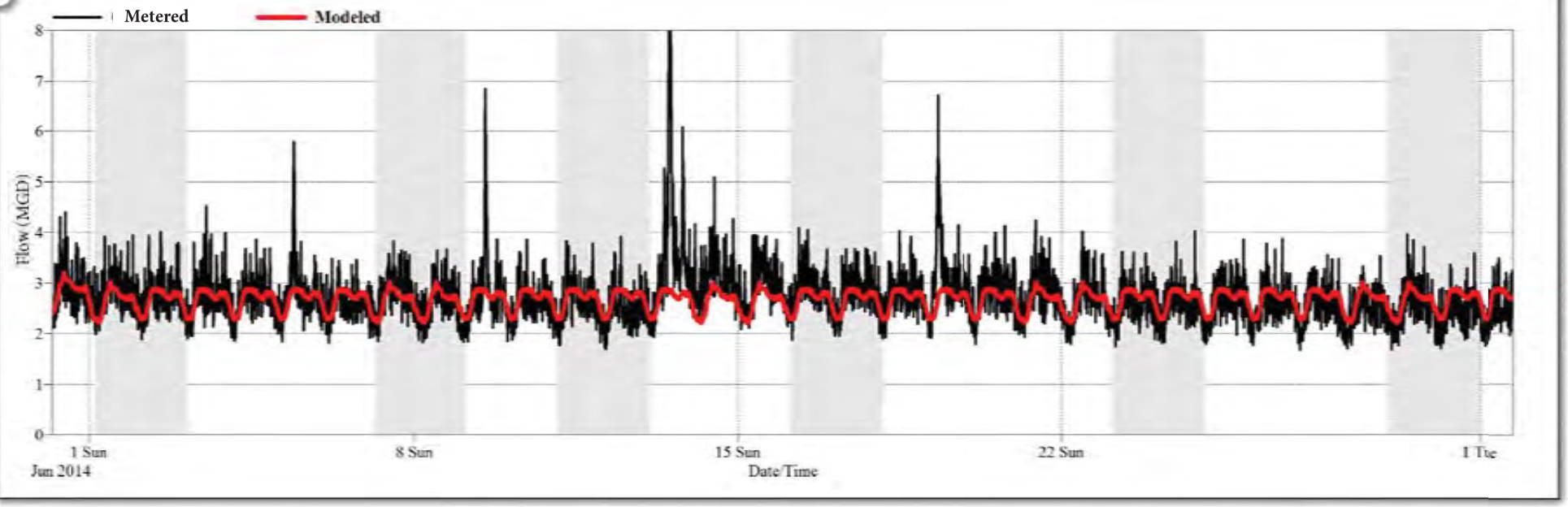


Model Calibration Results

Flow Meter: OF-006

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

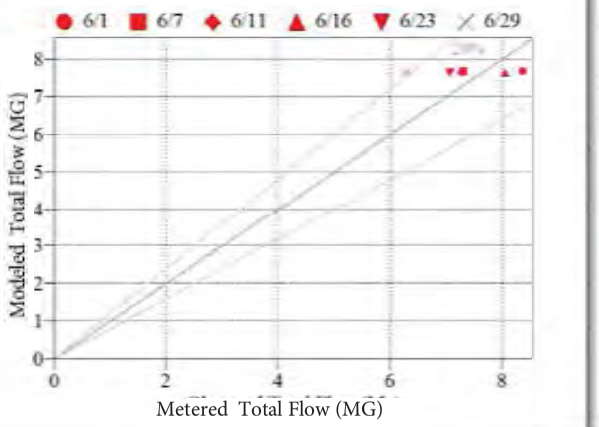
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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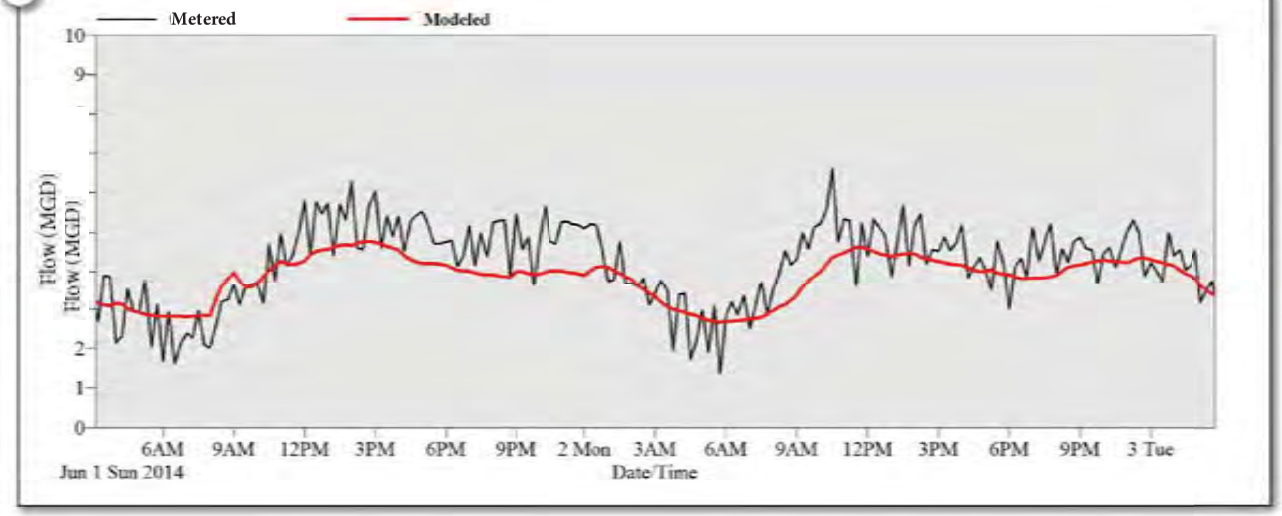

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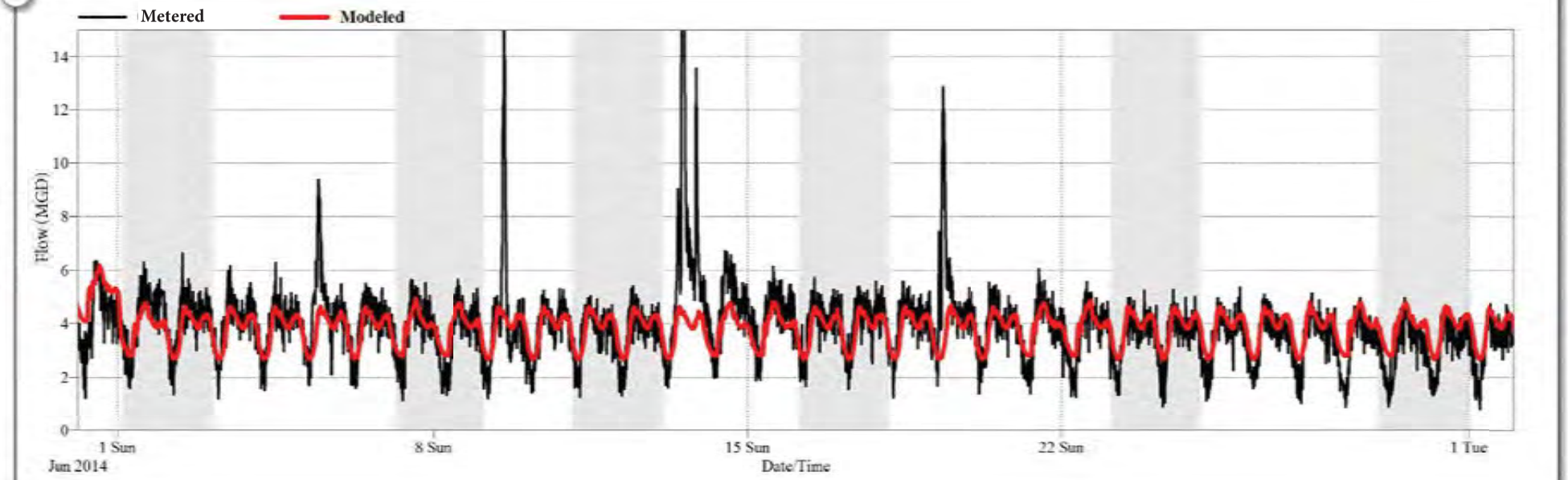


Model Calibration Results

Flow Meter: OF-010

Dry Weather Flow

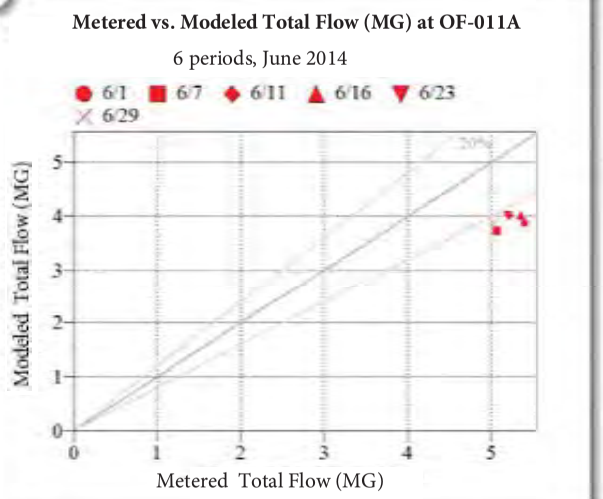
1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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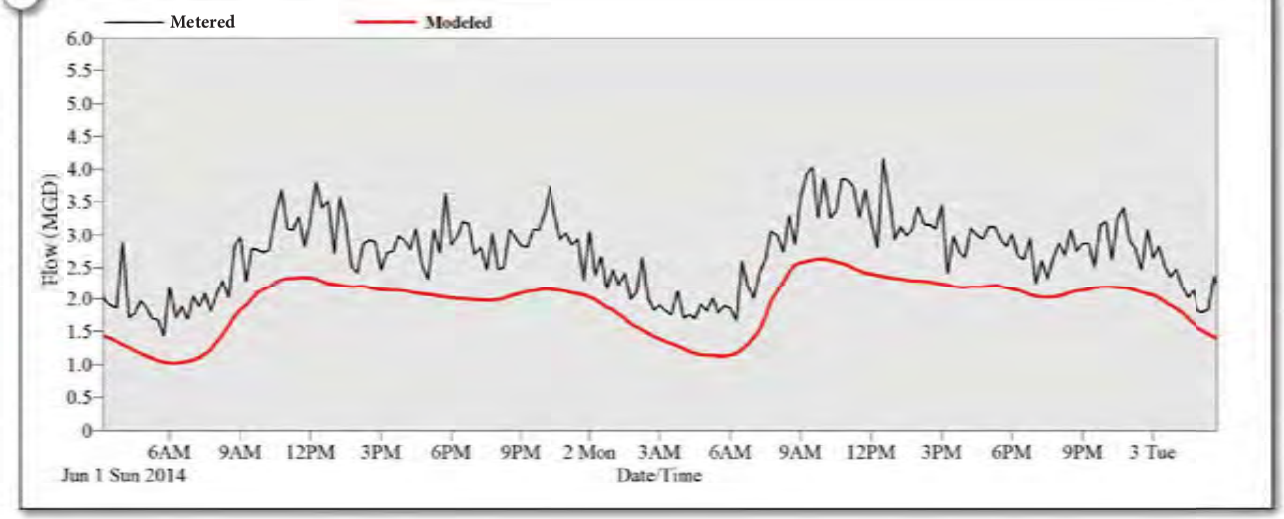

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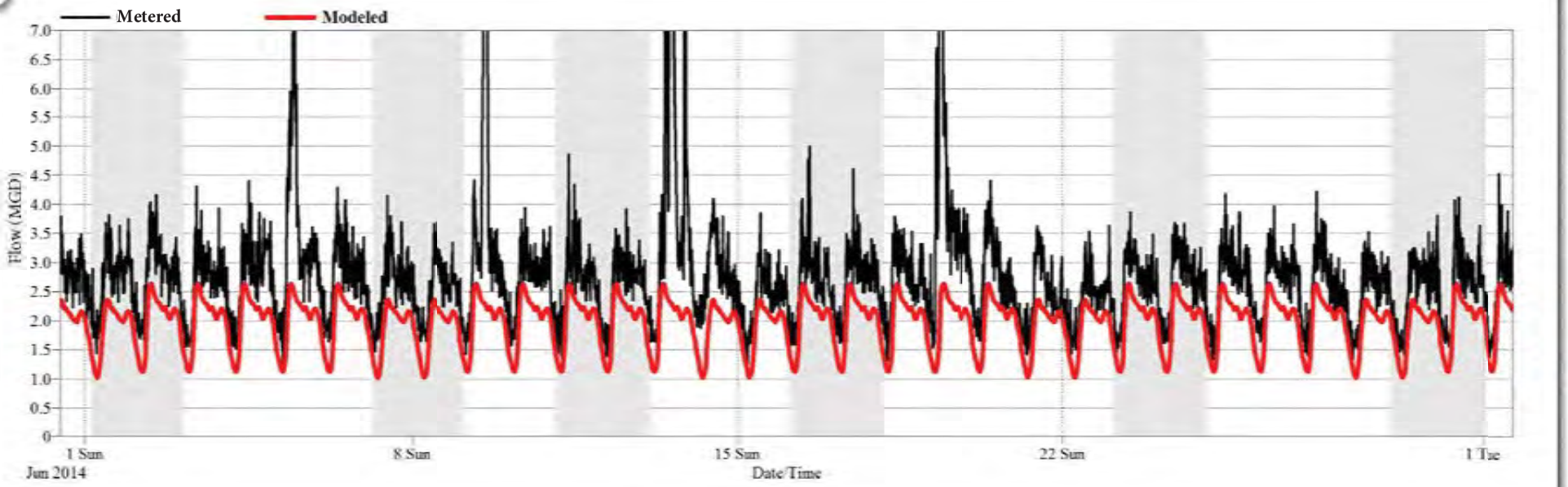


Model Calibration Results

Flow Meter: OF-011A

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

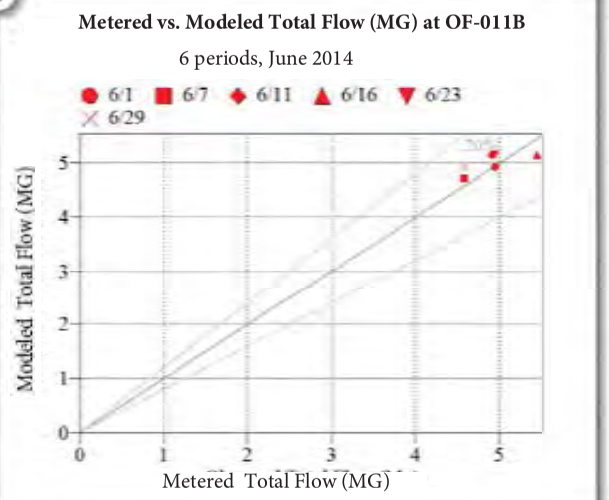
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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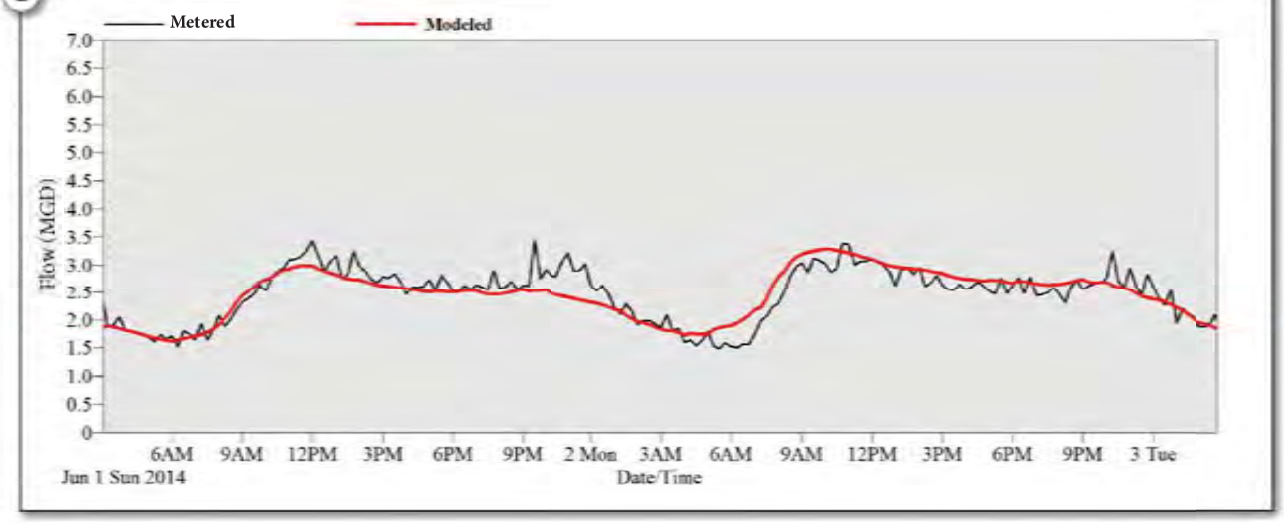

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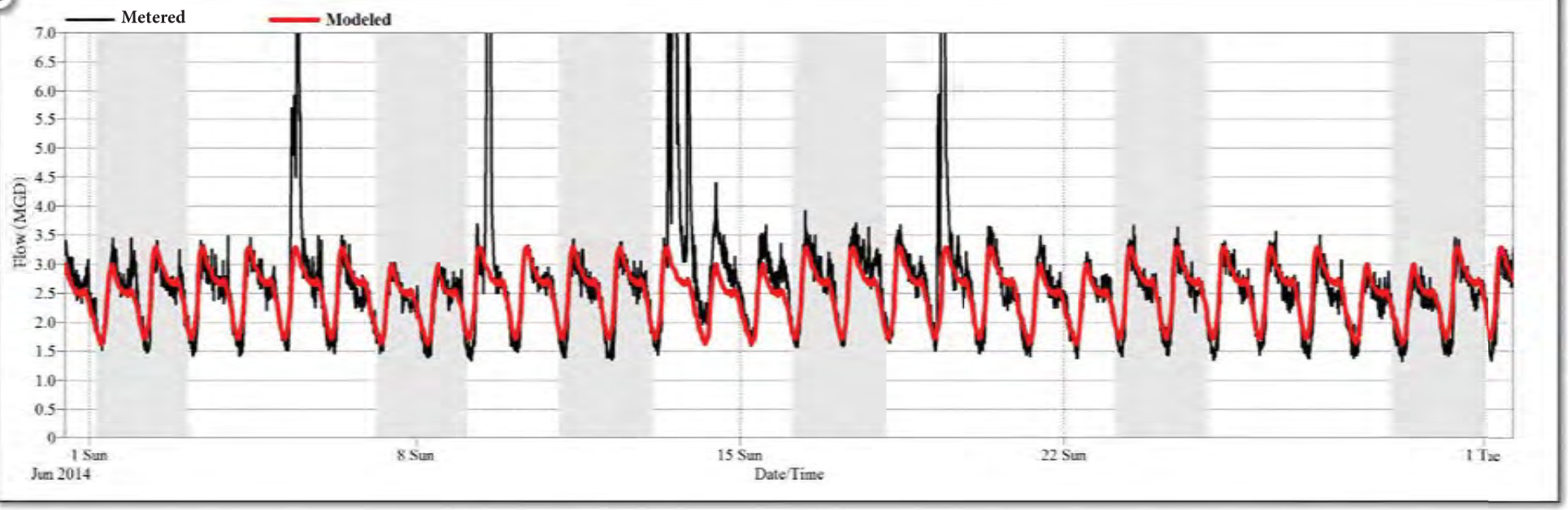


Model Calibration Results

Flow Meter: OF-011B

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

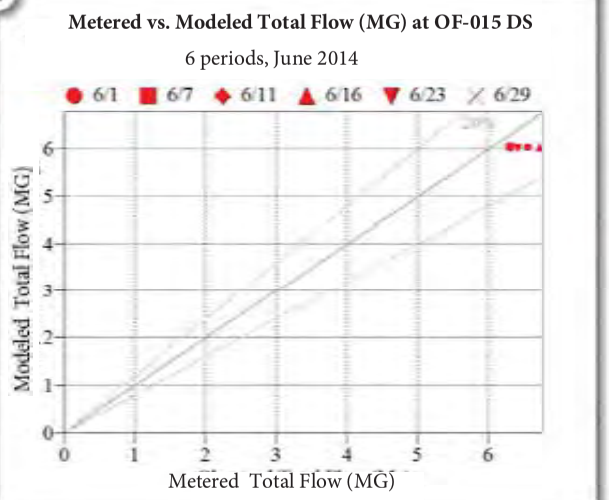
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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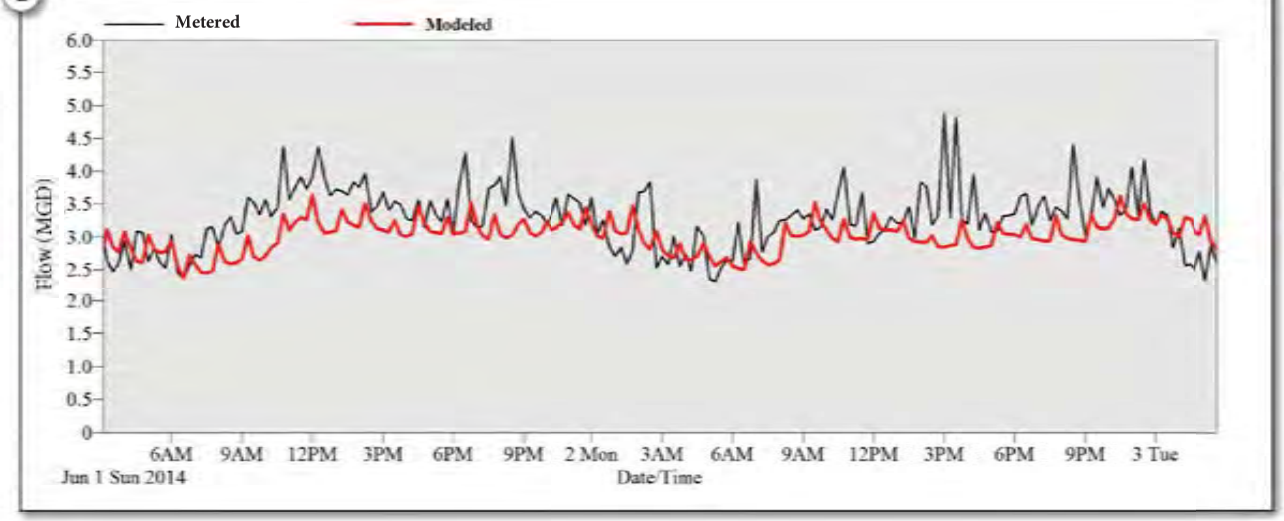

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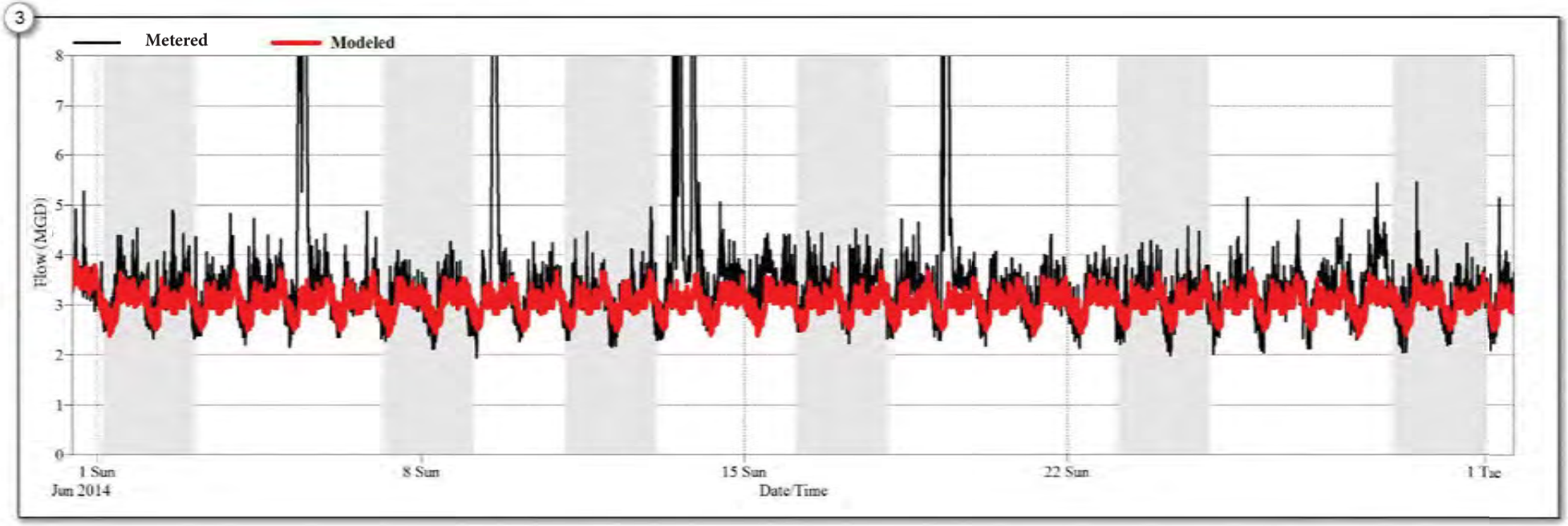


Model Calibration Results

Flow Meter: OF-015 DS

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

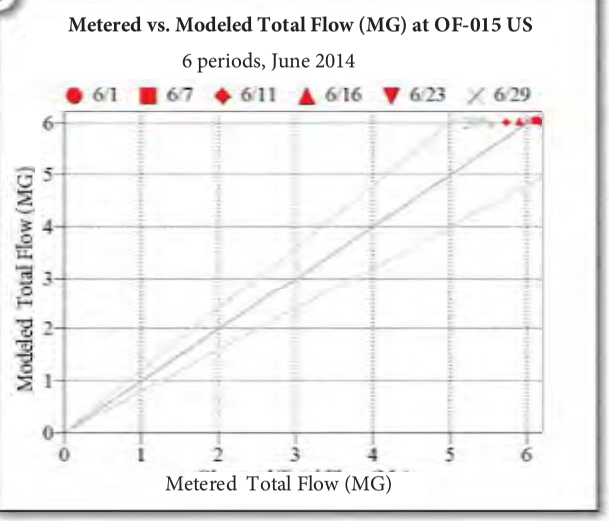
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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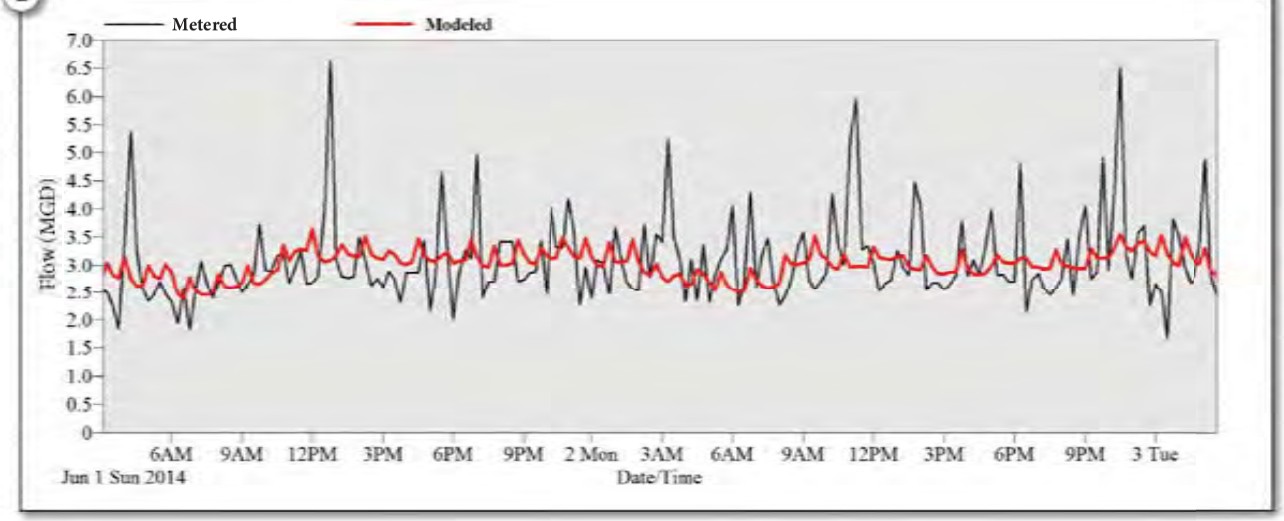

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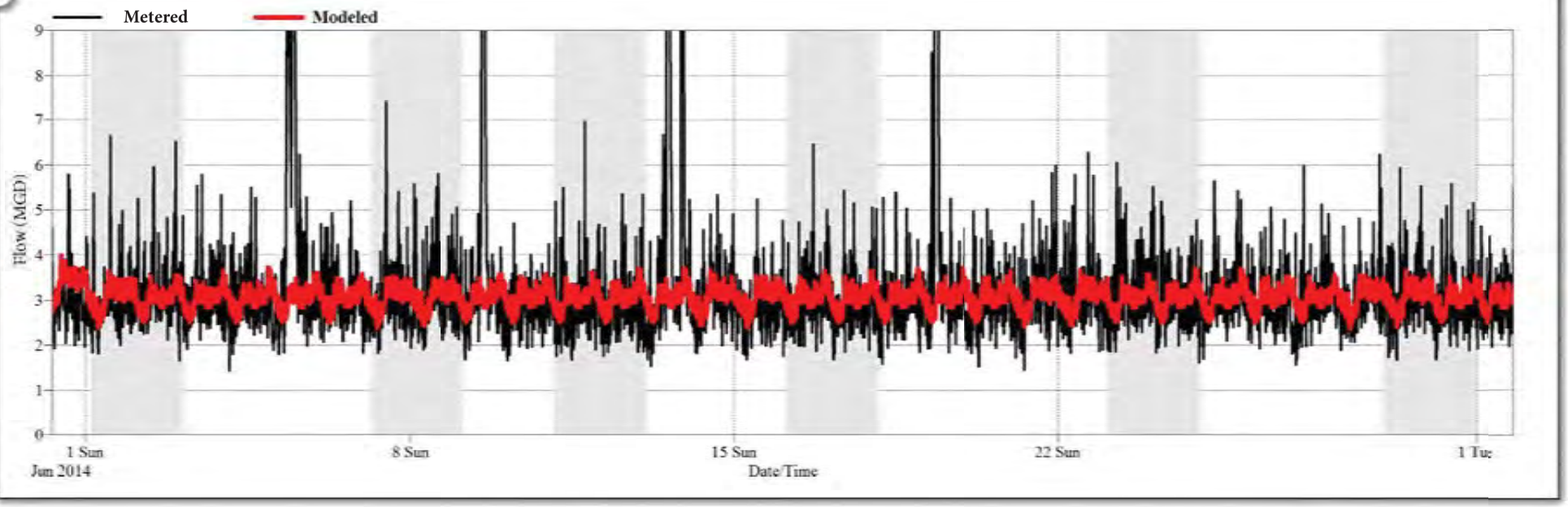


Model Calibration Results

Flow Meter: OF-015 US

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

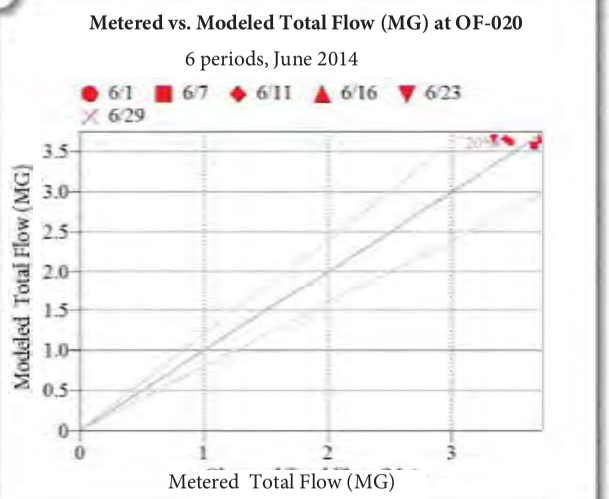
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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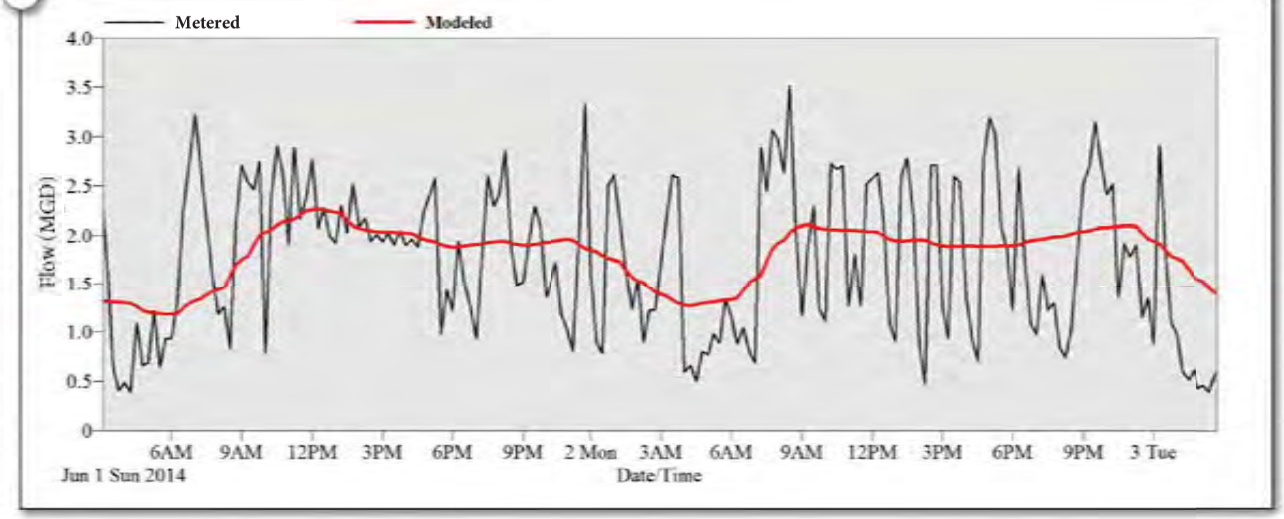

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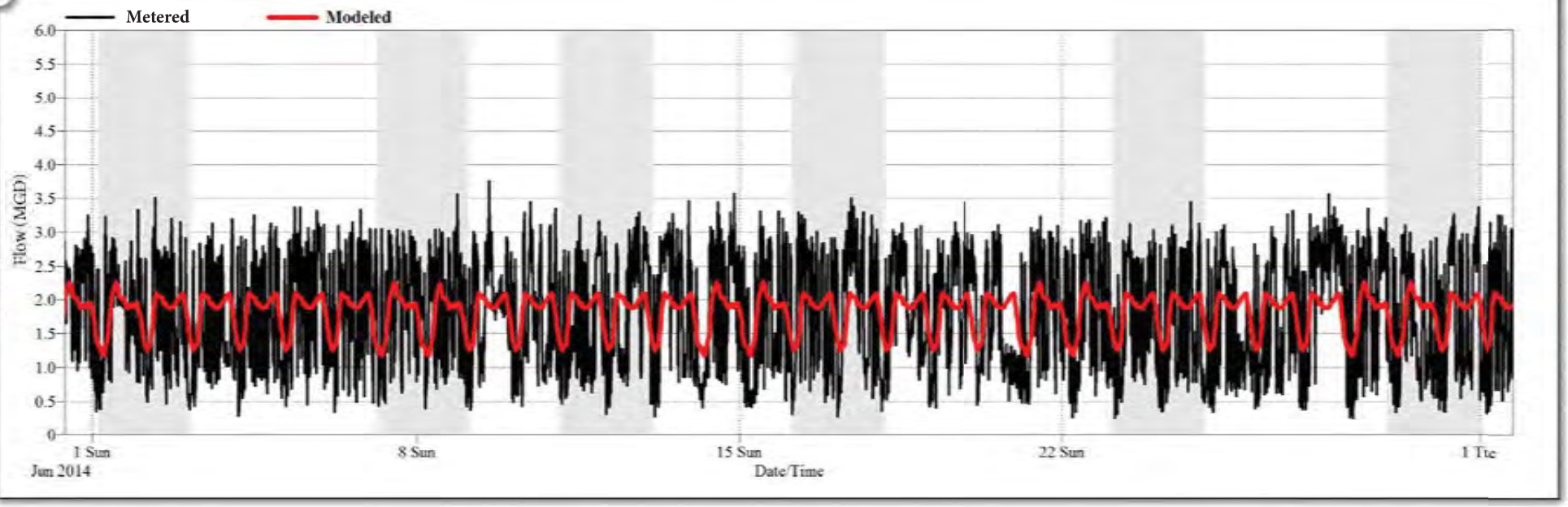


Model Calibration Results

Flow Meter: OF-020

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

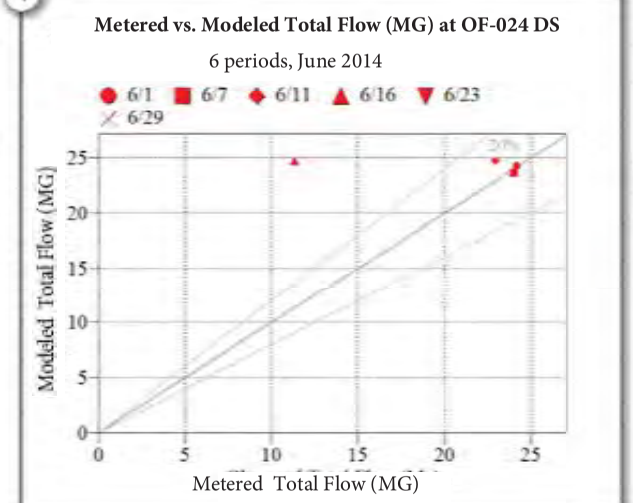
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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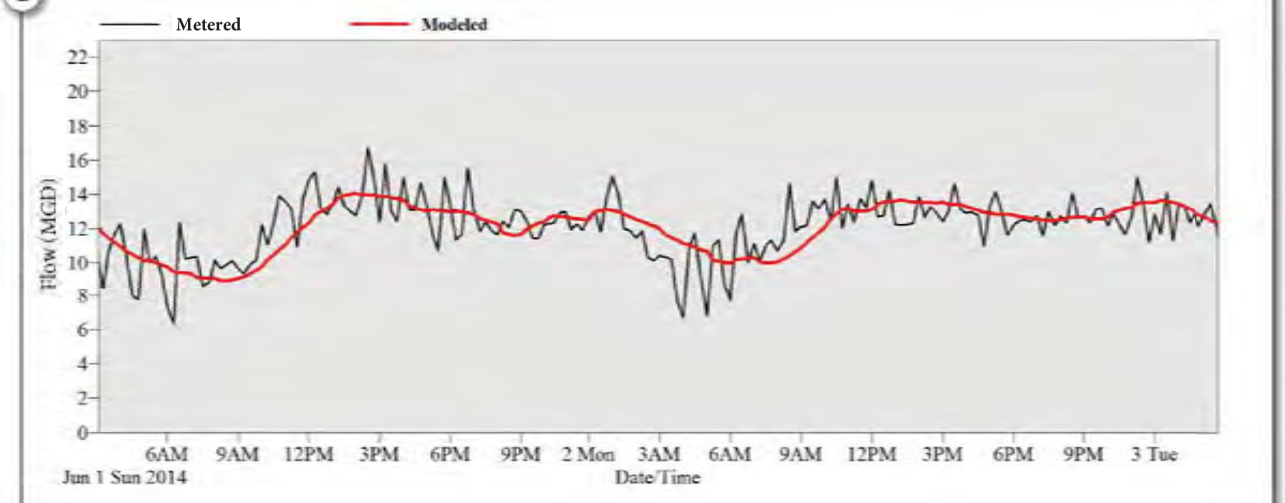

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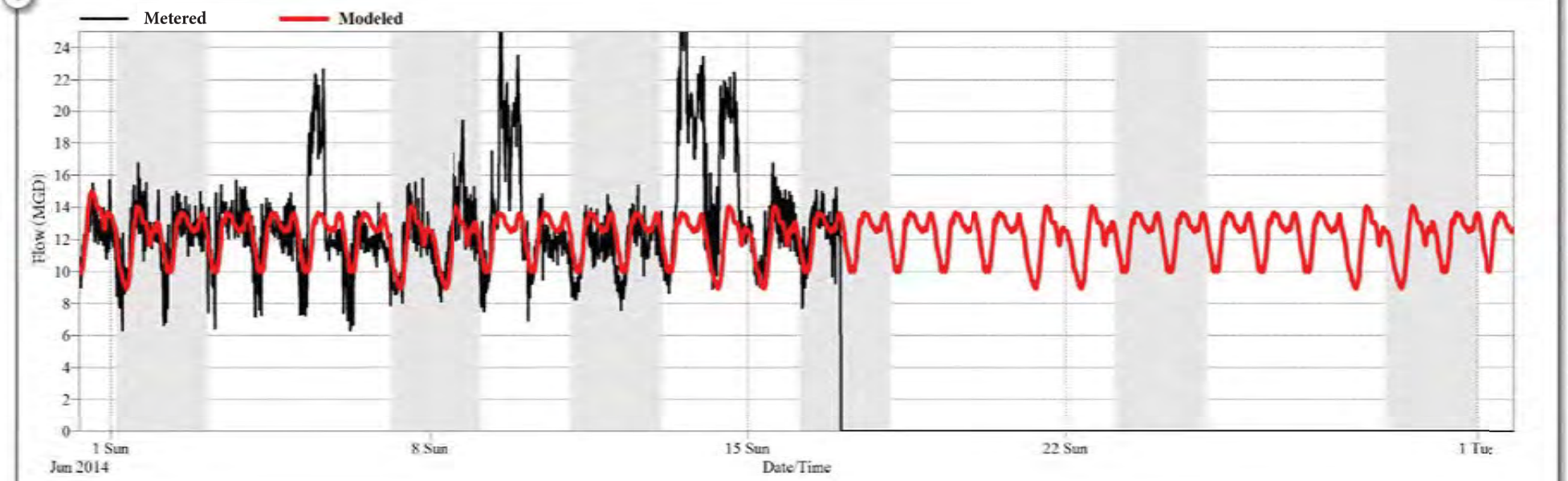


Model Calibration Results

Flow Meter: OF-024 DS

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

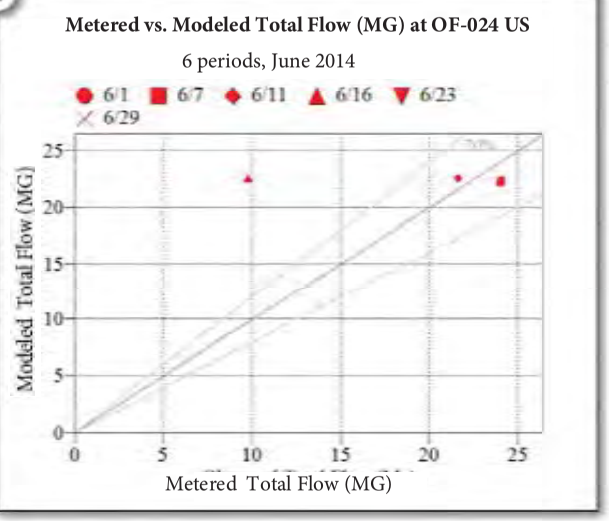
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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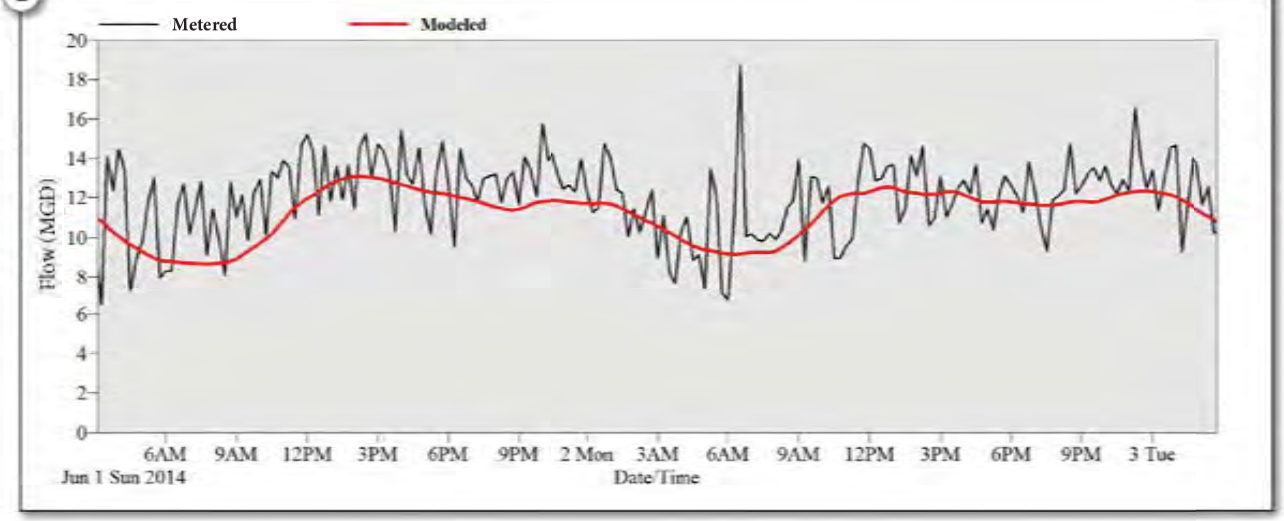

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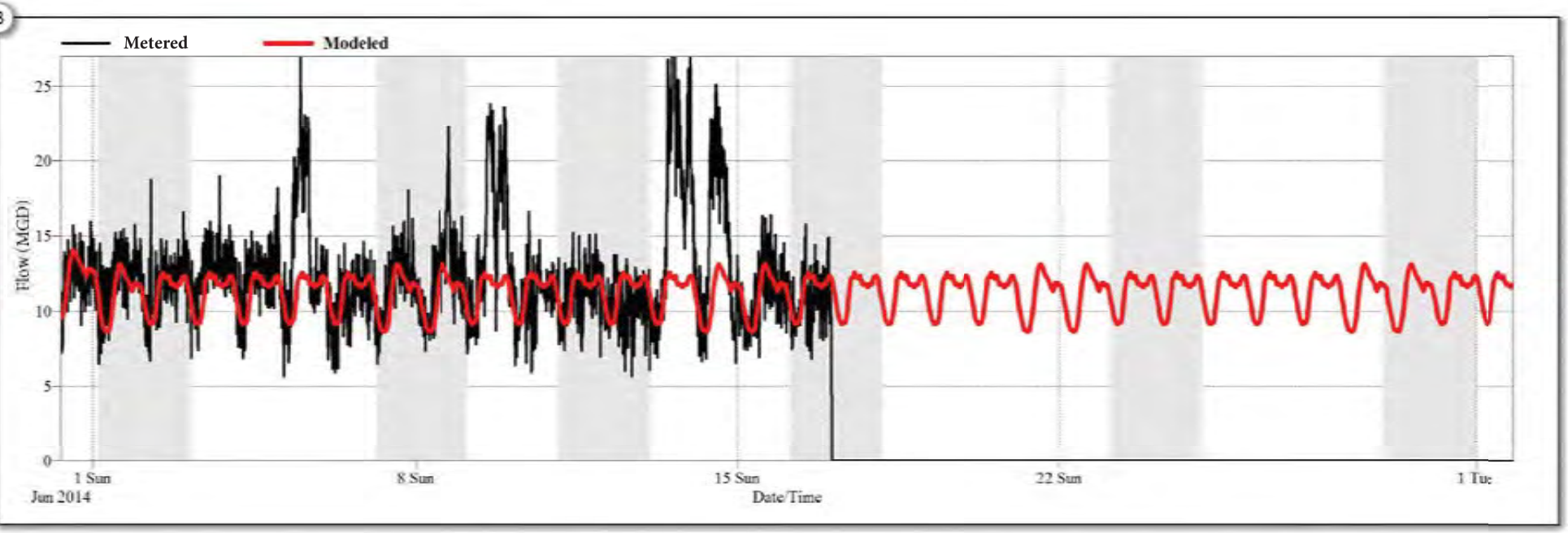


Model Calibration Results

Flow Meter: OF-024 US

Dry Weather Flow

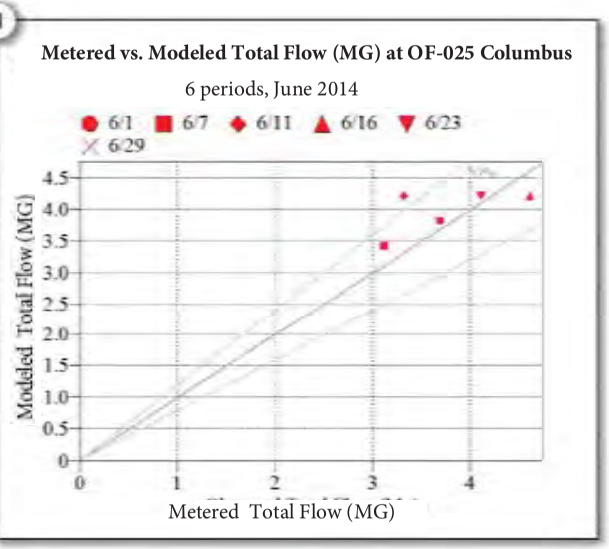
1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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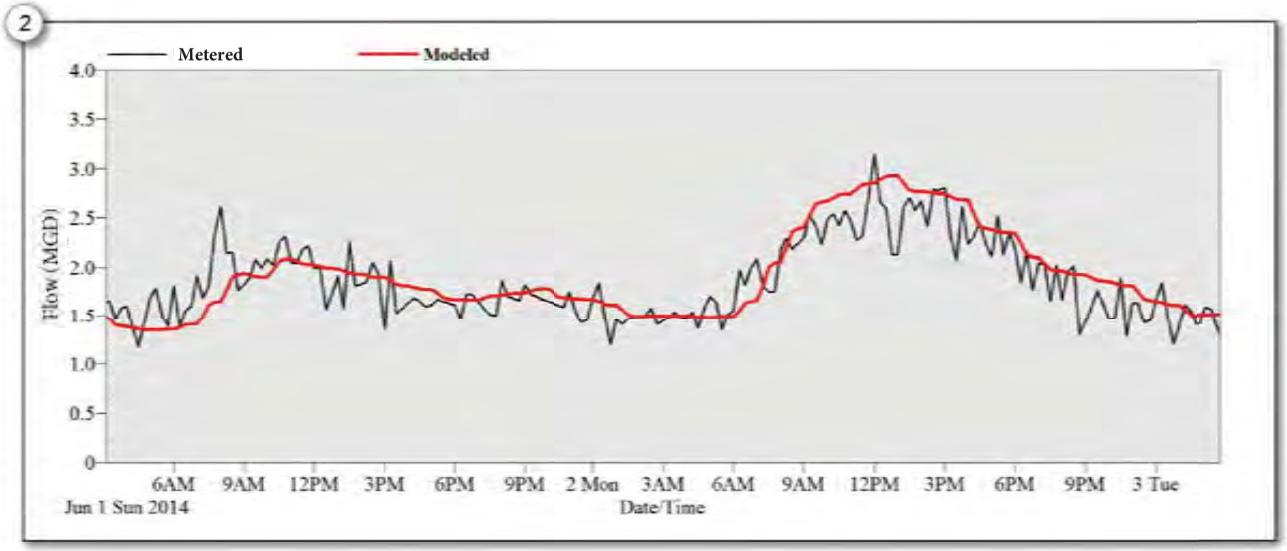

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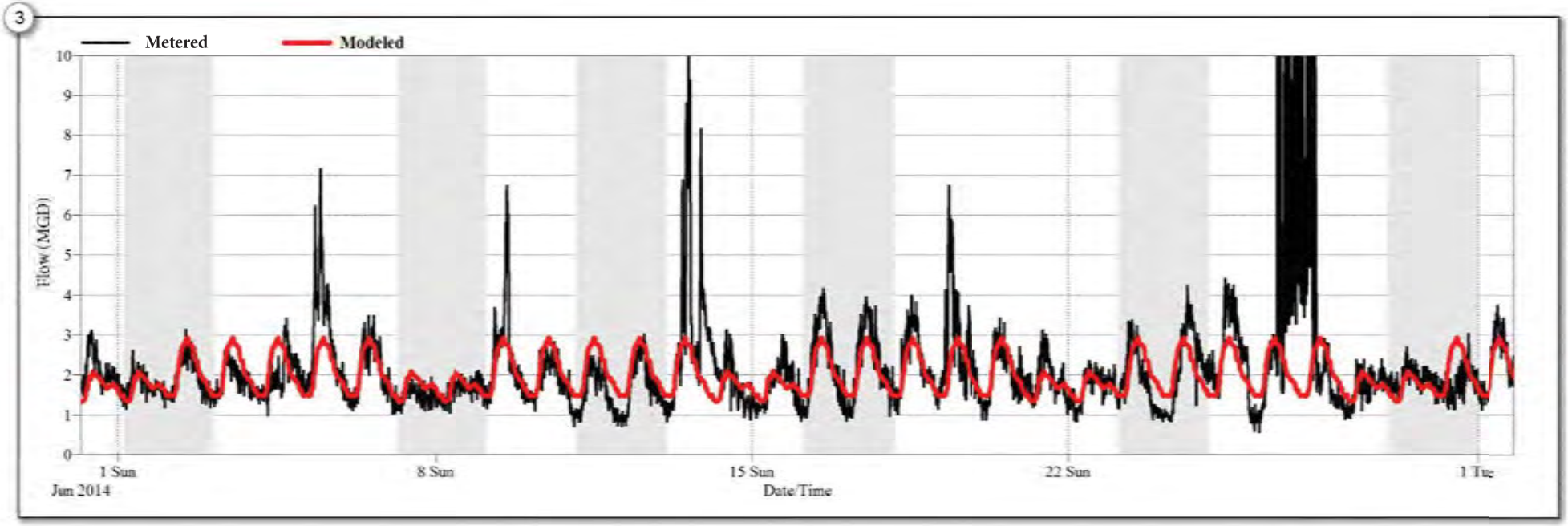


Model Calibration Results

Flow Meter: OF-025 Columbus

Dry Weather Flow

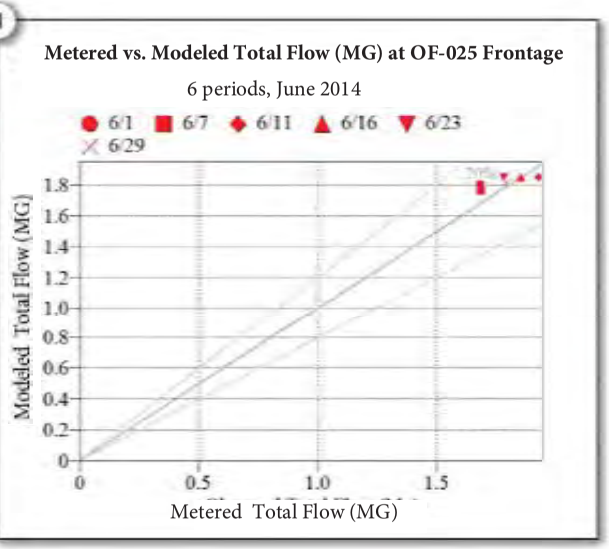
1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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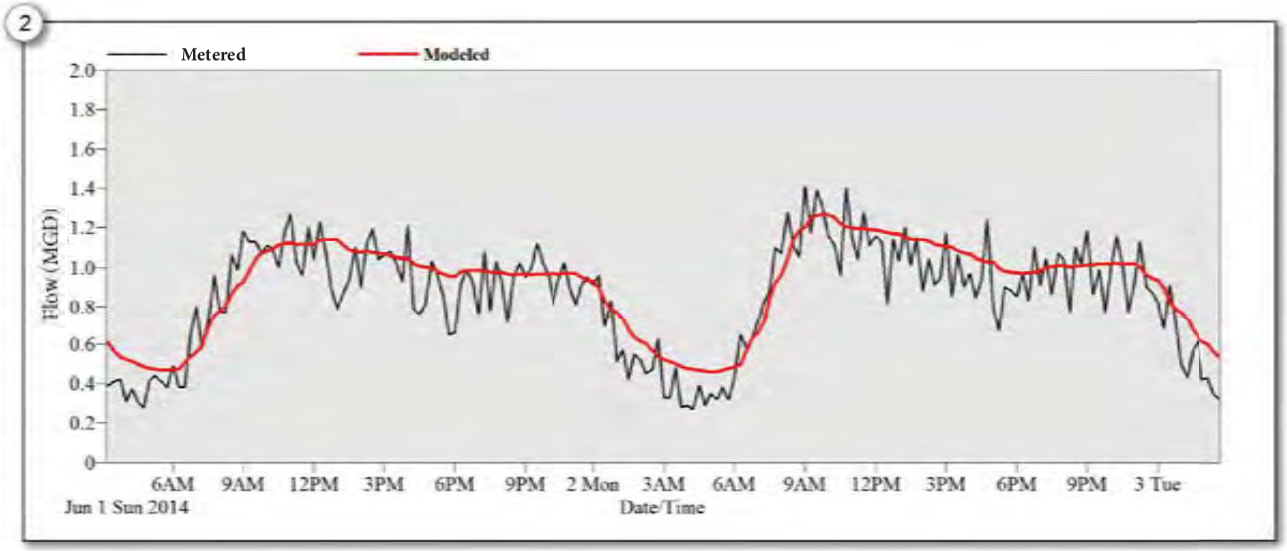

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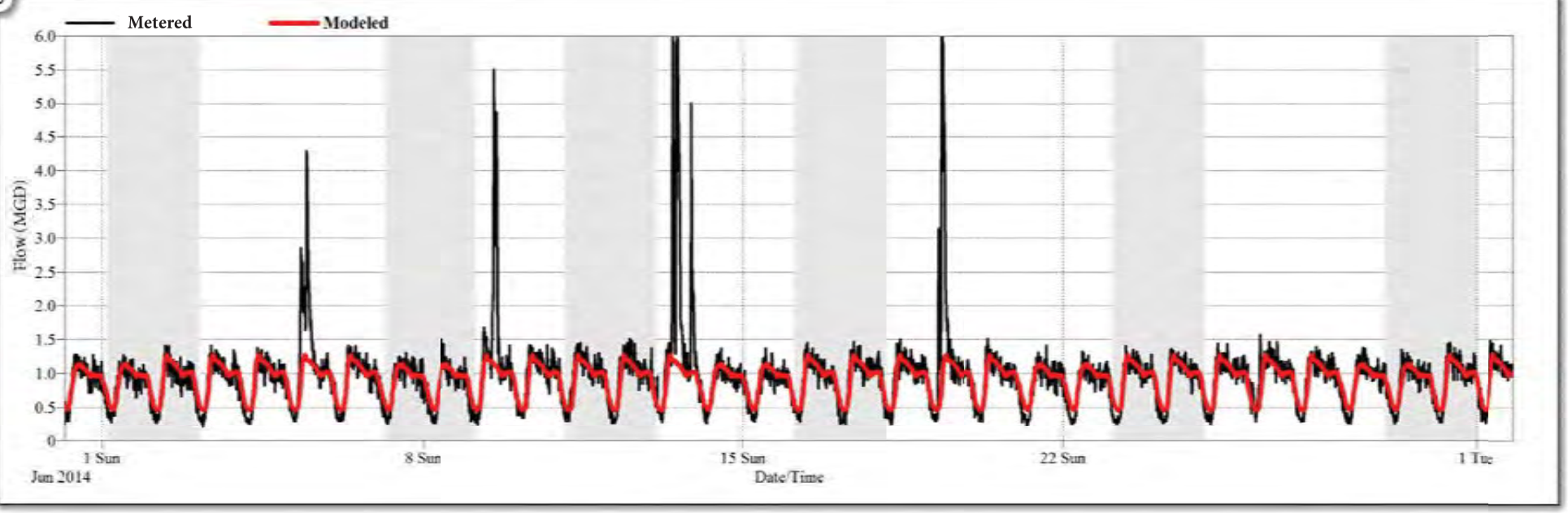


Model Calibration Results

Flow Meter: OF-025 Frontage

Dry Weather Flow

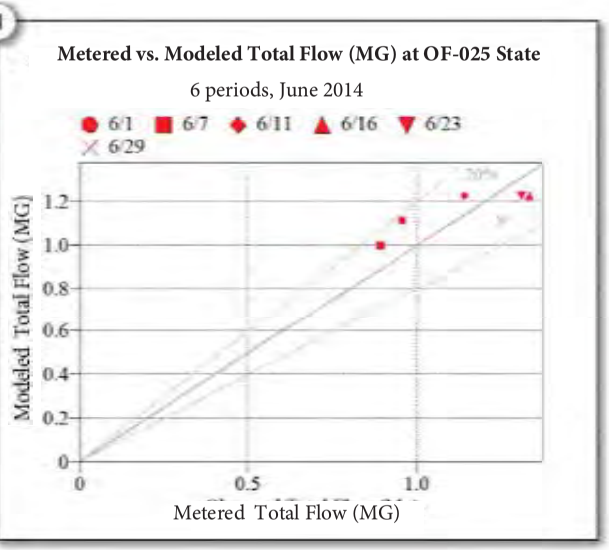
1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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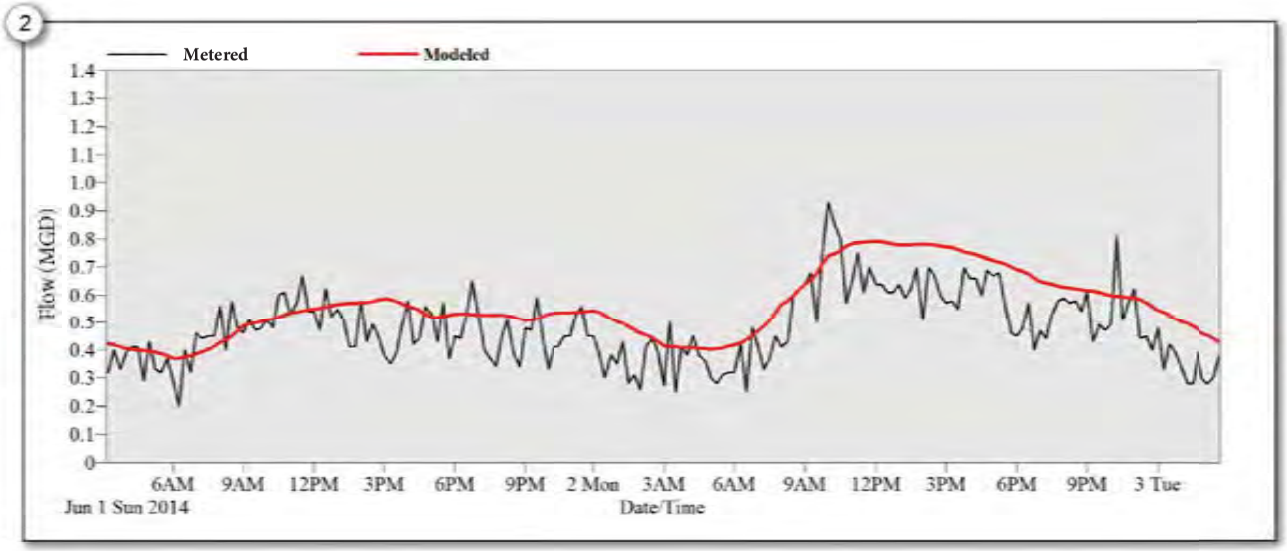

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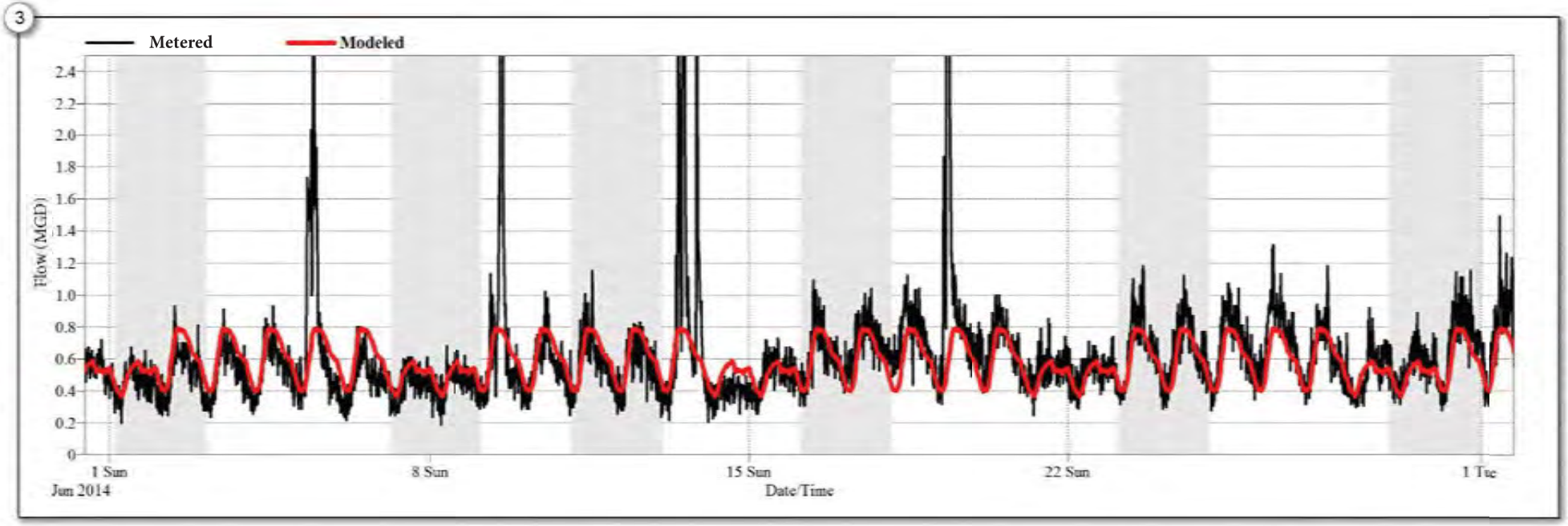


Model Calibration Results

Flow Meter: OF-025 State

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

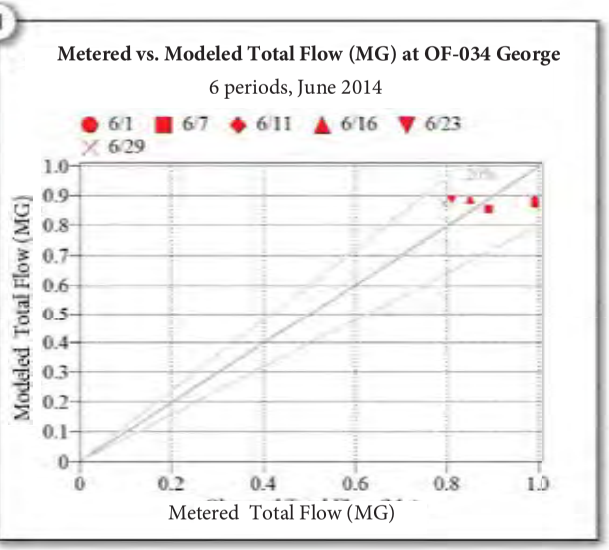
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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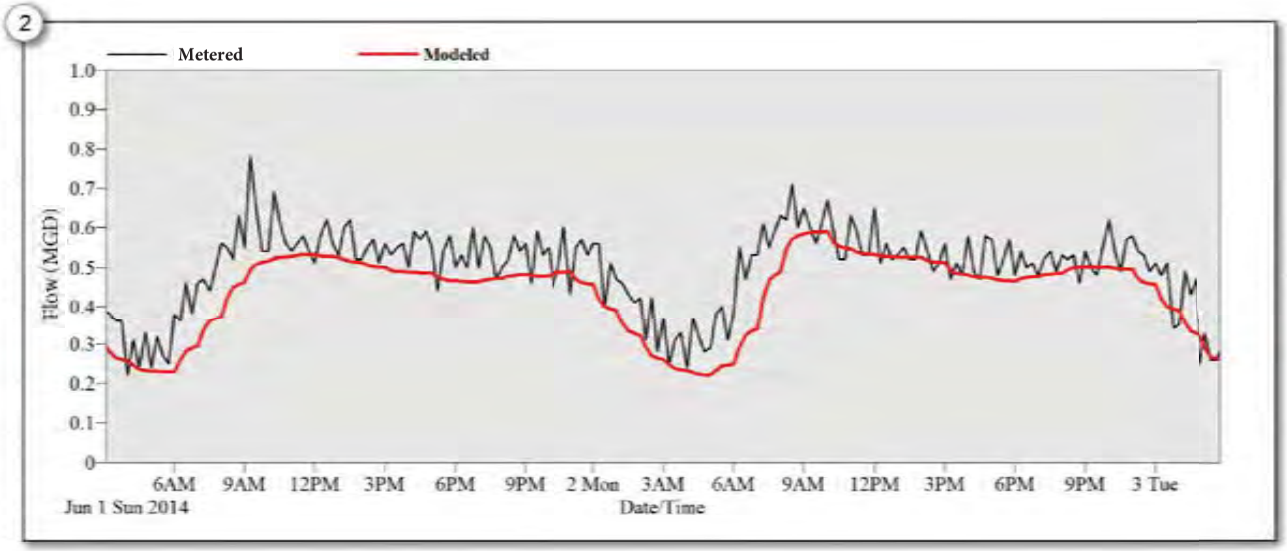

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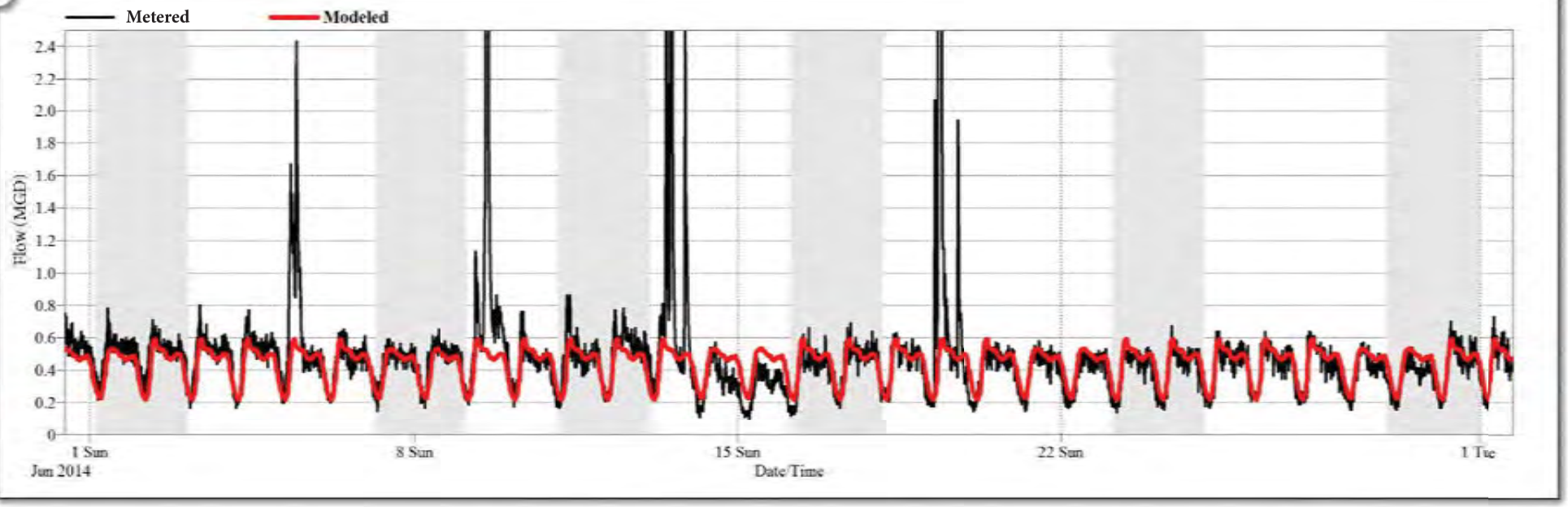


Model Calibration Results

Flow Meter: OF-034 George

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

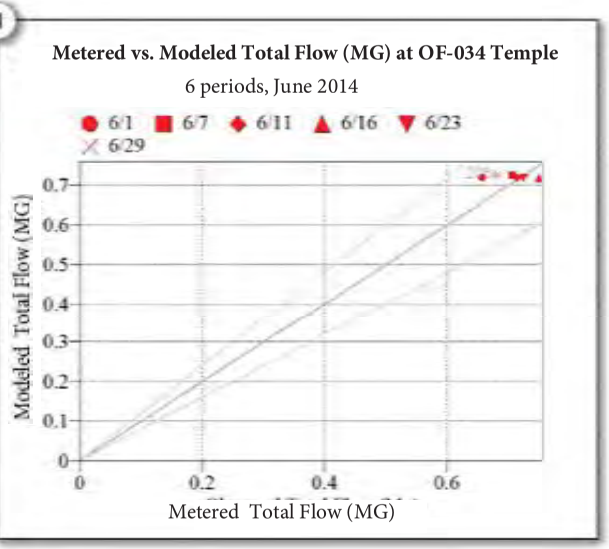
6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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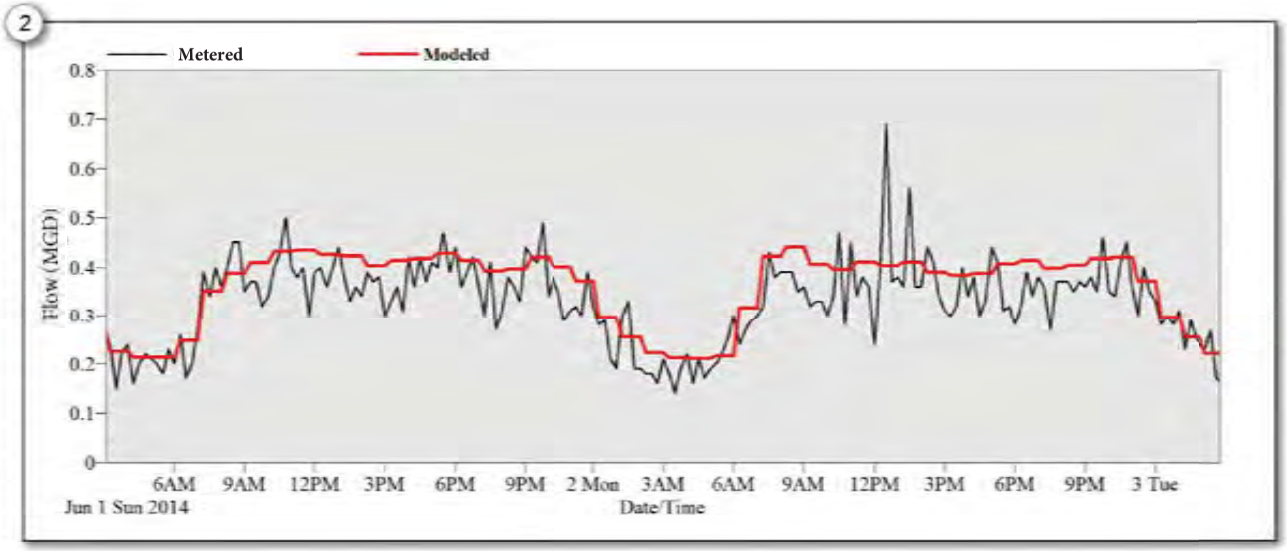

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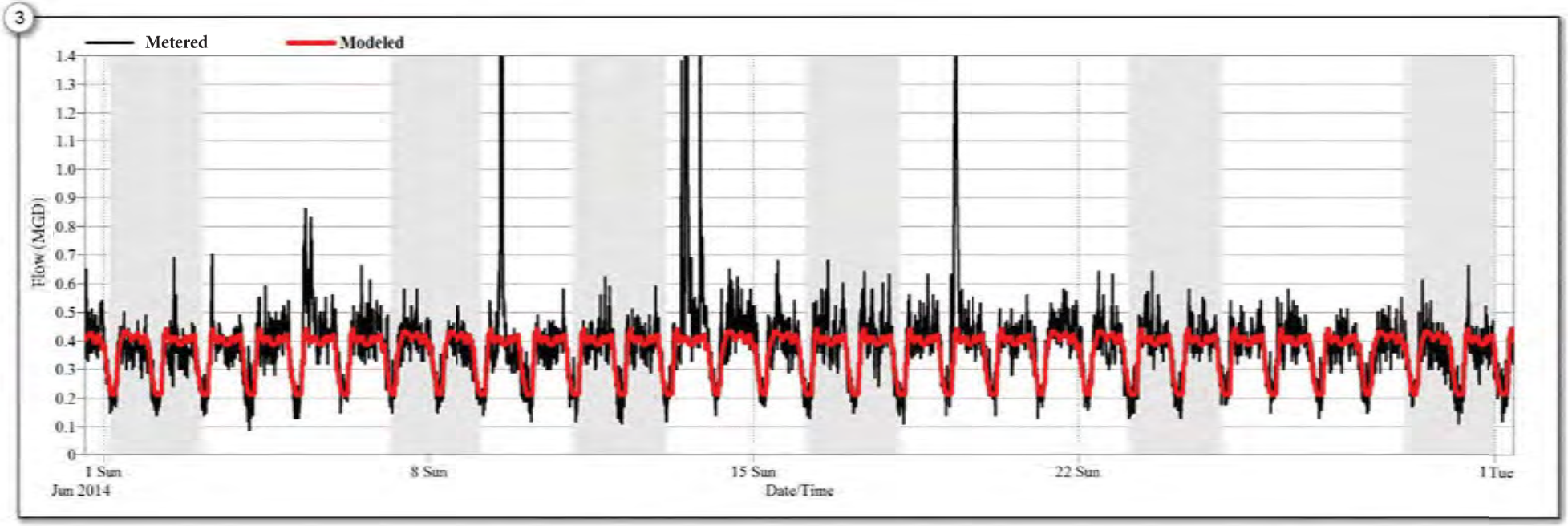


Model Calibration Results

Flow Meter: OF-034 Temple

Dry Weather Flow

1. Total Dry Weather Flow
2. June 1st, 2014 Flow
3. All June 2014 Flow

6 dry weather flow periods on June 1, 7, 11, 16, 23 and 29, 2014 were used for dry weather calibration

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

Appendix F
Dry Weather Flow Calibration Table

TABLE F-1

Maximum Flow Dry Weather Flow Calibration Results at Each Sewer Flow Meter

Meter ID	Event ID	Date	Duration (hrs)	Metered Maximum Flow (MGD)	Modeled Maximum Flow (MGD)	Difference (%)
East_St_PS	1	6/1/14 3:00	48	20.11	13.23	34.2
East_St_PS	2	6/7/14 3:50	48	14.30	12.15	15.0
East_St_PS	3	6/11/14 3:00	48	15.86	13.24	16.5
East_St_PS	4	6/16/14 3:00	48	16.83	13.23	21.4
East_St_PS	5	6/23/14 2:00	48	15.67	13.28	15.3
East_St_PS	6	6/29/14 0:00	48	14.45	13.23	8.4
FM-01	1	6/1/14 3:00	48	5.41	3.61	33.3
FM-01	2	6/7/14 3:50	48	4.41	3.61	18.2
FM-01	3	6/11/14 3:00	48	4.29	3.42	20.2
FM-01	4	6/16/14 3:00	48	4.76	3.42	28.1
FM-01	5	6/23/14 2:00	48	3.90	3.42	12.2
FM-01	6	6/29/14 0:00	48	4.12	3.61	12.4
FM-02	1	6/1/14 3:00	48	1.48	1.26	15.0
FM-02	2	6/7/14 3:50	48	1.44	1.02	29.2
FM-02	3	6/11/14 3:00	48	1.63	1.26	22.8
FM-02	4	6/16/14 3:00	48	1.89	1.26	33.4
FM-02	5	6/23/14 2:00	48	1.44	1.26	12.6
FM-02	6	6/29/14 0:00	48	1.52	1.26	17.2
FM-03	1	6/1/14 3:00	48	0.12	0.05	59.0
FM-03	2	6/7/14 3:50	48	0.07	0.05	33.3
FM-03	3	6/11/14 3:00	48	0.08	0.05	38.5
FM-03	4	6/16/14 3:00	48	0.06	0.05	18.1
FM-03	5	6/23/14 2:00	48	0.09	0.05	45.4
FM-03	6	6/29/14 0:00	48	0.10	0.05	50.8
FM-04	1	6/1/14 3:00	48	3.28	2.32	29.2
FM-04	2	6/7/14 3:50	48	3.55	2.32	34.6
FM-04	3	6/11/14 3:00	48	3.62	2.25	37.8
FM-04	4	6/16/14 3:00	48	2.90	2.25	22.3
FM-04	5	6/23/14 2:00	48	2.95	2.25	23.6
FM-04	6	6/29/14 0:00	48	2.93	2.32	20.7
FM-05	1	6/1/14 3:00	48	8.06	6.44	20.0
FM-05	2	6/7/14 3:50	48	7.32	6.44	12.0
FM-05	3	6/11/14 3:00	48	6.92	6.09	12.0
FM-05	4	6/16/14 3:00	48	7.92	6.09	23.1
FM-05	5	6/23/14 2:00	48	6.93	6.09	12.1
FM-05	6	6/29/14 0:00	48	6.88	6.44	6.3

Meter ID	Event ID	Date	Duration (hrs)	Metered Maximum Flow (MGD)	Modeled Maximum Flow (MGD)	Difference (%)
FM-06	1	6/1/14 3:00	48	0.87	0.66	24.5
FM-06	2	6/7/14 3:50	48	0.75	0.63	16.0
FM-06	3	6/11/14 3:00	48	0.91	0.66	27.8
FM-06	4	6/16/14 3:00	48	0.84	0.66	21.8
FM-06	5	6/23/14 2:00	48	0.73	0.66	10.0
FM-06	6	6/29/14 0:00	48	0.72	0.66	8.8
FM-07	1	6/1/14 3:00	48	4.17	3.29	21.1
FM-07	2	6/7/14 3:50	48	3.68	3.29	10.5
FM-07	3	6/11/14 3:00	48	3.77	2.88	23.6
FM-07	4	6/16/14 3:00	48	4.07	2.88	29.2
FM-07	5	6/23/14 2:00	48	3.98	2.88	27.6
FM-07	6	6/29/14 0:00	48	4.02	3.29	18.1
FM-08	1	6/1/14 3:00	48	2.75	2.35	14.7
FM-08	2	6/7/14 3:50	48	2.49	2.35	5.7
FM-08	3	6/11/14 3:00	48	2.16	2.13	1.2
FM-08	4	6/16/14 3:00	48	2.63	2.13	18.9
FM-08	5	6/23/14 2:00	48	2.30	2.13	7.2
FM-08	6	6/29/14 0:00	48	2.18	2.35	7.7
FM-09	1	6/1/14 3:00	48	0.44	0.37	15.8
FM-09	2	6/7/14 3:50	48	0.49	0.37	24.3
FM-09	3	6/11/14 3:00	48	0.46	0.36	21.6
FM-09	4	6/16/14 3:00	48	0.64	0.36	43.6
FM-09	5	6/23/14 2:00	48	0.53	0.36	31.9
FM-09	6	6/29/14 0:00	48	0.75	0.37	50.6
FM-10	1	6/1/14 3:00	48	0.39	0.28	28.3
FM-10	2	6/7/14 3:50	48	0.38	0.28	26.4
FM-10	3	6/11/14 3:00	48	0.35	0.27	22.5
FM-10	4	6/16/14 3:00	48	0.38	0.27	28.6
FM-10	5	6/23/14 2:00	48	0.46	0.27	41.0
FM-10	6	6/29/14 0:00	48	0.34	0.28	17.8
FM-11	1	6/1/14 3:00	48	0.53	0.29	45.1
FM-11	2	6/7/14 3:50	48	1.75	0.29	83.4
FM-11	3	6/11/14 3:00	48	0.30	0.25	17.8
FM-11	4	6/16/14 3:00	48	0.46	0.25	46.4
FM-11	5	6/23/14 2:00	48	0.47	0.25	47.5
FM-11	6	6/29/14 0:00	48	0.41	0.29	29.1
FM-12	1	6/1/14 3:00	48	1.17	1.05	10.2
FM-12	2	6/7/14 3:50	48	1.17	1.05	10.2

Meter ID	Event ID	Date	Duration (hrs)	Metered Maximum Flow (MGD)	Modeled Maximum Flow (MGD)	Difference (%)
FM-12	3	6/11/14 3:00	48	1.05	0.93	11.4
FM-12	4	6/16/14 3:00	48	1.25	0.93	25.5
FM-12	5	6/23/14 2:00	48	1.53	0.93	39.2
FM-12	6	6/29/14 0:00	48	1.19	1.05	11.7
FM-13	1	6/1/14 3:00	48	2.68	2.64	1.6
FM-13	2	6/7/14 3:50	48	2.51	2.35	6.3
FM-13	3	6/11/14 3:00	48	3.30	2.64	20.1
FM-13	4	6/16/14 3:00	48	3.11	2.64	15.2
FM-13	5	6/23/14 2:00	48	2.80	2.64	5.8
FM-13	6	6/29/14 0:00	48	2.78	2.64	5.1
FM-14	1	6/1/14 3:00	48	3.57	2.95	17.3
FM-14	2	6/7/14 3:50	48	3.48	2.95	15.1
FM-14	3	6/11/14 3:00	48	3.30	2.68	18.8
FM-14	4	6/16/14 3:00	48	2.99	2.68	10.4
FM-14	5	6/23/14 2:00	48	3.00	2.68	10.7
FM-14	6	6/29/14 0:00	48	3.11	2.95	5.0
FM-15	1	6/1/14 3:00	48	4.65	3.88	16.5
FM-15	2	6/7/14 3:50	48	4.38	4.13	5.7
FM-15	3	6/11/14 3:00	48	4.26	3.98	6.7
FM-15	4	6/16/14 3:00	48	4.56	3.77	17.3
FM-15	5	6/23/14 2:00	48	3.89	3.96	1.9
FM-15	6	6/29/14 0:00	48	3.86	3.88	0.6
FM-16	1	6/1/14 3:00	48	2.03	1.32	35.1
FM-16	2	6/7/14 3:50	48	1.66	1.32	20.7
FM-16	3	6/11/14 3:00	48	1.79	1.28	28.5
FM-16	4	6/16/14 3:00	48	1.70	1.28	24.7
FM-16	5	6/23/14 2:00	48	1.49	1.28	14.1
FM-16	6	6/29/14 0:00	48	1.42	1.32	7.3
FM-17	1	6/1/14 3:00	48	4.18	4.07	2.7
FM-17	2	6/7/14 3:50	48	4.08	4.06	0.5
FM-17	3	6/11/14 3:00	48	4.03	4.04	0.1
FM-17	4	6/16/14 3:00	48	4.25	4.03	5.1
FM-17	5	6/23/14 2:00	48	4.16	4.03	3.1
FM-17	6	6/29/14 0:00	48	4.20	4.07	3.1
FM-18	1	6/1/14 3:00	48	7.79	5.25	32.6
FM-18	2	6/7/14 3:50	48	8.30	4.34	47.7
FM-18	3	6/11/14 3:00	48	12.73	5.26	58.7
FM-18	4	6/16/14 3:00	48	8.98	5.25	41.6

Meter ID	Event ID	Date	Duration (hrs)	Metered Maximum Flow (MGD)	Modeled Maximum Flow (MGD)	Difference (%)
FM-18	5	6/23/14 2:00	48	8.10	5.25	35.2
FM-18	6	6/29/14 0:00	48	9.47	5.25	44.6
FM-19	1	6/1/14 3:00	48	3.29	1.60	51.4
FM-19	2	6/7/14 3:50	48	2.72	1.60	41.2
FM-19	3	6/11/14 3:00	48	3.11	1.60	48.6
FM-19	4	6/16/14 3:00	48	2.45	1.60	34.8
FM-19	5	6/23/14 2:00	48	2.40	1.60	33.5
FM-19	6	6/29/14 0:00	48	2.83	1.60	43.5
FM-20	1	6/1/14 3:00	48	0.95	0.62	34.4
FM-20	2	6/7/14 3:50	48	1.02	0.61	40.6
FM-20	3	6/11/14 3:00	48	0.91	0.62	31.6
FM-20	4	6/16/14 3:00	48	0.93	0.62	33.0
FM-20	5	6/23/14 2:00	48	0.93	0.62	33.0
FM-20	6	6/29/14 0:00	48	0.98	0.62	36.4
FM-21	1	6/1/14 3:00	48	0.55	0.26	52.5
FM-21	2	6/7/14 3:50	48	0.46	0.26	43.1
FM-21	3	6/11/14 3:00	48	0.43	0.25	41.0
FM-21	4	6/16/14 3:00	48	0.59	0.25	57.1
FM-21	5	6/23/14 2:00	48	0.61	0.25	58.4
FM-21	6	6/29/14 0:00	48	0.44	0.26	40.7
FM-22	1	6/1/14 3:00	48	0.74	0.55	25.3
FM-22	2	6/7/14 3:50	48	0.96	0.53	44.5
FM-22	3	6/11/14 3:00	48	0.85	0.55	35.0
FM-22	4	6/16/14 3:00	48	0.96	0.55	42.4
FM-22	5	6/23/14 2:00	48	0.76	0.55	27.3
FM-22	6	6/29/14 0:00	48	1.01	0.55	45.3
FM-23	1	6/1/14 3:00	48	3.49	2.85	18.3
FM-23	2	6/7/14 3:50	48	3.47	2.85	17.8
FM-23	3	6/11/14 3:00	48	3.61	2.56	29.0
FM-23	4	6/16/14 3:00	48	3.17	2.56	19.1
FM-23	5	6/23/14 2:00	48	3.28	2.56	21.9
FM-23	6	6/29/14 0:00	48	3.18	2.85	10.3
OF-003	1	6/1/14 3:00	48	15.94	11.37	28.7
OF-003	2	6/7/14 3:50	48	19.61	11.37	42.0
OF-003	3	6/11/14 3:00	48	18.59	10.90	41.4
OF-003	4	6/16/14 3:00	48	21.44	10.90	49.2
OF-003	5	6/23/14 2:00	48	15.06	10.90	27.6
OF-003	6	6/29/14 0:00	48	15.01	11.37	24.3

Meter ID	Event ID	Date	Duration (hrs)	Metered Maximum Flow (MGD)	Modeled Maximum Flow (MGD)	Difference (%)
OF-004	1	6/1/14 3:00	48	14.73	11.05	25.0
OF-004	2	6/7/14 3:50	48	13.44	11.05	17.8
OF-004	3	6/11/14 3:00	48	12.11	10.57	12.7
OF-004	4	6/16/14 3:00	48	12.82	10.57	17.6
OF-004	5	6/23/14 2:00	48	13.06	10.57	19.1
OF-004	6	6/29/14 0:00	48	12.79	11.05	13.6
OF-005	1	6/1/14 3:00	48	9.95	7.21	27.6
OF-005	2	6/7/14 3:50	48	9.69	7.21	25.6
OF-005	3	6/11/14 3:00	48	9.93	6.90	30.5
OF-005	4	6/16/14 3:00	48	11.78	6.90	41.4
OF-005	5	6/23/14 2:00	48	11.28	6.90	38.8
OF-005	6	6/29/14 0:00	48	9.20	7.21	21.7
OF-006	1	6/1/14 3:00	48	4.01	3.03	24.5
OF-006	2	6/7/14 3:50	48	3.82	3.03	20.8
OF-006	3	6/11/14 3:00	48	3.91	2.89	26.0
OF-006	4	6/16/14 3:00	48	4.08	2.89	29.1
OF-006	5	6/23/14 2:00	48	4.02	2.89	28.0
OF-006	6	6/29/14 0:00	48	3.96	3.03	23.6
OF-010	1	6/1/14 3:00	48	6.61	4.77	27.9
OF-010	2	6/7/14 3:50	48	5.65	4.93	12.7
OF-010	3	6/11/14 3:00	48	5.39	4.61	14.4
OF-010	4	6/16/14 3:00	48	5.70	4.61	19.1
OF-010	5	6/23/14 2:00	48	5.26	4.63	12.0
OF-010	6	6/29/14 0:00	48	4.95	4.77	3.7
OF-011A	1	6/1/14 3:00	48	4.16	2.63	36.7
OF-011A	2	6/7/14 3:50	48	4.14	2.35	43.2
OF-011A	3	6/11/14 3:00	48	4.85	2.63	45.7
OF-011A	4	6/16/14 3:00	48	4.99	2.63	47.3
OF-011A	5	6/23/14 2:00	48	3.86	2.63	31.8
OF-011A	6	6/29/14 0:00	48	4.11	2.63	36.0
OF-011B	1	6/1/14 3:00	48	3.44	3.28	4.5
OF-011B	2	6/7/14 3:50	48	3.02	3.00	0.8
OF-011B	3	6/11/14 3:00	48	3.42	3.29	3.9
OF-011B	4	6/16/14 3:00	48	3.91	3.28	16.0
OF-011B	5	6/23/14 2:00	48	3.66	3.28	10.3
OF-011B	6	6/29/14 0:00	48	3.45	3.28	4.8
OF-015DS	1	6/1/14 3:00	48	4.89	3.64	25.6
OF-015DS	2	6/7/14 3:50	48	4.26	3.55	16.7

Meter ID	Event ID	Date	Duration (hrs)	Metered Maximum Flow (MGD)	Modeled Maximum Flow (MGD)	Difference (%)
OF-015DS	3	6/11/14 3:00	48	4.96	3.69	25.5
OF-015DS	4	6/16/14 3:00	48	4.51	3.71	17.7
OF-015DS	5	6/23/14 2:00	48	4.57	3.68	19.5
OF-015DS	6	6/29/14 0:00	48	5.45	3.71	32.0
OF-015US	1	6/1/14 3:00	48	6.63	3.65	45.0
OF-015US	2	6/7/14 3:50	48	7.39	3.54	52.1
OF-015US	3	6/11/14 3:00	48	6.96	3.70	46.9
OF-015US	4	6/16/14 3:00	48	6.45	3.66	43.3
OF-015US	5	6/23/14 2:00	48	6.04	3.70	38.7
OF-015US	6	6/29/14 0:00	48	5.92	3.65	38.3
OF-020	1	6/1/14 3:00	48	3.51	2.27	35.4
OF-020	2	6/7/14 3:50	48	3.56	2.27	36.3
OF-020	3	6/11/14 3:00	48	3.29	2.11	36.0
OF-020	4	6/16/14 3:00	48	3.50	2.11	39.9
OF-020	5	6/23/14 2:00	48	3.45	2.11	39.0
OF-020	6	6/29/14 0:00	48	3.37	2.27	32.7
OF-024DS	1	6/1/14 3:00	48	16.74	14.04	16.1
OF-024DS	2	6/7/14 3:50	48	19.37	14.04	27.5
OF-024DS	3	6/11/14 3:00	48	15.34	13.67	10.9
OF-024DS	4	6/16/14 3:00	48	15.21	13.67	10.1
OF-024DS	5	6/23/14 2:00	48	0.00	13.67	-
OF-024DS	6	6/29/14 0:00	48	0.00	14.04	-
OF-024US	1	6/1/14 3:00	48	18.71	13.08	30.1
OF-024US	2	6/7/14 3:50	48	22.24	13.08	41.2
OF-024US	3	6/11/14 3:00	48	15.21	12.54	17.6
OF-024US	4	6/16/14 3:00	48	15.75	12.54	20.4
OF-024US	5	6/23/14 2:00	48	0.00	12.54	-
OF-024US	6	6/29/14 0:00	48	0.00	13.07	-
OF-025C	1	6/1/14 3:00	48	3.14	2.93	6.7
OF-025C	2	6/7/14 3:50	48	2.11	2.09	0.9
OF-025C	3	6/11/14 3:00	48	3.02	2.93	2.9
OF-025C	4	6/16/14 3:00	48	4.16	2.93	29.5
OF-025C	5	6/23/14 2:00	48	4.23	2.93	30.7
OF-025C	6	6/29/14 0:00	48	3.03	2.93	3.3
OF-025F	1	6/1/14 3:00	48	1.41	1.27	10.1
OF-025F	2	6/7/14 3:50	48	1.50	1.14	24.1
OF-025F	3	6/11/14 3:00	48	1.51	1.27	16.0
OF-025F	4	6/16/14 3:00	48	1.46	1.27	13.2

Meter ID	Event ID	Date	Duration (hrs)	Metered Maximum Flow (MGD)	Modeled Maximum Flow (MGD)	Difference (%)
OF-025F	5	6/23/14 2:00	48	1.40	1.27	9.4
OF-025F	6	6/29/14 0:00	48	1.45	1.27	12.6
OF-025S	1	6/1/14 3:00	48	0.93	0.79	14.9
OF-025S	2	6/7/14 3:50	48	0.68	0.59	13.8
OF-025S	3	6/11/14 3:00	48	1.15	0.79	31.2
OF-025S	4	6/16/14 3:00	48	1.09	0.79	27.4
OF-025S	5	6/23/14 2:00	48	1.18	0.79	32.9
OF-025S	6	6/29/14 0:00	48	1.15	0.79	31.2
OF-034G	1	6/1/14 3:00	48	0.78	0.59	24.4
OF-034G	2	6/7/14 3:50	48	0.65	0.53	18.1
OF-034G	3	6/11/14 3:00	48	0.86	0.59	31.4
OF-034G	4	6/16/14 3:00	48	0.69	0.59	14.5
OF-034G	5	6/23/14 2:00	48	0.67	0.59	12.0
OF-034G	6	6/29/14 0:00	48	0.70	0.59	15.7
OF-034T	1	6/1/14 3:00	48	0.69	0.44	36.1
OF-034T	2	6/7/14 3:50	48	0.58	0.43	25.1
OF-034T	3	6/11/14 3:00	48	0.62	0.44	28.9
OF-034T	4	6/16/14 3:00	48	0.68	0.44	35.2
OF-034T	5	6/23/14 2:00	48	0.64	0.44	31.1
OF-034T	6	6/29/14 0:00	48	0.66	0.44	33.2

TABLE F-2

Total Flow Dry Weather Flow Calibration Results at Each Sewer Flow Meter

Meter ID	Event ID	Date	Duration (hrs)	Metered Total Flow (MGD)	Modeled Total Flow (MGD)	Difference (%)
East_St_PS	1	6/1/14 3:00	48	20.66	20.47	0.9
East_St_PS	2	6/7/14 3:50	48	18.14	19.84	9.4
East_St_PS	3	6/11/14 3:00	48	18.32	21.16	15.5
East_St_PS	4	6/16/14 3:00	48	20.62	21.17	2.7
East_St_PS	5	6/23/14 2:00	48	20.54	21.17	3.1
East_St_PS	6	6/29/14 0:00	48	19.45	20.45	5.1
FM-01	1	6/1/14 3:00	48	6.58	6.04	8.2
FM-01	2	6/7/14 3:50	48	6.47	6.09	5.9
FM-01	3	6/11/14 3:00	48	6.18	6.01	2.7
FM-01	4	6/16/14 3:00	48	6.47	6.01	7.2
FM-01	5	6/23/14 2:00	48	5.68	6.01	5.9
FM-01	6	6/29/14 0:00	48	5.42	6.04	11.5
FM-02	1	6/1/14 3:00	48	1.72	1.72	0.1
FM-02	2	6/7/14 3:50	48	1.53	1.61	5.1
FM-02	3	6/11/14 3:00	48	1.70	1.84	8.2
FM-02	4	6/16/14 3:00	48	2.02	1.84	9.0
FM-02	5	6/23/14 2:00	48	1.77	1.84	4.1
FM-02	6	6/29/14 0:00	48	1.70	1.72	1.2
FM-03	1	6/1/14 3:00	48	0.09	0.08	8.6
FM-03	2	6/7/14 3:50	48	0.08	0.08	5.6
FM-03	3	6/11/14 3:00	48	0.08	0.08	11.0
FM-03	4	6/16/14 3:00	48	0.07	0.08	21.7
FM-03	5	6/23/14 2:00	48	0.09	0.08	3.2
FM-03	6	6/29/14 0:00	48	0.09	0.08	5.7
FM-04	1	6/1/14 3:00	48	3.97	3.77	5.2
FM-04	2	6/7/14 3:50	48	3.90	3.80	2.5
FM-04	3	6/11/14 3:00	48	3.80	3.74	1.6
FM-04	4	6/16/14 3:00	48	3.85	3.74	2.8
FM-04	5	6/23/14 2:00	48	3.54	3.74	5.6
FM-04	6	6/29/14 0:00	48	3.89	3.77	3.1
FM-05	1	6/1/14 3:00	48	11.36	11.15	1.8
FM-05	2	6/7/14 3:50	48	10.79	11.15	3.3
FM-05	3	6/11/14 3:00	48	10.26	11.17	8.9
FM-05	4	6/16/14 3:00	48	11.72	11.17	4.7
FM-05	5	6/23/14 2:00	48	10.69	11.17	4.5
FM-05	6	6/29/14 0:00	48	10.75	11.14	3.6

Meter ID	Event ID	Date	Duration (hrs)	Metered Total Flow (MGD)	Modeled Total Flow (MGD)	Difference (%)
FM-06	1	6/1/14 3:00	48	1.33	1.13	14.6
FM-06	2	6/7/14 3:50	48	1.14	1.10	3.0
FM-06	3	6/11/14 3:00	48	1.05	1.17	10.6
FM-06	4	6/16/14 3:00	48	1.17	1.17	0.4
FM-06	5	6/23/14 2:00	48	1.09	1.17	7.0
FM-06	6	6/29/14 0:00	48	1.13	1.13	0.4
FM-07	1	6/1/14 3:00	48	5.54	5.36	3.2
FM-07	2	6/7/14 3:50	48	5.32	5.48	2.9
FM-07	3	6/11/14 3:00	48	5.18	5.27	1.7
FM-07	4	6/16/14 3:00	48	5.24	5.27	0.6
FM-07	5	6/23/14 2:00	48	5.50	5.27	4.3
FM-07	6	6/29/14 0:00	48	5.05	5.36	6.0
FM-08	1	6/1/14 3:00	48	4.25	3.93	7.6
FM-08	2	6/7/14 3:50	48	4.08	4.04	0.9
FM-08	3	6/11/14 3:00	48	3.64	3.84	5.3
FM-08	4	6/16/14 3:00	48	4.05	3.84	5.3
FM-08	5	6/23/14 2:00	48	3.73	3.84	2.8
FM-08	6	6/29/14 0:00	48	3.49	3.94	12.8
FM-09	1	6/1/14 3:00	48	0.49	0.58	17.7
FM-09	2	6/7/14 3:50	48	0.55	0.58	4.9
FM-09	3	6/11/14 3:00	48	0.60	0.57	4.5
FM-09	4	6/16/14 3:00	48	0.59	0.57	4.1
FM-09	5	6/23/14 2:00	48	0.64	0.57	10.6
FM-09	6	6/29/14 0:00	48	0.62	0.57	7.7
FM-10	1	6/1/14 3:00	48	0.38	0.42	9.9
FM-10	2	6/7/14 3:50	48	0.40	0.40	0.0
FM-10	3	6/11/14 3:00	48	0.40	0.44	9.1
FM-10	4	6/16/14 3:00	48	0.43	0.44	1.4
FM-10	5	6/23/14 2:00	48	0.56	0.44	22.6
FM-10	6	6/29/14 0:00	48	0.46	0.42	8.9
FM-11	1	6/1/14 3:00	48	0.41	0.38	8.1
FM-11	2	6/7/14 3:50	48	0.48	0.38	21.0
FM-11	3	6/11/14 3:00	48	0.37	0.38	4.7
FM-11	4	6/16/14 3:00	48	0.41	0.38	6.4
FM-11	5	6/23/14 2:00	48	0.37	0.38	2.1
FM-11	6	6/29/14 0:00	48	0.34	0.38	11.1
FM-12	1	6/1/14 3:00	48	1.62	1.53	5.7
FM-12	2	6/7/14 3:50	48	1.62	1.55	3.8

Meter ID	Event ID	Date	Duration (hrs)	Metered Total Flow (MGD)	Modeled Total Flow (MGD)	Difference (%)
FM-12	3	6/11/14 3:00	48	1.46	1.50	2.9
FM-12	4	6/16/14 3:00	48	1.52	1.50	1.0
FM-12	5	6/23/14 2:00	48	1.53	1.50	2.0
FM-12	6	6/29/14 0:00	48	1.67	1.53	8.5
FM-13	1	6/1/14 3:00	48	3.90	3.86	1.1
FM-13	2	6/7/14 3:50	48	3.69	3.73	0.9
FM-13	3	6/11/14 3:00	48	3.66	4.01	9.8
FM-13	4	6/16/14 3:00	48	4.03	4.01	0.3
FM-13	5	6/23/14 2:00	48	3.83	4.01	4.8
FM-13	6	6/29/14 0:00	48	3.64	3.87	6.4
FM-14	1	6/1/14 3:00	48	4.98	4.66	6.4
FM-14	2	6/7/14 3:50	48	5.00	4.75	5.0
FM-14	3	6/11/14 3:00	48	4.73	4.58	3.2
FM-14	4	6/16/14 3:00	48	4.54	4.58	0.9
FM-14	5	6/23/14 2:00	48	4.46	4.58	2.9
FM-14	6	6/29/14 0:00	48	4.53	4.67	3.0
FM-15	1	6/1/14 3:00	48	7.16	6.46	9.8
FM-15	2	6/7/14 3:50	48	6.55	6.53	0.3
FM-15	3	6/11/14 3:00	48	6.28	6.41	2.1
FM-15	4	6/16/14 3:00	48	6.80	6.41	5.8
FM-15	5	6/23/14 2:00	48	5.98	6.41	7.2
FM-15	6	6/29/14 0:00	48	5.70	6.45	13.3
FM-16	1	6/1/14 3:00	48	2.66	2.30	13.8
FM-16	2	6/7/14 3:50	48	2.43	2.29	5.7
FM-16	3	6/11/14 3:00	48	2.29	2.31	1.0
FM-16	4	6/16/14 3:00	48	2.33	2.31	0.9
FM-16	5	6/23/14 2:00	48	2.14	2.31	7.7
FM-16	6	6/29/14 0:00	48	1.93	2.30	18.8
FM-17	1	6/1/14 3:00	48	7.37	7.39	0.2
FM-17	2	6/7/14 3:50	48	7.20	7.39	2.7
FM-17	3	6/11/14 3:00	48	7.21	7.40	2.6
FM-17	4	6/16/14 3:00	48	7.38	7.40	0.3
FM-17	5	6/23/14 2:00	48	7.51	7.40	1.5
FM-17	6	6/29/14 0:00	48	7.30	7.39	1.3
FM-18	1	6/1/14 3:00	48	6.77	7.42	9.6
FM-18	2	6/7/14 3:50	48	6.82	6.94	1.7
FM-18	3	6/11/14 3:00	48	6.23	7.94	27.4
FM-18	4	6/16/14 3:00	48	7.70	7.94	3.1

Meter ID	Event ID	Date	Duration (hrs)	Metered Total Flow (MGD)	Modeled Total Flow (MGD)	Difference (%)
FM-18	5	6/23/14 2:00	48	7.84	7.94	1.3
FM-18	6	6/29/14 0:00	48	7.72	7.44	3.6
FM-19	1	6/1/14 3:00	48	2.98	2.82	5.1
FM-19	2	6/7/14 3:50	48	2.69	2.73	1.5
FM-19	3	6/11/14 3:00	48	2.89	2.92	0.9
FM-19	4	6/16/14 3:00	48	2.73	2.92	6.9
FM-19	5	6/23/14 2:00	48	2.56	2.92	14.0
FM-19	6	6/29/14 0:00	48	2.45	2.81	14.5
FM-20	1	6/1/14 3:00	48	0.91	0.97	6.6
FM-20	2	6/7/14 3:50	48	0.96	0.98	2.1
FM-20	3	6/11/14 3:00	48	0.96	0.97	1.4
FM-20	4	6/16/14 3:00	48	0.97	0.97	0.4
FM-20	5	6/23/14 2:00	48	0.91	0.97	6.6
FM-20	6	6/29/14 0:00	48	0.97	0.97	0.0
FM-21	1	6/1/14 3:00	48	0.45	0.47	4.5
FM-21	2	6/7/14 3:50	48	0.49	0.48	2.0
FM-21	3	6/11/14 3:00	48	0.44	0.47	7.7
FM-21	4	6/16/14 3:00	48	0.48	0.47	1.2
FM-21	5	6/23/14 2:00	48	0.47	0.47	0.9
FM-21	6	6/29/14 0:00	48	0.46	0.47	2.9
FM-22	1	6/1/14 3:00	48	0.81	0.85	5.0
FM-22	2	6/7/14 3:50	48	0.84	0.86	1.5
FM-22	3	6/11/14 3:00	48	0.85	0.85	0.3
FM-22	4	6/16/14 3:00	48	0.86	0.85	1.2
FM-22	5	6/23/14 2:00	48	0.89	0.85	4.4
FM-22	6	6/29/14 0:00	48	0.87	0.85	1.8
FM-23	1	6/1/14 3:00	48	4.70	4.58	2.6
FM-23	2	6/7/14 3:50	48	4.70	4.63	1.6
FM-23	3	6/11/14 3:00	48	4.56	4.55	0.3
FM-23	4	6/16/14 3:00	48	4.62	4.55	1.6
FM-23	5	6/23/14 2:00	48	4.42	4.55	2.8
FM-23	6	6/29/14 0:00	48	4.23	4.58	8.3
OF-003	1	6/1/14 3:00	48	20.39	19.31	5.3
OF-003	2	6/7/14 3:50	48	21.71	19.35	10.9
OF-003	3	6/11/14 3:00	48	21.00	19.30	8.1
OF-003	4	6/16/14 3:00	48	21.22	19.30	9.0
OF-003	5	6/23/14 2:00	48	20.01	19.30	3.5
OF-003	6	6/29/14 0:00	48	18.08	19.29	6.7

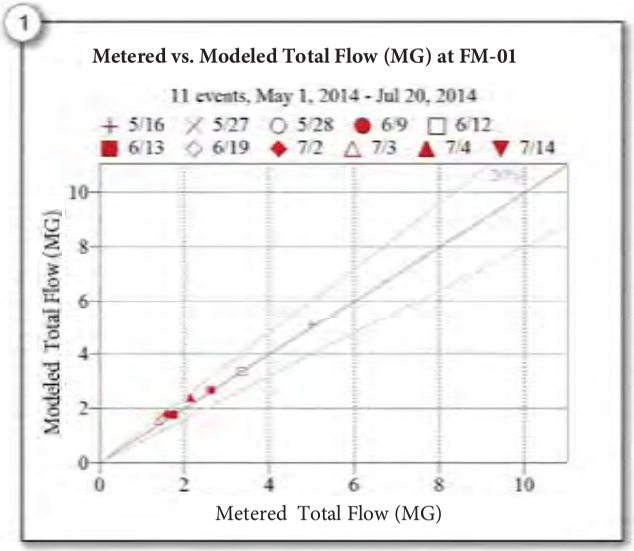
Meter ID	Event ID	Date	Duration (hrs)	Metered Total Flow (MGD)	Modeled Total Flow (MGD)	Difference (%)
OF-004	1	6/1/14 3:00	48	18.51	18.80	1.6
OF-004	2	6/7/14 3:50	48	18.07	18.81	4.1
OF-004	3	6/11/14 3:00	48	17.99	18.82	4.6
OF-004	4	6/16/14 3:00	48	19.37	18.82	2.8
OF-004	5	6/23/14 2:00	48	18.23	18.82	3.2
OF-004	6	6/29/14 0:00	48	17.75	18.77	5.7
OF-005	1	6/1/14 3:00	48	11.95	12.05	0.8
OF-005	2	6/7/14 3:50	48	11.76	11.97	1.8
OF-005	3	6/11/14 3:00	48	10.94	12.14	11.0
OF-005	4	6/16/14 3:00	48	12.71	12.14	4.5
OF-005	5	6/23/14 2:00	48	11.59	12.14	4.7
OF-005	6	6/29/14 0:00	48	11.42	12.02	5.3
OF-006	1	6/1/14 3:00	48	5.54	5.32	3.9
OF-006	2	6/7/14 3:50	48	5.34	5.29	0.9
OF-006	3	6/11/14 3:00	48	5.08	5.37	5.6
OF-006	4	6/16/14 3:00	48	5.63	5.37	4.7
OF-006	5	6/23/14 2:00	48	5.13	5.37	4.5
OF-006	6	6/29/14 0:00	48	4.96	5.32	7.2
OF-010	1	6/1/14 3:00	48	8.38	7.67	8.5
OF-010	2	6/7/14 3:50	48	7.33	7.69	4.9
OF-010	3	6/11/14 3:00	48	7.28	7.64	5.0
OF-010	4	6/16/14 3:00	48	8.06	7.64	5.2
OF-010	5	6/23/14 2:00	48	7.07	7.64	8.1
OF-010	6	6/29/14 0:00	48	6.30	7.63	21.3
OF-011A	1	6/1/14 3:00	48	5.40	3.86	28.4
OF-011A	2	6/7/14 3:50	48	5.09	3.73	26.6
OF-011A	3	6/11/14 3:00	48	5.22	4.01	23.1
OF-011A	4	6/16/14 3:00	48	5.35	4.01	25.0
OF-011A	5	6/23/14 2:00	48	5.20	4.01	22.9
OF-011A	6	6/29/14 0:00	48	5.03	3.87	23.0
OF-011B	1	6/1/14 3:00	48	4.95	4.92	0.6
OF-011B	2	6/7/14 3:50	48	4.60	4.71	2.5
OF-011B	3	6/11/14 3:00	48	4.90	5.14	4.9
OF-011B	4	6/16/14 3:00	48	5.45	5.14	5.7
OF-011B	5	6/23/14 2:00	48	4.94	5.14	4.0
OF-011B	6	6/29/14 0:00	48	4.58	4.92	7.4
OF-015DS	1	6/1/14 3:00	48	6.57	6.03	8.1
OF-015DS	2	6/7/14 3:50	48	6.32	6.06	4.2

Meter ID	Event ID	Date	Duration (hrs)	Metered Total Flow (MGD)	Modeled Total Flow (MGD)	Difference (%)
OF-015DS	3	6/11/14 3:00	48	6.31	6.02	4.6
OF-015DS	4	6/16/14 3:00	48	6.73	6.03	10.4
OF-015DS	5	6/23/14 2:00	48	6.42	6.02	6.2
OF-015DS	6	6/29/14 0:00	48	6.31	6.02	4.6
OF-015US	1	6/1/14 3:00	48	6.14	6.03	1.8
OF-015US	2	6/7/14 3:50	48	6.13	6.05	1.3
OF-015US	3	6/11/14 3:00	48	5.73	6.01	4.8
OF-015US	4	6/16/14 3:00	48	5.90	6.02	2.0
OF-015US	5	6/23/14 2:00	48	6.18	6.00	2.9
OF-015US	6	6/29/14 0:00	48	6.00	6.03	0.5
OF-020	1	6/1/14 3:00	48	3.48	3.61	3.9
OF-020	2	6/7/14 3:50	48	3.68	3.58	2.7
OF-020	3	6/11/14 3:00	48	3.43	3.65	6.4
OF-020	4	6/16/14 3:00	48	3.71	3.65	1.6
OF-020	5	6/23/14 2:00	48	3.34	3.65	9.3
OF-020	6	6/29/14 0:00	48	3.37	3.60	7.0
OF-024DS	1	6/1/14 3:00	48	24.20	24.22	0.1
OF-024DS	2	6/7/14 3:50	48	24.08	23.69	1.6
OF-024DS	3	6/11/14 3:00	48	22.94	24.71	7.7
OF-024DS	4	6/16/14 3:00	48	11.34	24.71	117.9
OF-024DS	5	6/23/14 2:00	48	0.00	24.70	-
OF-024DS	6	6/29/14 0:00	48	0.00	24.07	-
OF-024US	1	6/1/14 3:00	48	24.10	22.40	7.1
OF-024US	2	6/7/14 3:50	48	24.12	22.21	7.9
OF-024US	3	6/11/14 3:00	48	21.62	22.59	4.5
OF-024US	4	6/16/14 3:00	48	9.77	22.59	131.2
OF-024US	5	6/23/14 2:00	48	0.00	22.58	-
OF-024US	6	6/29/14 0:00	48	0.00	22.32	-
OF-025C	1	6/1/14 3:00	48	3.70	3.82	3.3
OF-025C	2	6/7/14 3:50	48	3.13	3.43	9.4
OF-025C	3	6/11/14 3:00	48	3.32	4.22	27.0
OF-025C	4	6/16/14 3:00	48	4.61	4.22	8.5
OF-025C	5	6/23/14 2:00	48	4.11	4.22	2.7
OF-025C	6	6/29/14 0:00	48	3.68	3.82	3.8
OF-025F	1	6/1/14 3:00	48	1.68	1.80	7.1
OF-025F	2	6/7/14 3:50	48	1.69	1.77	4.5
OF-025F	3	6/11/14 3:00	48	1.93	1.85	3.9
OF-025F	4	6/16/14 3:00	48	1.85	1.85	0.1

Meter ID	Event ID	Date	Duration (hrs)	Metered Total Flow (MGD)	Modeled Total Flow (MGD)	Difference (%)
OF-025F	5	6/23/14 2:00	48	1.78	1.85	4.0
OF-025F	6	6/29/14 0:00	48	1.79	1.81	1.2
OF-025S	1	6/1/14 3:00	48	0.96	1.11	16.1
OF-025S	2	6/7/14 3:50	48	0.89	1.00	11.7
OF-025S	3	6/11/14 3:00	48	1.14	1.23	7.4
OF-025S	4	6/16/14 3:00	48	1.33	1.23	8.1
OF-025S	5	6/23/14 2:00	48	1.31	1.23	6.4
OF-025S	6	6/29/14 0:00	48	1.25	1.11	11.2
OF-034G	1	6/1/14 3:00	48	0.99	0.87	12.3
OF-034G	2	6/7/14 3:50	48	0.89	0.86	4.1
OF-034G	3	6/11/14 3:00	48	0.99	0.89	10.4
OF-034G	4	6/16/14 3:00	48	0.85	0.89	4.5
OF-034G	5	6/23/14 2:00	48	0.81	0.89	9.4
OF-034G	6	6/29/14 0:00	48	0.79	0.87	10.3
OF-034T	1	6/1/14 3:00	48	0.66	0.72	9.0
OF-034T	2	6/7/14 3:50	48	0.71	0.73	2.4
OF-034T	3	6/11/14 3:00	48	0.71	0.72	0.4
OF-034T	4	6/16/14 3:00	48	0.75	0.72	4.3
OF-034T	5	6/23/14 2:00	48	0.73	0.72	1.0
OF-034T	6	6/29/14 0:00	48	0.68	0.73	6.3

Appendix G
Wet Weather Calibration Results – Sewer Flow

1



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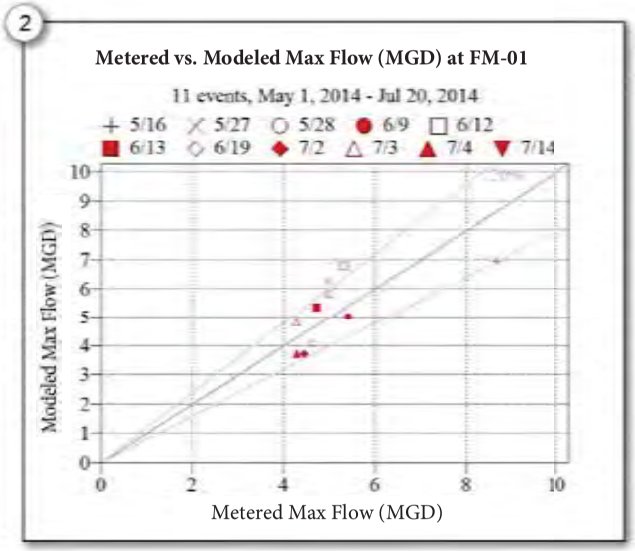

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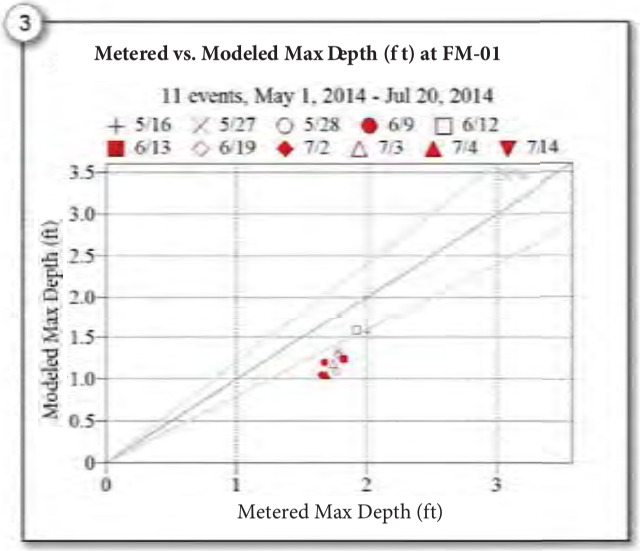

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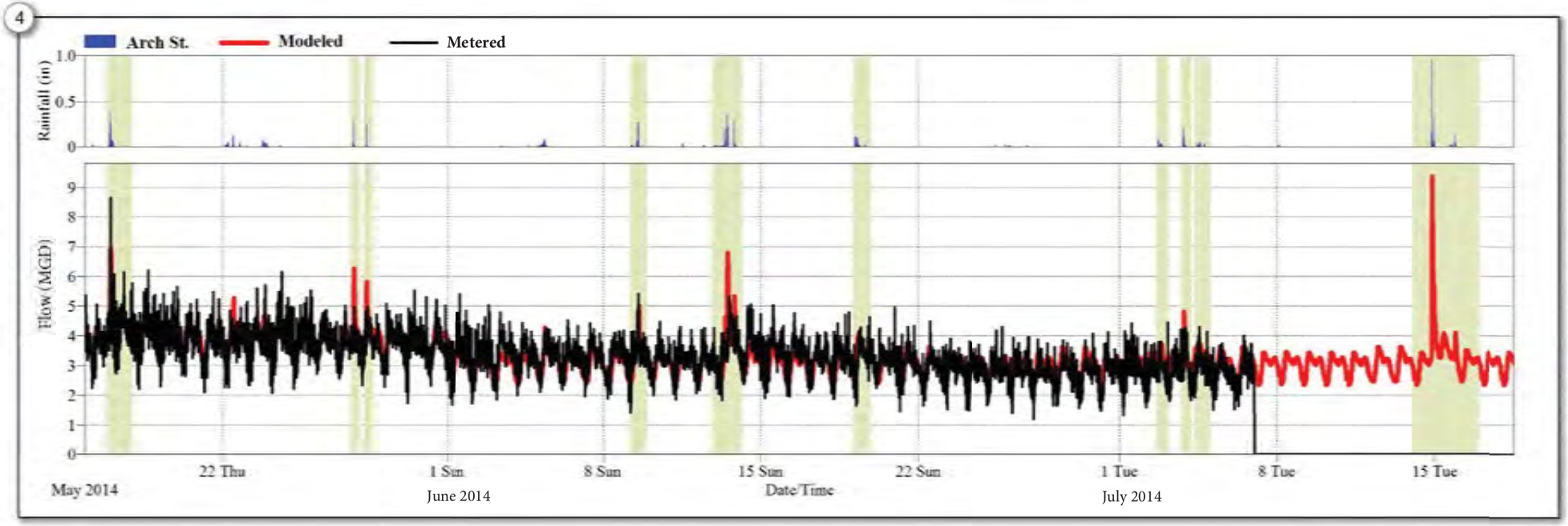


Model Calibration Results

Flow Meter: FM-01

Meter Summary

1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

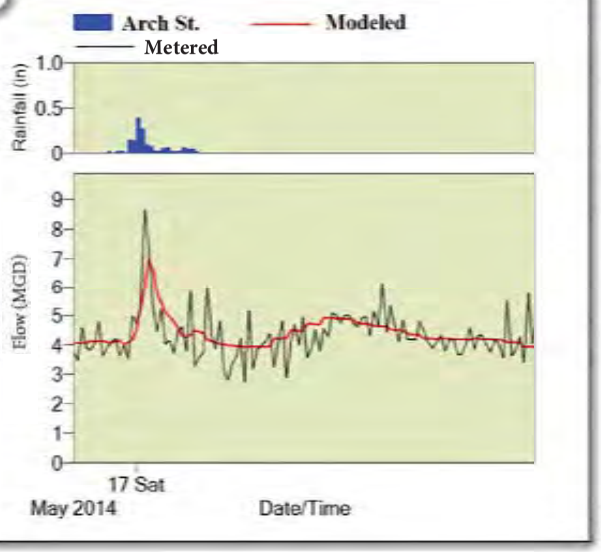
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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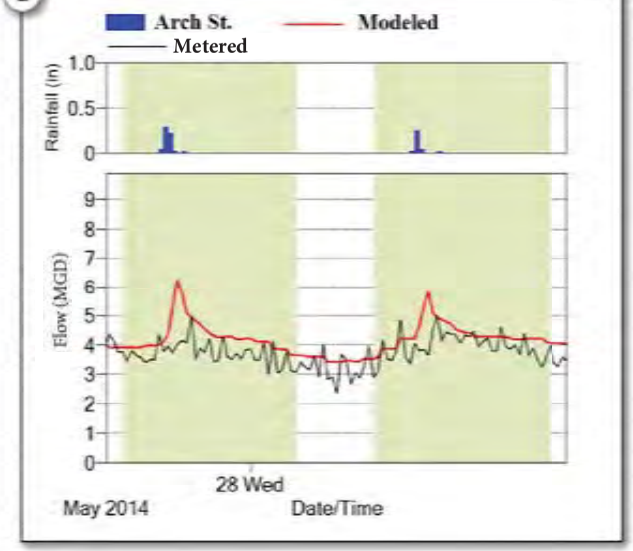

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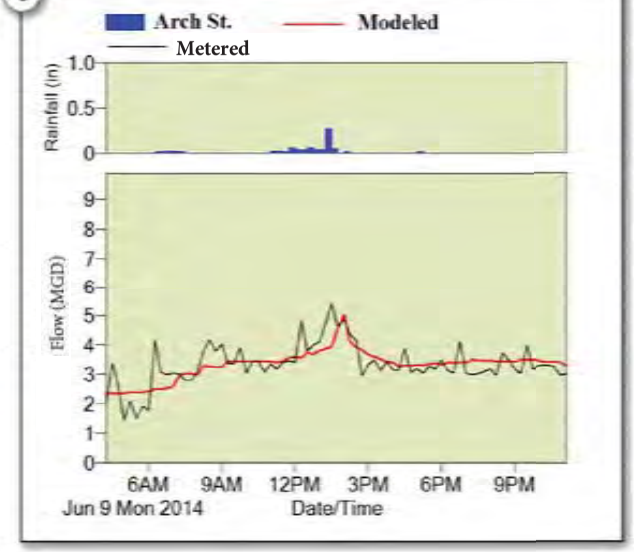

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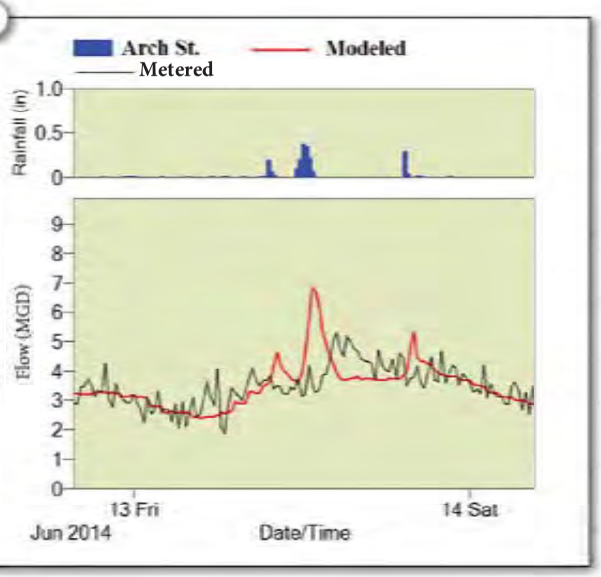

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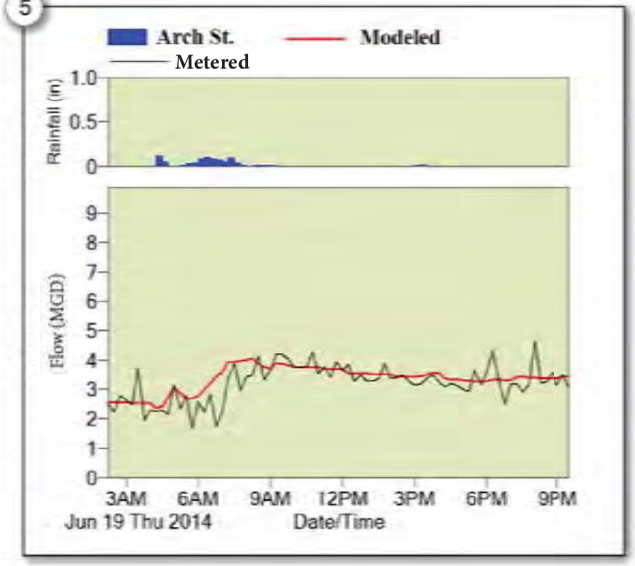

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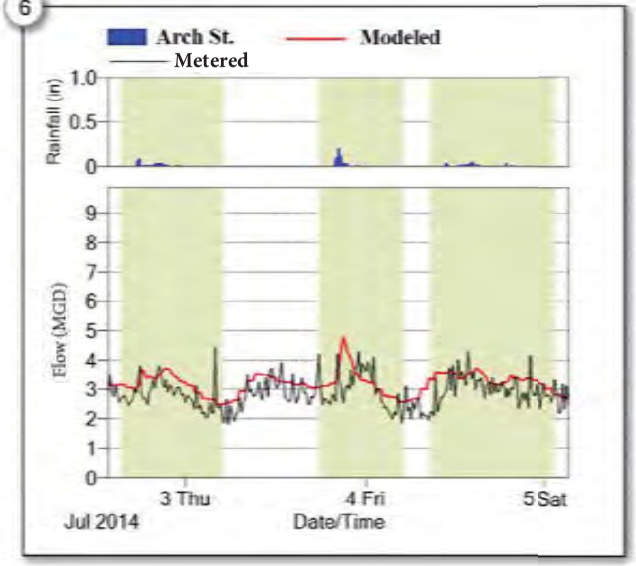


Model Calibration Results

Flow Meter: FM-01

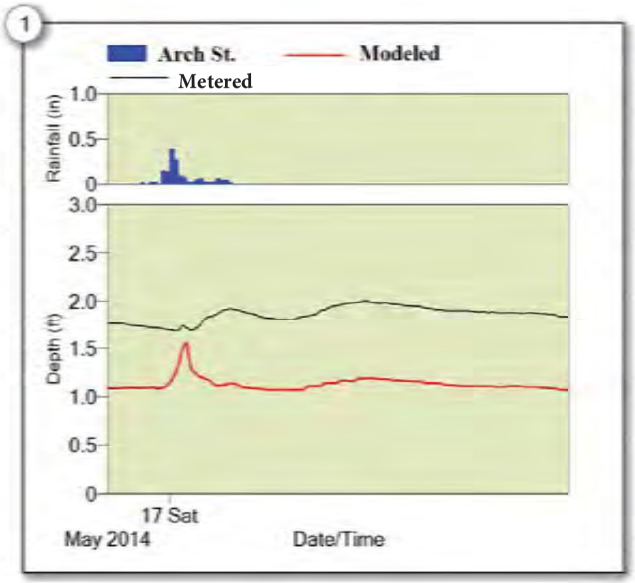
Event Comparison: Flow

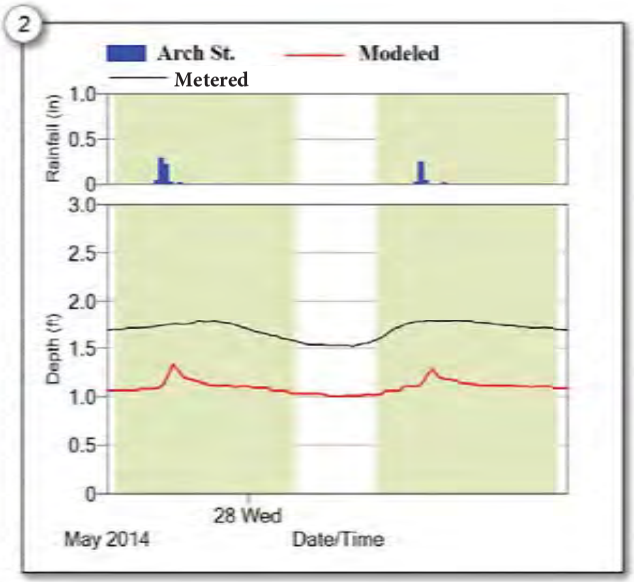
Arch St. Rain Gauge Events:

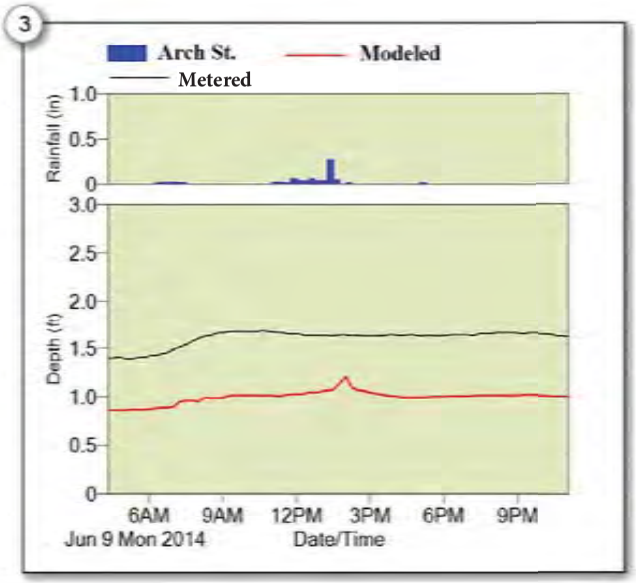
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

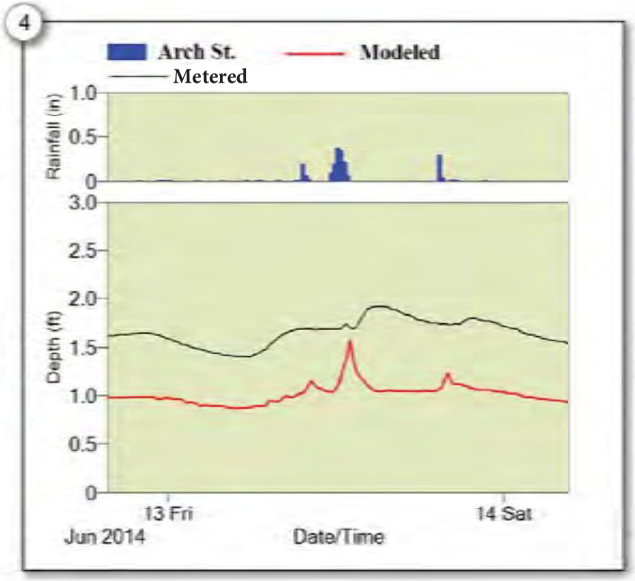
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

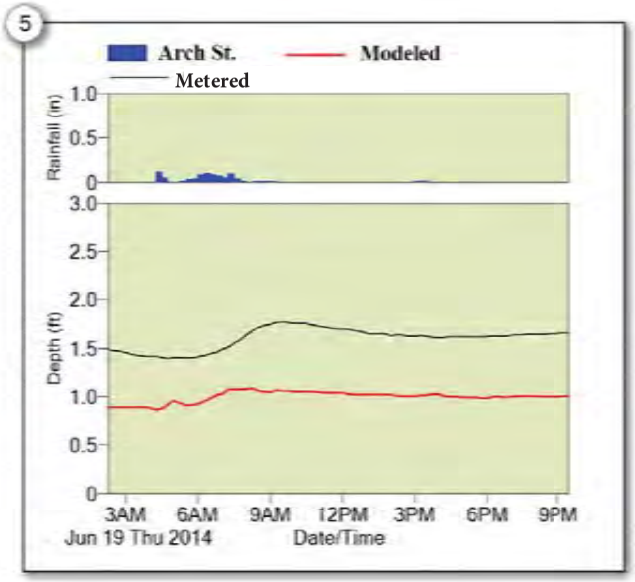
Prepared by:
CH2MHILL

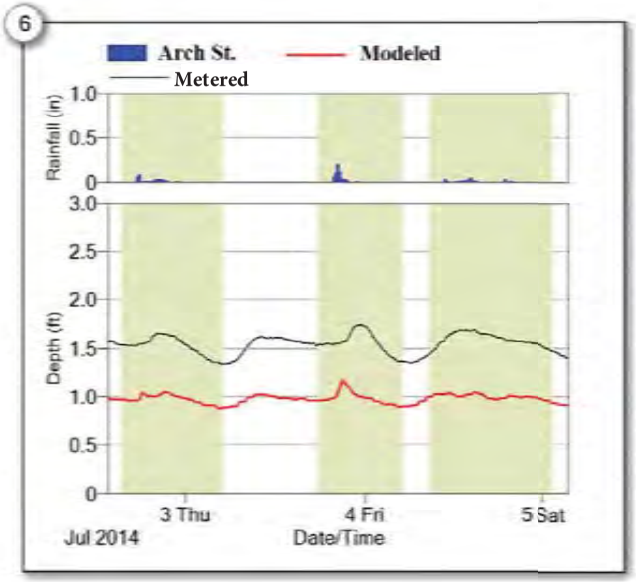












Model Calibration Results

Flow Meter: FM-01

Event Comparison: Depth

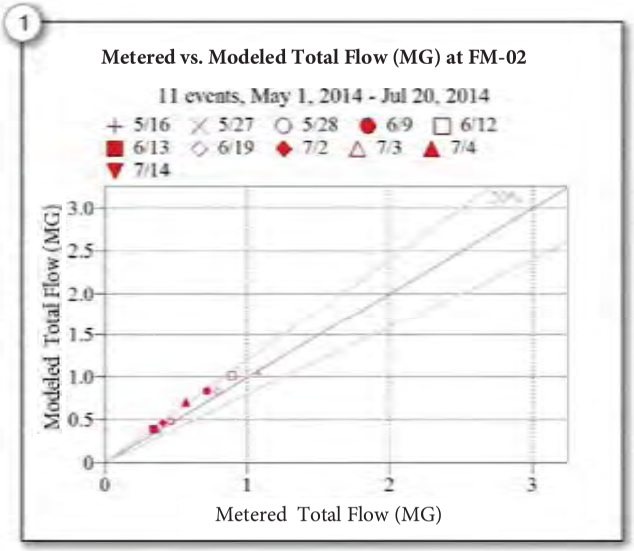
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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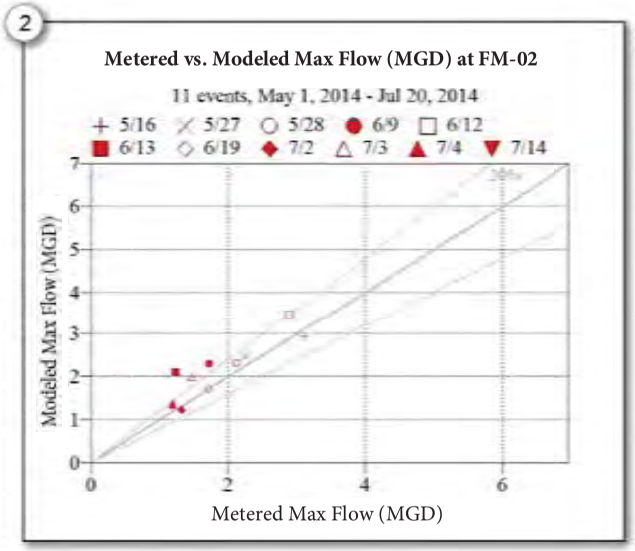

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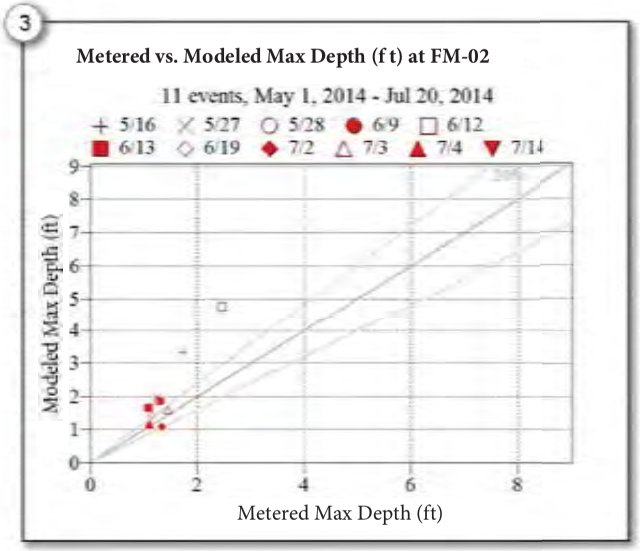

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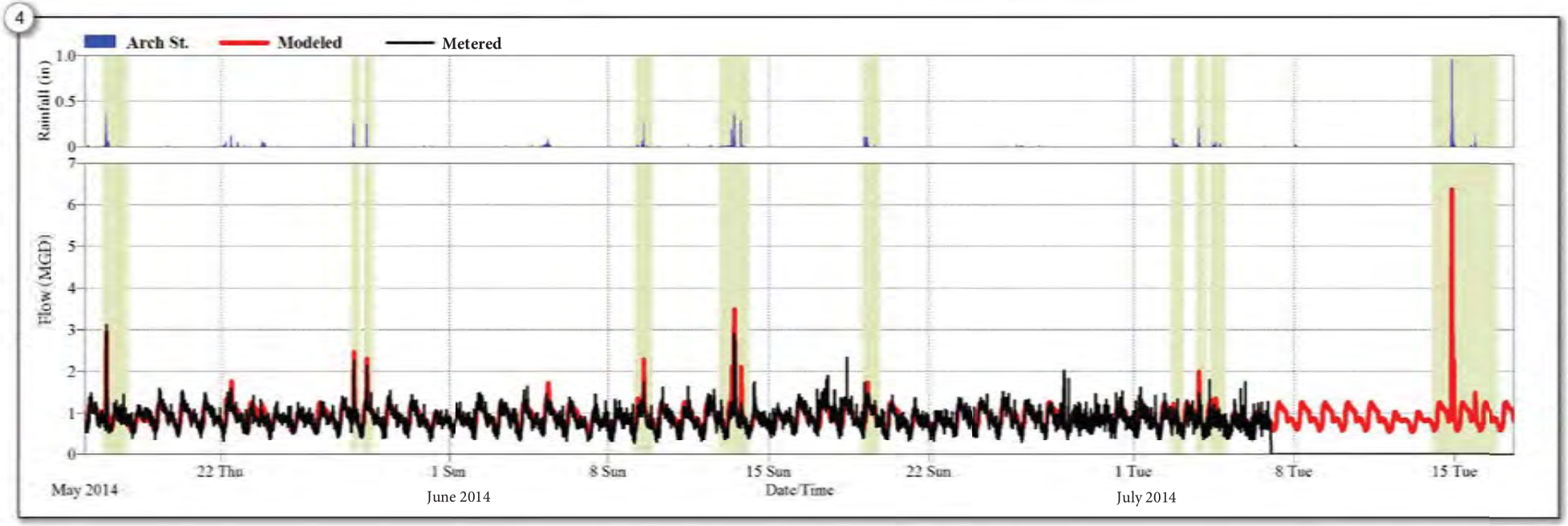


Model Calibration Results

Flow Meter: FM-02

Meter Summary

1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

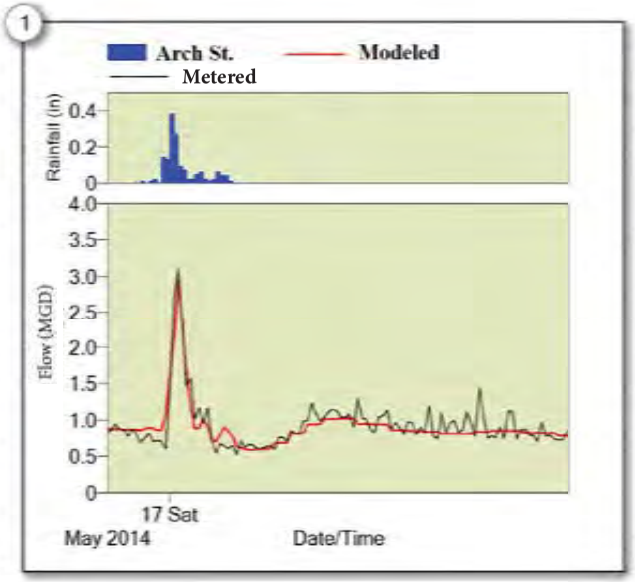
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:

CH2MHILL

1



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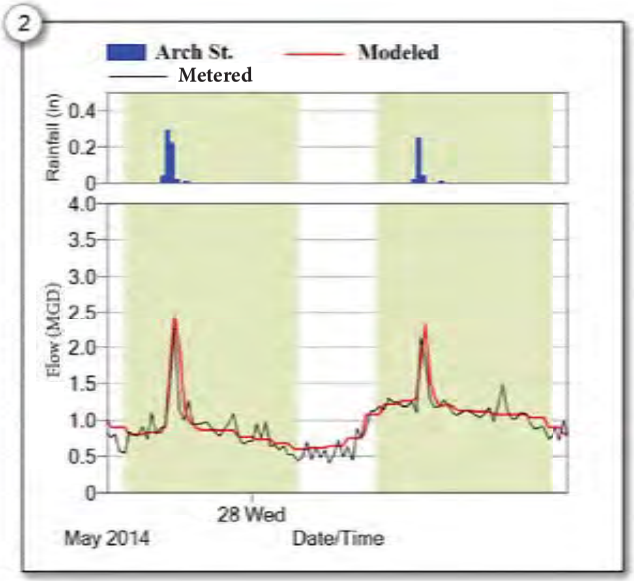

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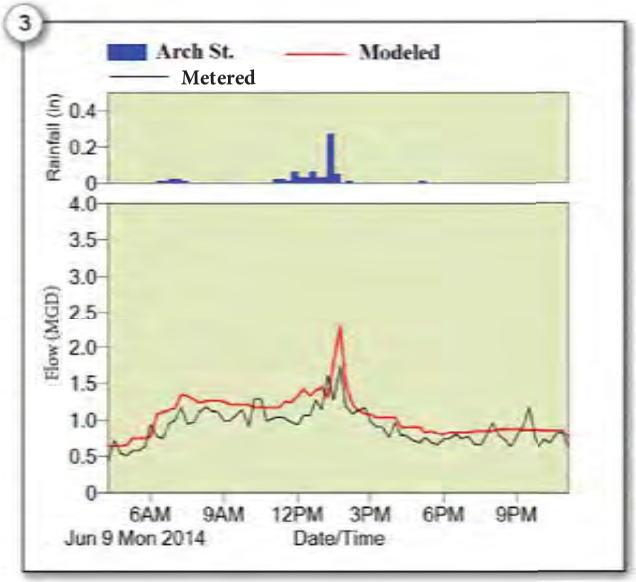

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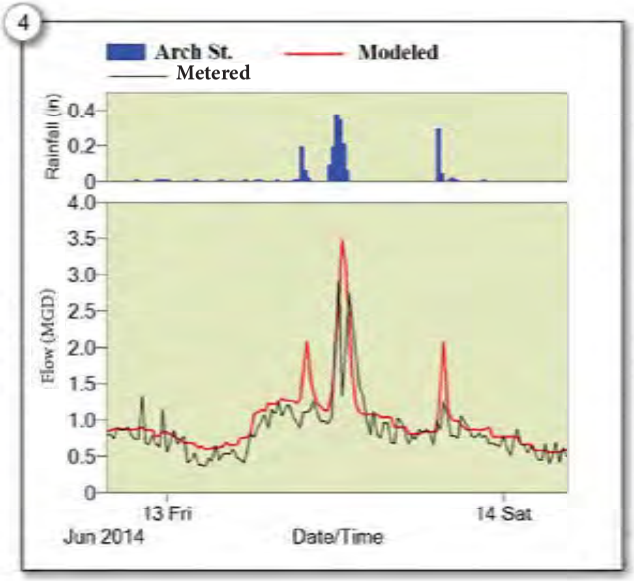

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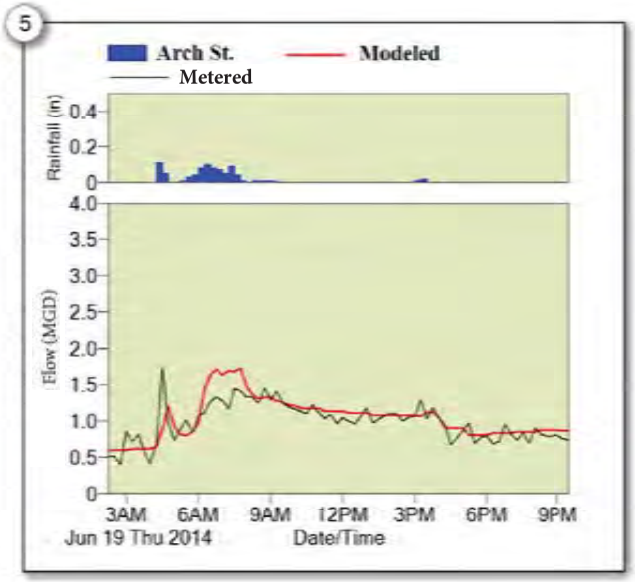

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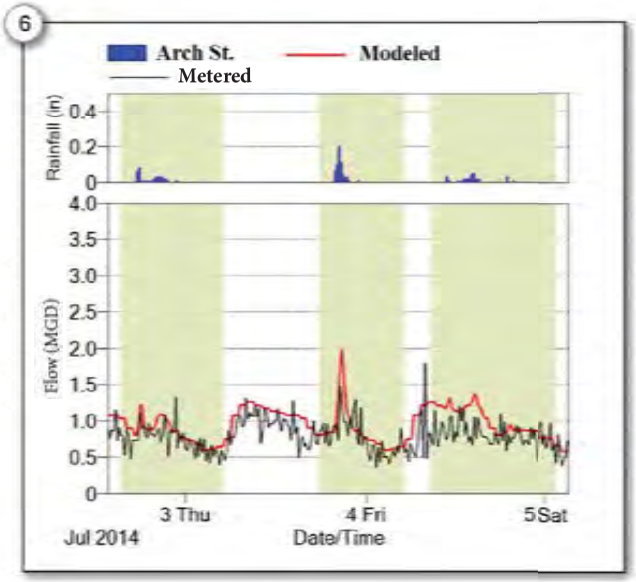


Model Calibration Results

Flow Meter: FM-02

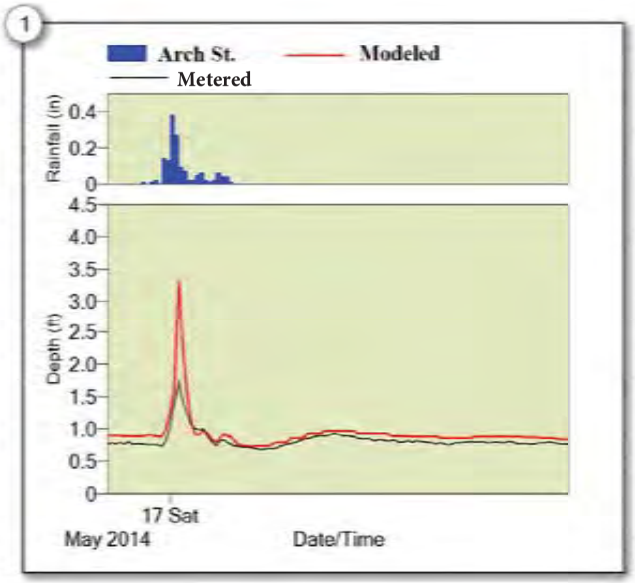
Event Comparison: Flow

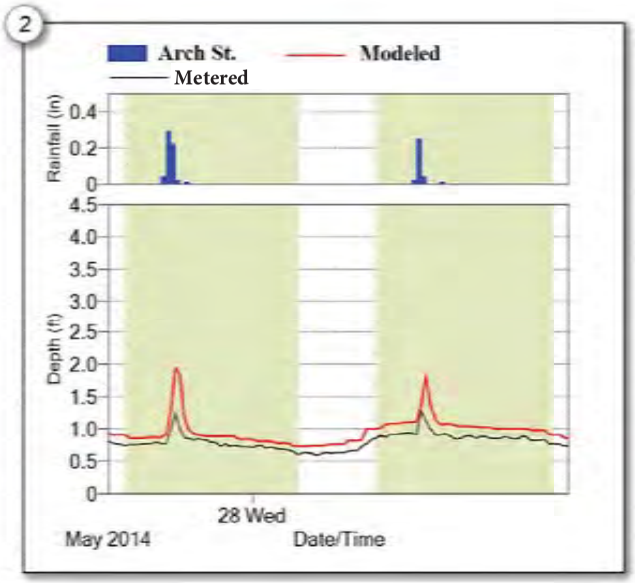
Arch St. Rain Gauge Events:

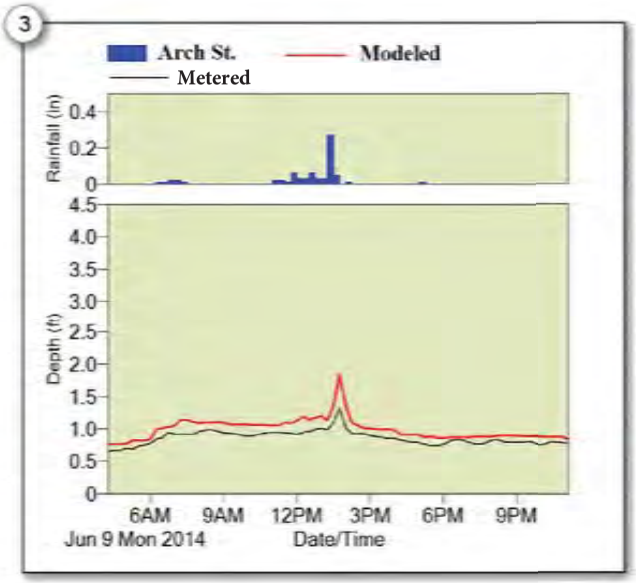
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

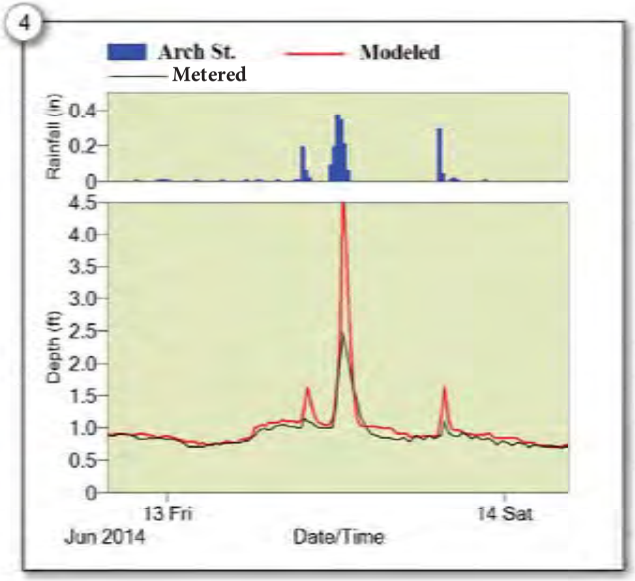
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

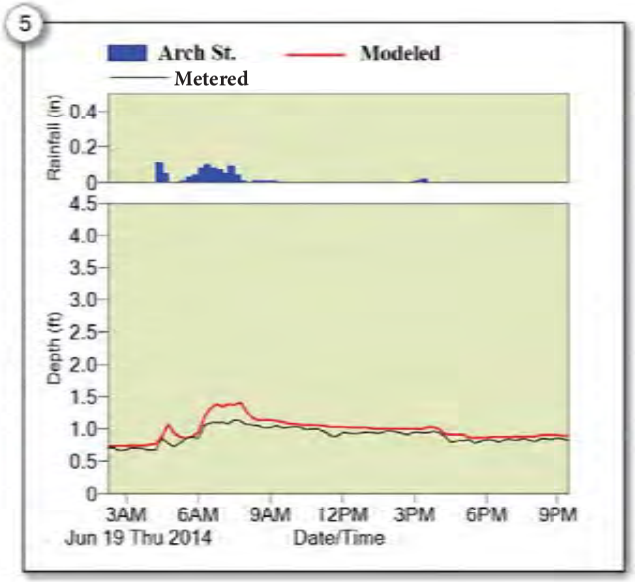
Prepared by:
CH2MHILL

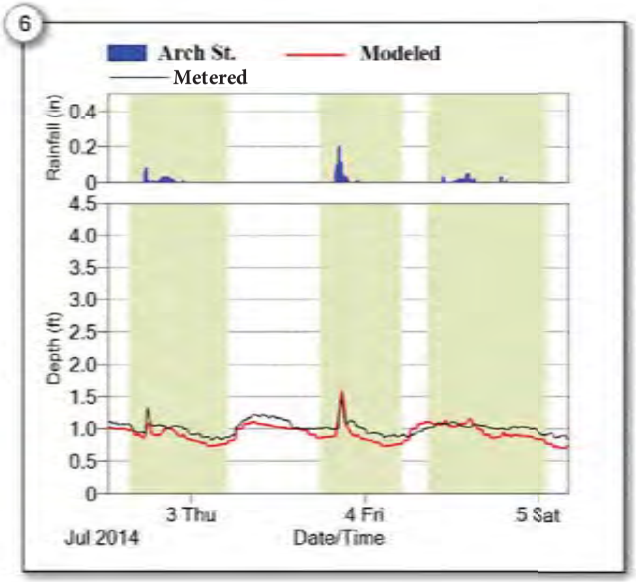












Model Calibration Results

Flow Meter: FM-02

Event Comparison: Depth

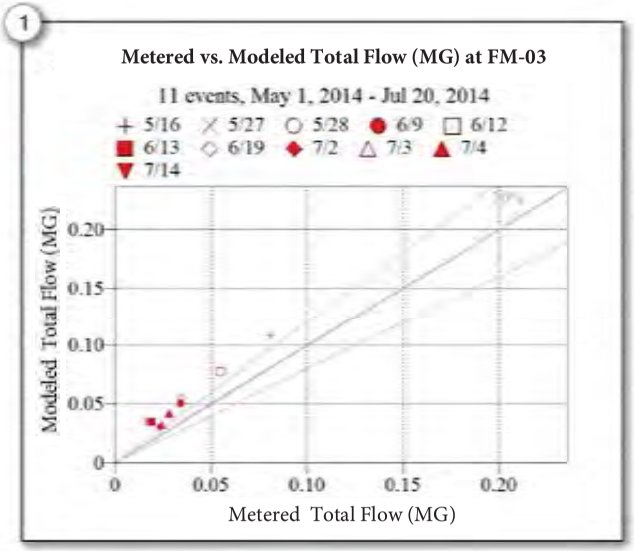
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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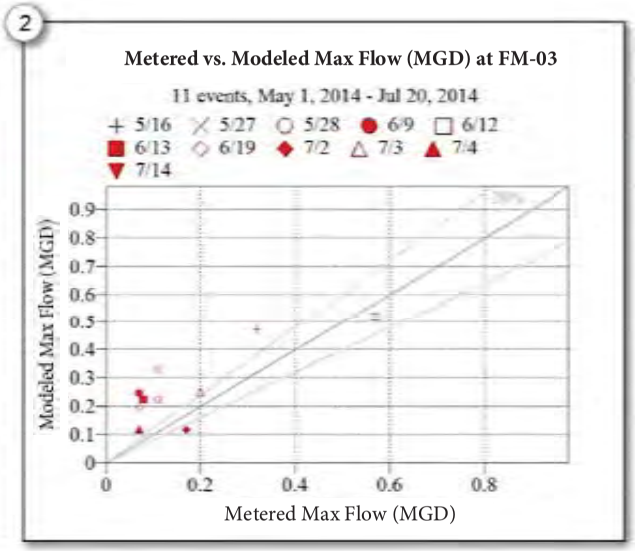

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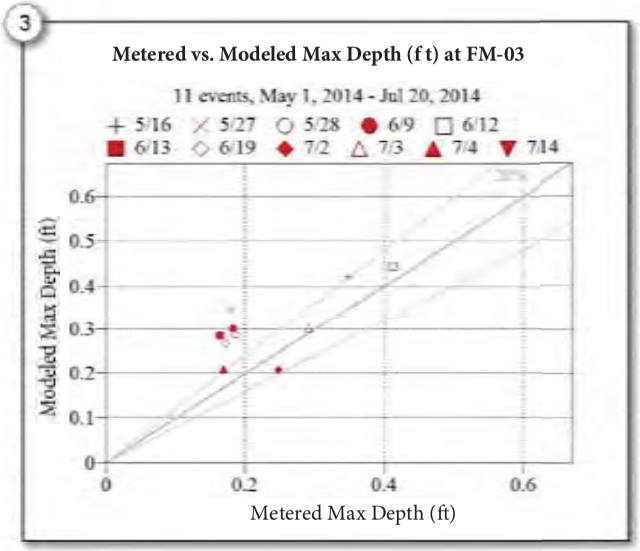

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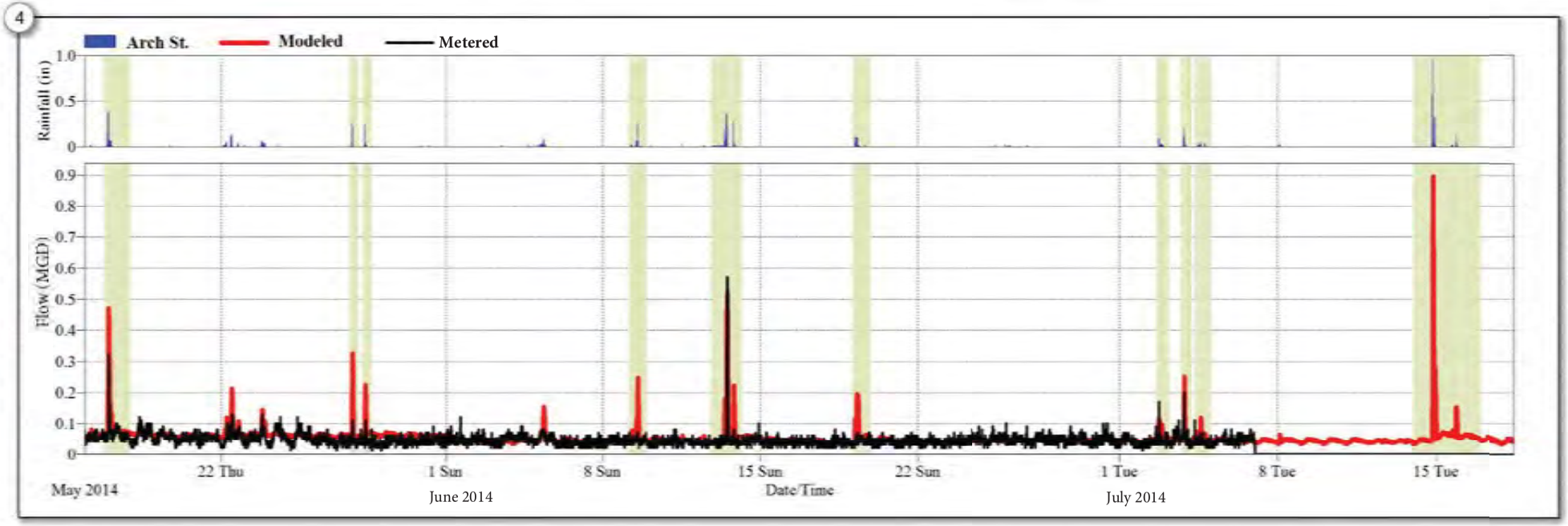


Model Calibration Results

Flow Meter: FM-03

Meter Summary

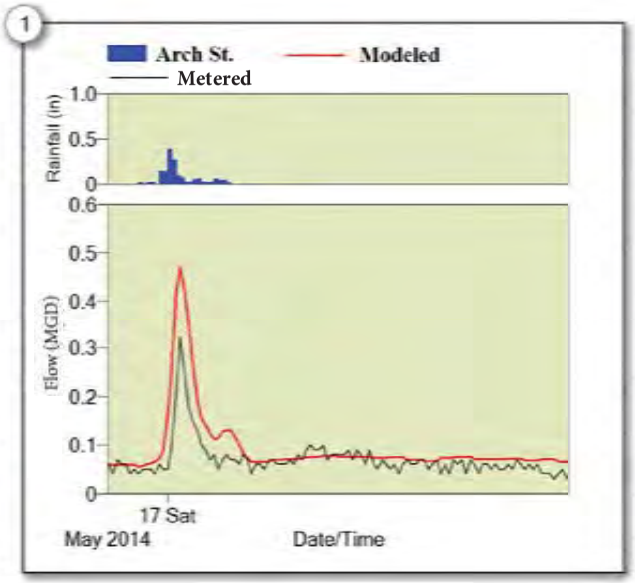
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

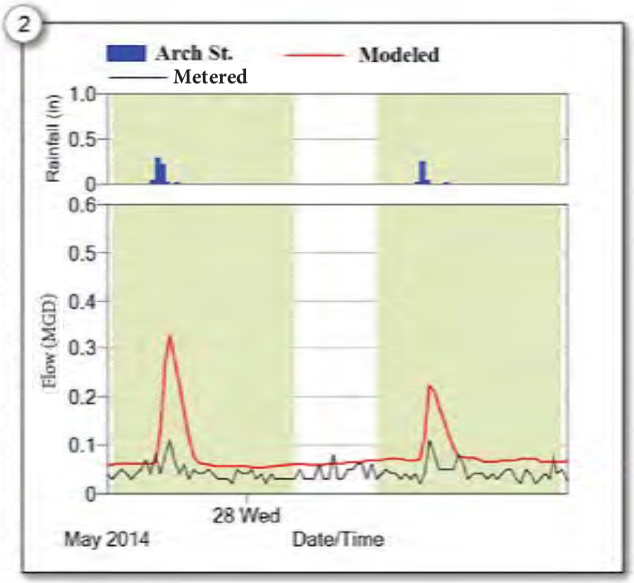
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

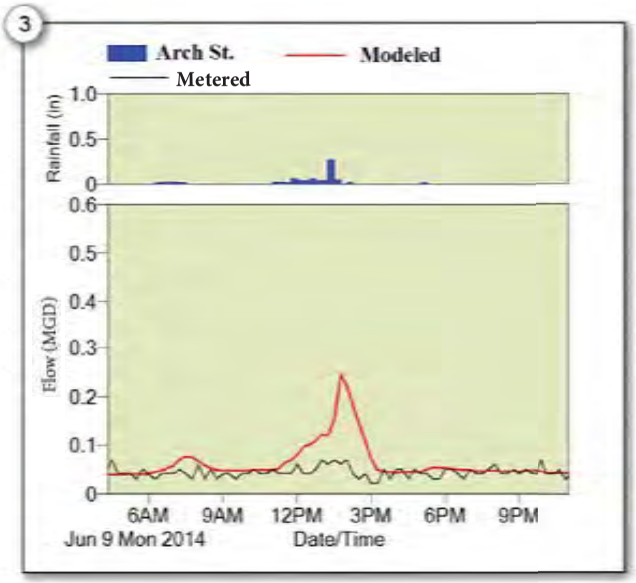
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

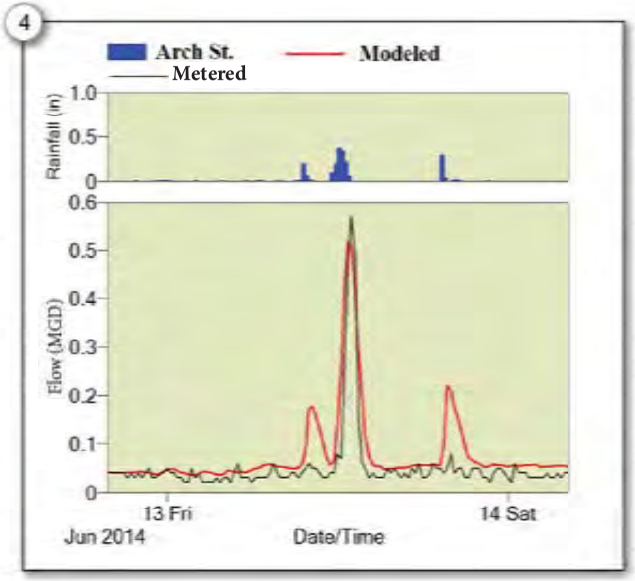
Prepared by:

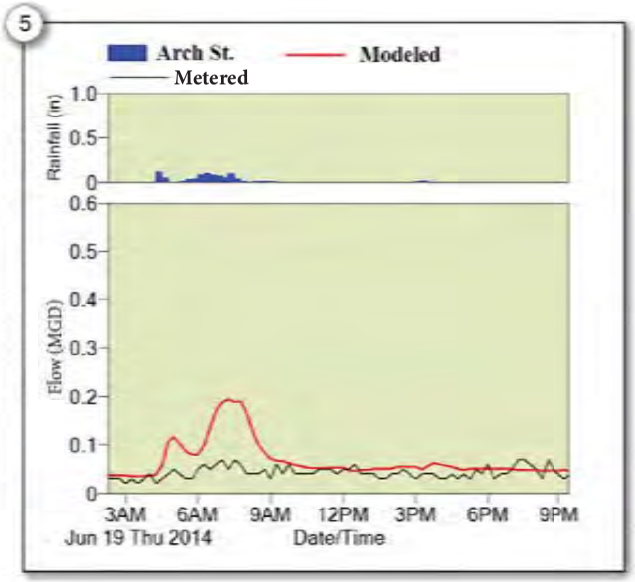
CH2MHILL

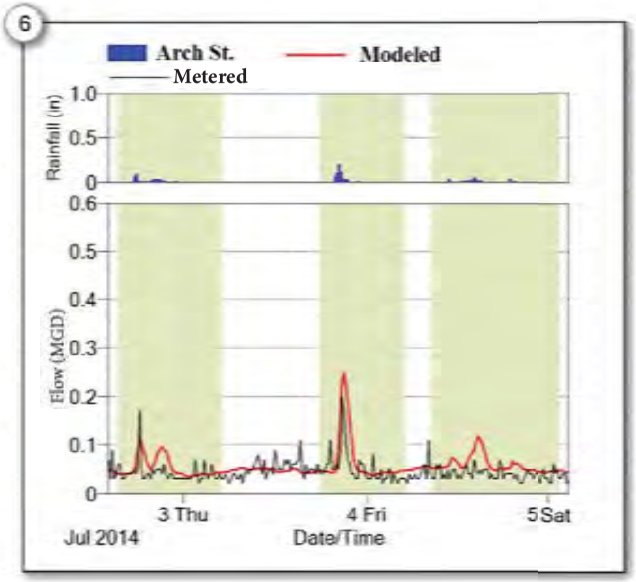












Model Calibration Results

Flow Meter: FM-03

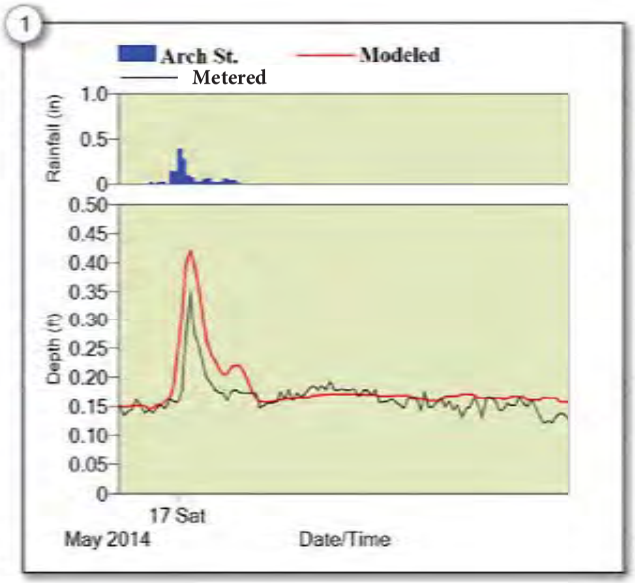
Event Comparison: Flow

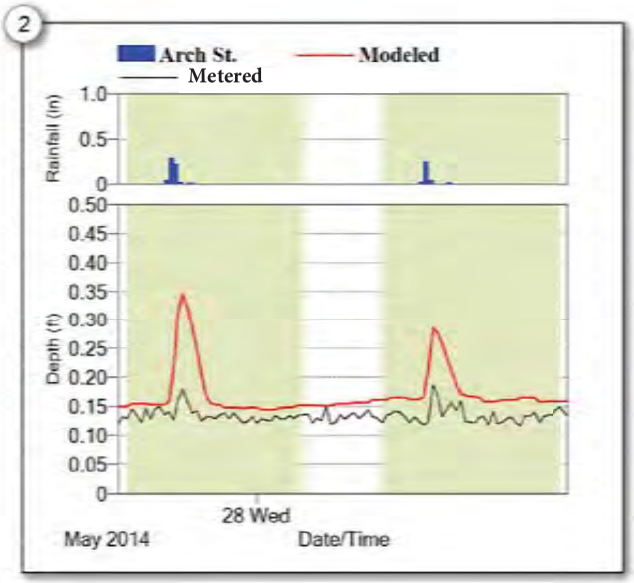
Arch St. Rain Gauge Events:

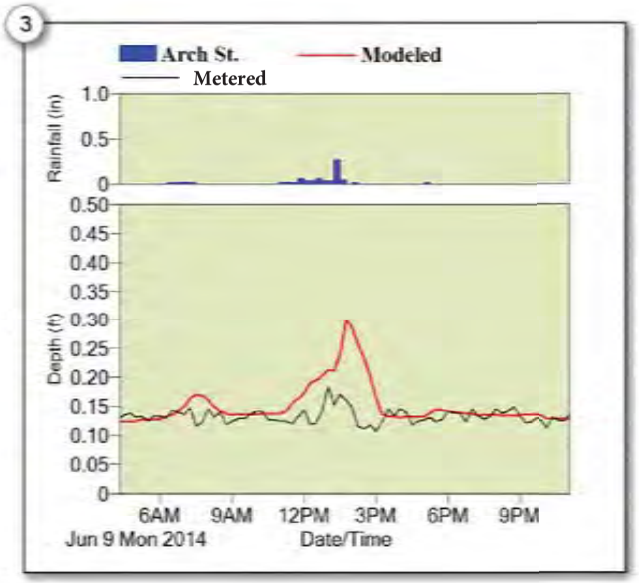
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

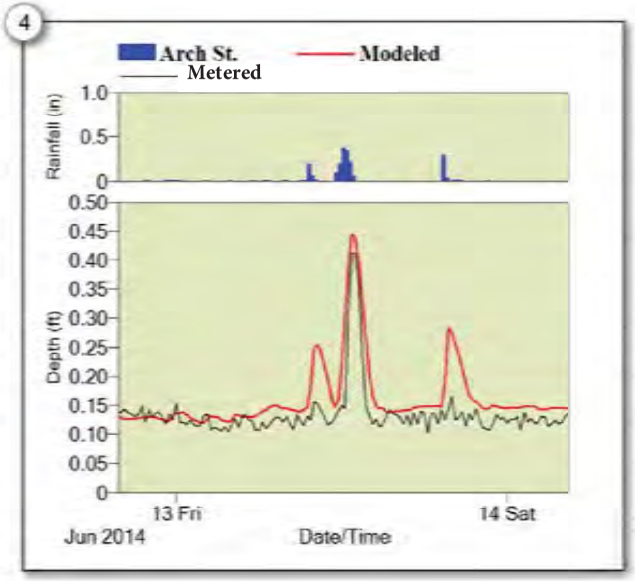
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

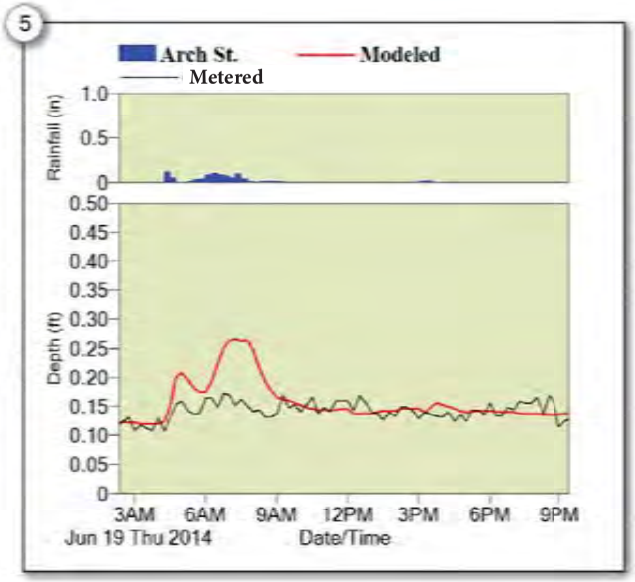
Prepared by:
CH2MHILL

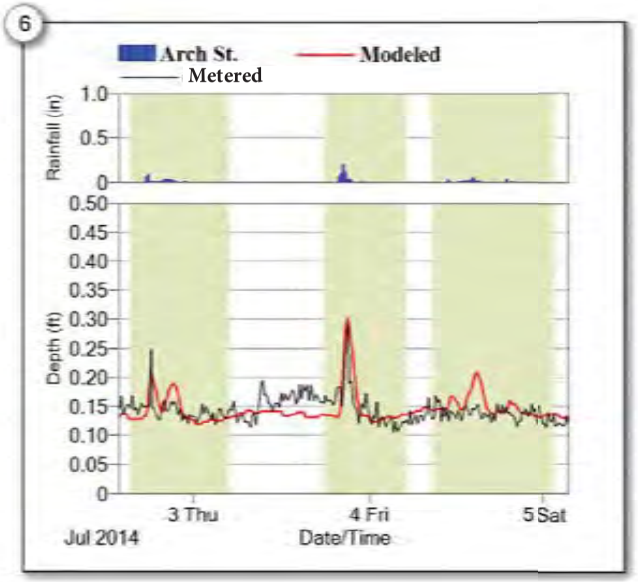












Model Calibration Results

Flow Meter: FM-03

Event Comparison: Depth

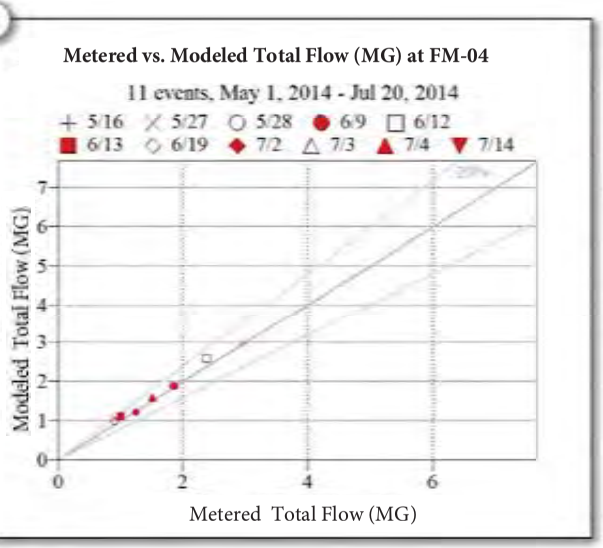
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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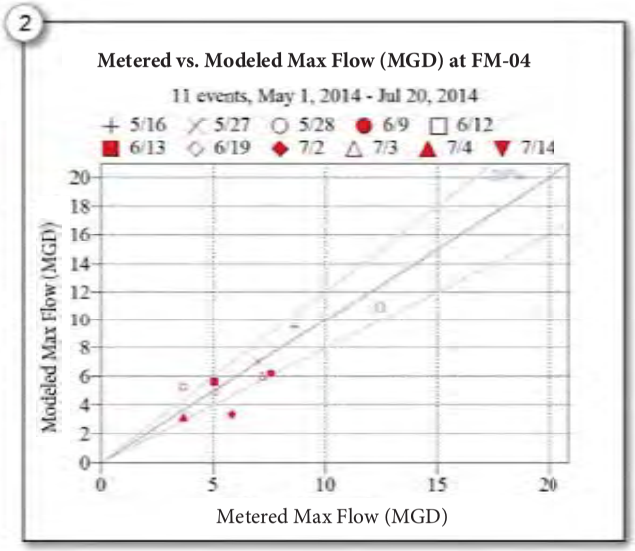

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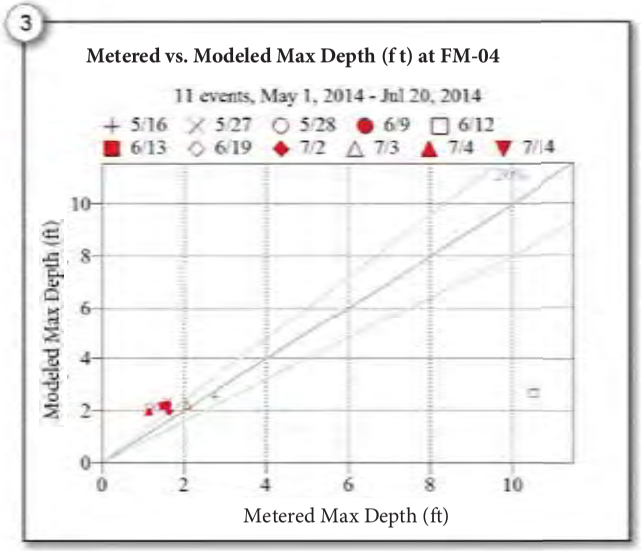

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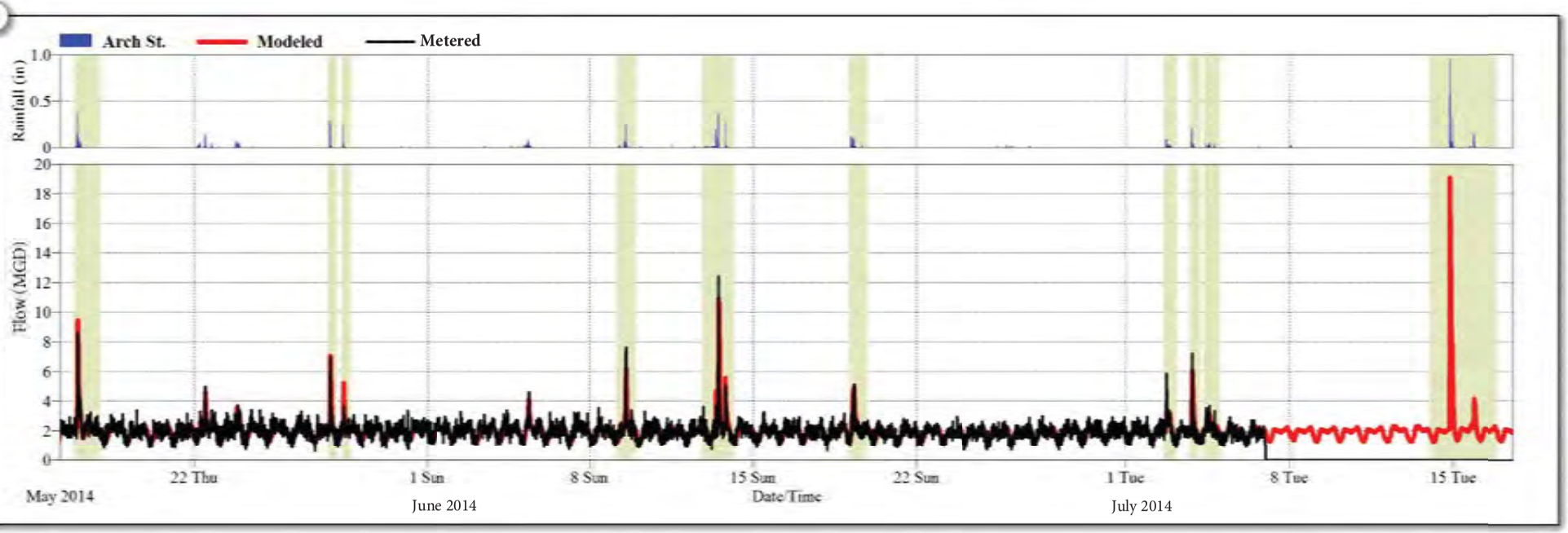


Model Calibration Results

Flow Meter: FM-04

Meter Summary

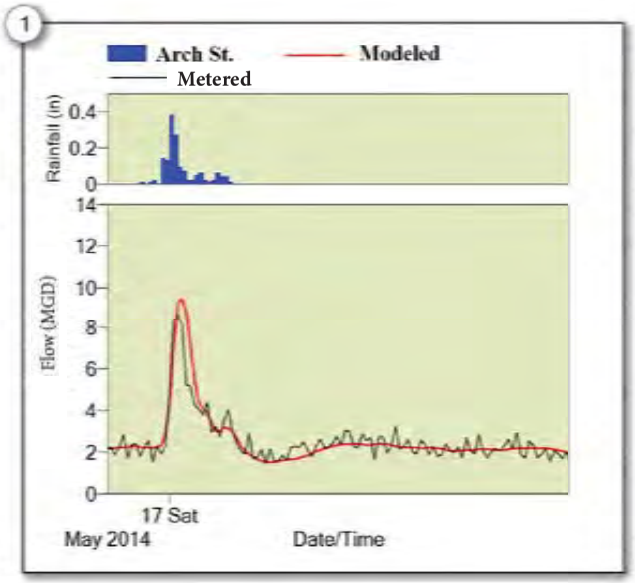
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

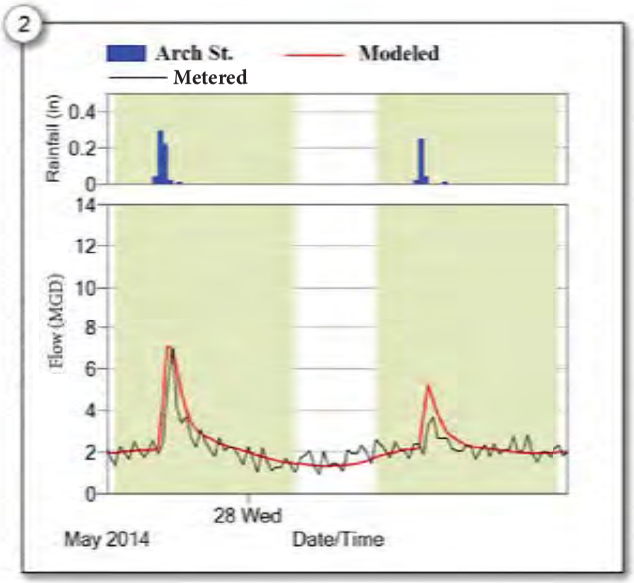
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

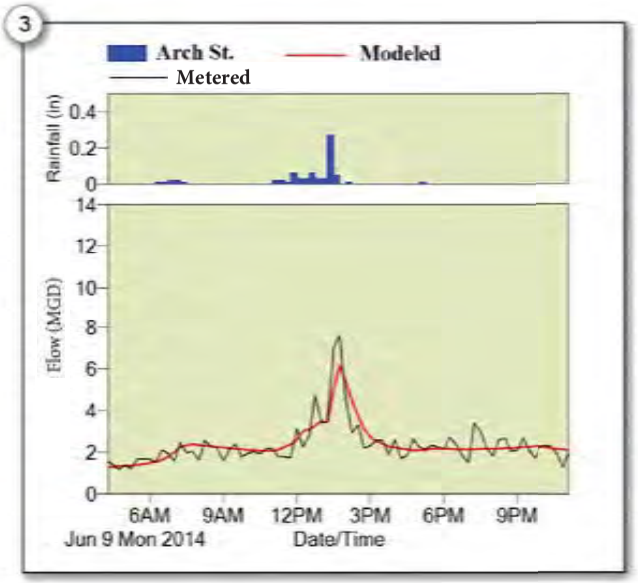
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

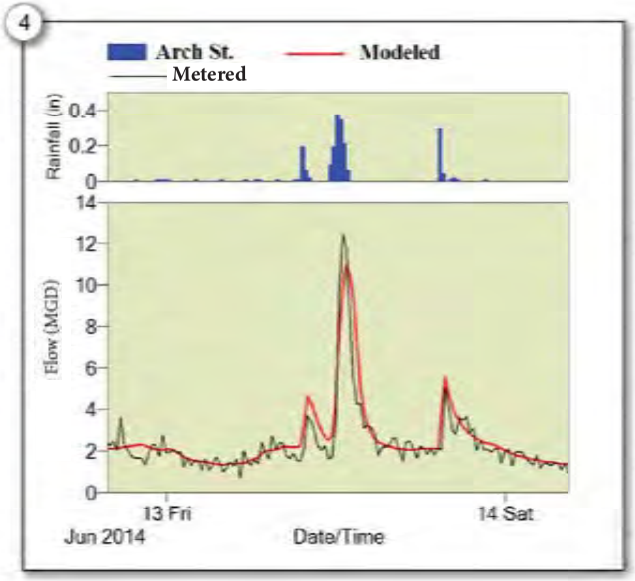
Prepared by:

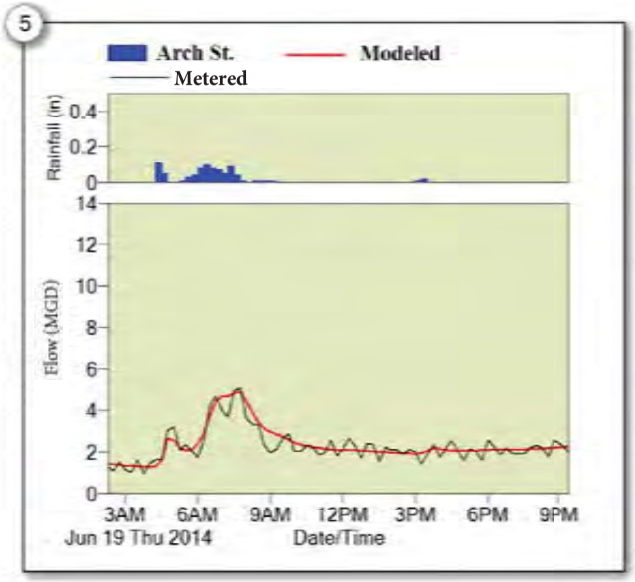
CH2MHILL

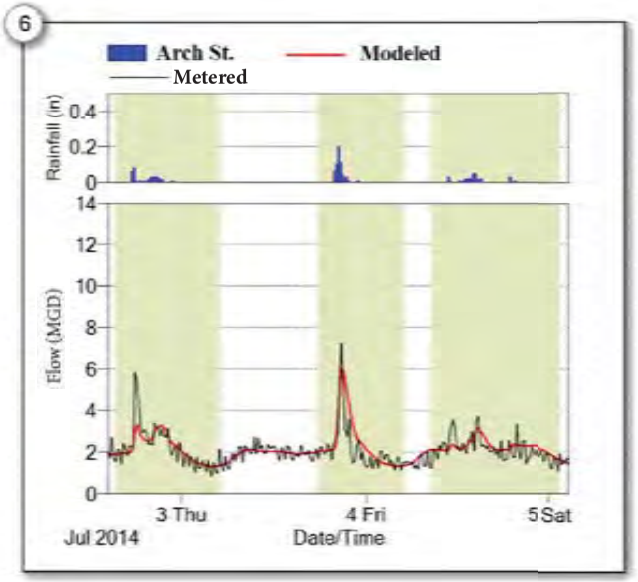












Model Calibration Results

Flow Meter: FM-04

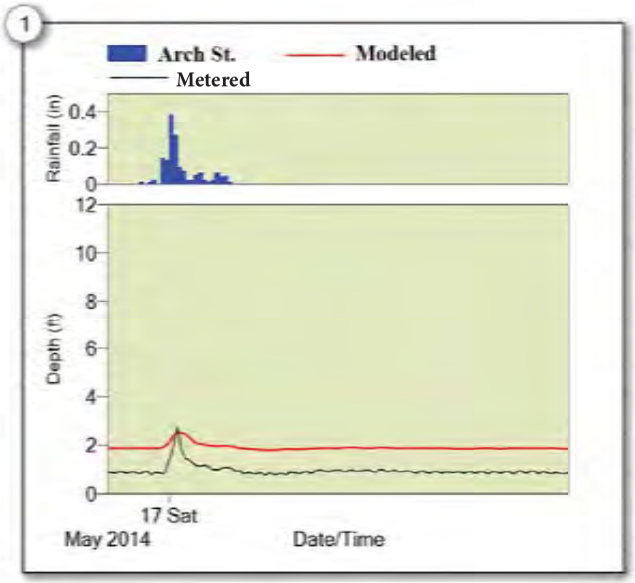
Event Comparison: Flow

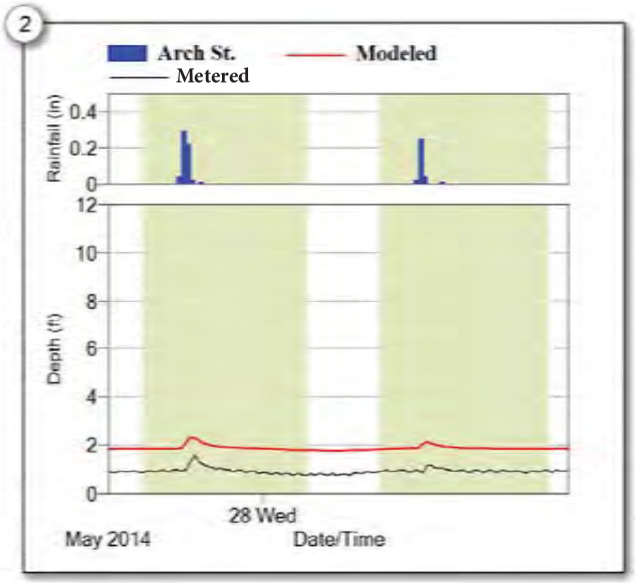
Arch St. Rain Gauge Events:

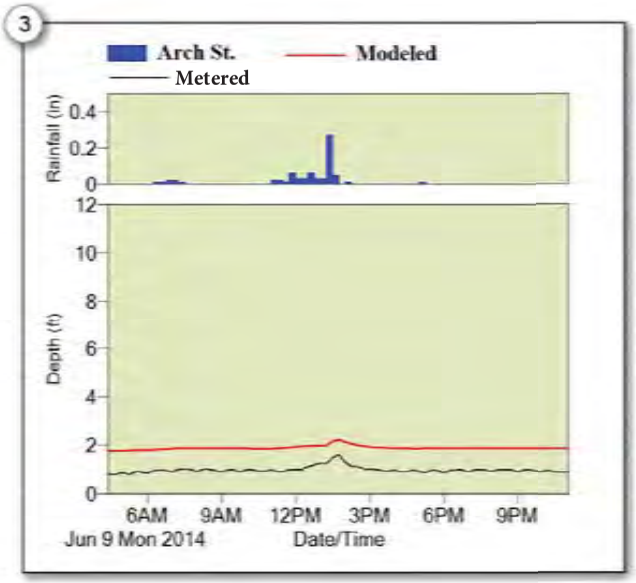
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

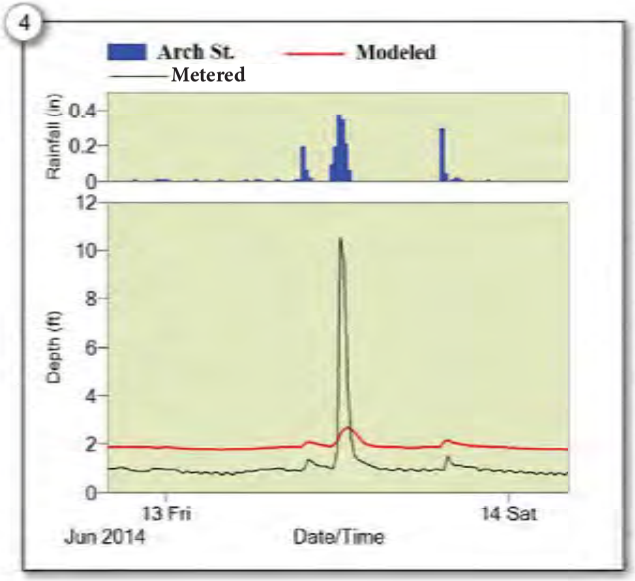
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

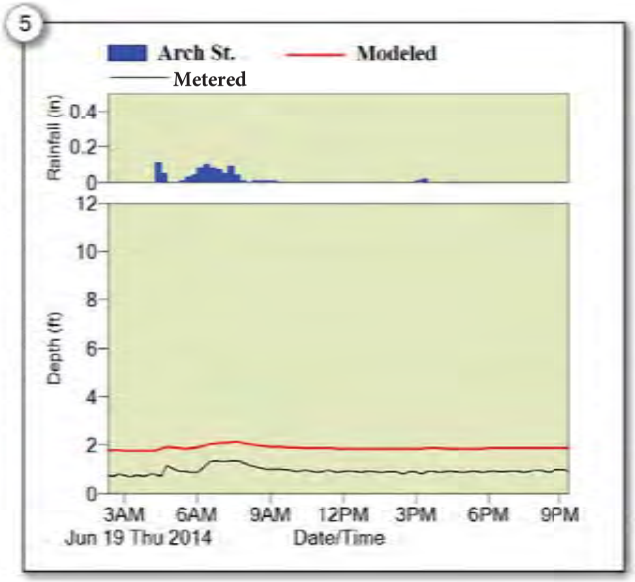
Prepared by:
CH2MHILL

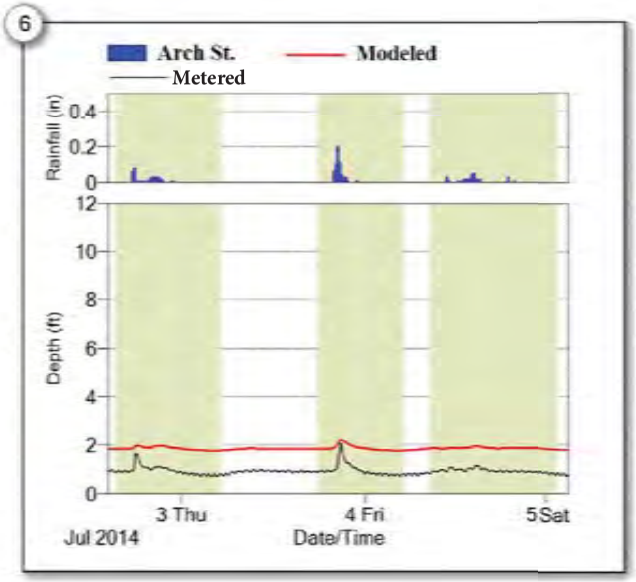












Model Calibration Results

Flow Meter: FM-04

Event Comparison: Depth

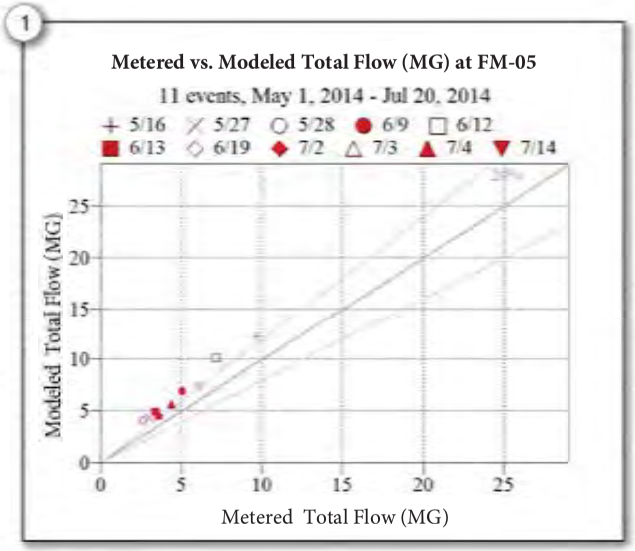
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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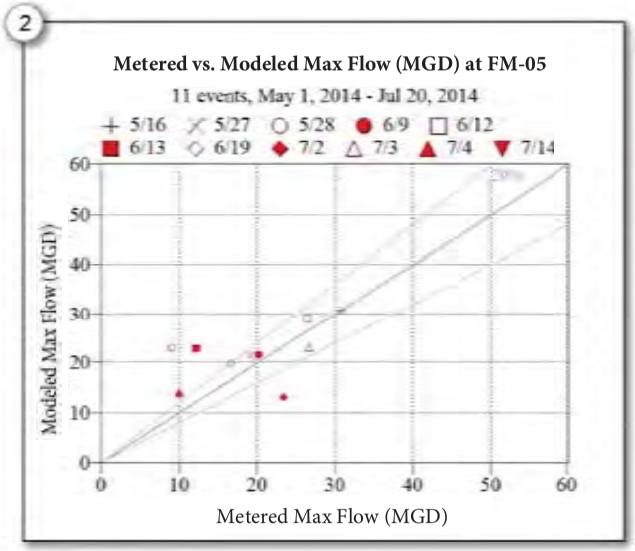

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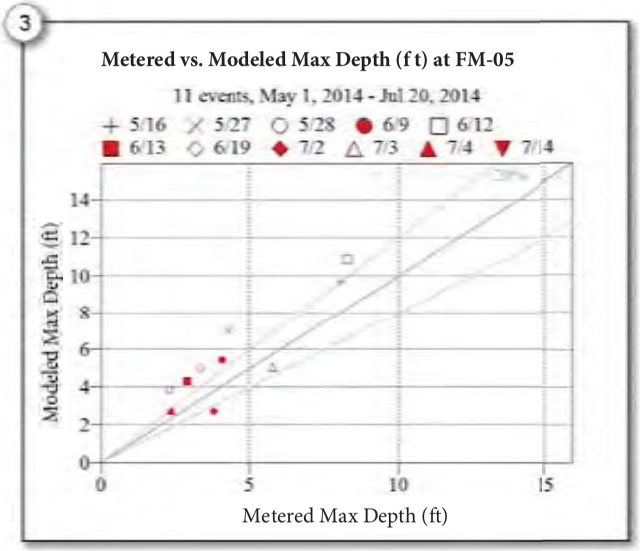

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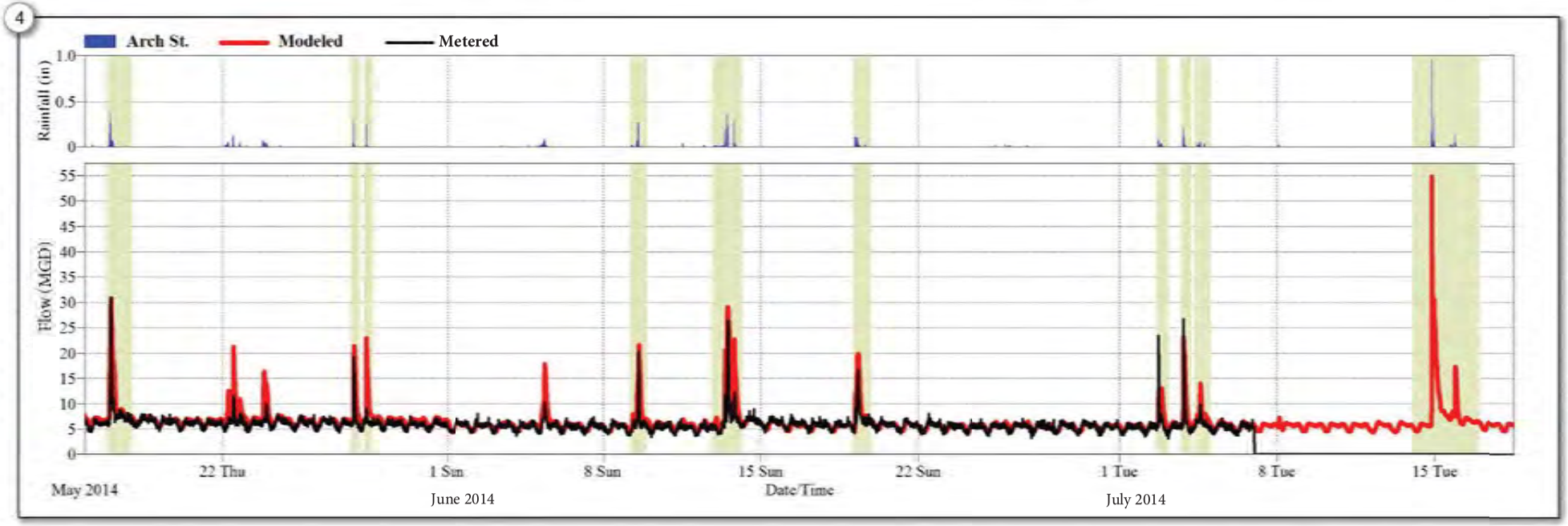


Model Calibration Results

Flow Meter: FM-05

Meter Summary

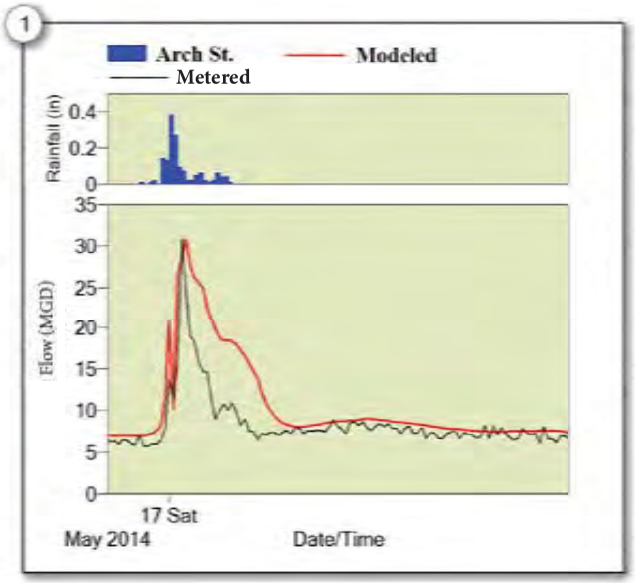
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

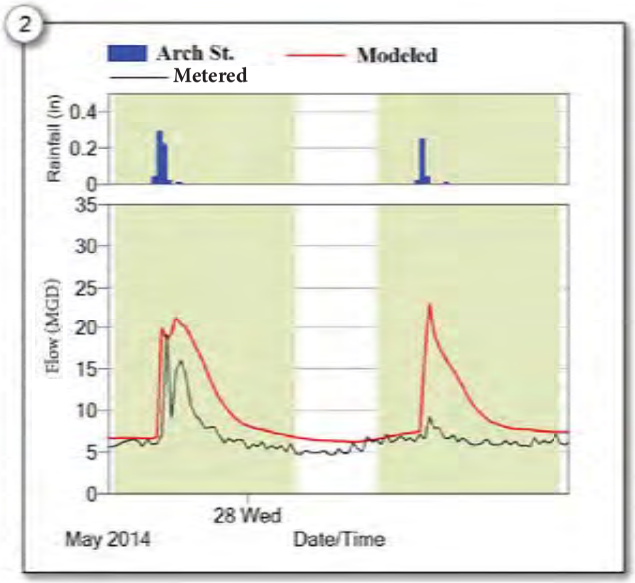
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

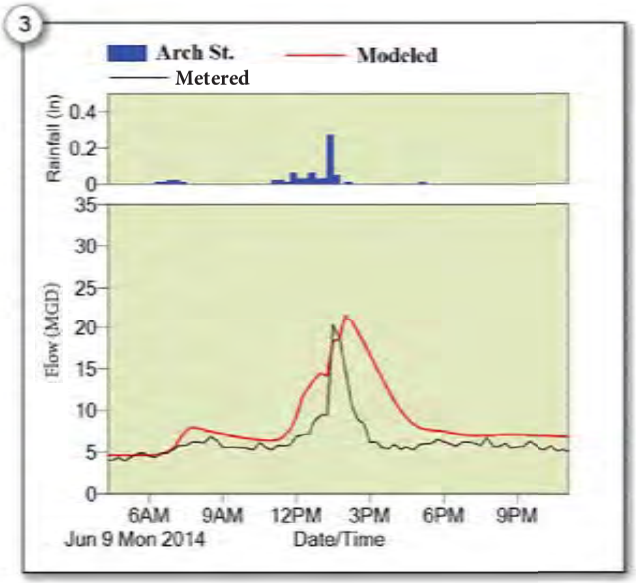
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

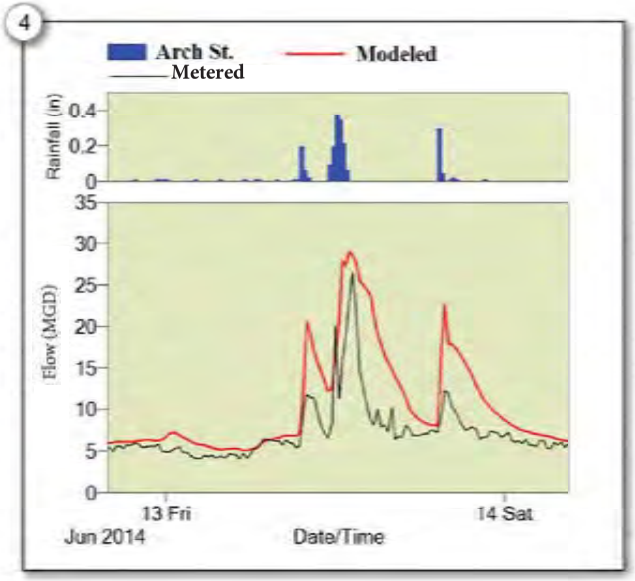
Prepared by:

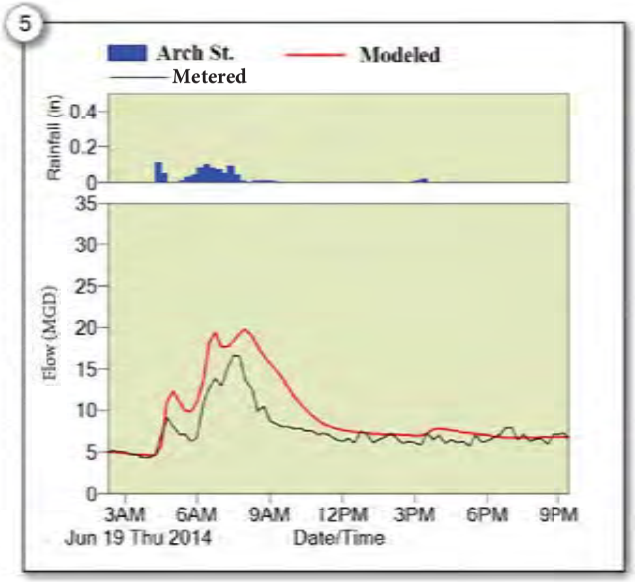
CH2MHILL

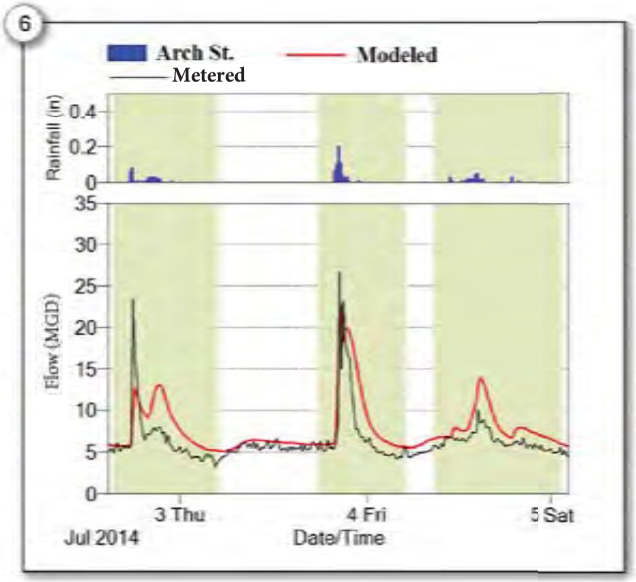












Model Calibration Results

Flow Meter: FM-05

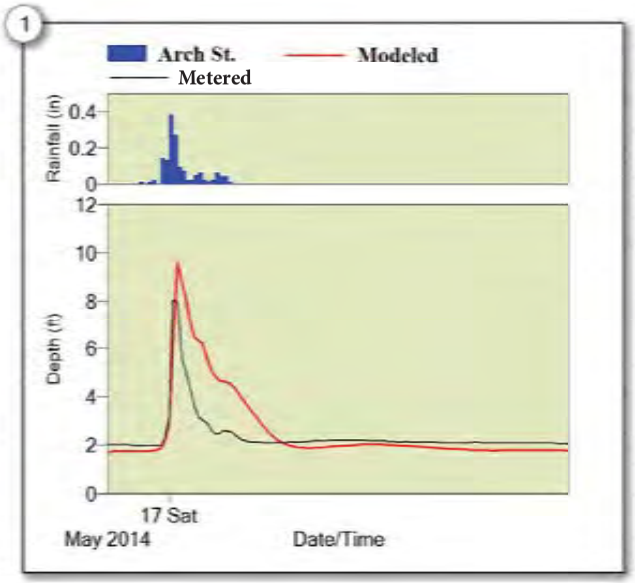
Event Comparison: Flow

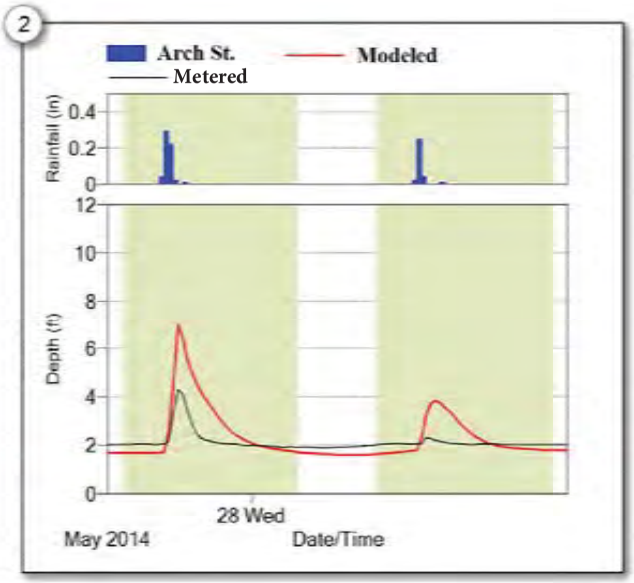
Arch St. Rain Gauge Events:

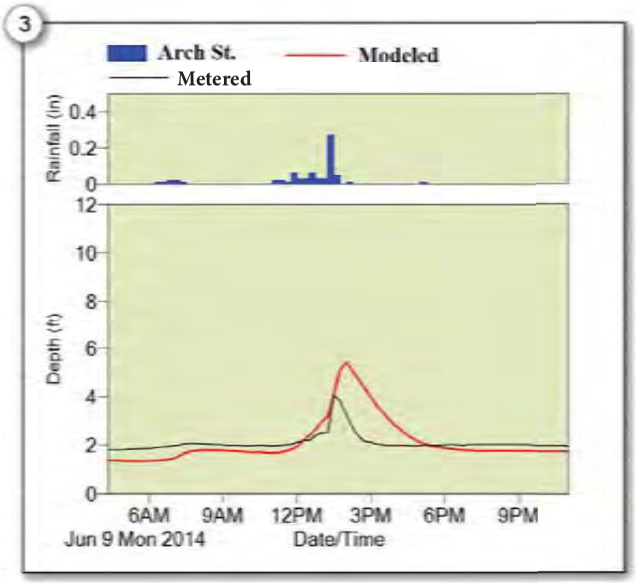
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

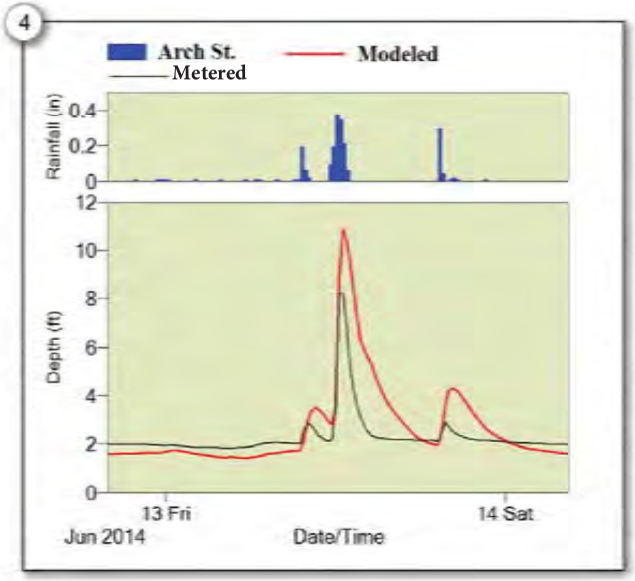
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

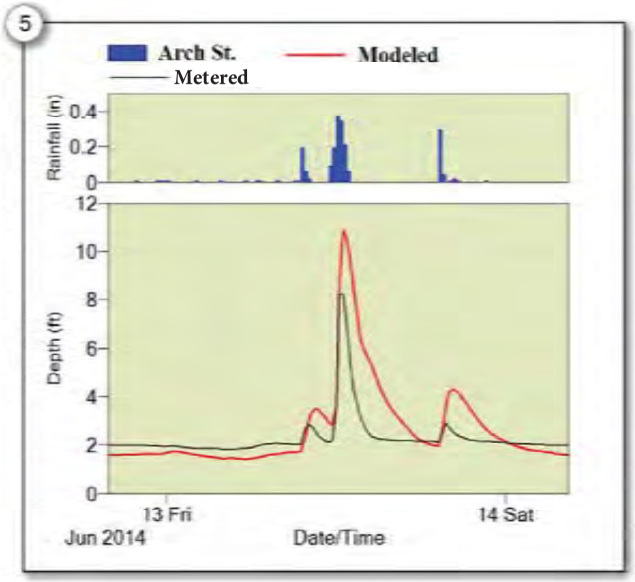
Prepared by:
CH2MHILL

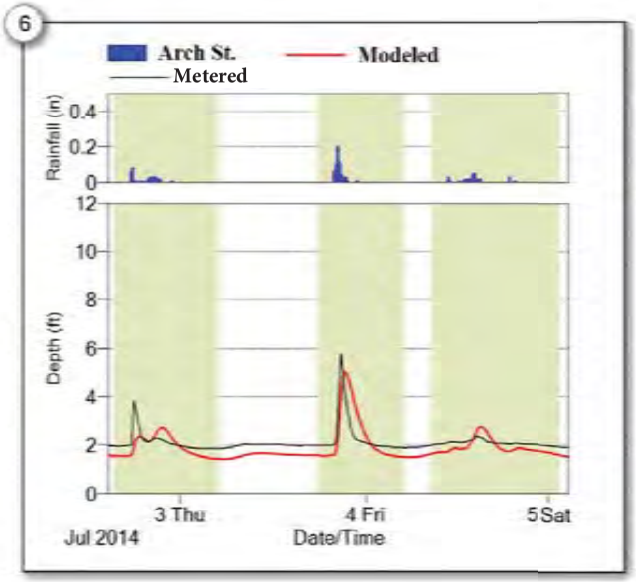












Model Calibration Results

Flow Meter: FM-05

Event Comparison: Depth

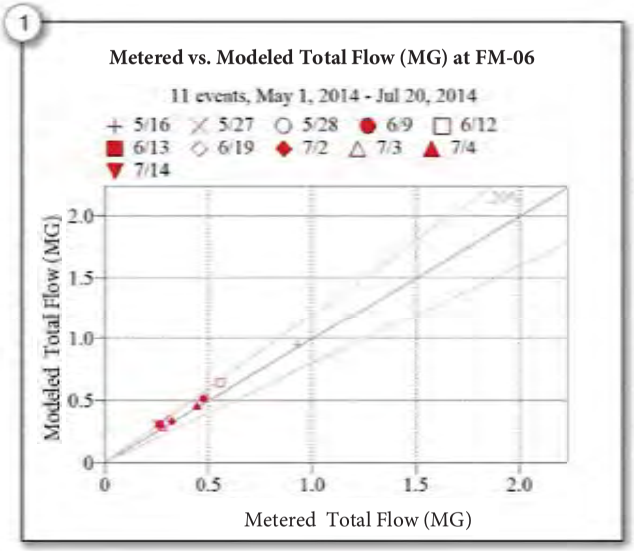
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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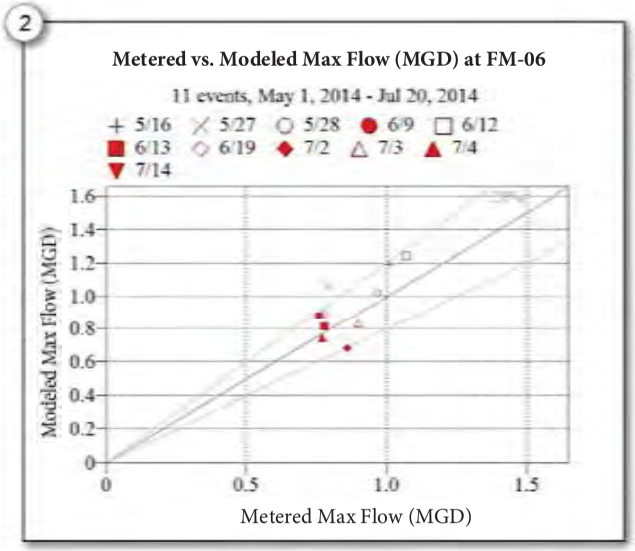

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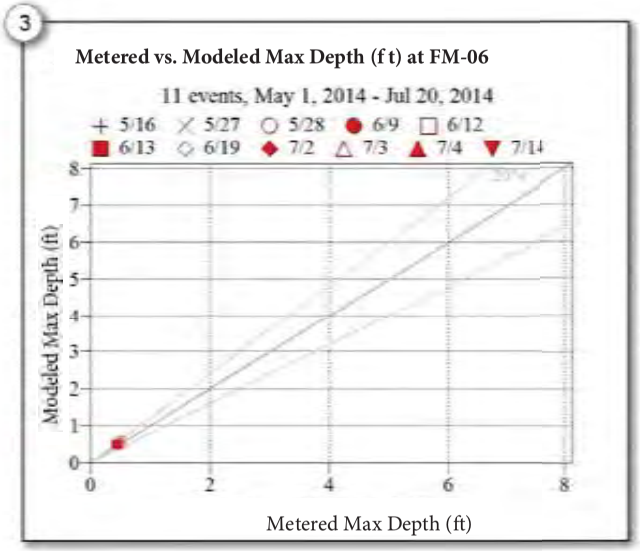

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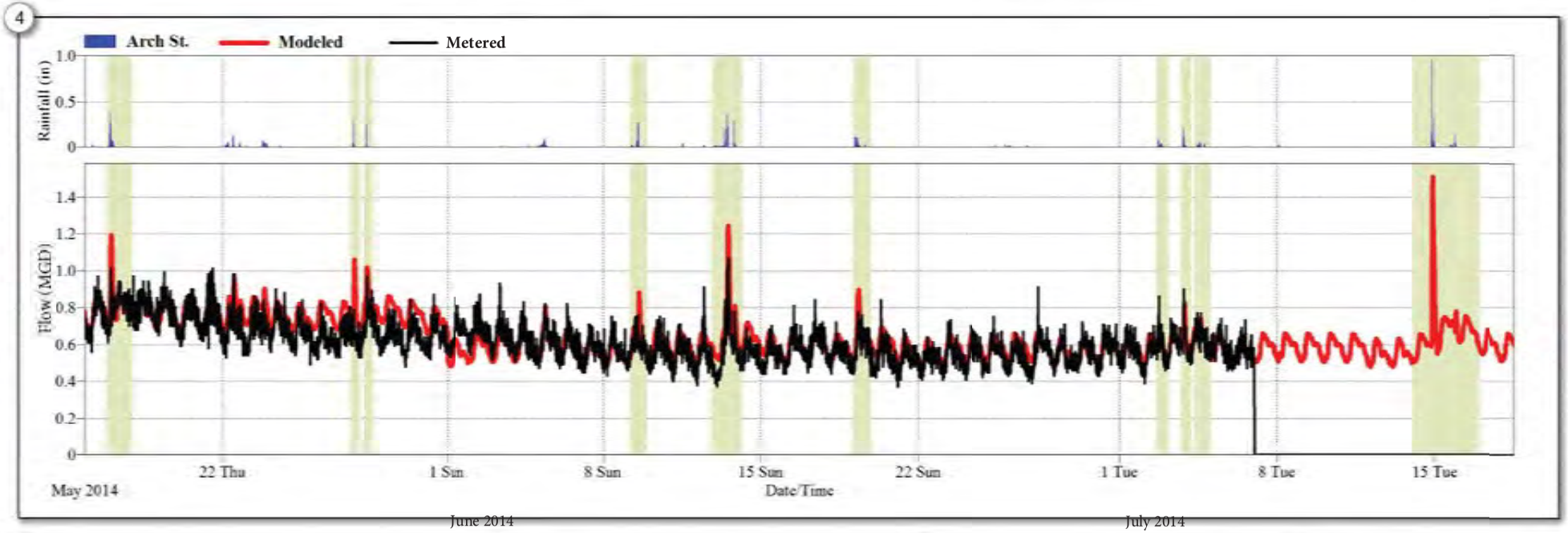


Model Calibration Results

Flow Meter: FM-06

Meter Summary

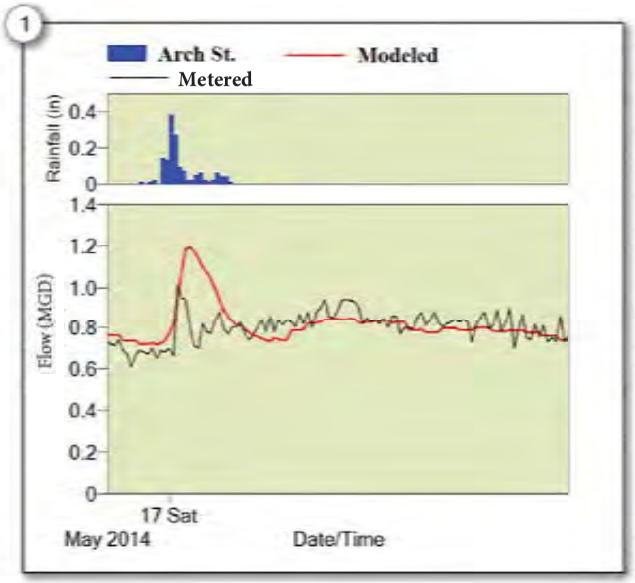
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

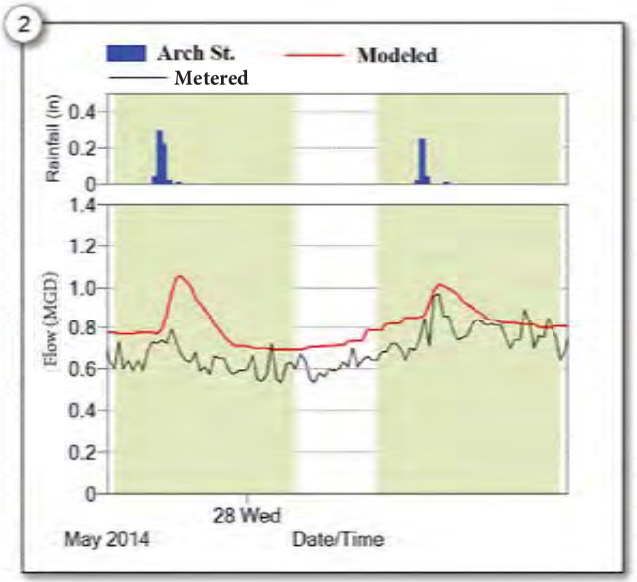
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

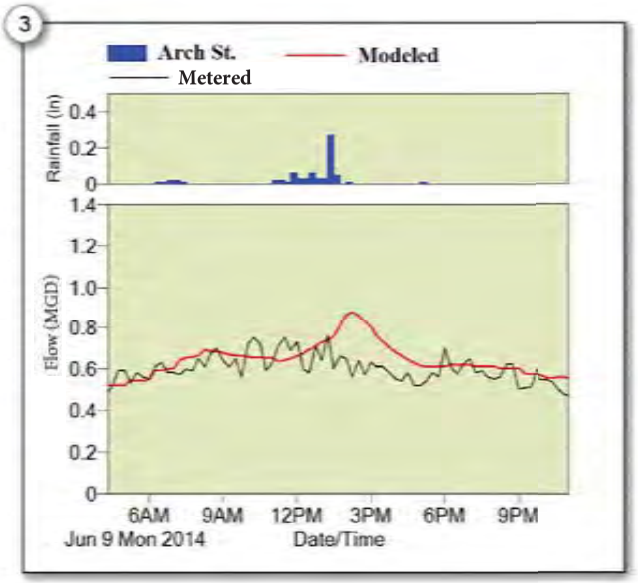
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

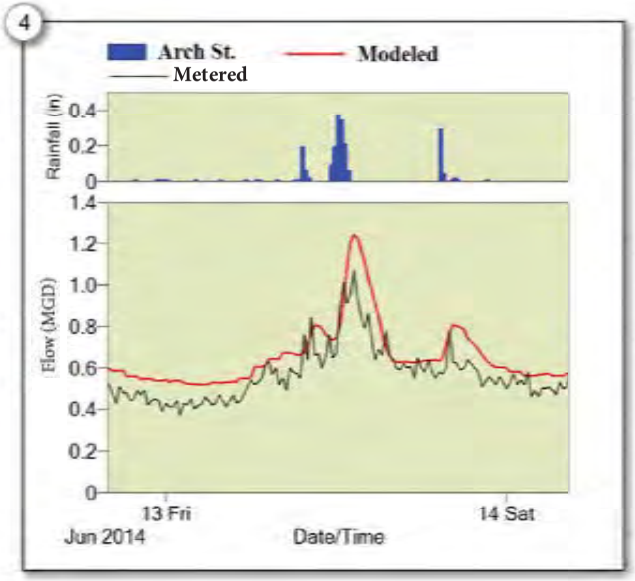
Prepared by:

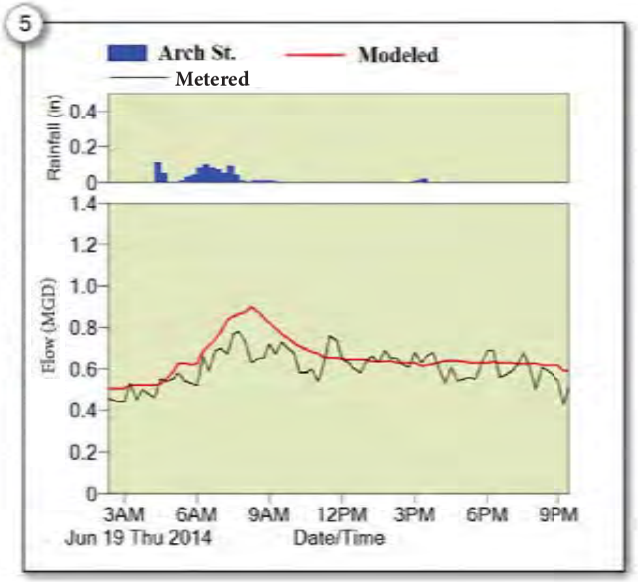
CH2MHILL

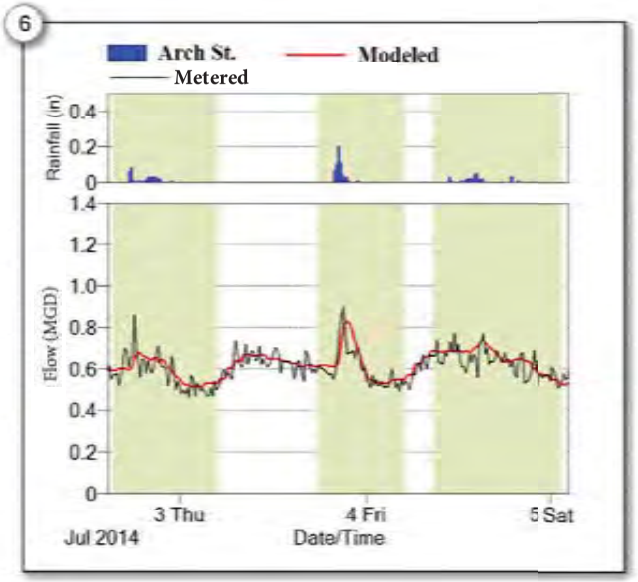












Model Calibration Results

Flow Meter: FM-06

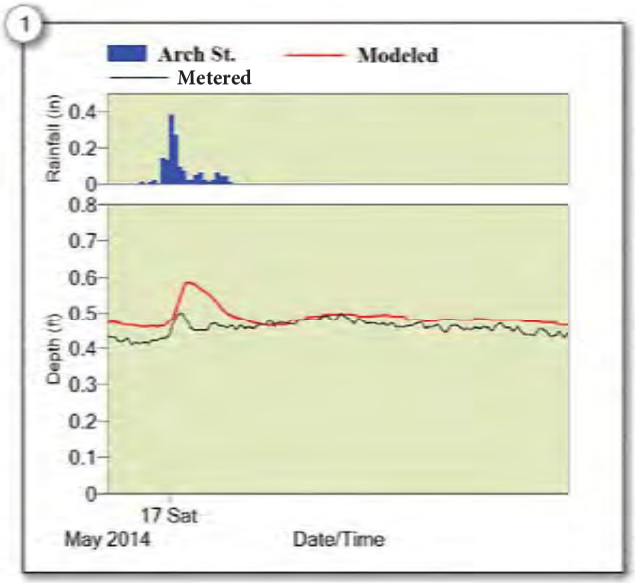
Event Comparison: Flow

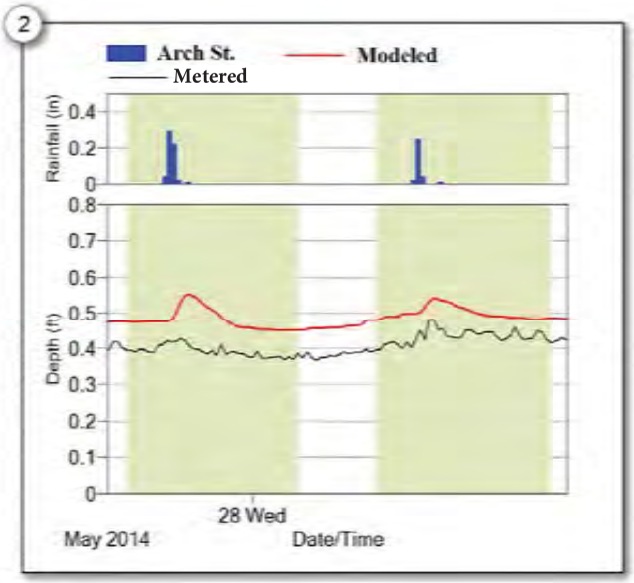
Arch St. Rain Gauge Events:

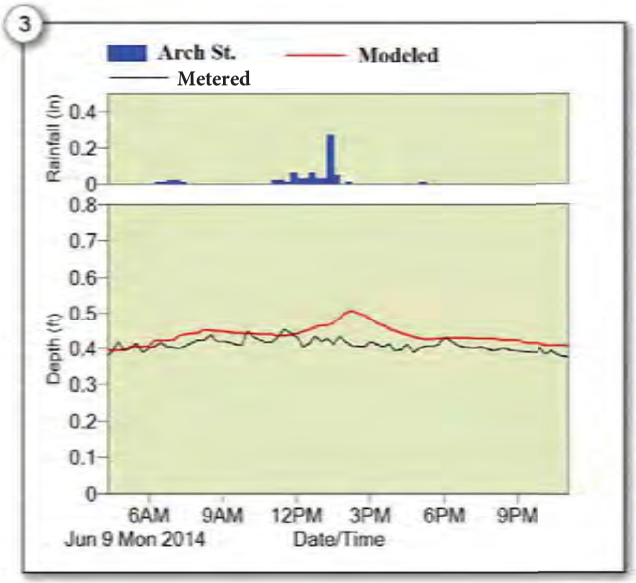
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

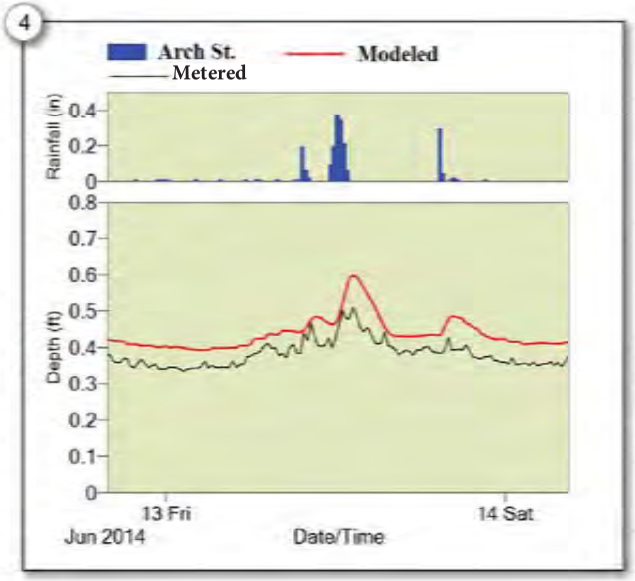
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

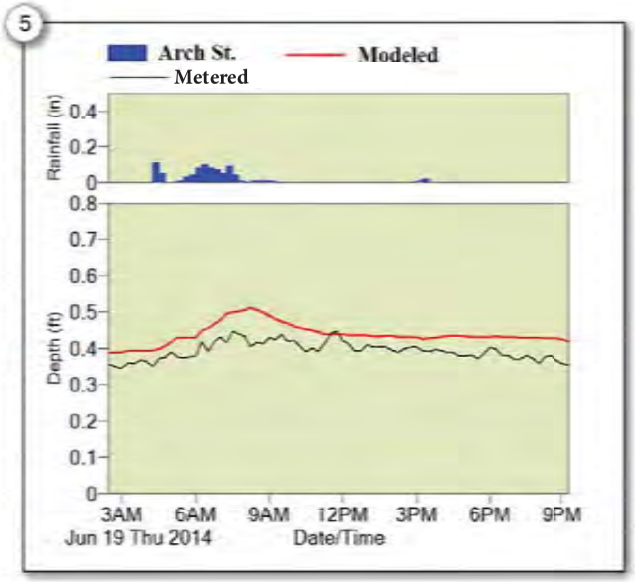
Prepared by:
CH2MHILL

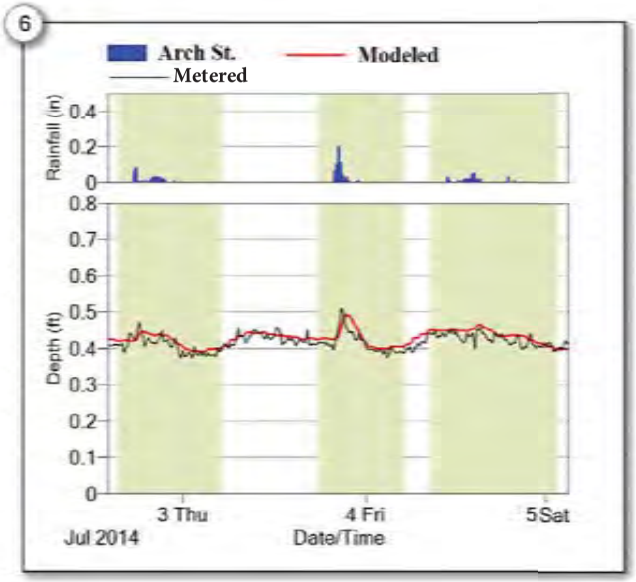












Model Calibration Results

Flow Meter: FM-06

Event Comparison: Depth

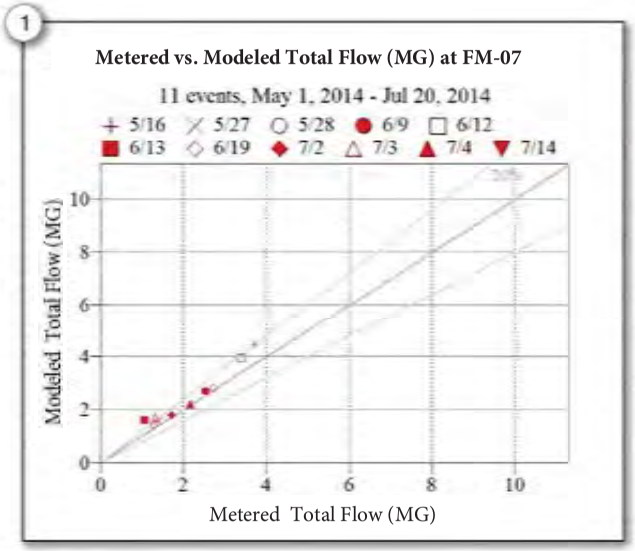
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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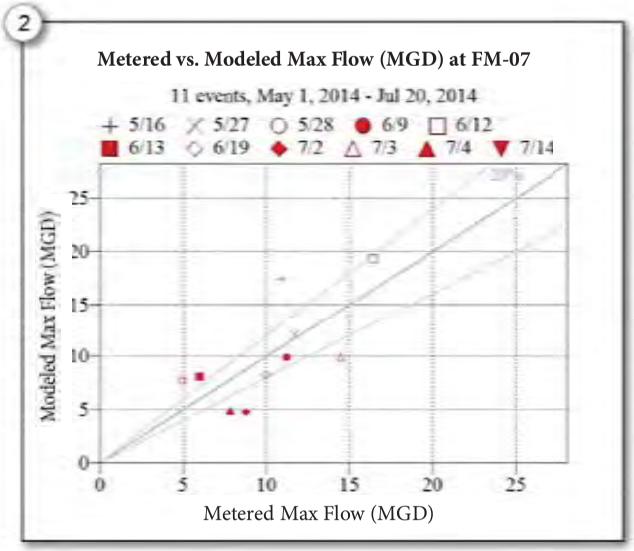

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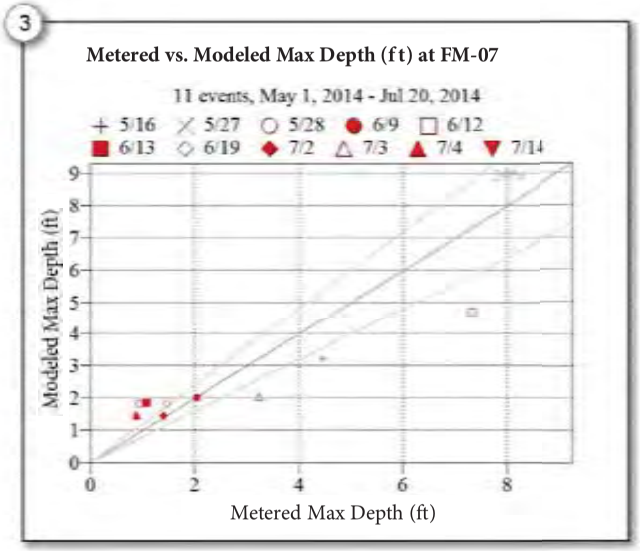

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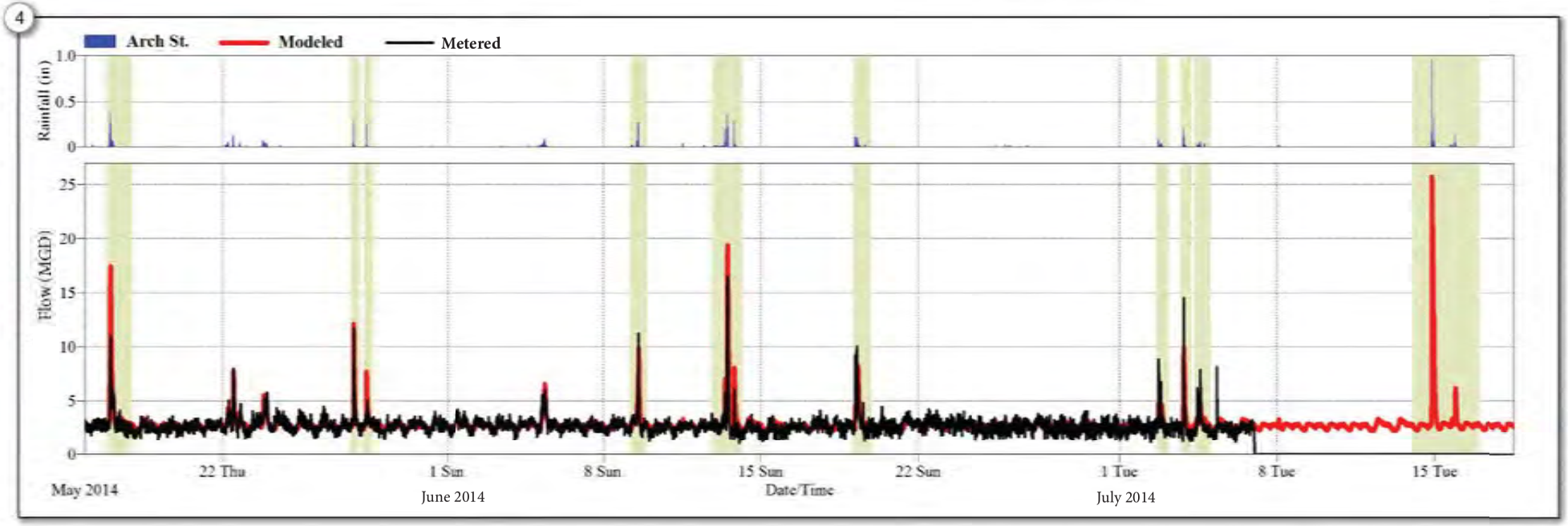


Model Calibration Results

Flow Meter: FM-07

Meter Summary

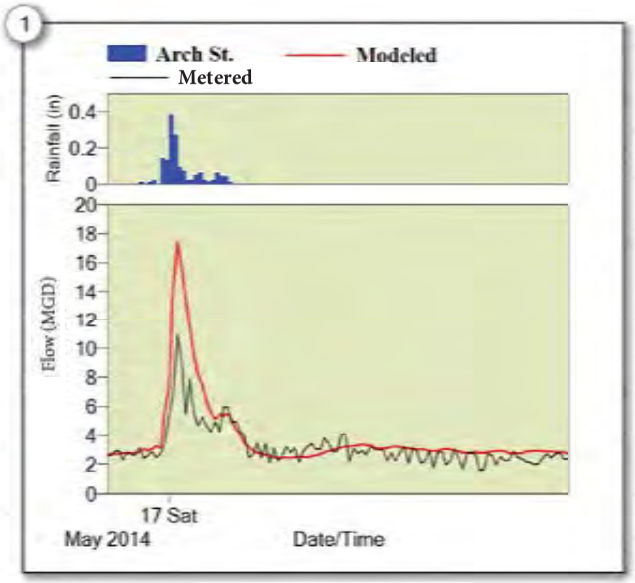
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

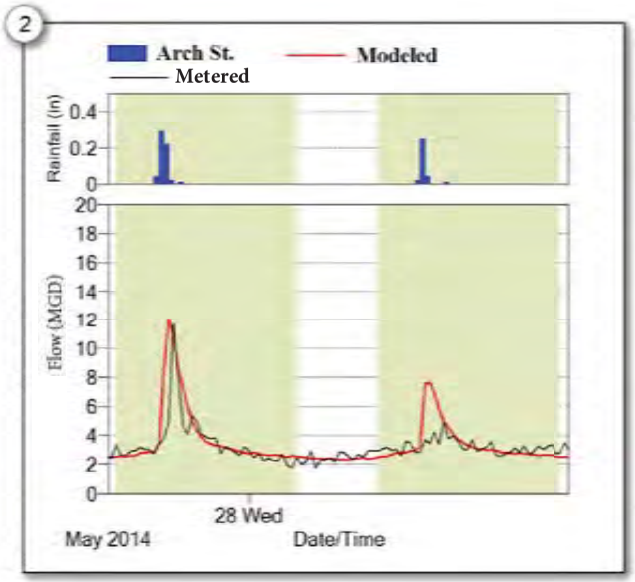
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

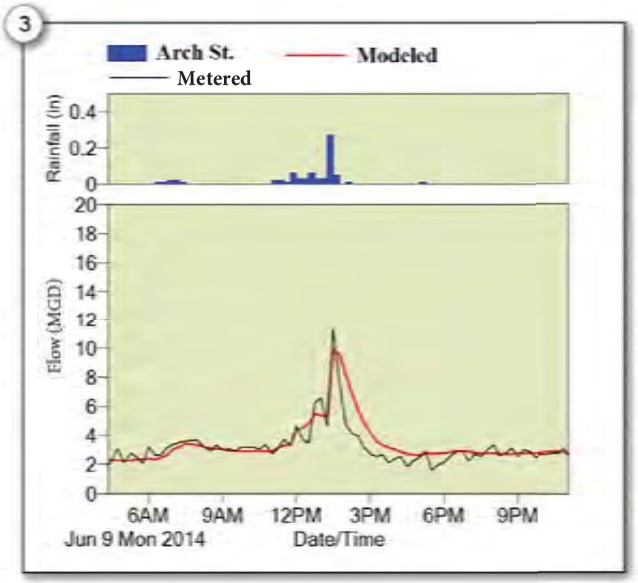
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

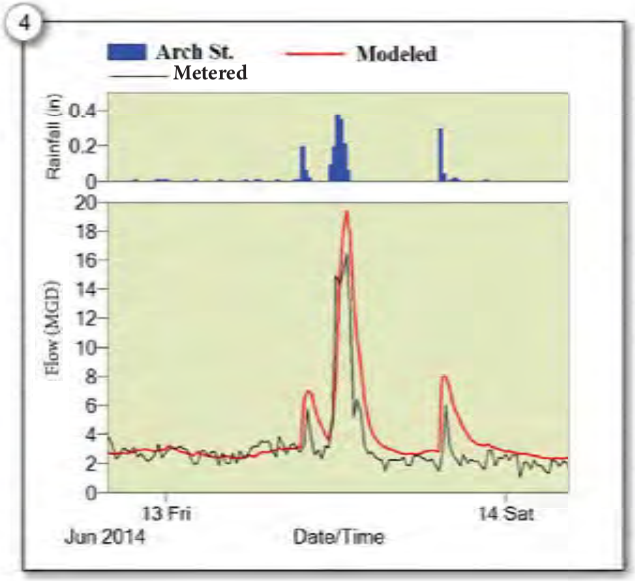
Prepared by:

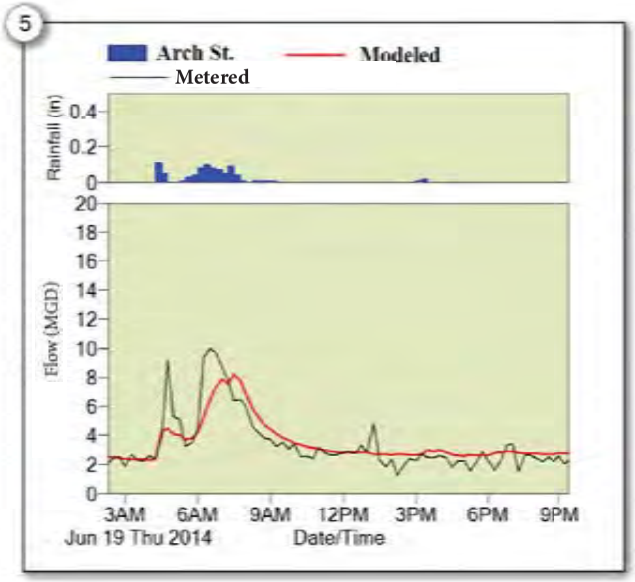
CH2MHILL

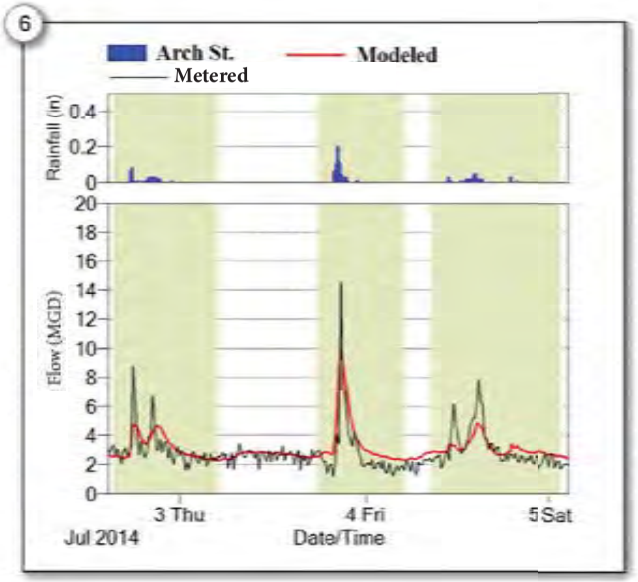












Model Calibration Results

Flow Meter: FM-07

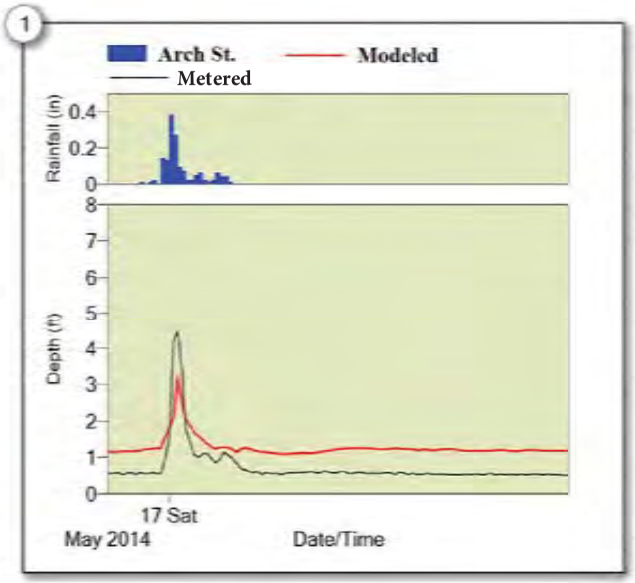
Event Comparison: Flow

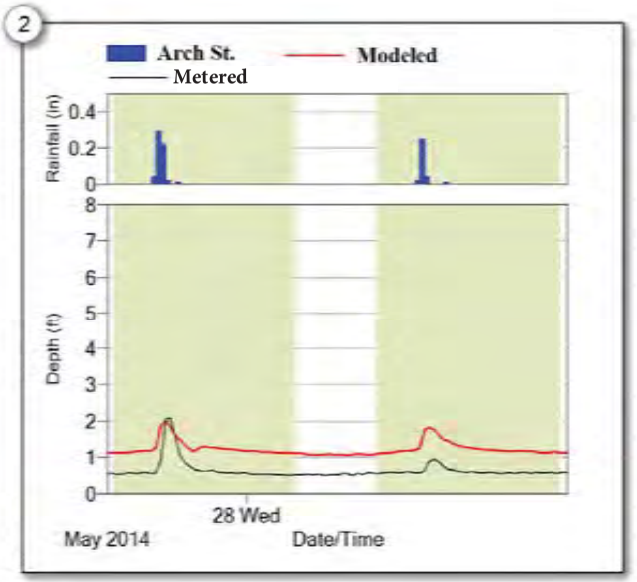
Arch St. Rain Gauge Events:

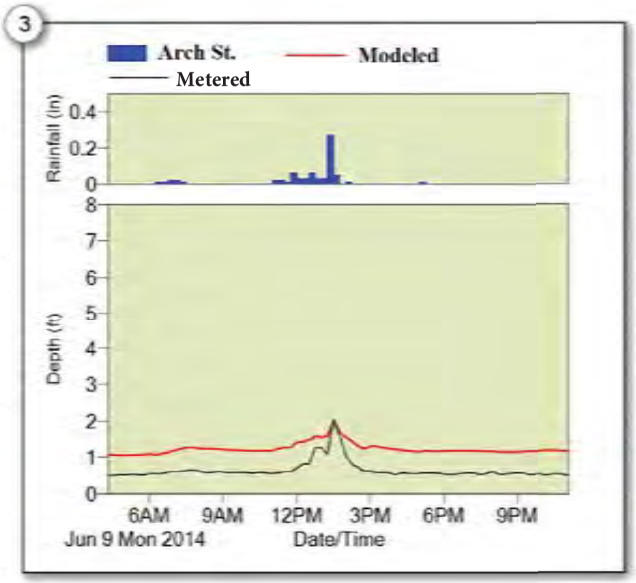
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

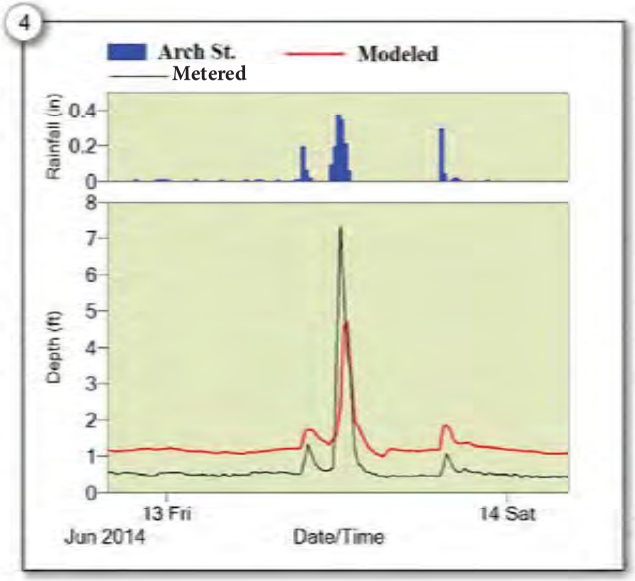
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

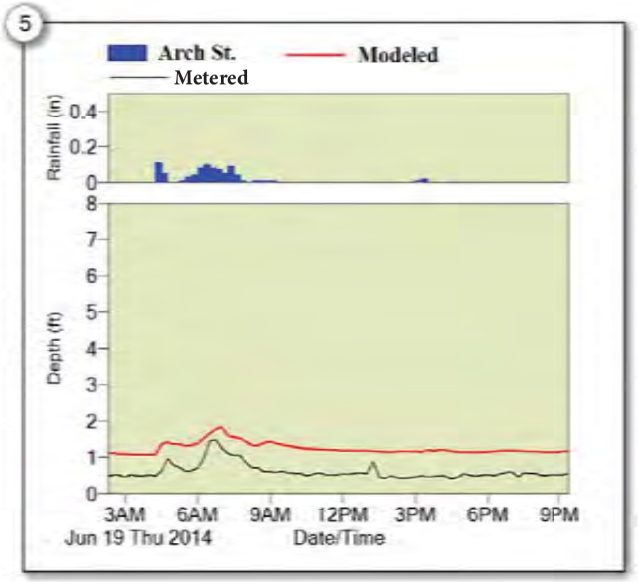
Prepared by:
CH2MHILL

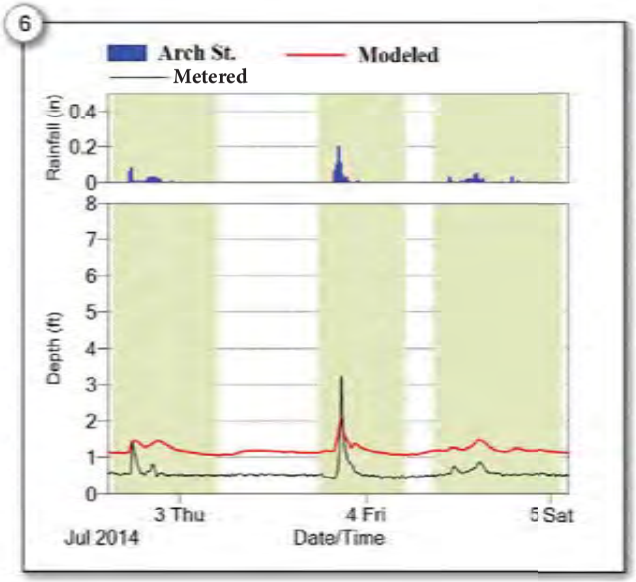












Model Calibration Results

Flow Meter: FM-07

Event Comparison: Depth

Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

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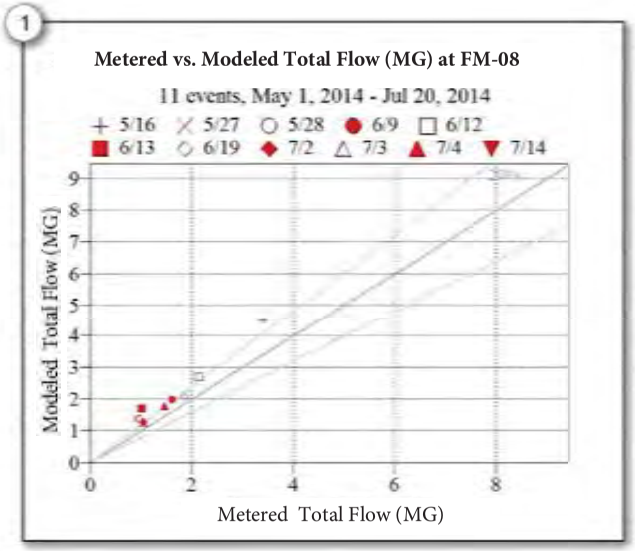

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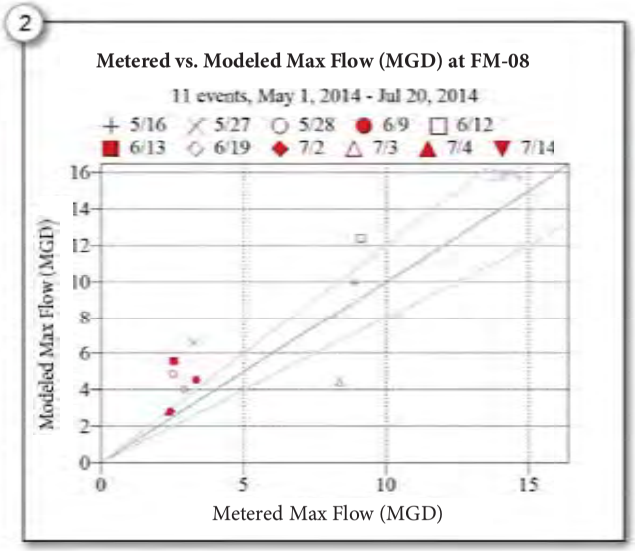

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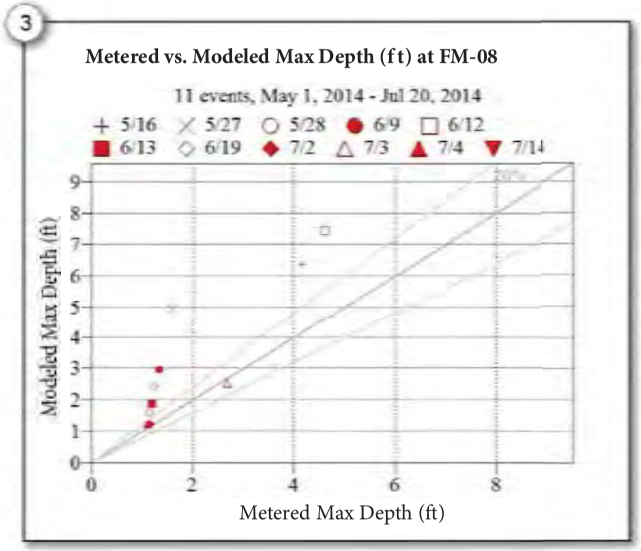

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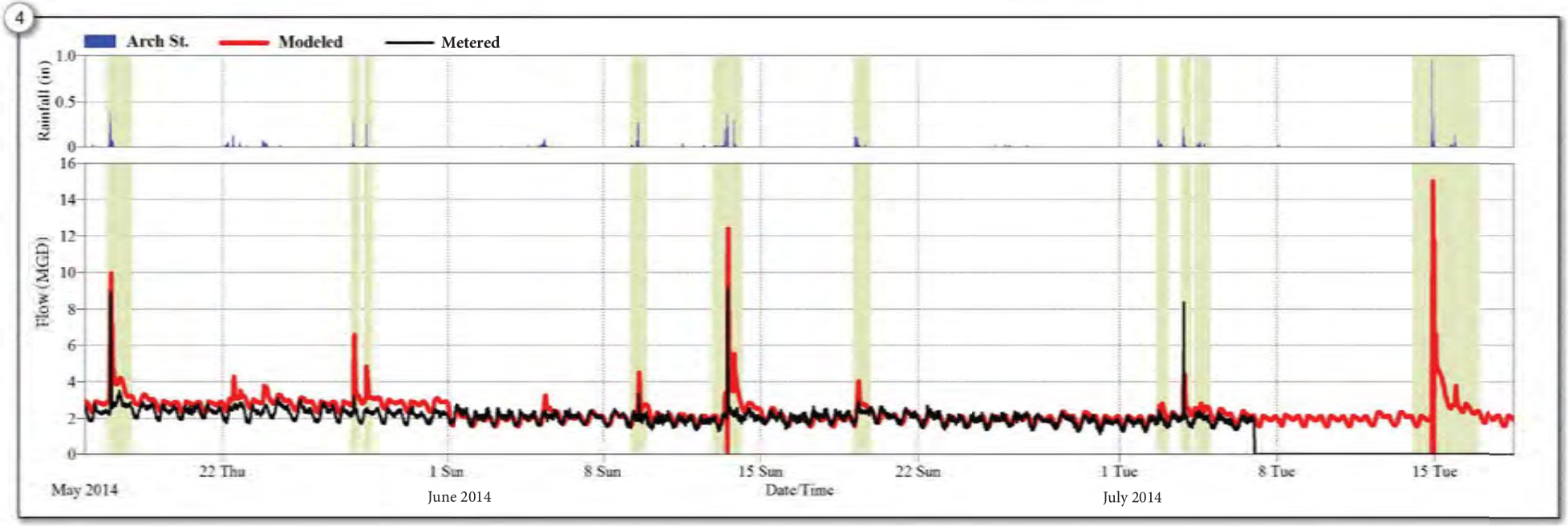


Model Calibration Results

Flow Meter: FM-08

Meter Summary

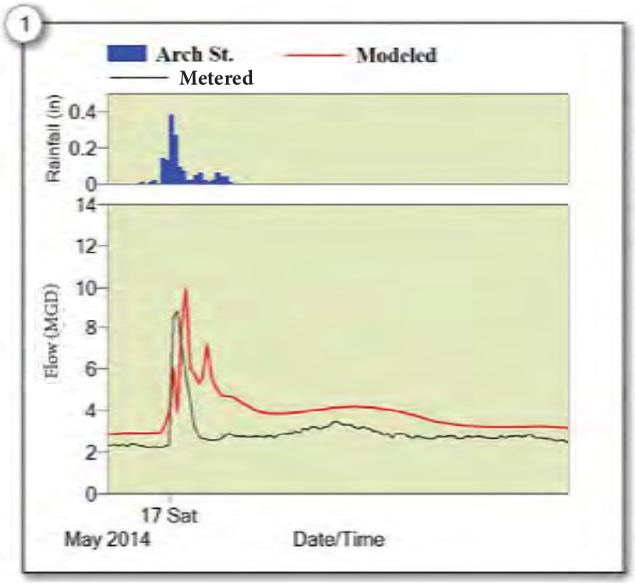
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

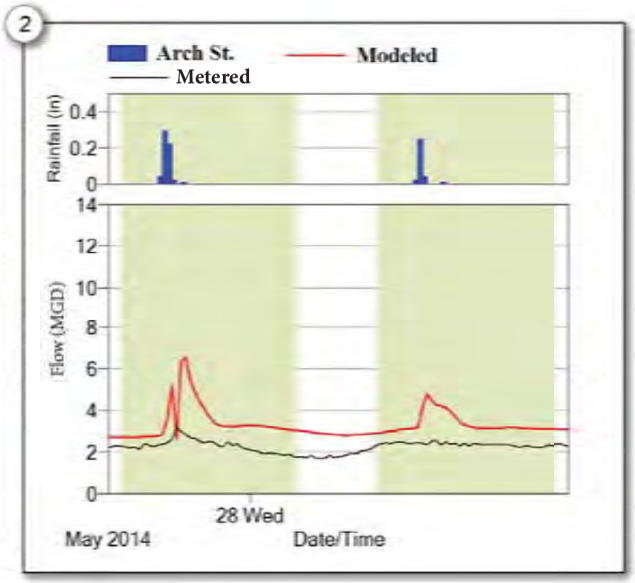
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

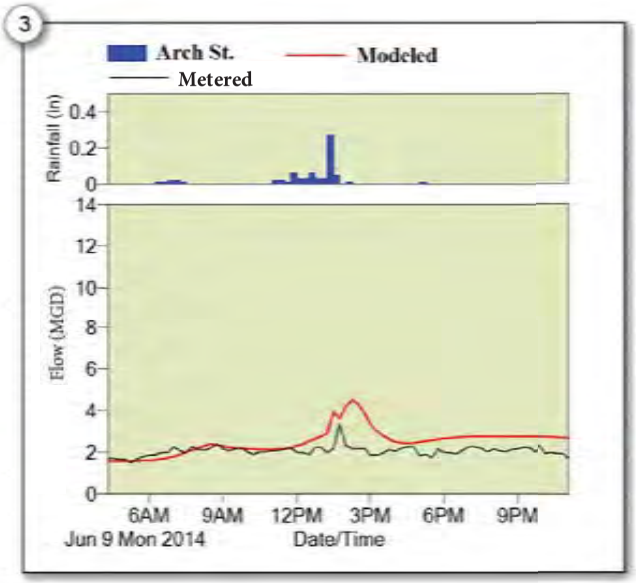
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

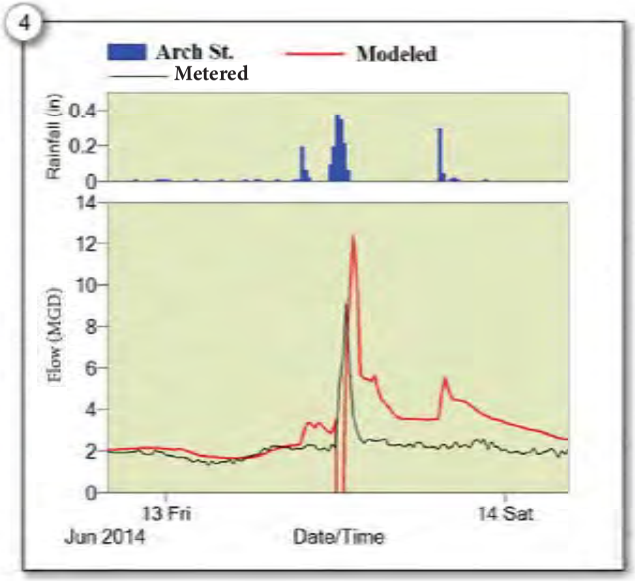
Prepared by:

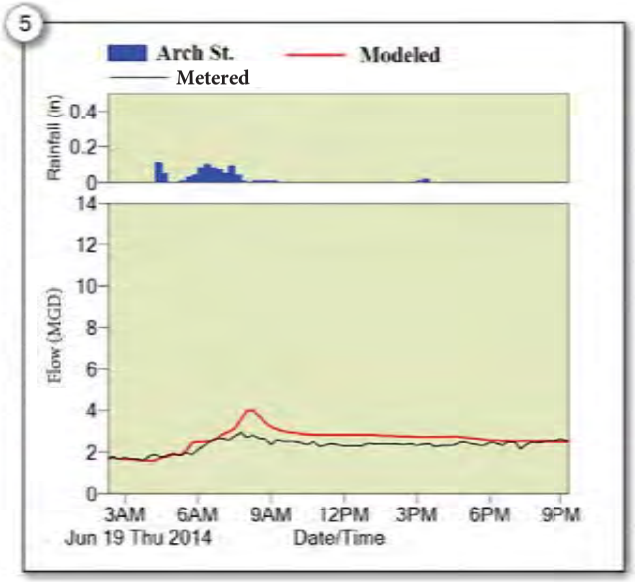
CH2MHILL

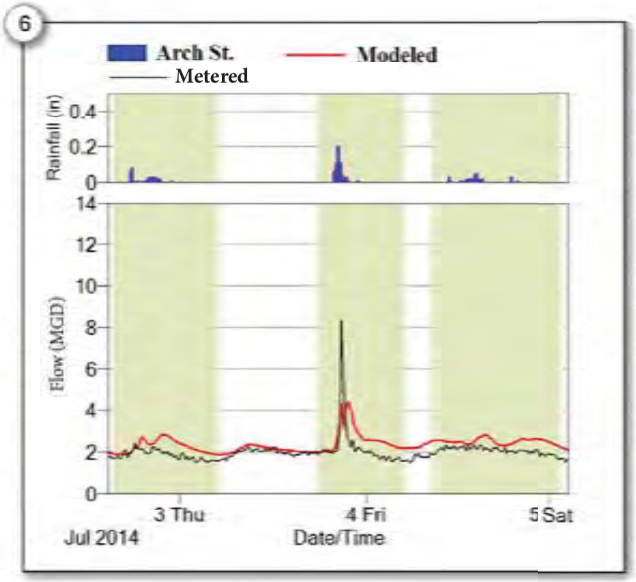












Model Calibration Results

Flow Meter: FM-08

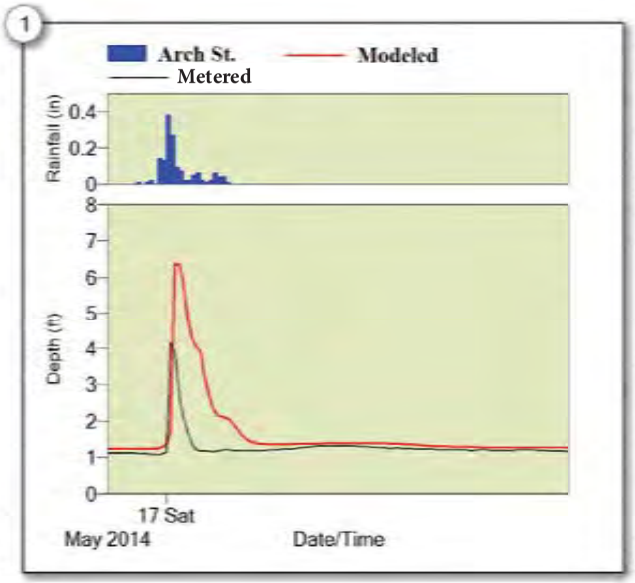
Event Comparison: Flow

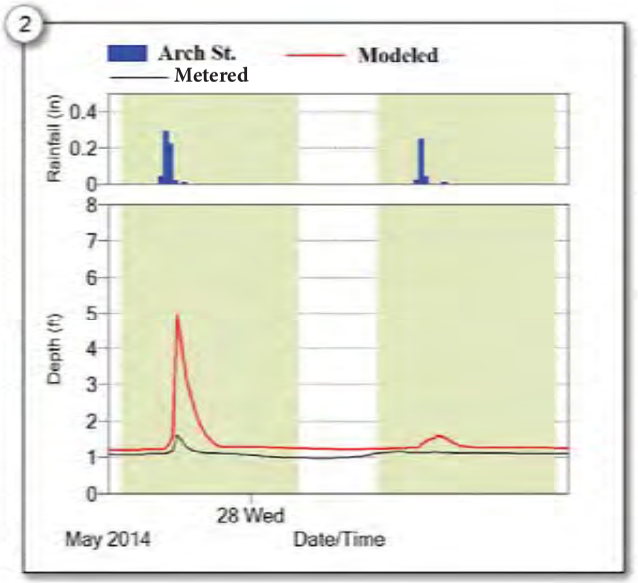
Arch St. Rain Gauge Events:

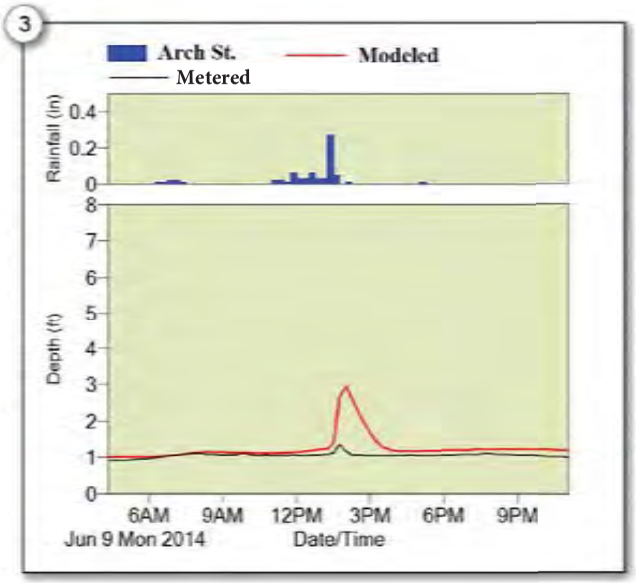
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

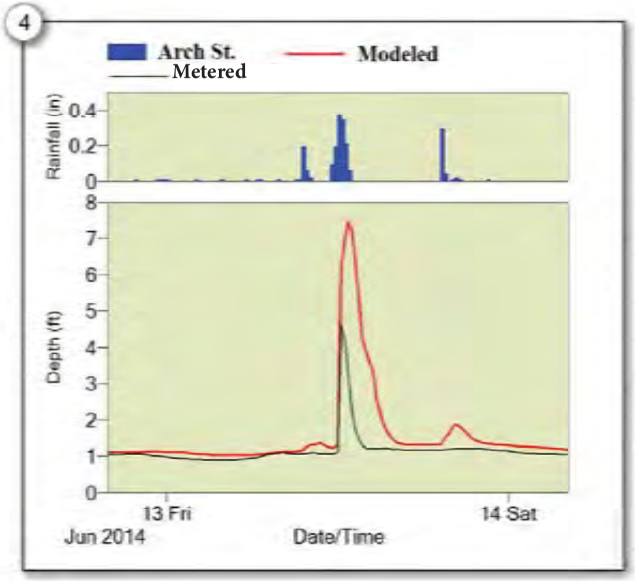
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

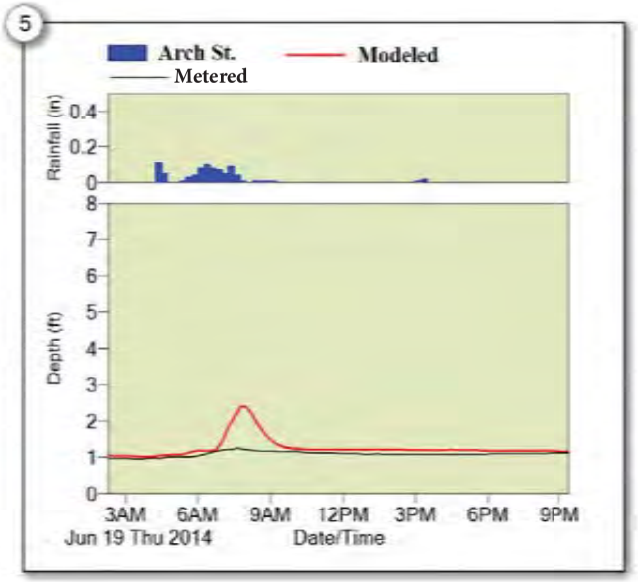
Prepared by:
CH2MHILL

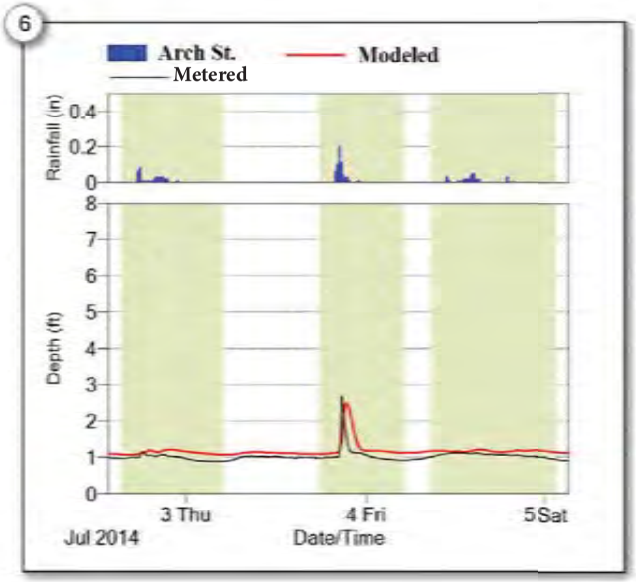












Model Calibration Results

Flow Meter: FM-08

Event Comparison: Depth

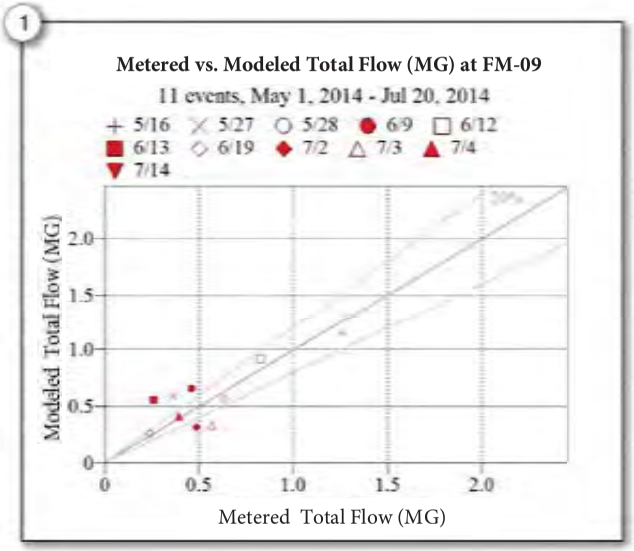
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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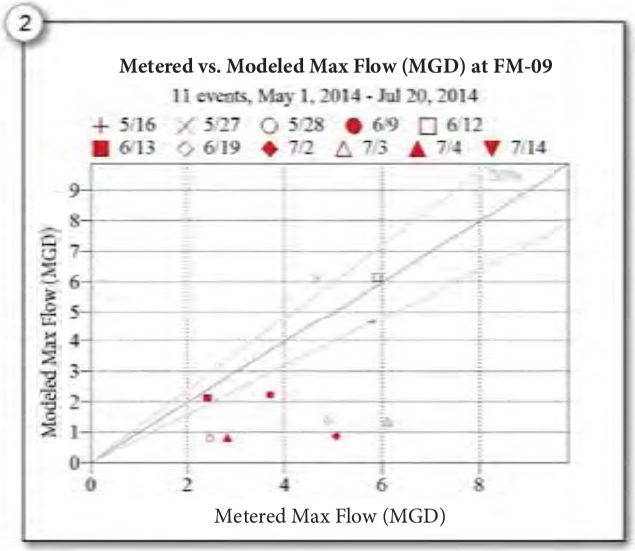

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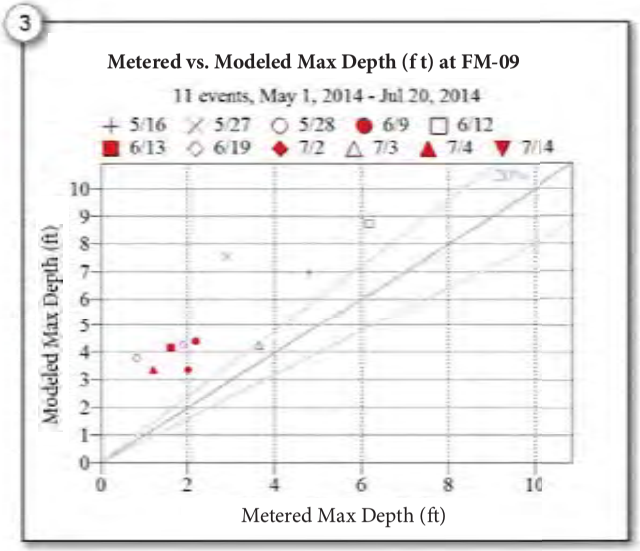

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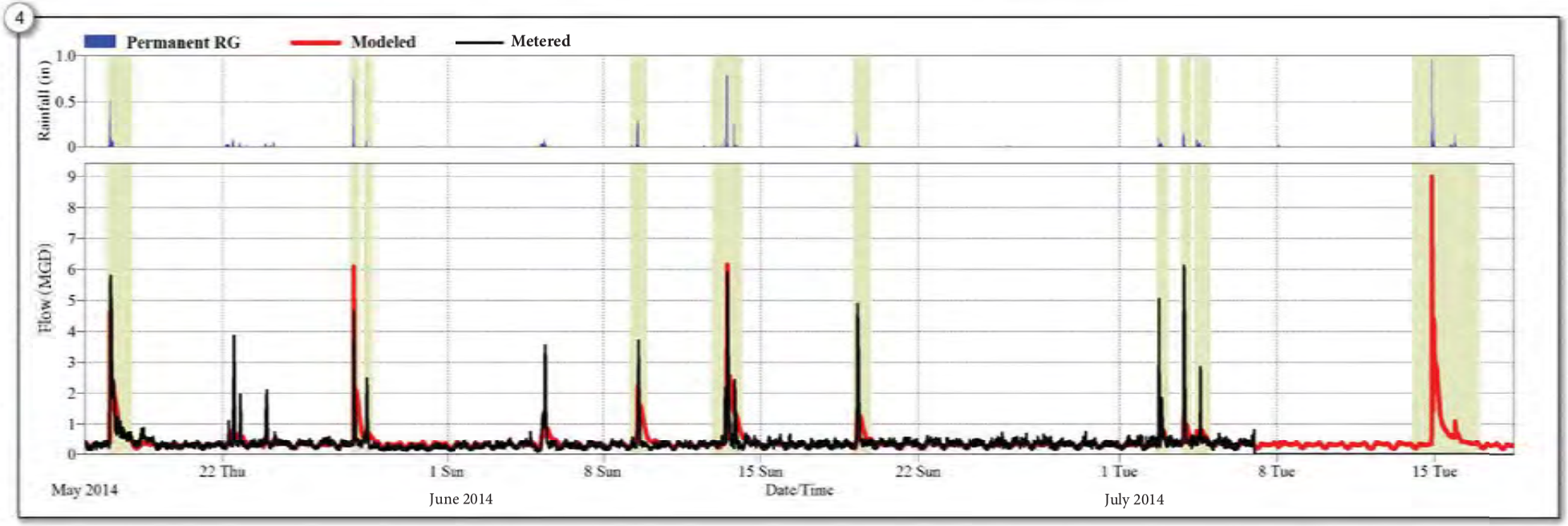


Model Calibration Results

Flow Meter: FM-09

Meter Summary

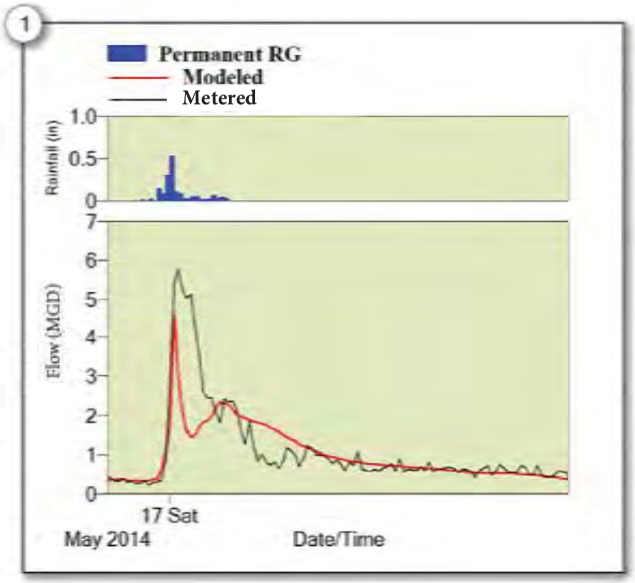
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

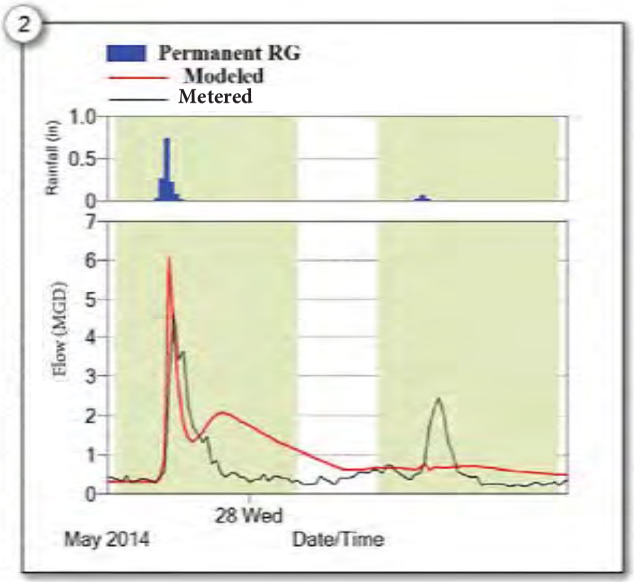
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

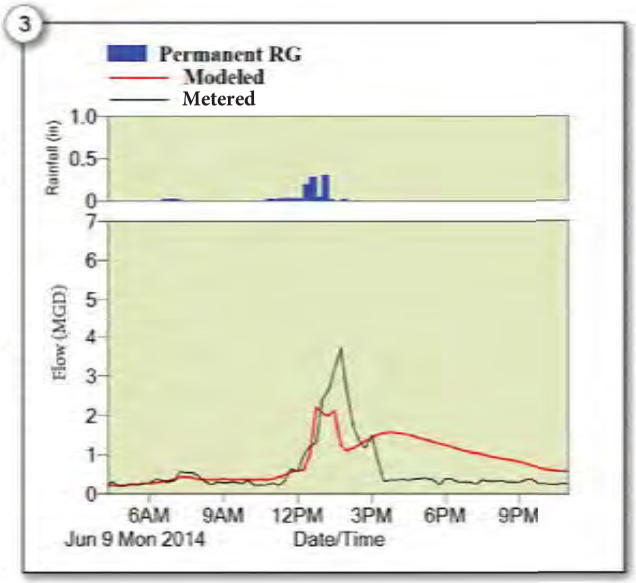
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

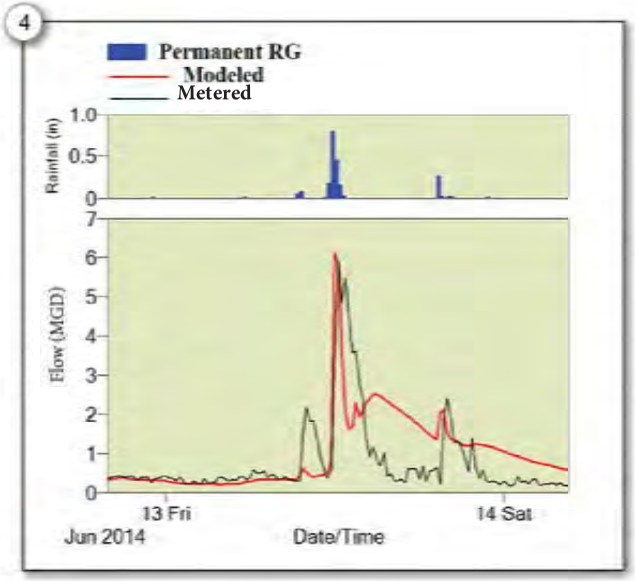
Prepared by:

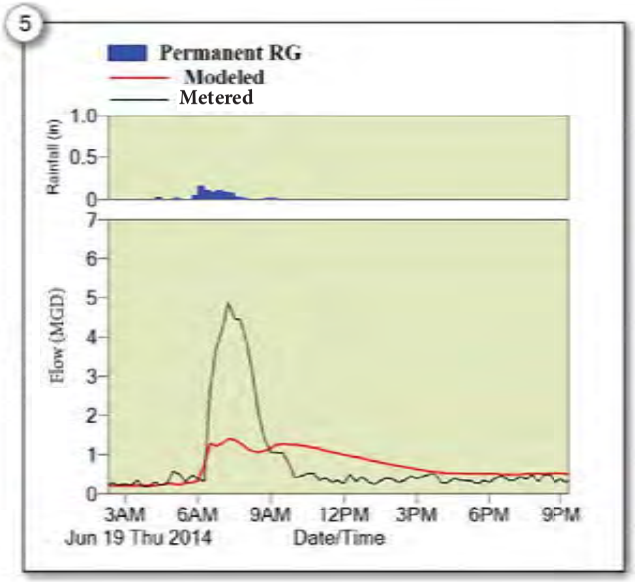
CH2MHILL

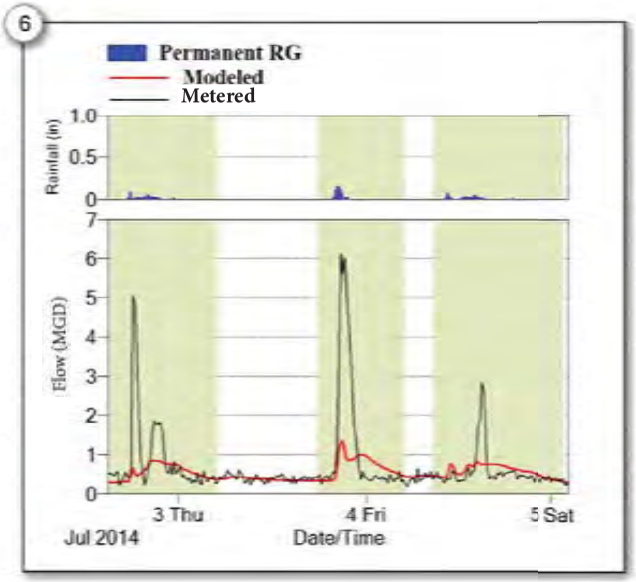












Model Calibration Results

Flow Meter: FM-09

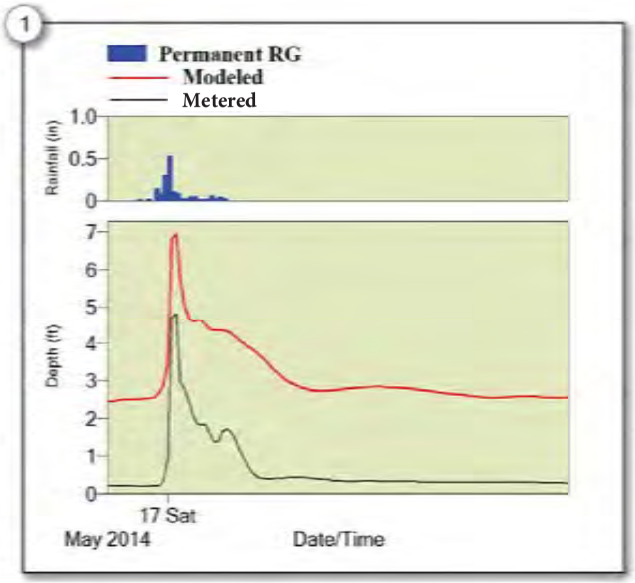
Event Comparison: Flow

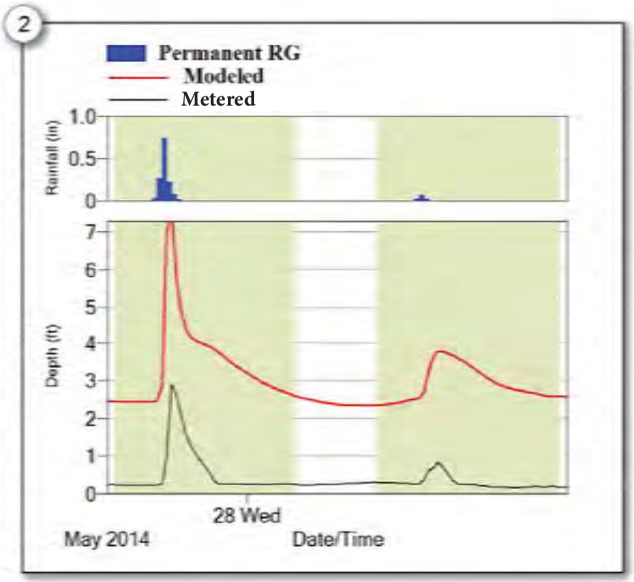
Permanent Rain Gauge Events:

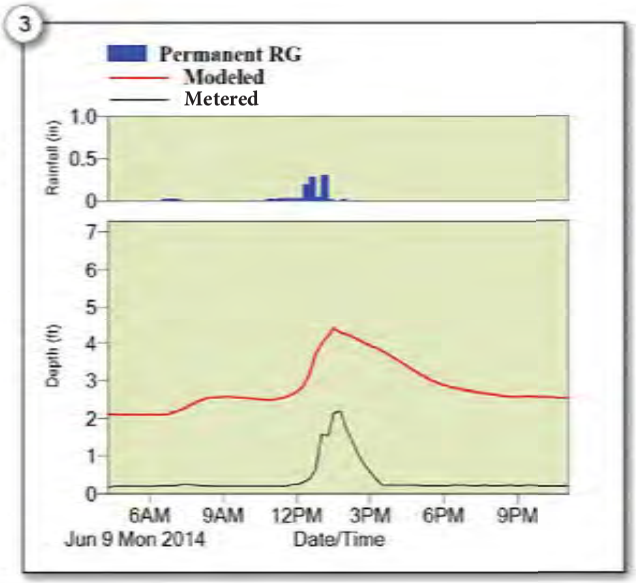
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

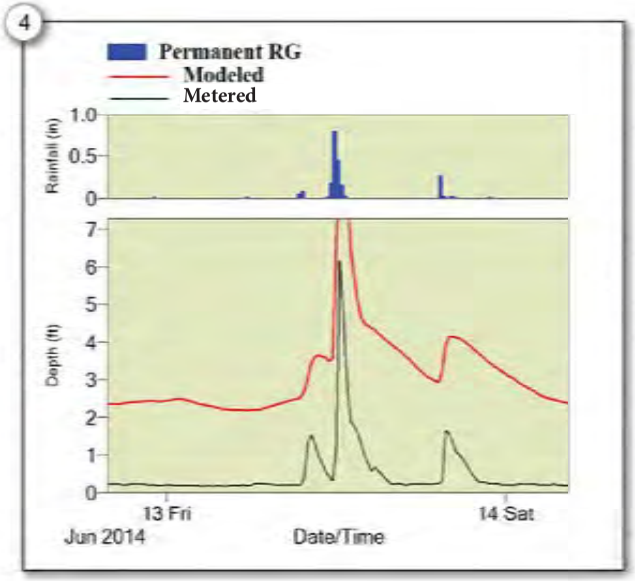
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

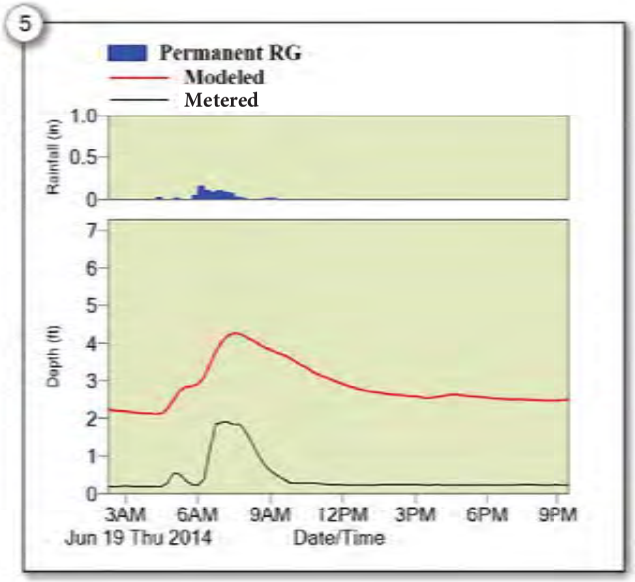
Prepared by:
CH2MHILL

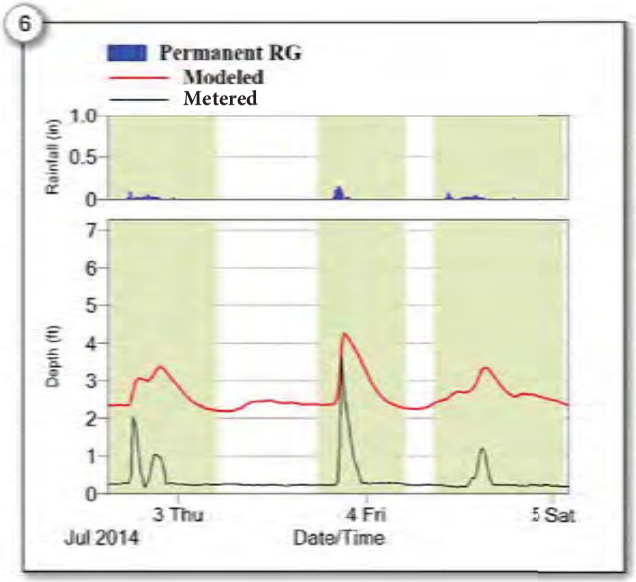












Model Calibration Results

Flow Meter: FM-09

Event Comparison: Depth

Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
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6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

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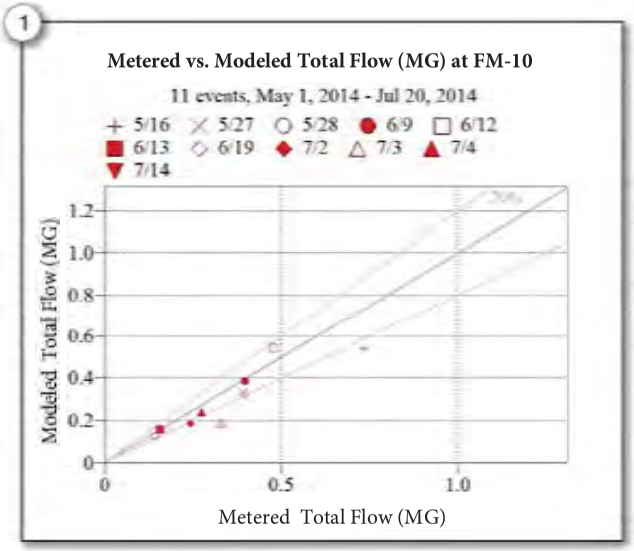

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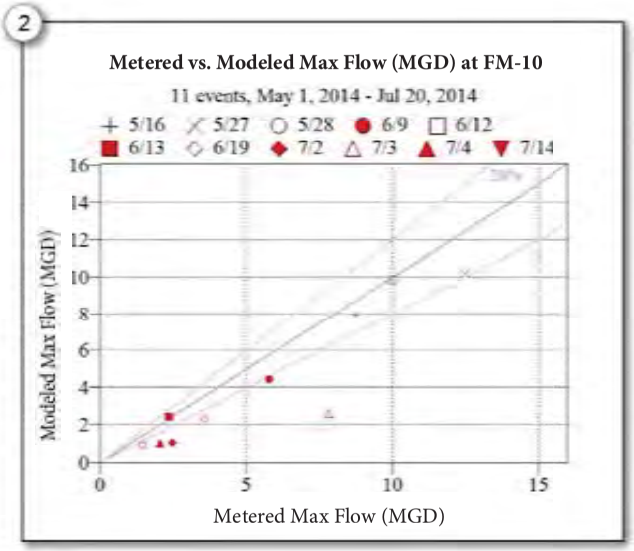

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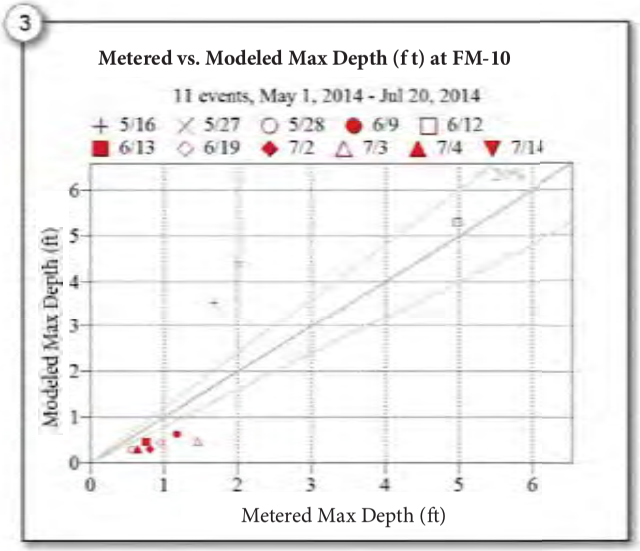

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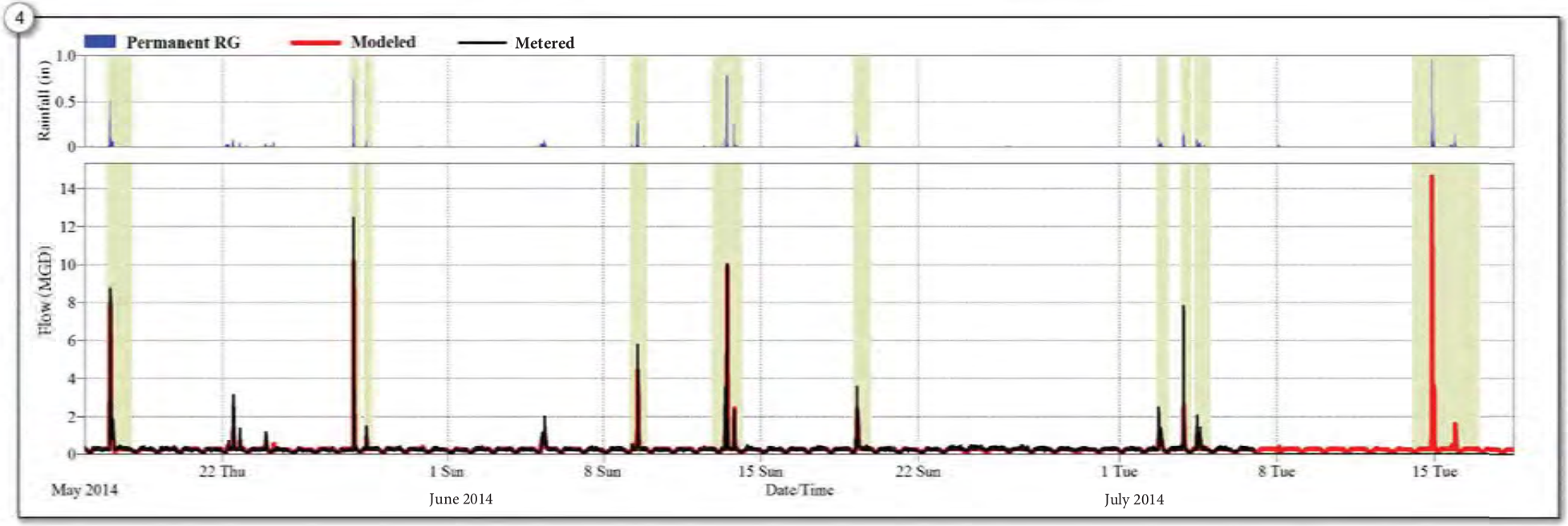


Model Calibration Results

Flow Meter: FM-10

Meter Summary

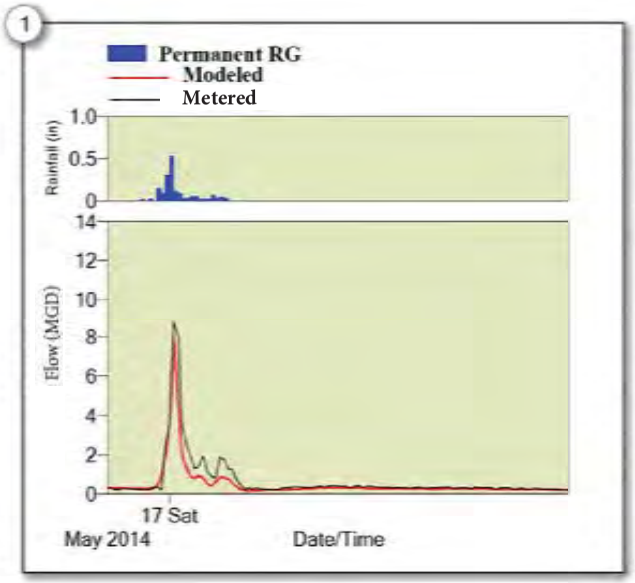
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

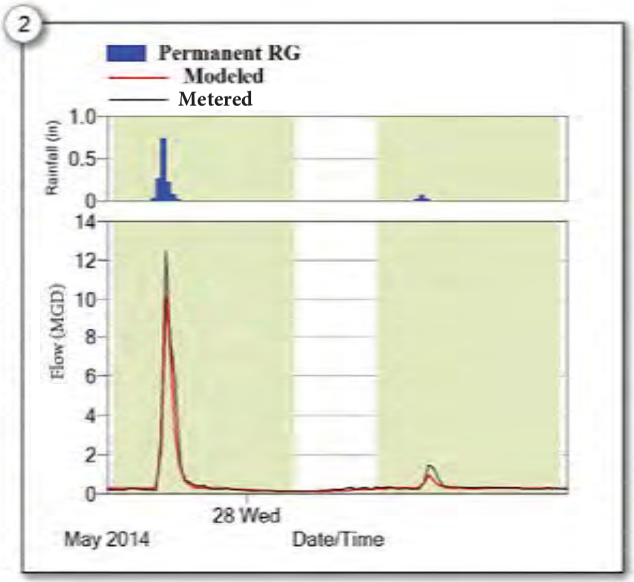
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

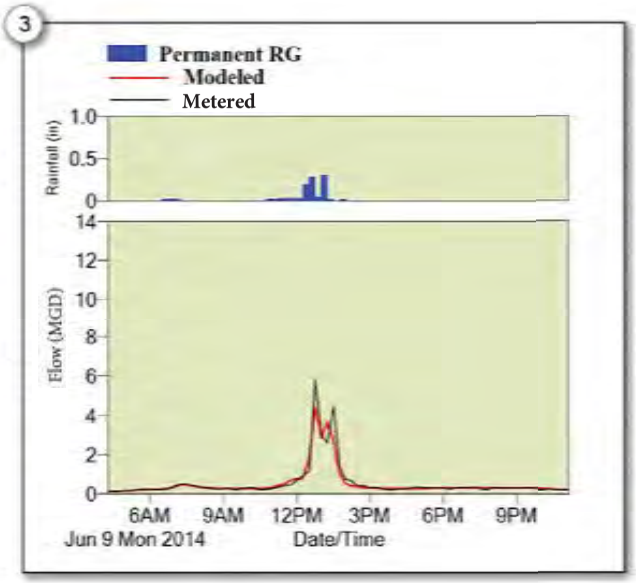
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

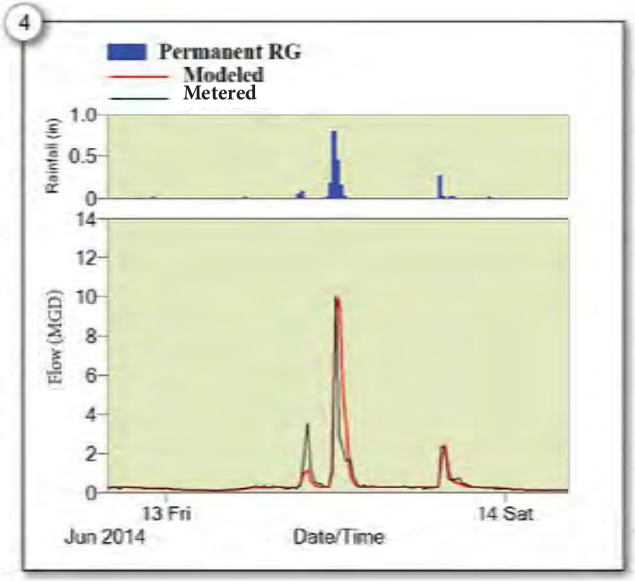
Prepared by:

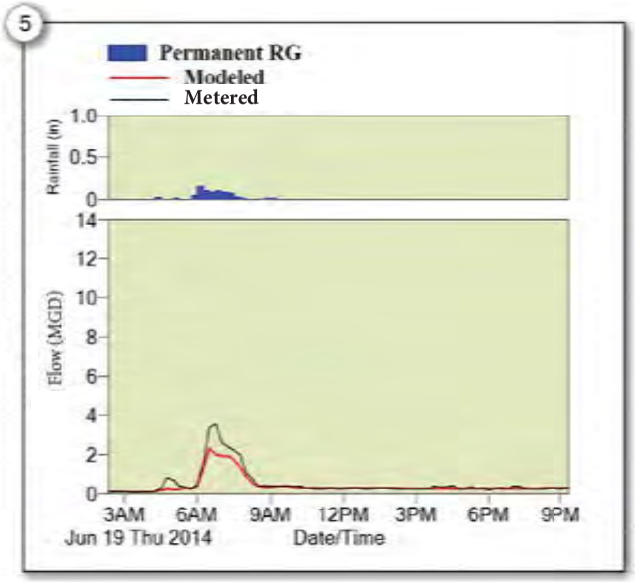
CH2MHILL

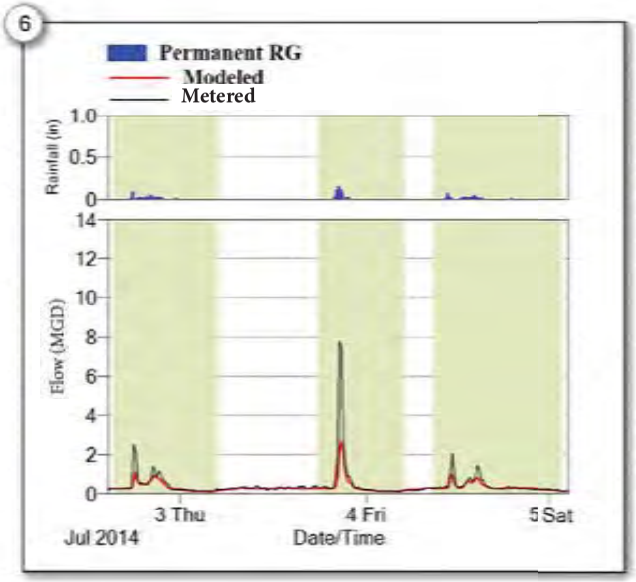












Model Calibration Results

Flow Meter: FM-10

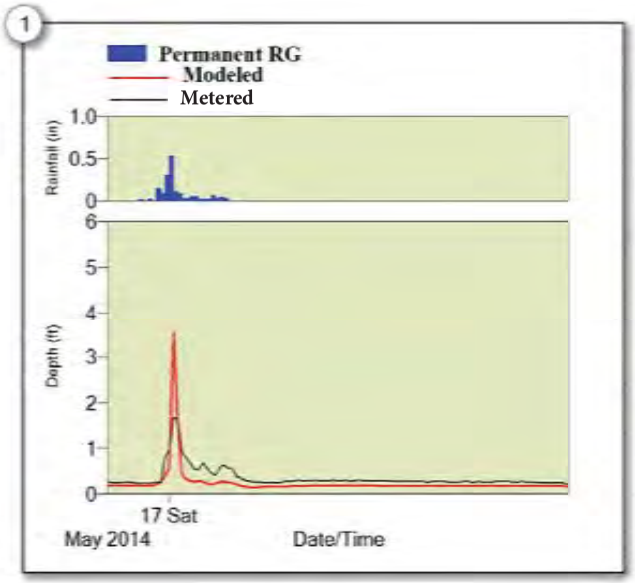
Event Comparison: Flow

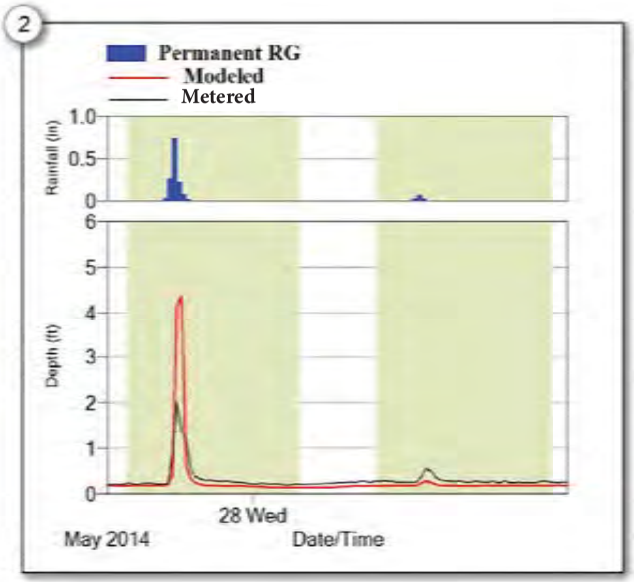
Permanent Rain Gauge Events:

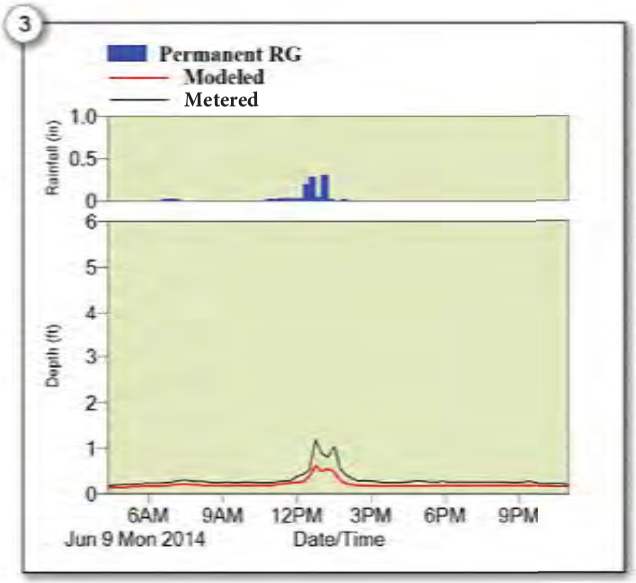
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

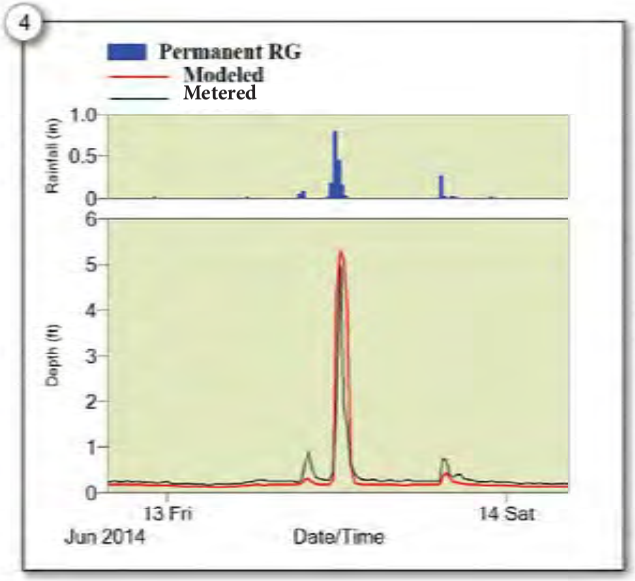
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

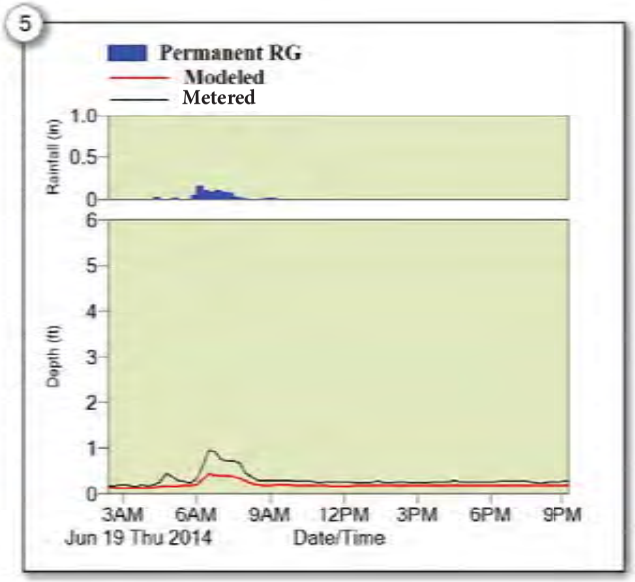
Prepared by:
CH2MHILL

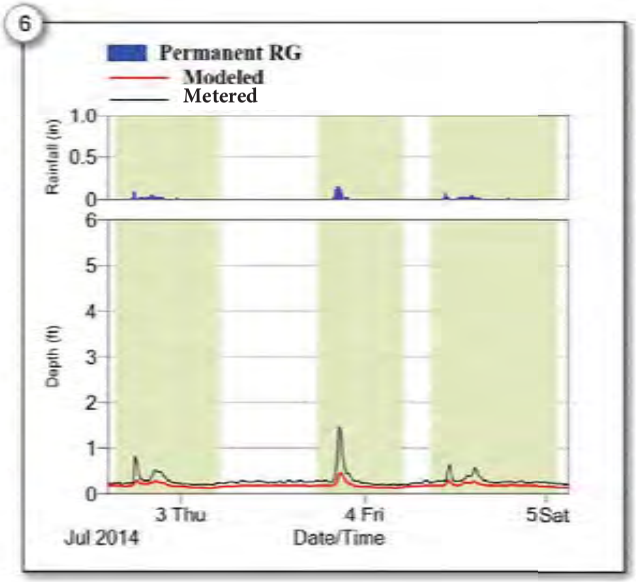












Model Calibration Results

Flow Meter: FM-10

Event Comparison: Depth

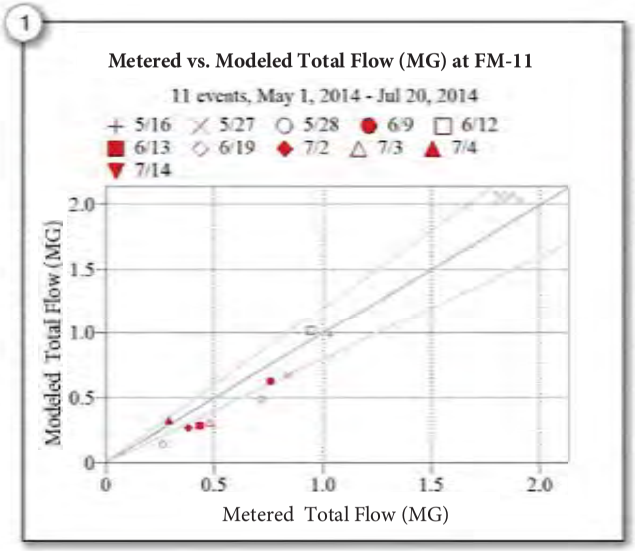
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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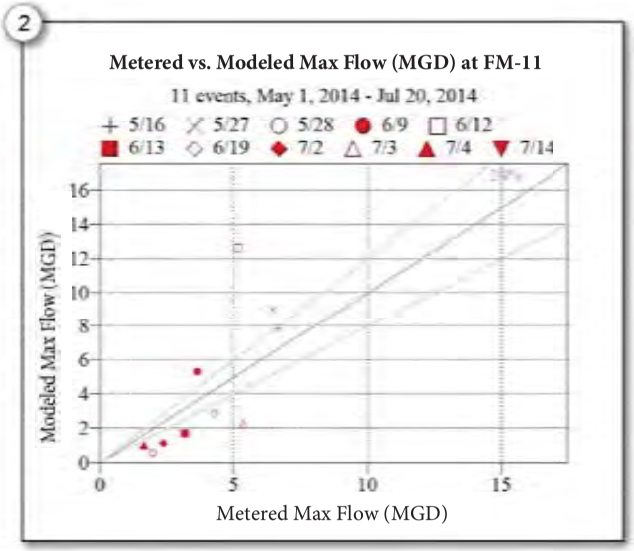

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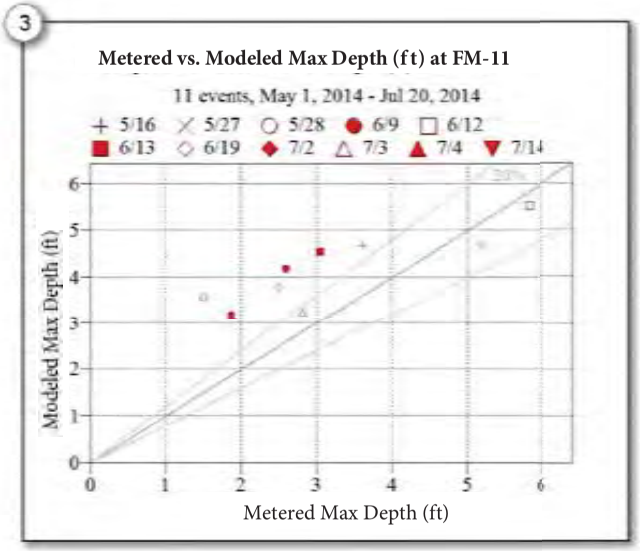

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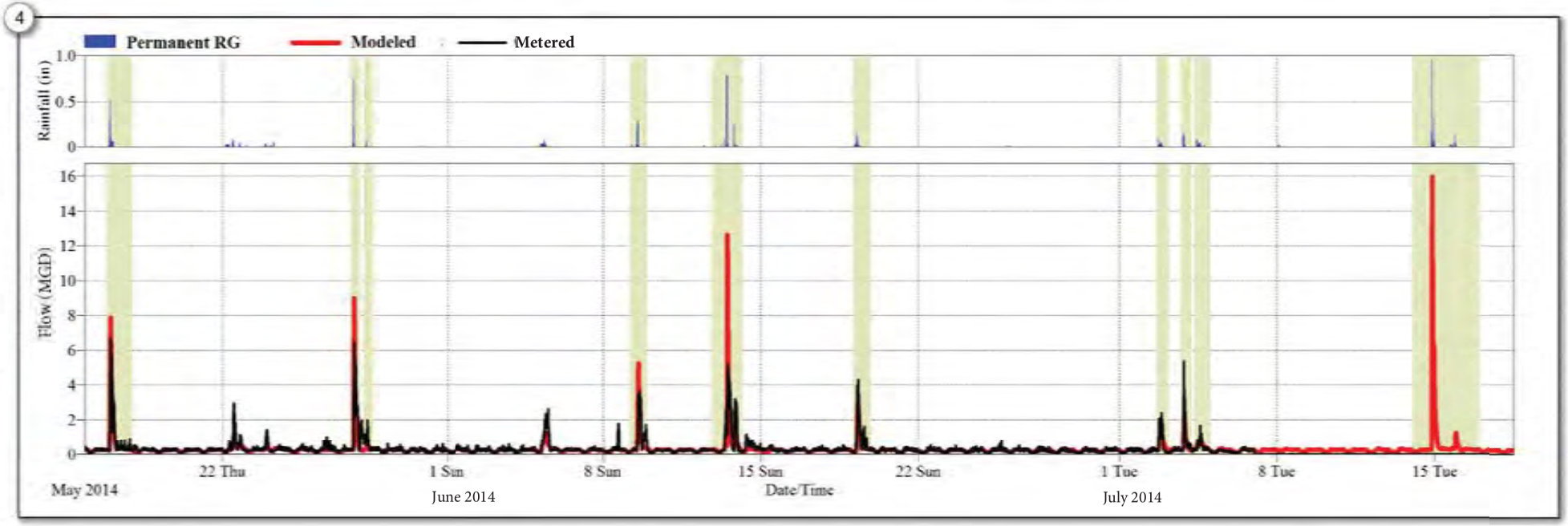


Model Calibration Results

Flow Meter: FM-11

Meter Summary

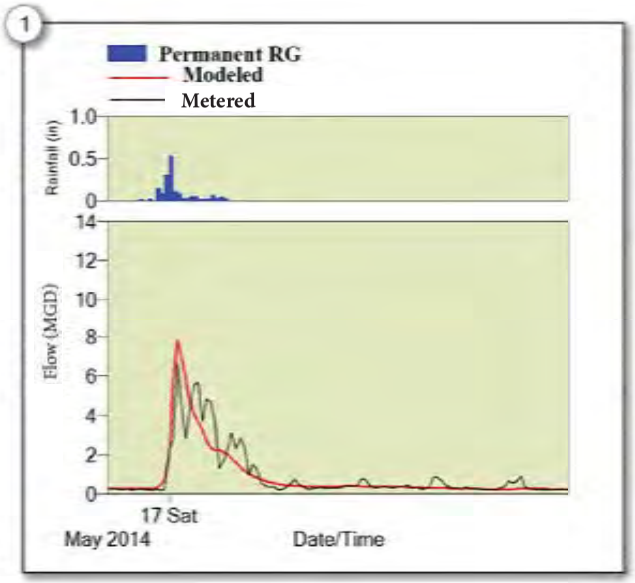
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

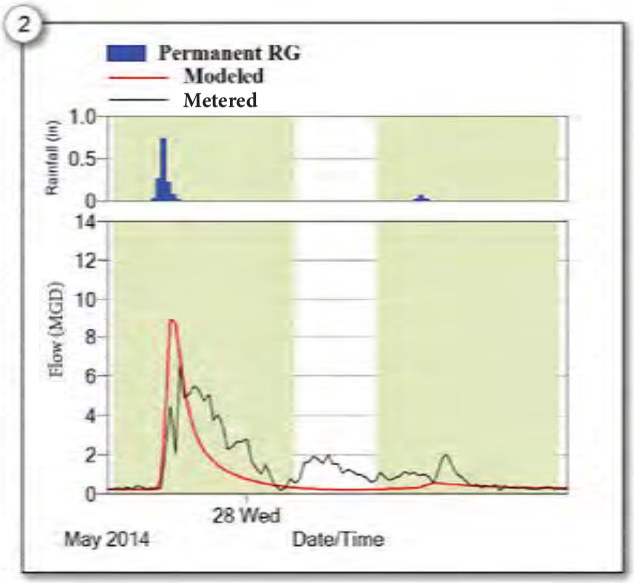
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

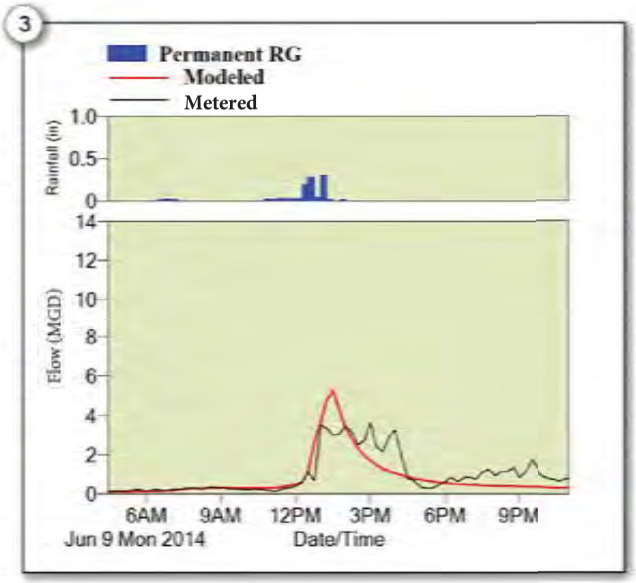
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

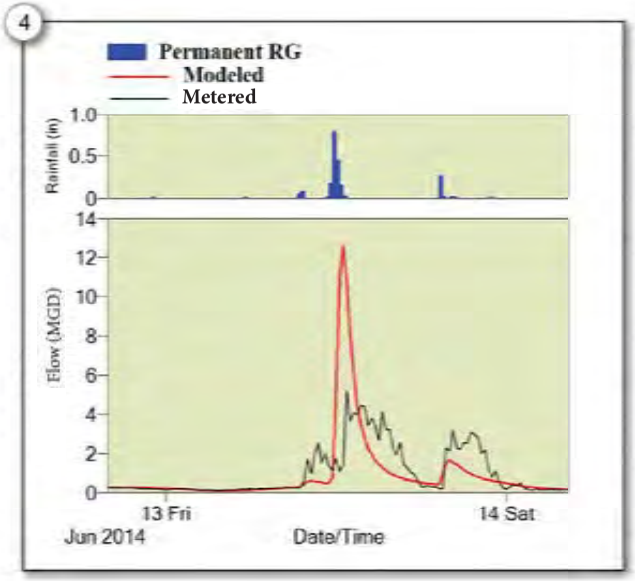
Prepared by:

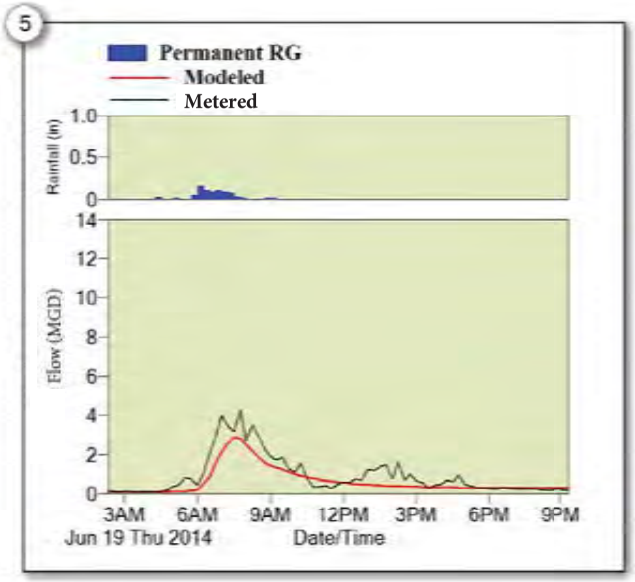
CH2MHILL

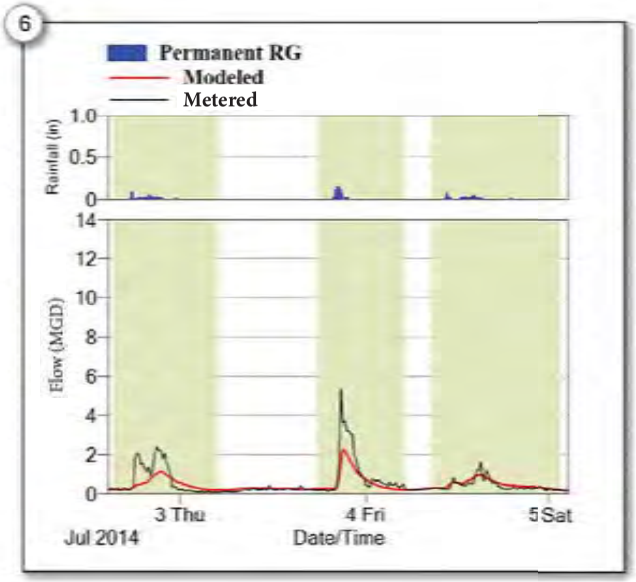












Model Calibration Results

Flow Meter: FM-11

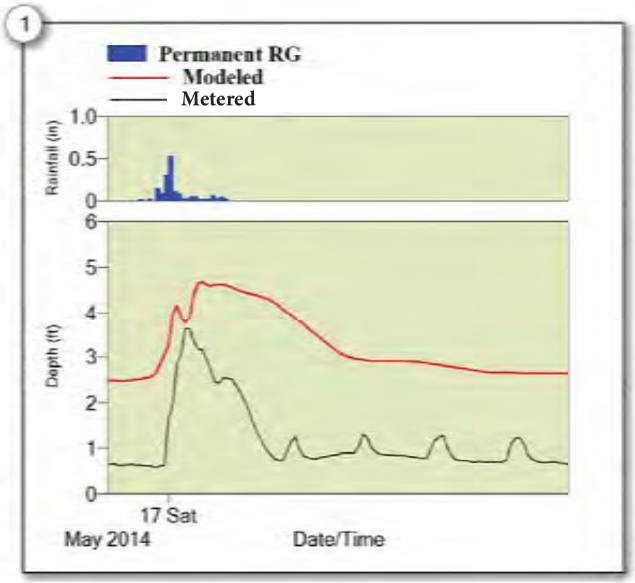
Event Comparison: Flow

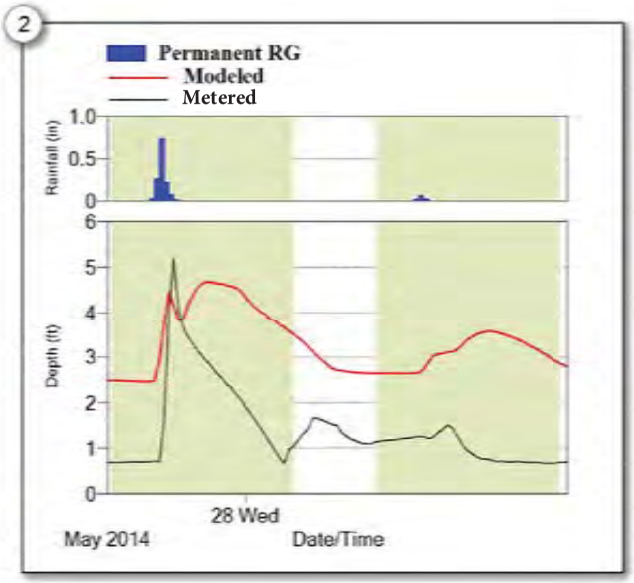
Permanent Rain Gauge Events:

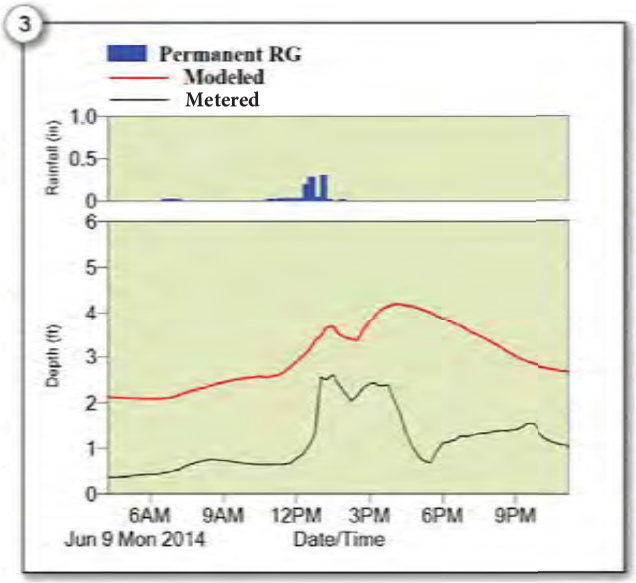
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

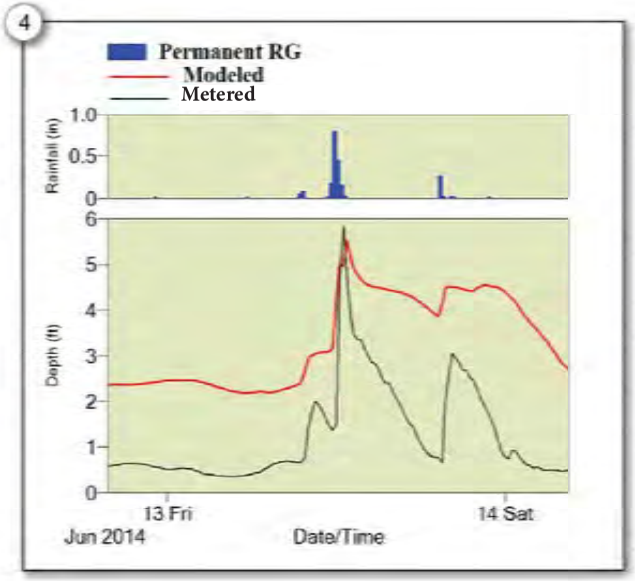
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

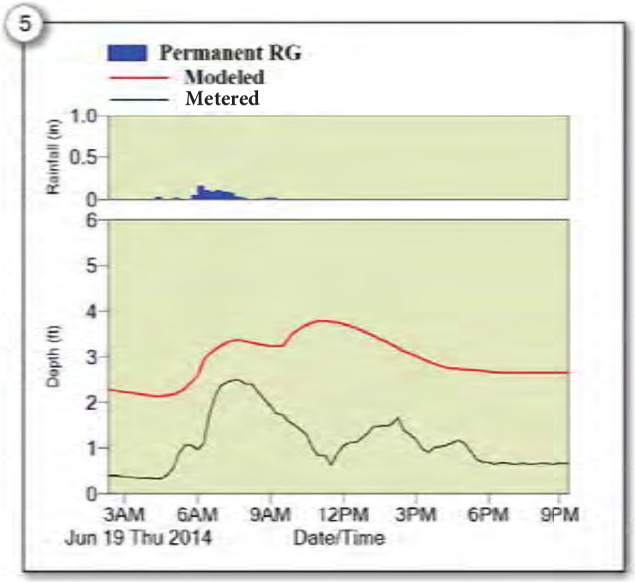
Prepared by:
CH2MHILL

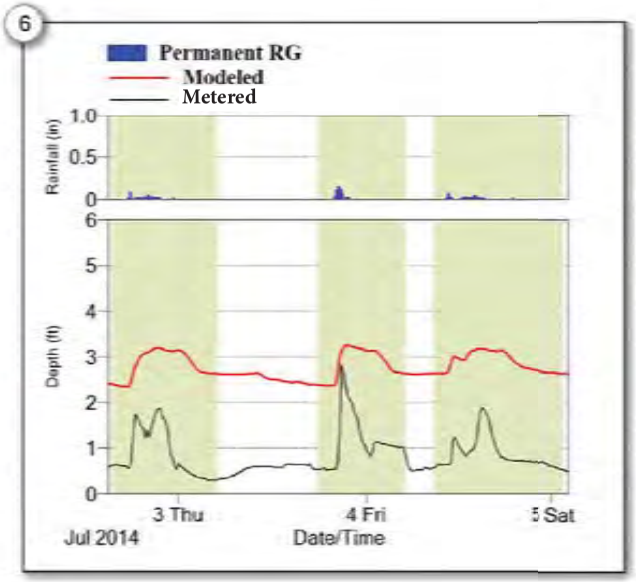












Model Calibration Results

Flow Meter: FM-11

Event Comparison: Depth

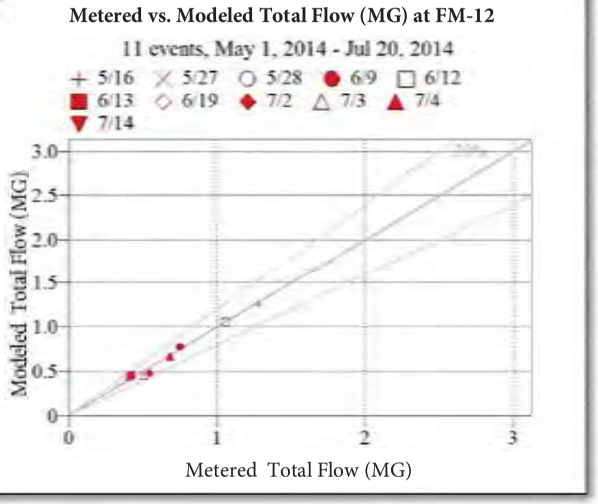
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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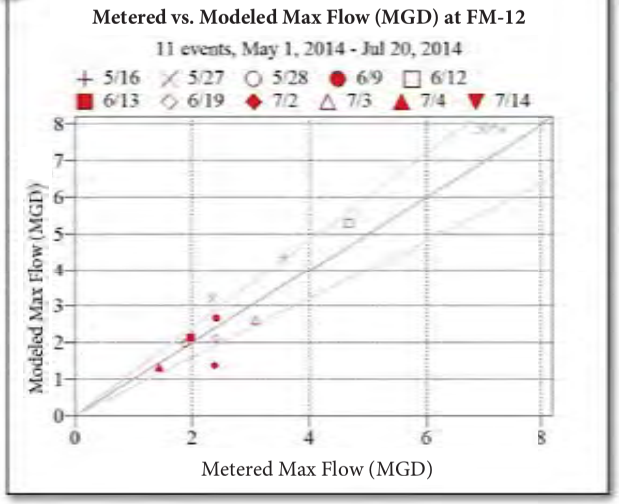

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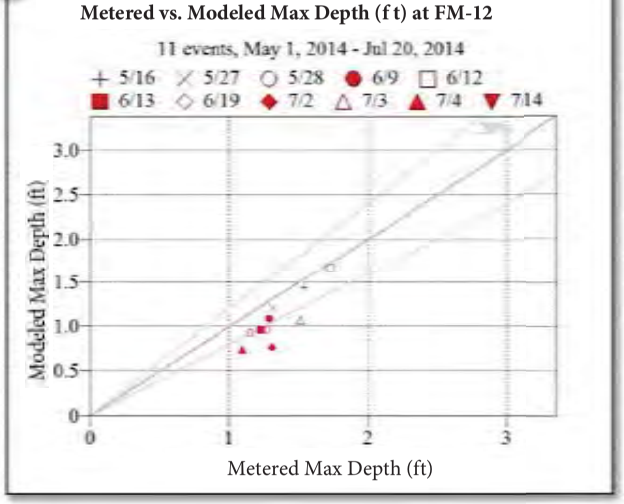

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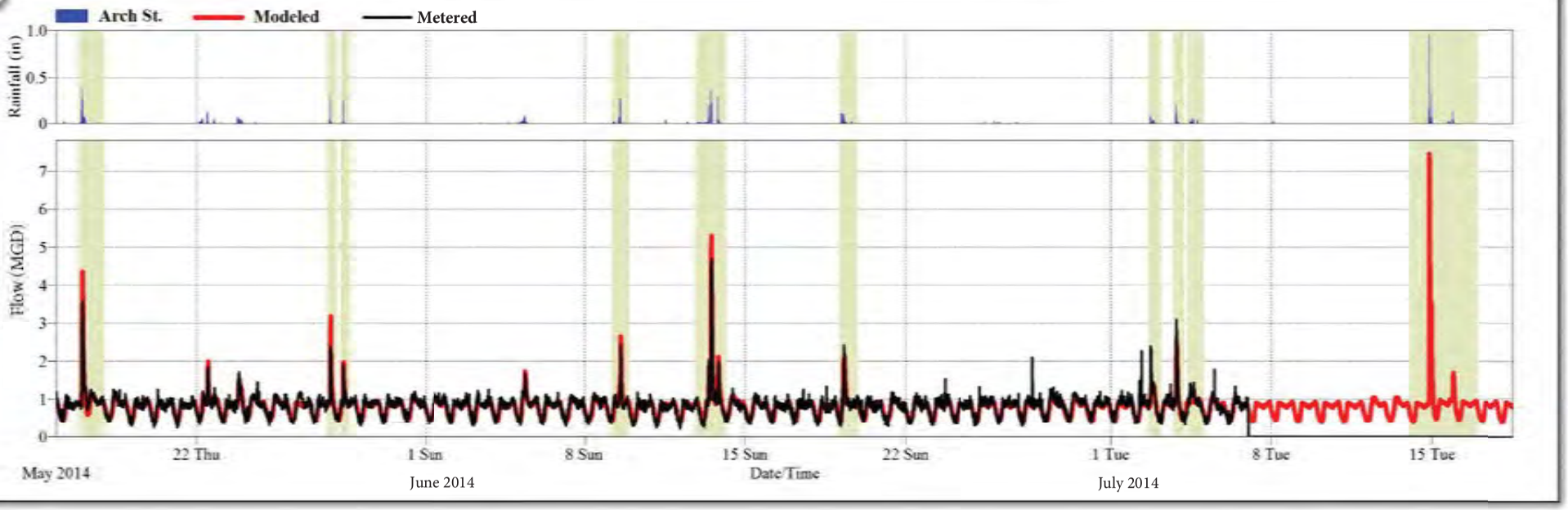


Model Calibration Results

Flow Meter: FM-12

Meter Summary

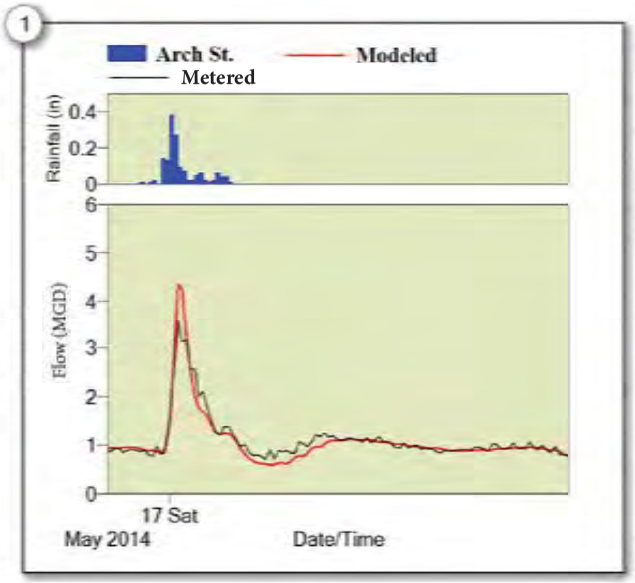
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

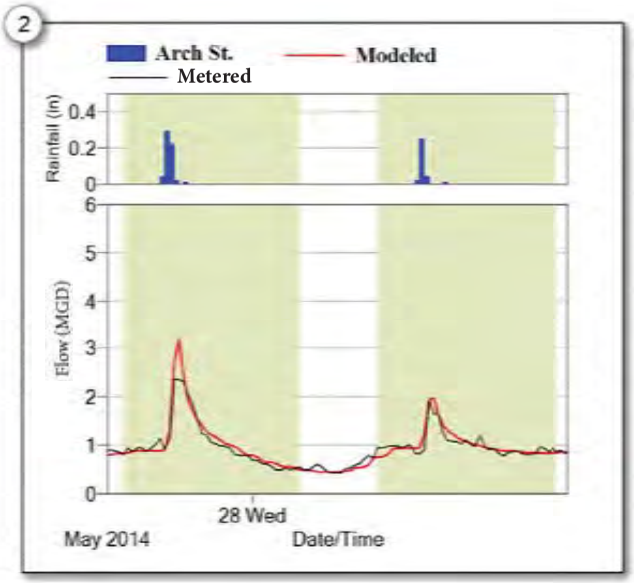
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

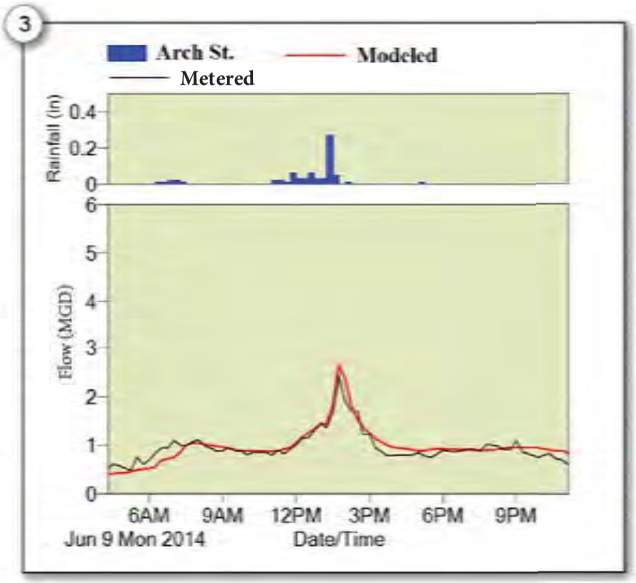
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

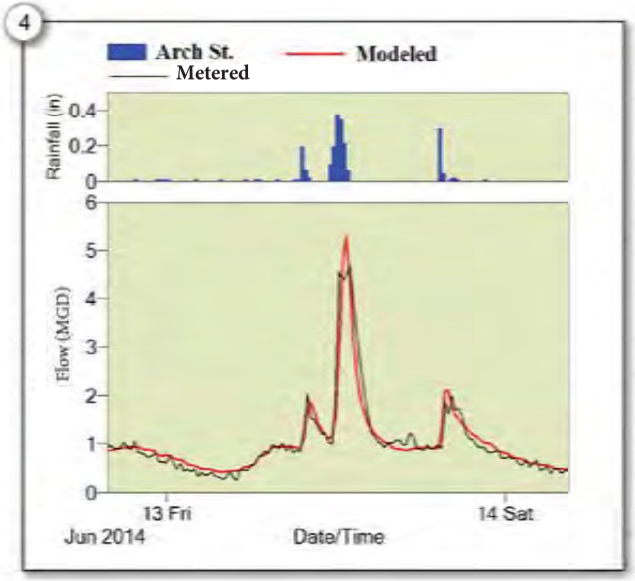
Prepared by:

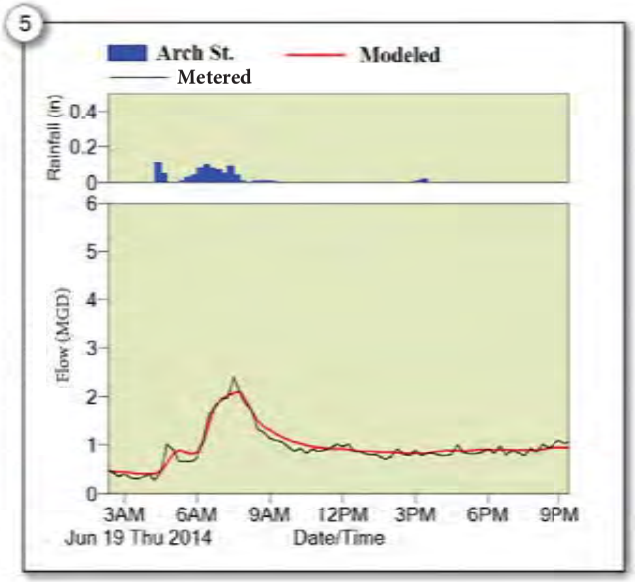
CH2MHILL

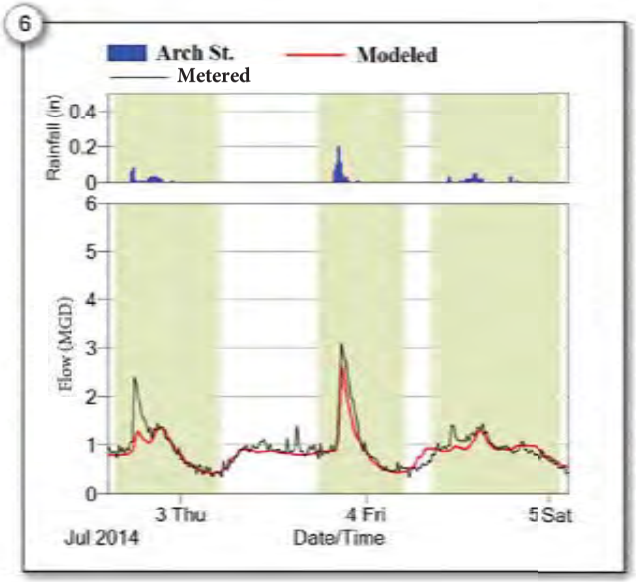












Model Calibration Results

Flow Meter: FM-12

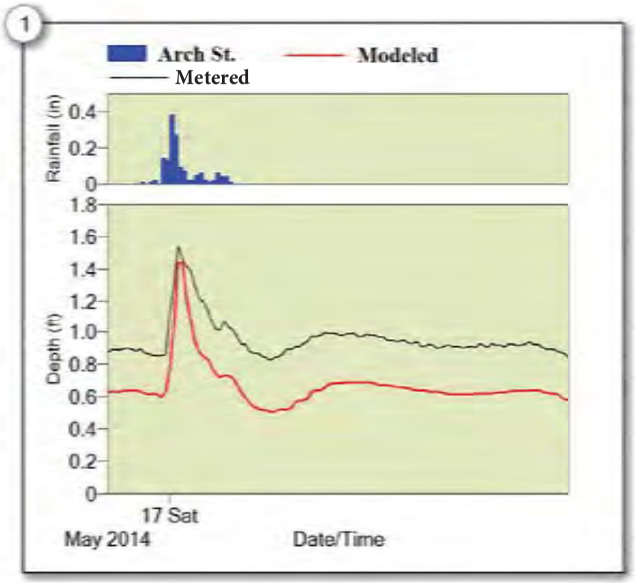
Event Comparison: Flow

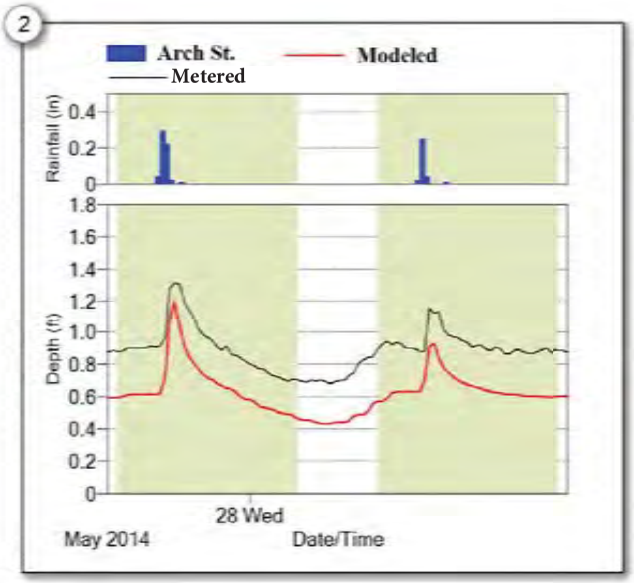
Arch St. Rain Gauge Events:

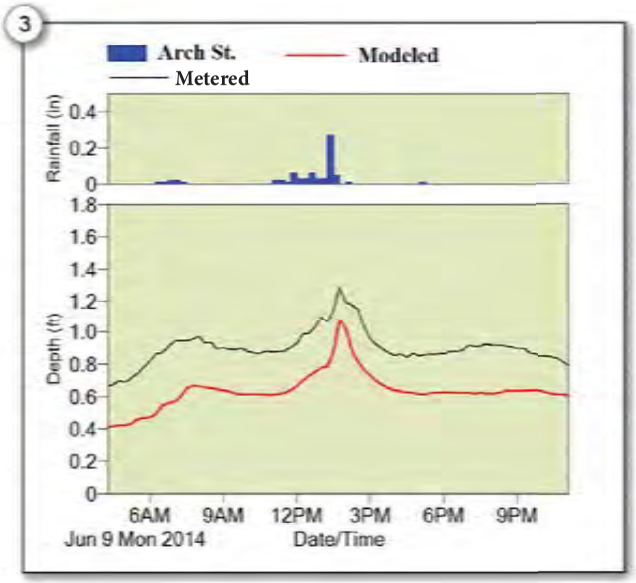
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

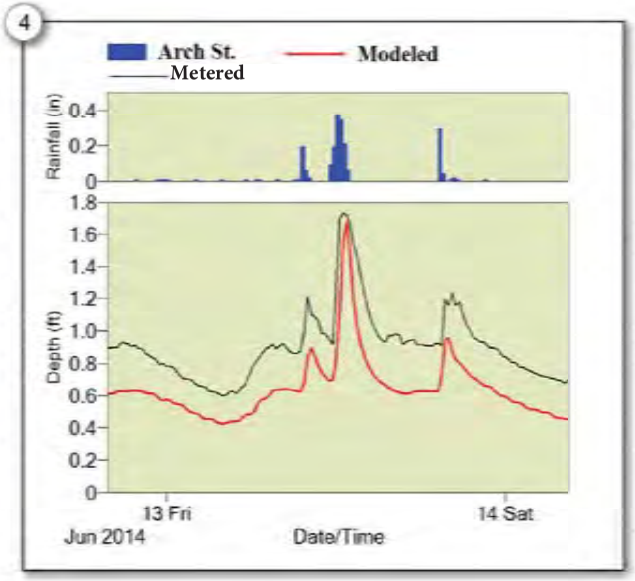
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

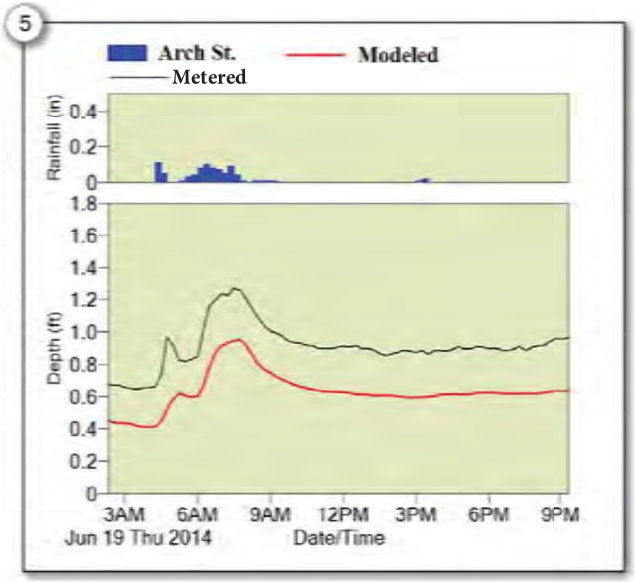
Prepared by:
CH2MHILL

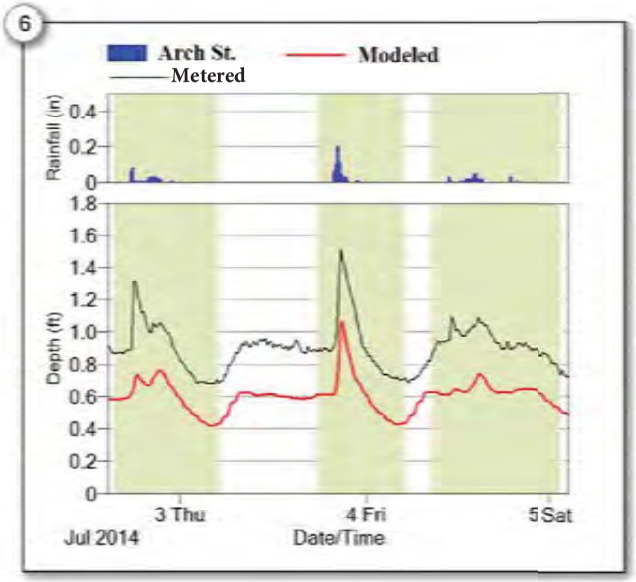












Model Calibration Results

Flow Meter: FM-12

Event Comparison: Depth

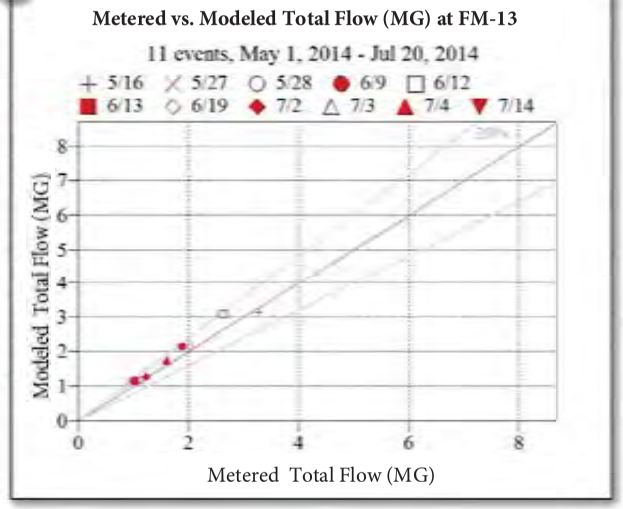
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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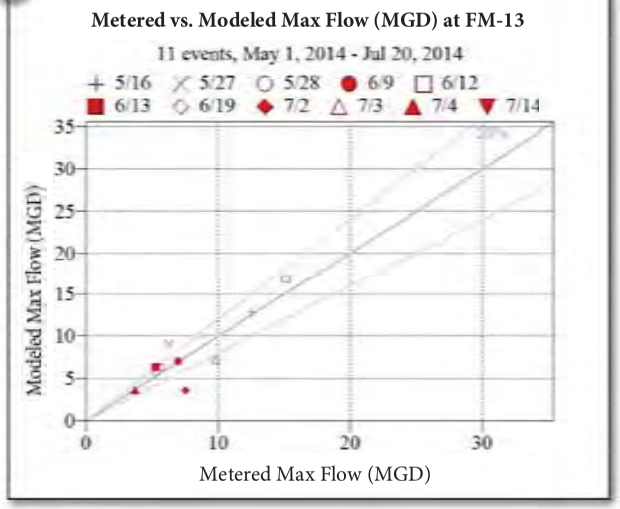

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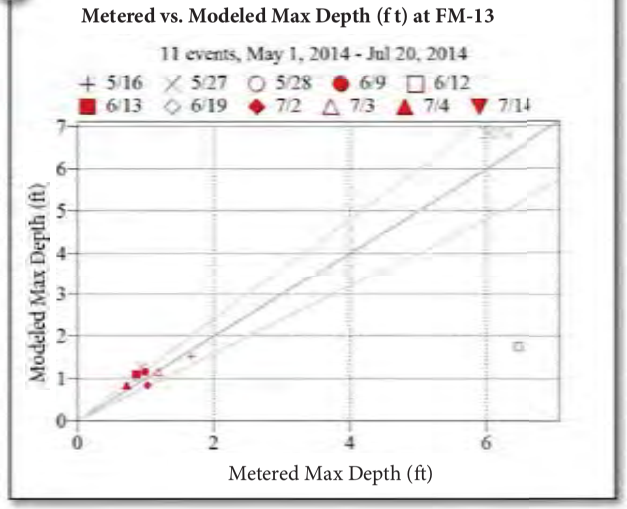

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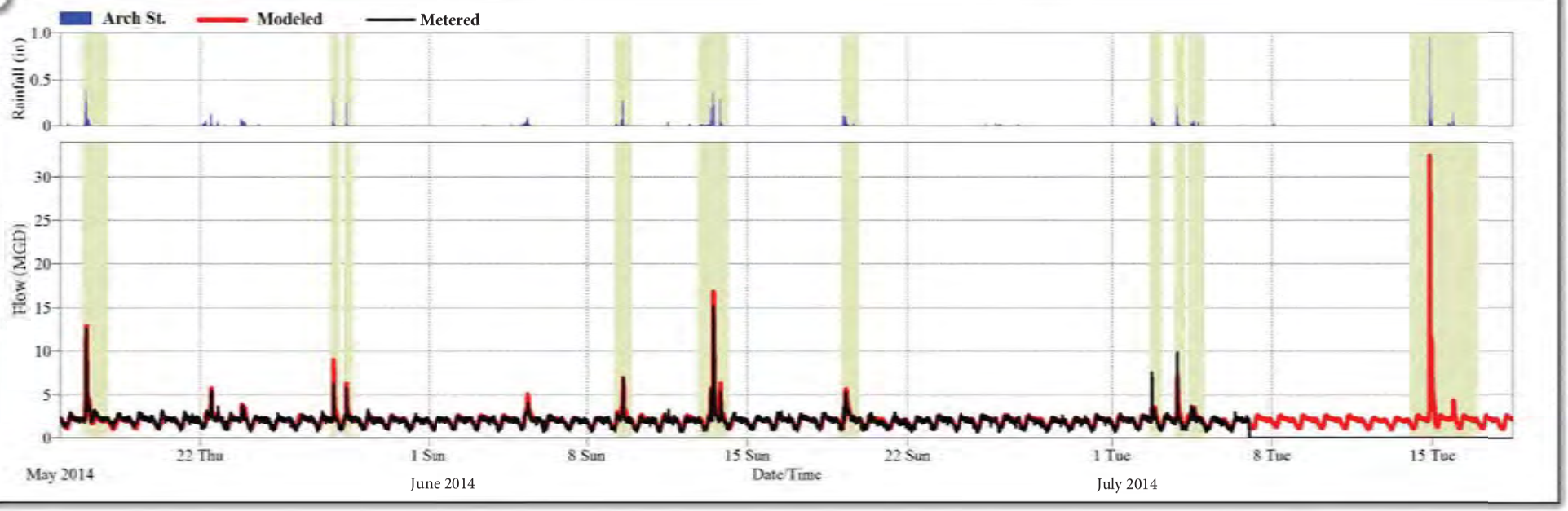


Model Calibration Results

Flow Meter: FM-13

Meter Summary

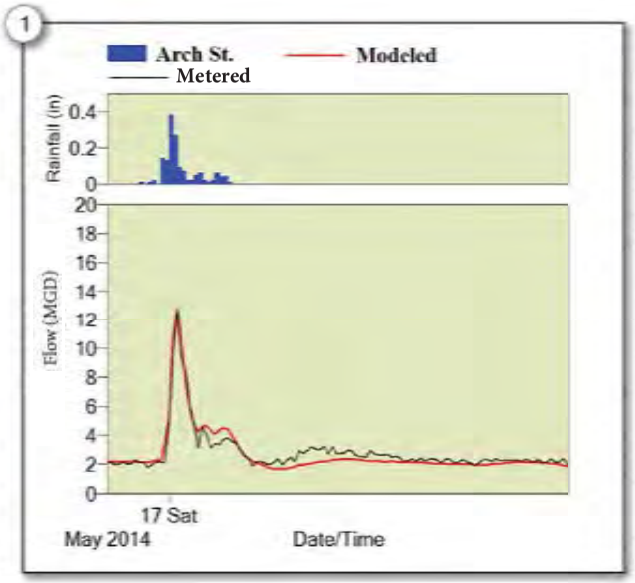
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

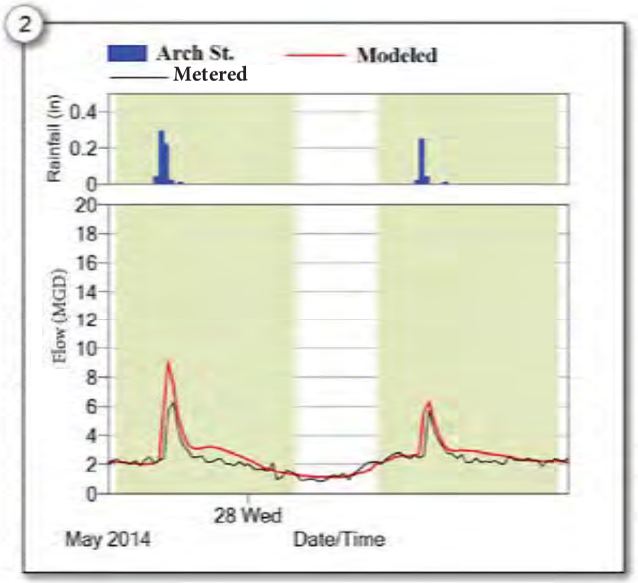
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

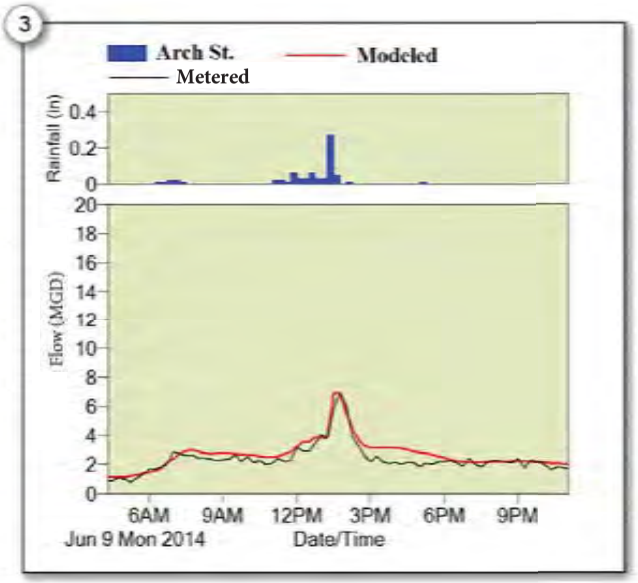
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

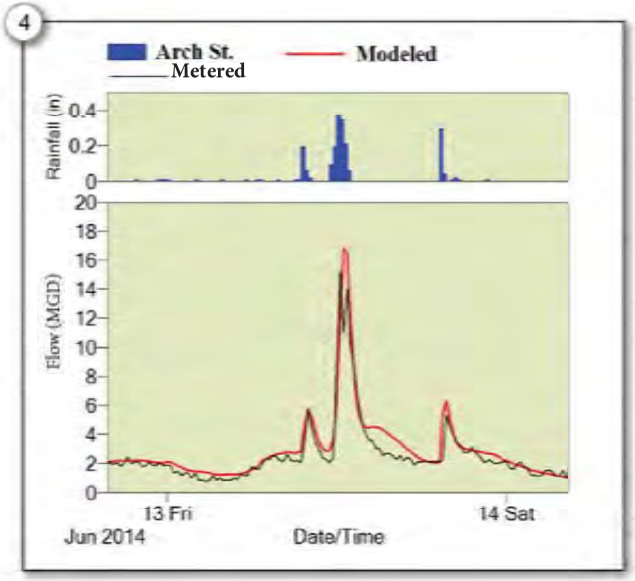
Prepared by:

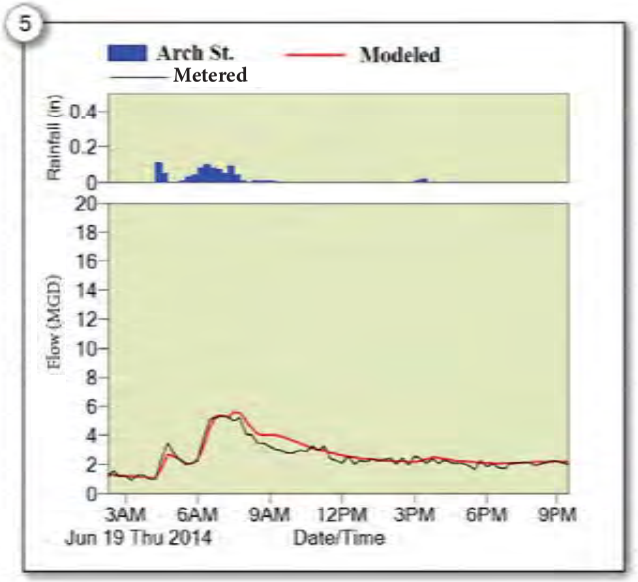
CH2MHILL

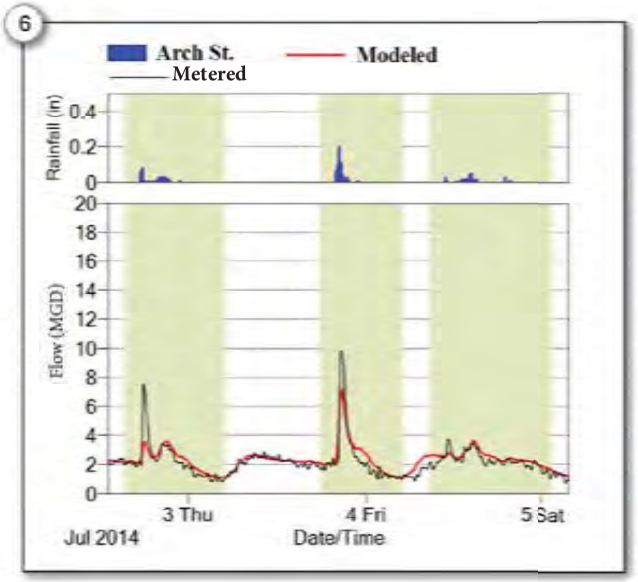












Model Calibration Results

Flow Meter: FM-13

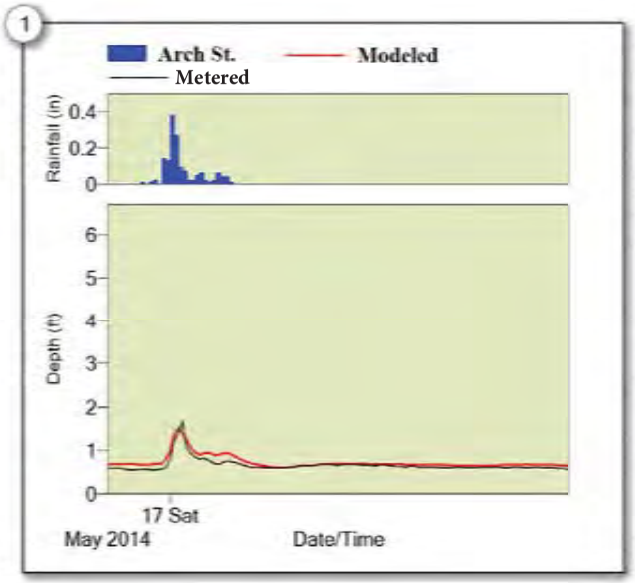
Event Comparison: Flow

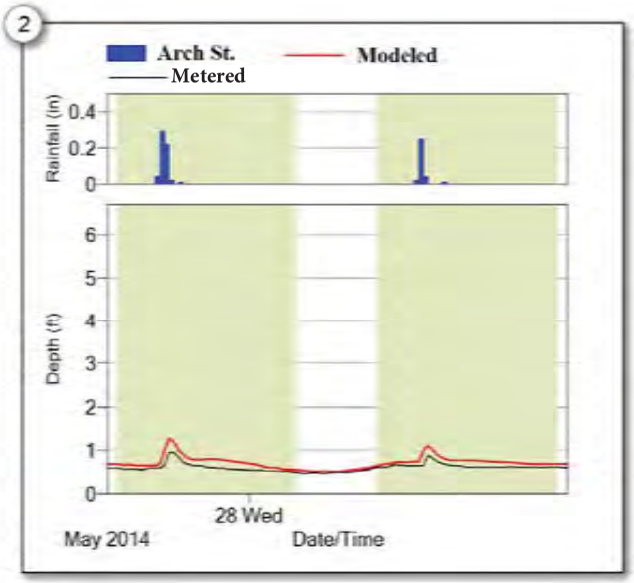
Arch St. Rain Gauge Events:

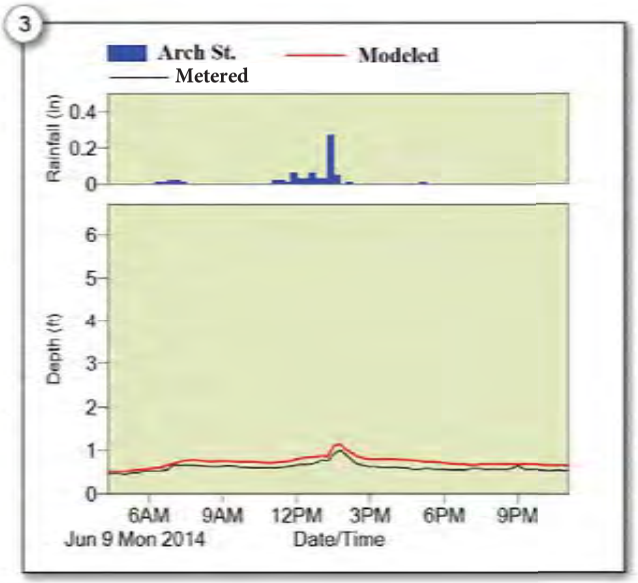
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

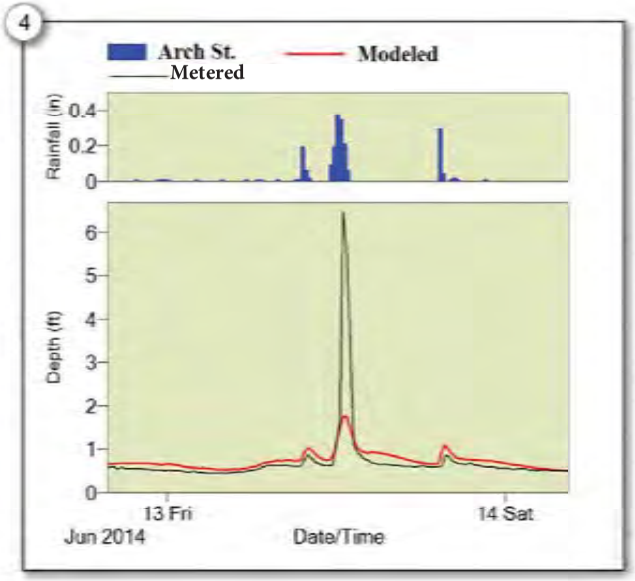
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

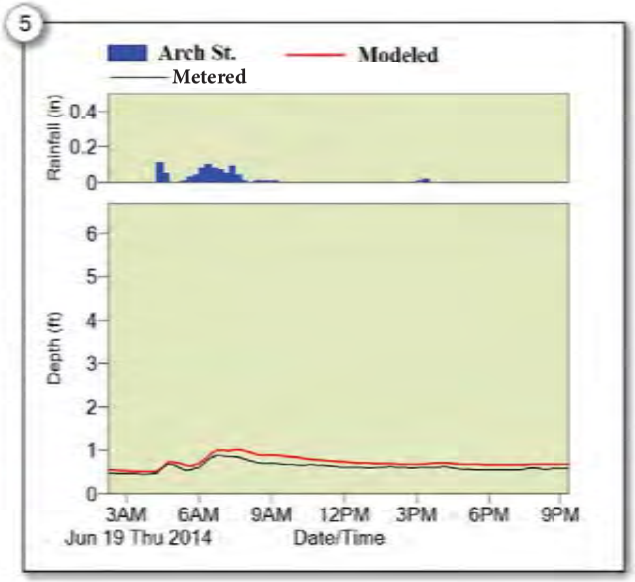
Prepared by:
CH2MHILL

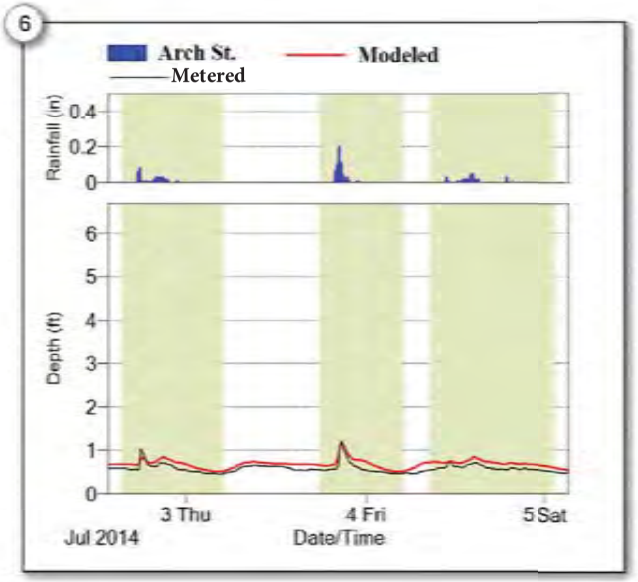












Model Calibration Results

Flow Meter: FM-13

Event Comparison: Depth

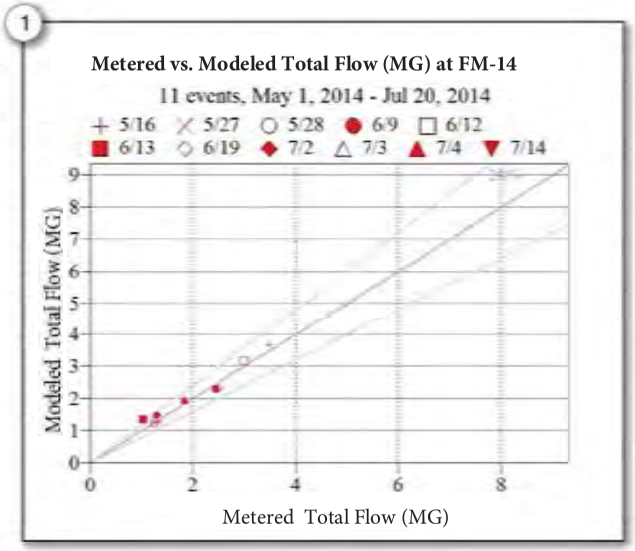
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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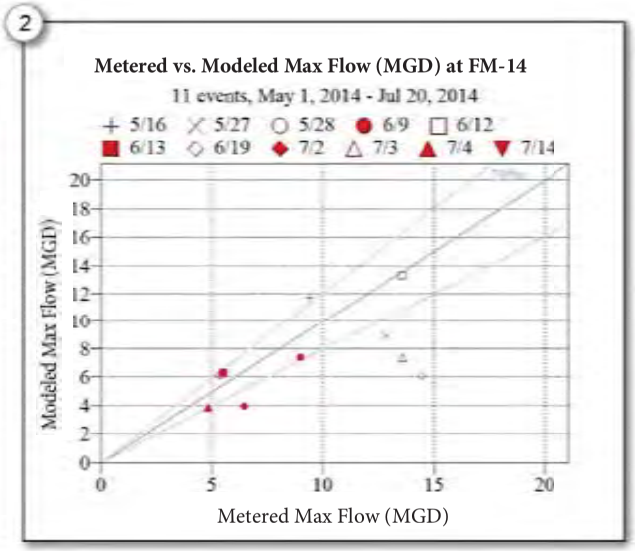

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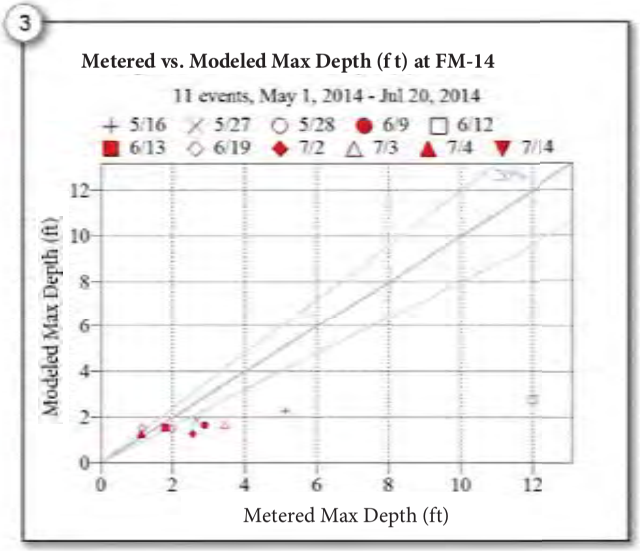

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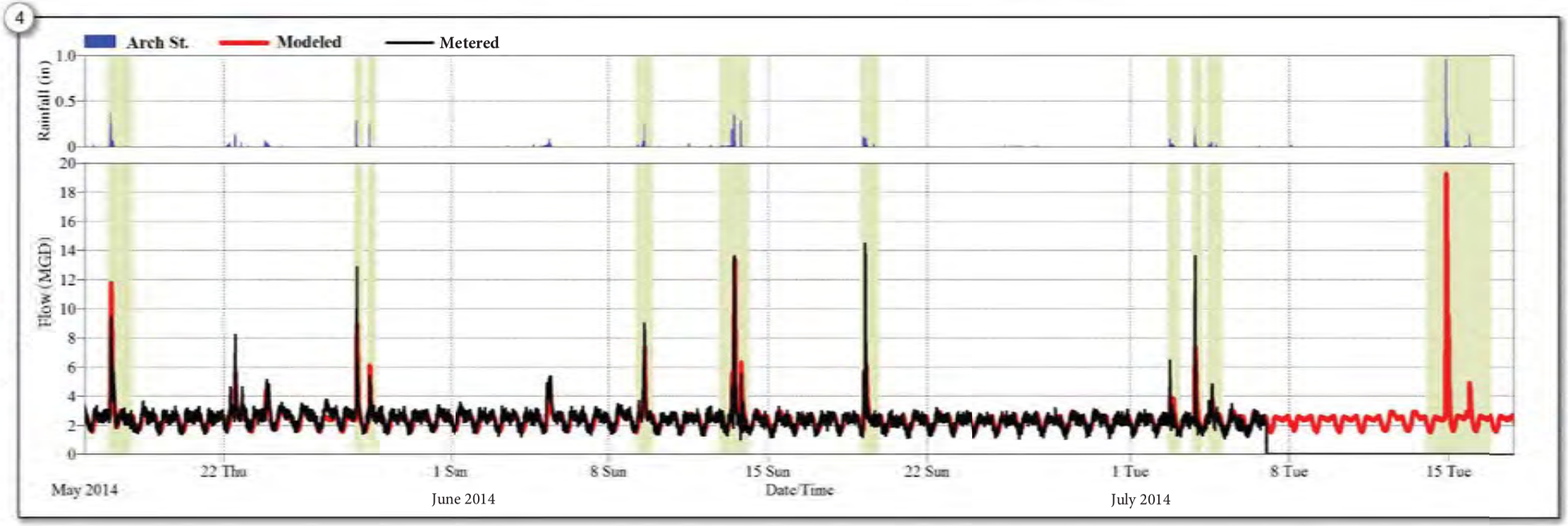


Model Calibration Results

Flow Meter: FM-14

Meter Summary

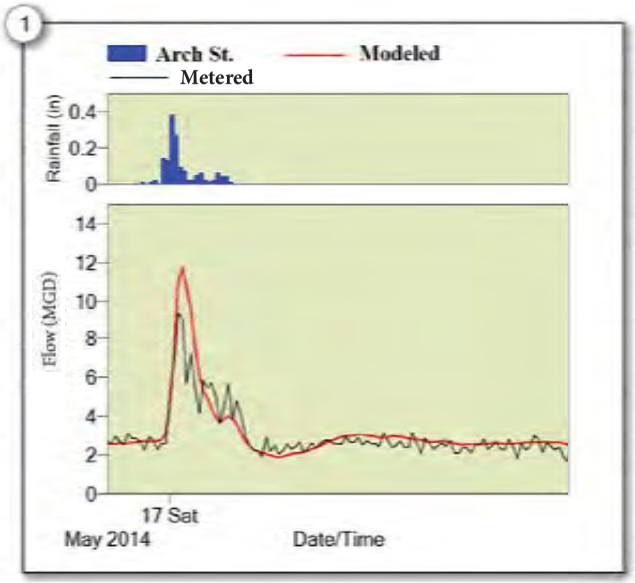
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

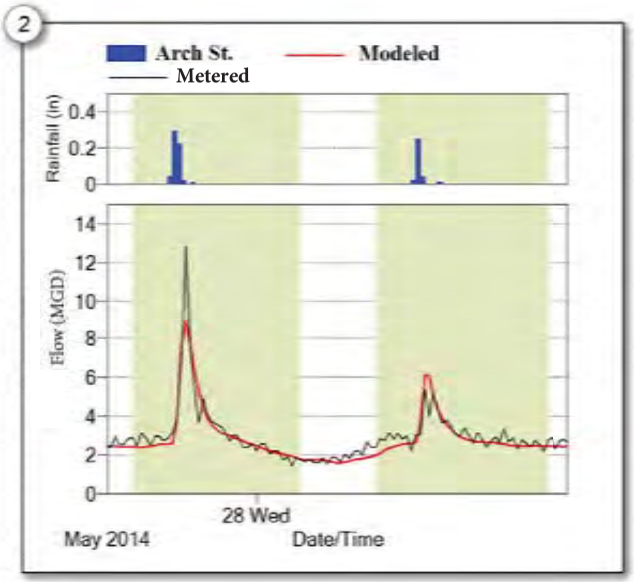
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

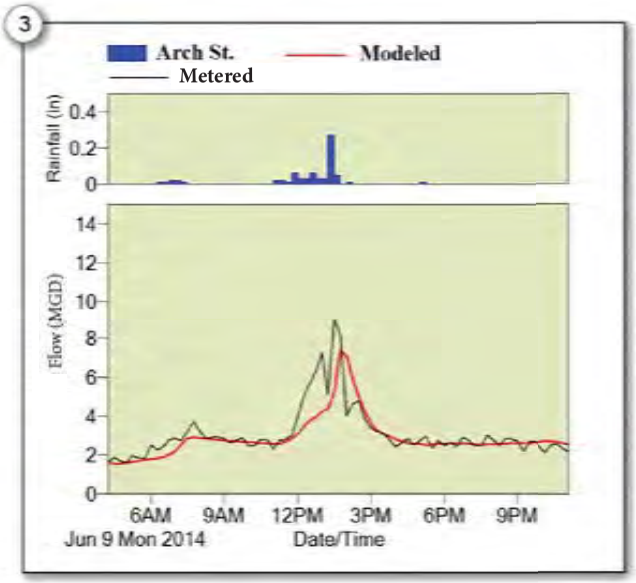
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

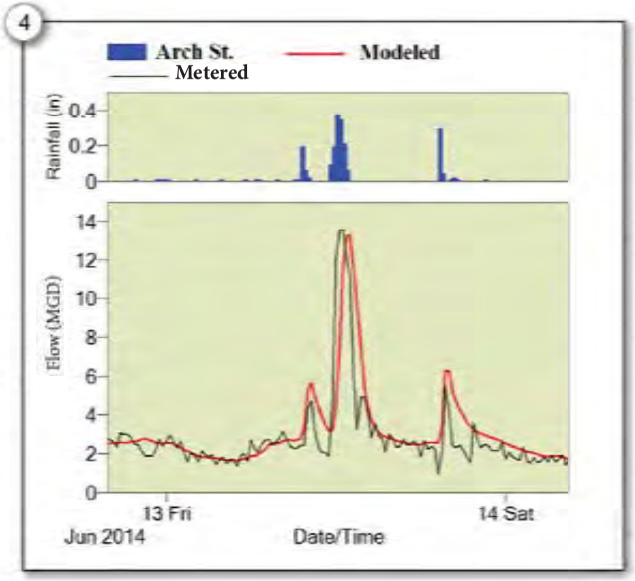
Prepared by:

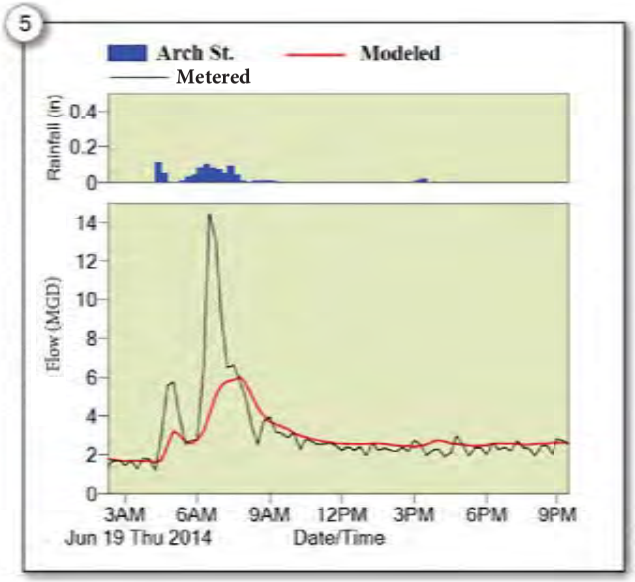
CH2MHILL

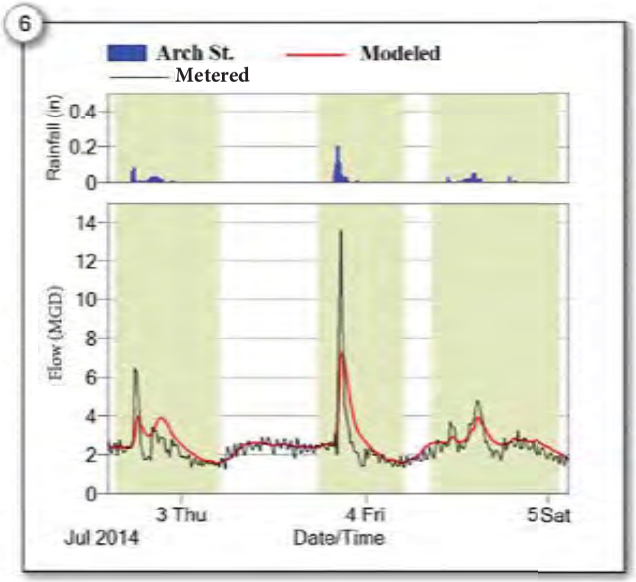












Model Calibration Results

Flow Meter: FM-14

Event Comparison: Flow

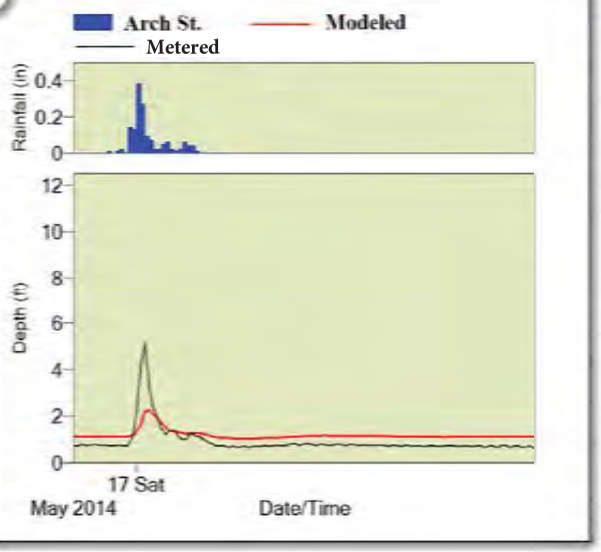
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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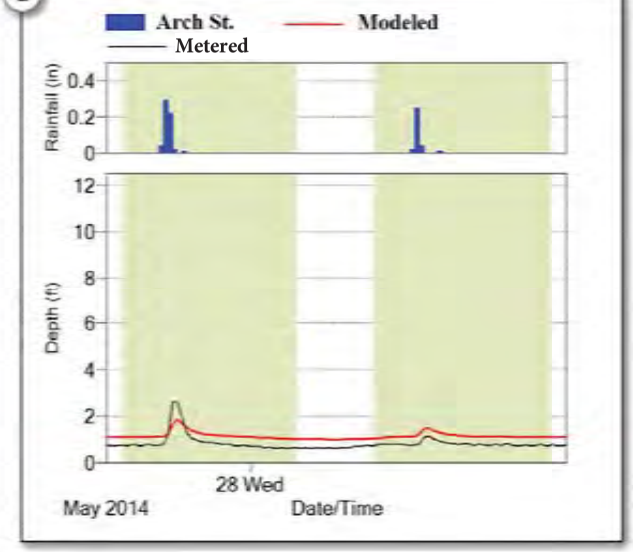

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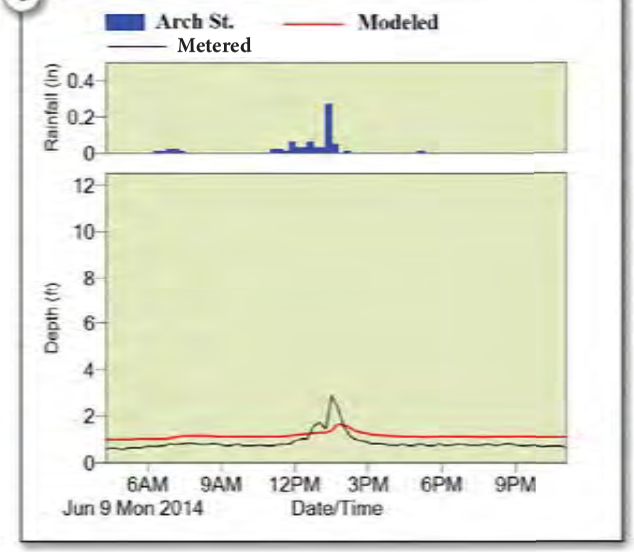

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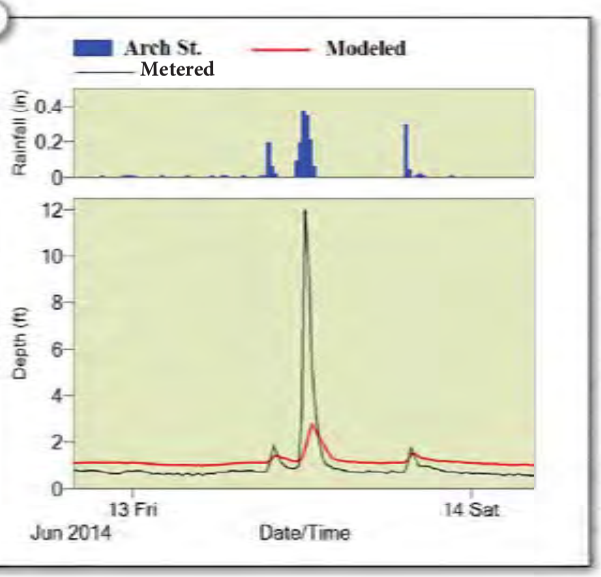

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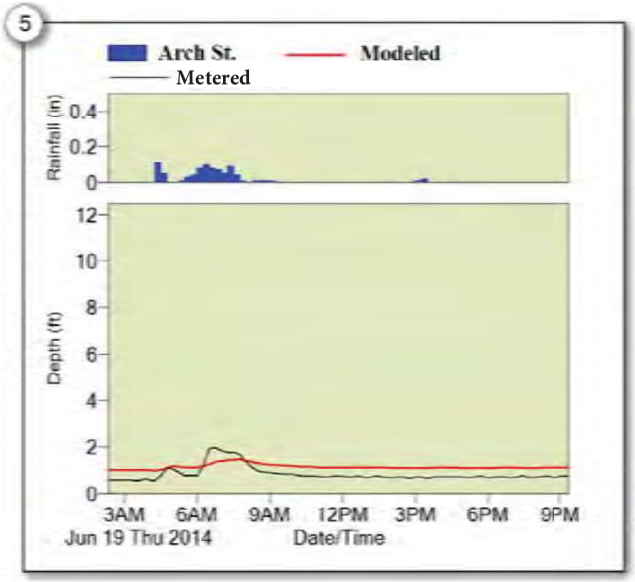

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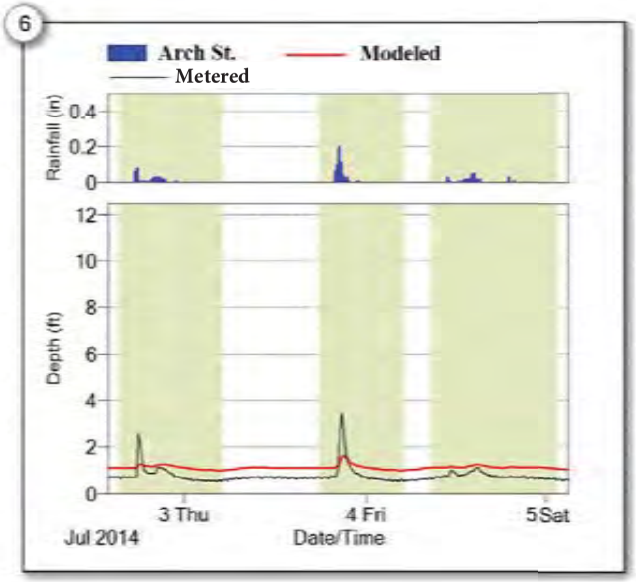


Model Calibration Results

Flow Meter: FM-14

Event Comparison: Depth

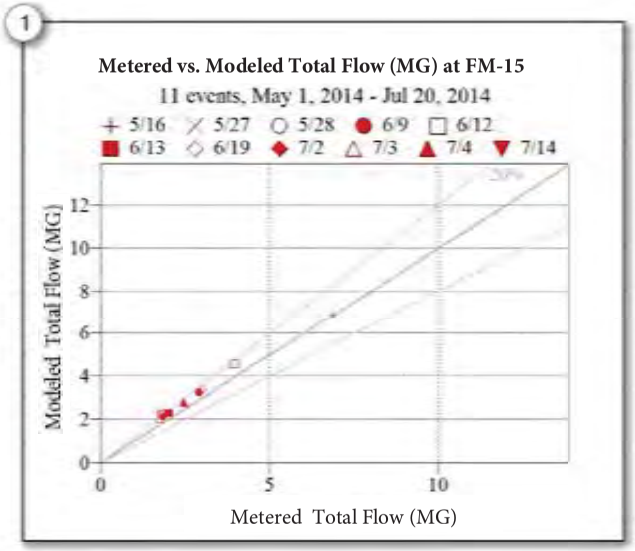
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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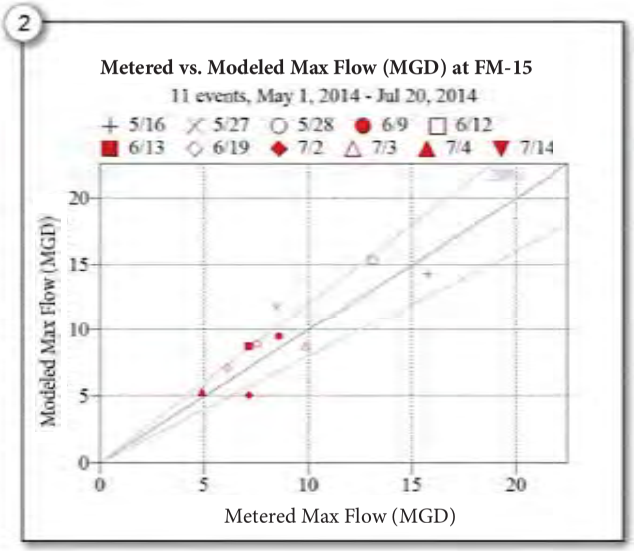

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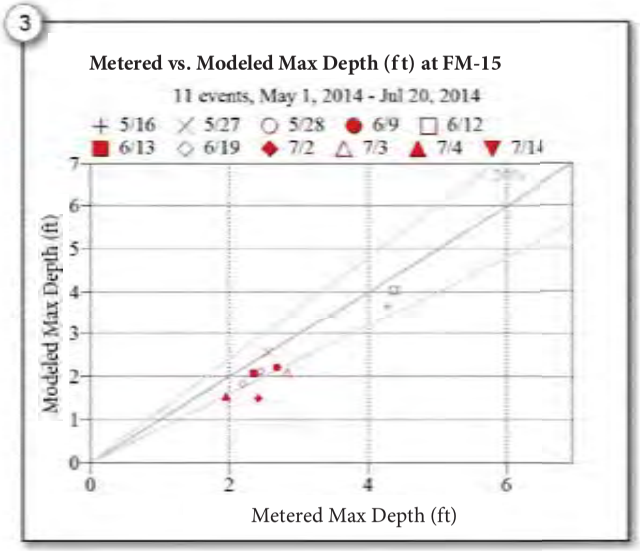

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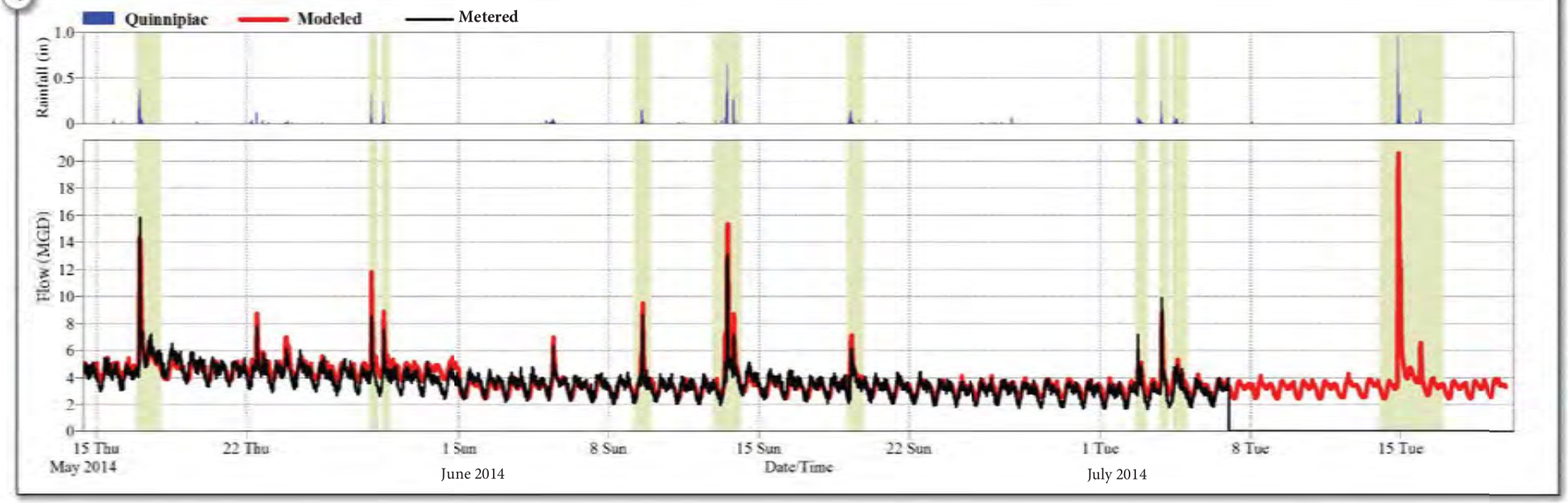


Model Calibration Results

Flow Meter: FM-15

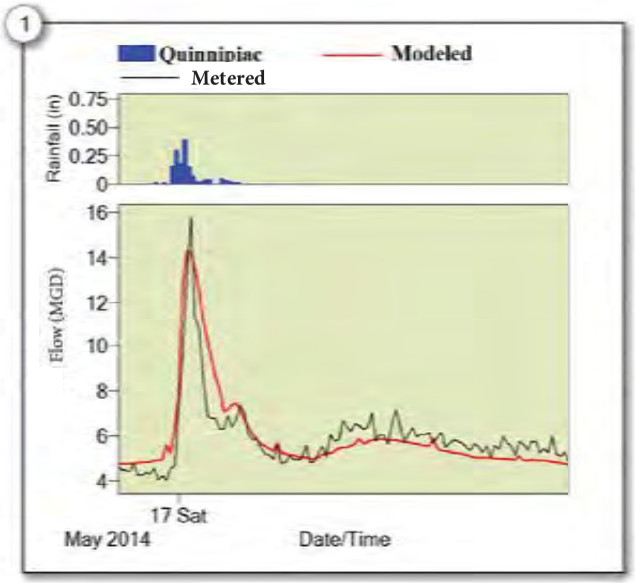
Meter Summary

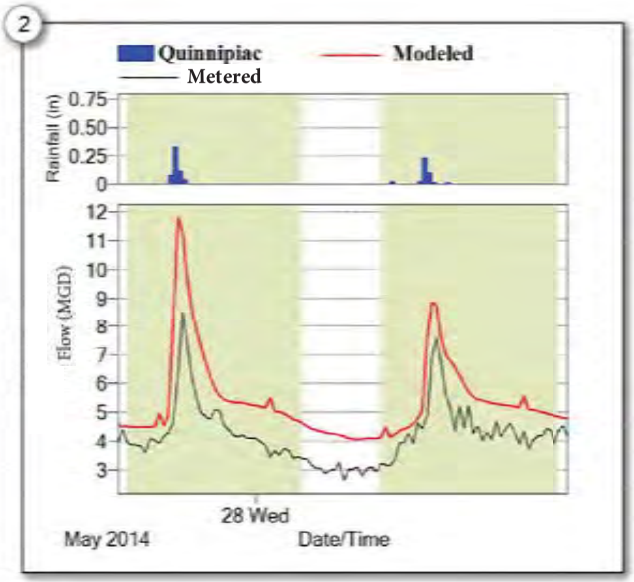
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

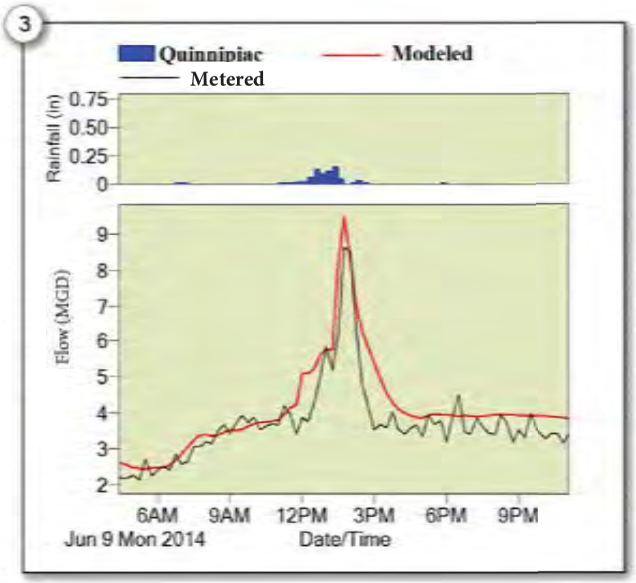
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

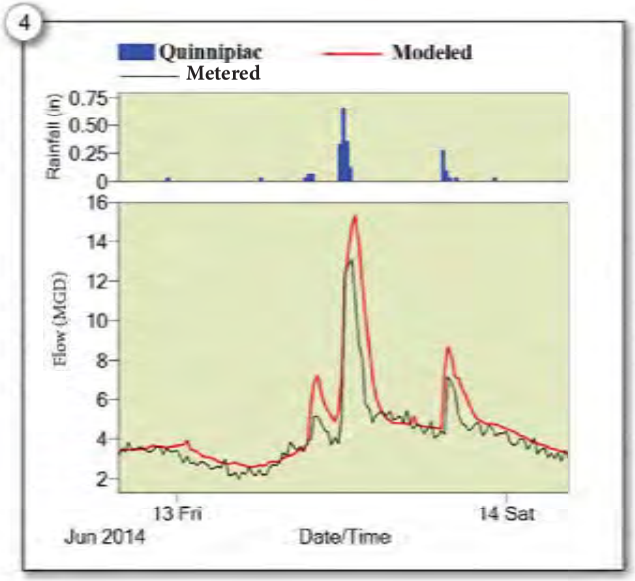
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

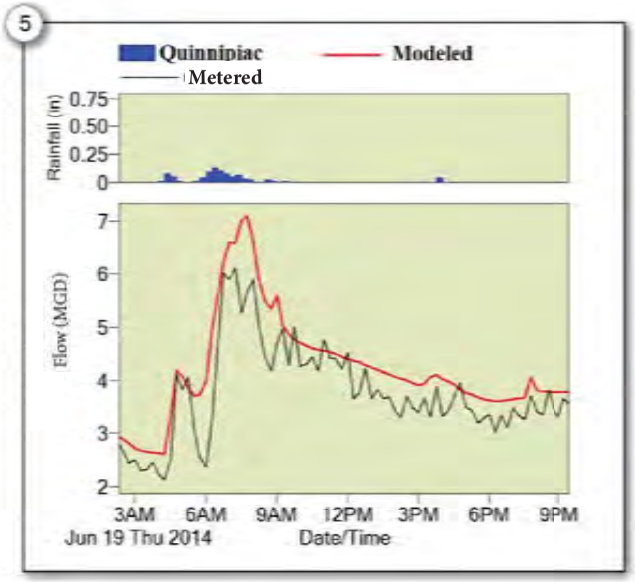
Prepared by:
CH2MHILL

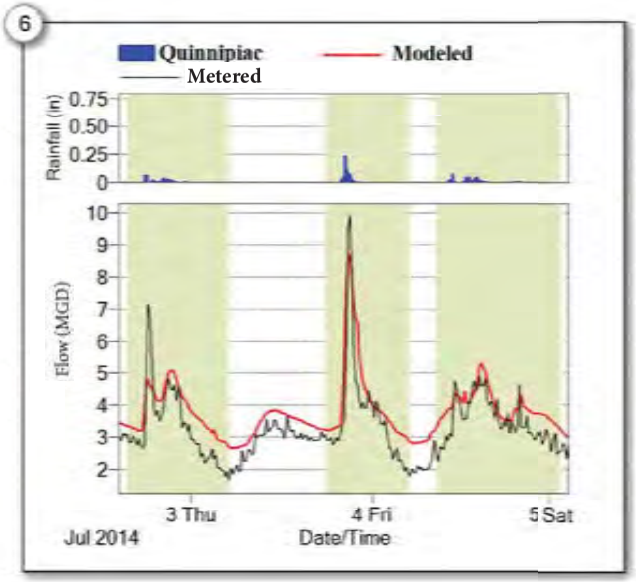












Model Calibration Results

Flow Meter: FM-15

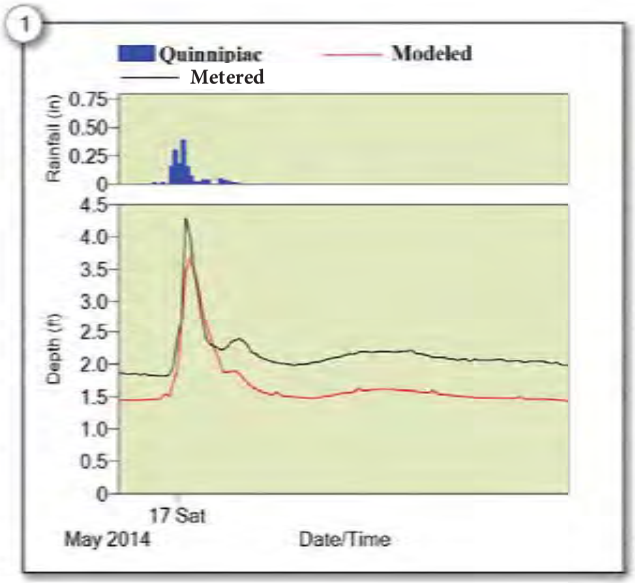
Event Comparison: Flow

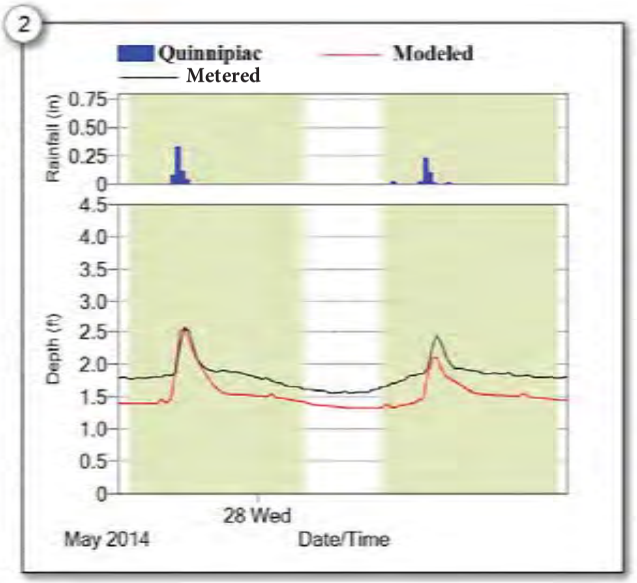
Permanent Rain Gauge Events:

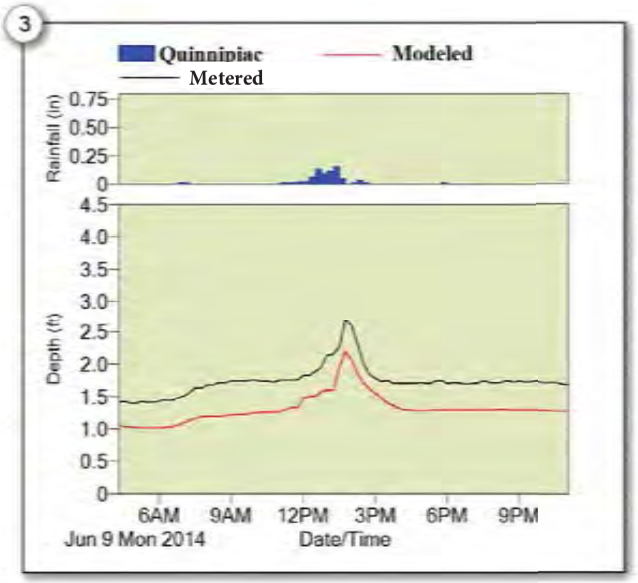
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

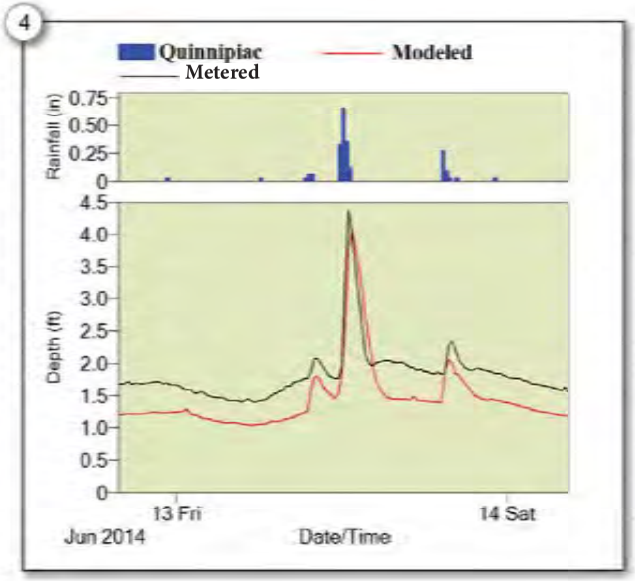
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

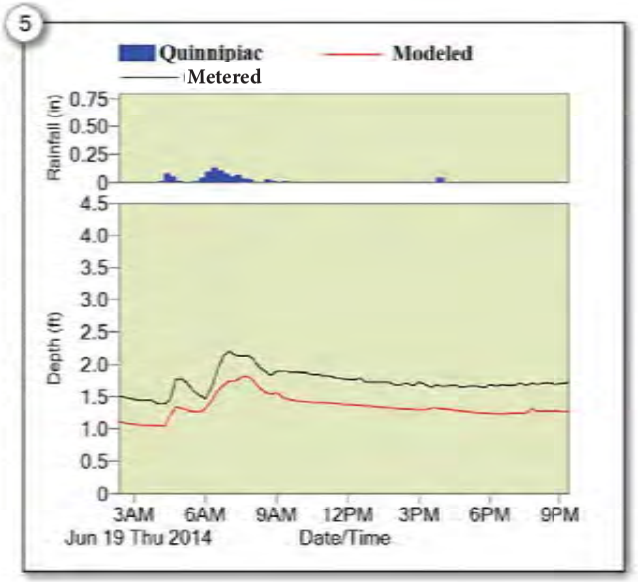
Prepared by:
CH2MHILL

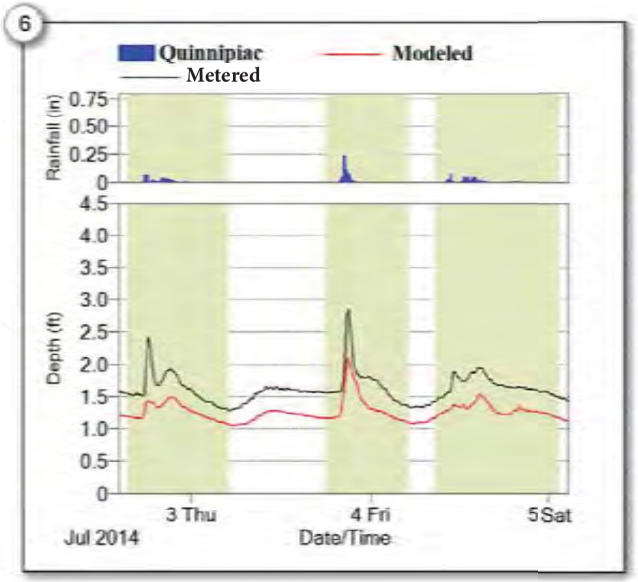












Model Calibration Results

Flow Meter: FM-15

Event Comparison: Depth

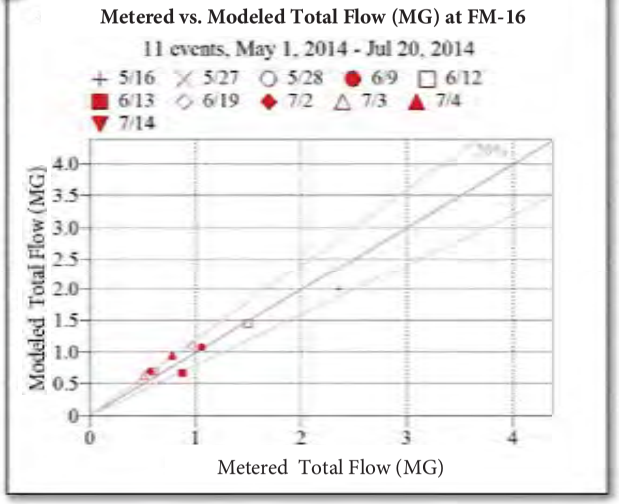
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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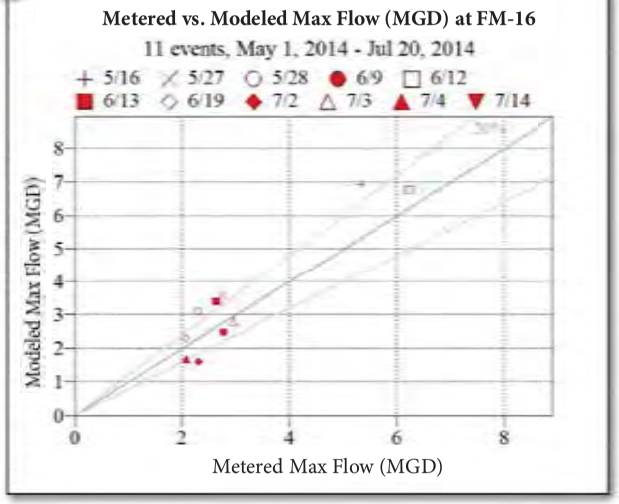

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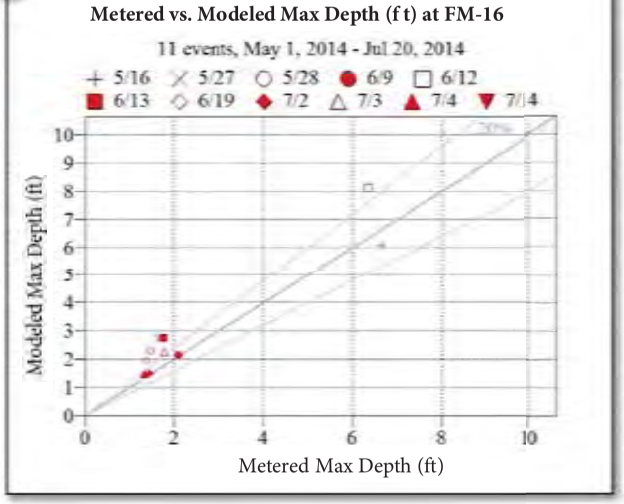

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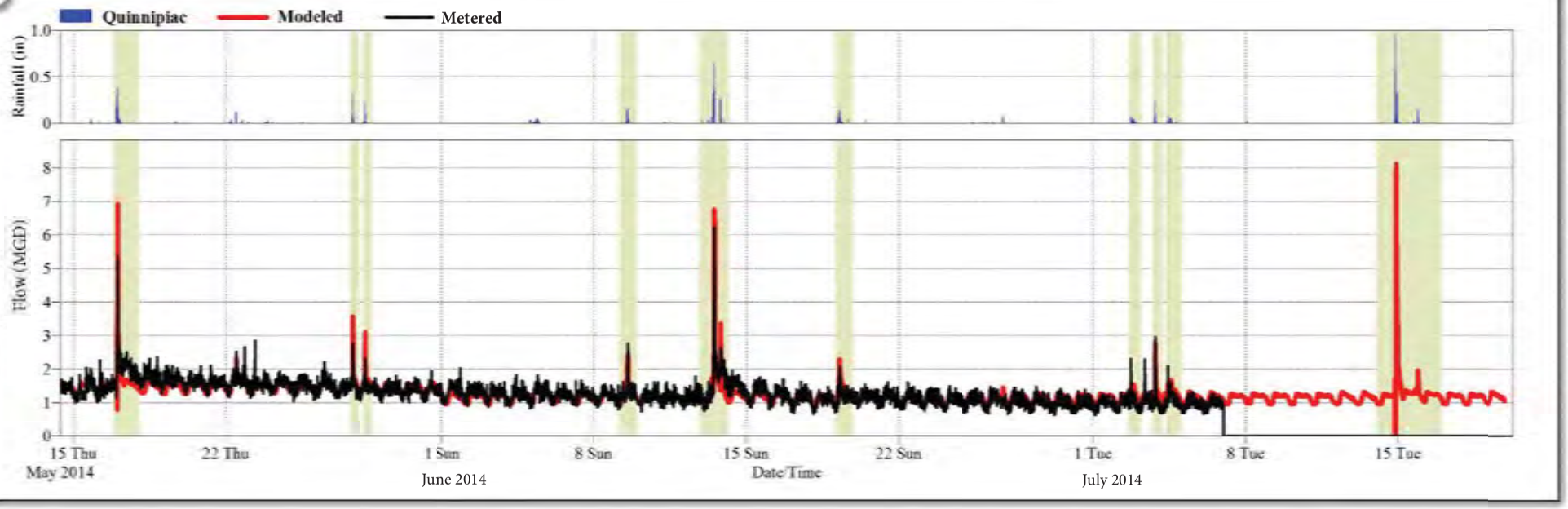


Model Calibration Results

Flow Meter: FM-16

Meter Summary

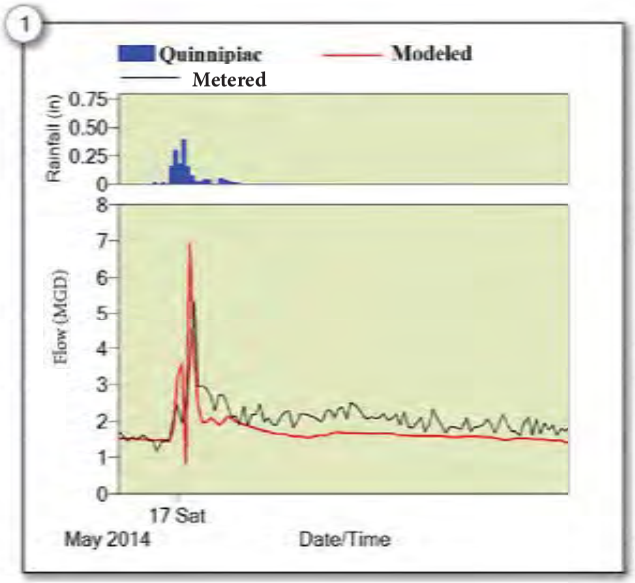
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

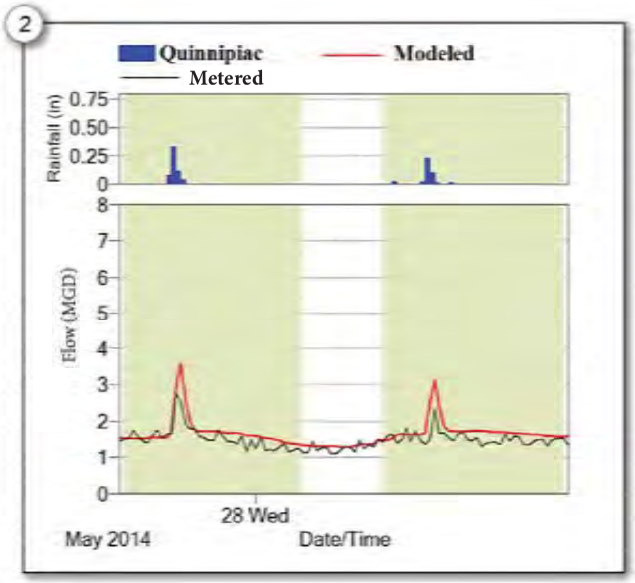
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

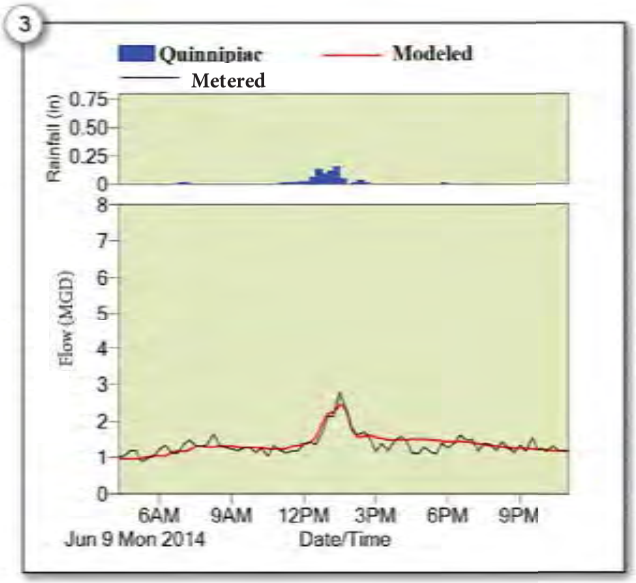
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

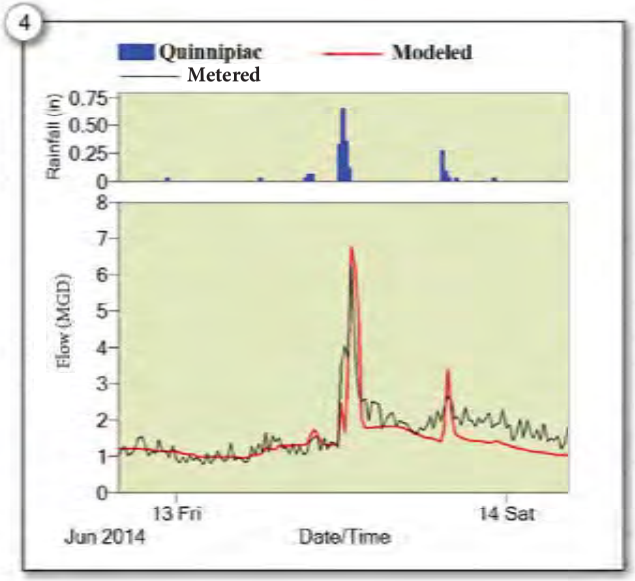
Prepared by:

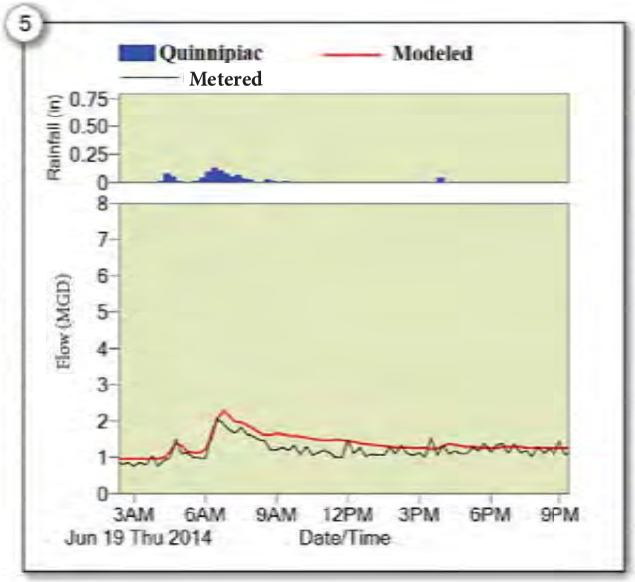
CH2MHILL

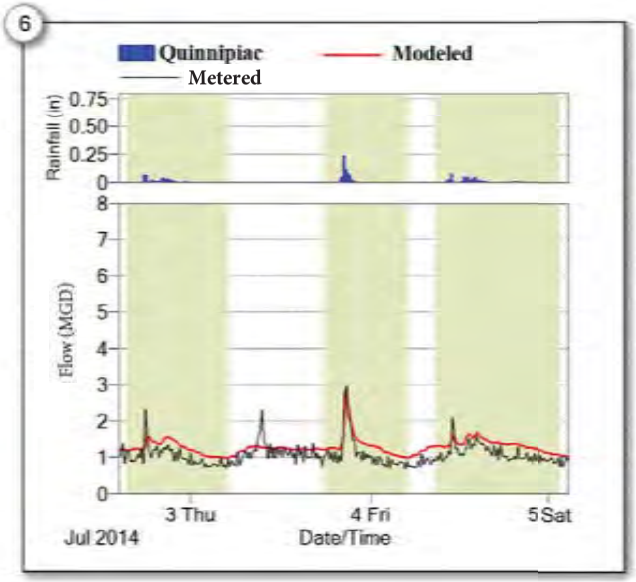












Model Calibration Results

Flow Meter: FM-16

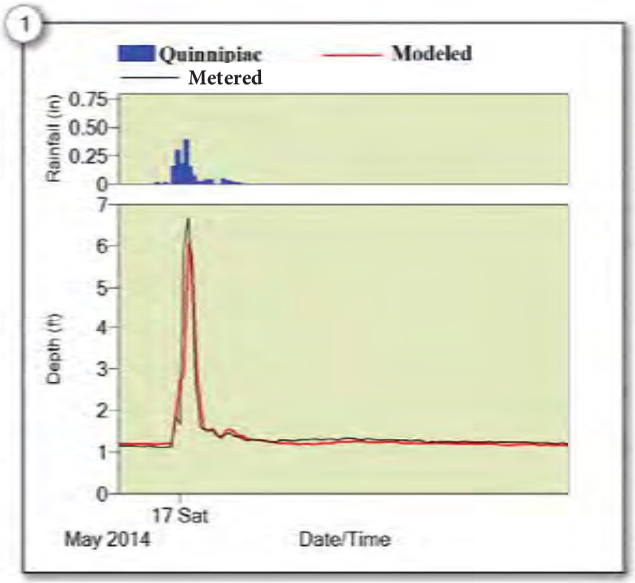
Event Comparison: Flow

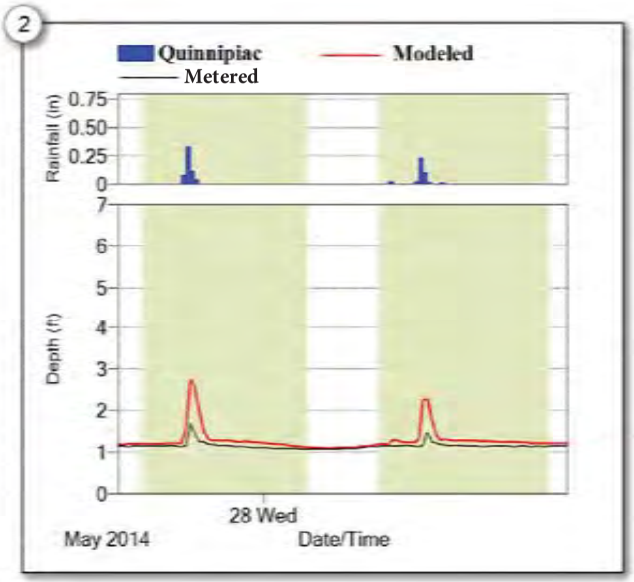
Permanent Rain Gauge Events:

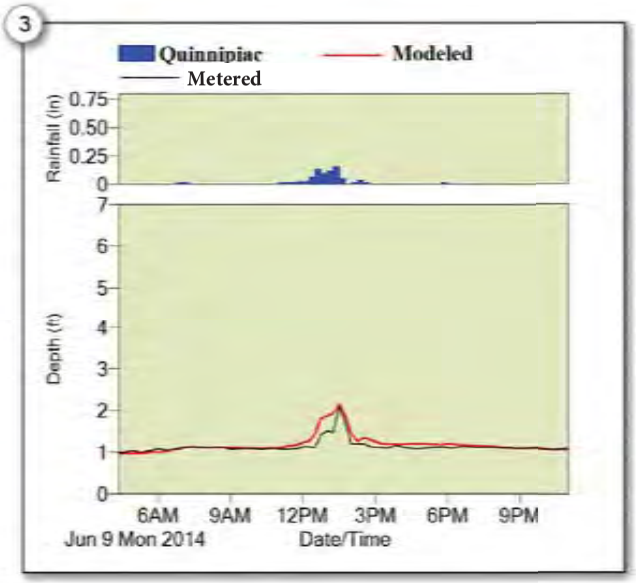
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

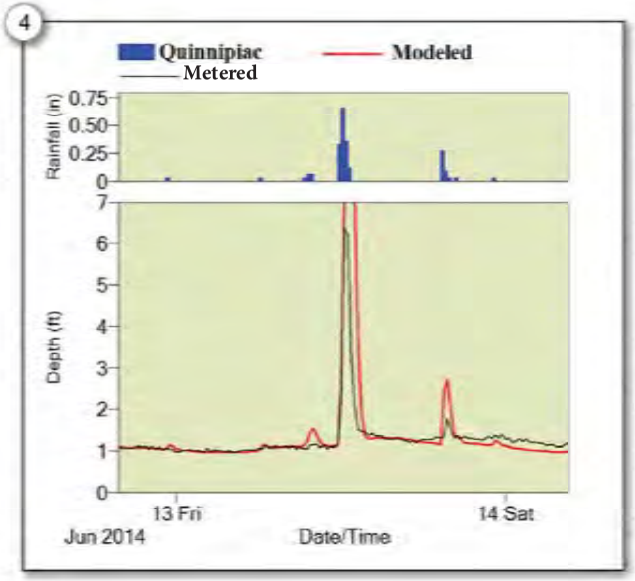
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

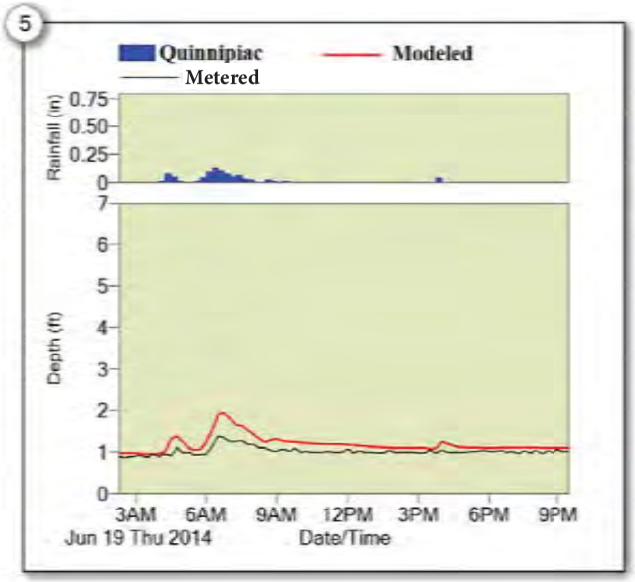
Prepared by:
CH2MHILL

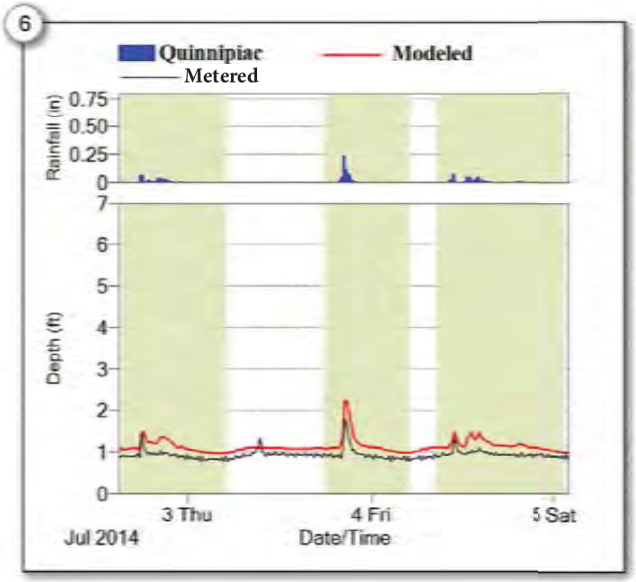












Model Calibration Results

Flow Meter: FM-16

Event Comparison: Depth

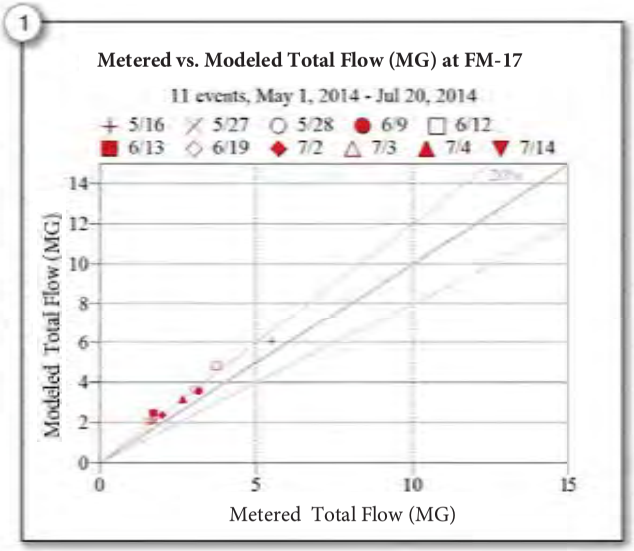
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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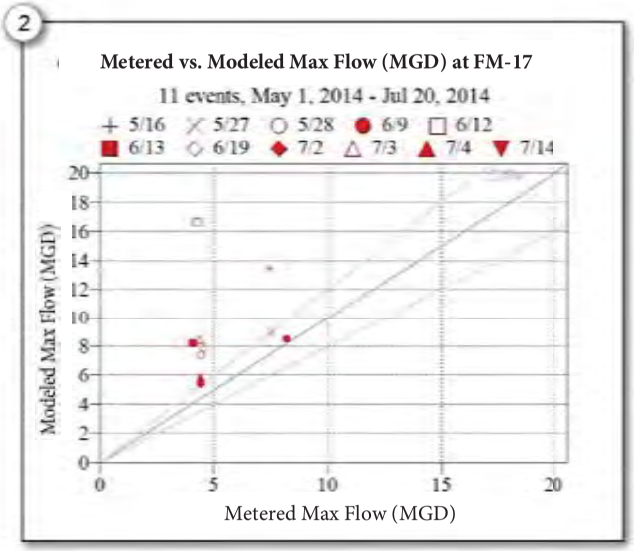

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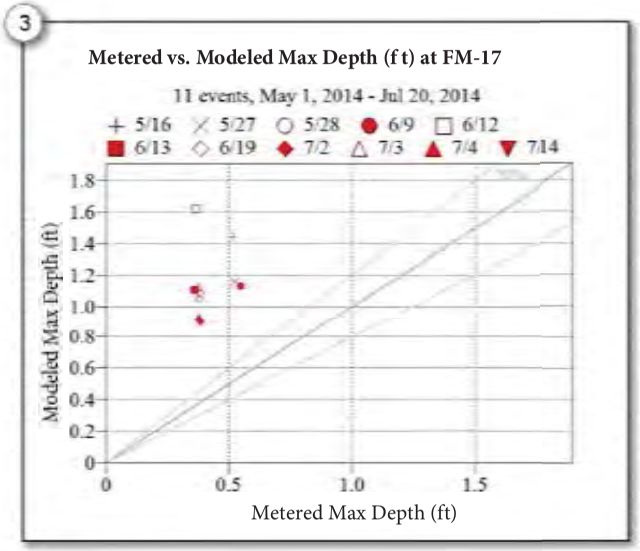

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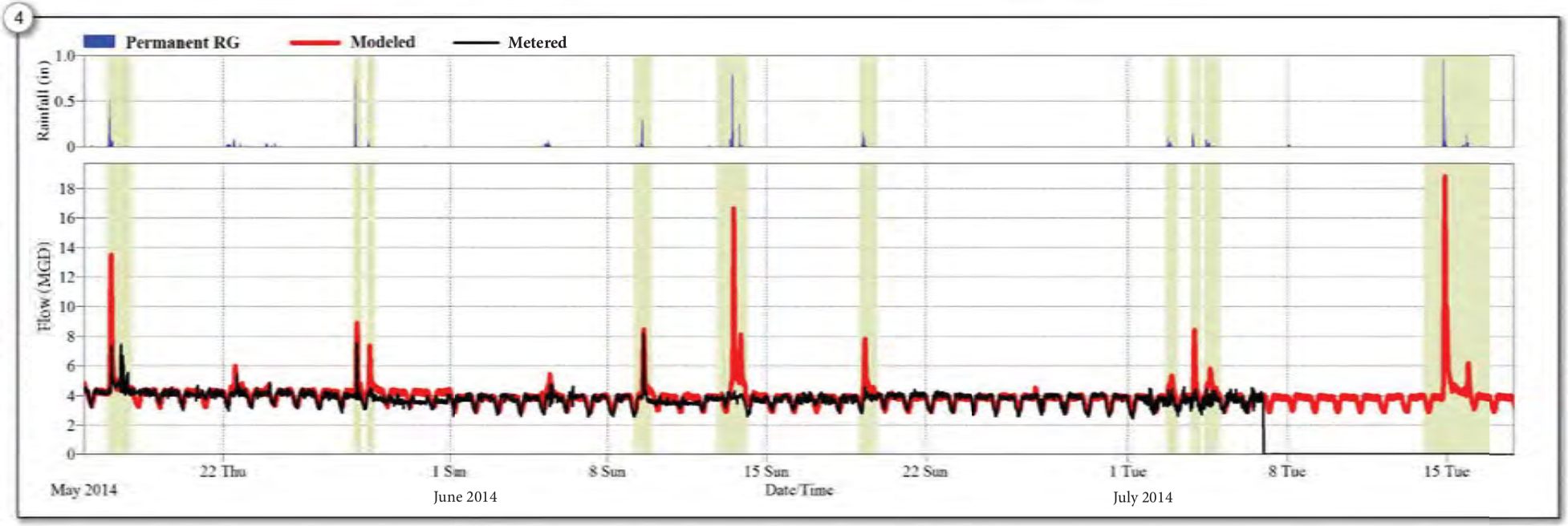


Model Calibration Results

Flow Meter: FM-17

Meter Summary

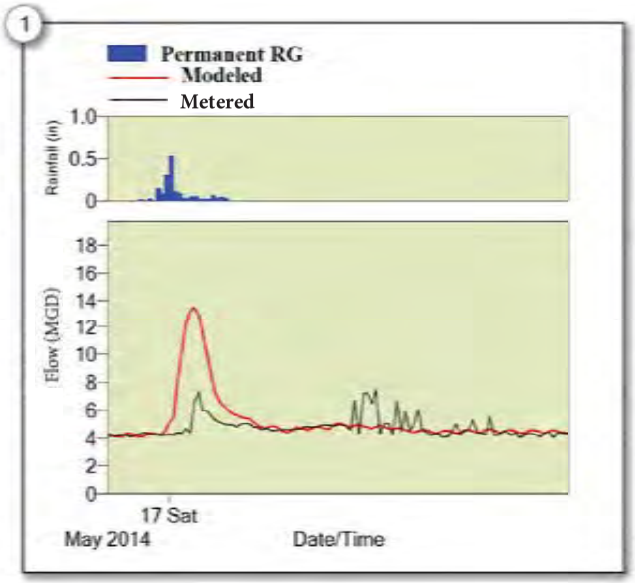
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

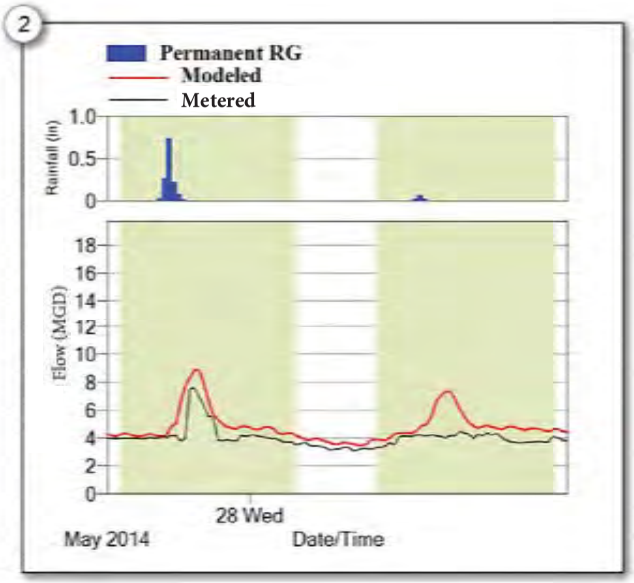
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

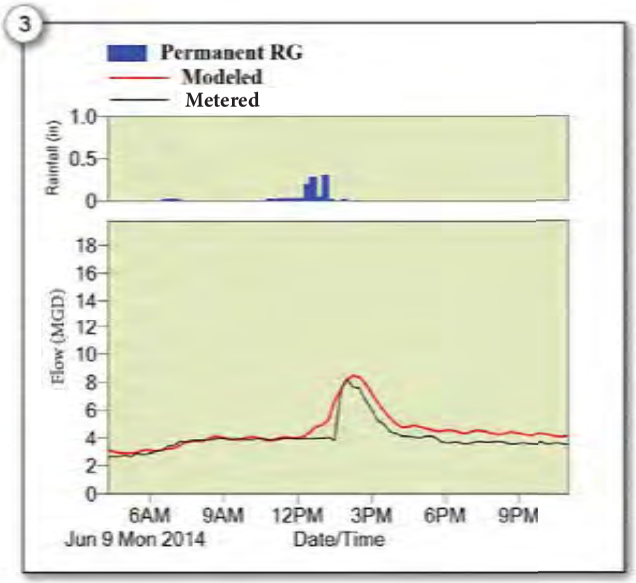
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

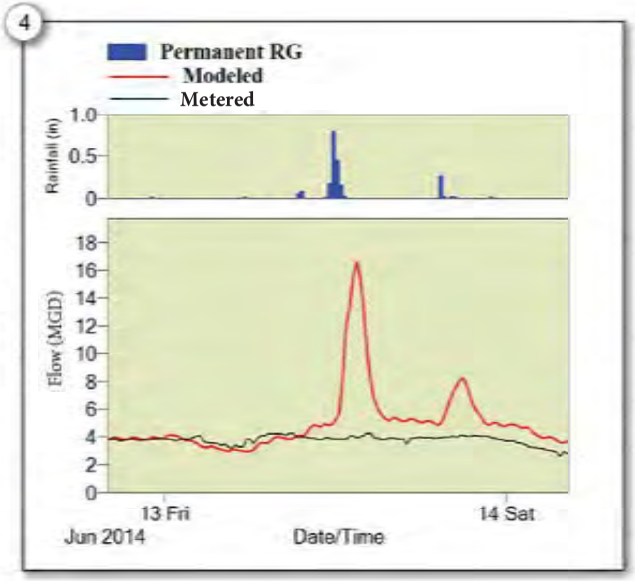
Prepared by:

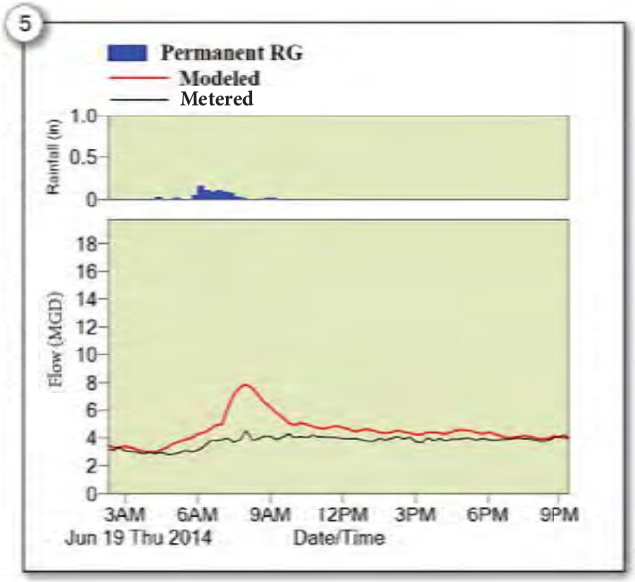
CH2MHILL

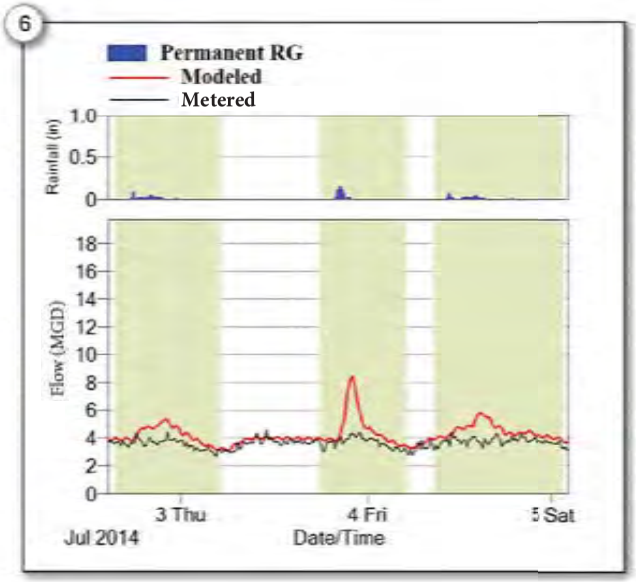












Model Calibration Results

Flow Meter: FM-17

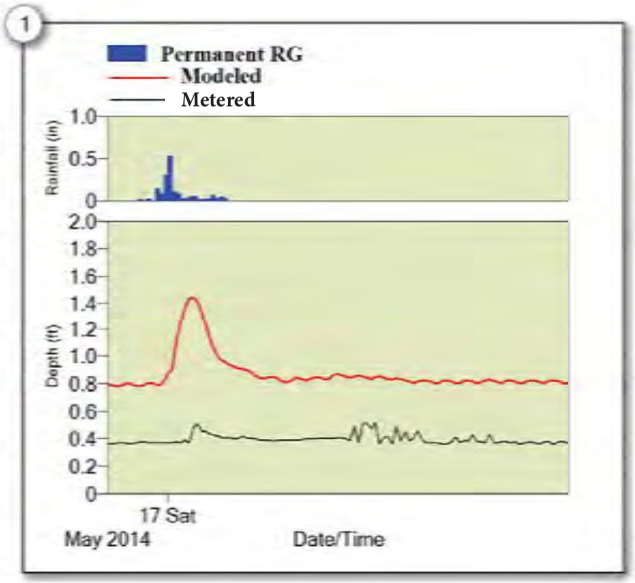
Event Comparison: Flow

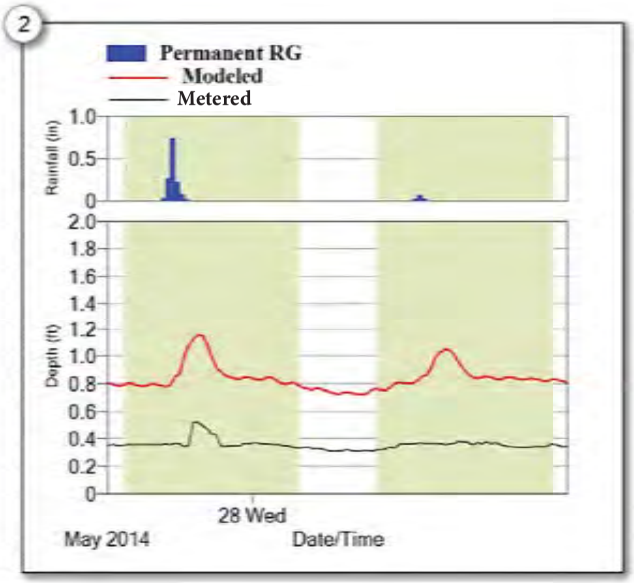
Permanent Rain Gauge Events:

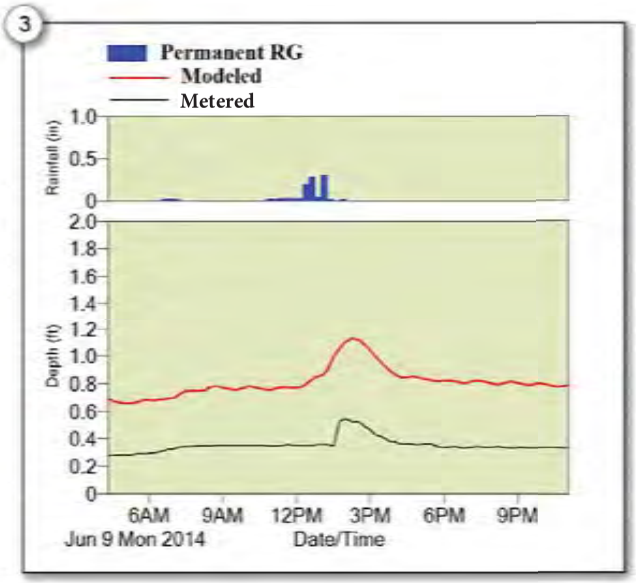
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

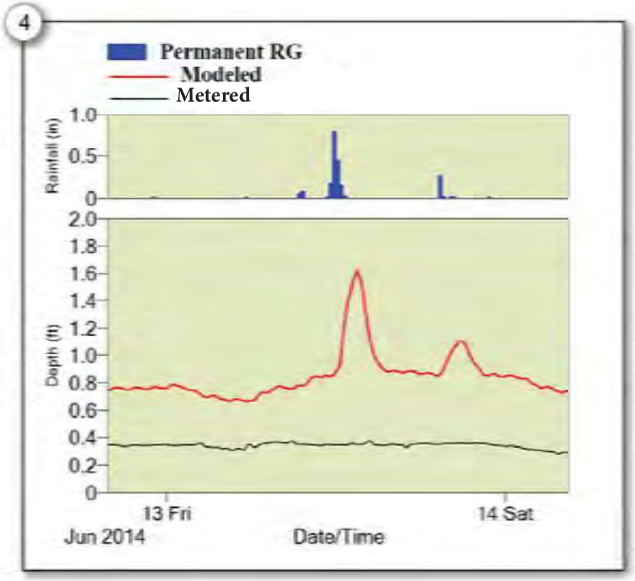
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

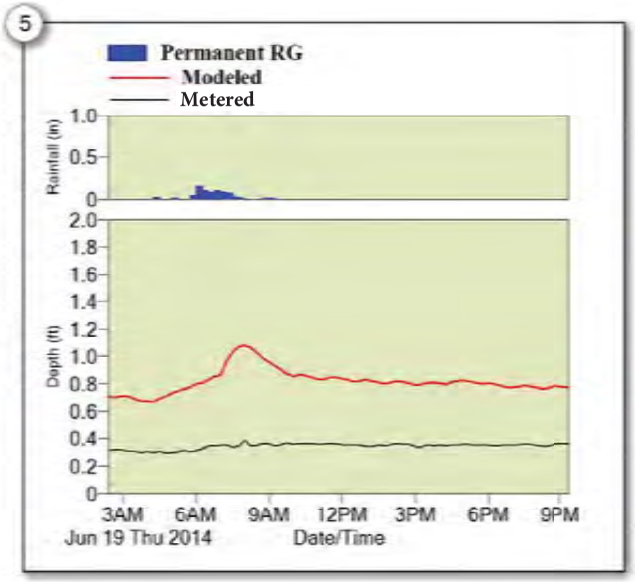
Prepared by:
CH2MHILL

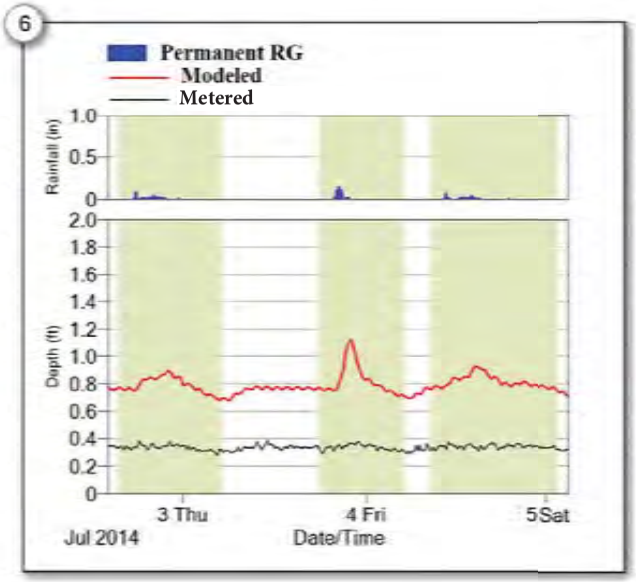












Model Calibration Results

Flow Meter: FM-17

Event Comparison: Depth

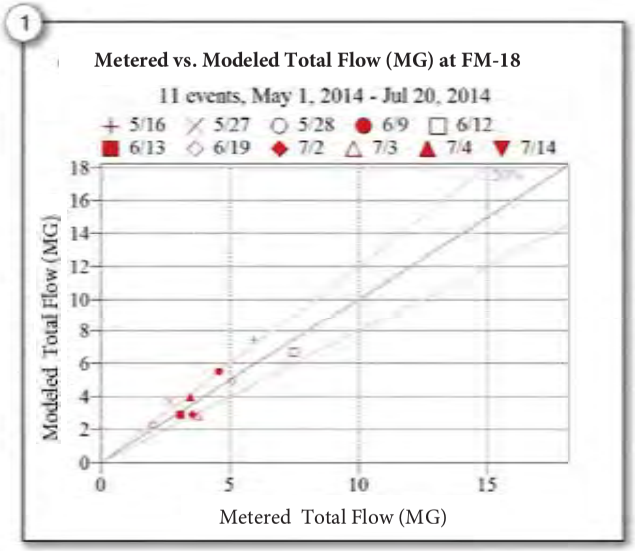
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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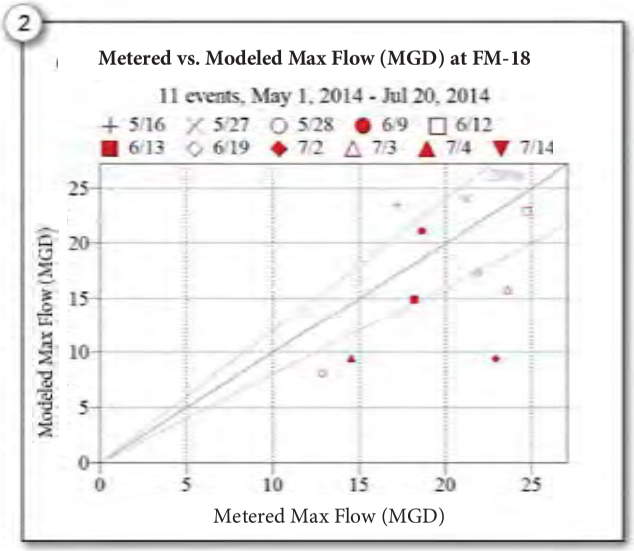

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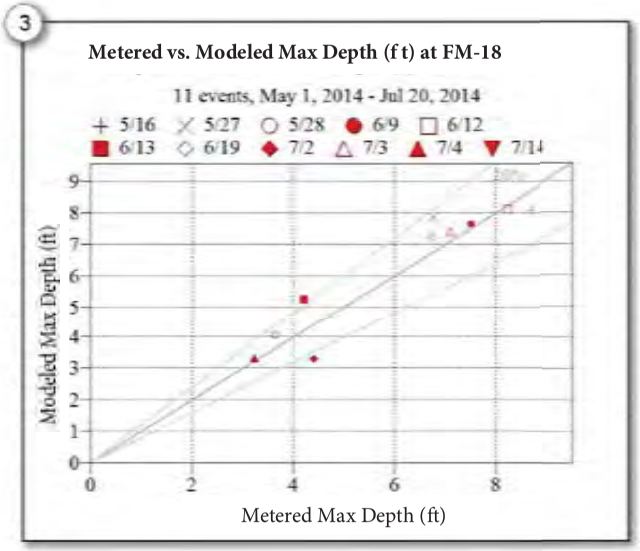

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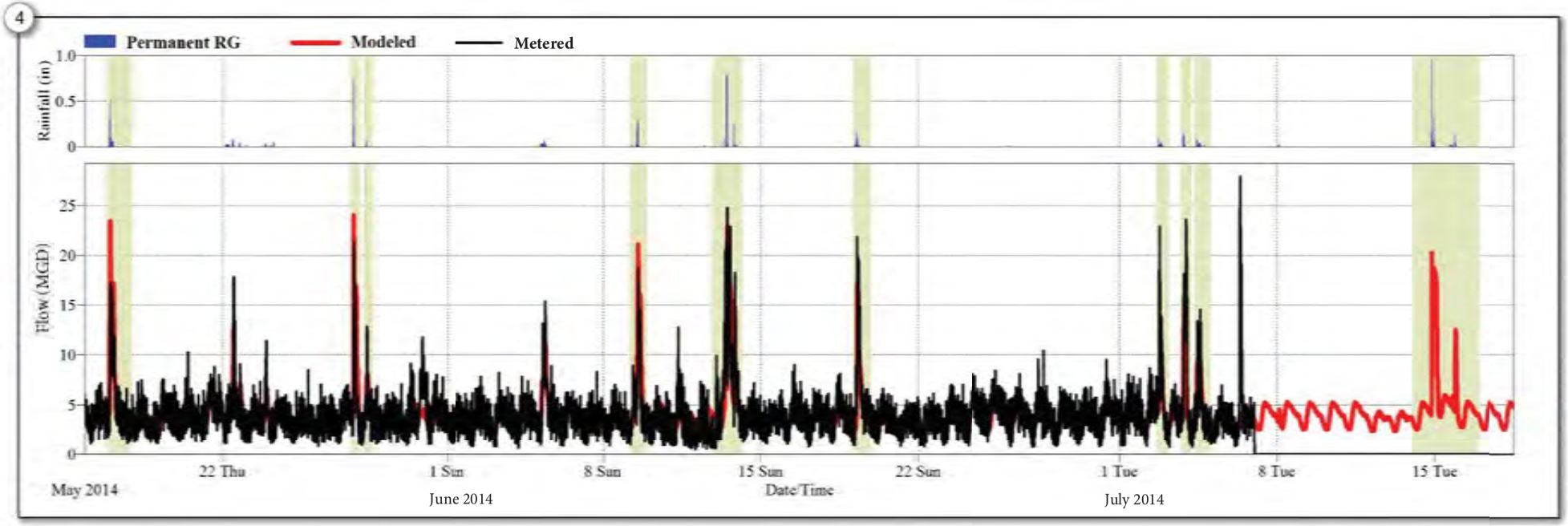


Model Calibration Results

Flow Meter: FM-18

Meter Summary

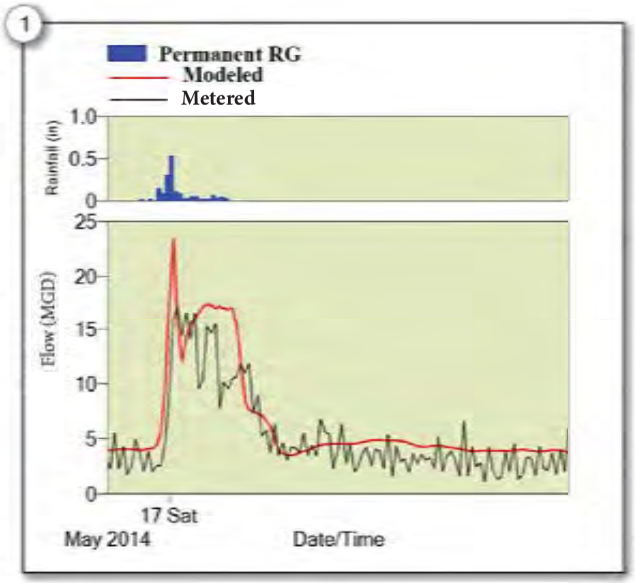
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

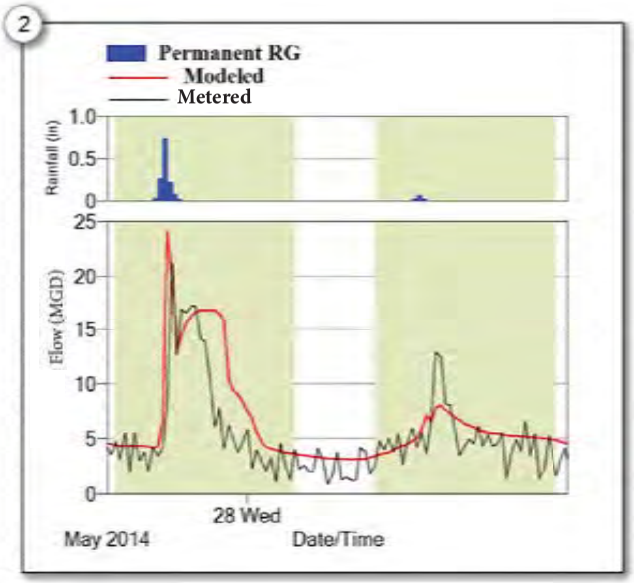
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

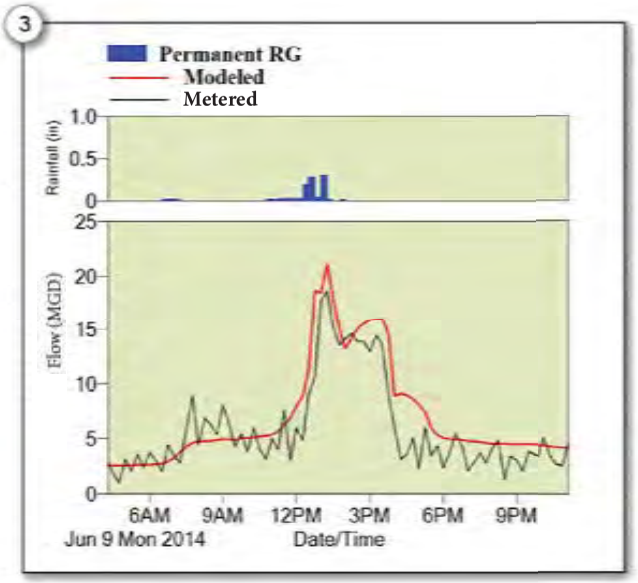
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

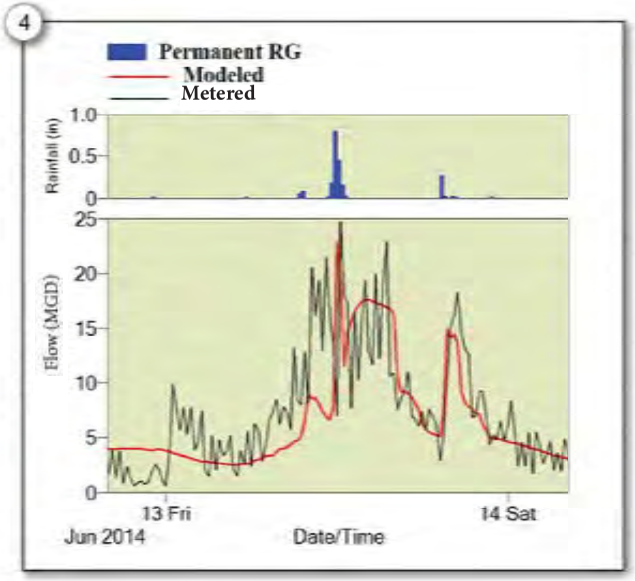
Prepared by:

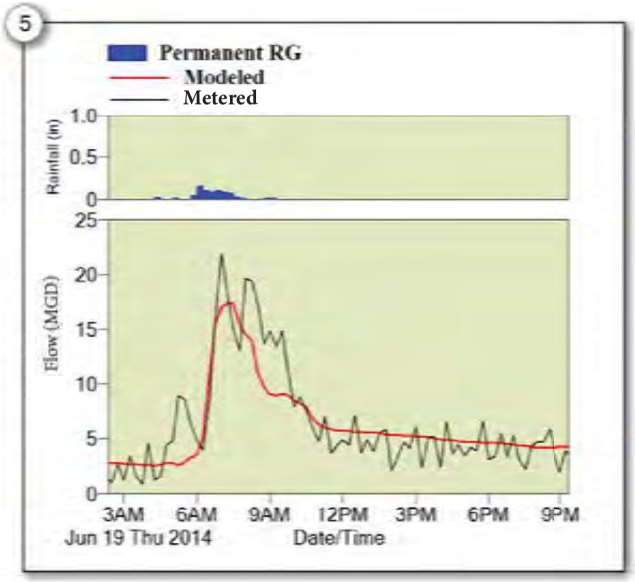
CH2MHILL

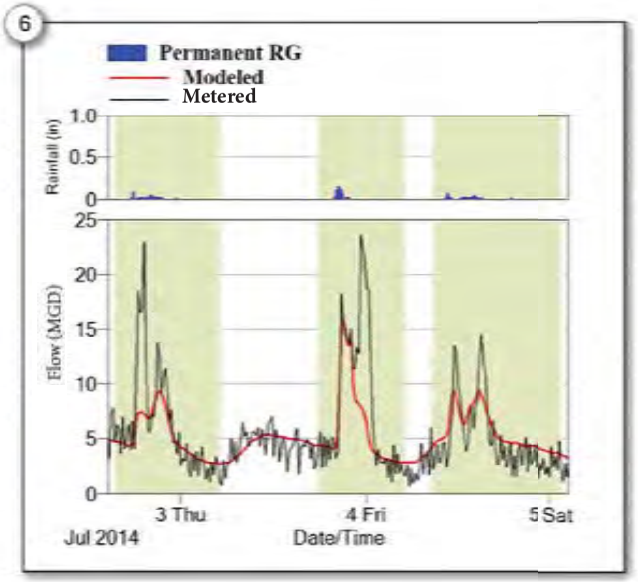












Model Calibration Results

Flow Meter: FM-18

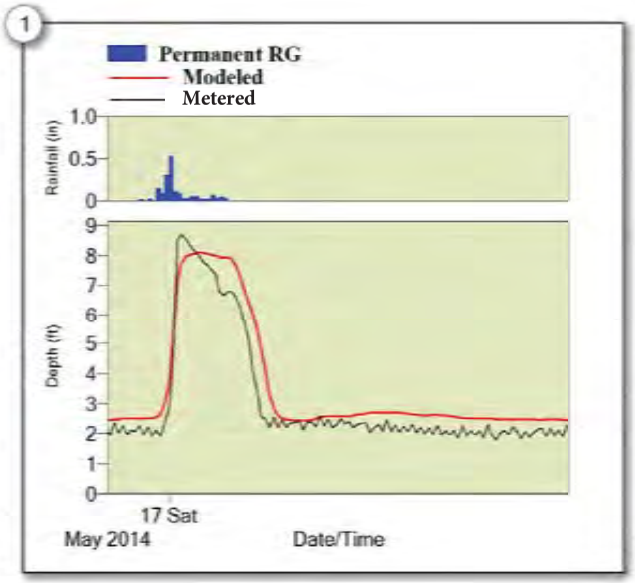
Event Comparison: Flow

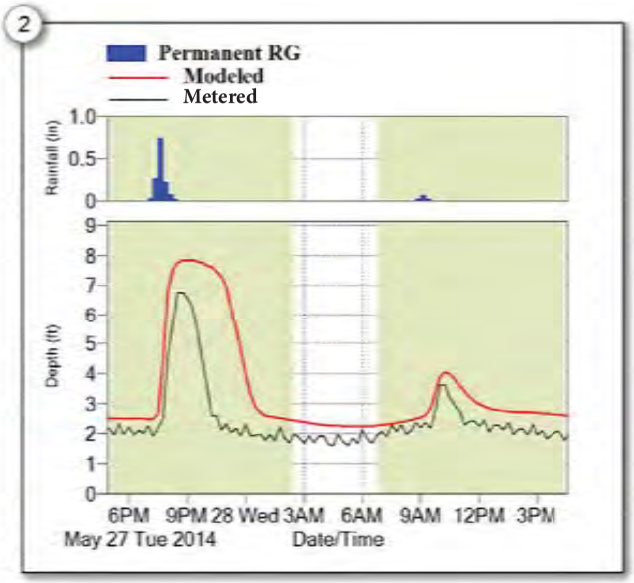
Permanent Rain Gauge Events:

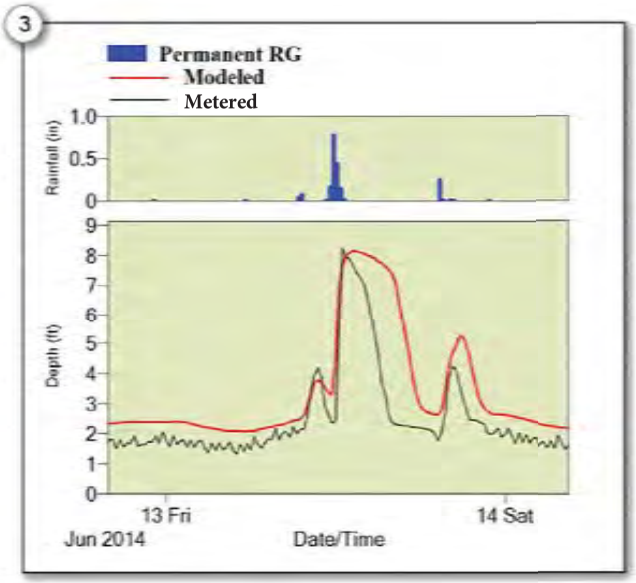
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

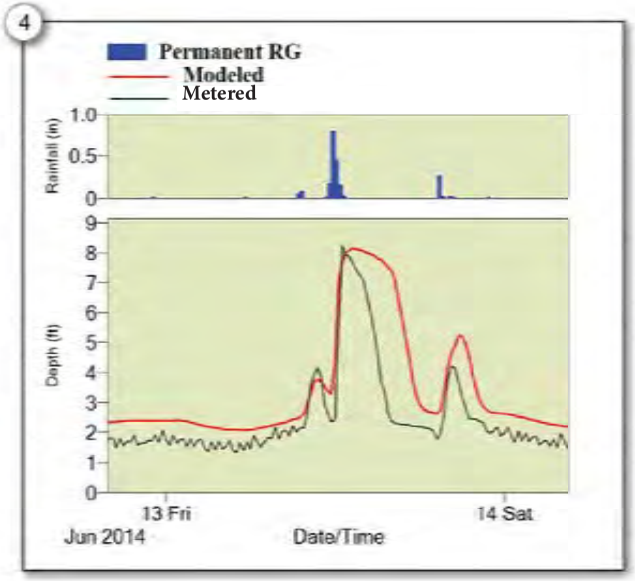
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

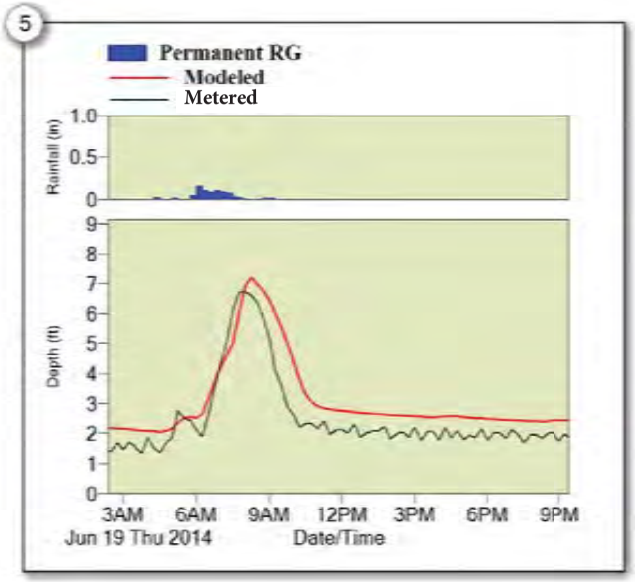
Prepared by:
CH2MHILL

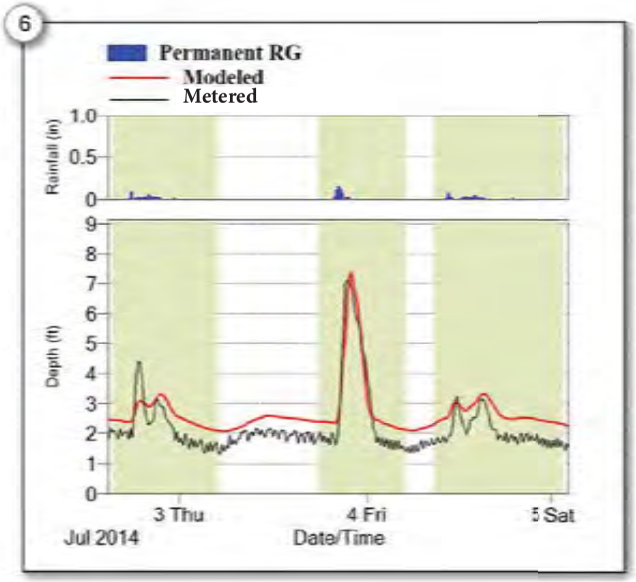












Model Calibration Results

Flow Meter: FM-18

Event Comparison: Depth

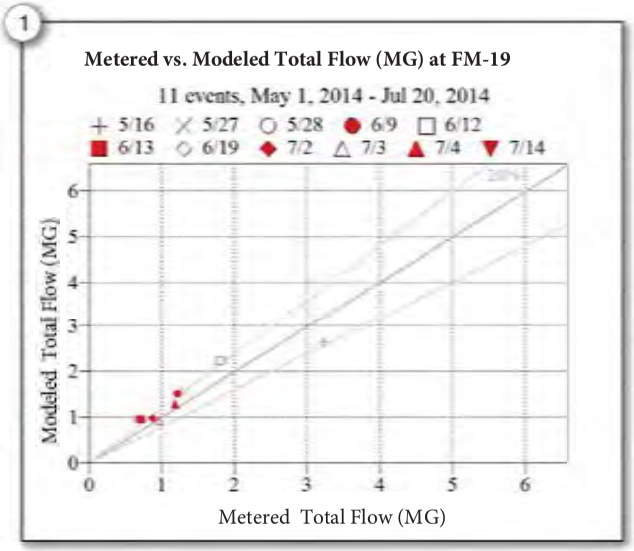
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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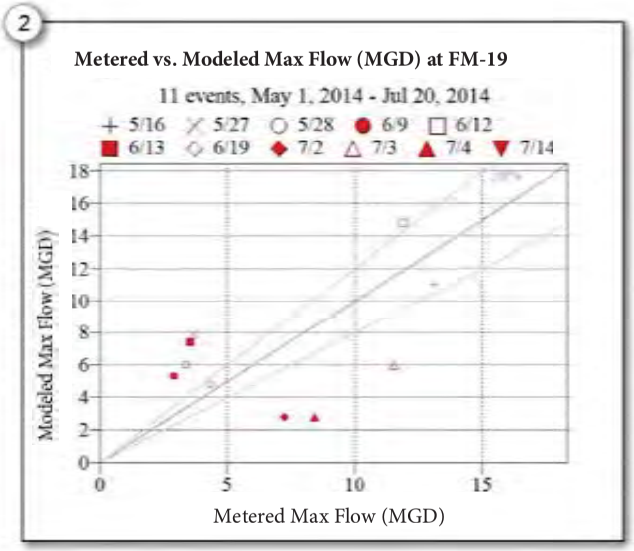

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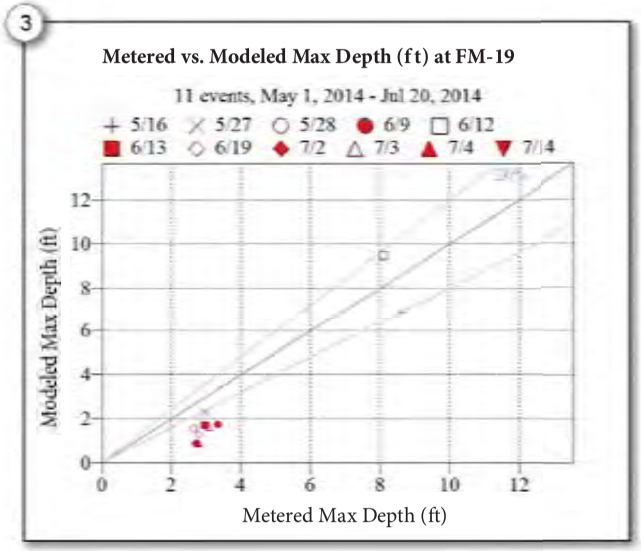

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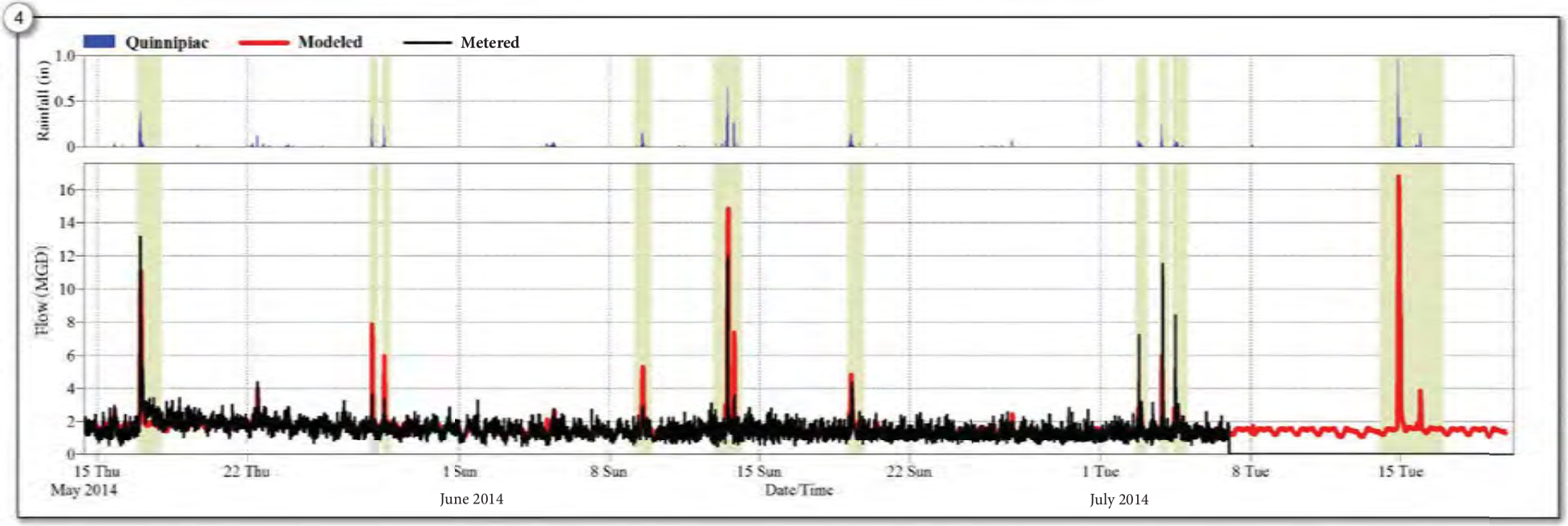


Model Calibration Results

Flow Meter: FM-19

Meter Summary

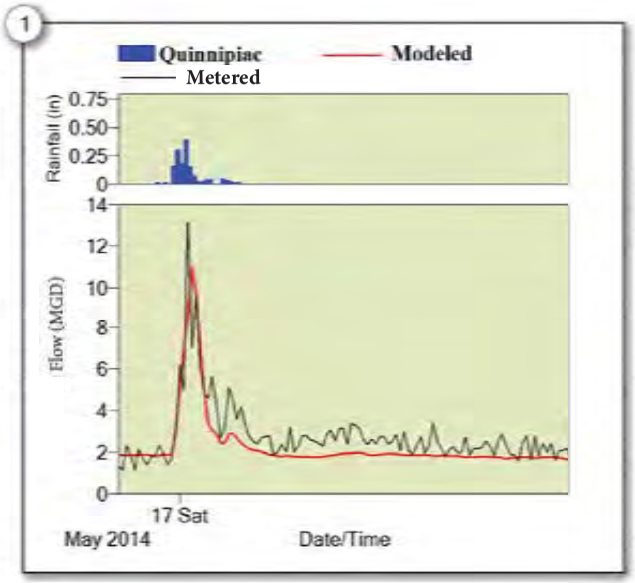
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

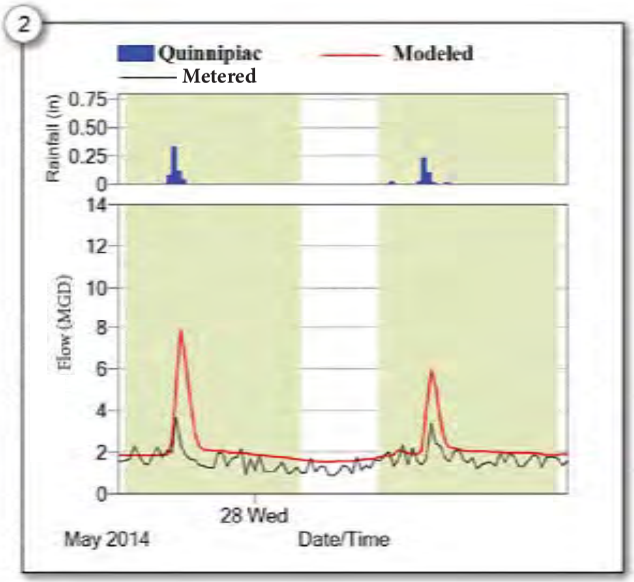
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

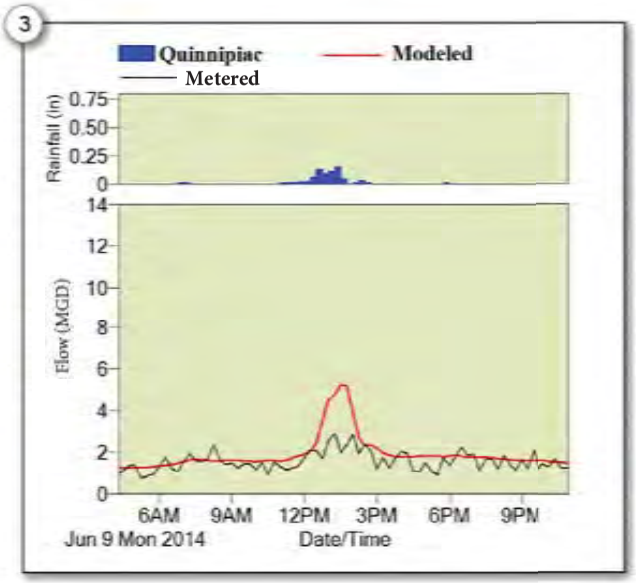
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

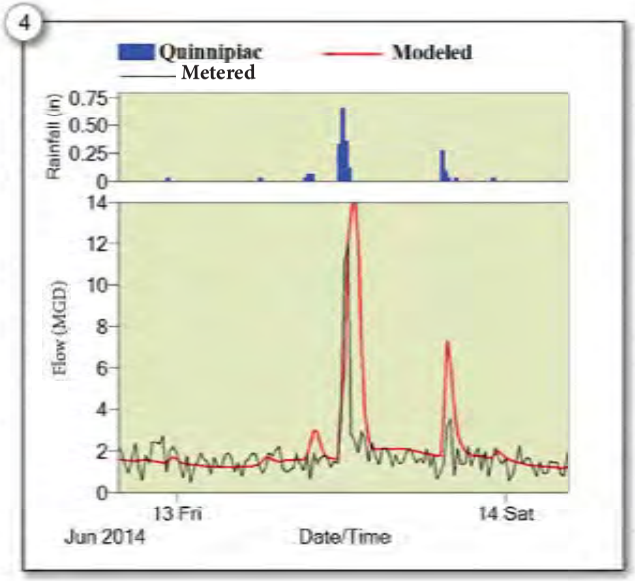
Prepared by:

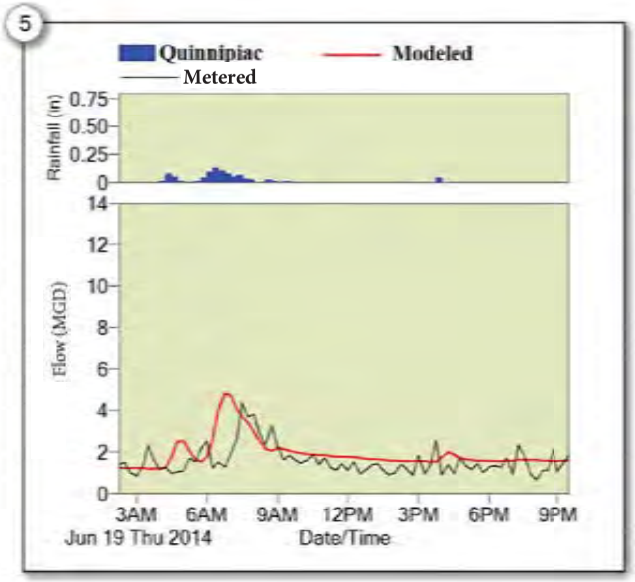
CH2MHILL

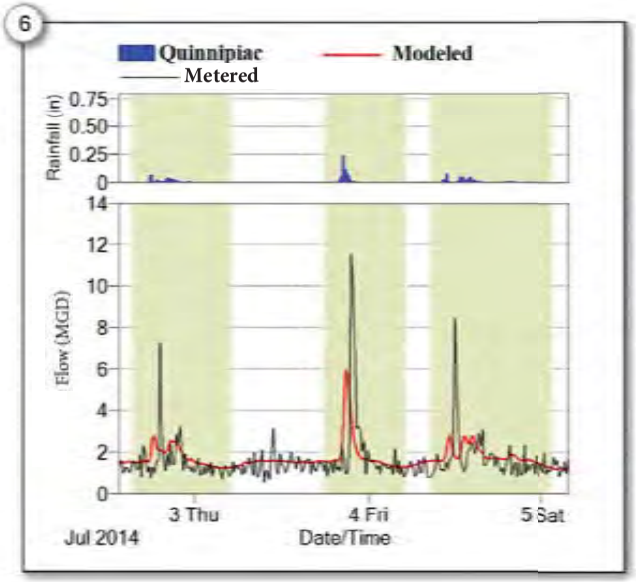












Model Calibration Results

Flow Meter: FM-19

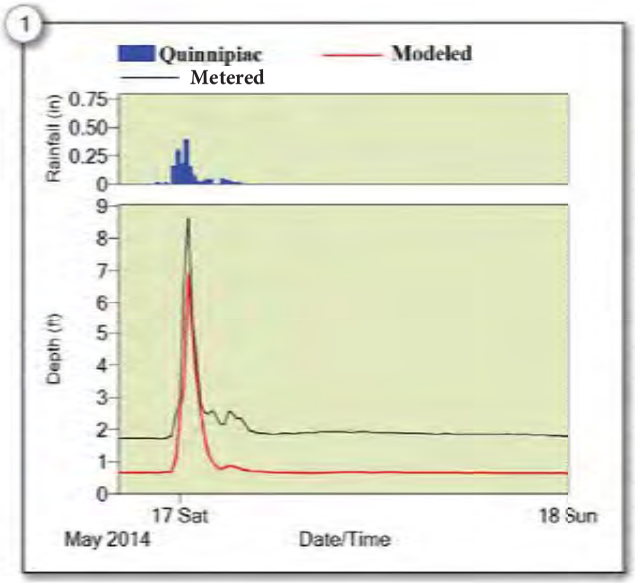
Event Comparison: Flow

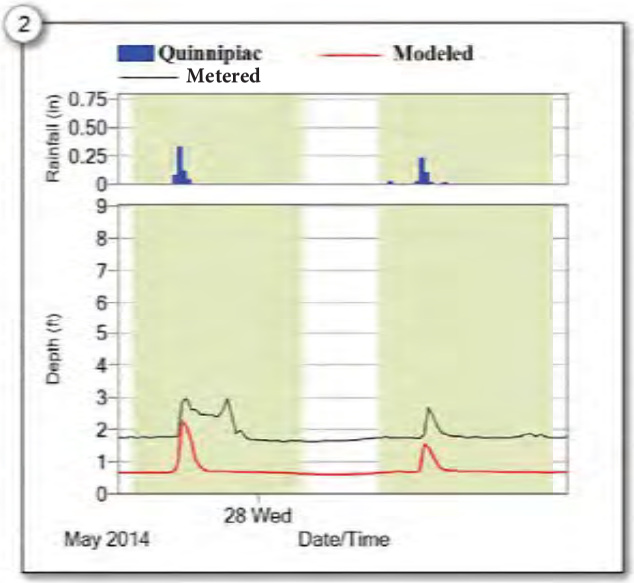
Permanent Rain Gauge Events:

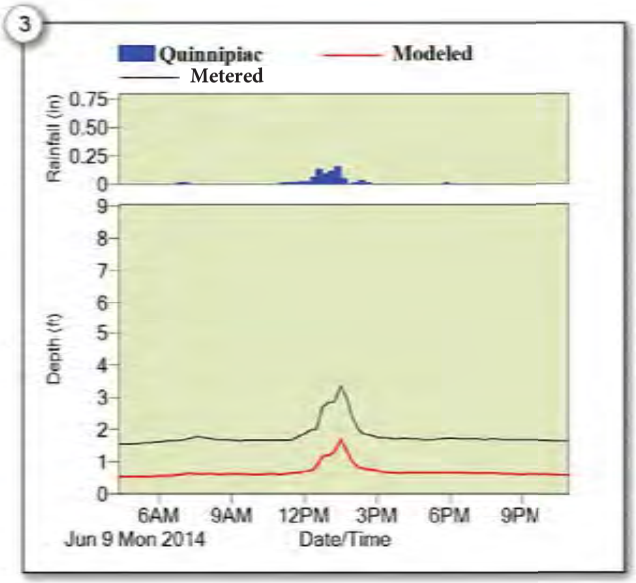
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

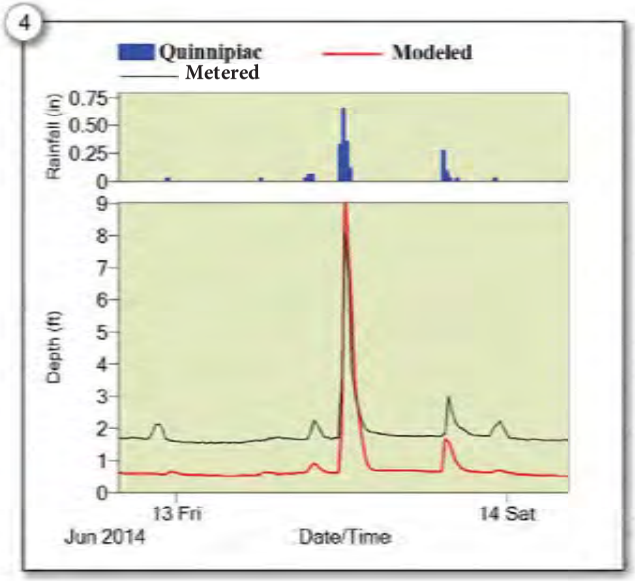
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

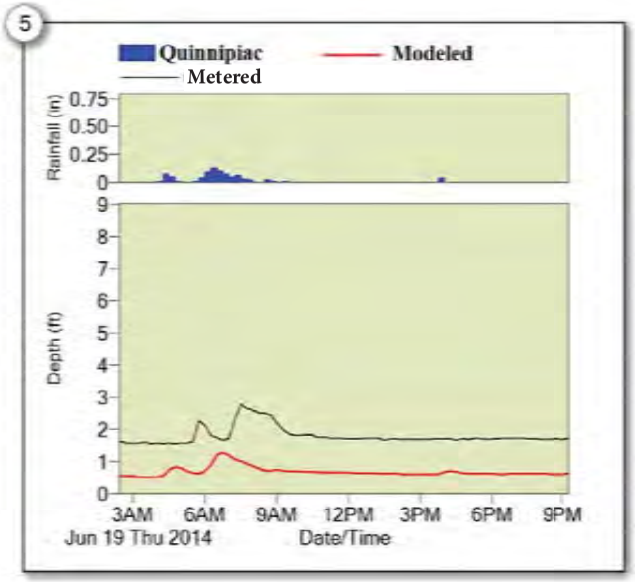
Prepared by:
CH2MHILL

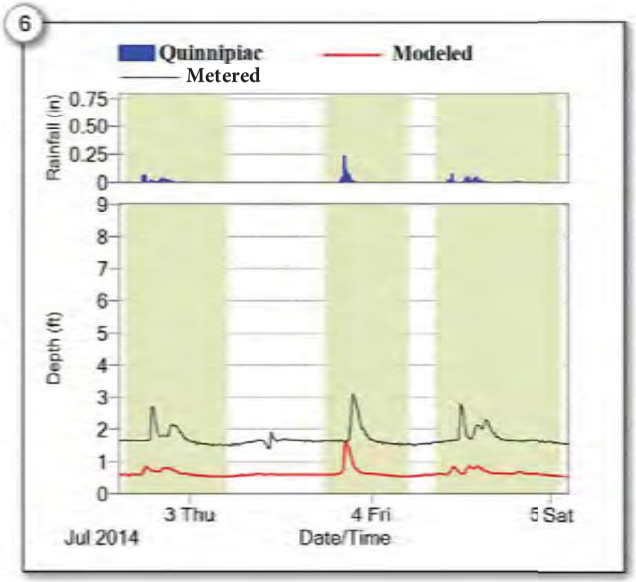












Model Calibration Results

Flow Meter: FM-19

Event Comparison: Depth

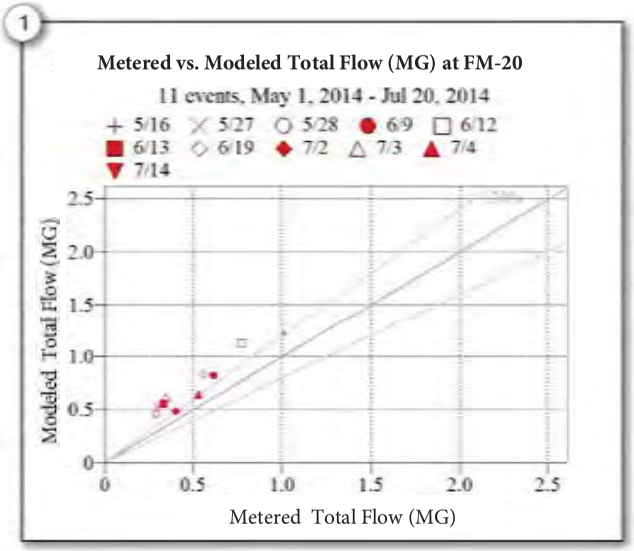
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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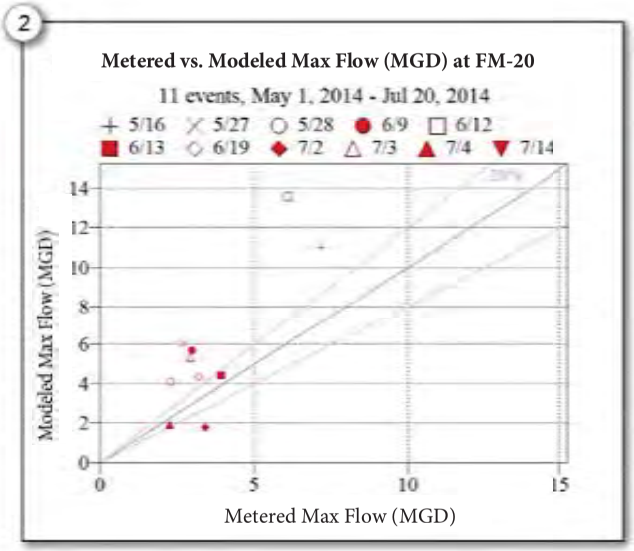

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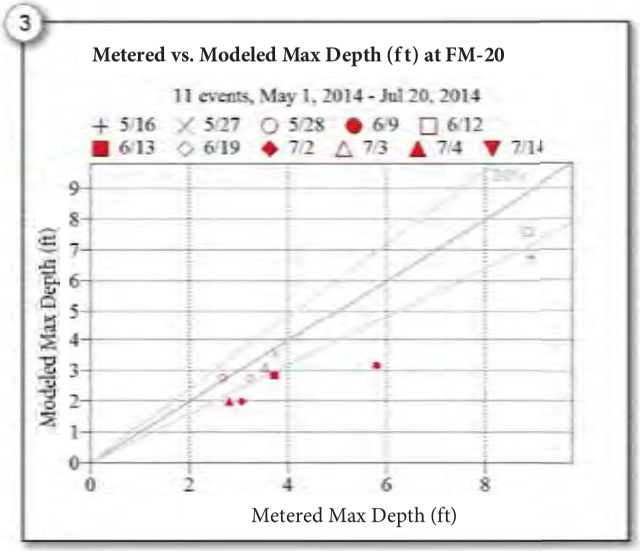

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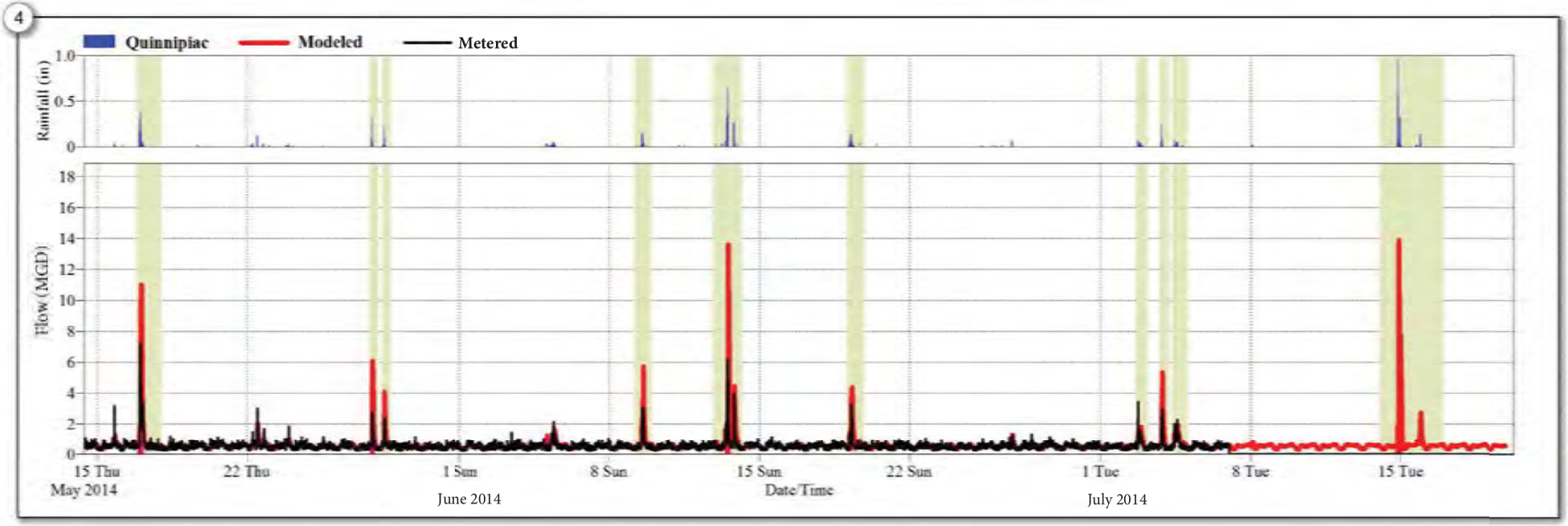


Model Calibration Results

Flow Meter: FM-20

Meter Summary

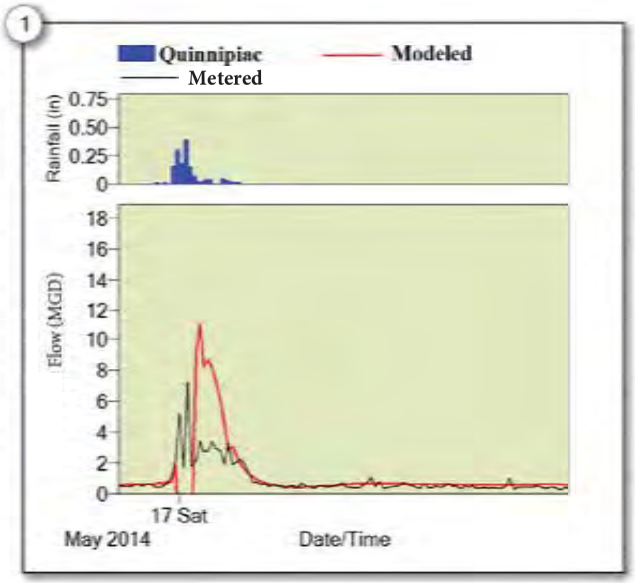
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

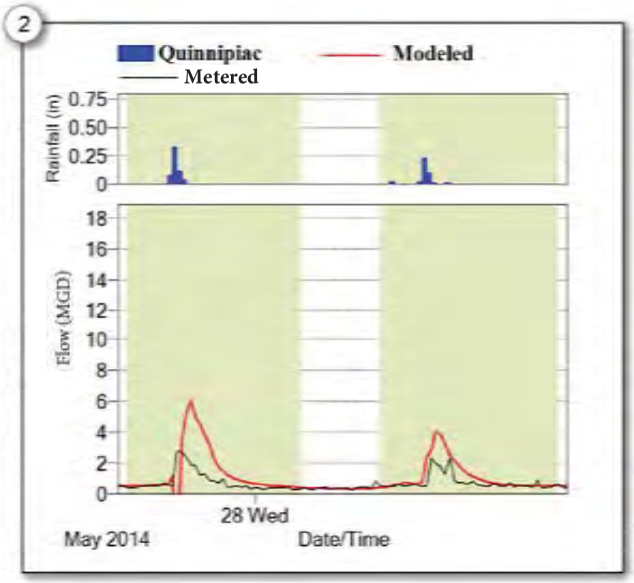
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

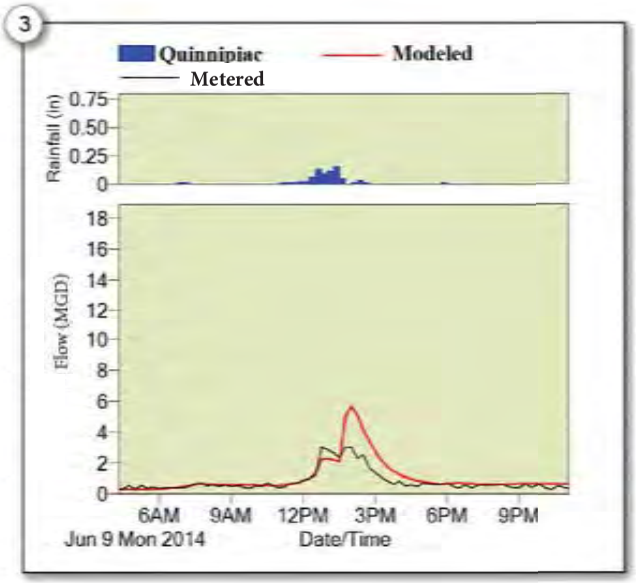
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

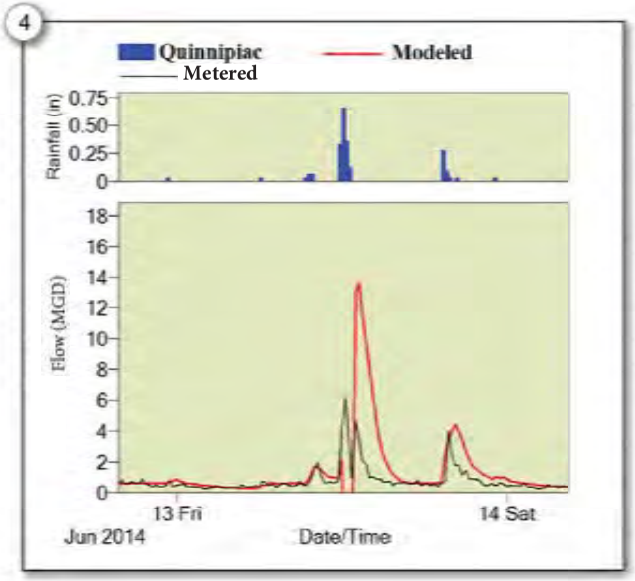
Prepared by:

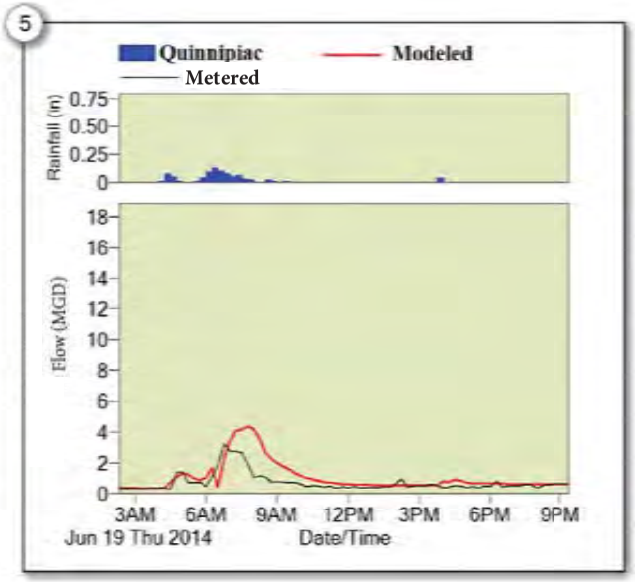
CH2MHILL

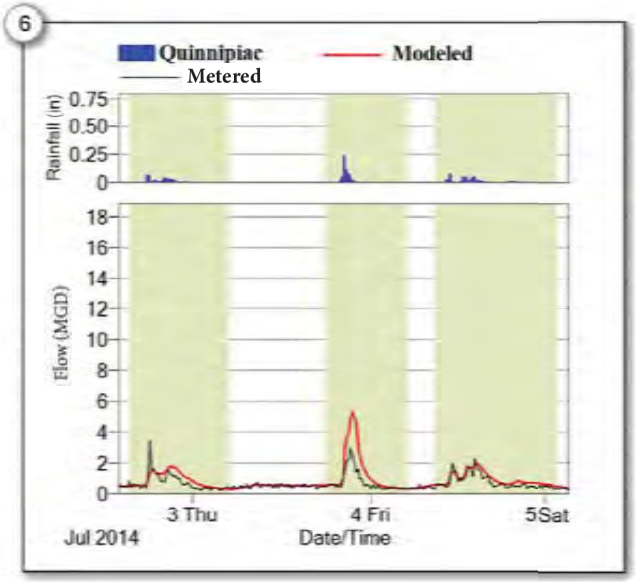












Model Calibration Results

Flow Meter: FM-20

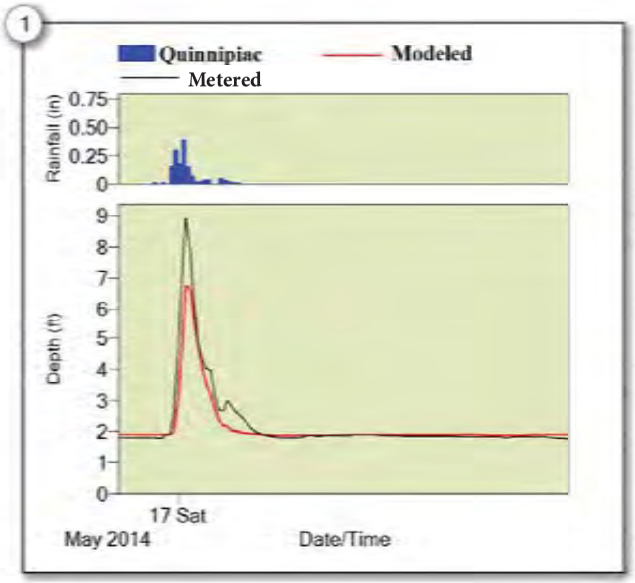
Event Comparison: Flow

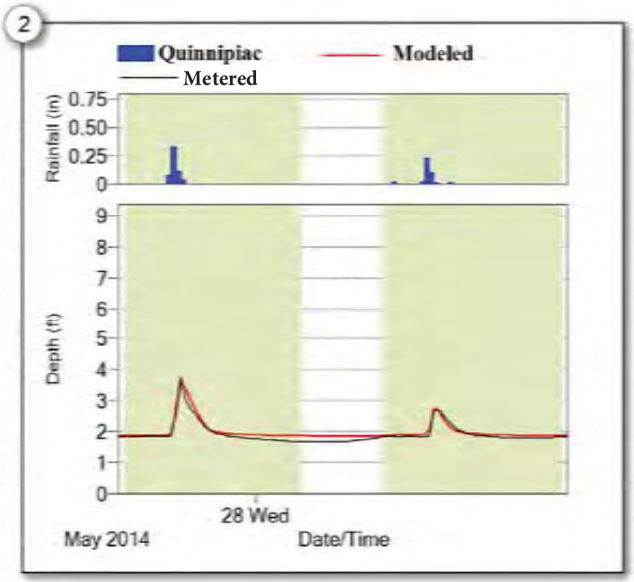
Permanent Rain Gauge Events:

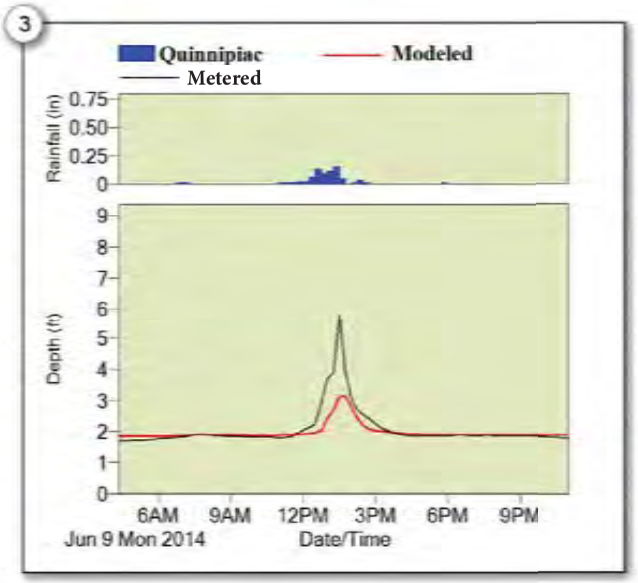
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

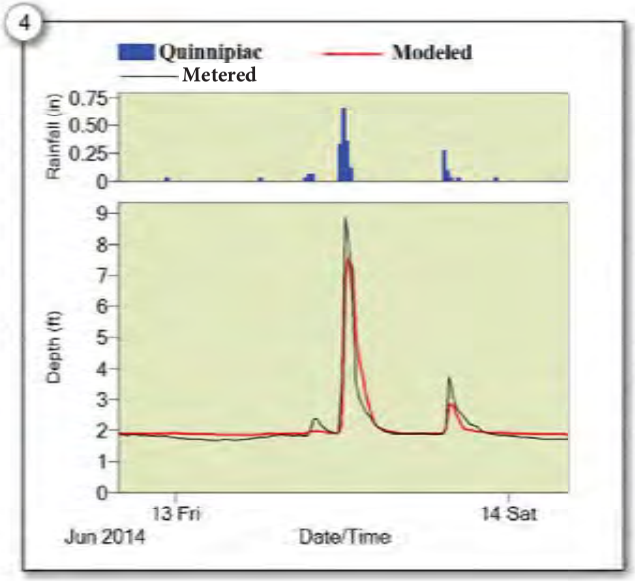
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

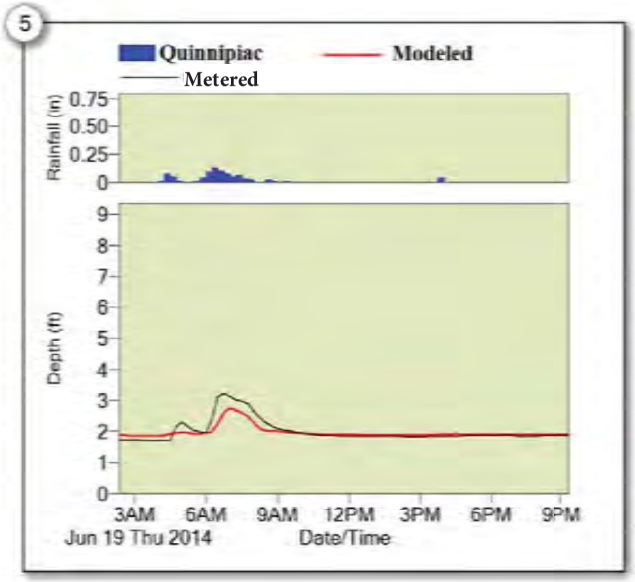
Prepared by:
CH2MHILL

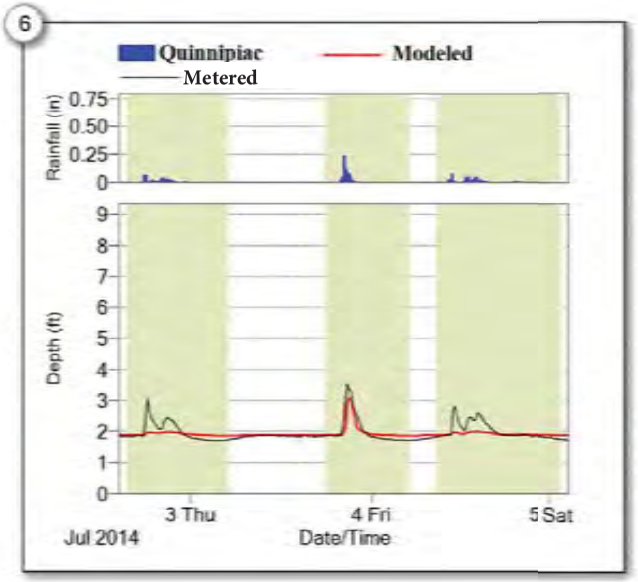












Model Calibration Results

Flow Meter: FM-20

Event Comparison: Depth

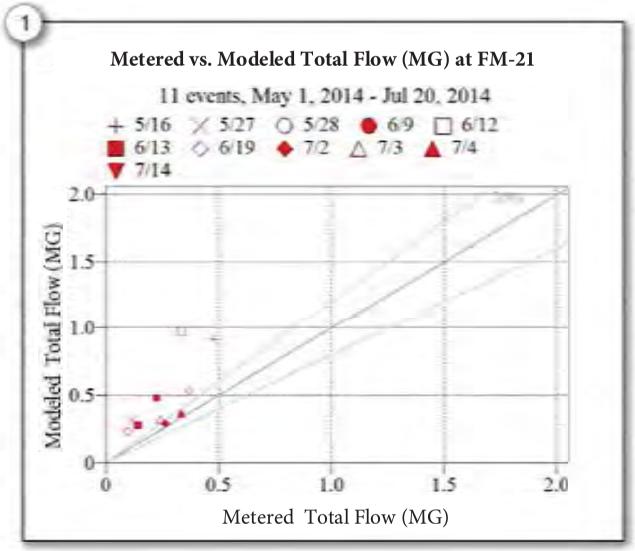
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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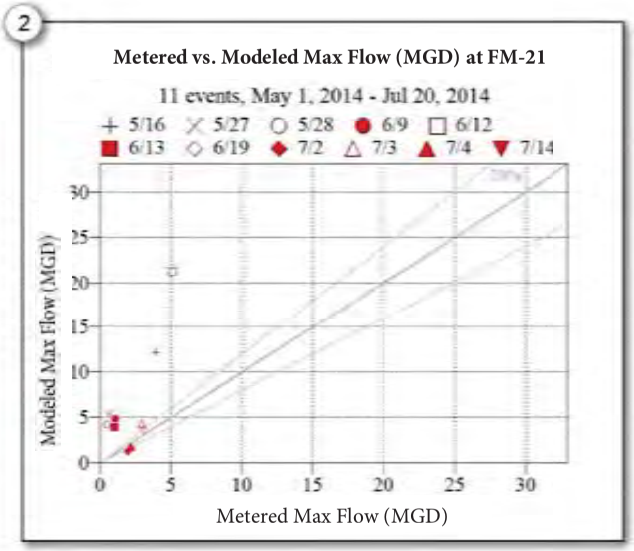

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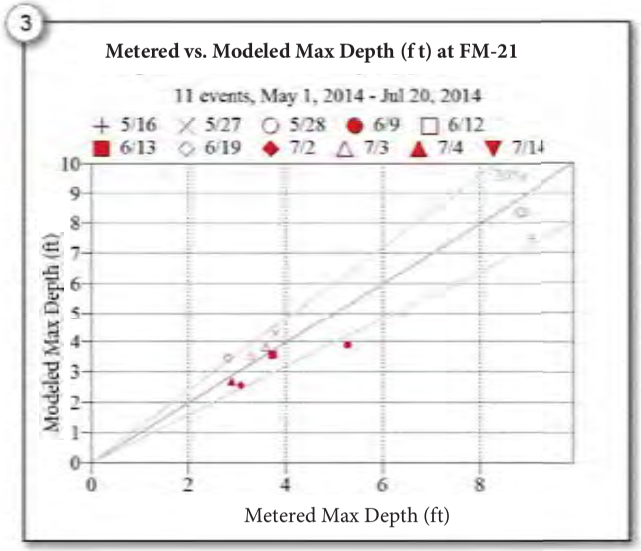

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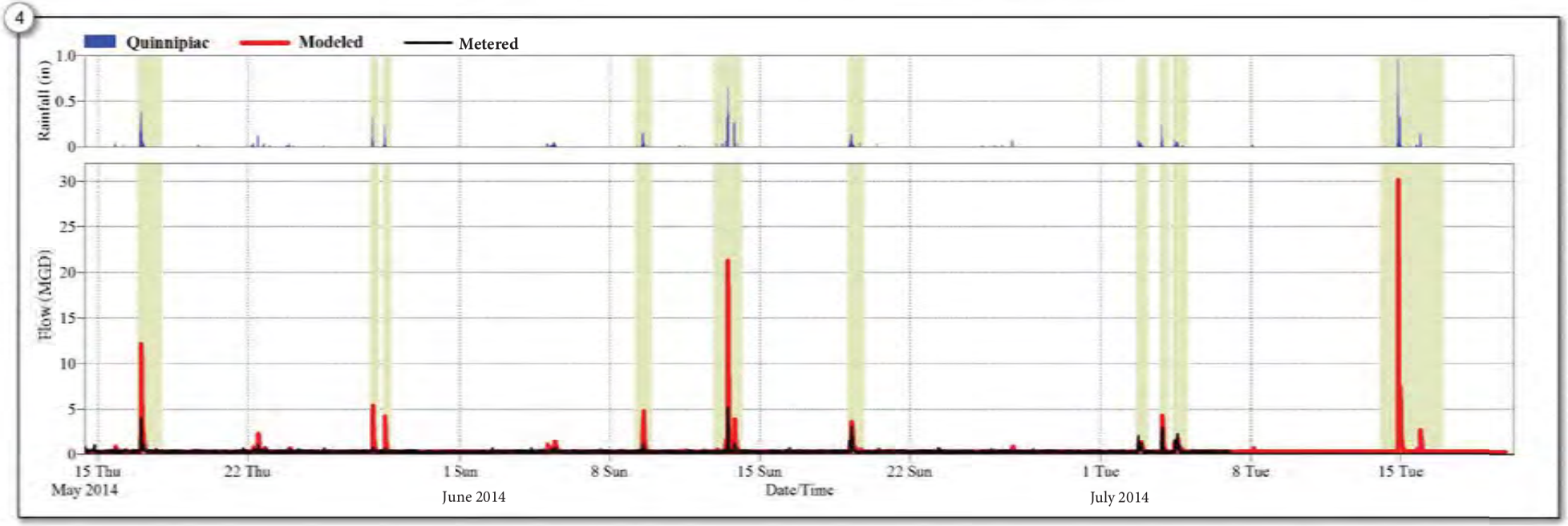


Model Calibration Results

Flow Meter: FM-21

Meter Summary

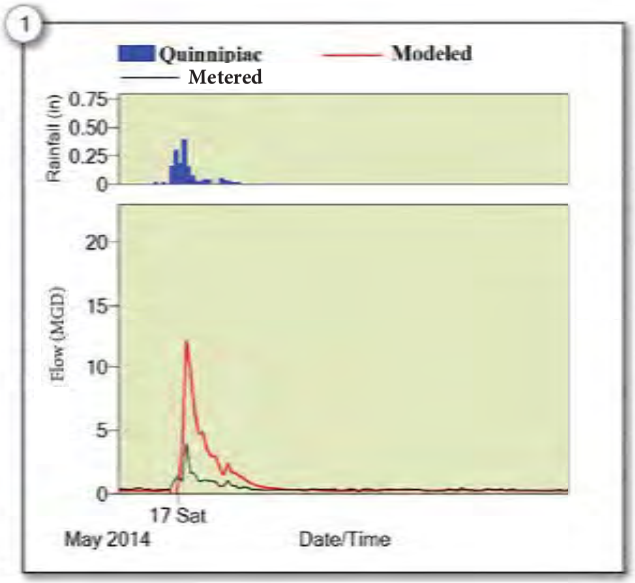
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

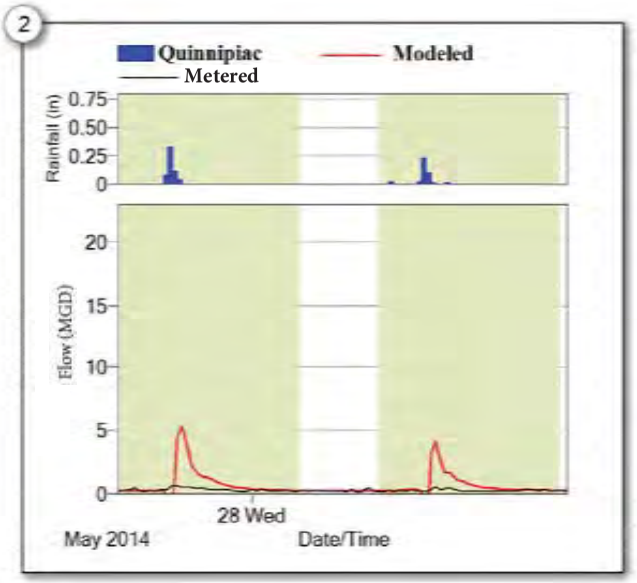
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

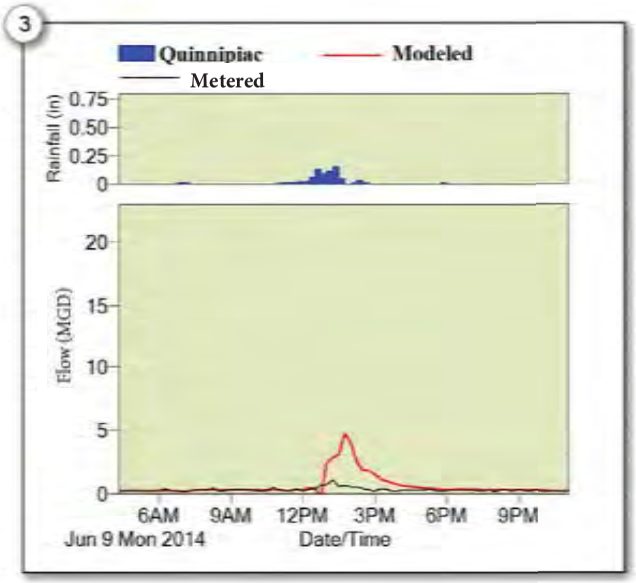
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

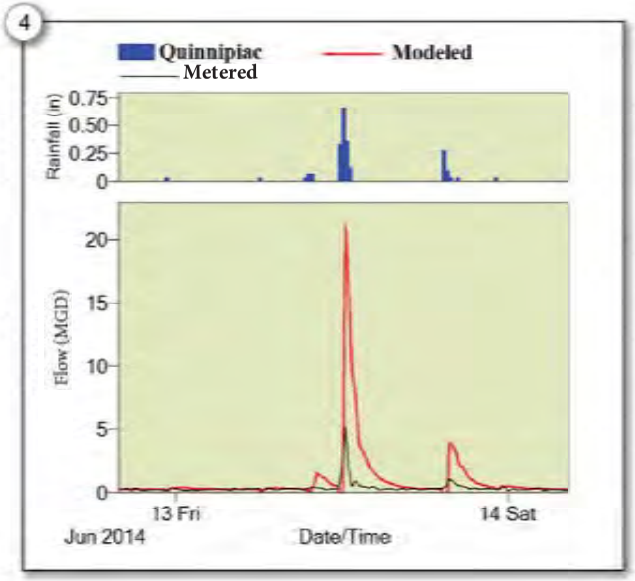
Prepared by:

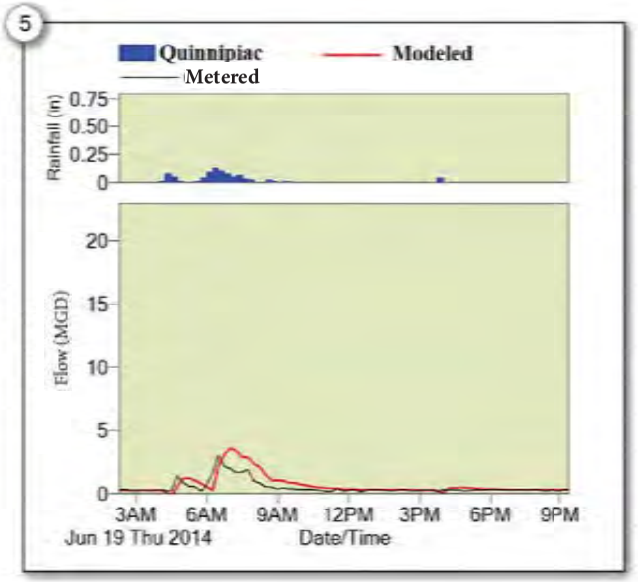
CH2MHILL

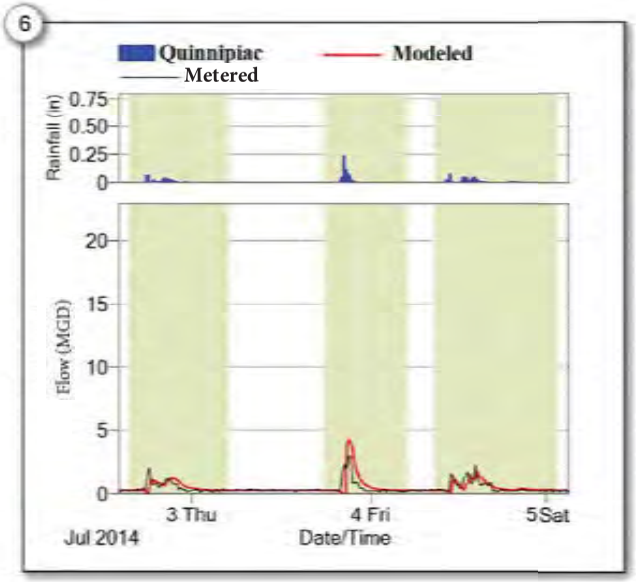












Model Calibration Results

Flow Meter: FM-21

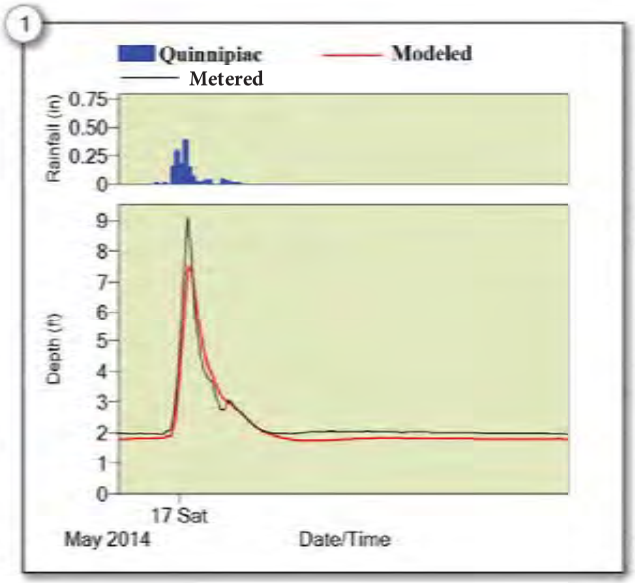
Event Comparison: Flow

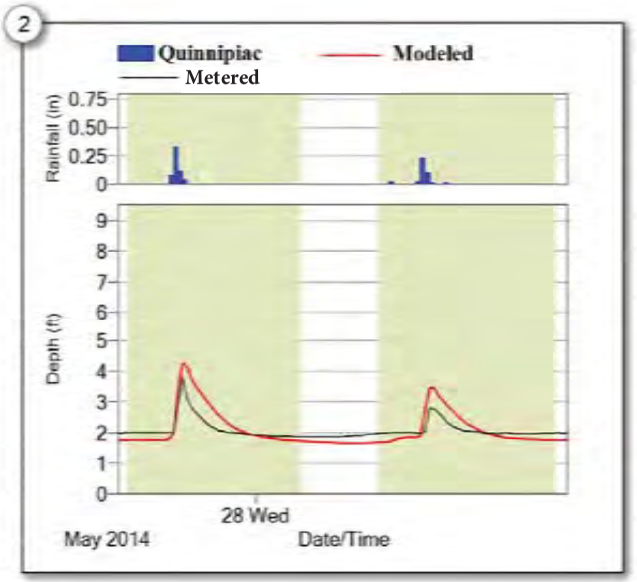
Permanent Rain Gauge Events:

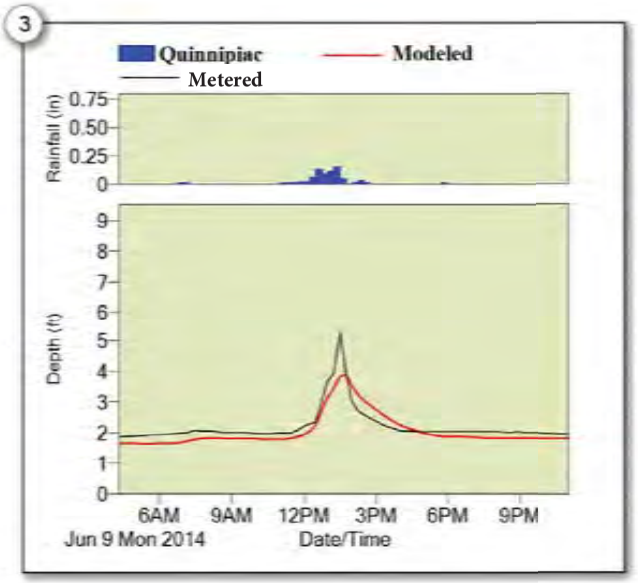
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

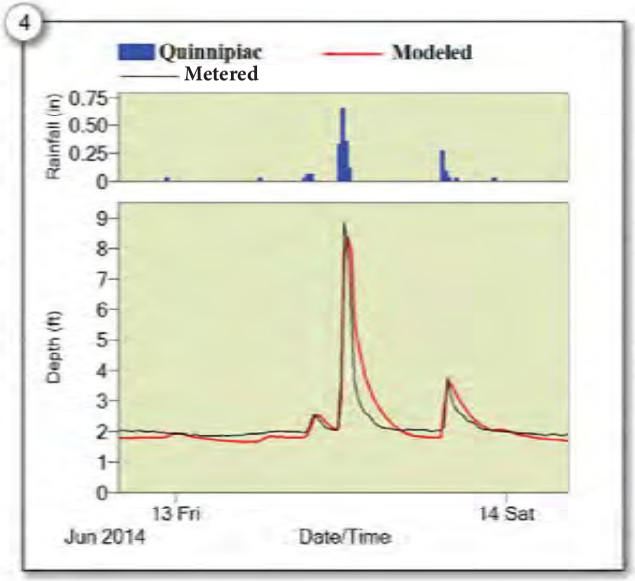
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

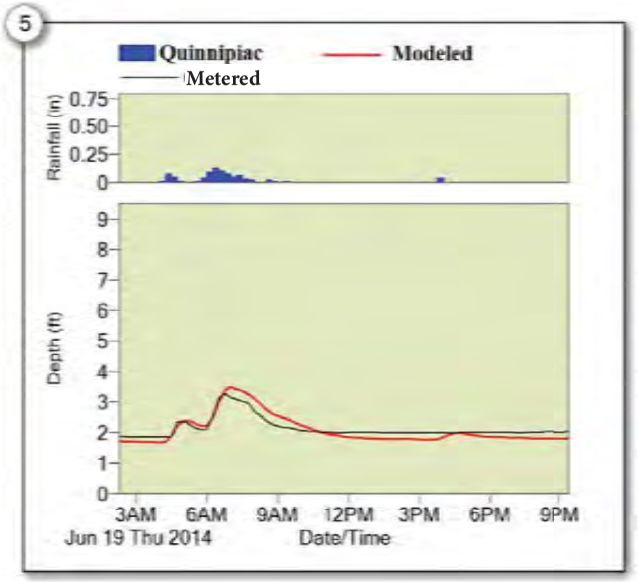
Prepared by:
CH2MHILL

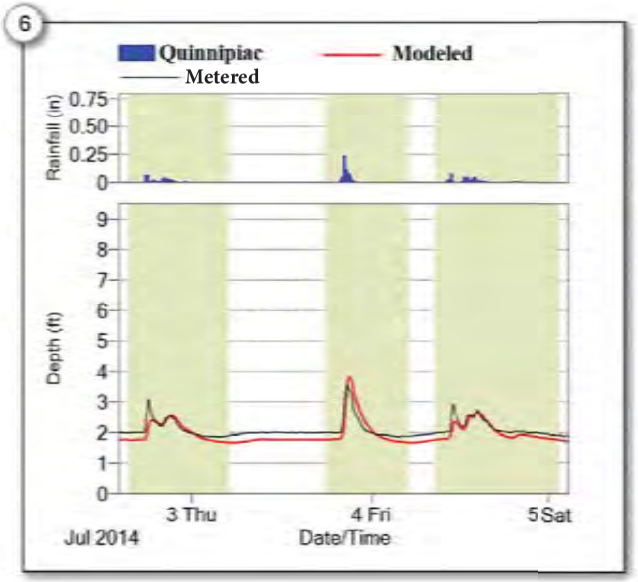












Model Calibration Results

Flow Meter: FM-21

Event Comparison: Depth

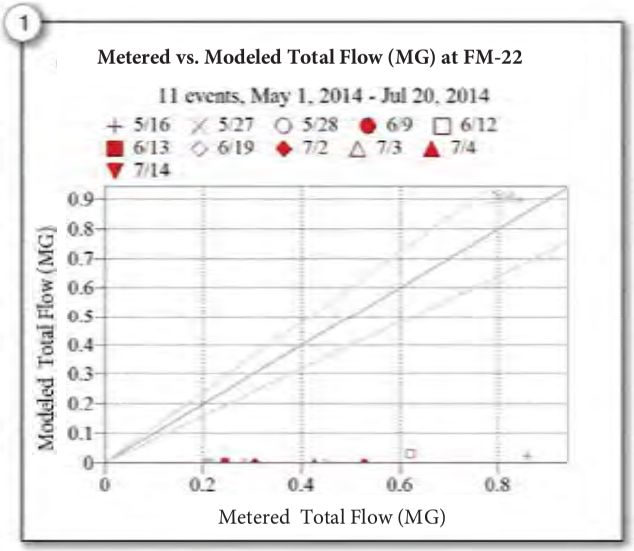
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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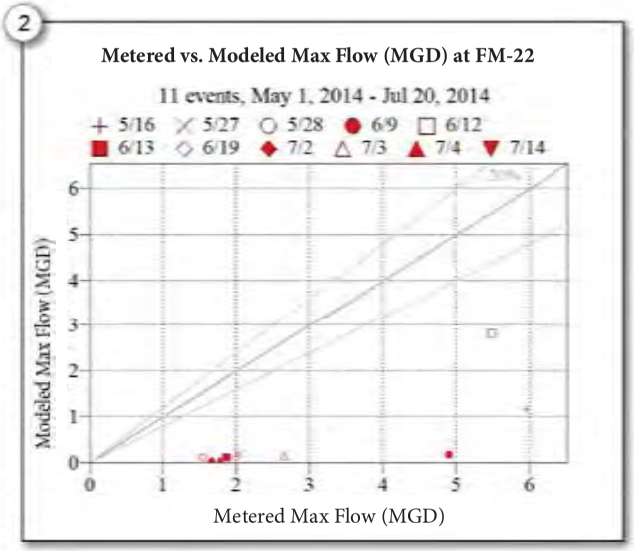

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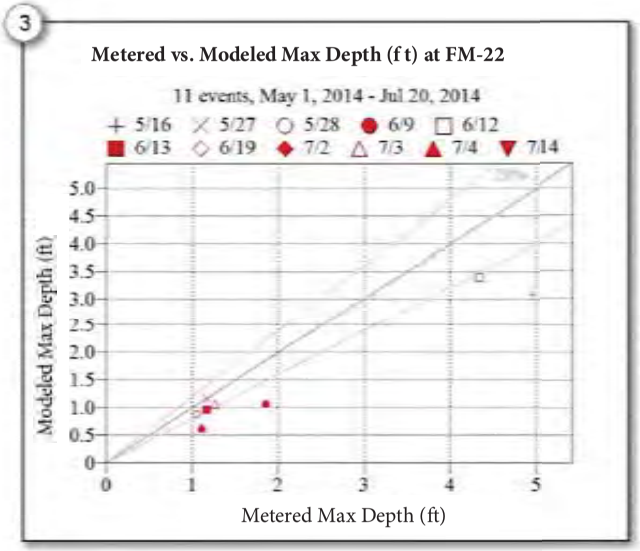

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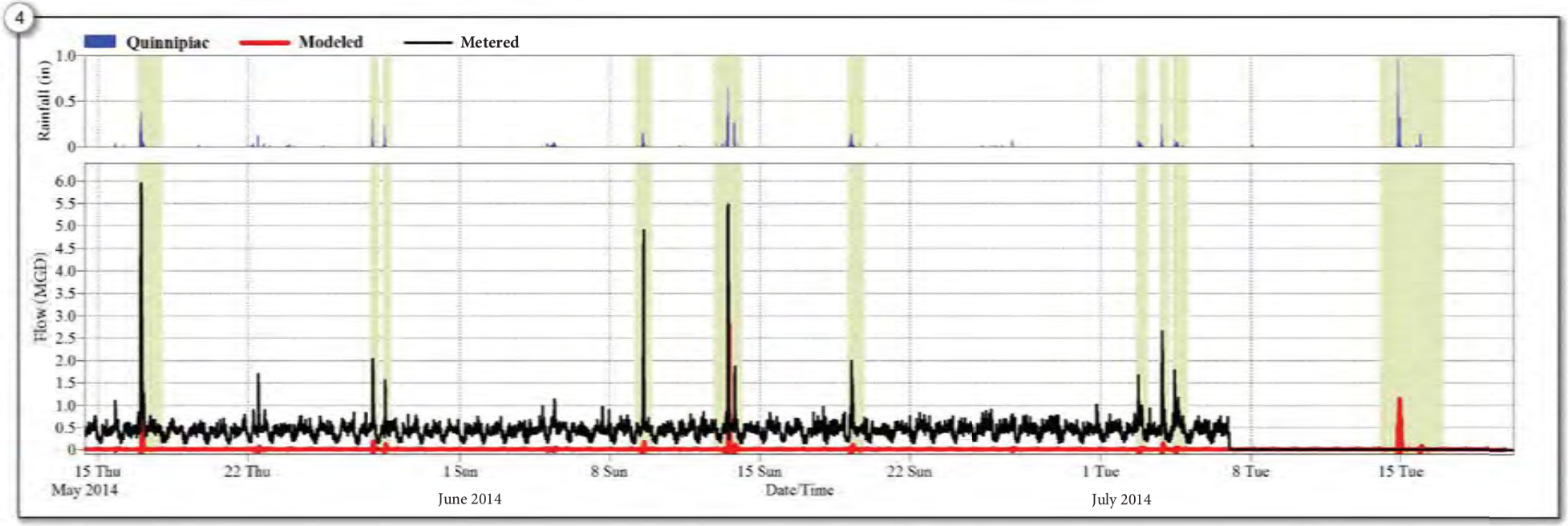


Model Calibration Results

Flow Meter: FM-22

Meter Summary

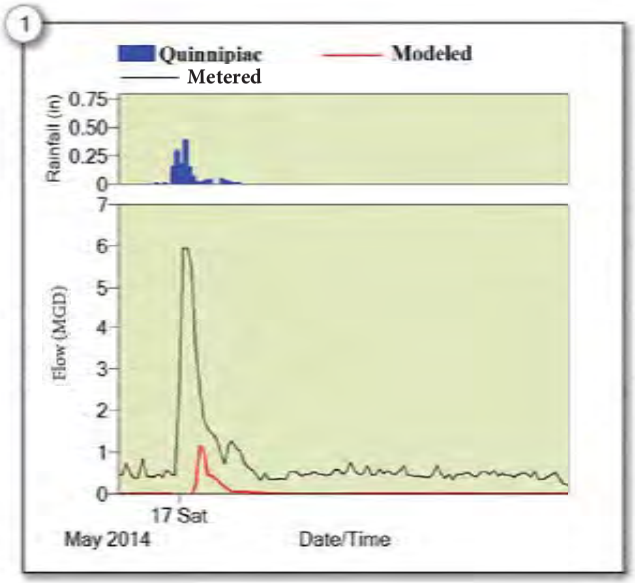
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

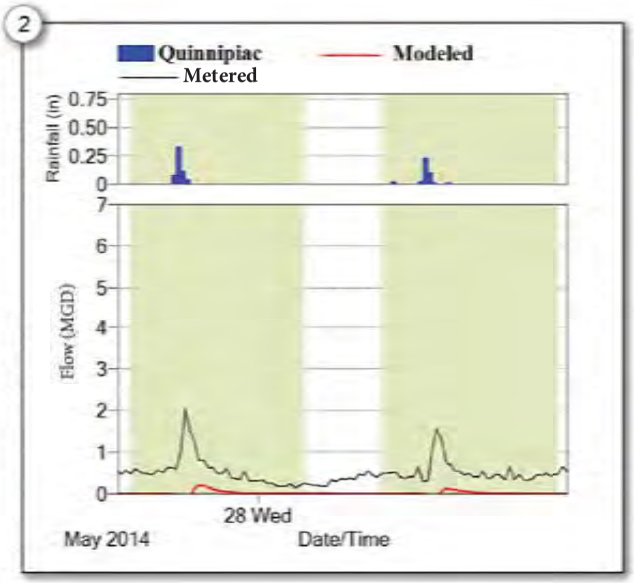
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

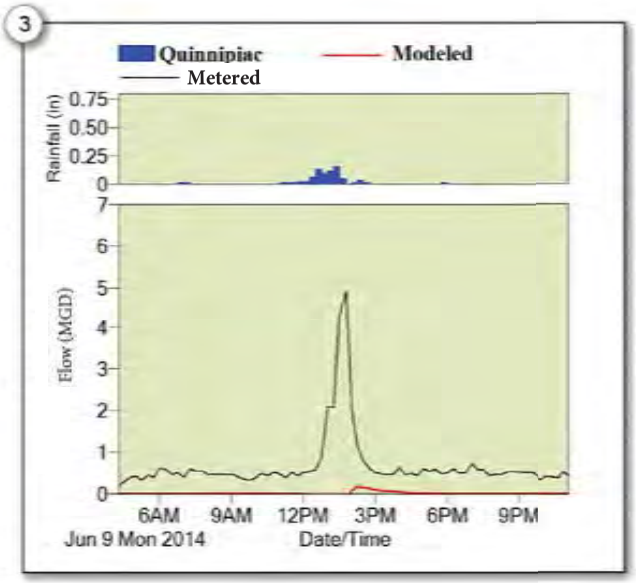
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

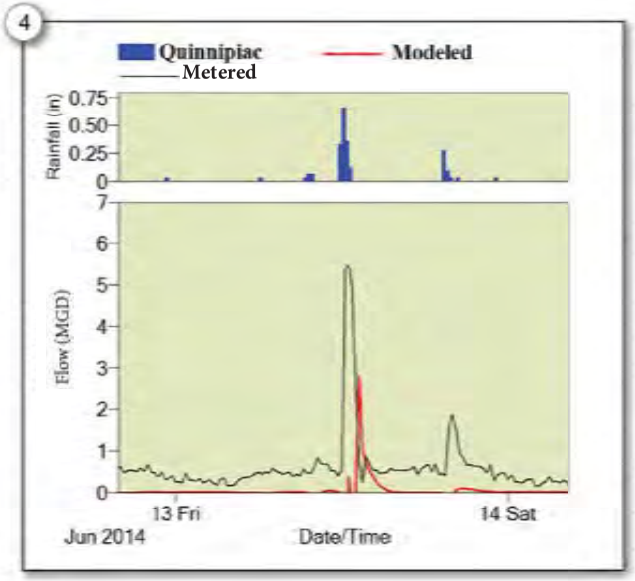
Prepared by:

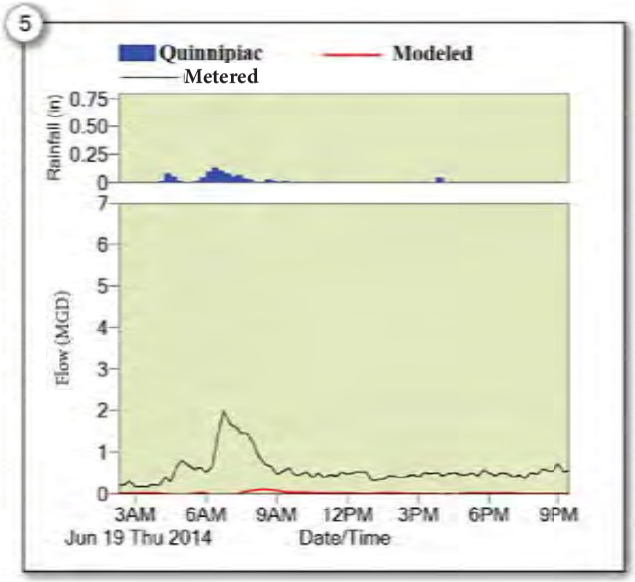
CH2MHILL

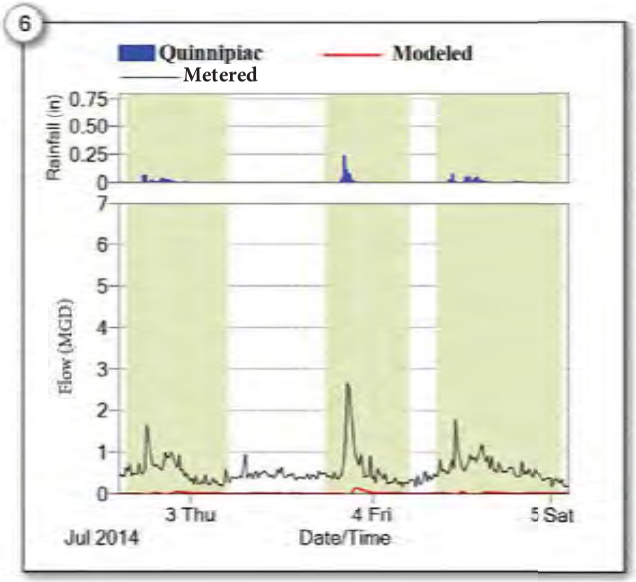












Model Calibration Results

Flow Meter: FM-22

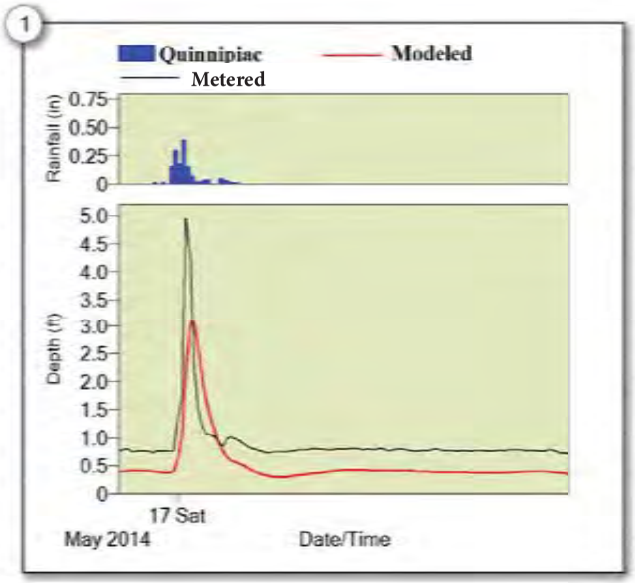
Event Comparison: Flow

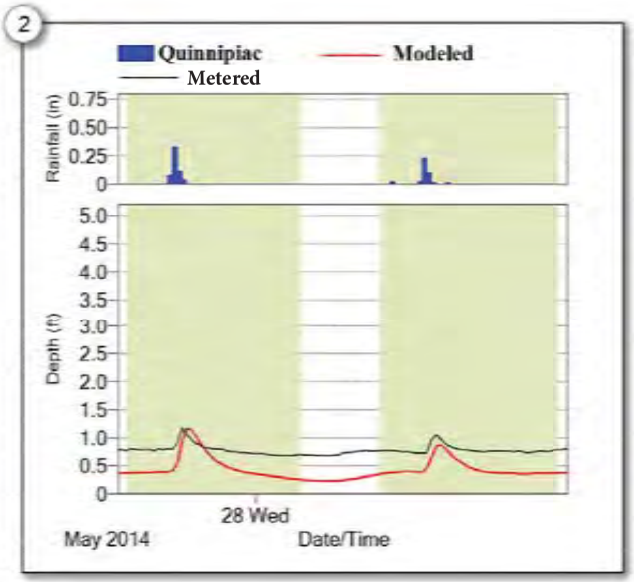
Permanent Rain Gauge Events:

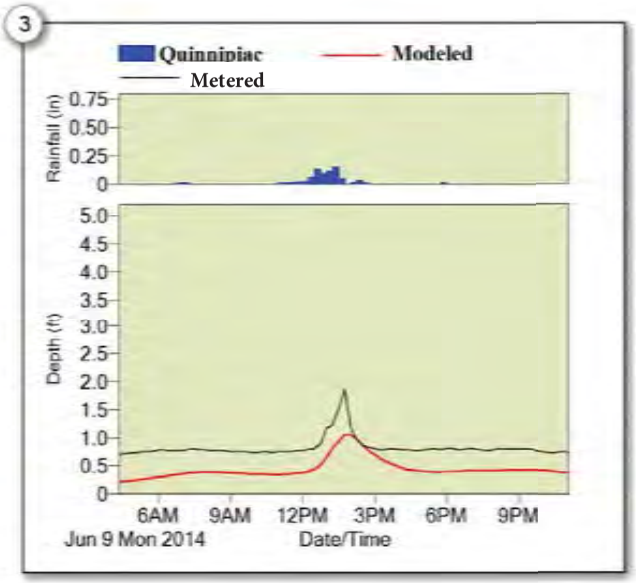
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

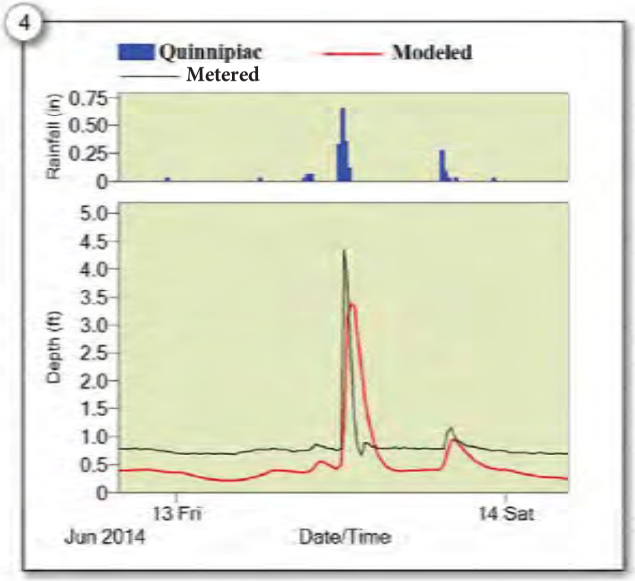
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

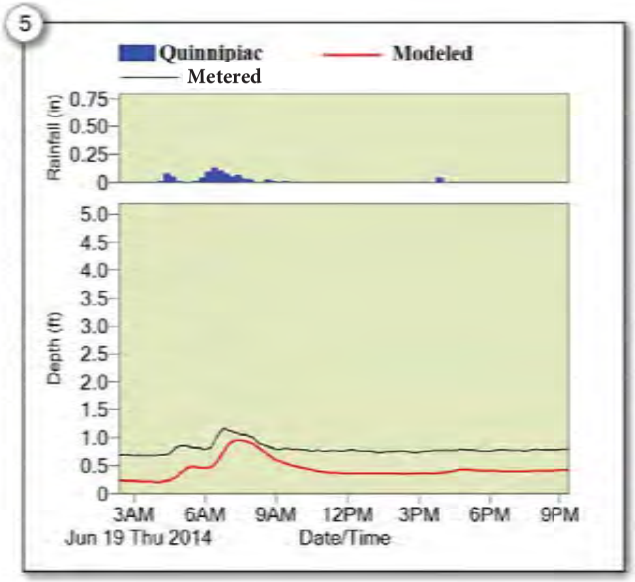
Prepared by:
CH2MHILL

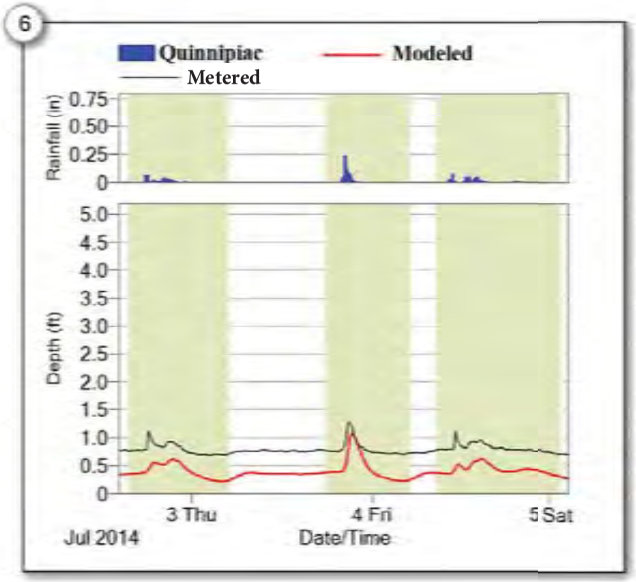












Model Calibration Results

Flow Meter: FM-22

Event Comparison: Depth

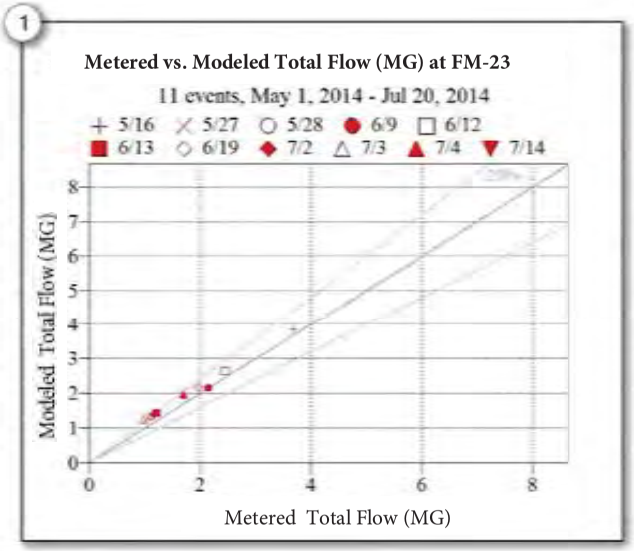
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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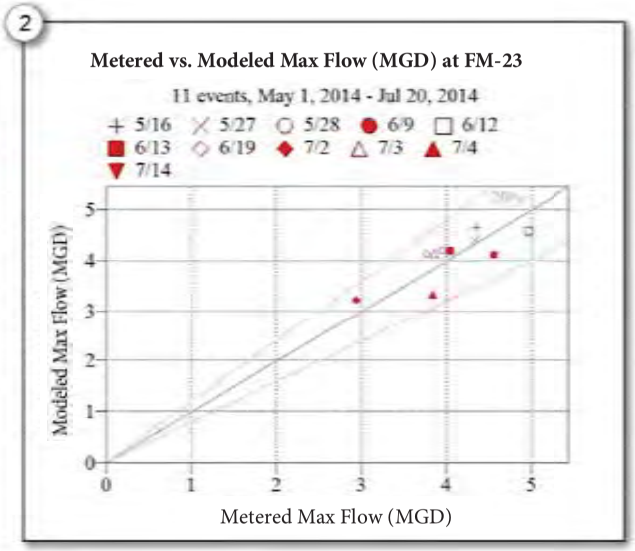

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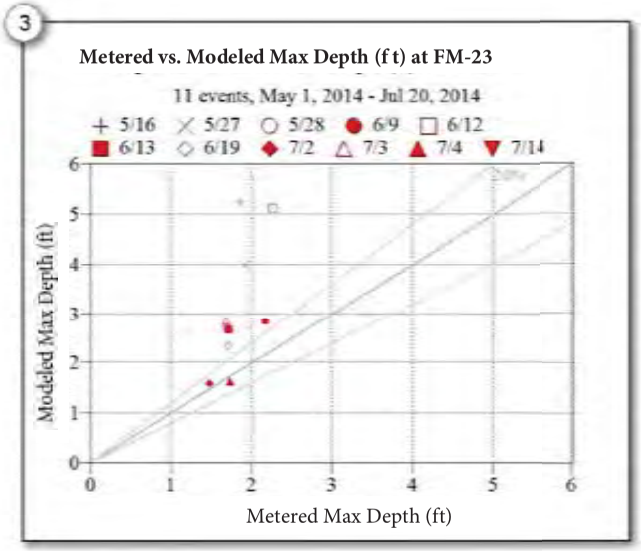

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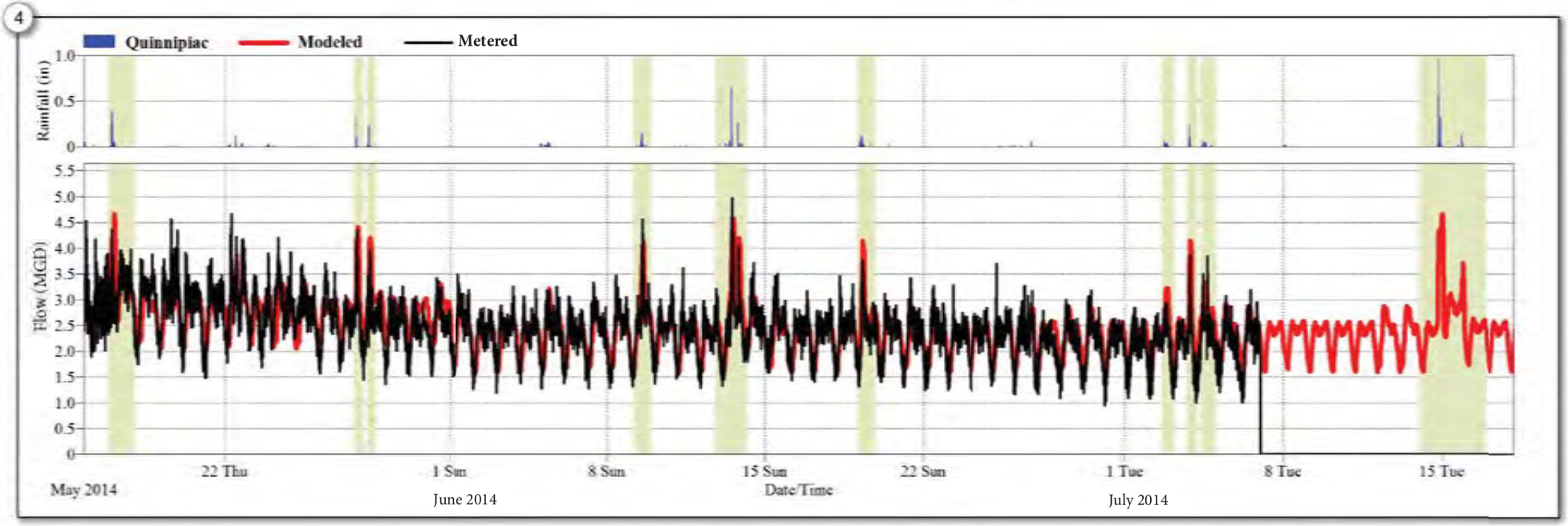


Model Calibration Results

Flow Meter: FM-23

Meter Summary

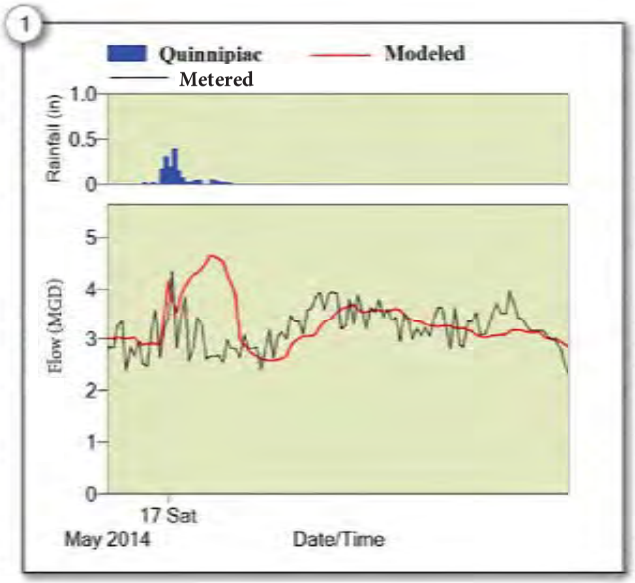
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

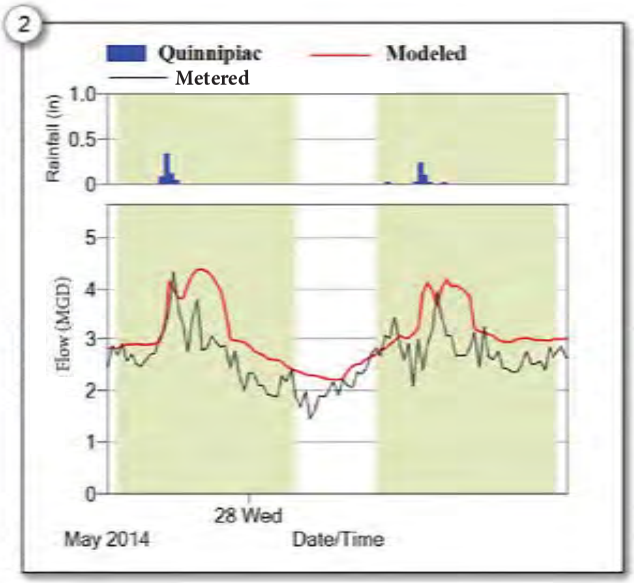
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

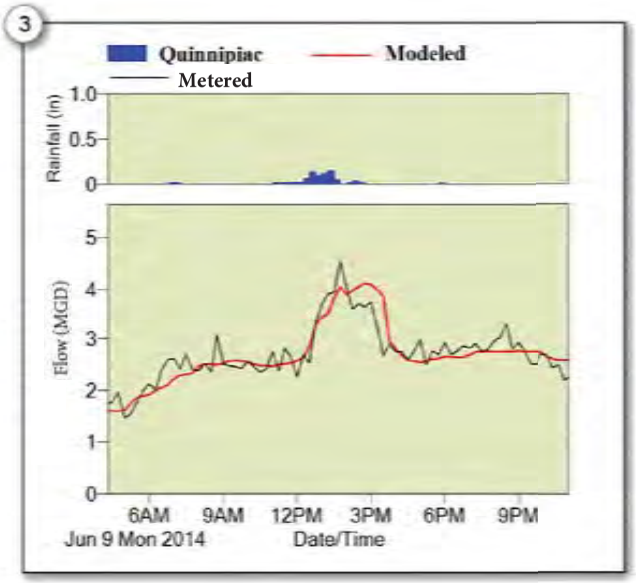
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

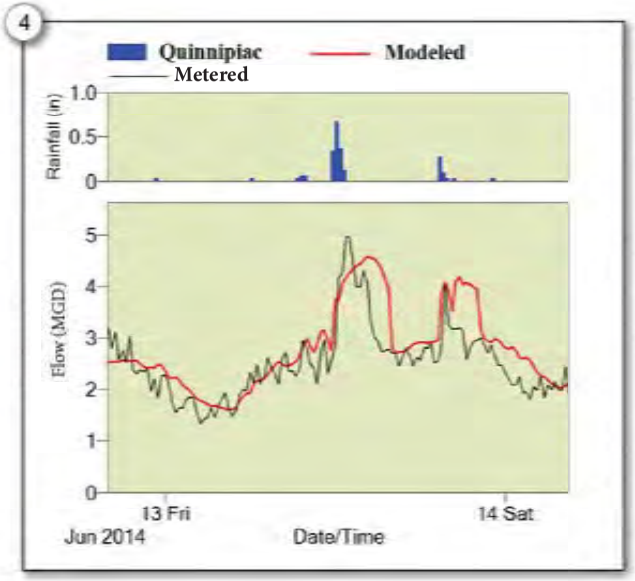
Prepared by:

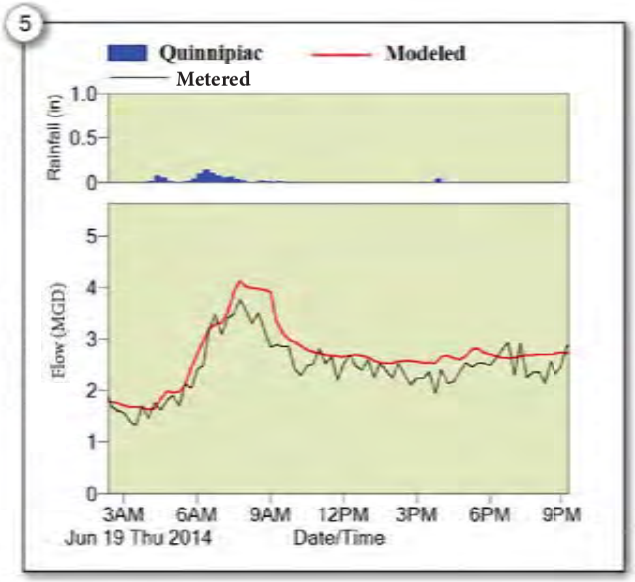
CH2MHILL

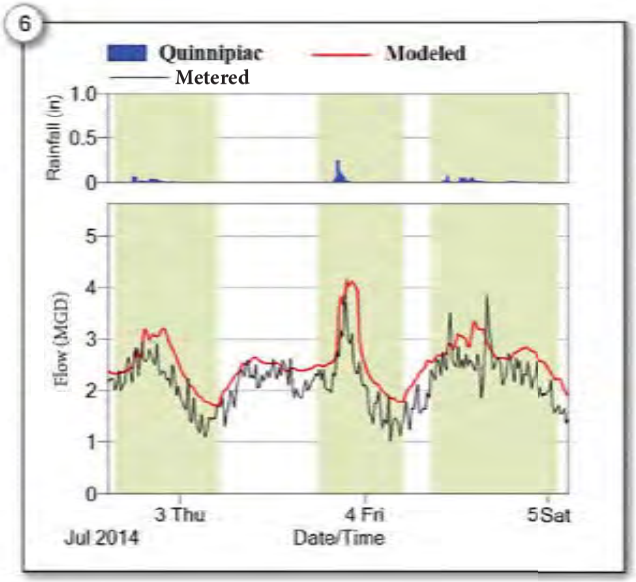












Model Calibration Results

Flow Meter: FM-23

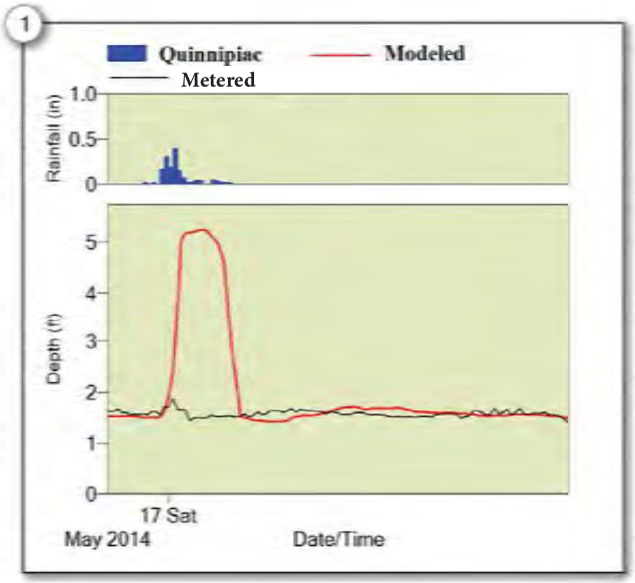
Event Comparison: Flow

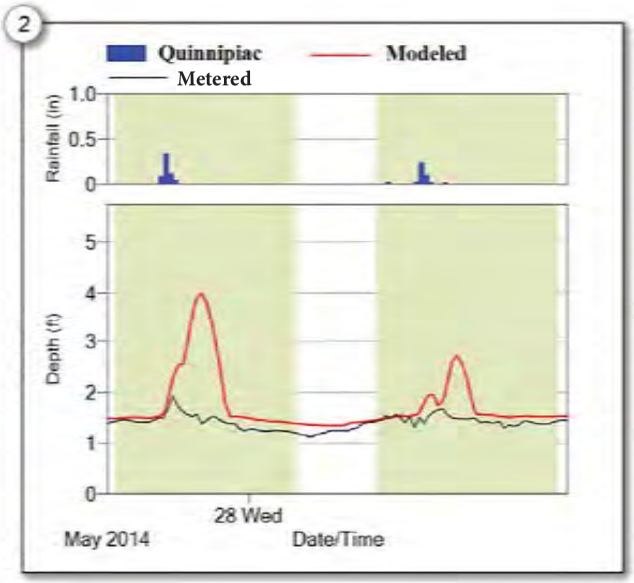
Permanent Rain Gauge Events:

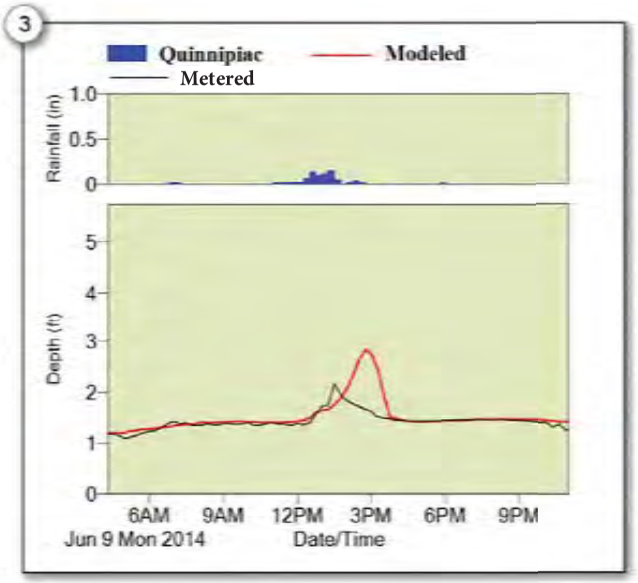
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

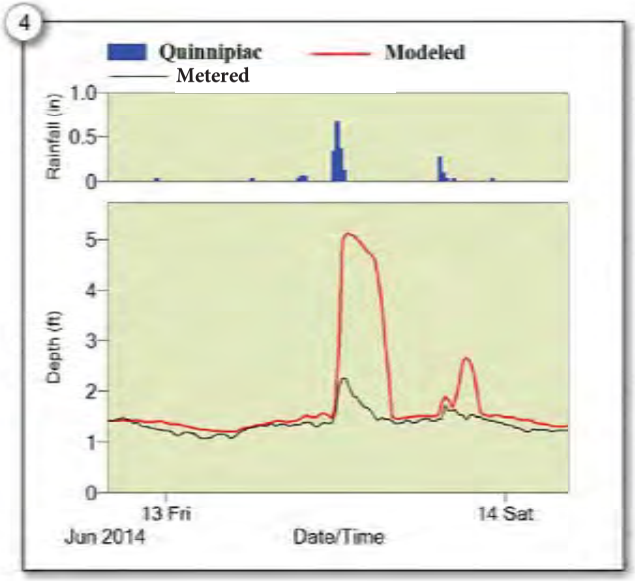
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

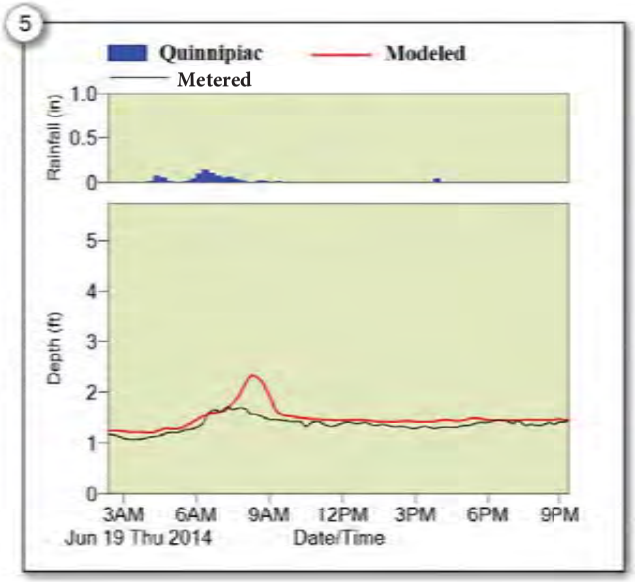
Prepared by:
CH2MHILL

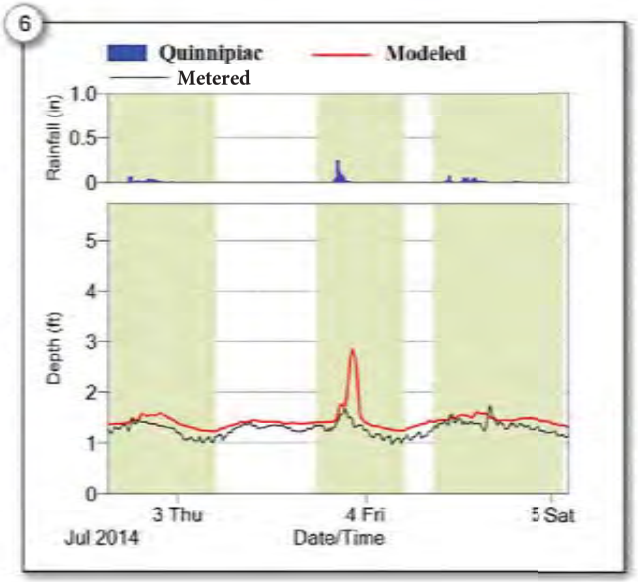












Model Calibration Results

Flow Meter: FM-23

Event Comparison: Depth

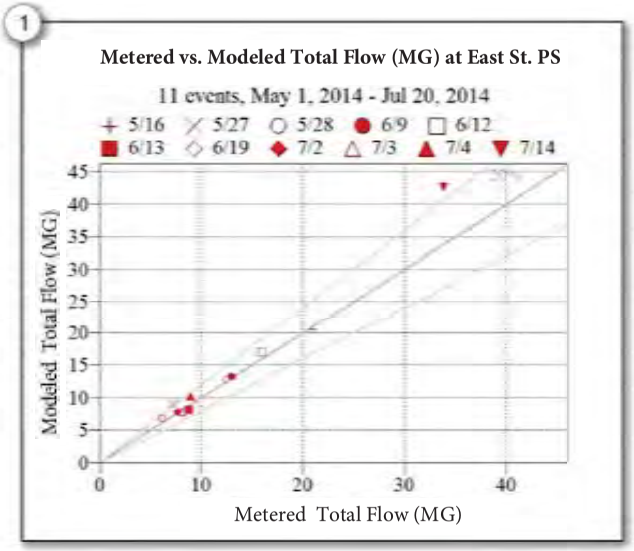
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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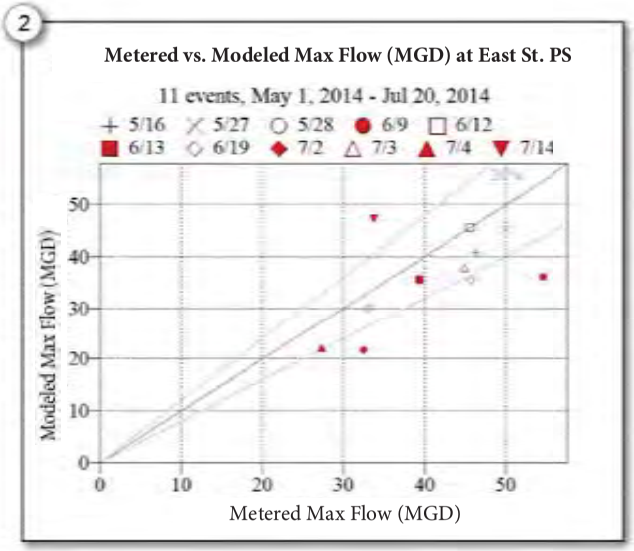

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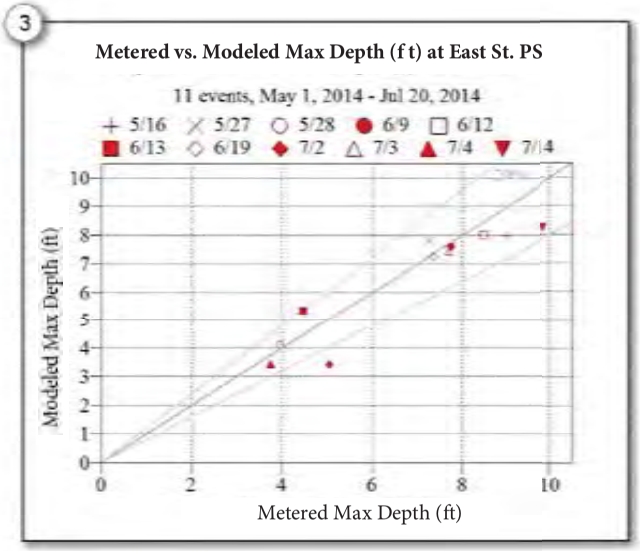

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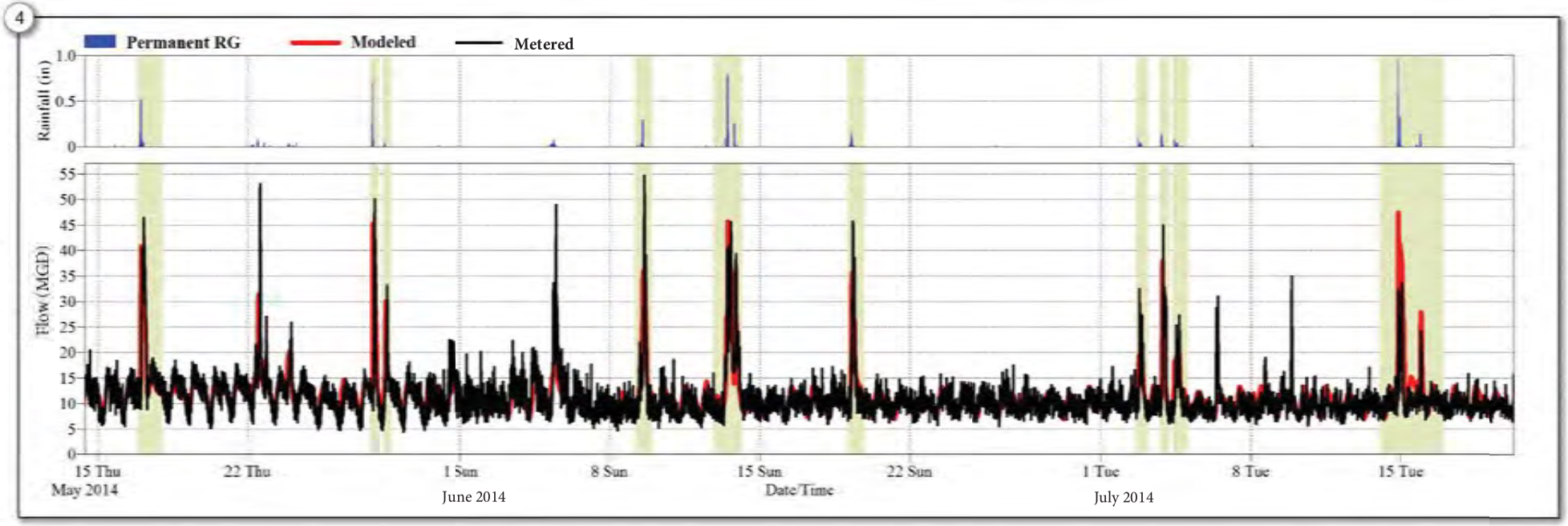


Model Calibration Results

Flow Meter: East St. PS

Meter Summary

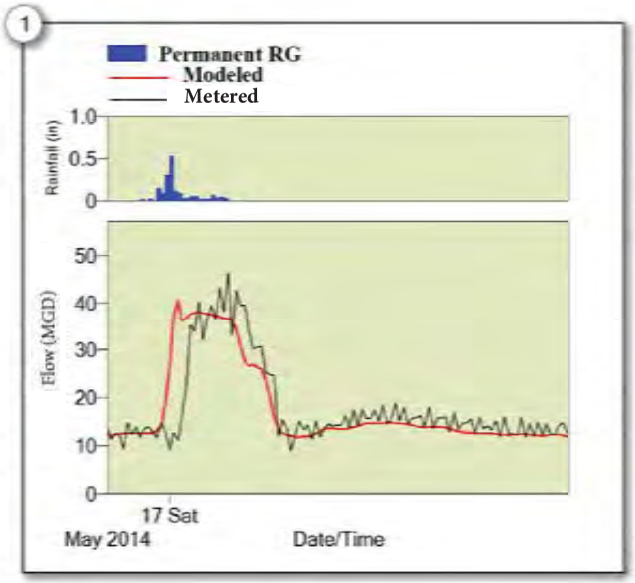
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

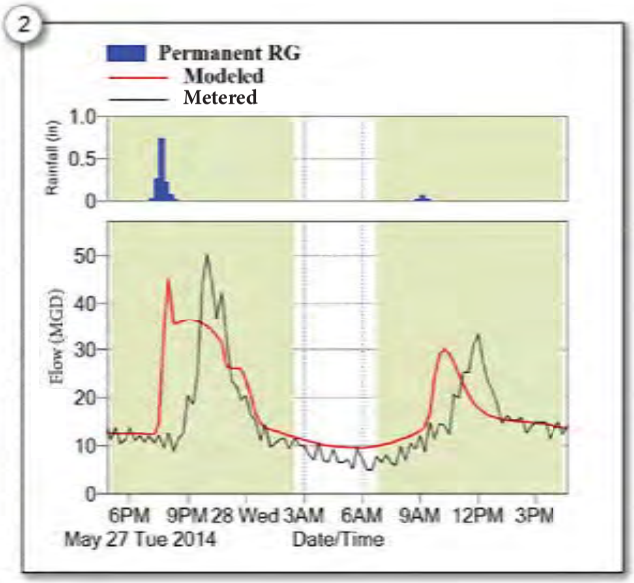
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

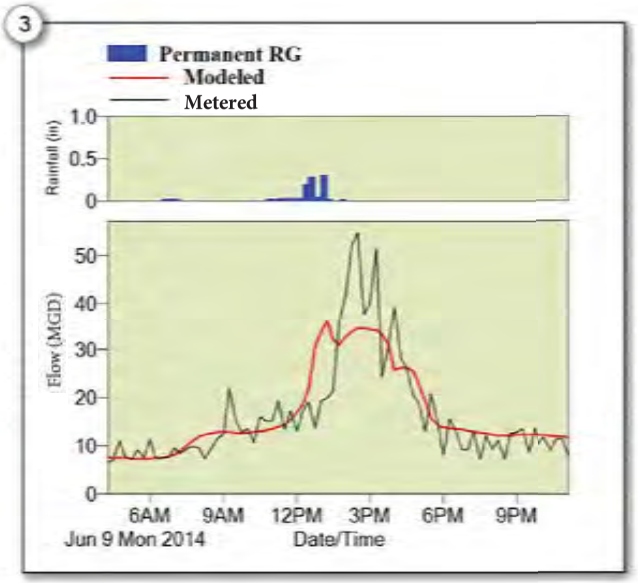
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

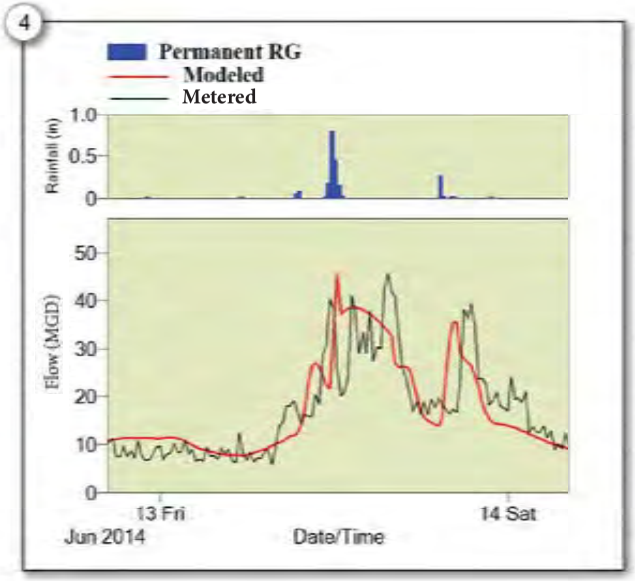
Prepared by:

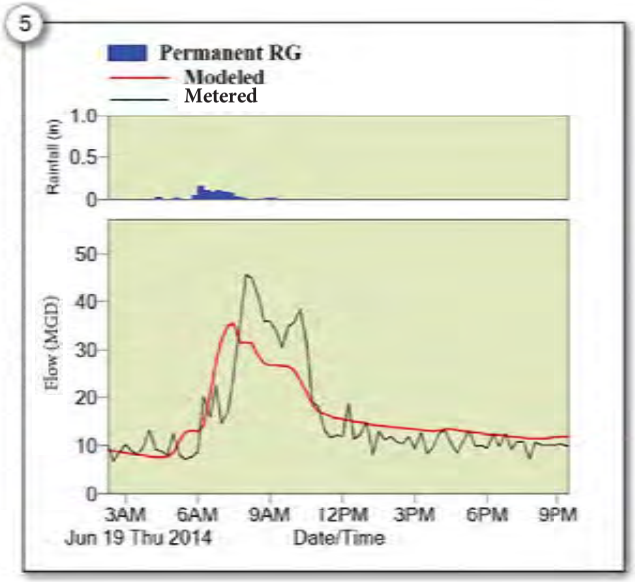
CH2MHILL

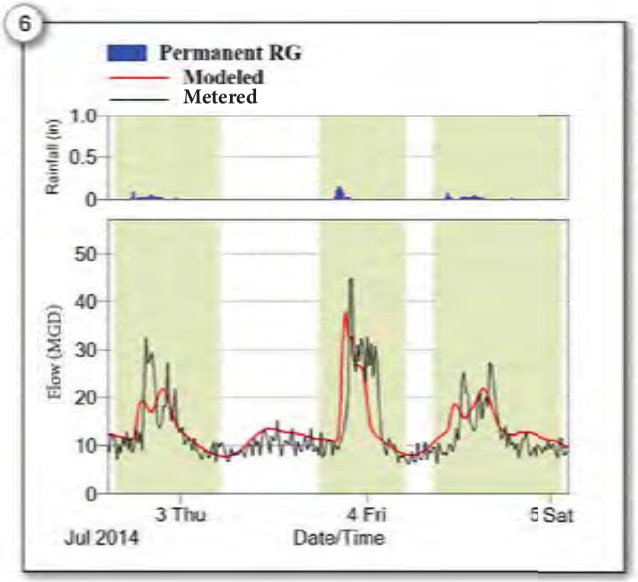












Model Calibration Results

Flow Meter: East St. PS

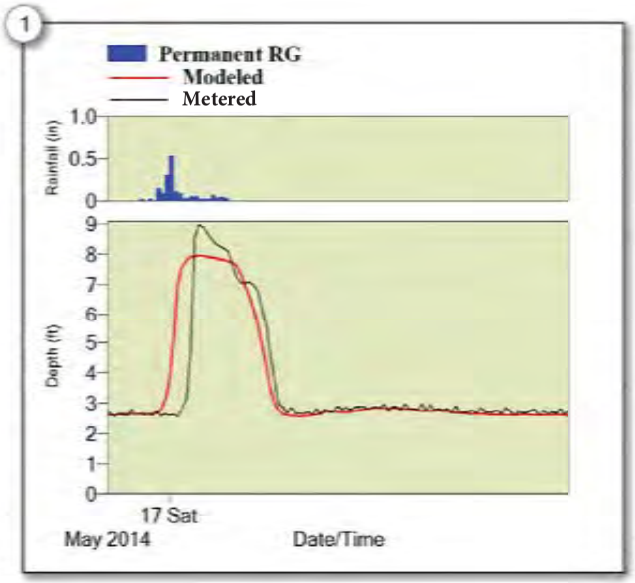
Event Comparison: Flow

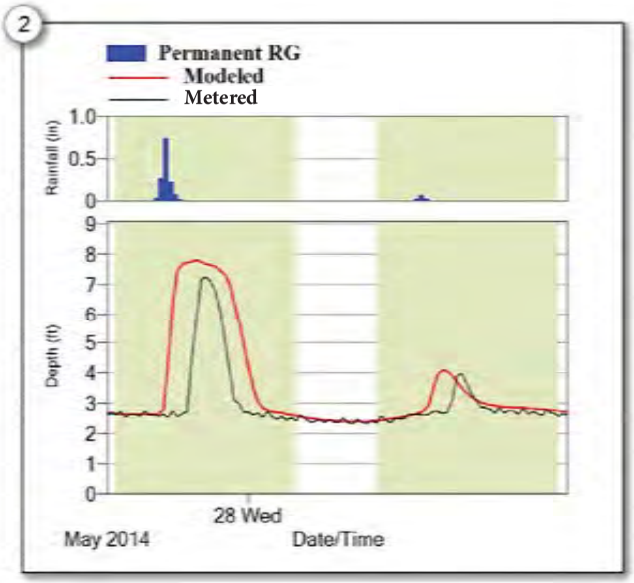
Permanent Rain Gauge Events:

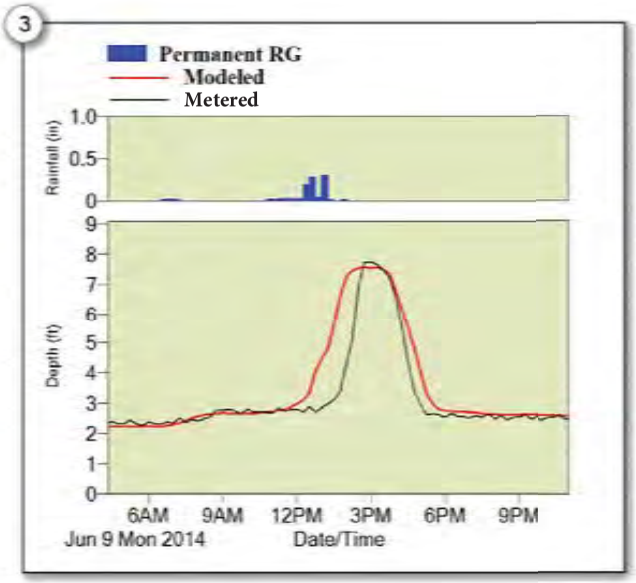
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

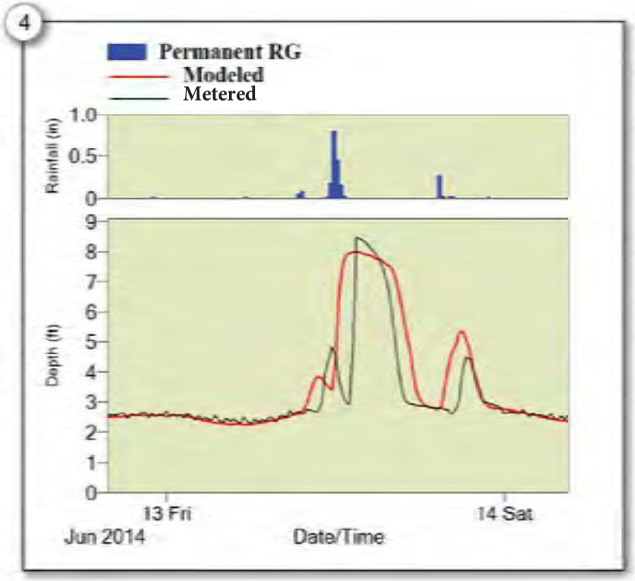
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

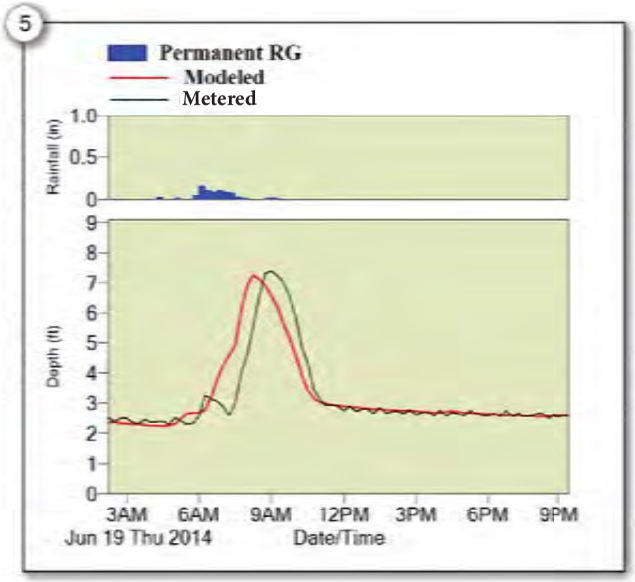
Prepared by:
CH2MHILL

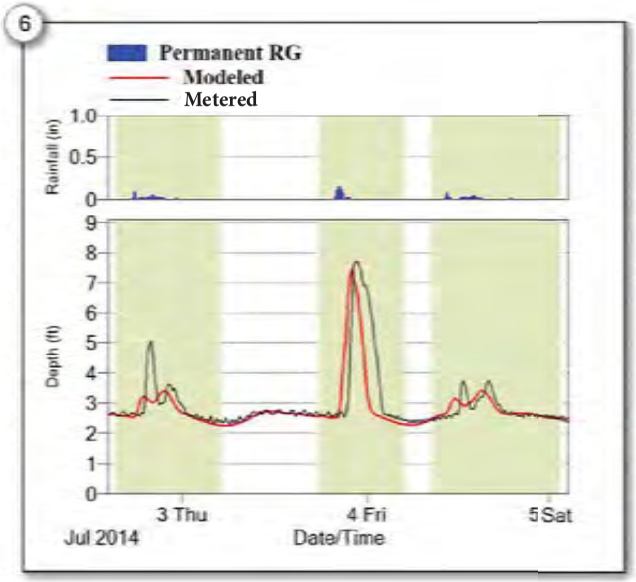












Model Calibration Results

Flow Meter: East St. PS

Event Comparison: Depth

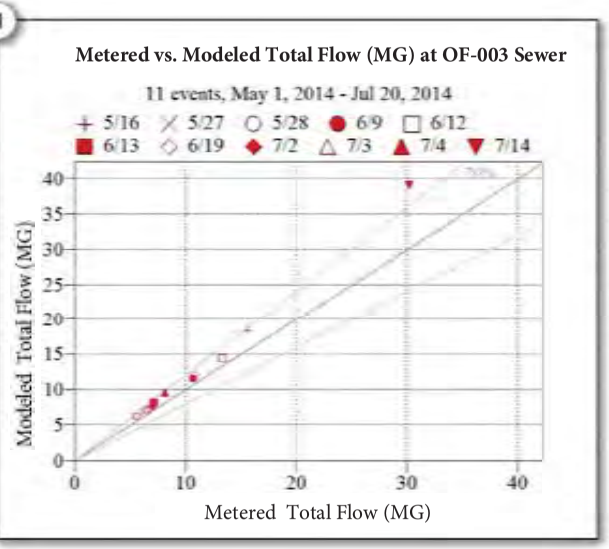
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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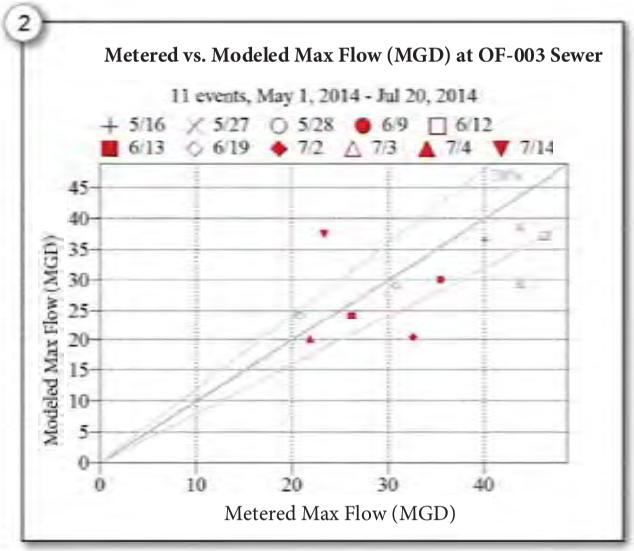

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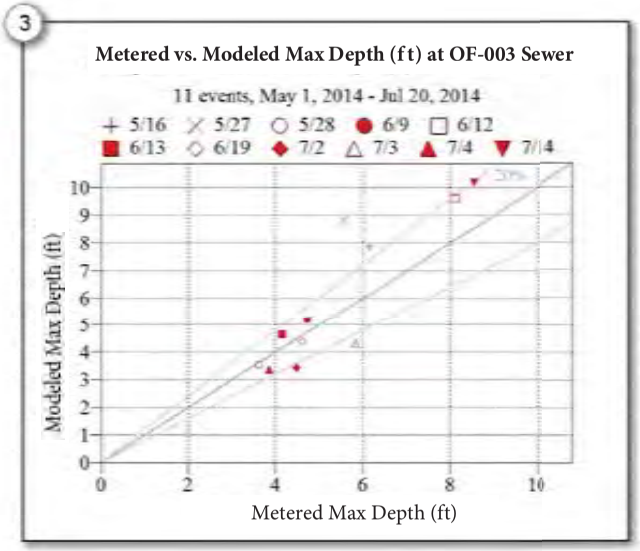

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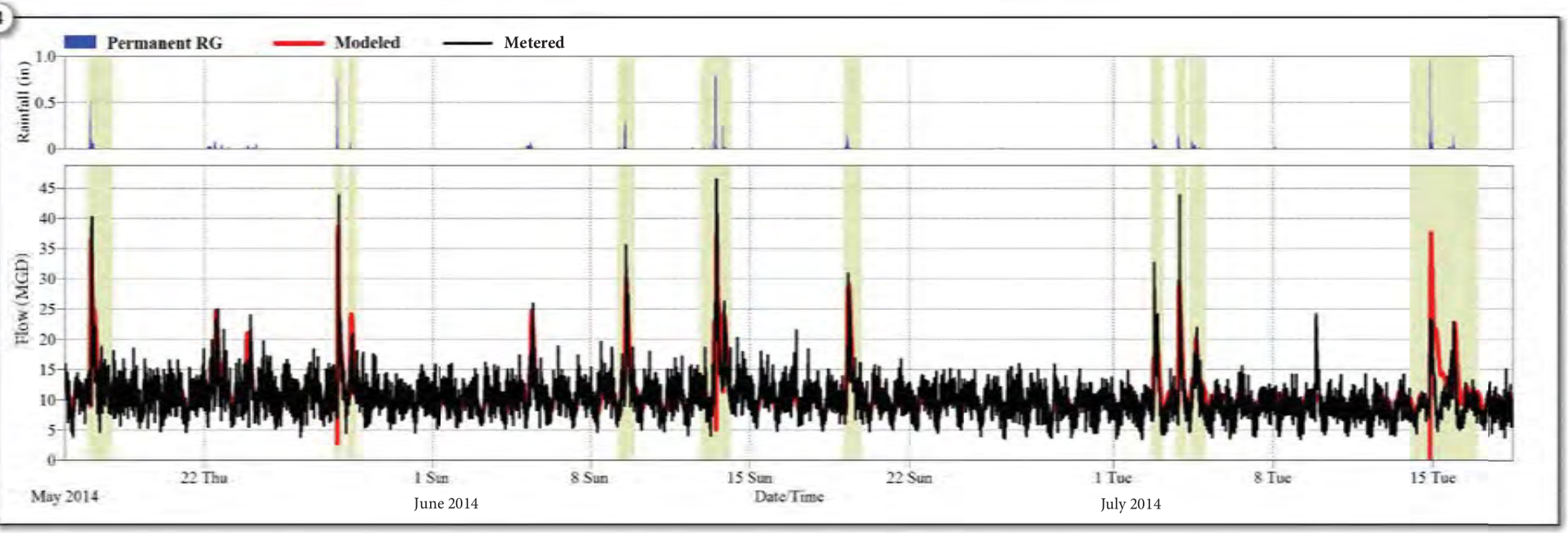


Model Calibration Results

Flow Meter: OF-003 Sewer

Meter Summary

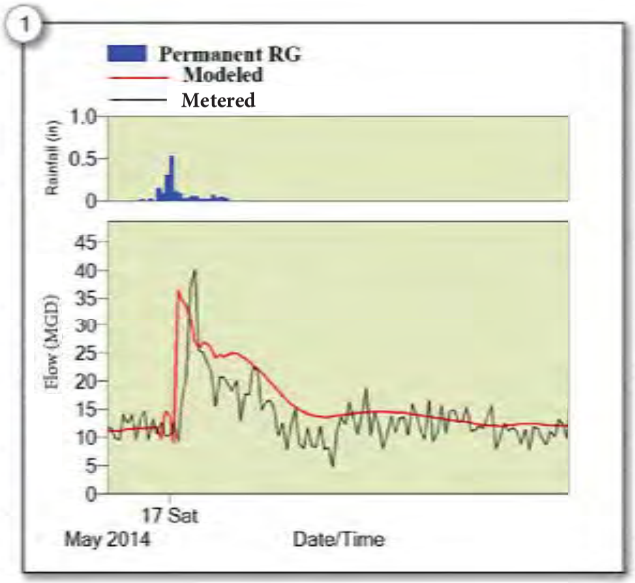
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

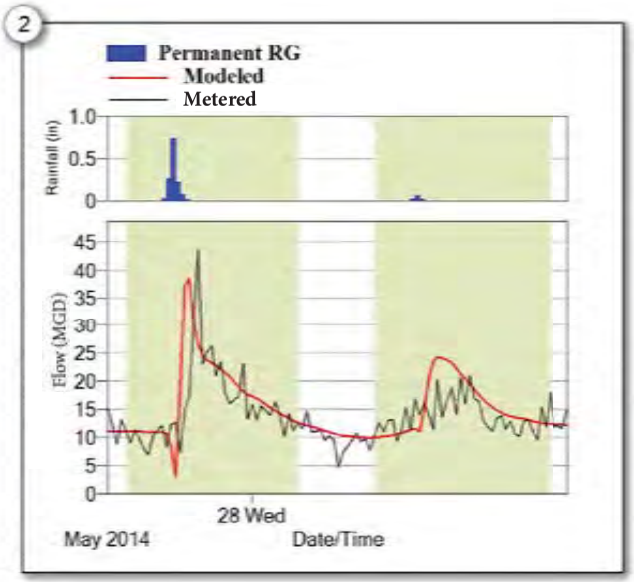
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

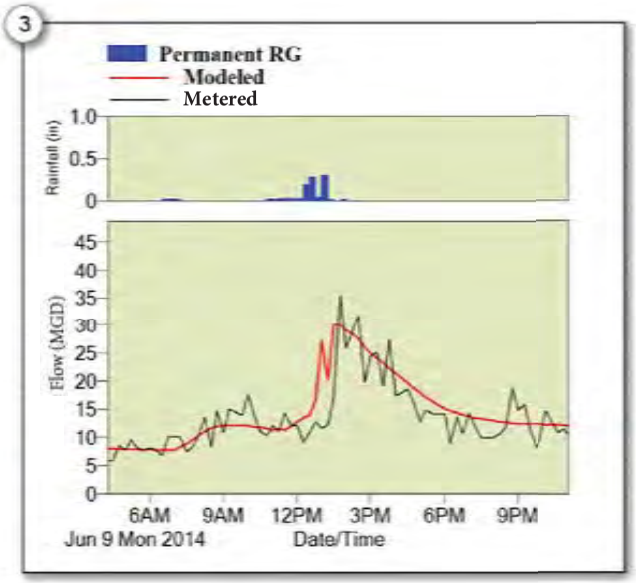
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

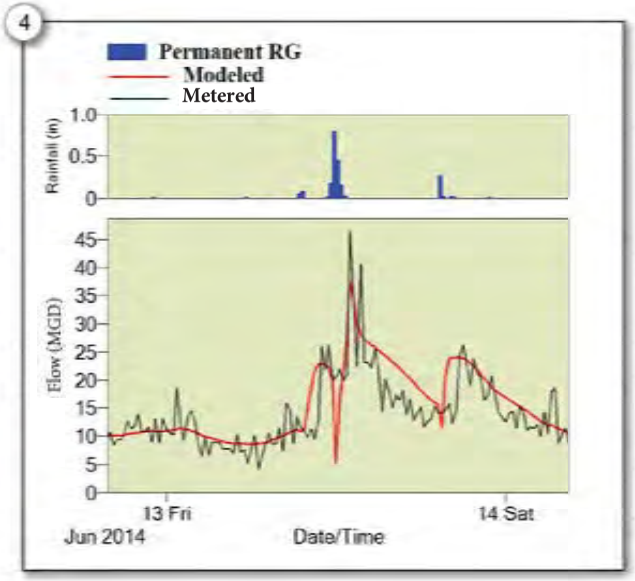
Prepared by:

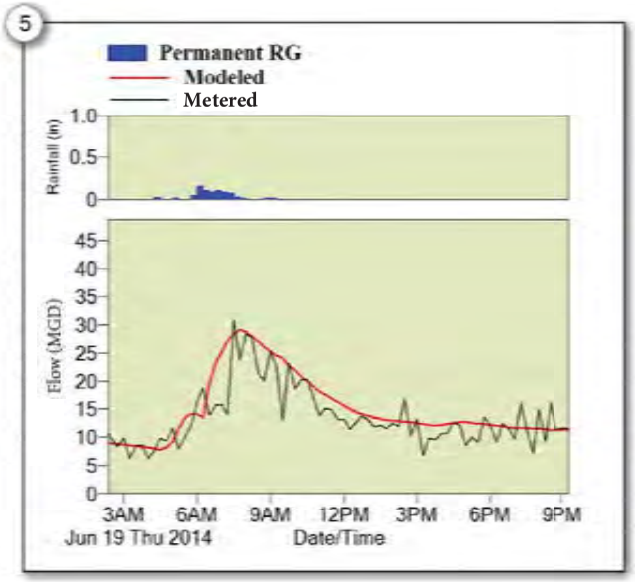
CH2MHILL

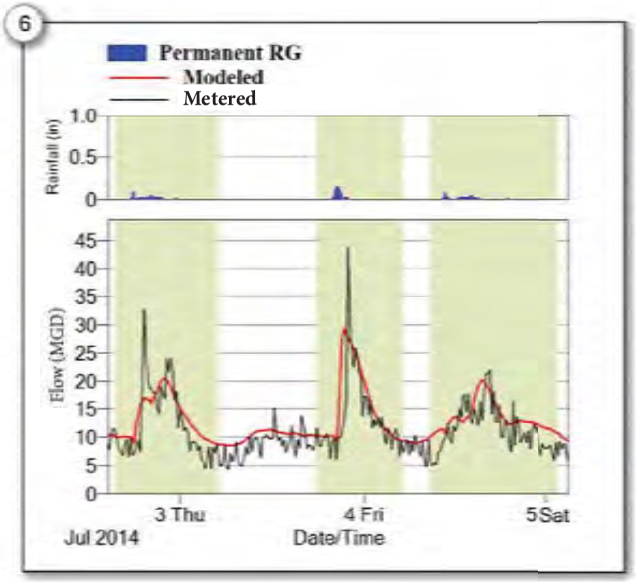












Model Calibration Results

Flow Meter: OF-003 Sewer

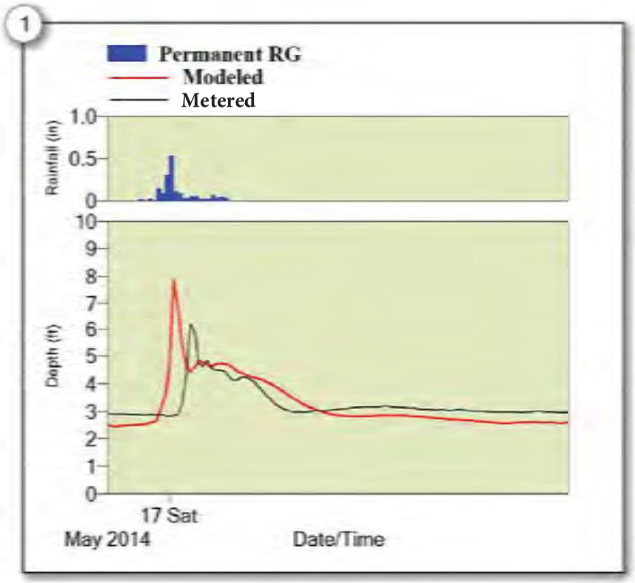
Event Comparison: Flow

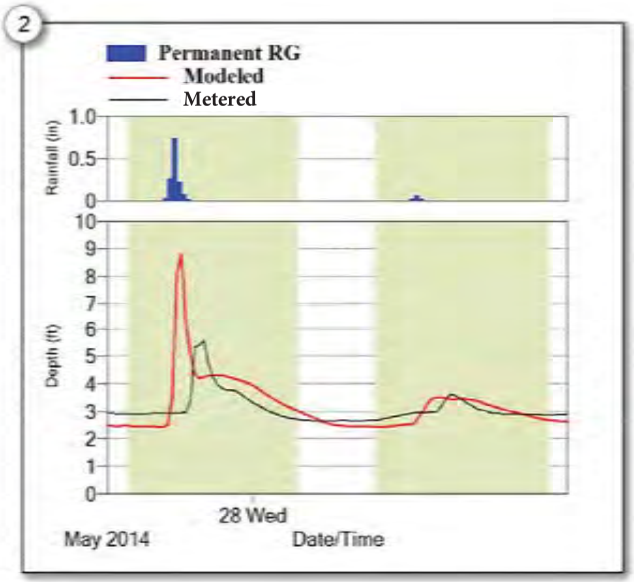
Permanent Rain Gauge Events:

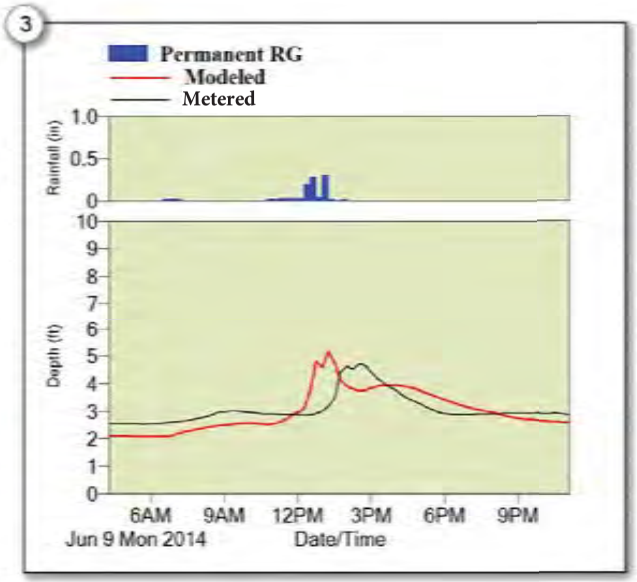
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

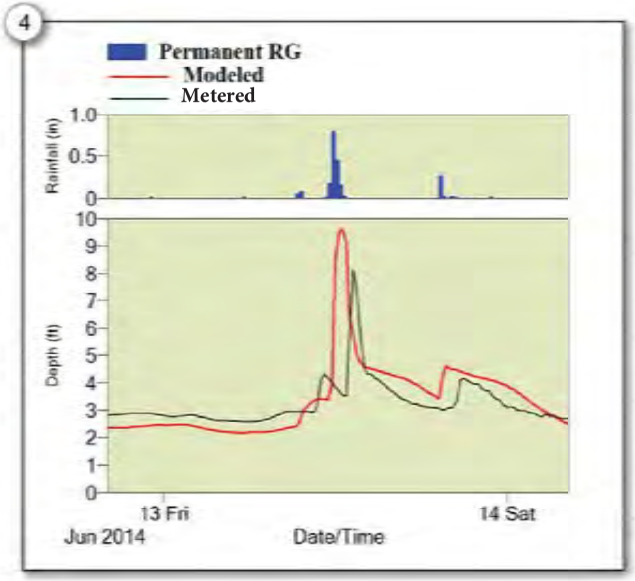
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

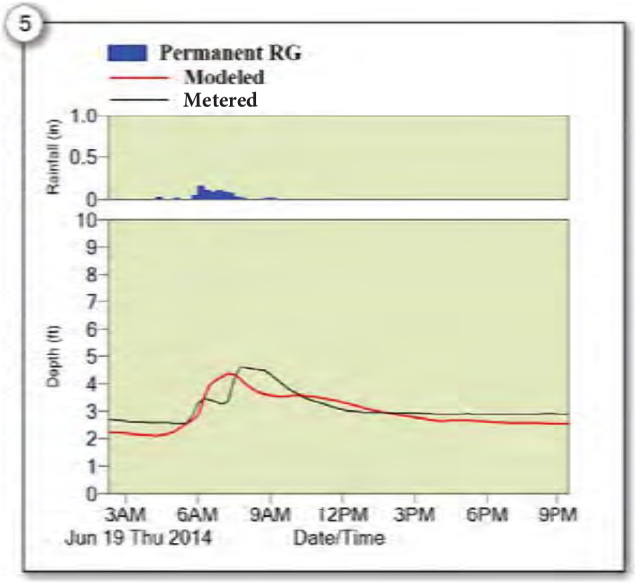
Prepared by:
CH2MHILL

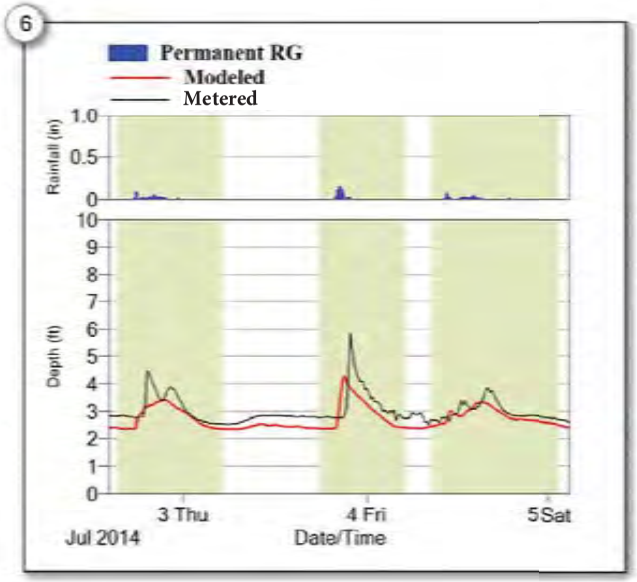












Model Calibration Results

Flow Meter: OF-003 Sewer

Event Comparison: Depth

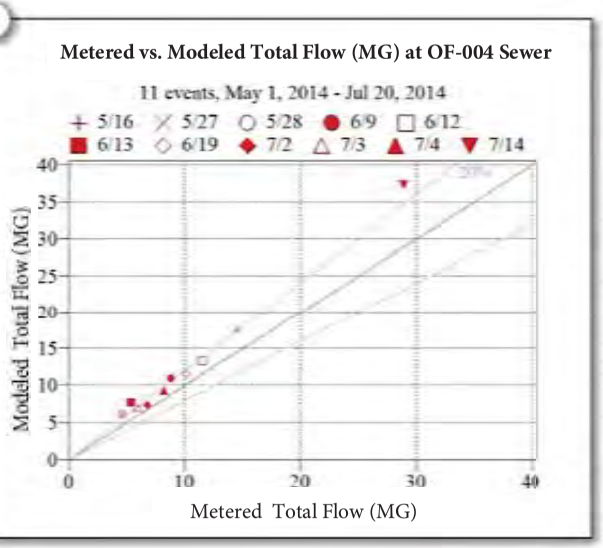
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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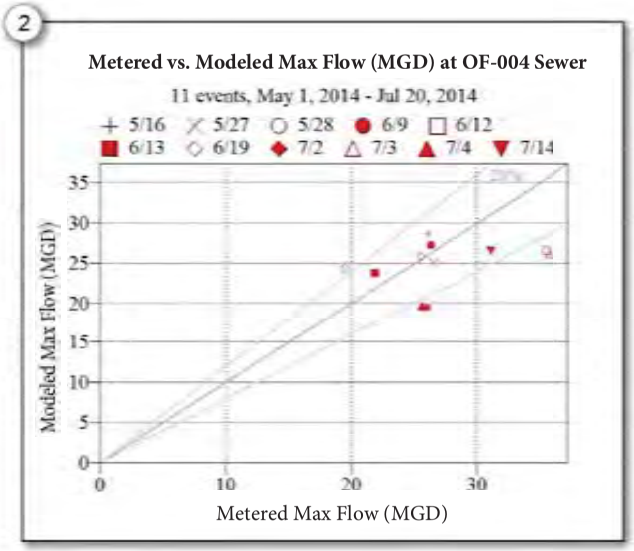

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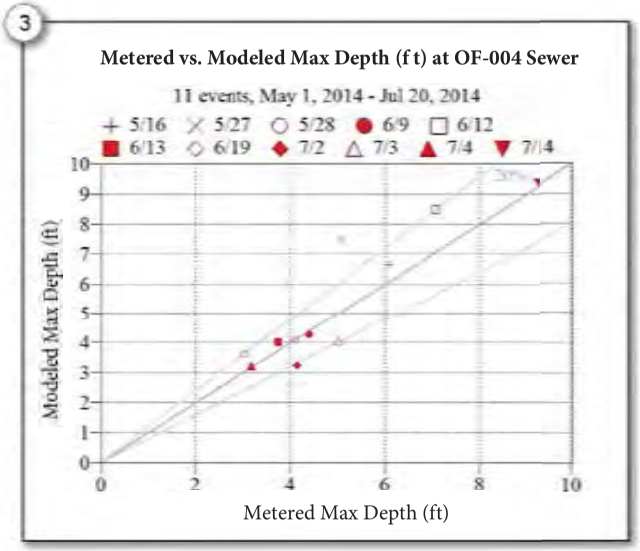

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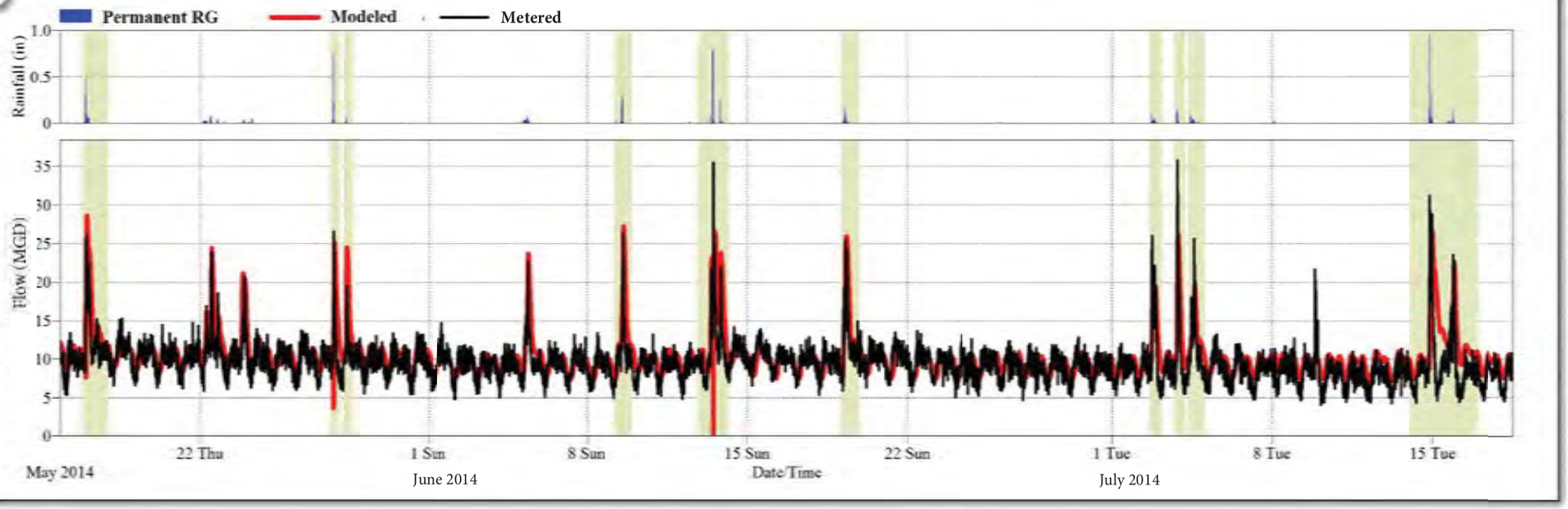


Model Calibration Results

Flow Meter: OF-004 Sewer

Meter Summary

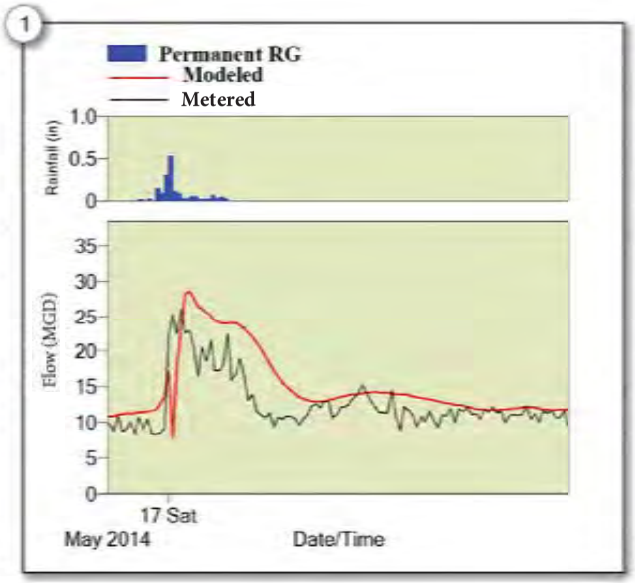
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

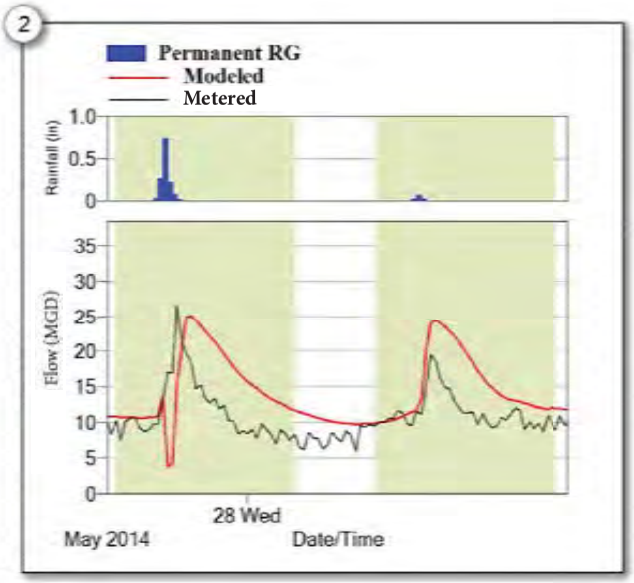
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

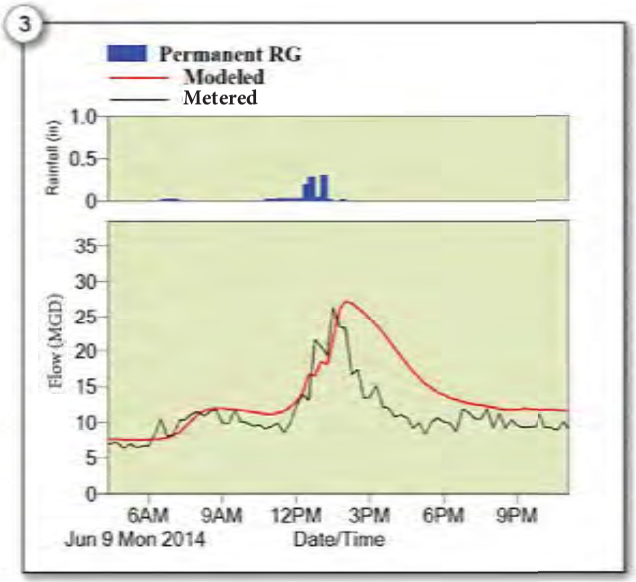
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

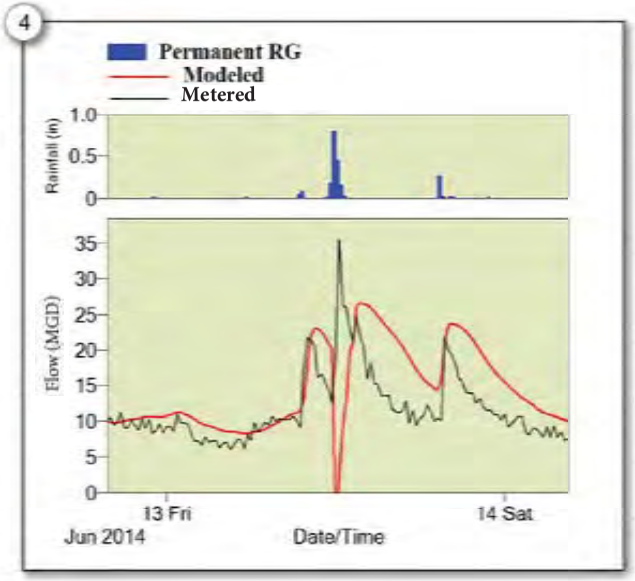
Prepared by:

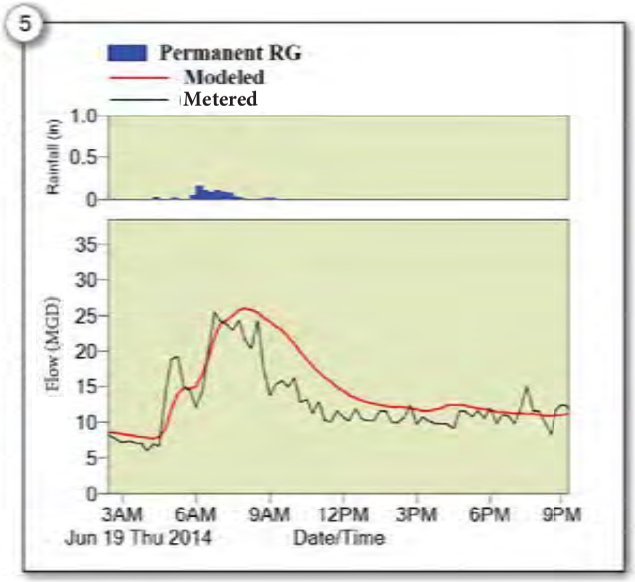
CH2MHILL

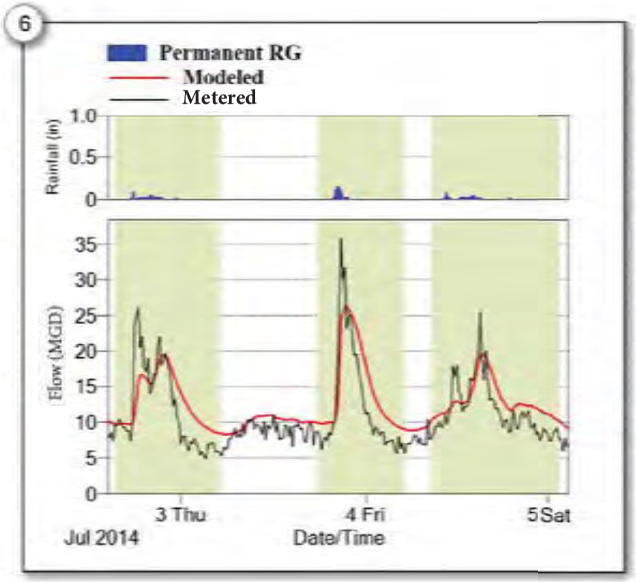












Model Calibration Results

Flow Meter: OF-004 Sewer

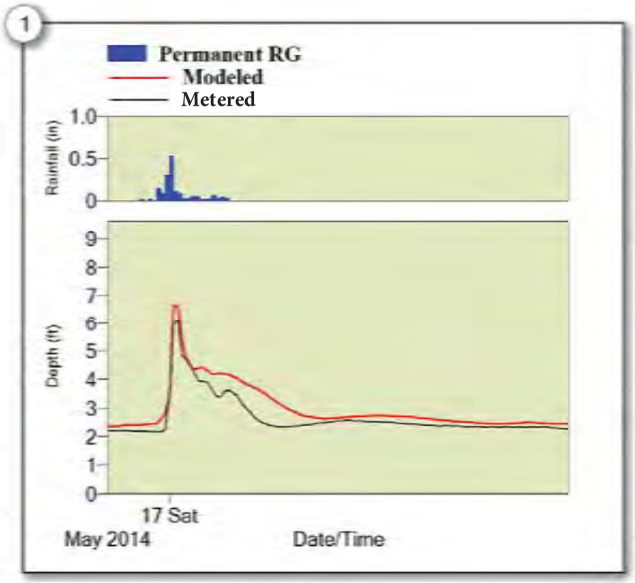
Event Comparison: Flow

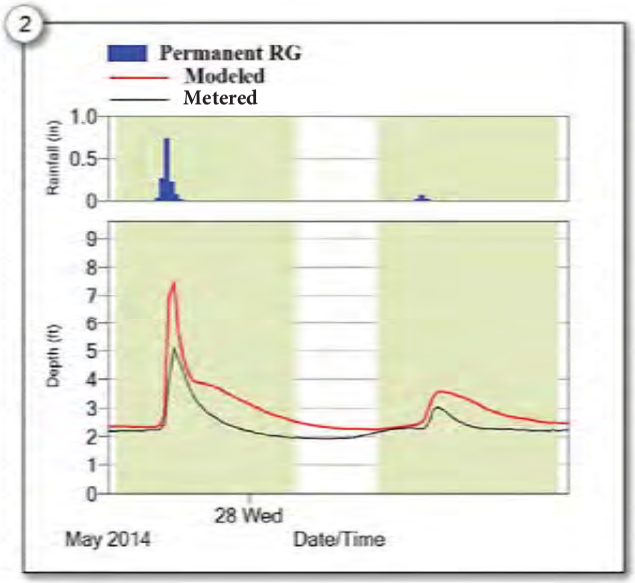
Permanent Rain Gauge Events:

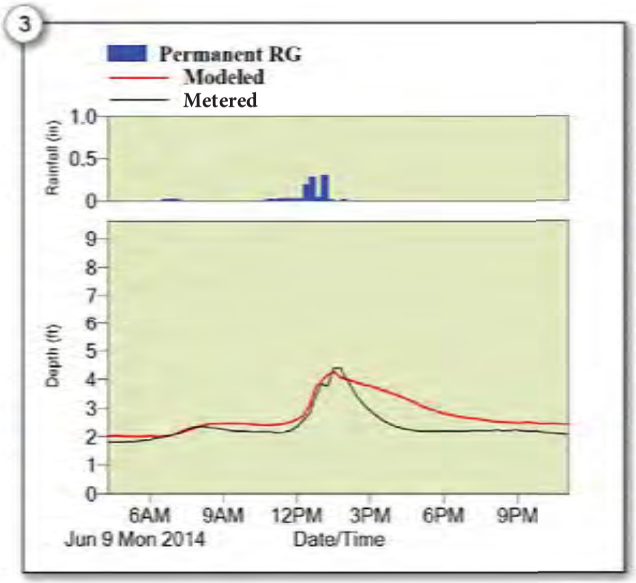
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

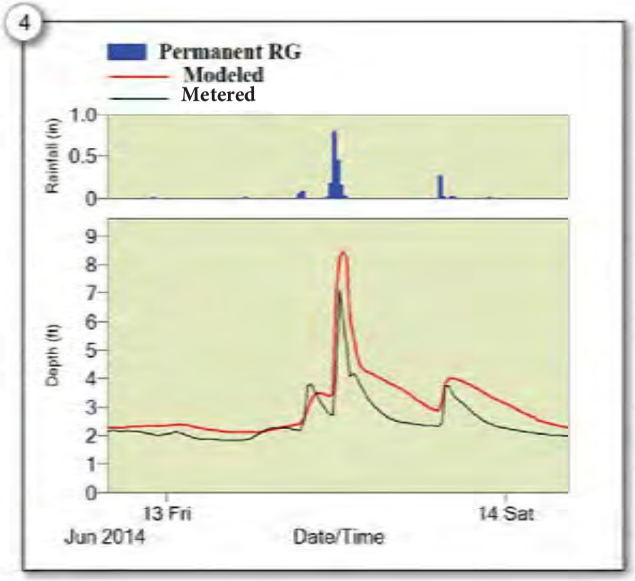
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

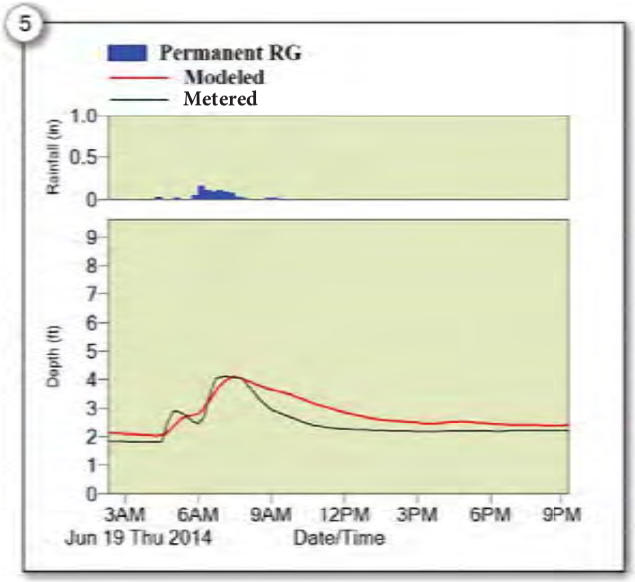
Prepared by:
CH2MHILL

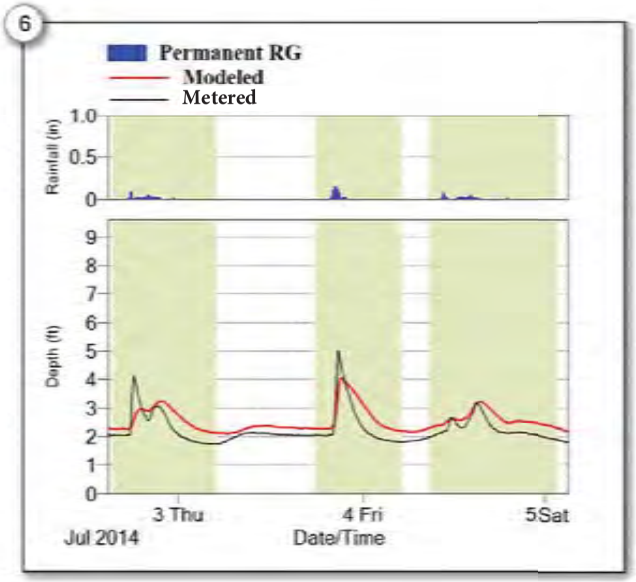












Model Calibration Results

Flow Meter: OF-004 Sewer

Event Comparison: Depth

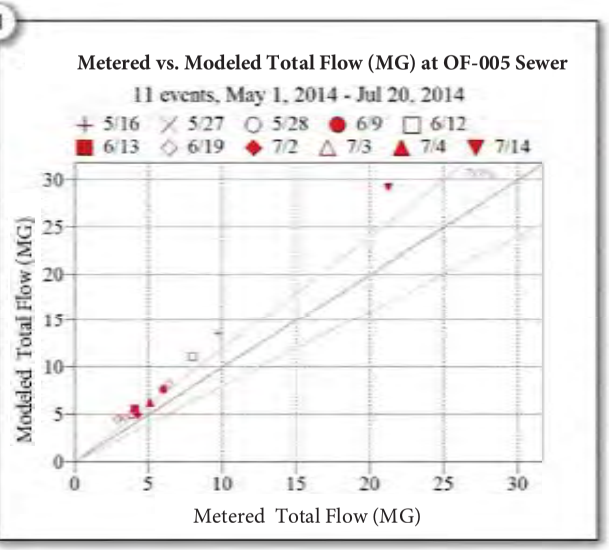
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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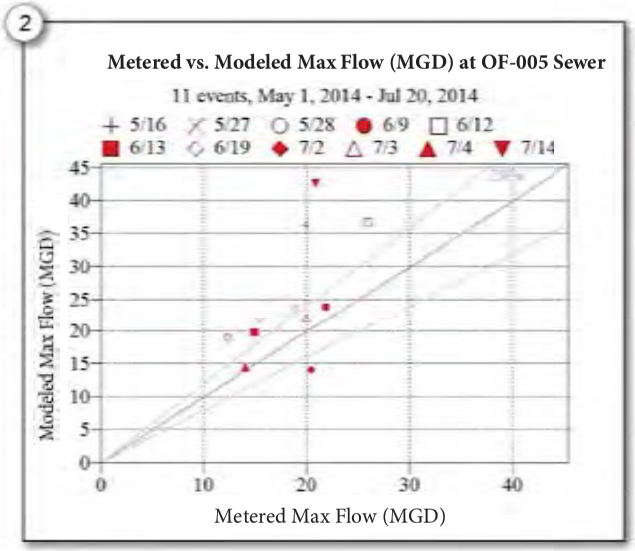

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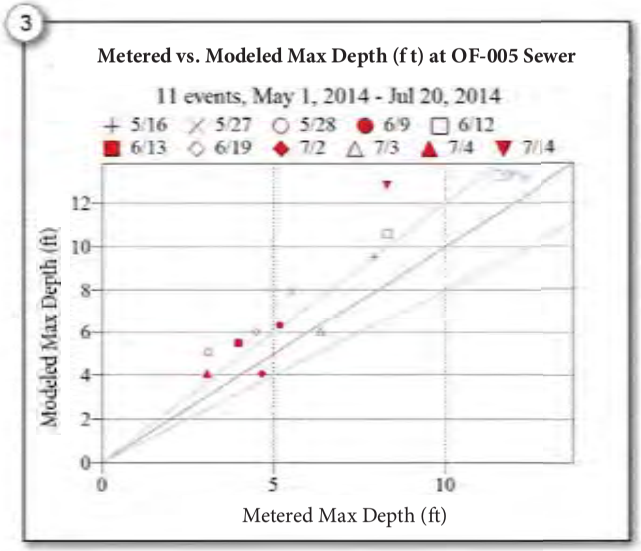

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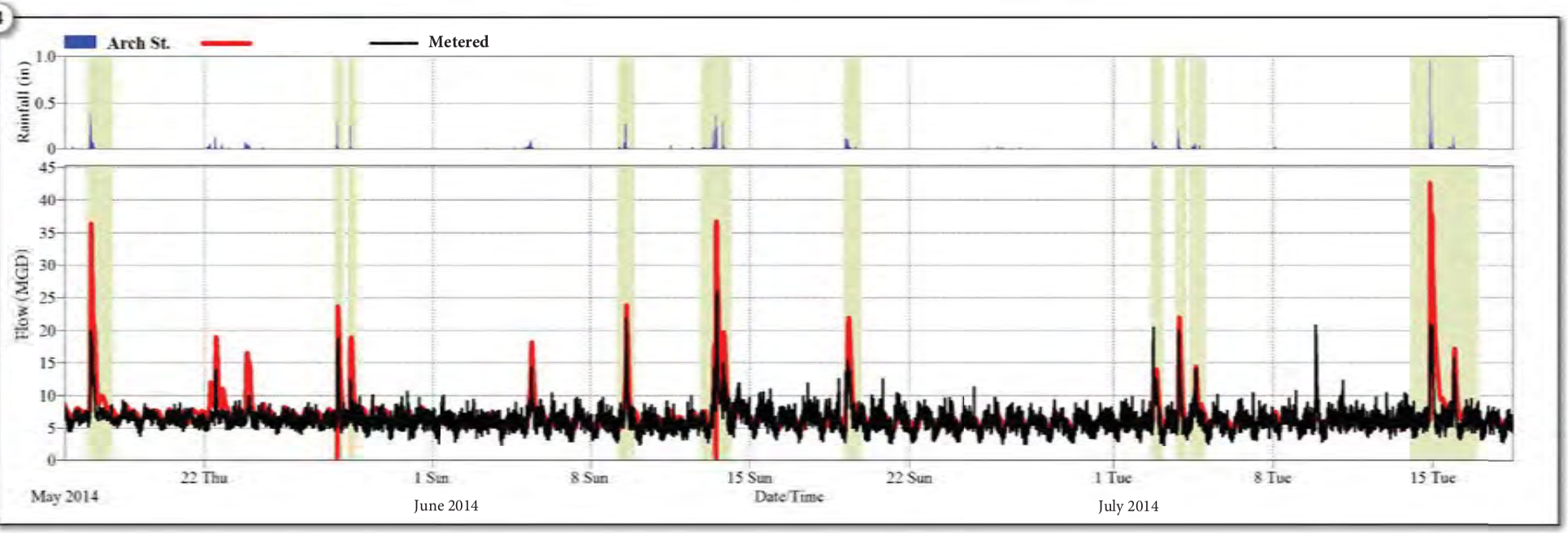


Model Calibration Results

Flow Meter: OF-005

Meter Summary

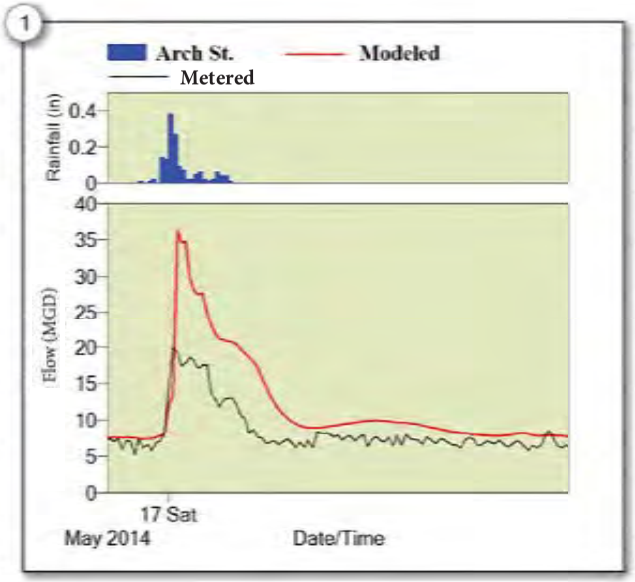
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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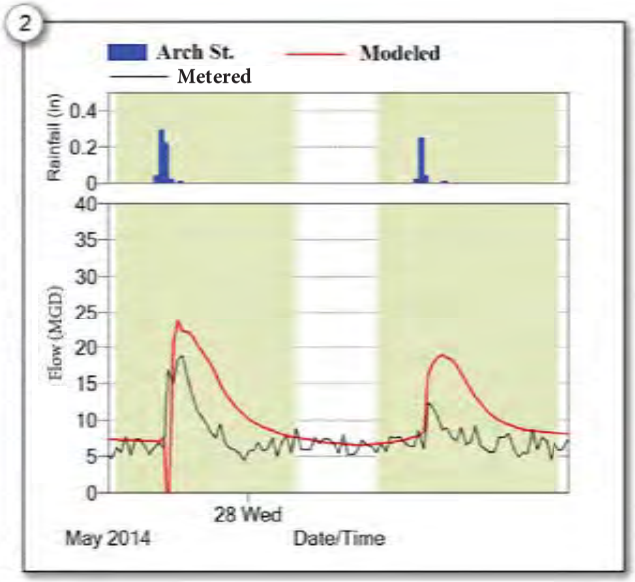

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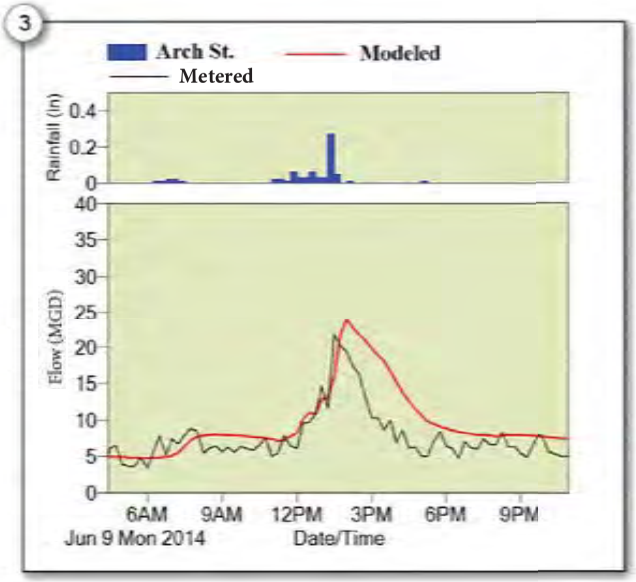

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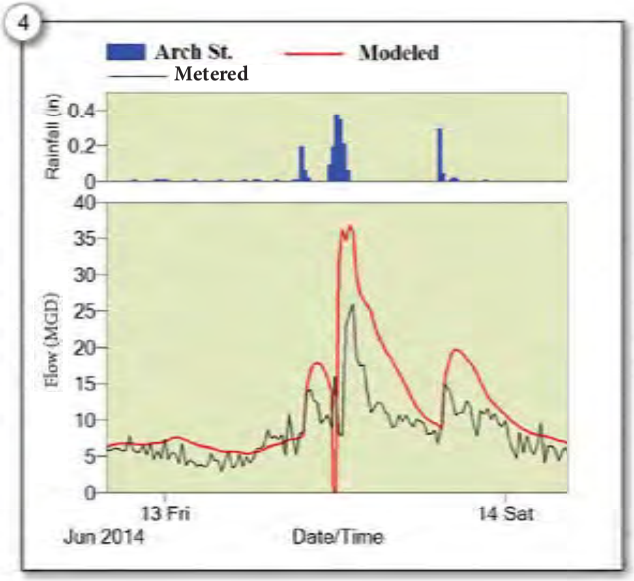

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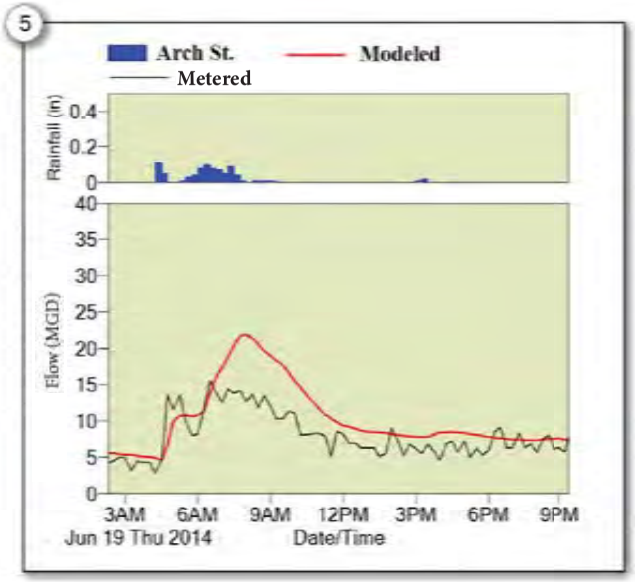

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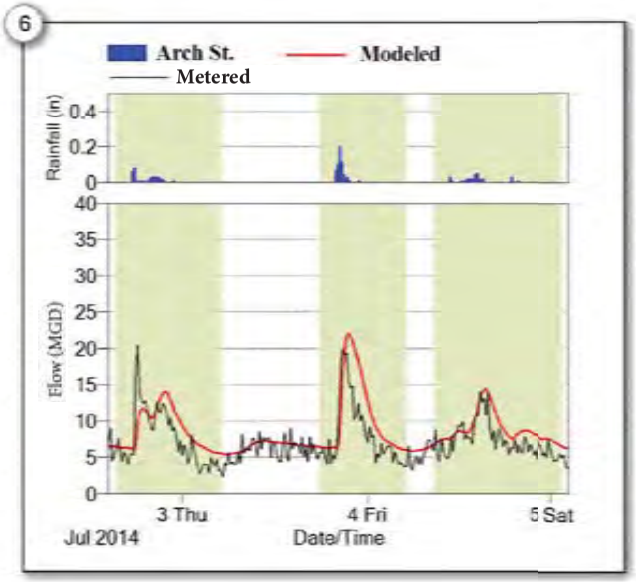


Model Calibration Results

Flow Meter: OF-005

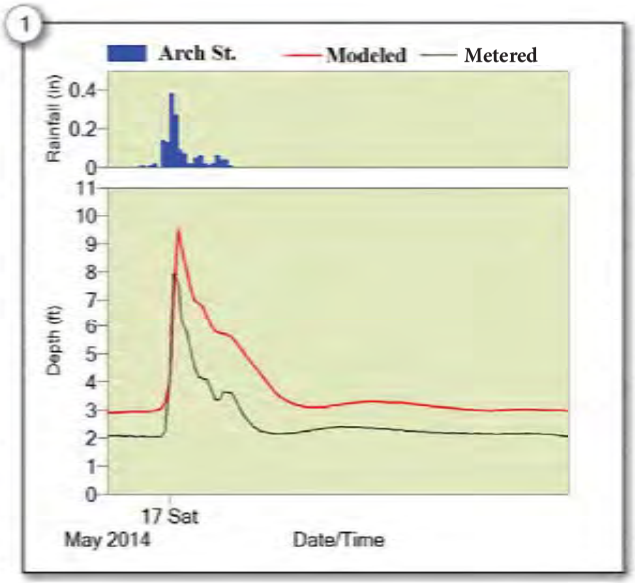
Event Comparison: Flow

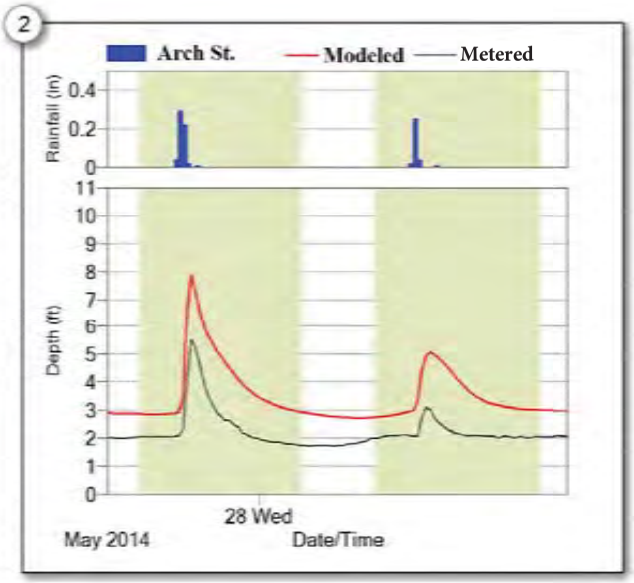
Arch St. Rain Gauge Events:

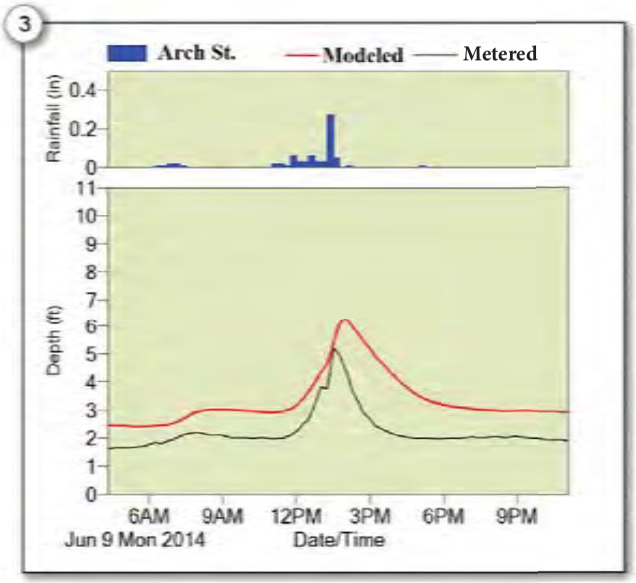
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

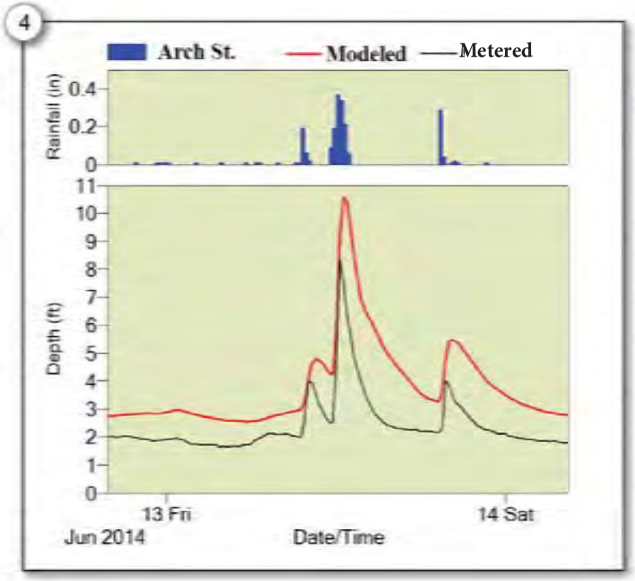
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

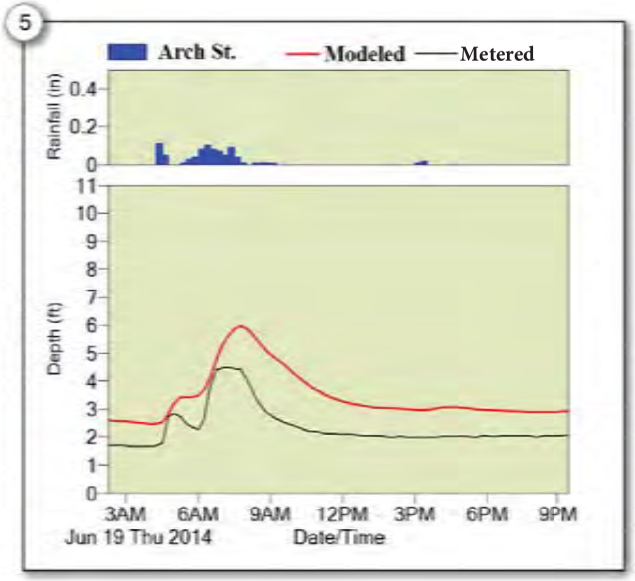
Prepared by:
CH2MHILL

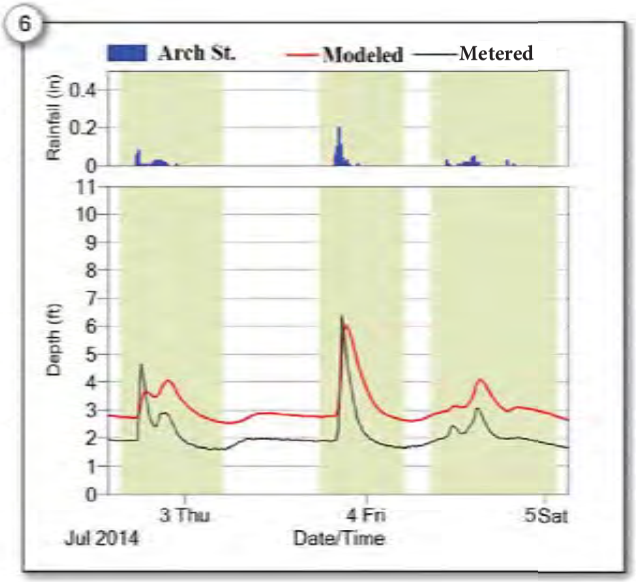












Model Calibration Results

Flow Meter: OF-005

Event Comparison: Depth

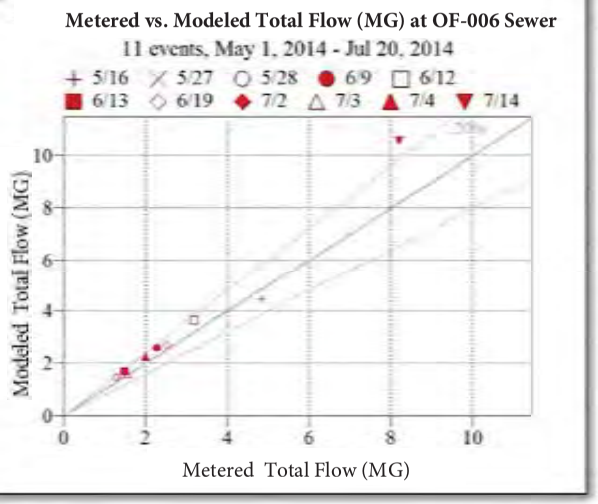
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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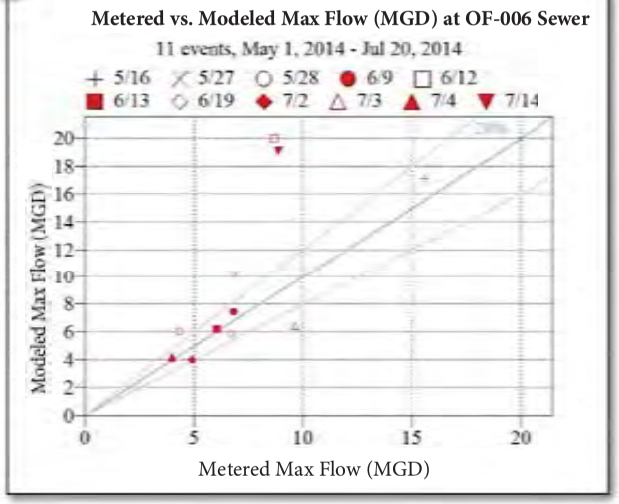

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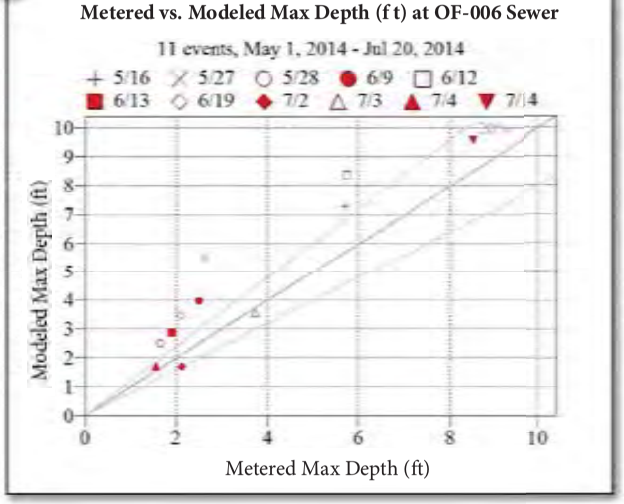

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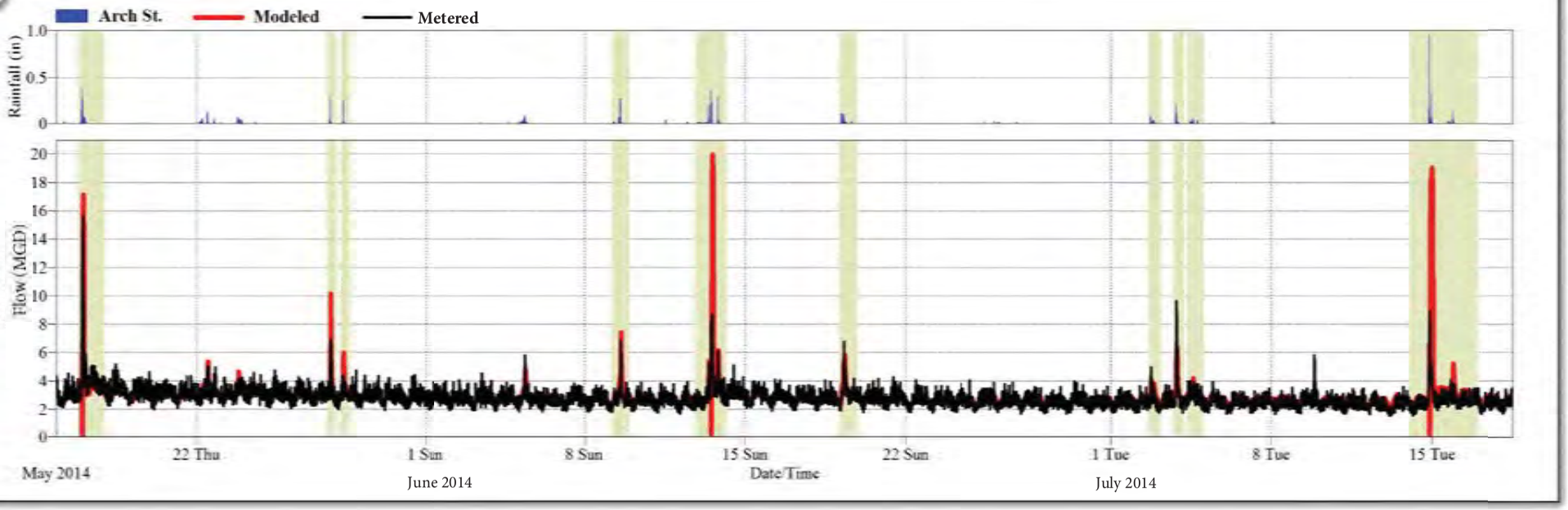


Model Calibration Results

Flow Meter: OF-006 Sewer

Meter Summary

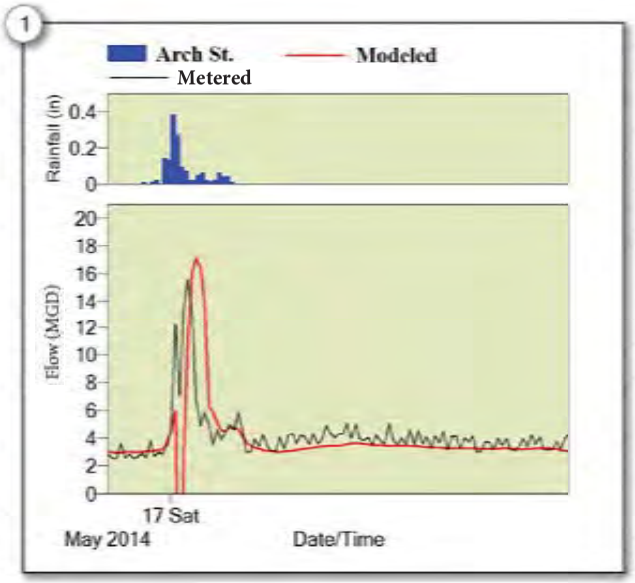
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

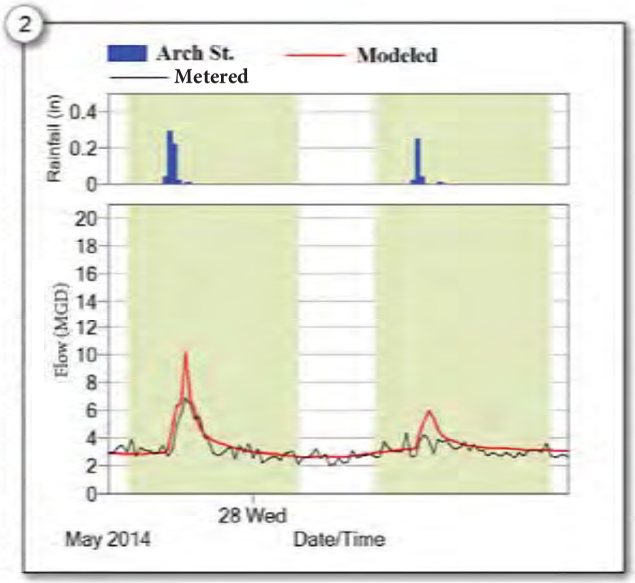
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

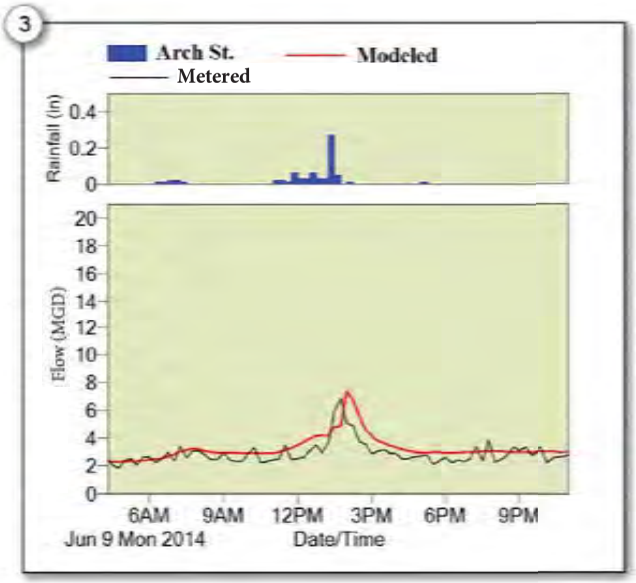
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

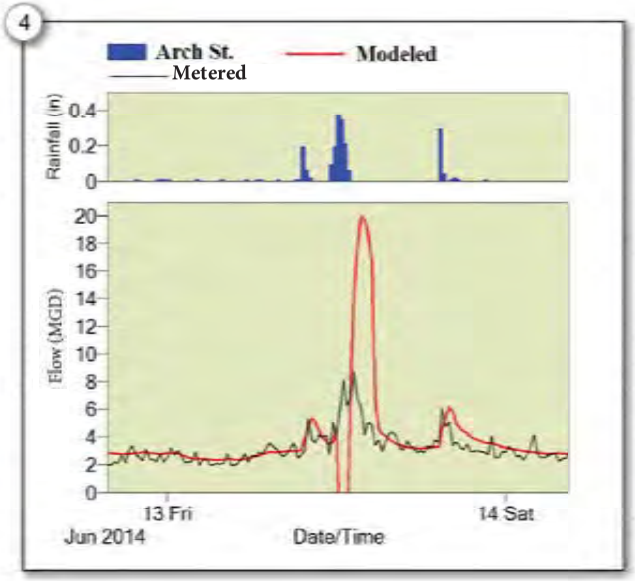
Prepared by:

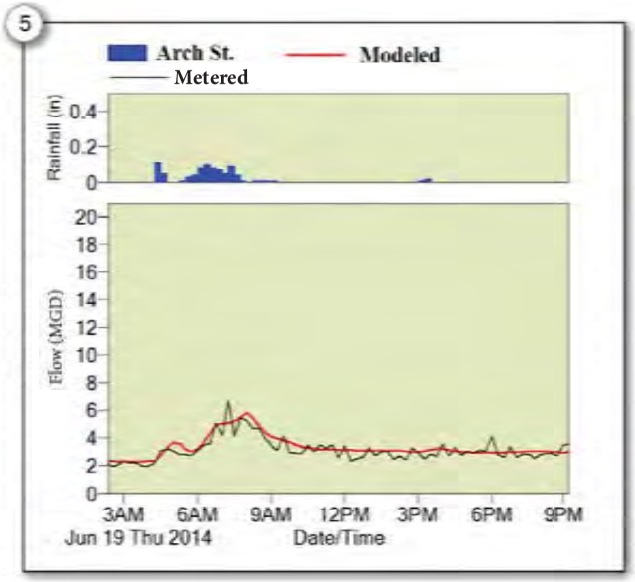
CH2MHILL

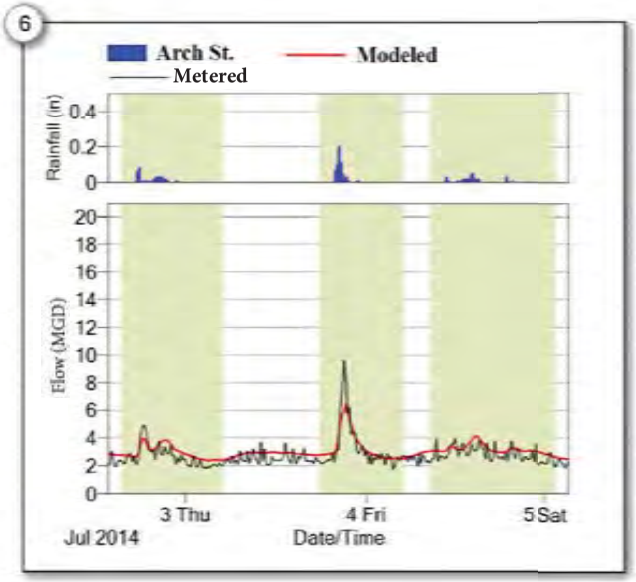












Model Calibration Results

Flow Meter: OF-006 Sewer

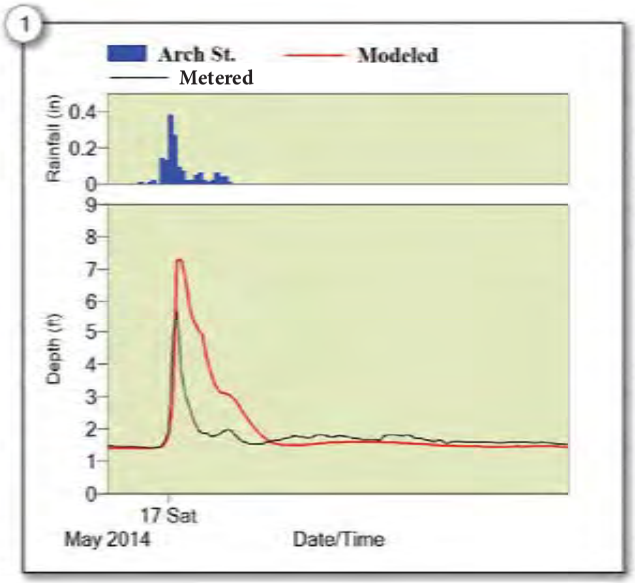
Event Comparison: Flow

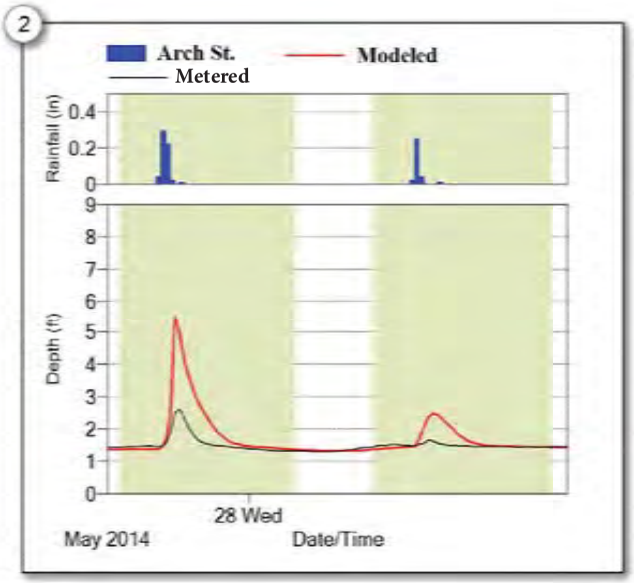
Arch St. Rain Gauge Events:

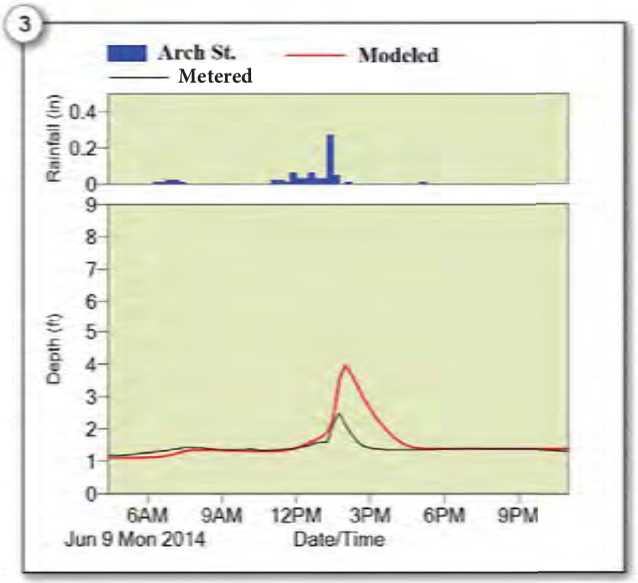
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

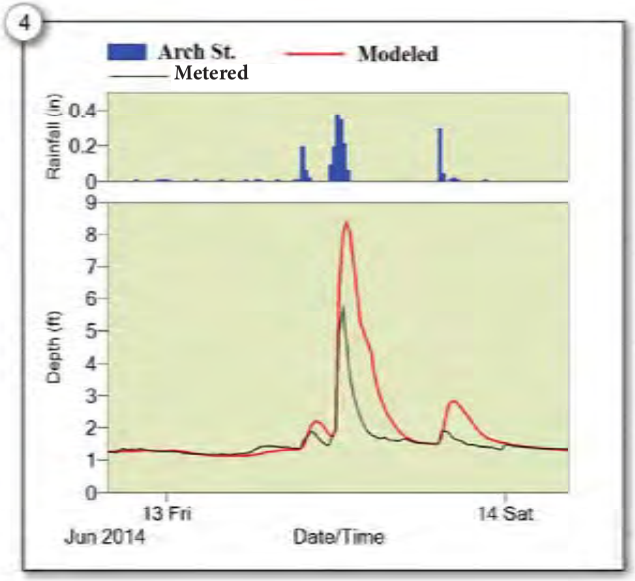
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

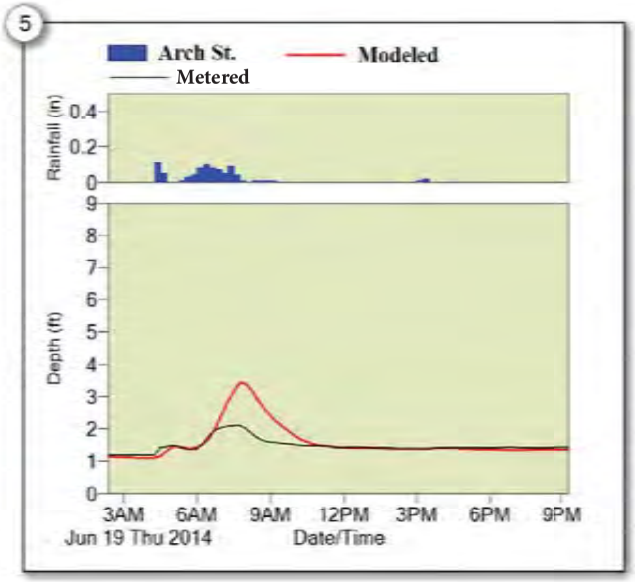
Prepared by:
CH2MHILL

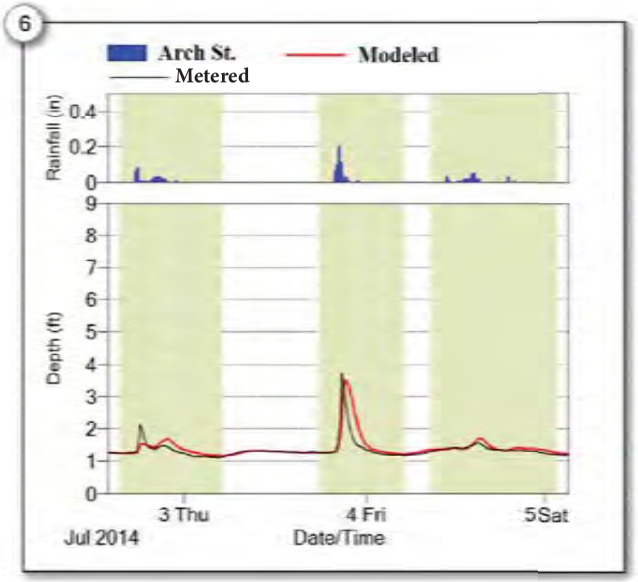












Model Calibration Results

Flow Meter: OF-006 Sewer

Event Comparison: Depth

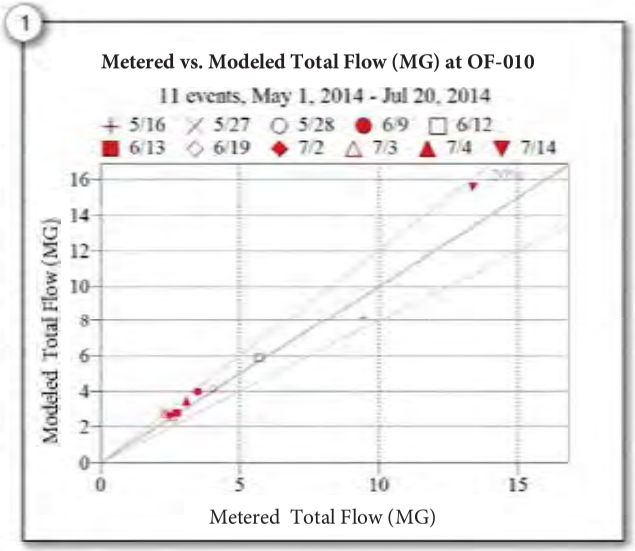
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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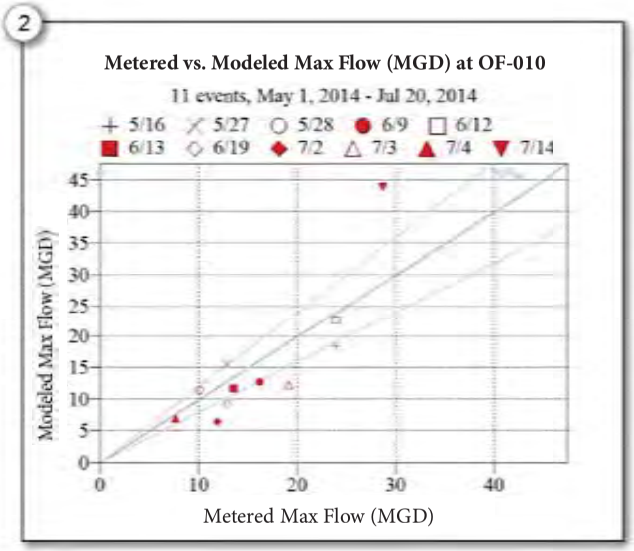

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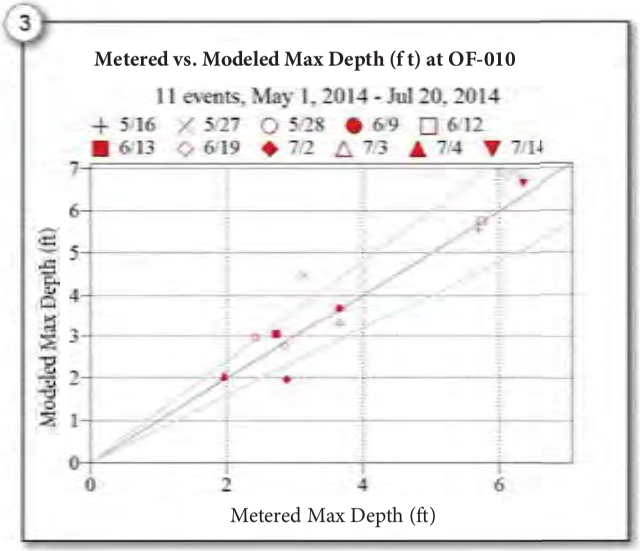

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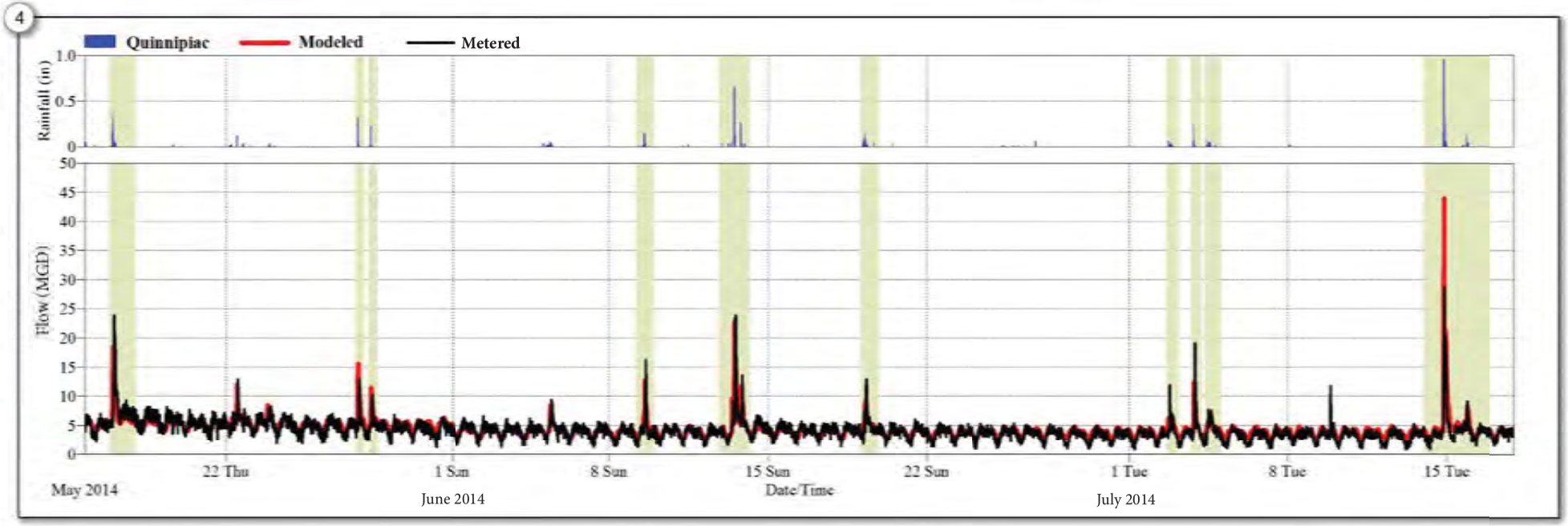


Model Calibration Results

Flow Meter: OF-010

Meter Summary

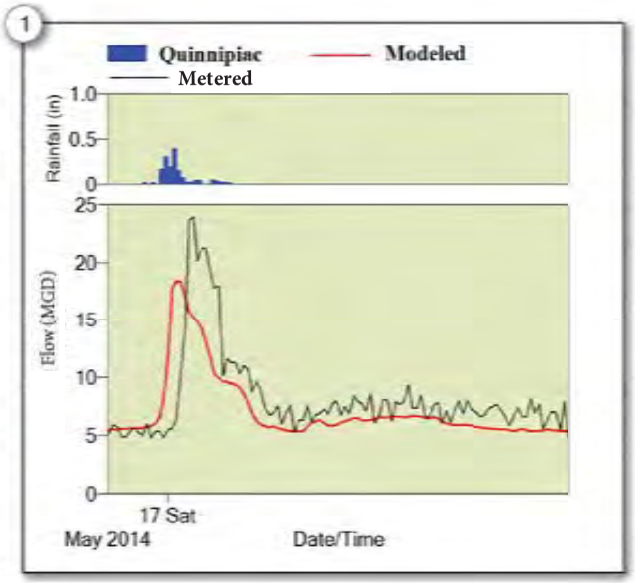
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

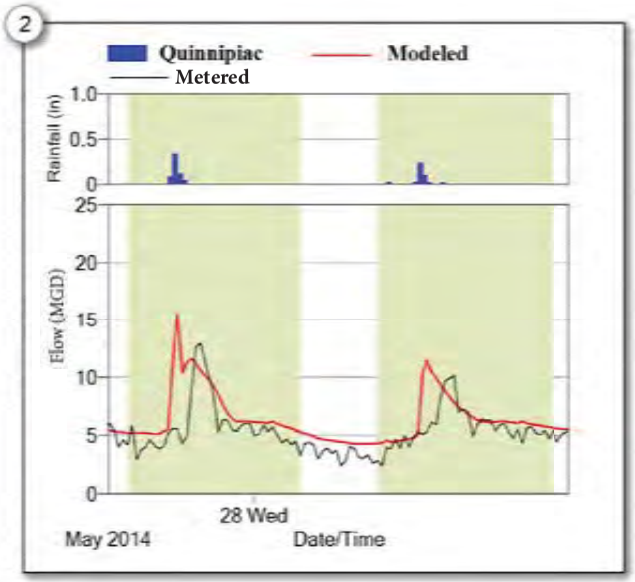
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

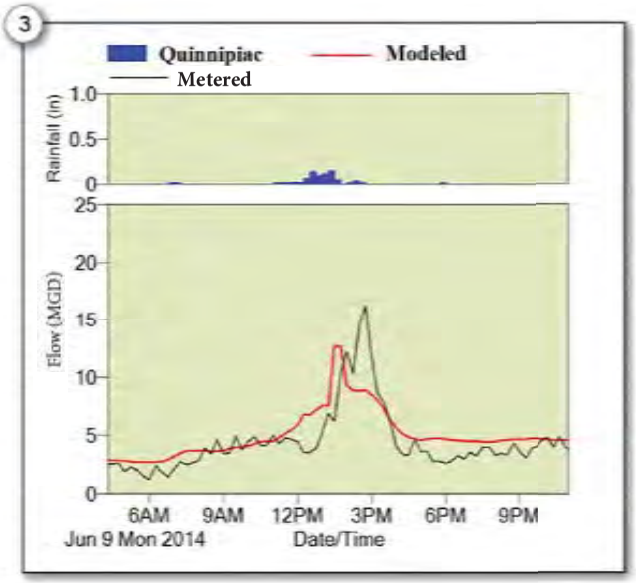
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

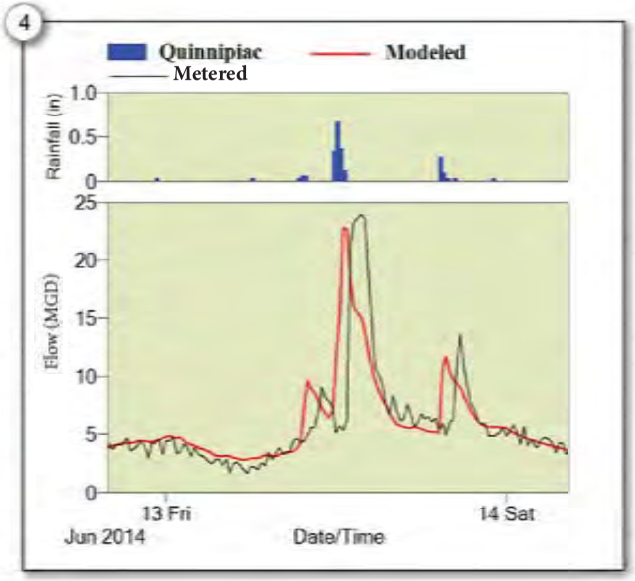
Prepared by:

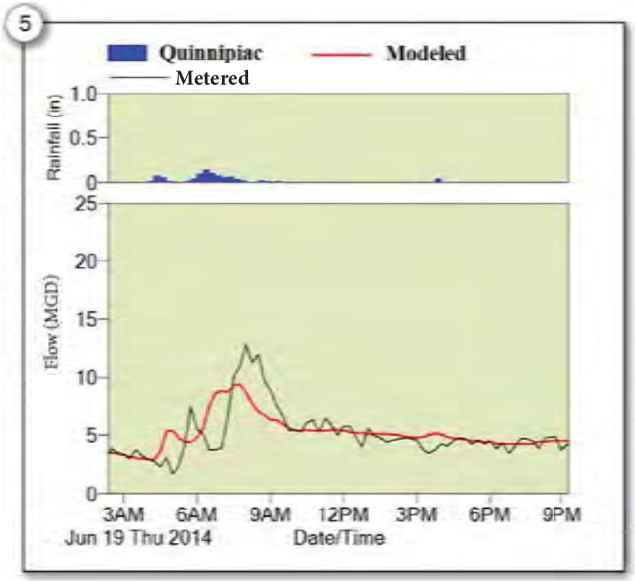
CH2MHILL

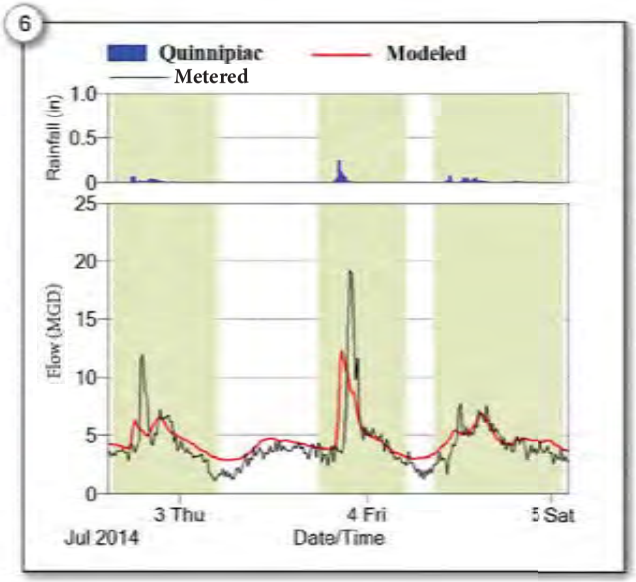












Model Calibration Results

Flow Meter: OF-010

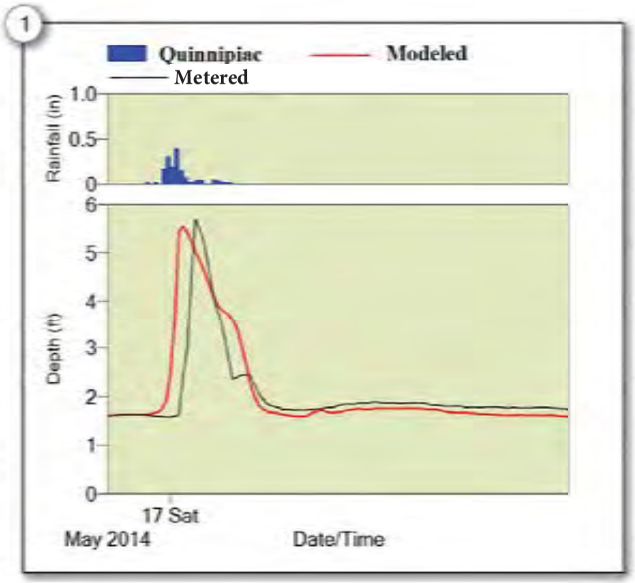
Event Comparison: Flow

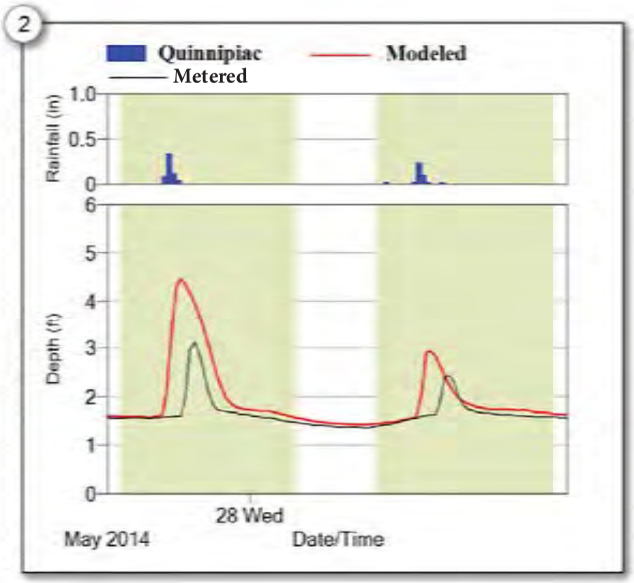
Permanent Rain Gauge Events:

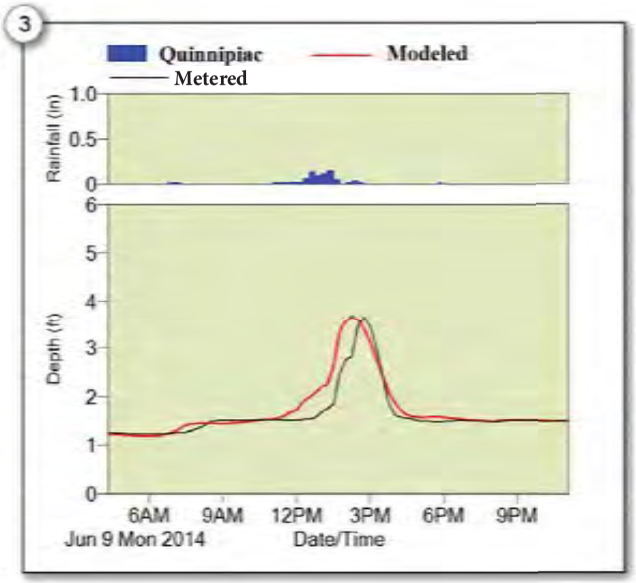
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

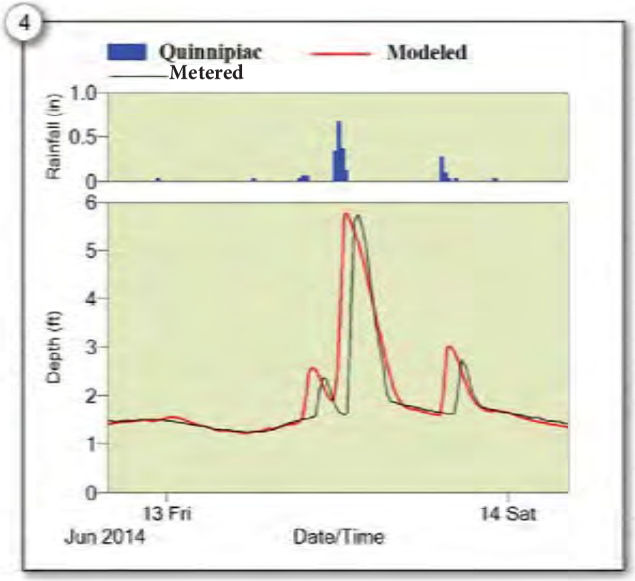
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

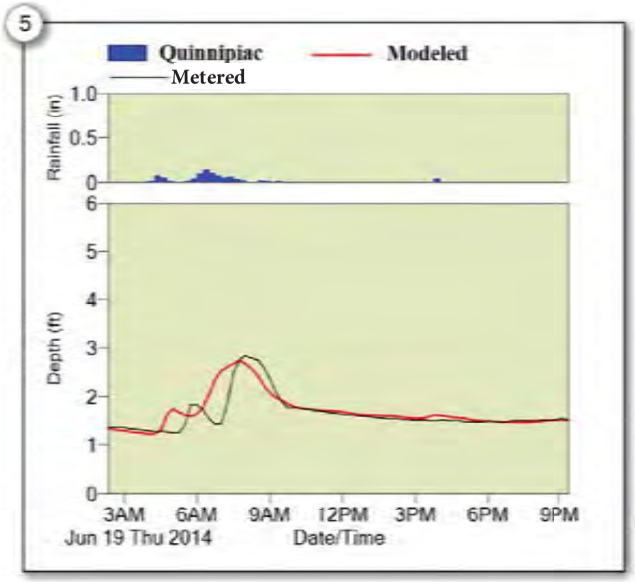
Prepared by:
CH2MHILL

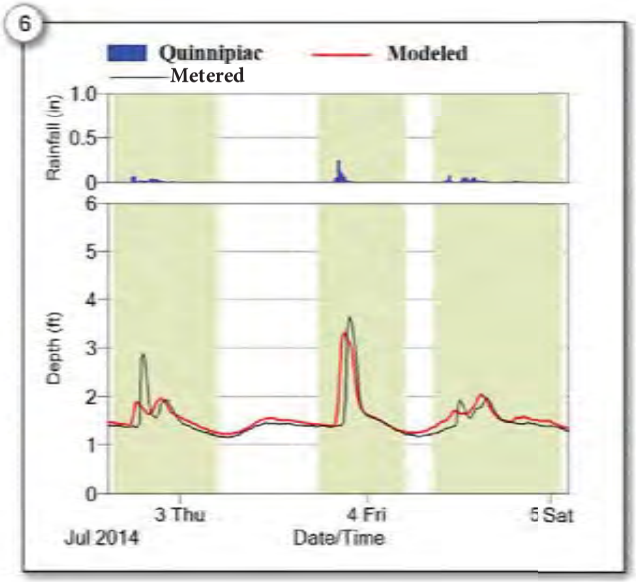












Model Calibration Results

Flow Meter: OF-010

Event Comparison: Depth

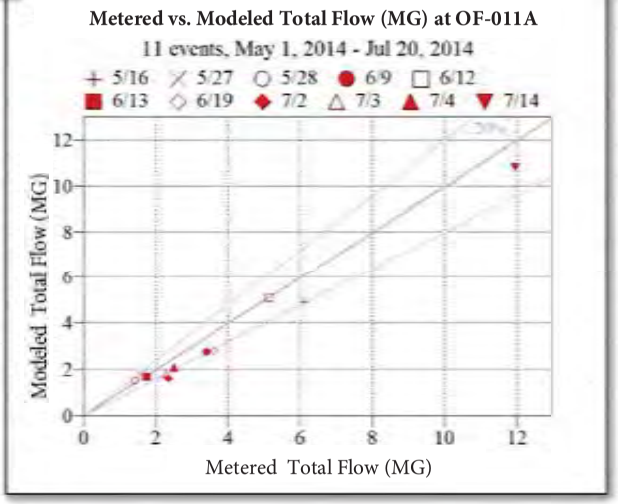
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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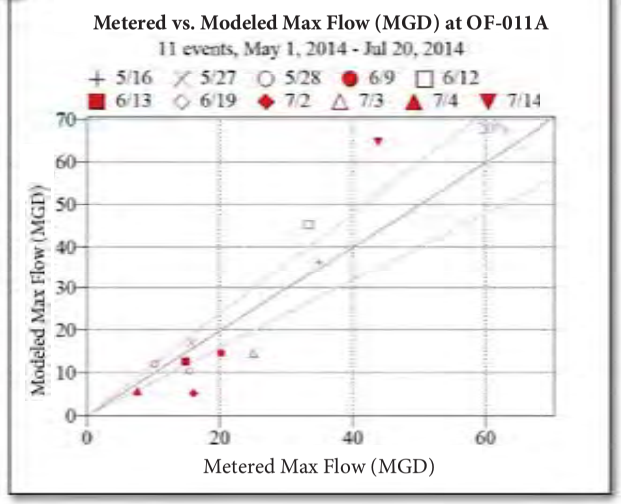

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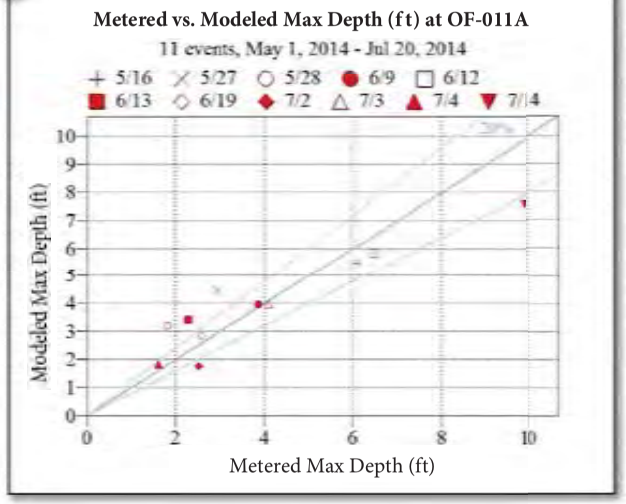

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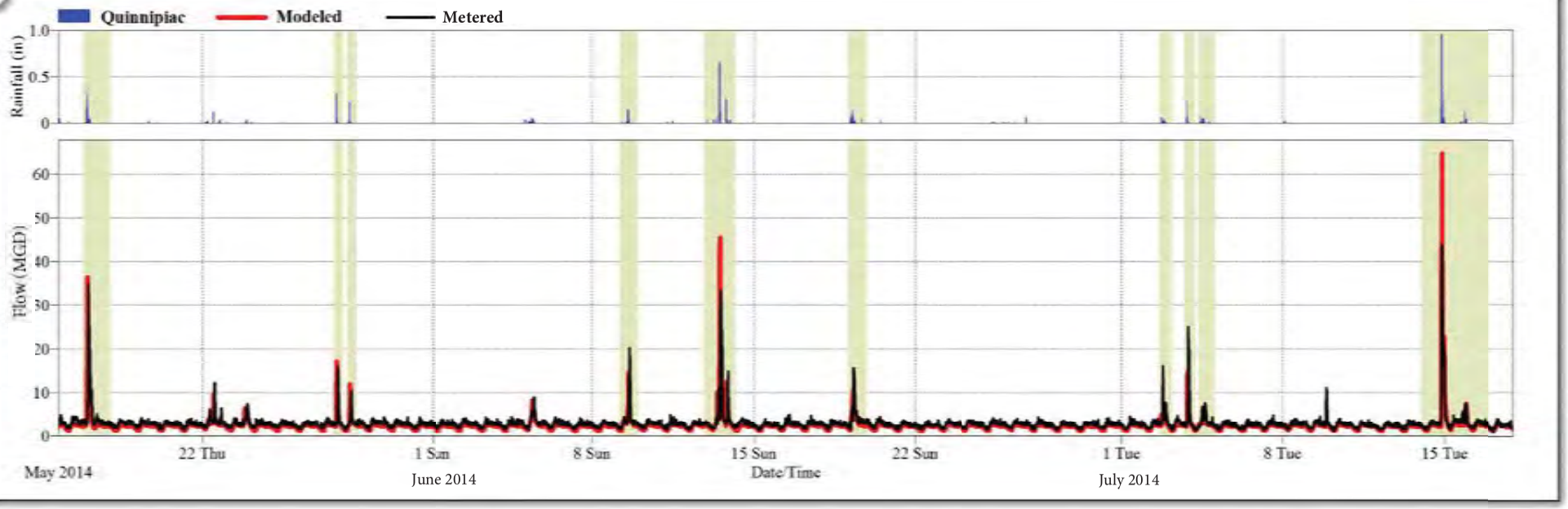


Model Calibration Results

Flow Meter: OF-011A

Meter Summary

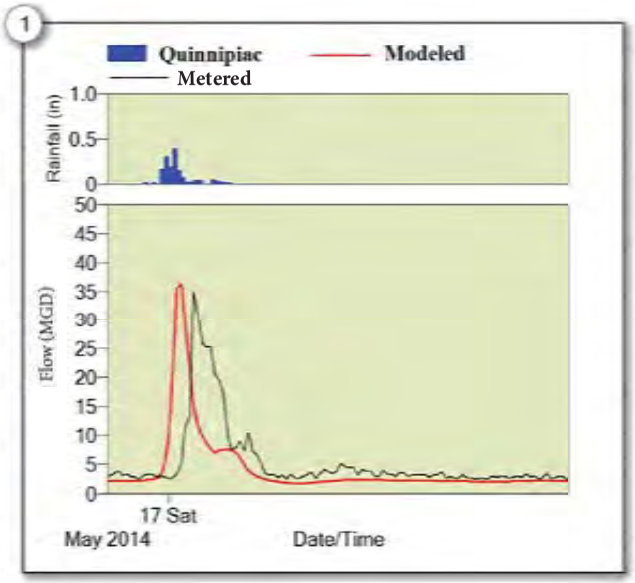
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

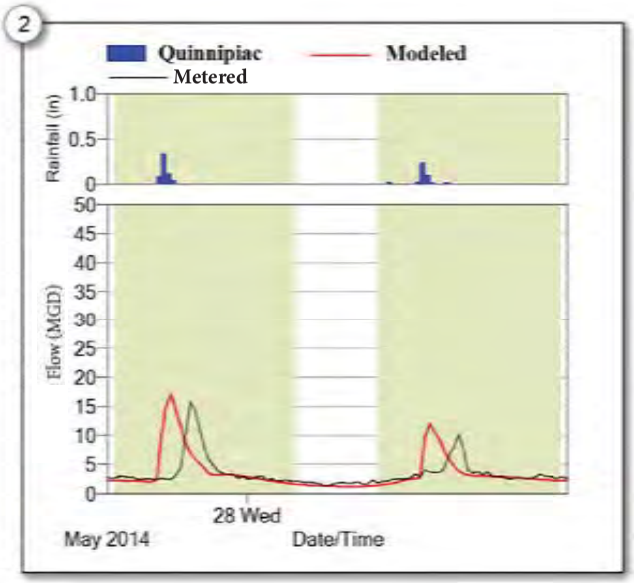
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

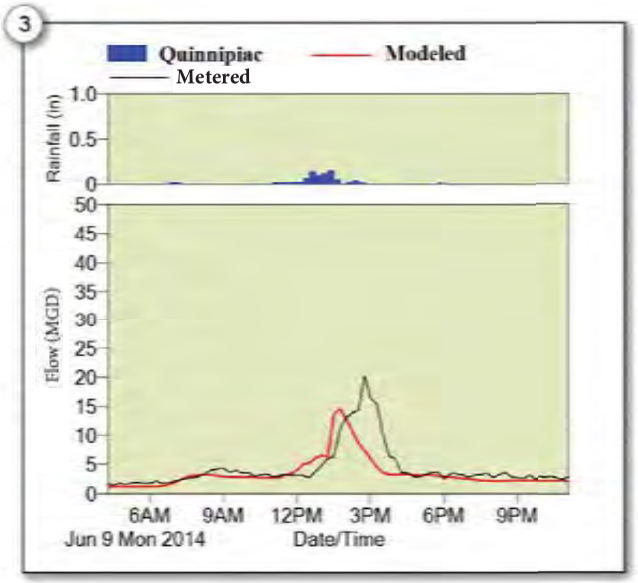
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

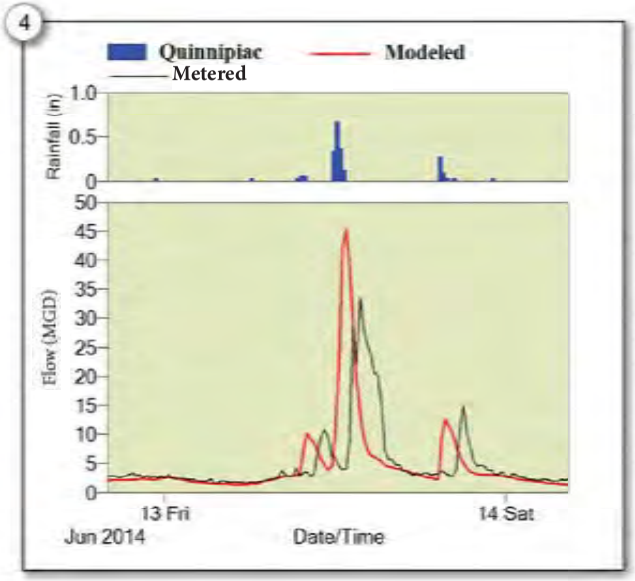
Prepared by:

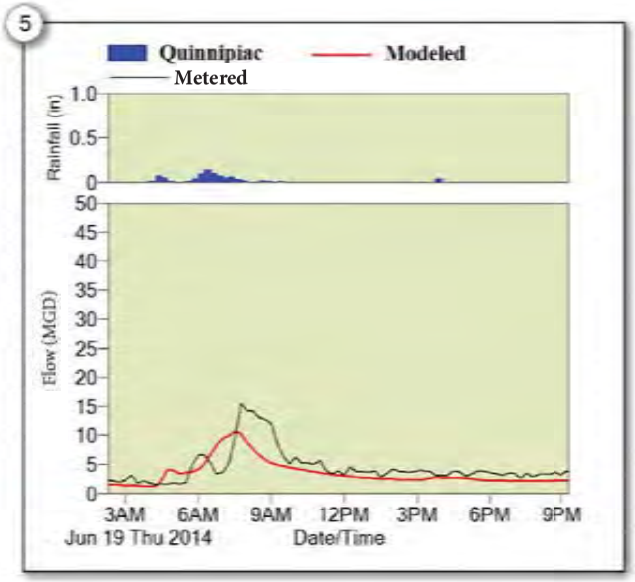
CH2MHILL

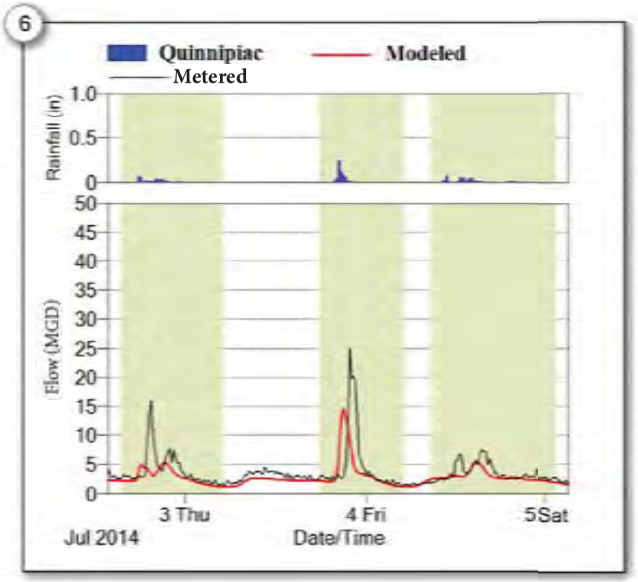












Model Calibration Results

Flow Meter: OF-011A

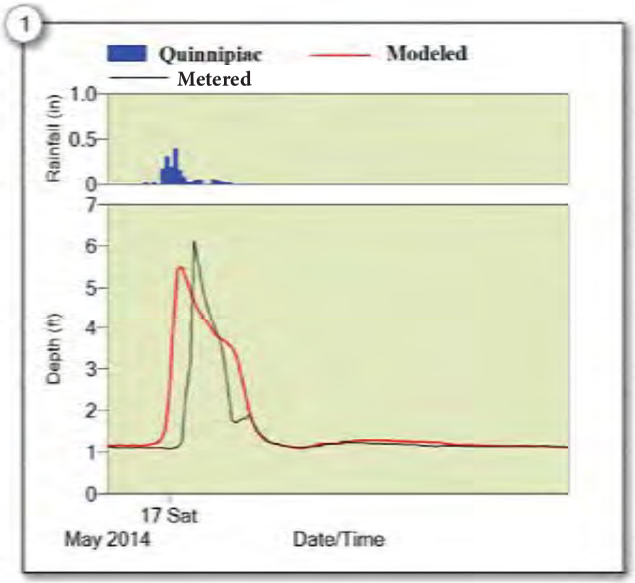
Event Comparison: Flow

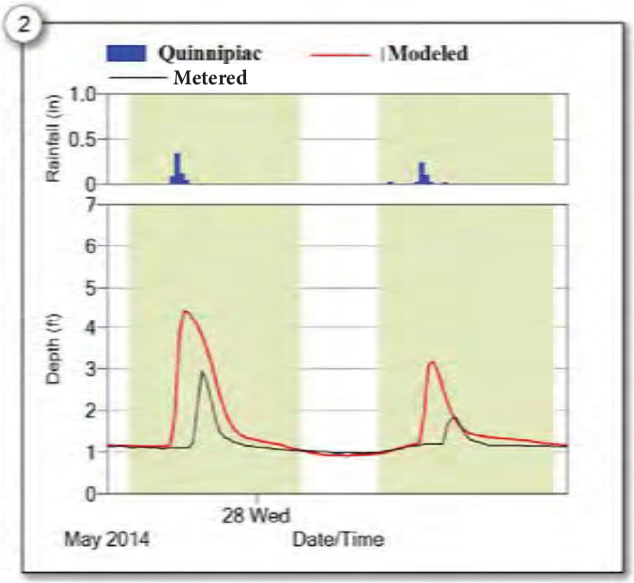
Permanent Rain Gauge Events:

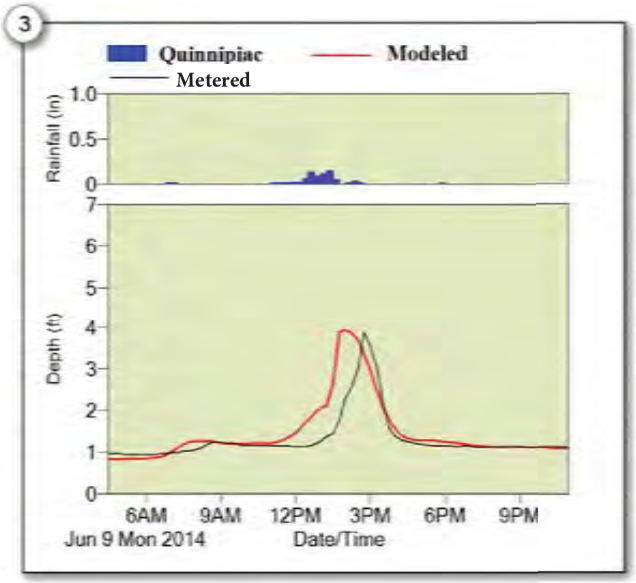
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

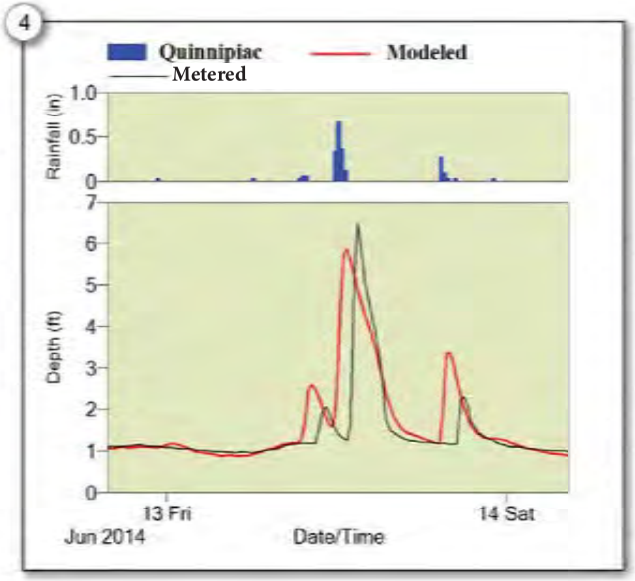
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

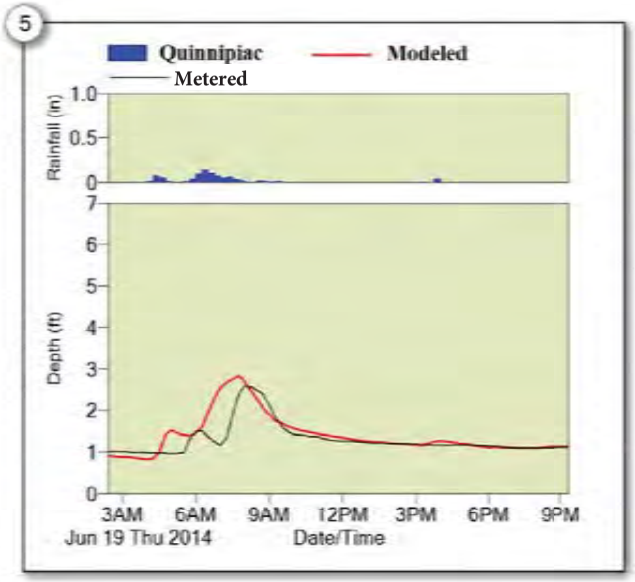
Prepared by:
CH2MHILL

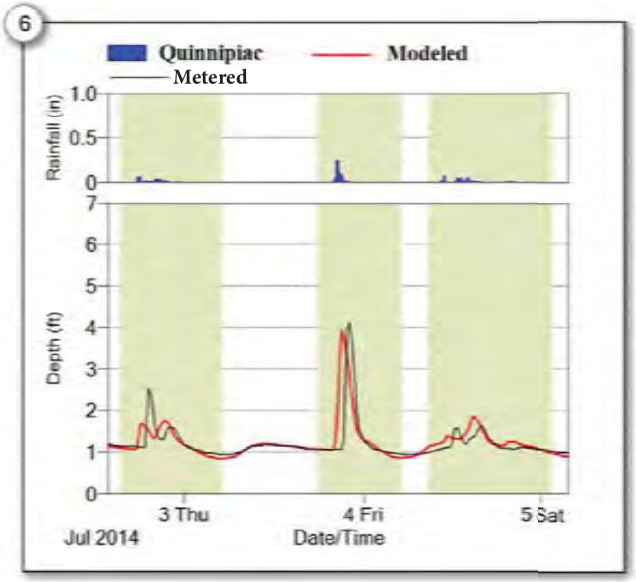












Model Calibration Results

Flow Meter: OF-011A

Event Comparison: Depth

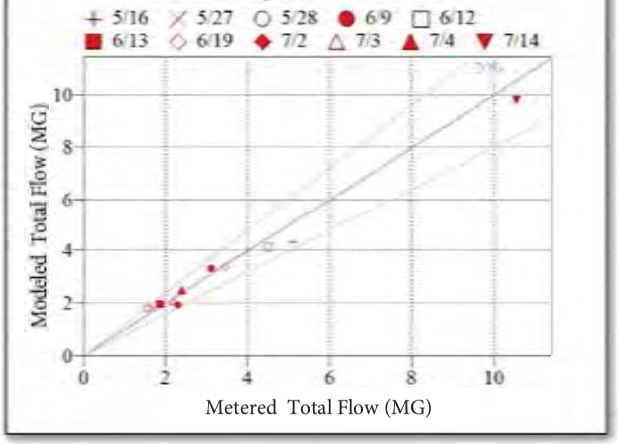
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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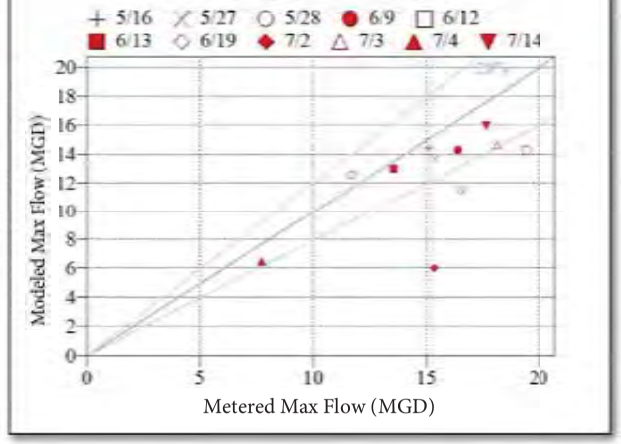

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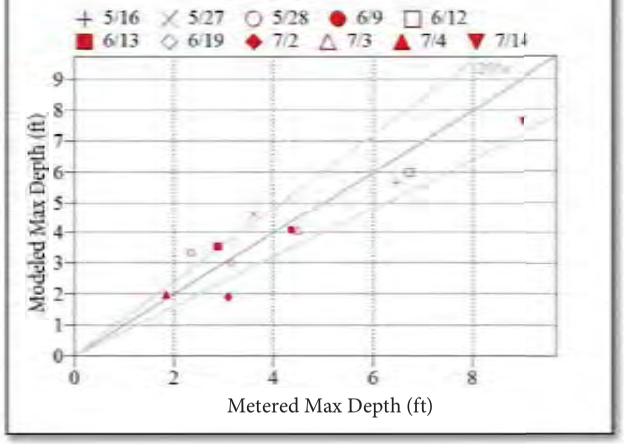

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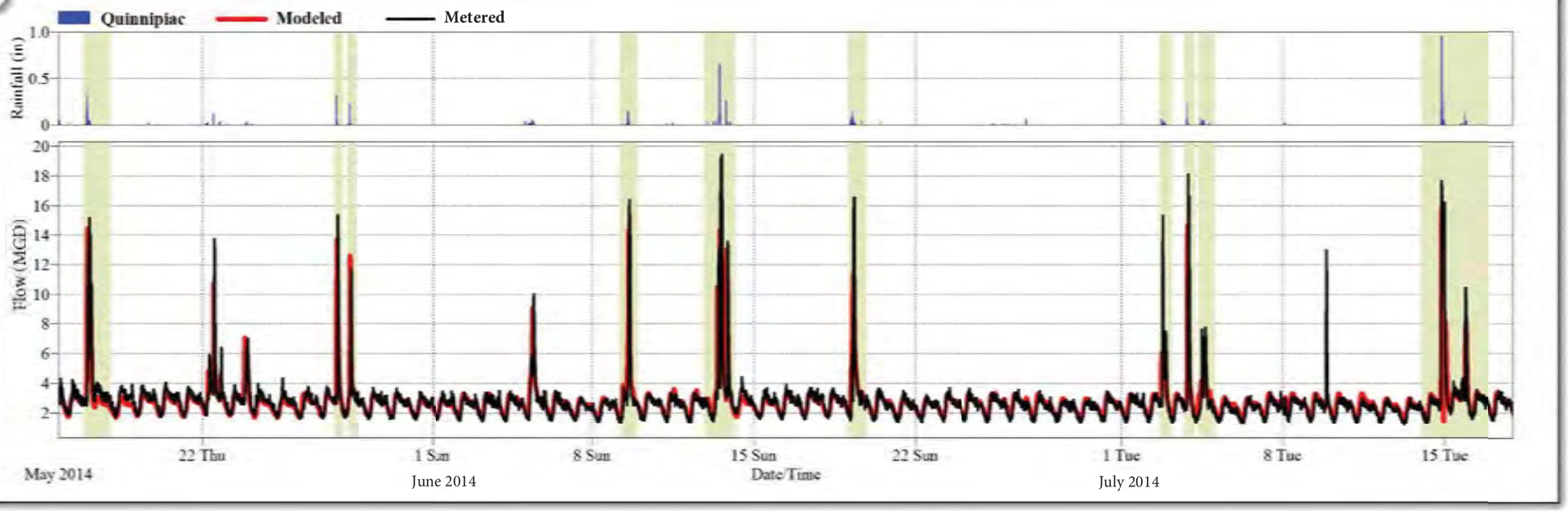


Model Calibration Results

Flow Meter: OF-011B

Meter Summary

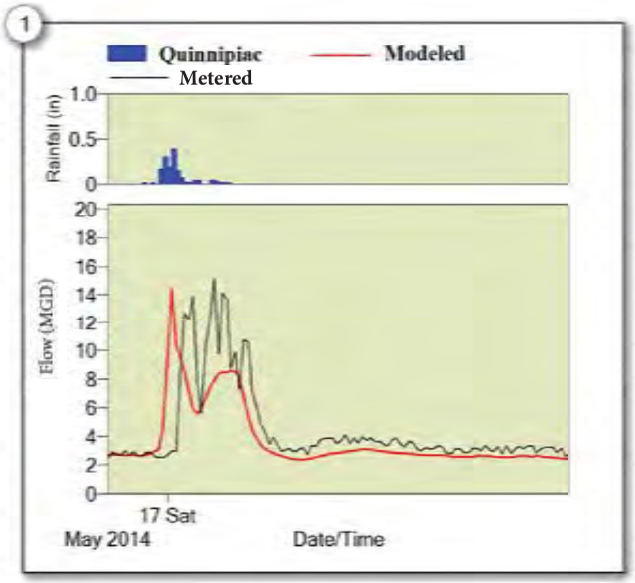
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

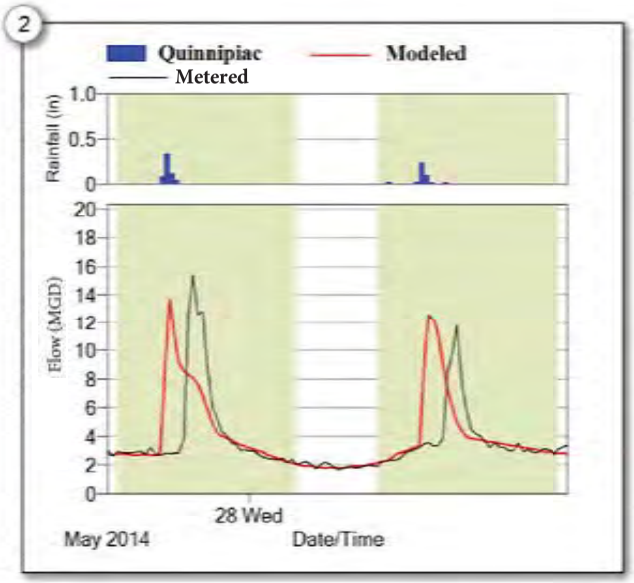
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

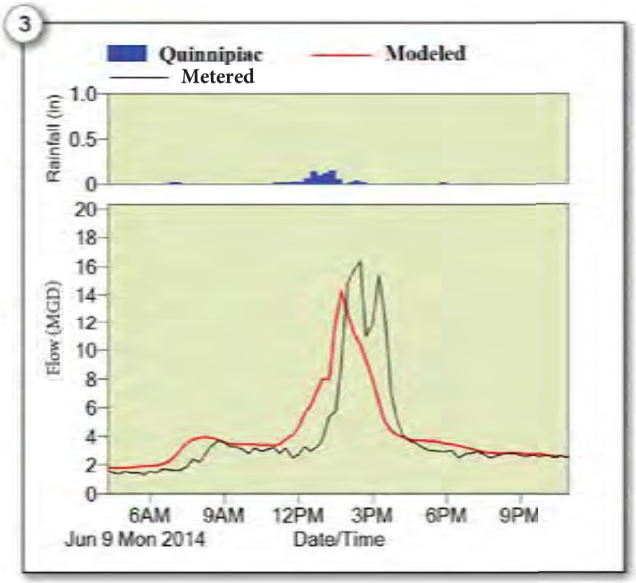
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

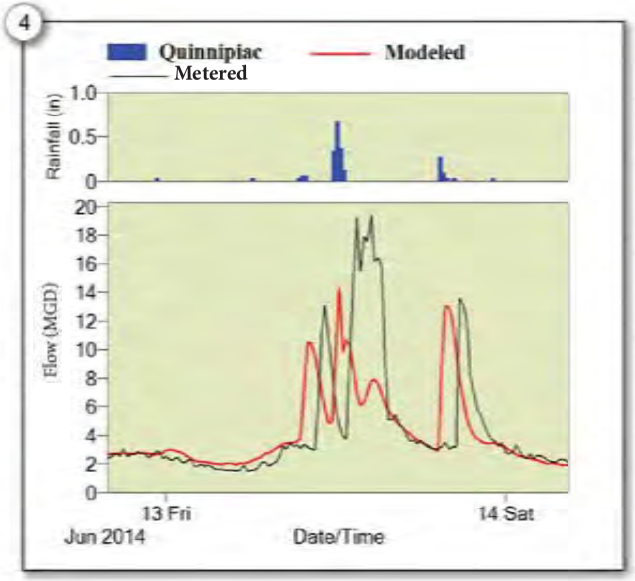
Prepared by:

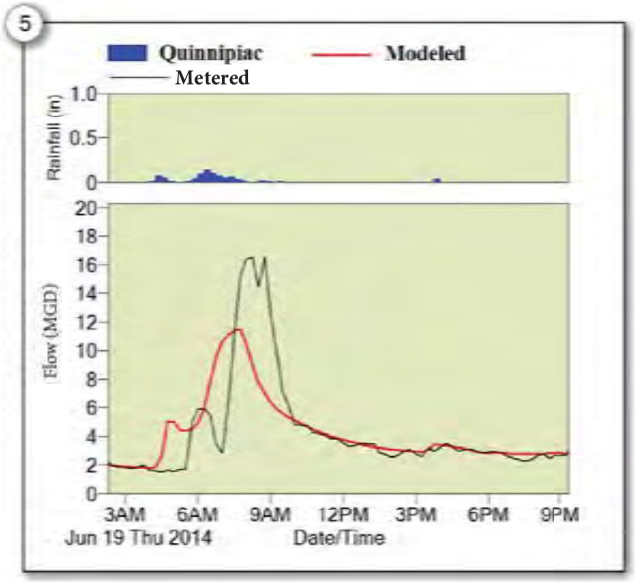
CH2MHILL

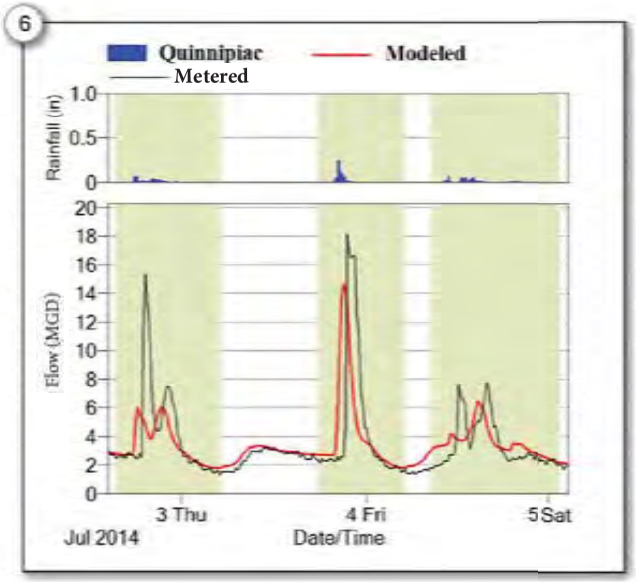












Model Calibration Results

Flow Meter: OF-011B

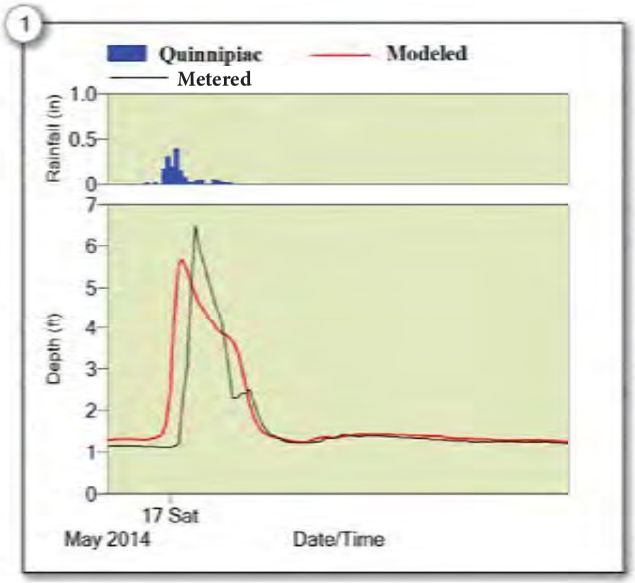
Event Comparison: Flow

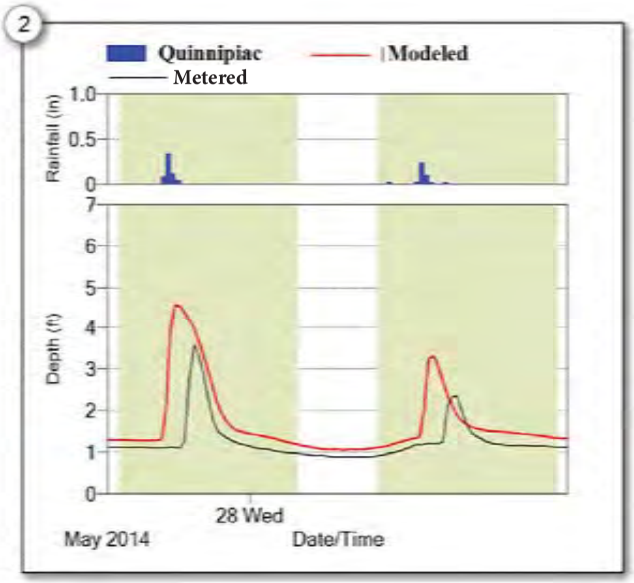
Permanent Rain Gauge Events:

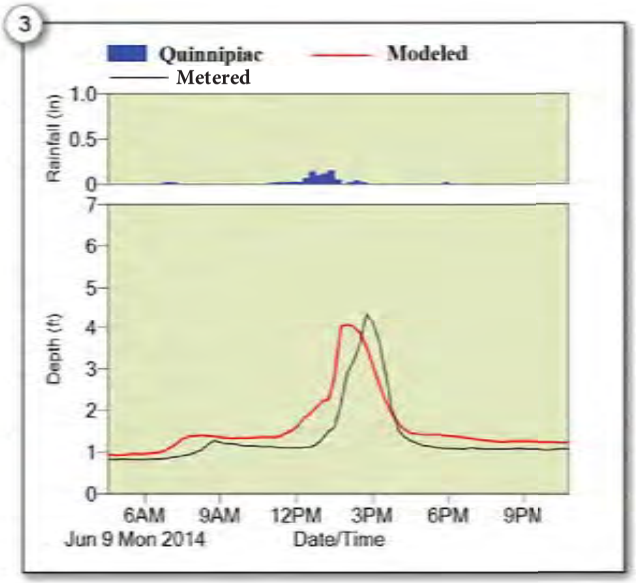
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

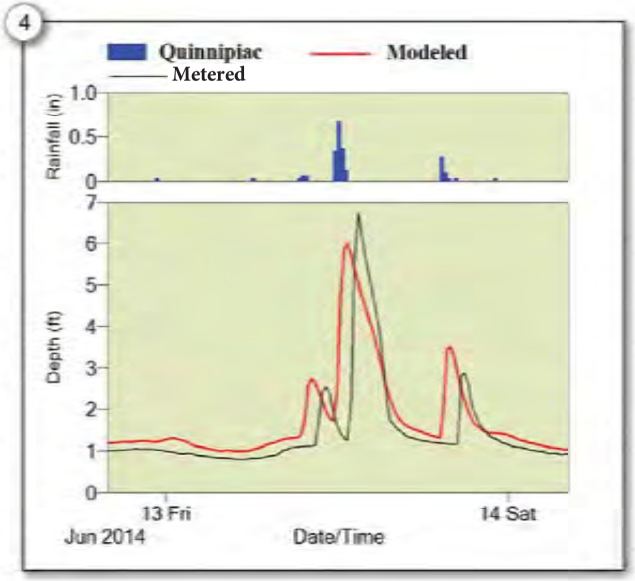
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

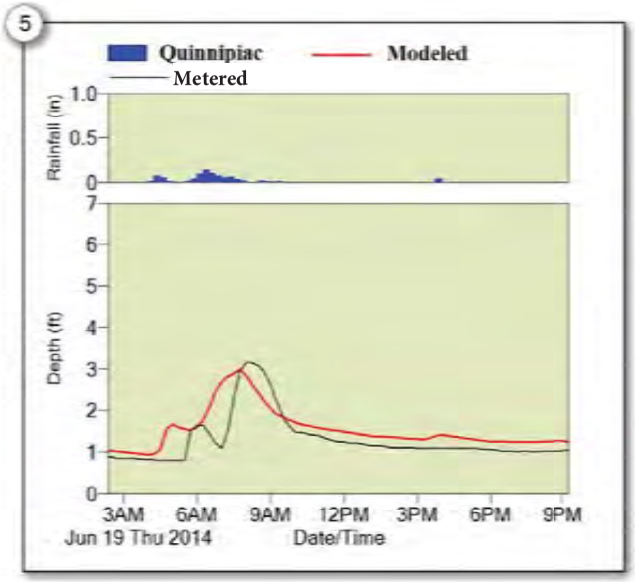
Prepared by:
CH2MHILL

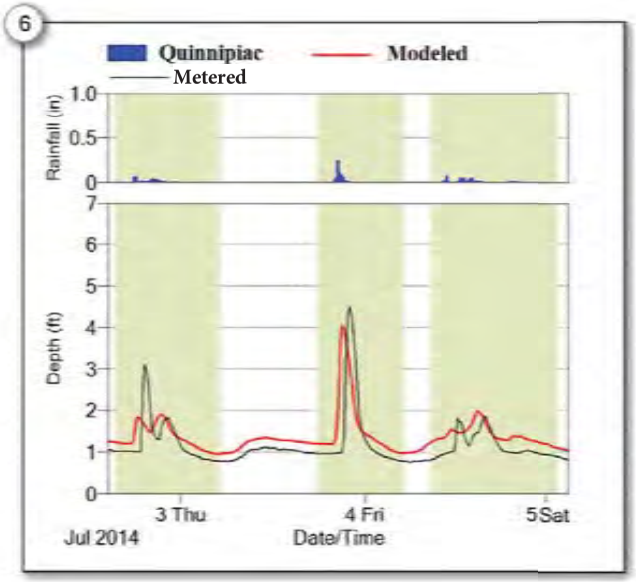












Model Calibration Results

Flow Meter: OF-011B

Event Comparison: Depth

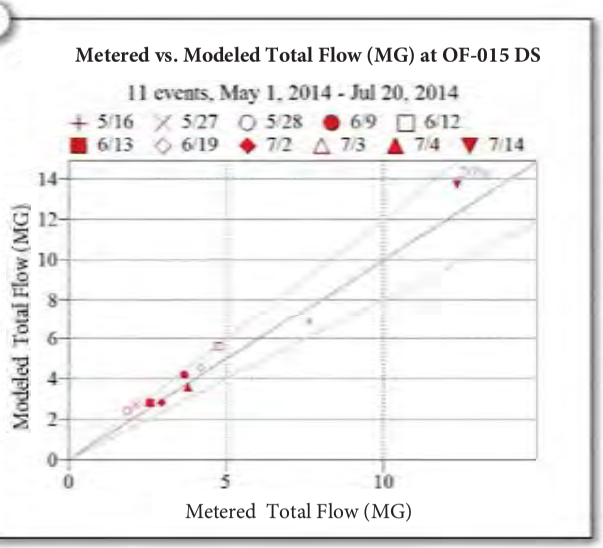
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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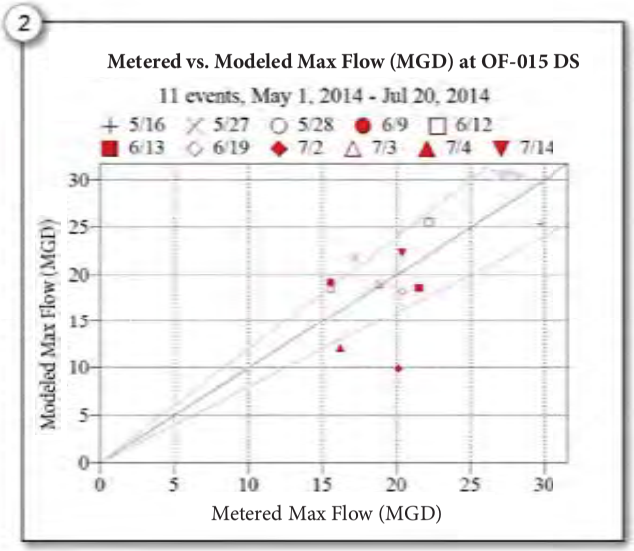

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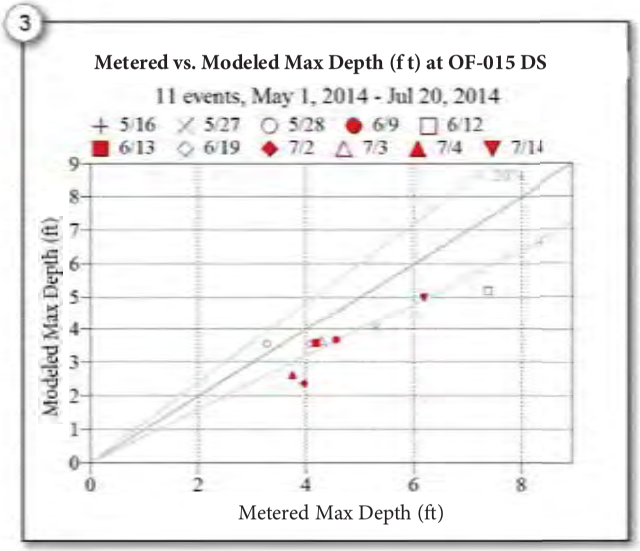

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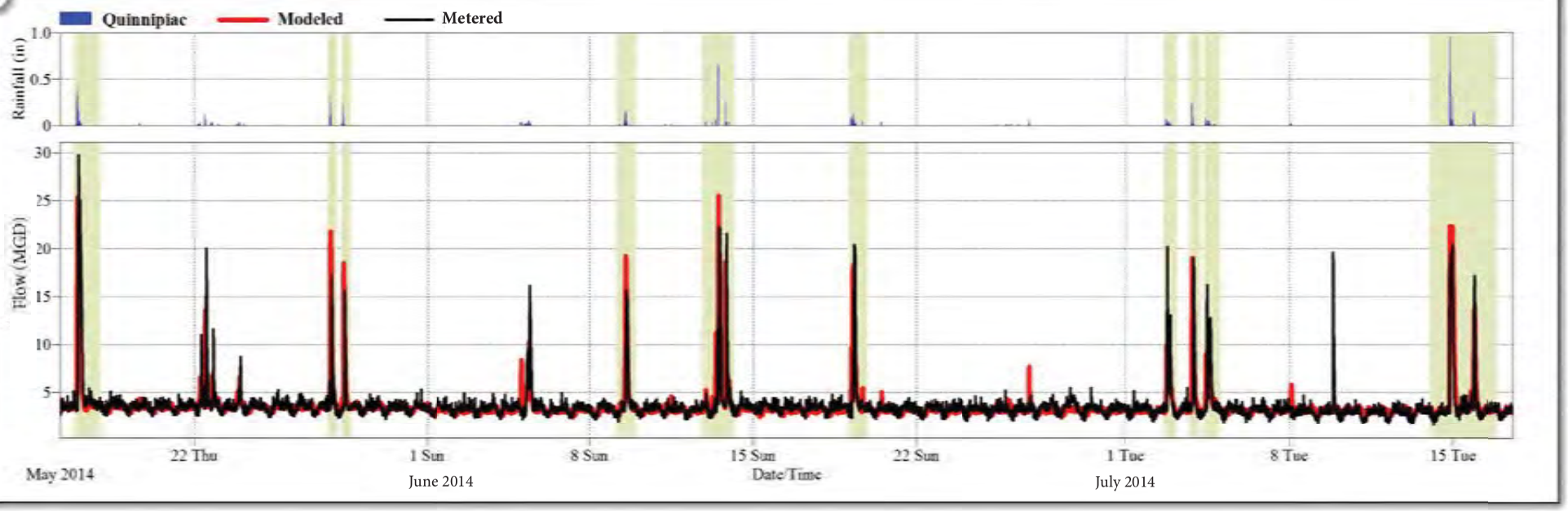


Model Calibration Results

Flow Meter: OF-015 DS

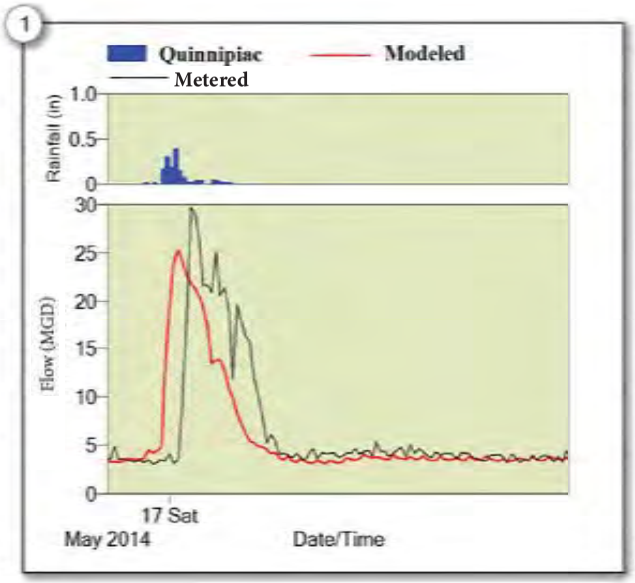
Meter Summary

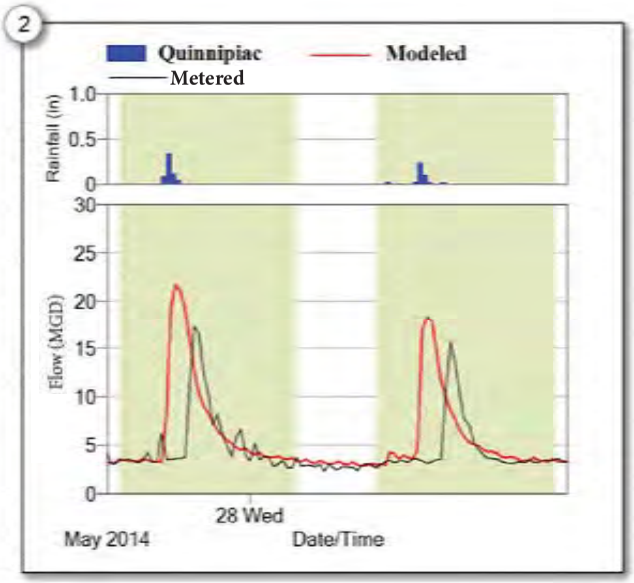
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

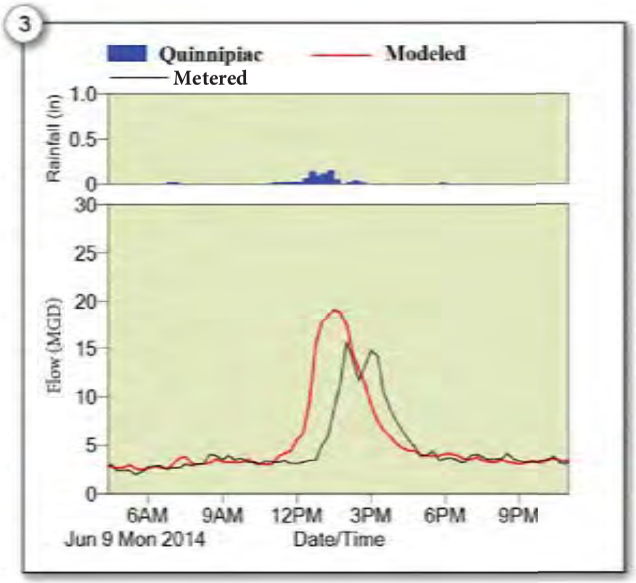
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

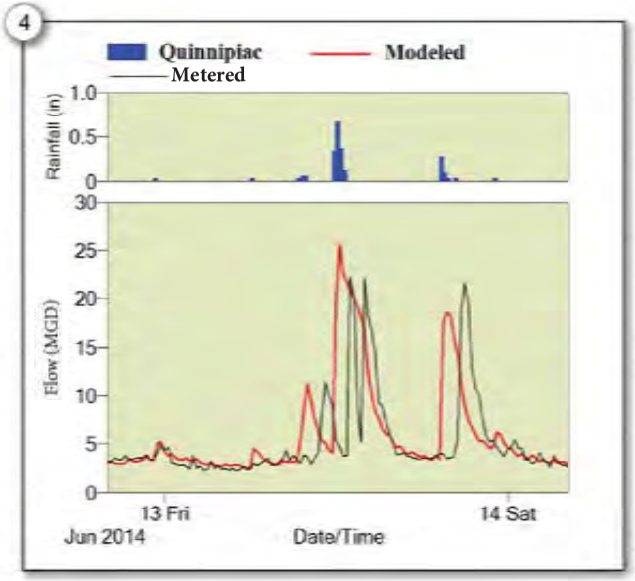
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

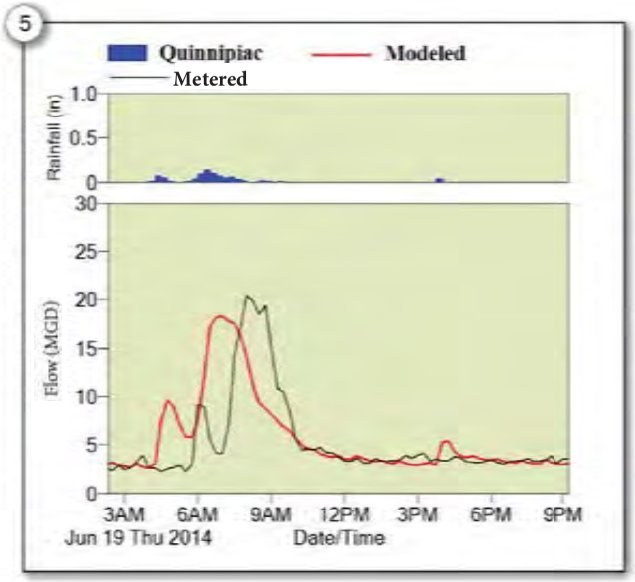
Prepared by:
CH2MHILL

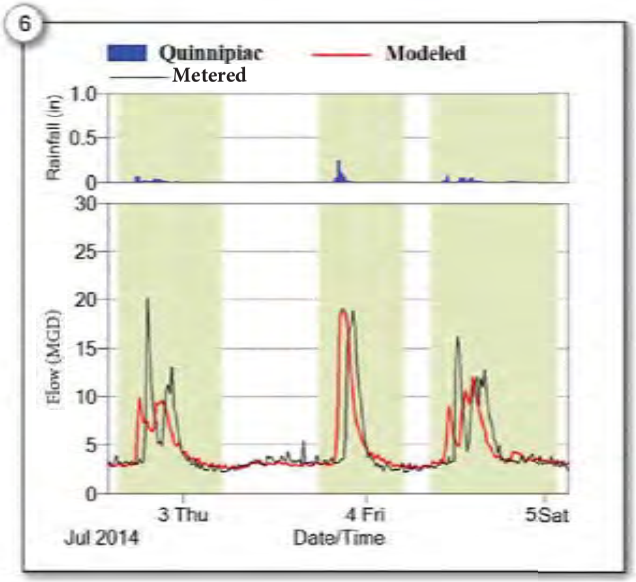












Model Calibration Results

Flow Meter: OF-015 DS

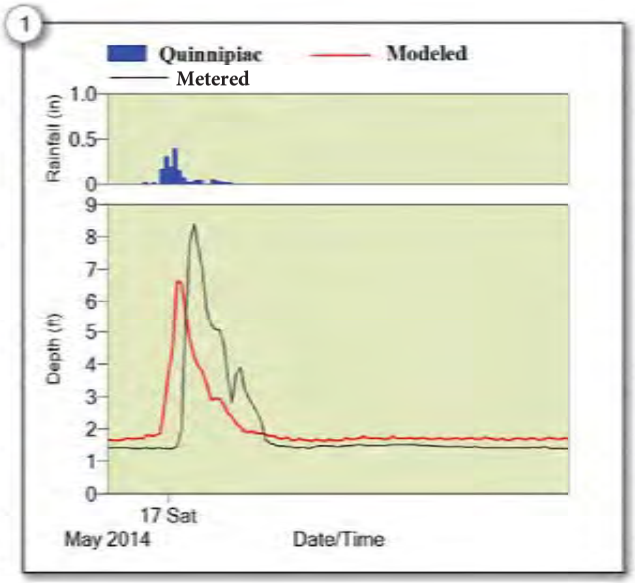
Event Comparison: Flow

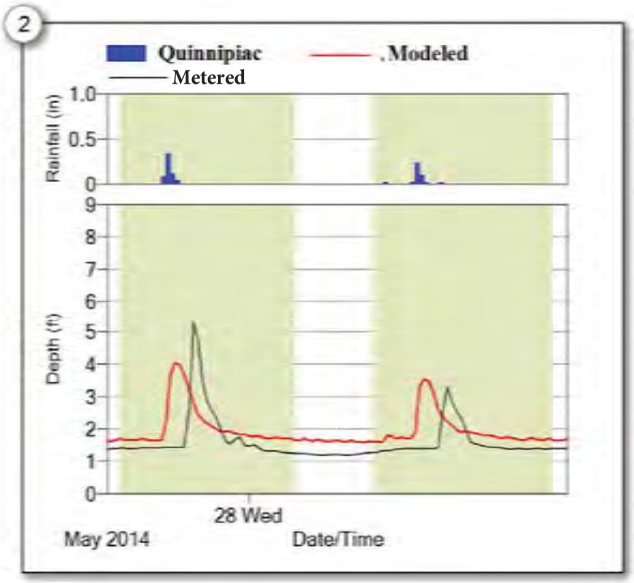
Permanent Rain Gauge Events:

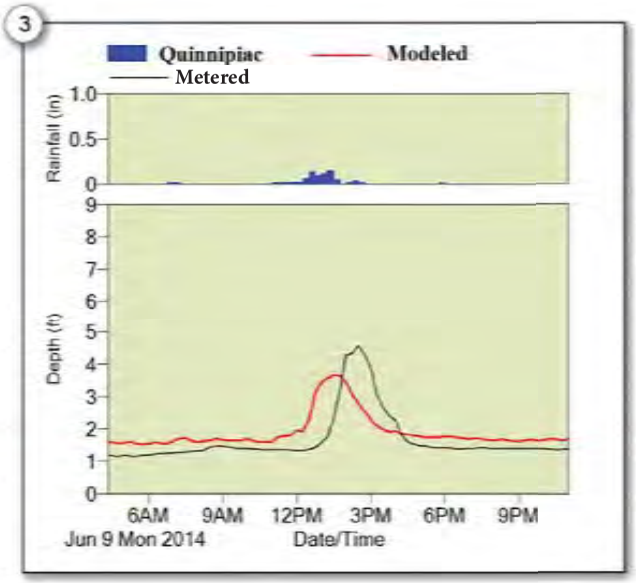
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

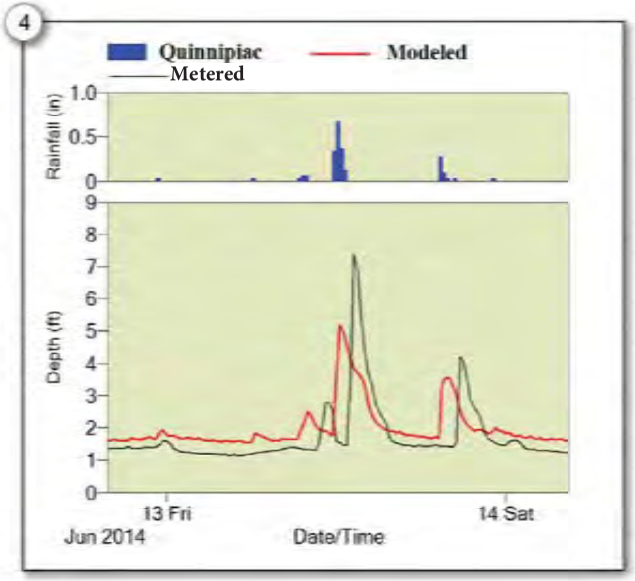
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

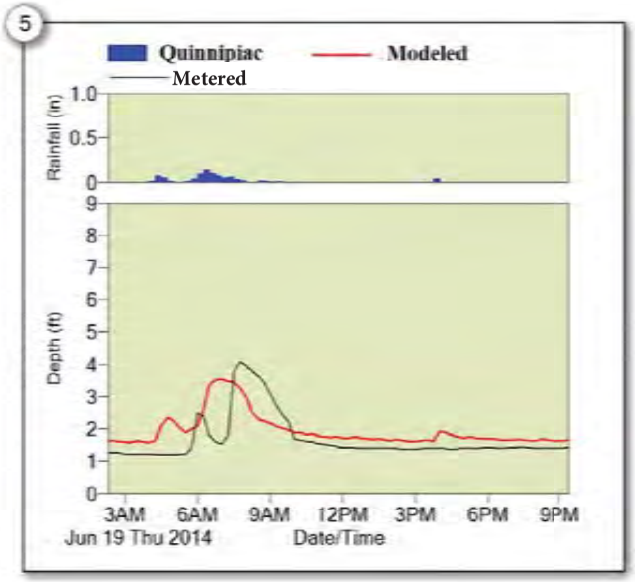
Prepared by:
CH2MHILL

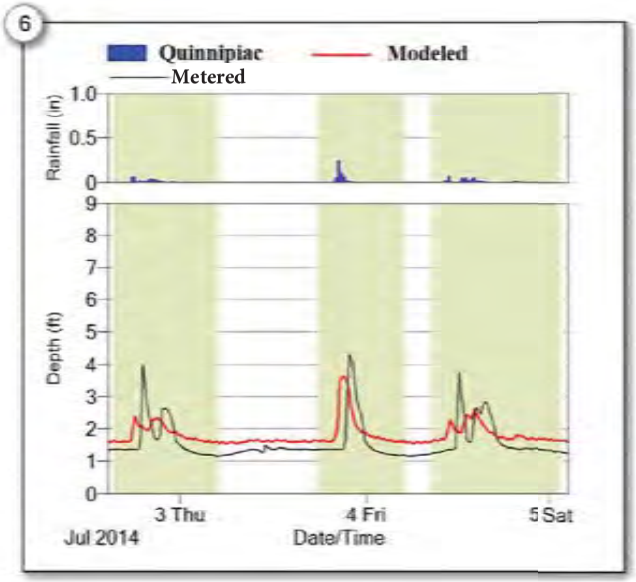












Model Calibration Results

Flow Meter: OF-015 DS

Event Comparison: Depth

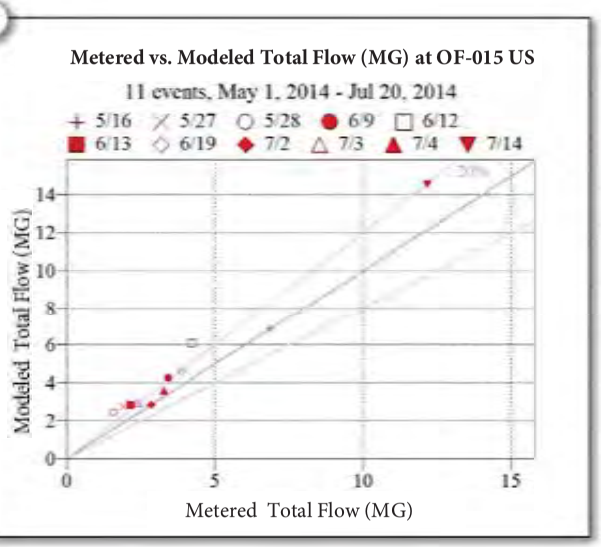
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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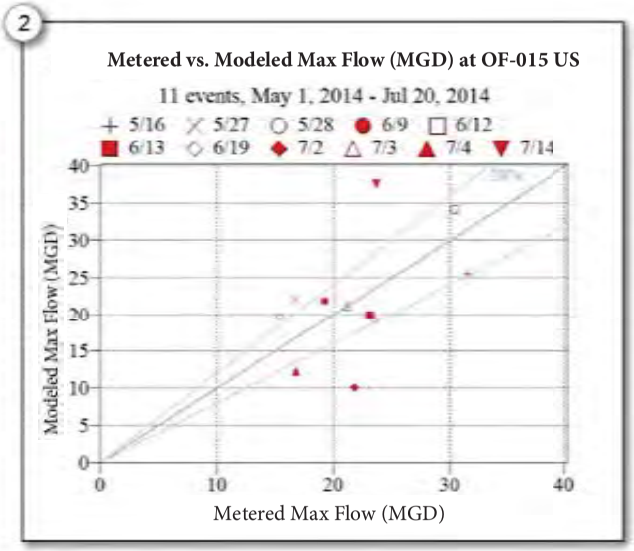

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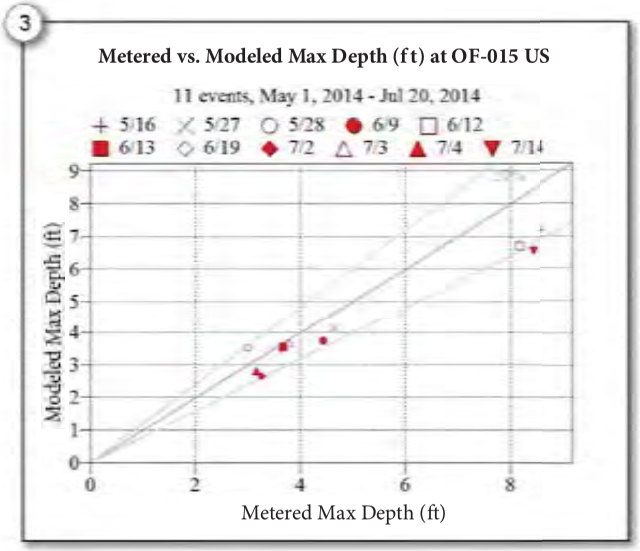

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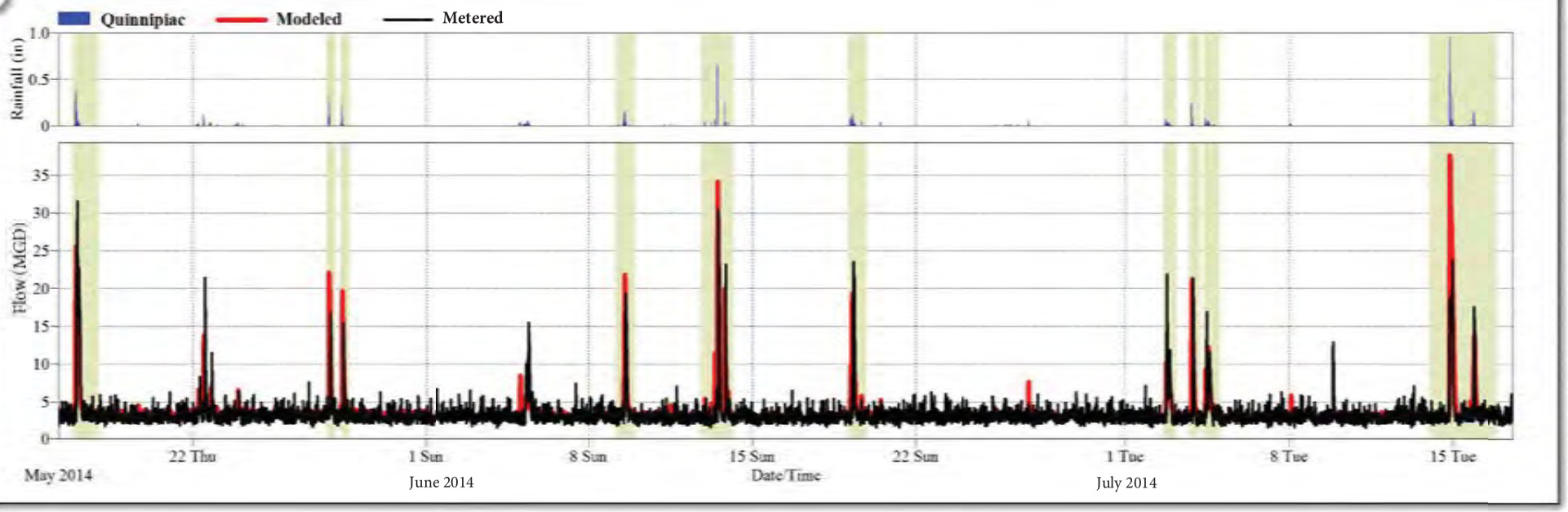


Model Calibration Results

Flow Meter: OF-015 US

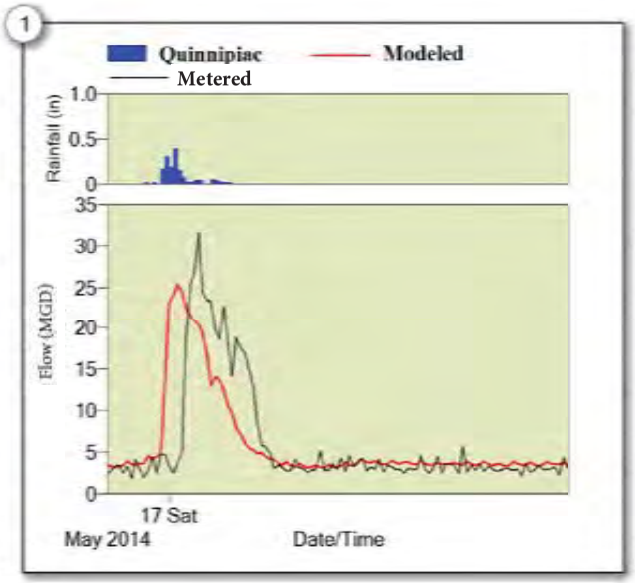
Meter Summary

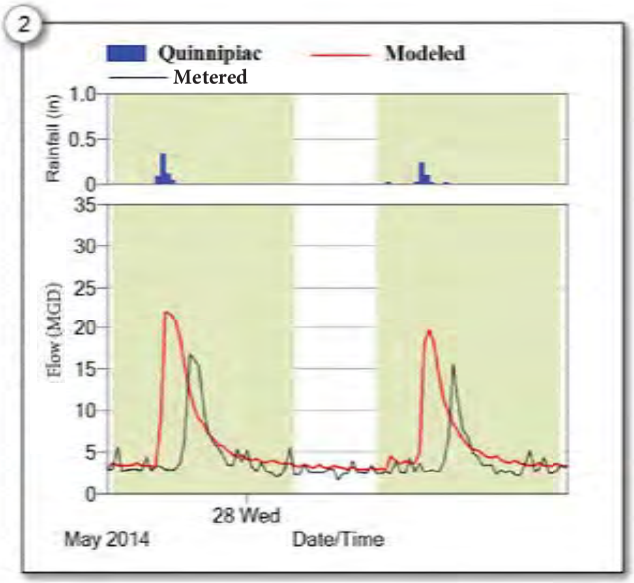
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

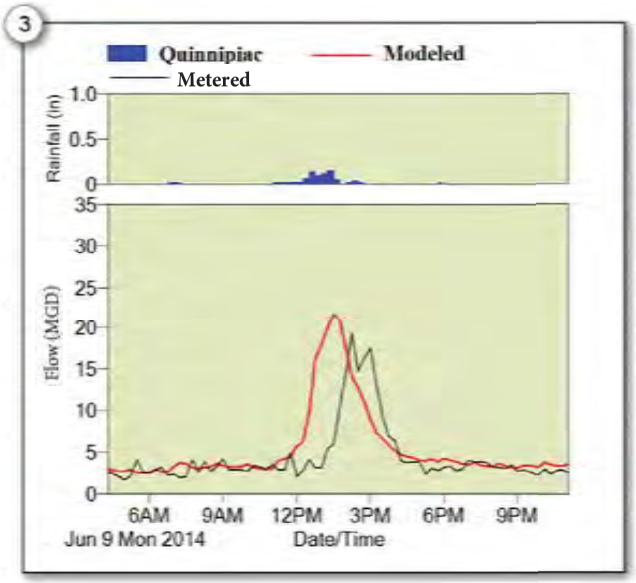
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

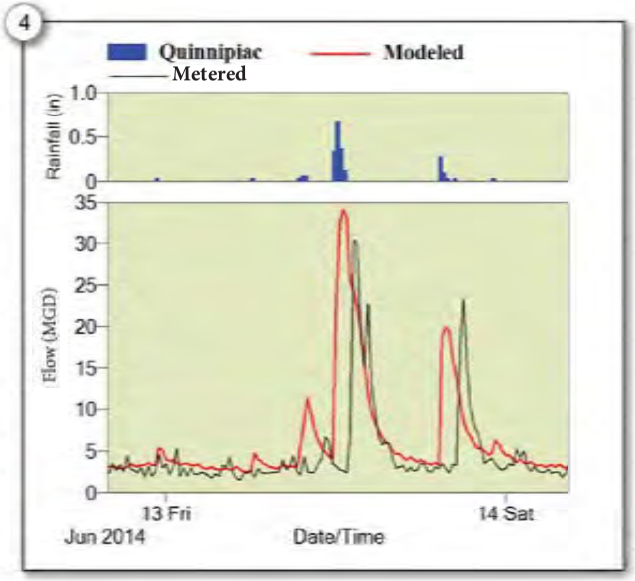
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

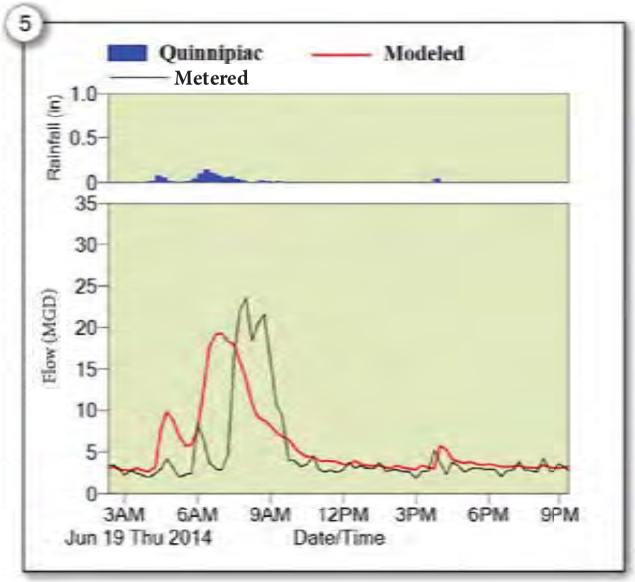
Prepared by:
CH2MHILL

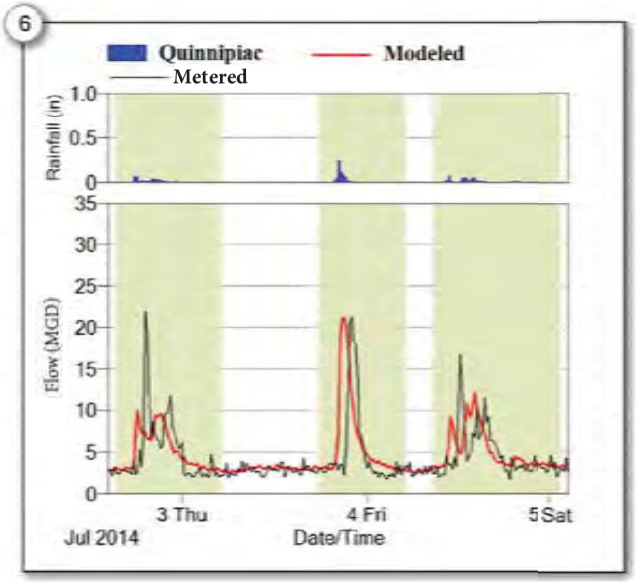












Model Calibration Results

Flow Meter: OF-015 US

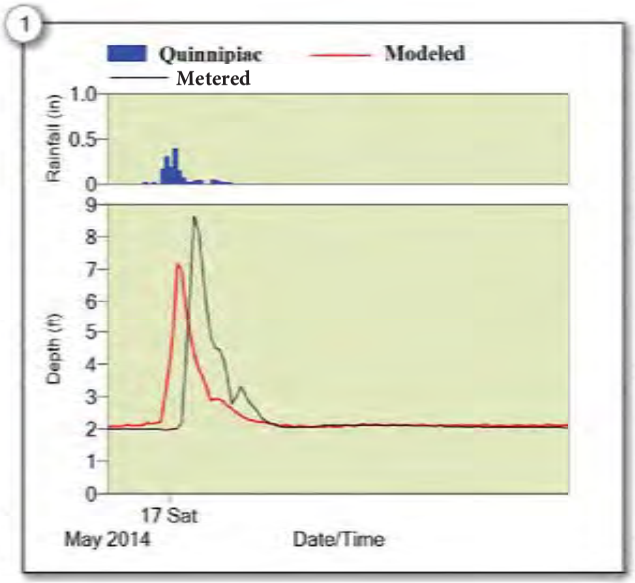
Event Comparison: Flow

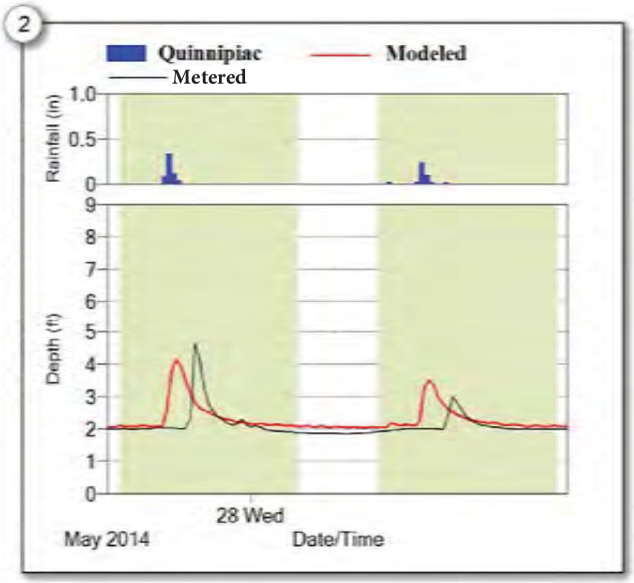
Permanent Rain Gauge Events:

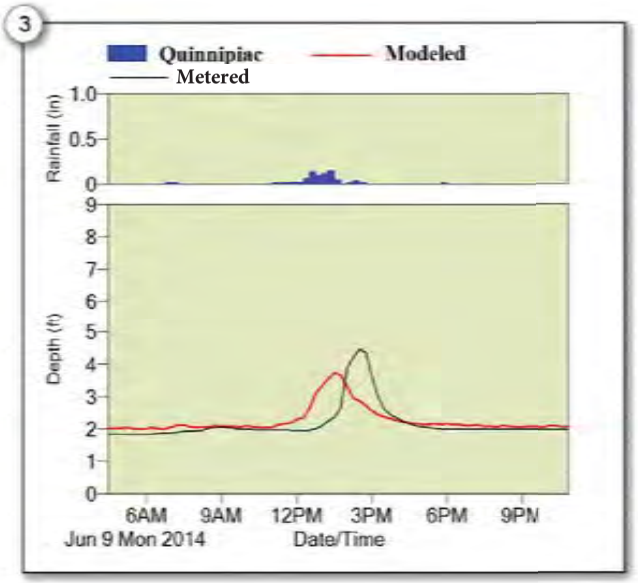
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

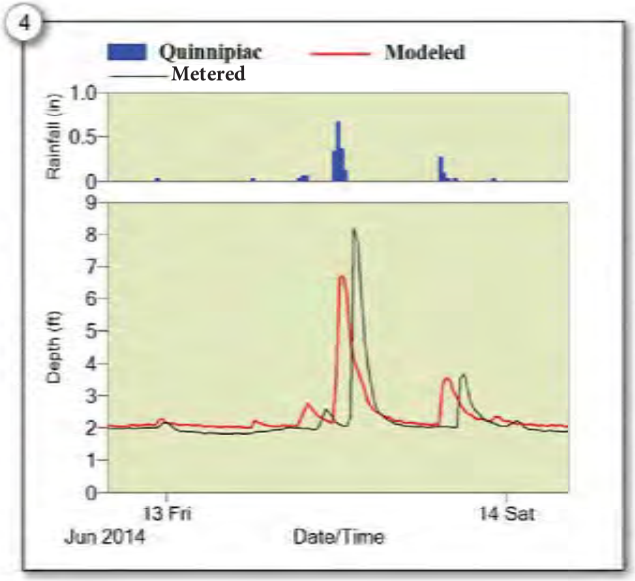
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

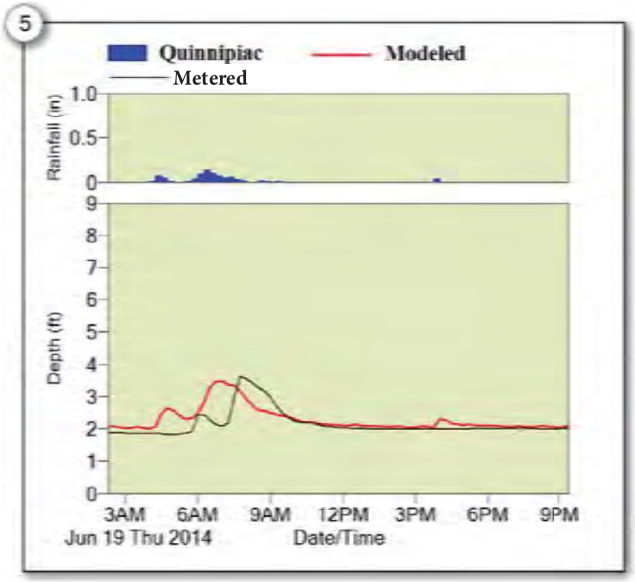
Prepared by:
CH2MHILL

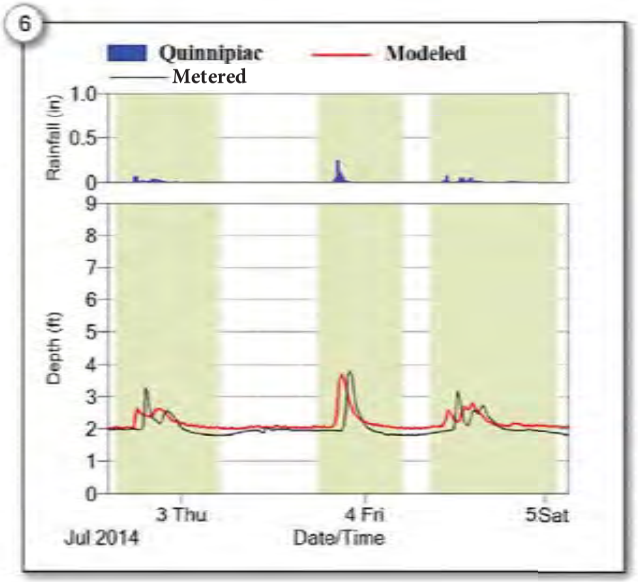












Model Calibration Results

Flow Meter: OF-015 US

Event Comparison: Depth

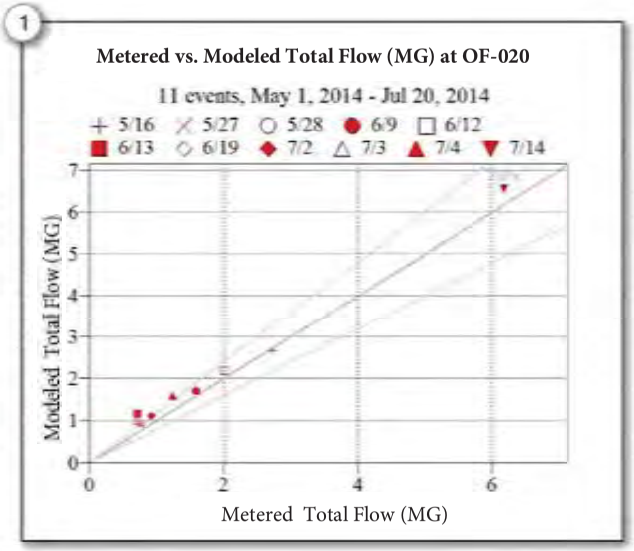
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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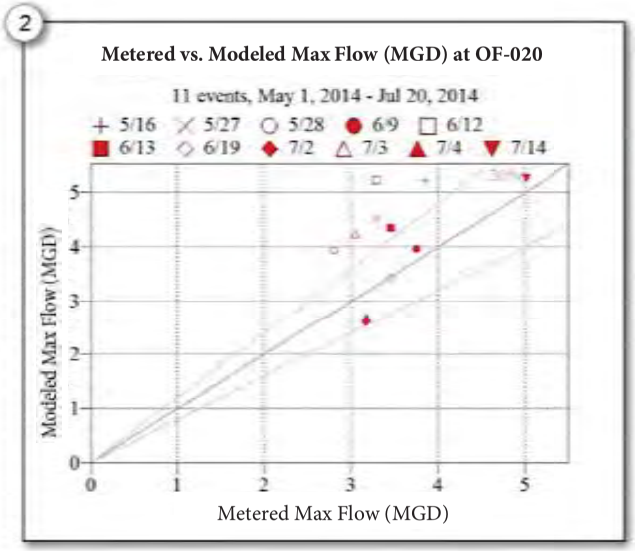

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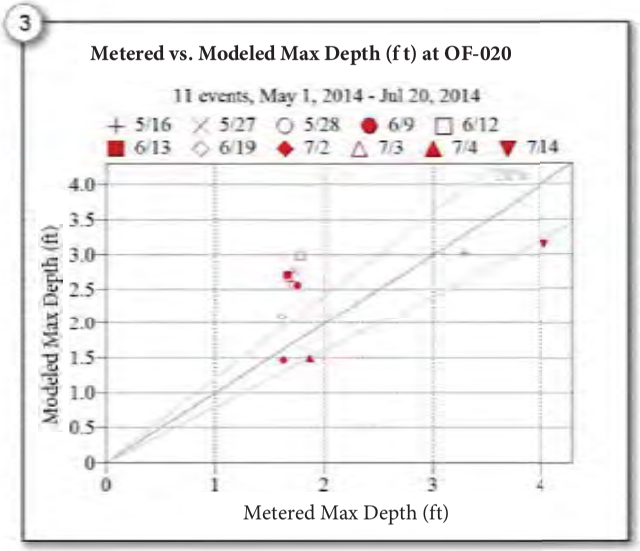

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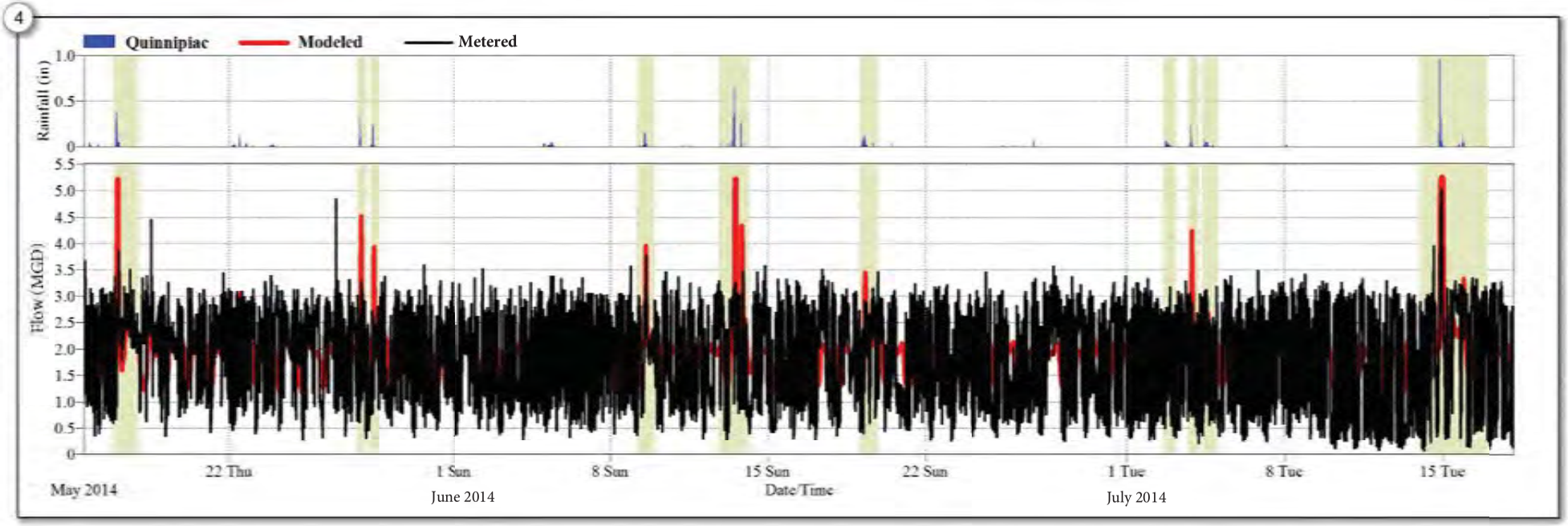


Model Calibration Results

Flow Meter: OF-020

Meter Summary

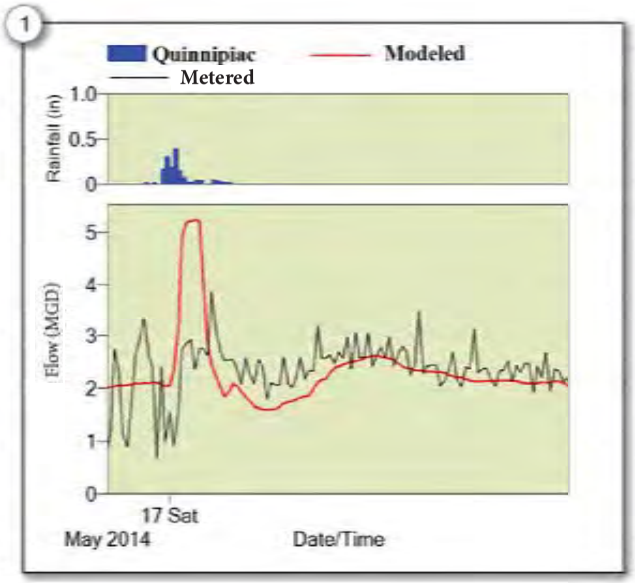
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

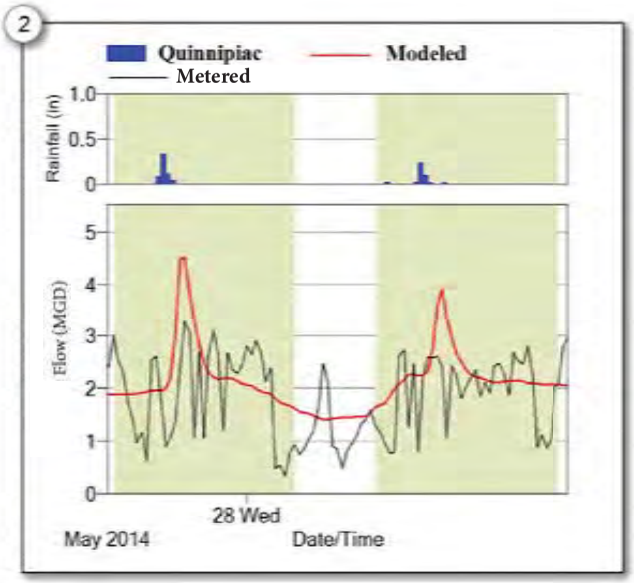
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

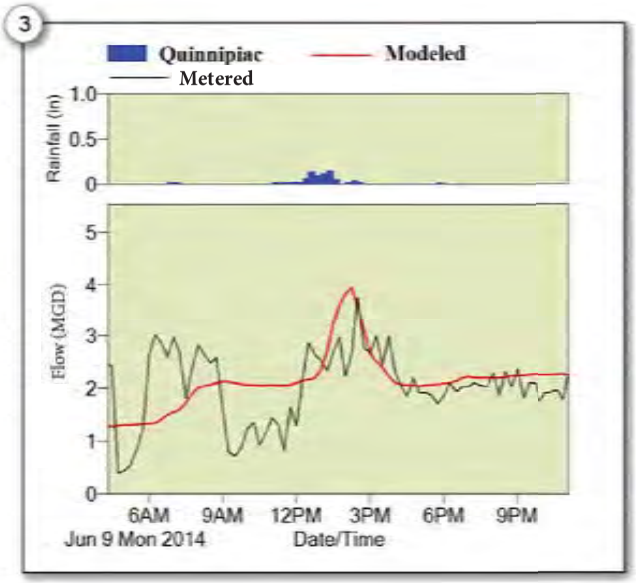
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

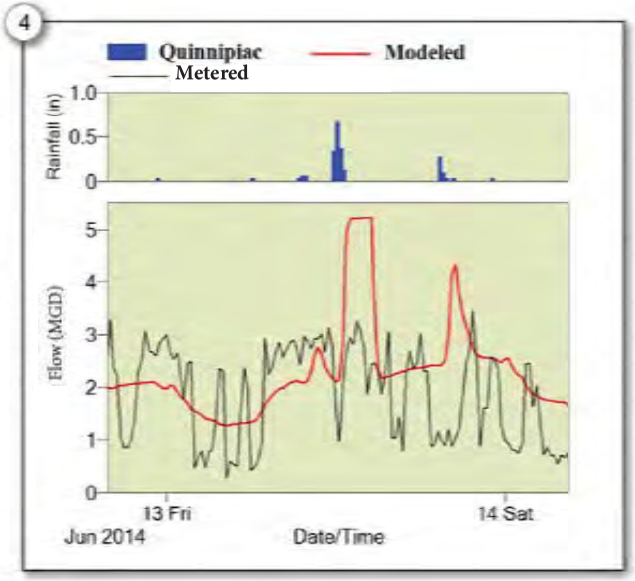
Prepared by:

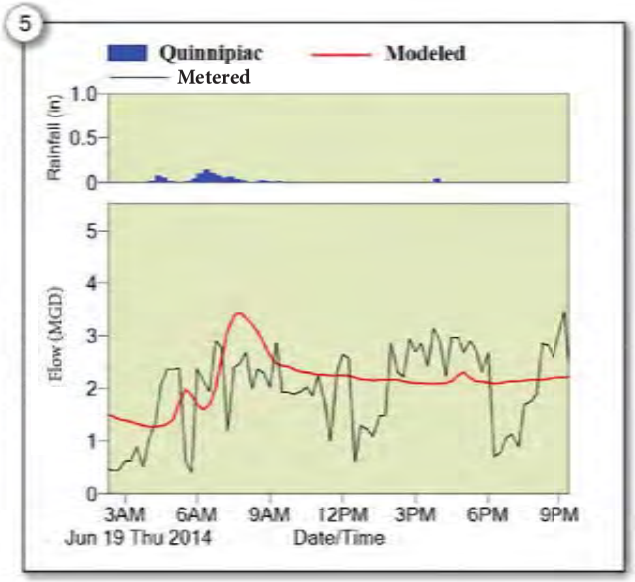
CH2MHILL

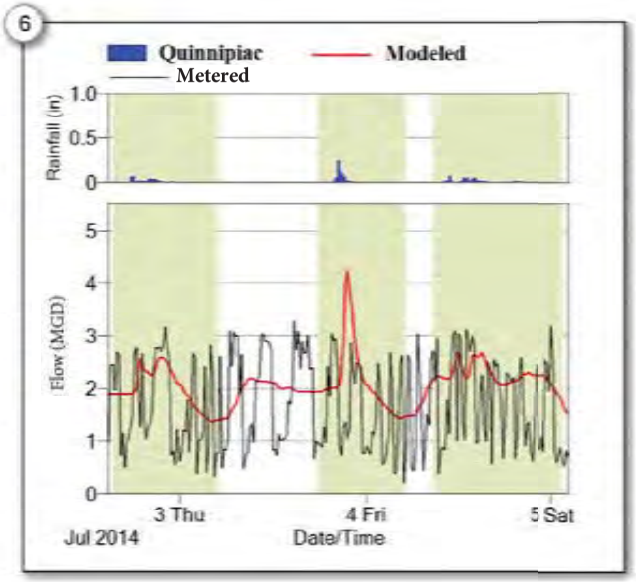












Model Calibration Results

Flow Meter: OF-020

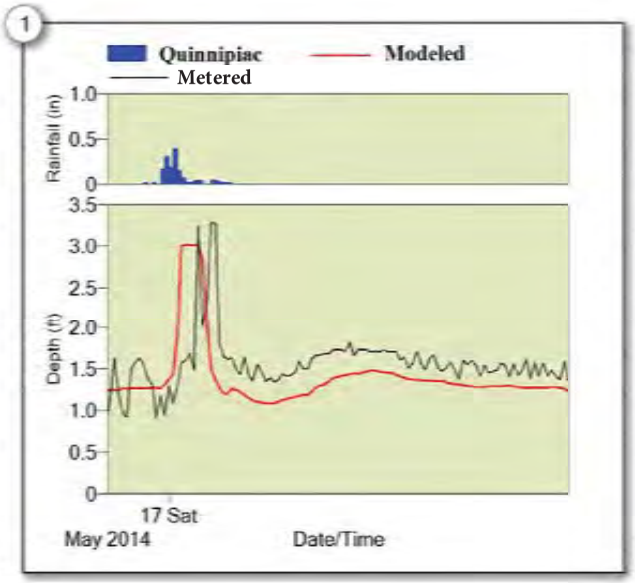
Event Comparison: Flow

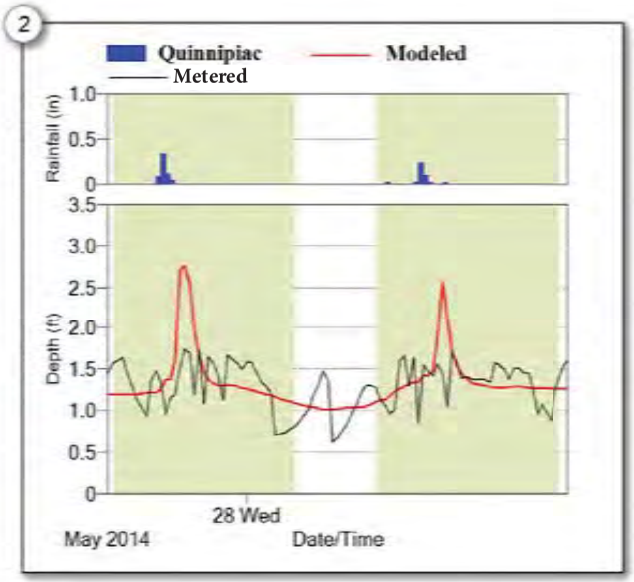
Permanent Rain Gauge Events:

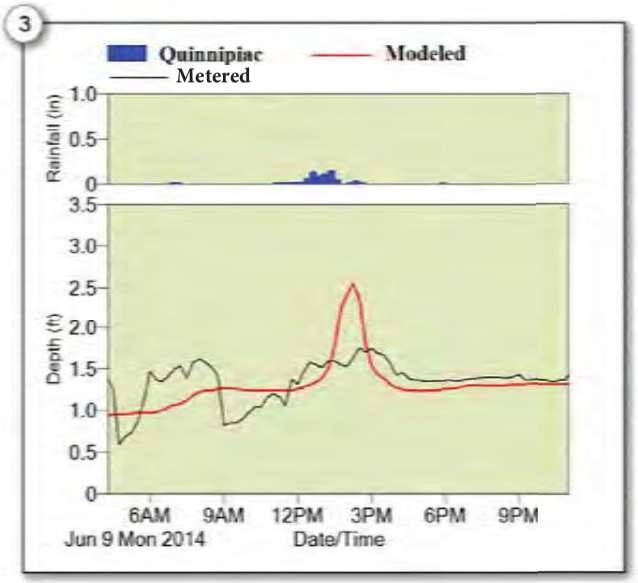
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

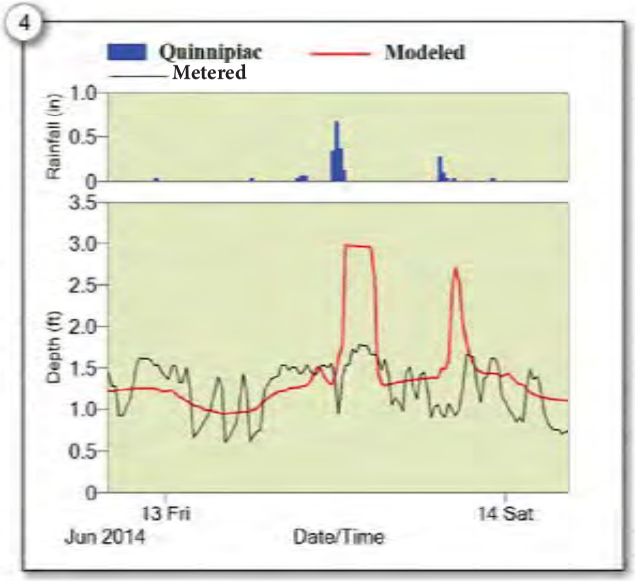
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

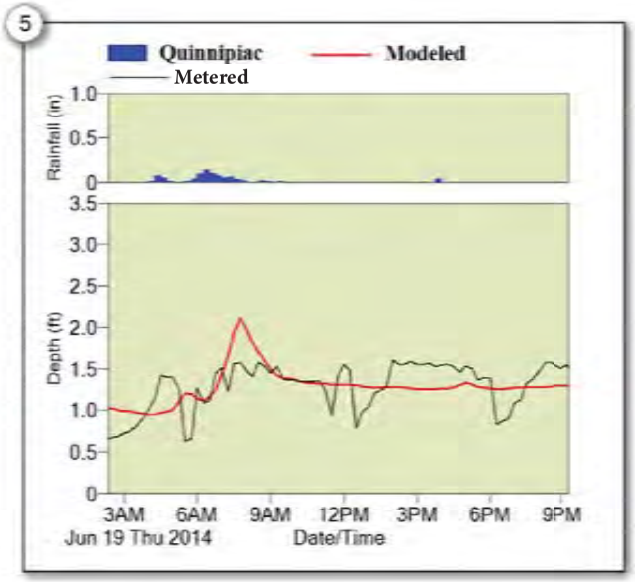
Prepared by:
CH2MHILL

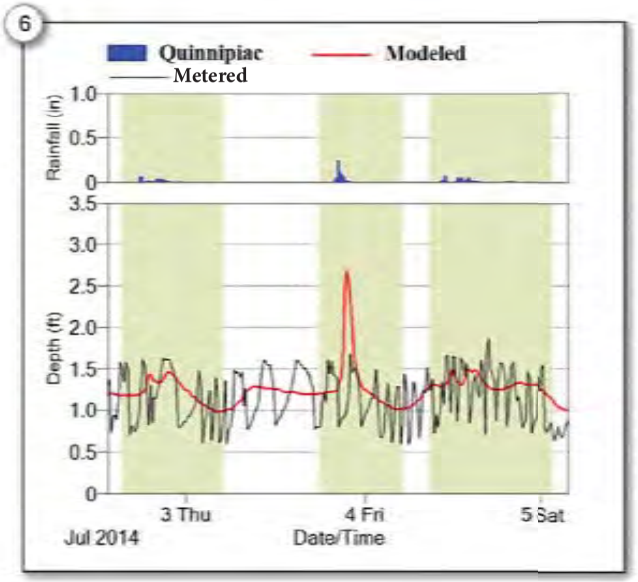












Model Calibration Results

Flow Meter: OF-020

Event Comparison: Depth

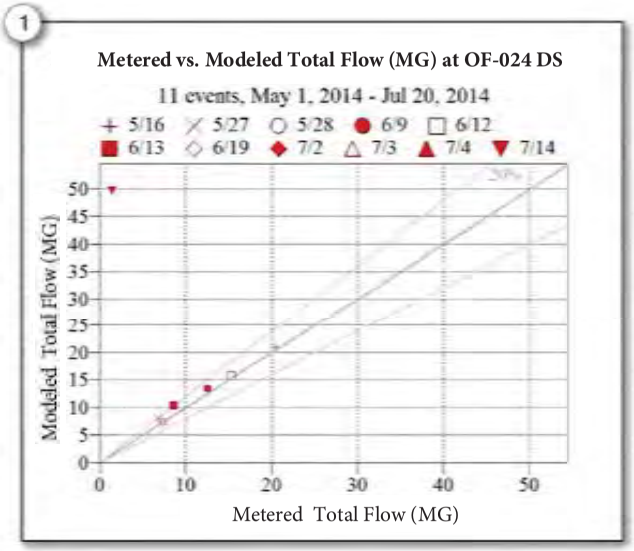
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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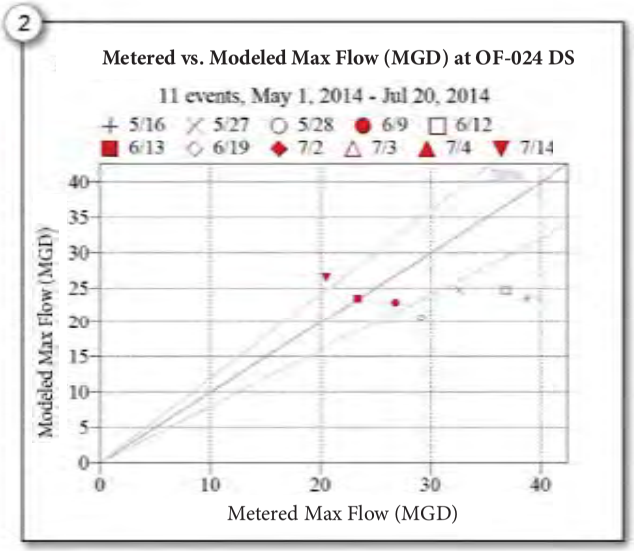

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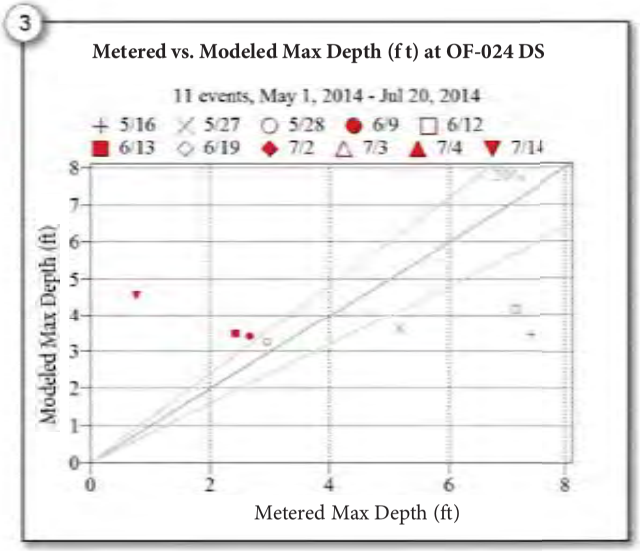

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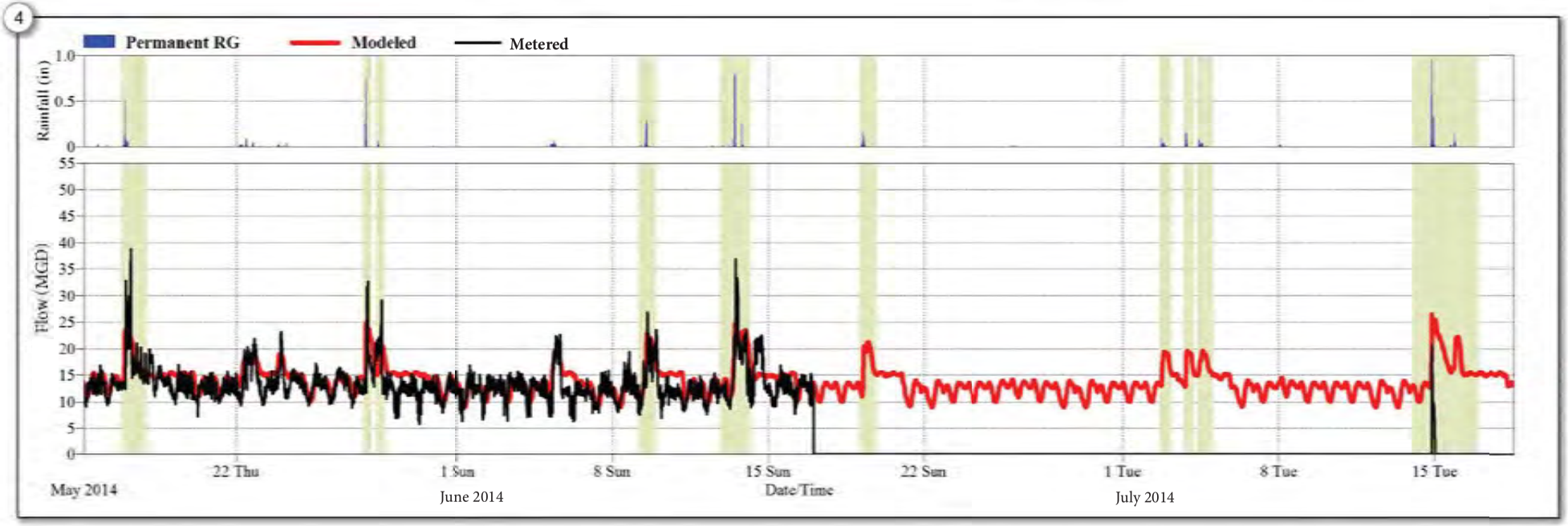


Model Calibration Results

Flow Meter: OF-024 DS

Meter Summary

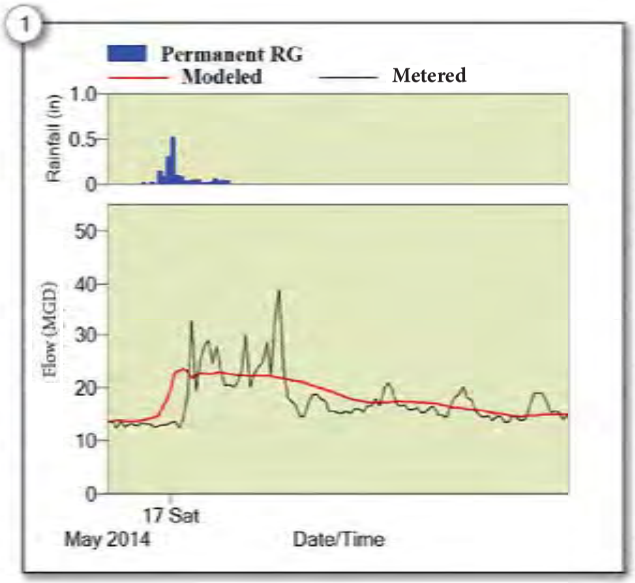
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

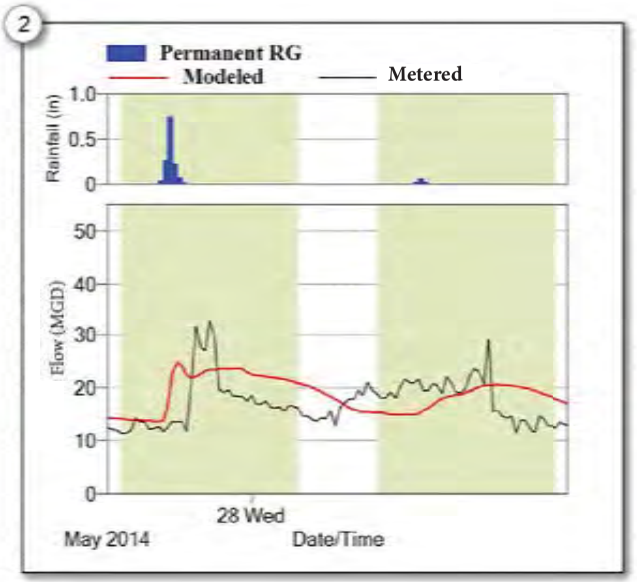
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

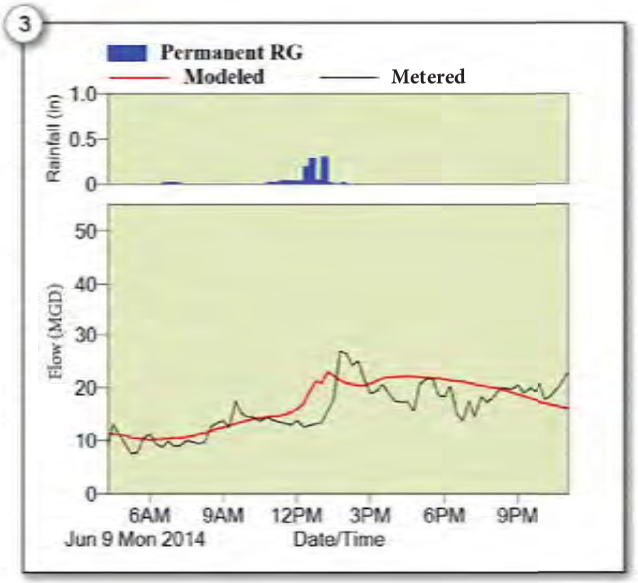
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

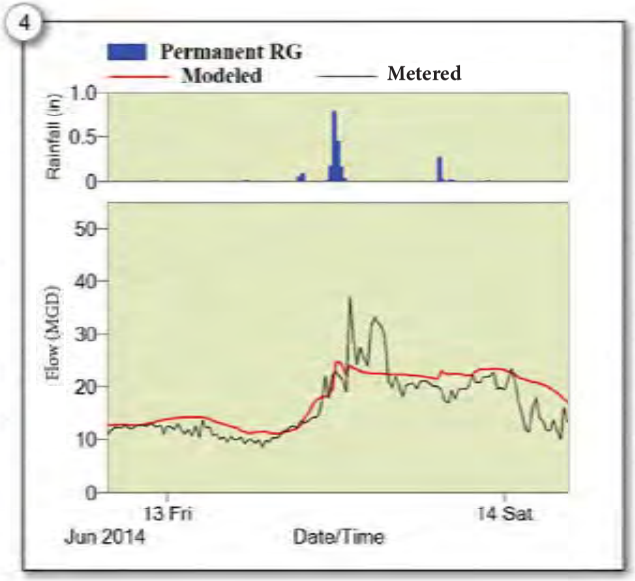
Prepared by:

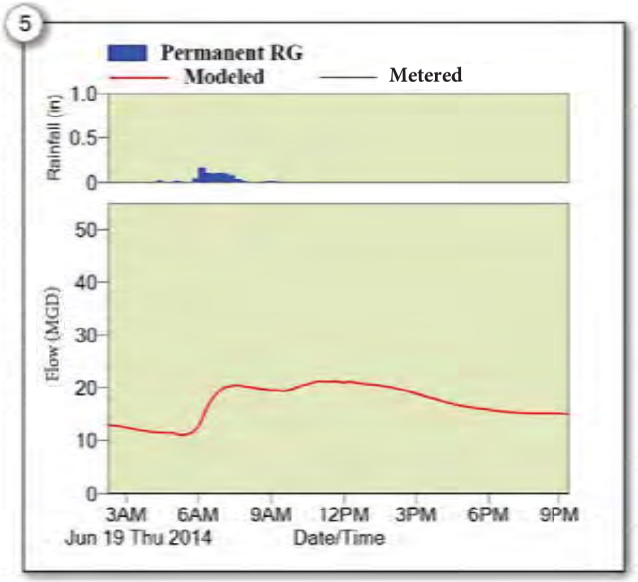
CH2MHILL

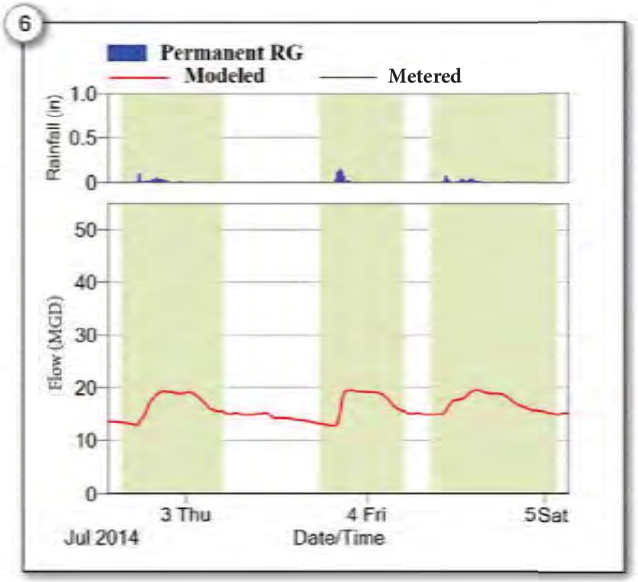












Model Calibration Results

Flow Meter: OF-024 DS

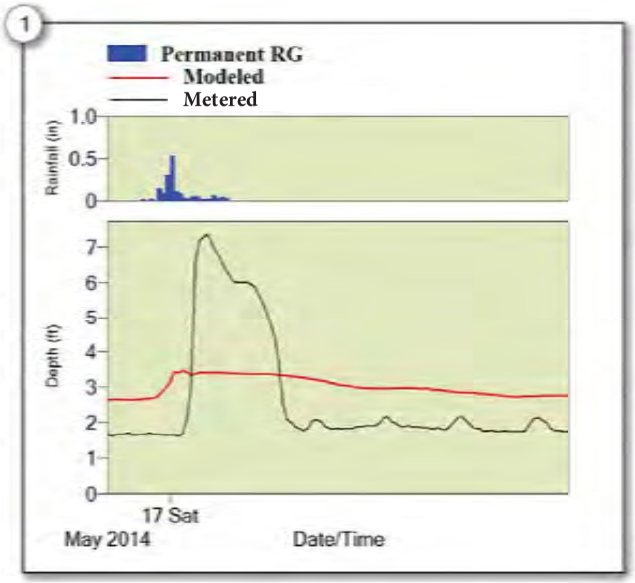
Event Comparison: Flow

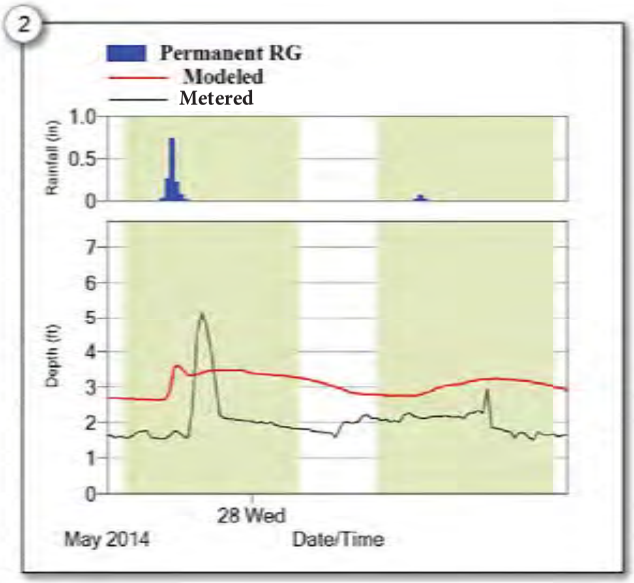
Permanent Rain Gauge Events:

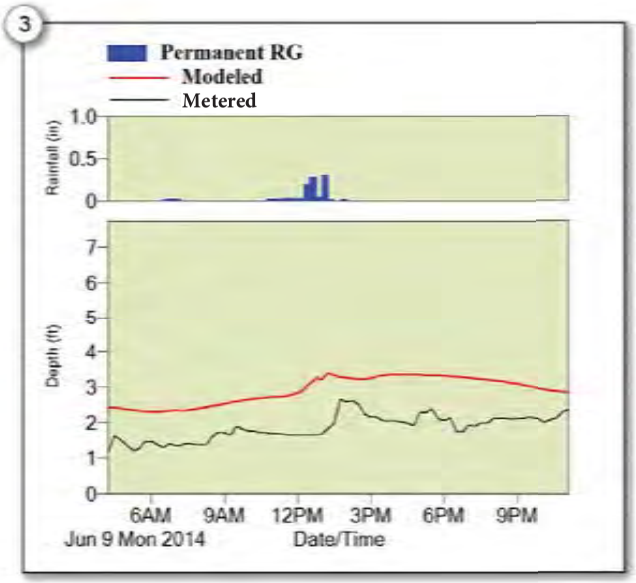
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

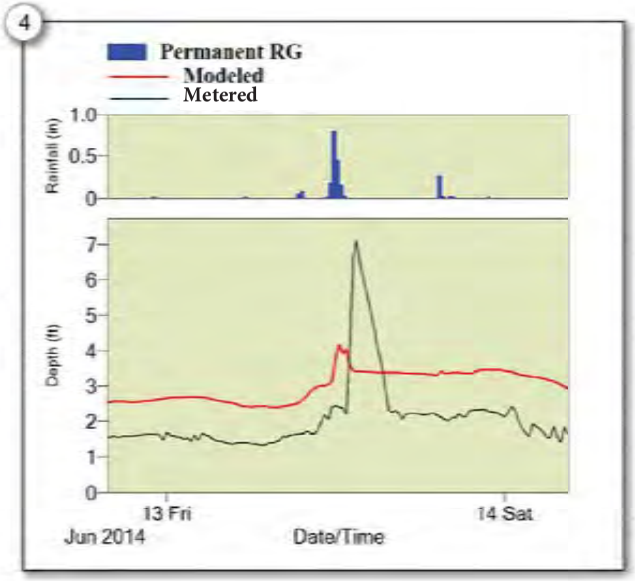
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

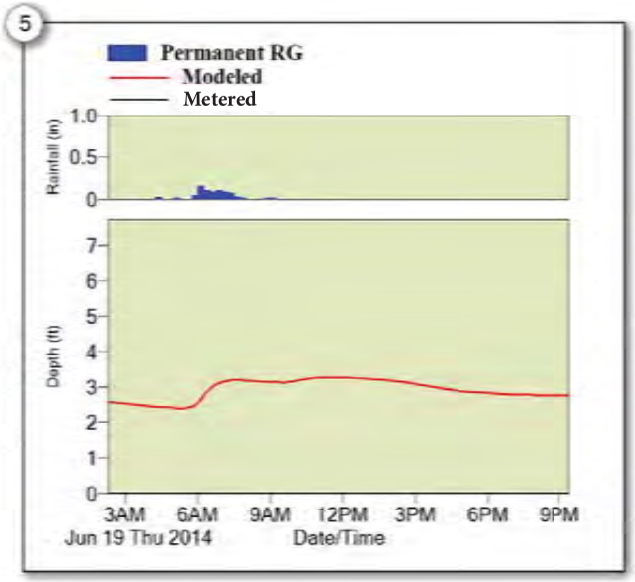
Prepared by:
CH2MHILL

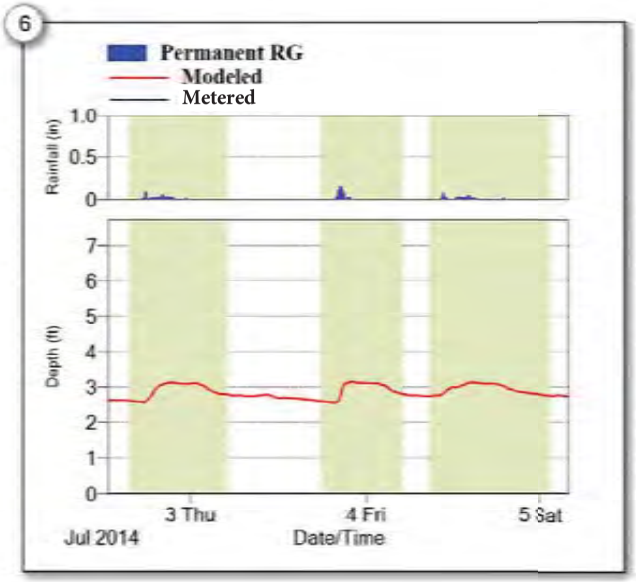












Model Calibration Results

Flow Meter: OF-024 DS

Event Comparison: Depth

Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
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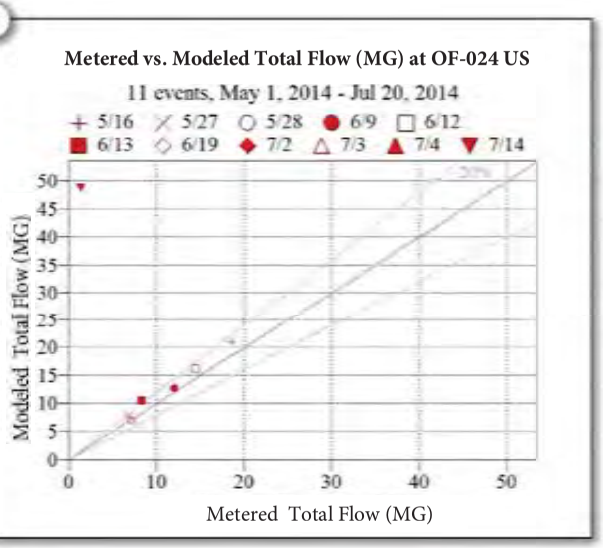
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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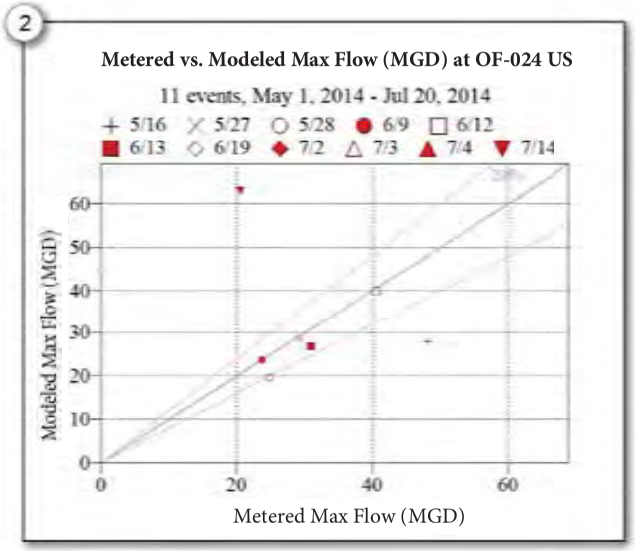

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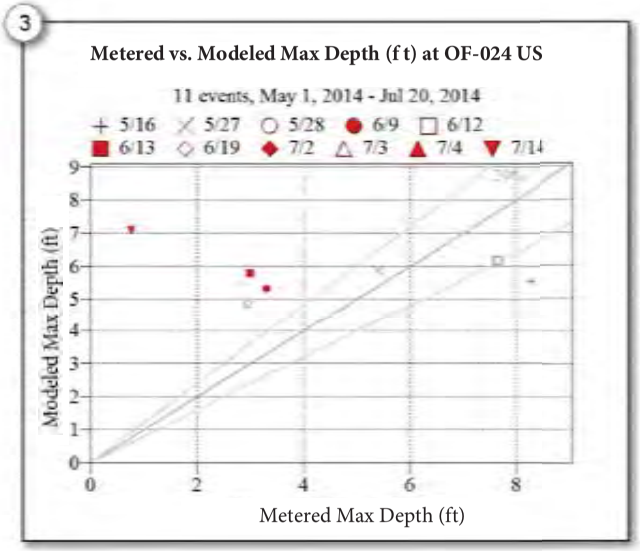

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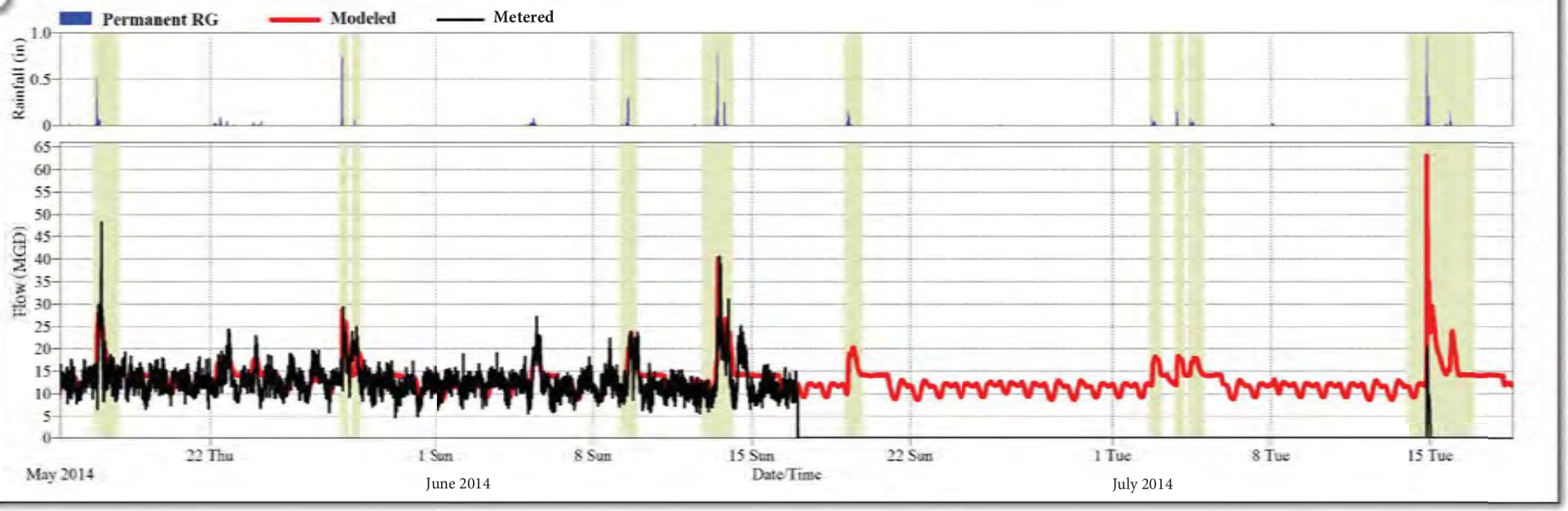


Model Calibration Results

Flow Meter: OF-024 US

Meter Summary

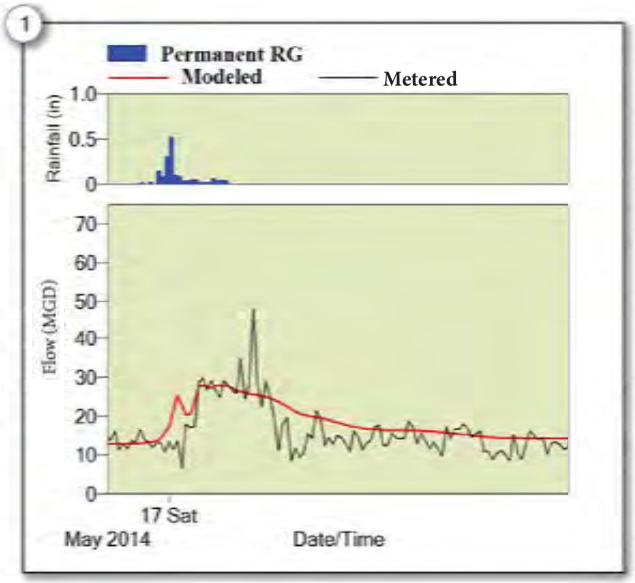
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

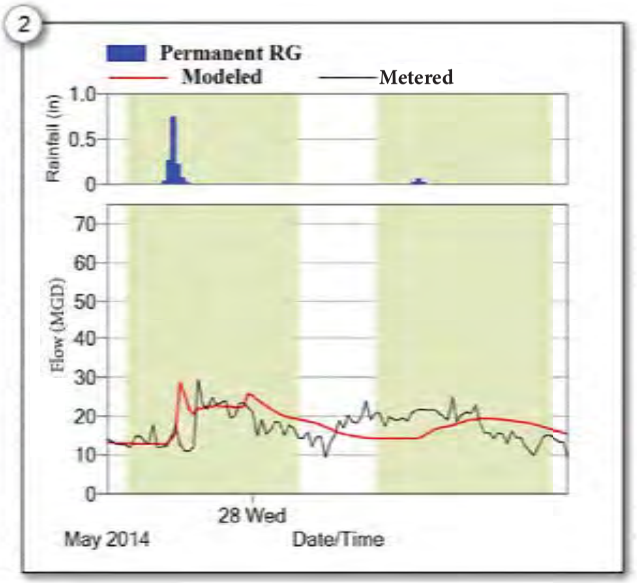
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

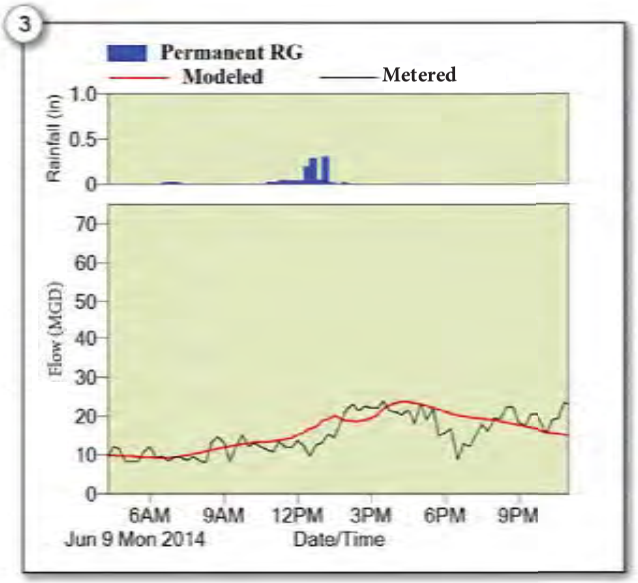
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

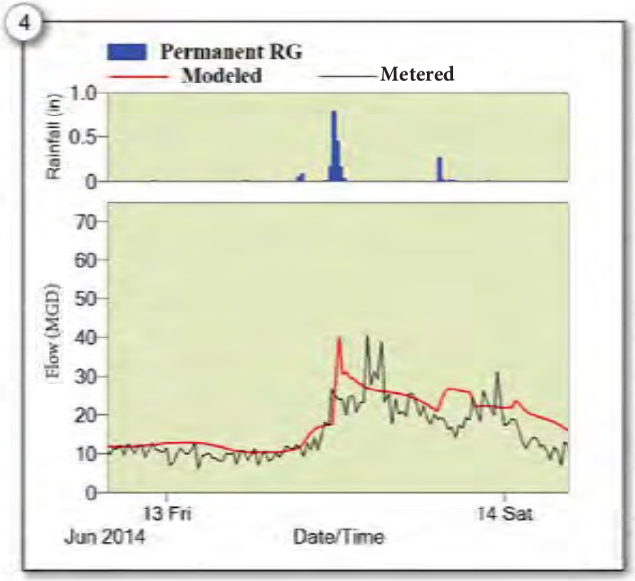
Prepared by:

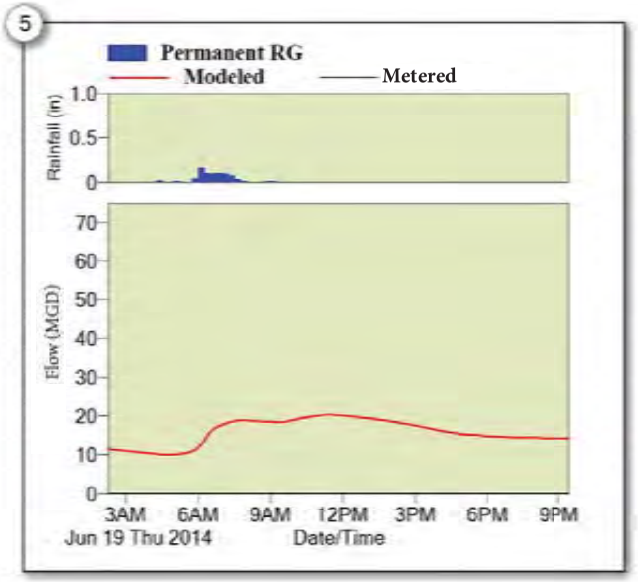
CH2MHILL

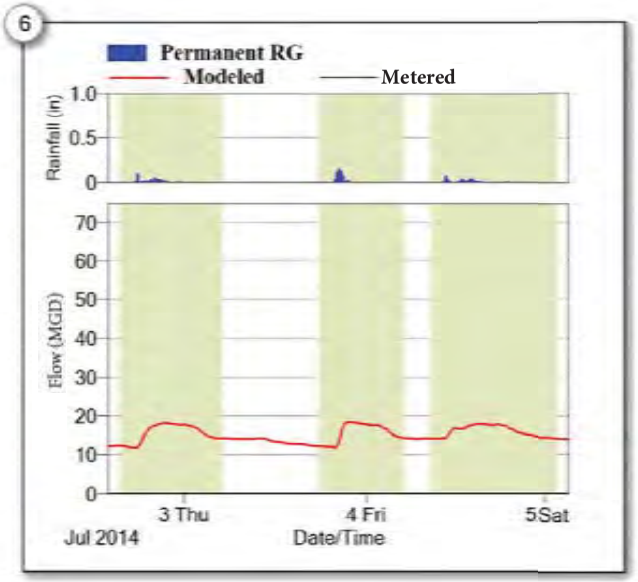












Model Calibration Results

Flow Meter: OF-024 US

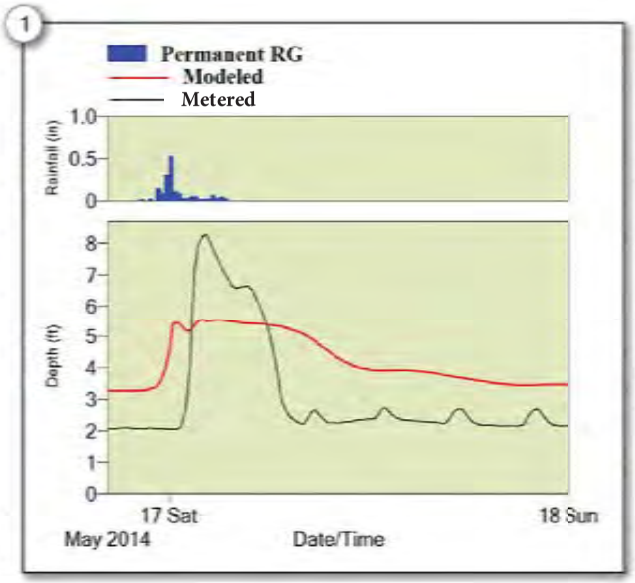
Event Comparison: Flow

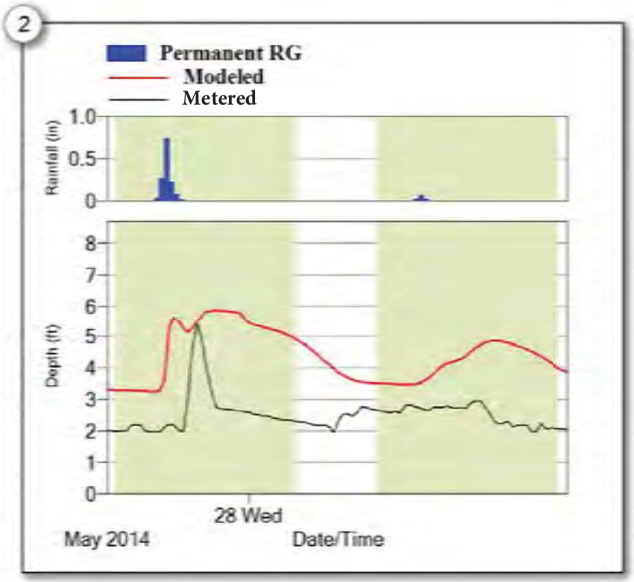
Permanent Rain Gauge Events:

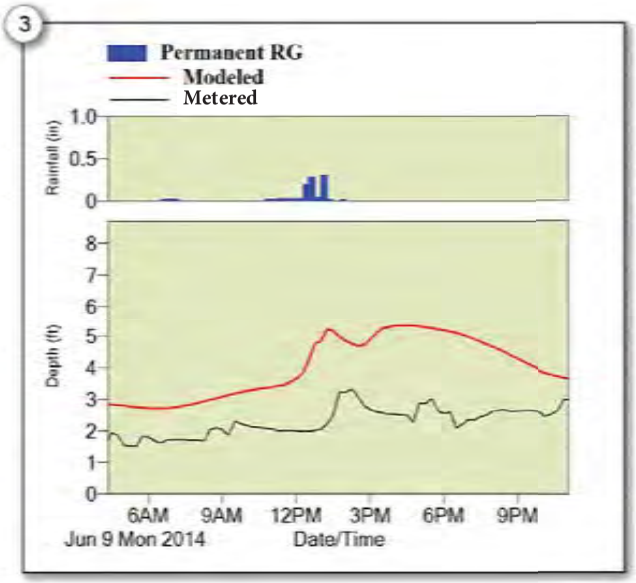
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

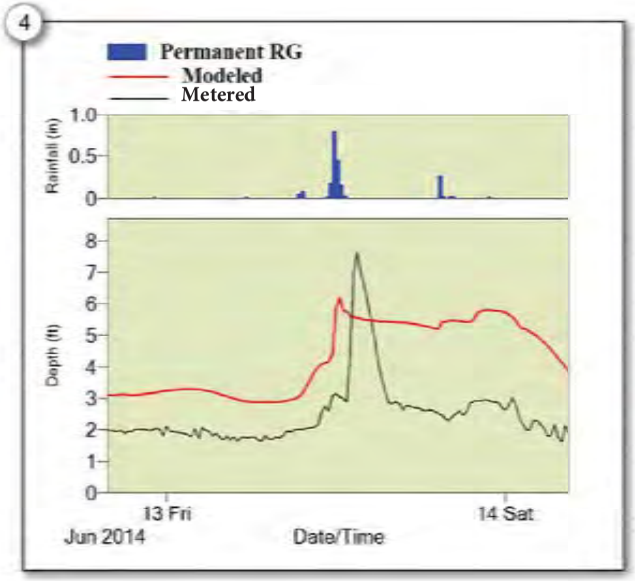
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

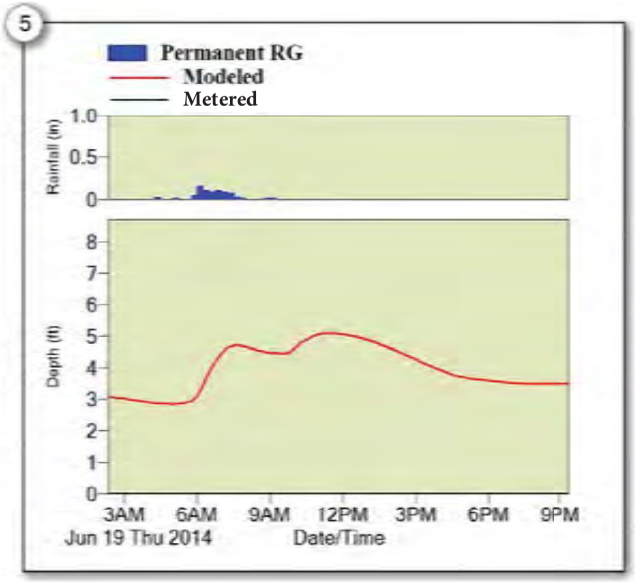
Prepared by:
CH2MHILL

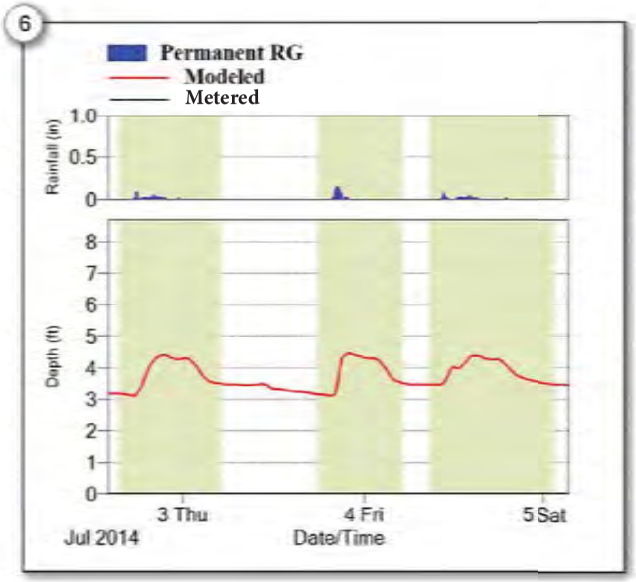












Model Calibration Results

Flow Meter: OF-024 US

Event Comparison: Depth

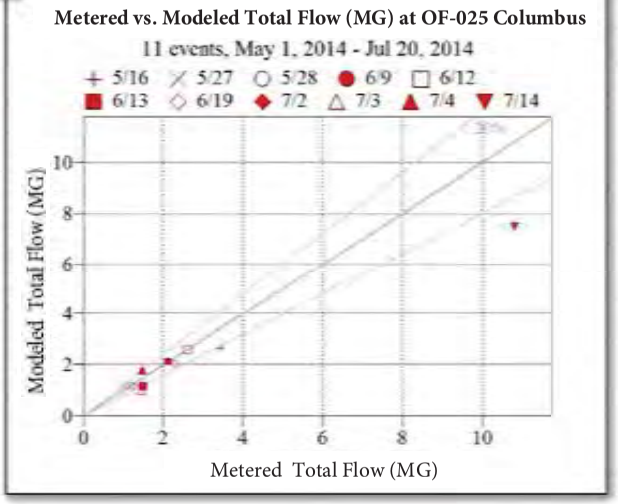
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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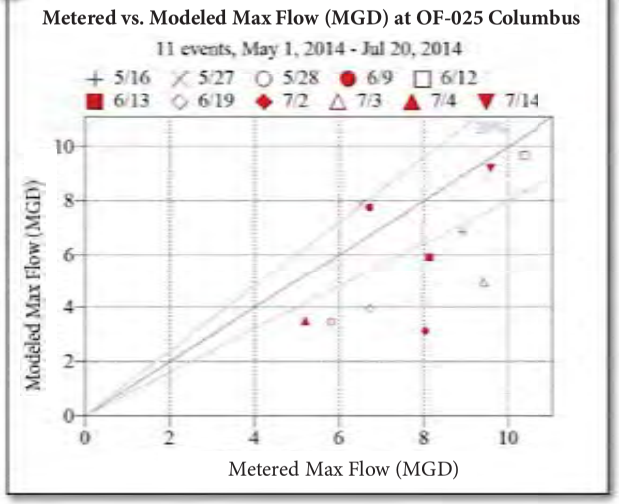

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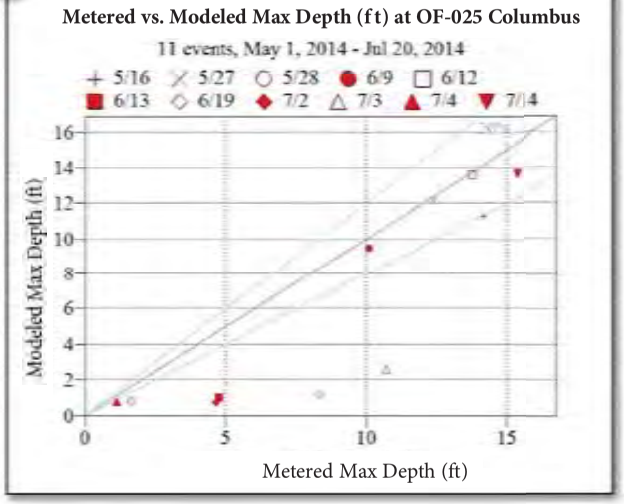

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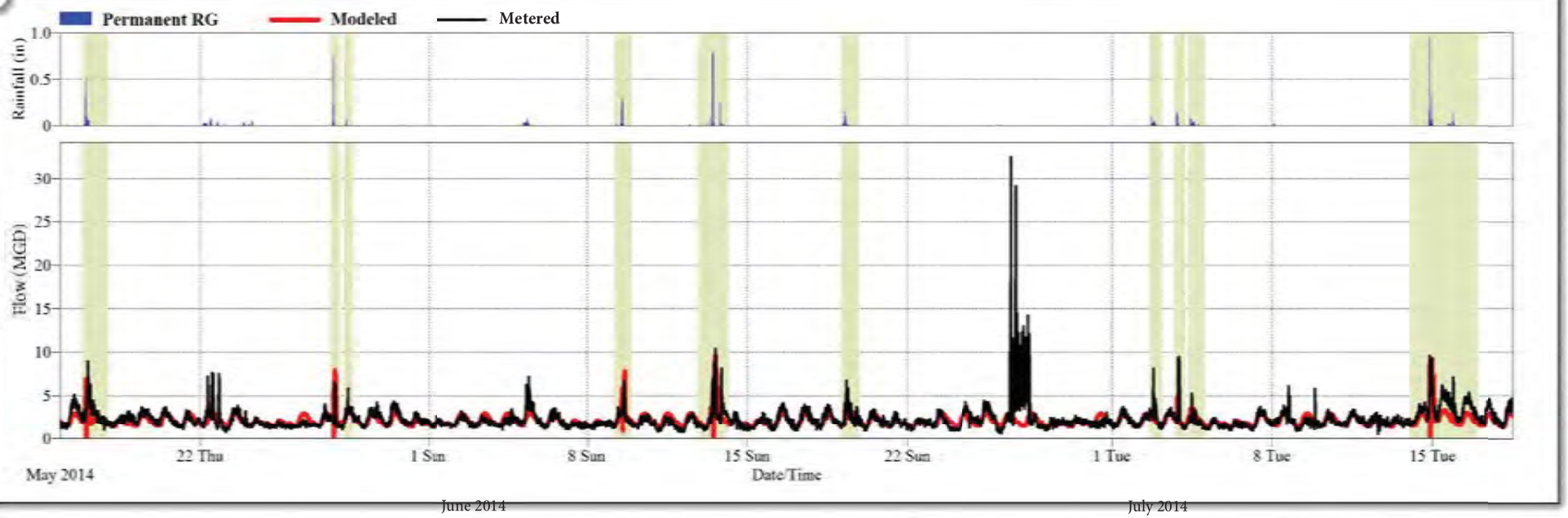


Model Calibration Results

Flow Meter: OF-25 Columbus

Meter Summary

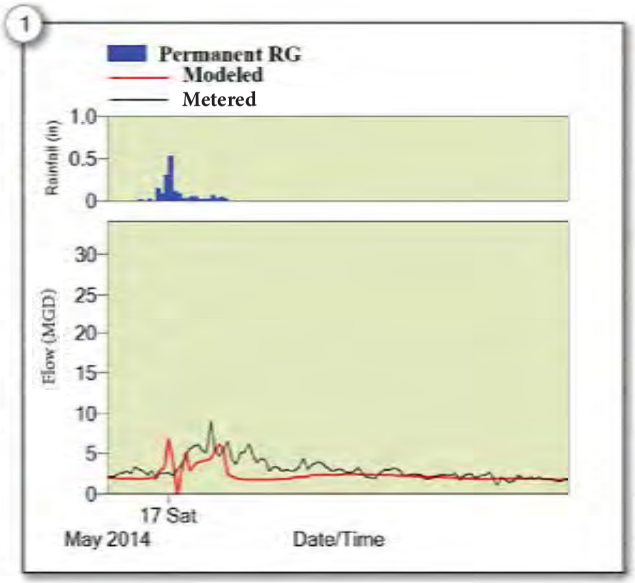
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

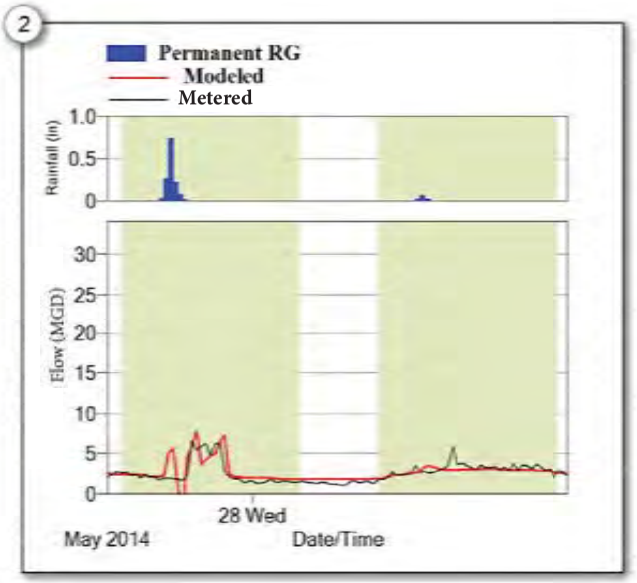
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

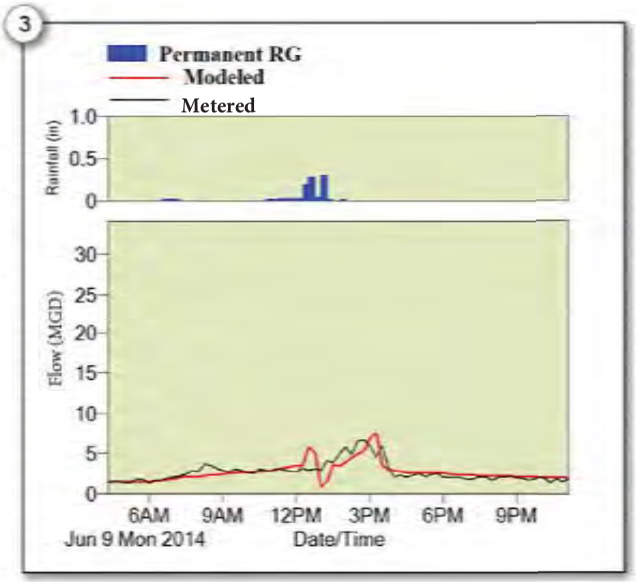
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

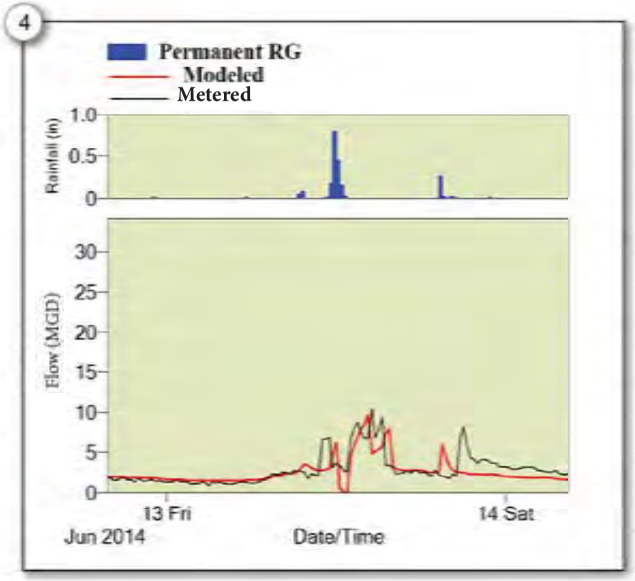
Prepared by:

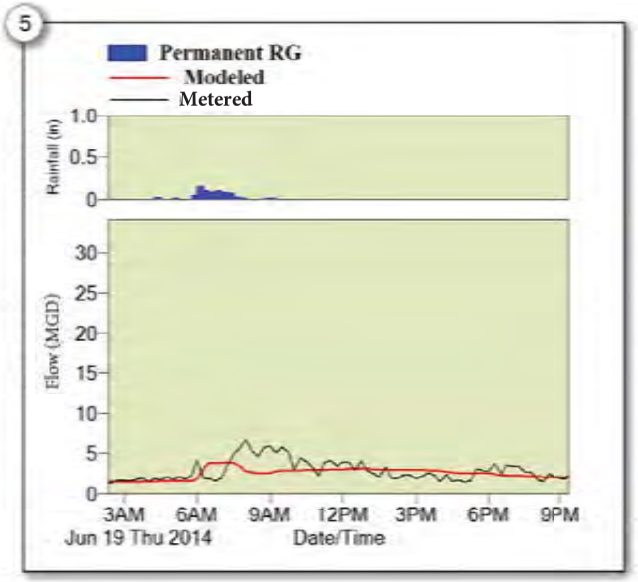
CH2MHILL

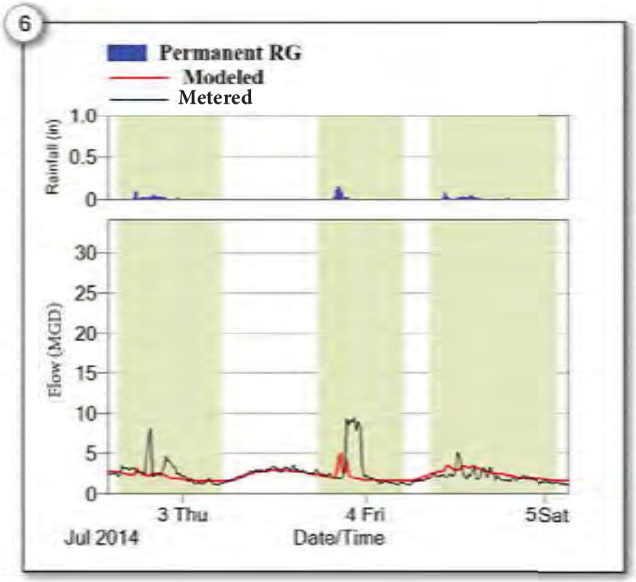












Model Calibration Results

Flow Meter: OF-025 Columbus

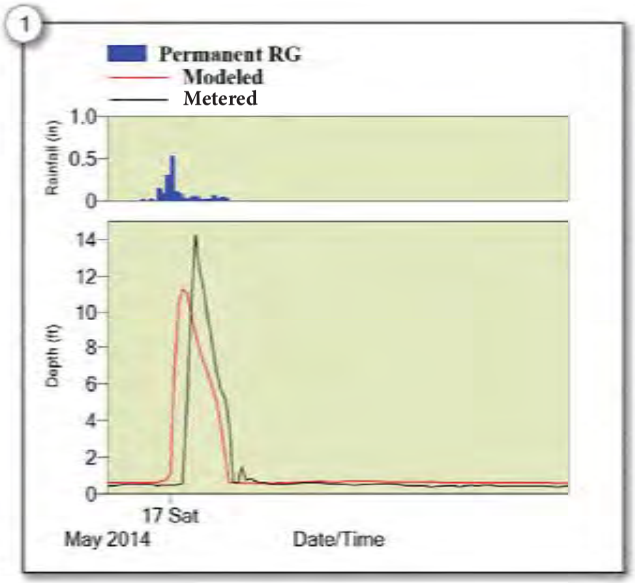
Event Comparison: Flow

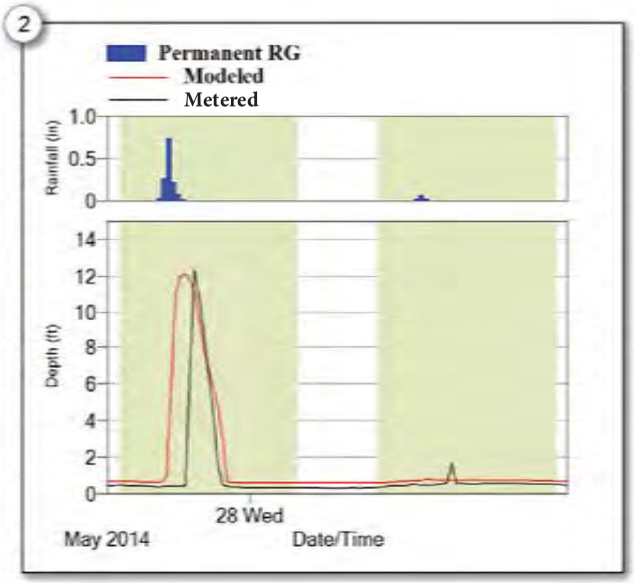
Permanent Rain Gauge Events:

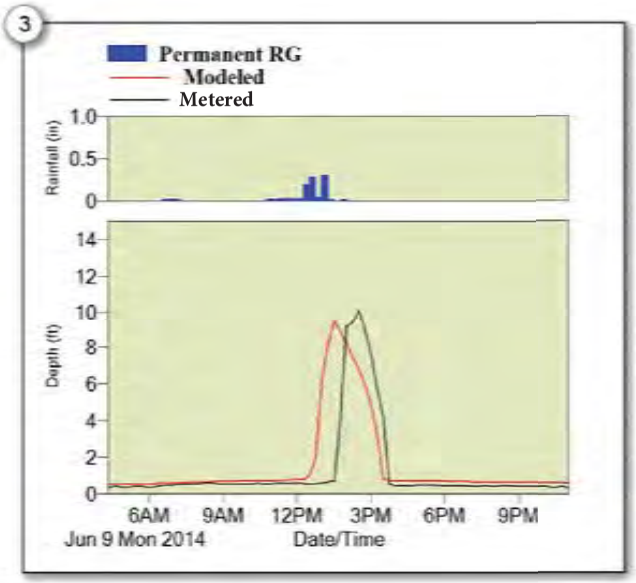
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

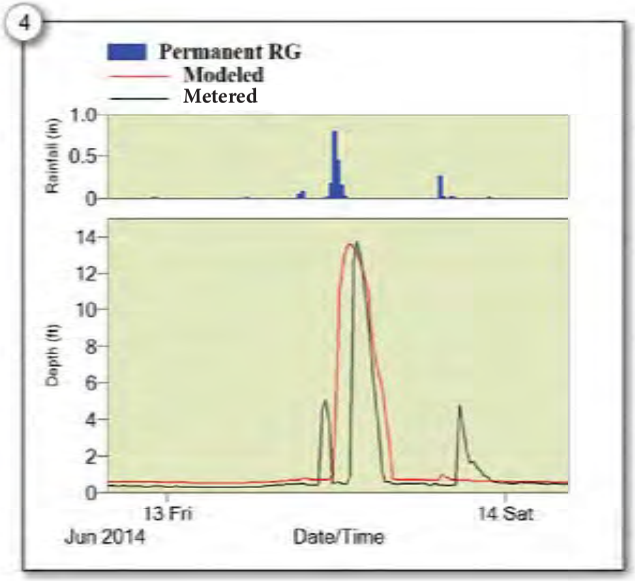
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

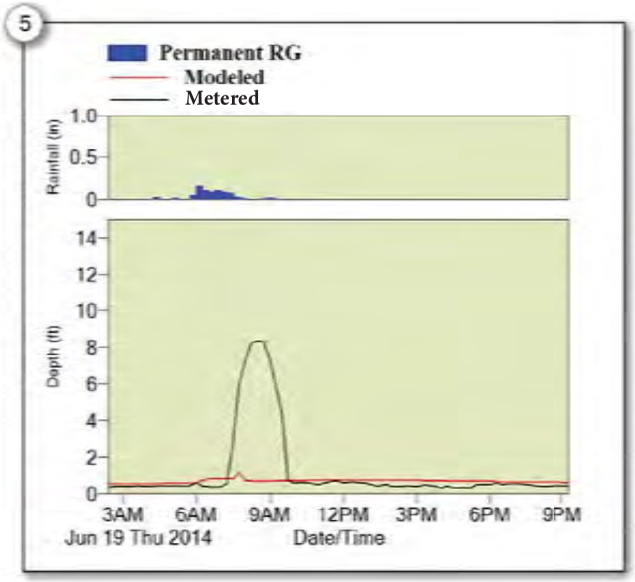
Prepared by:
CH2MHILL

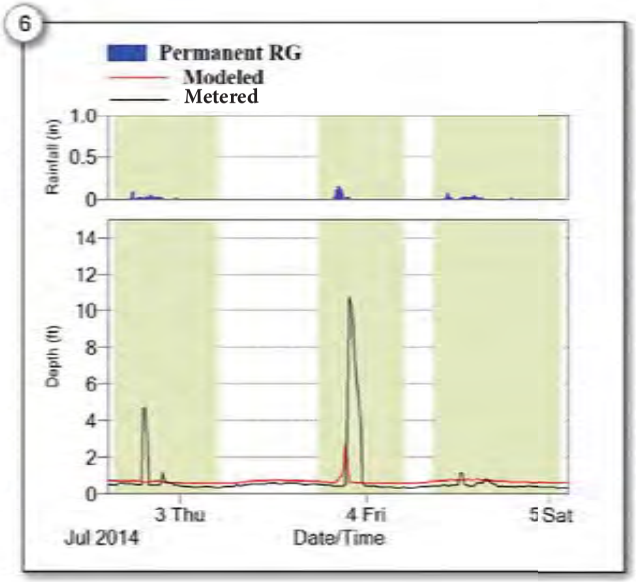












Model Calibration Results

Flow Meter: OF-025 Columbus

Event Comparison: Depth

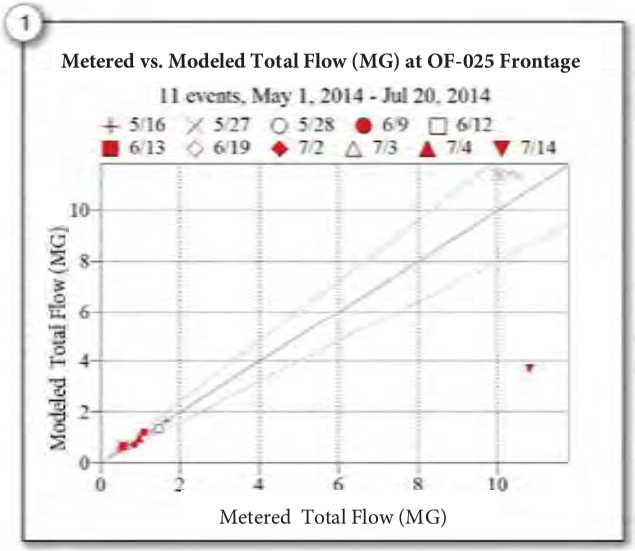
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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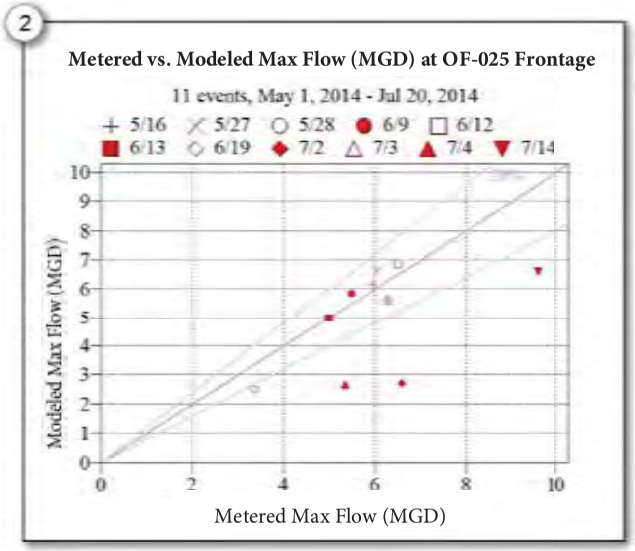

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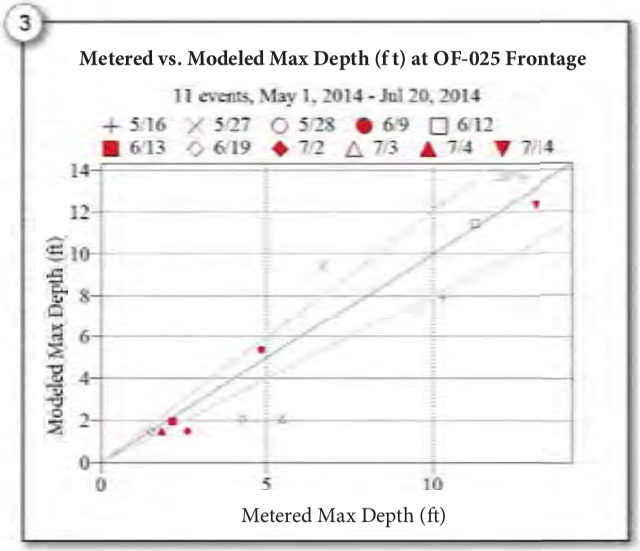

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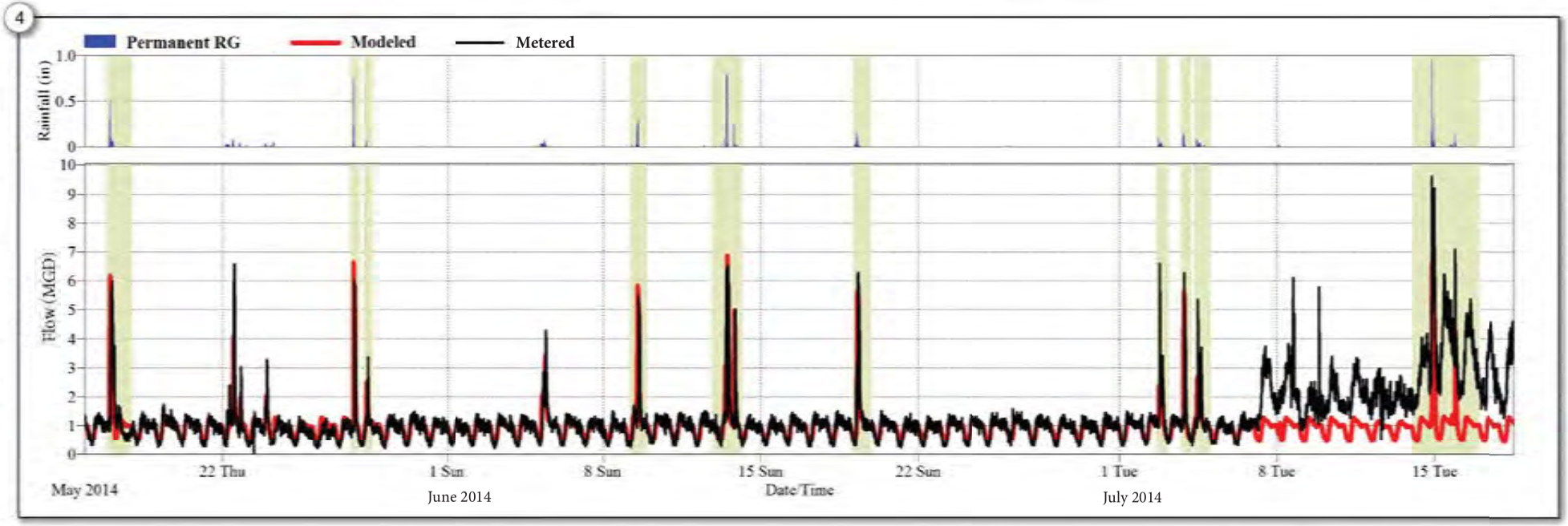


Model Calibration Results

Flow Meter: OF-25 Frontage

Meter Summary

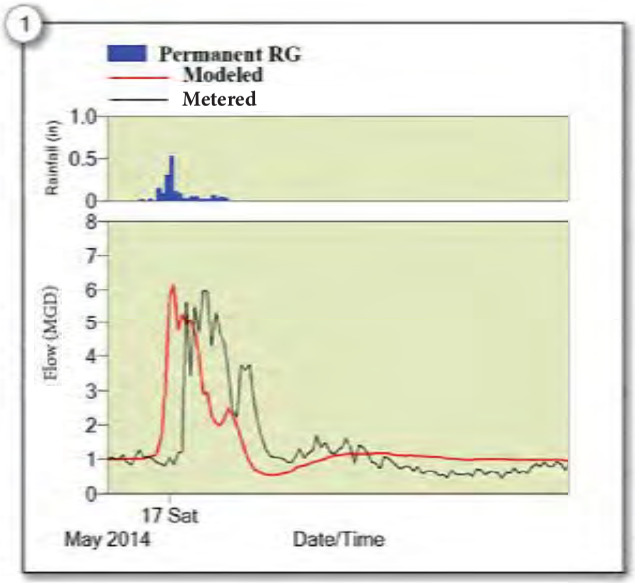
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

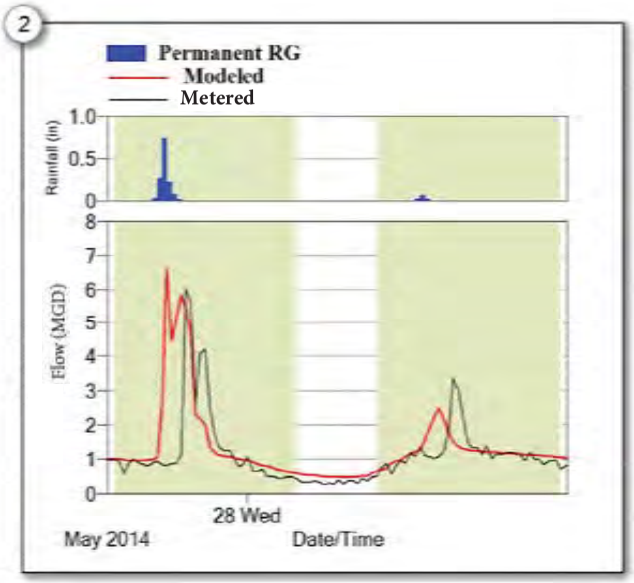
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

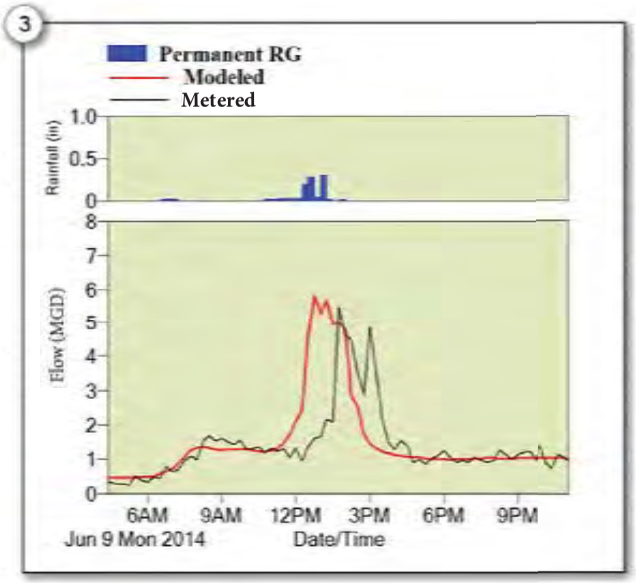
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

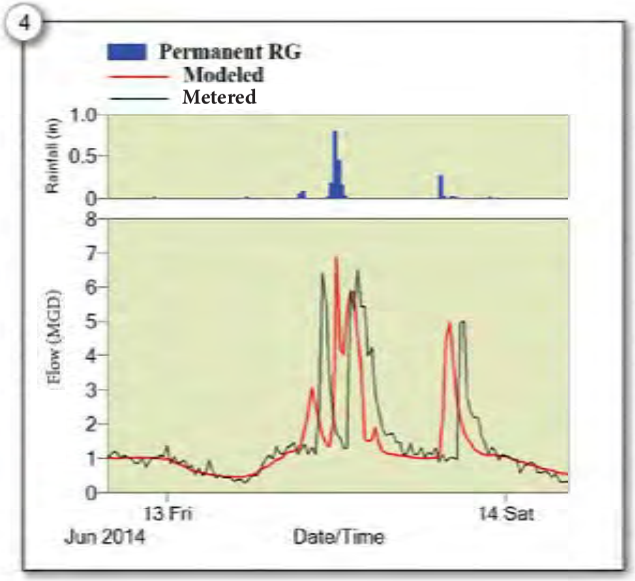
Prepared by:

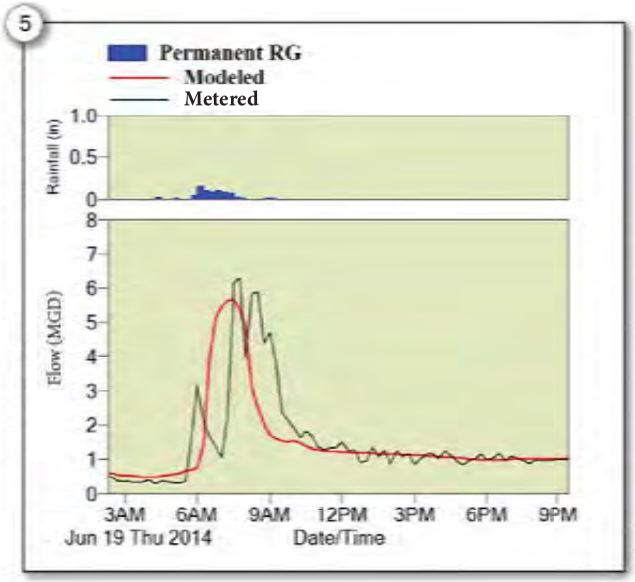
CH2MHILL

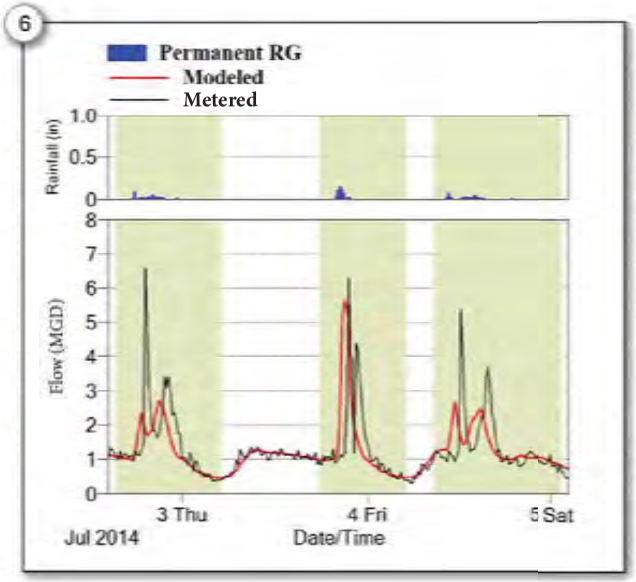












Model Calibration Results

Flow Meter: OF-025 Frontage

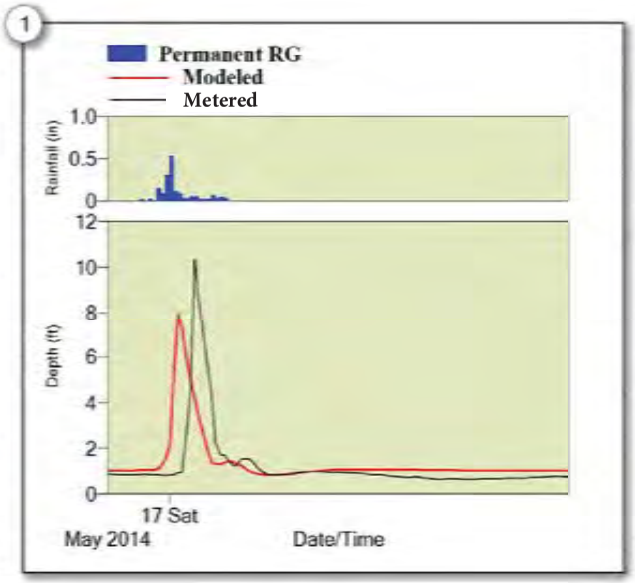
Event Comparison: Flow

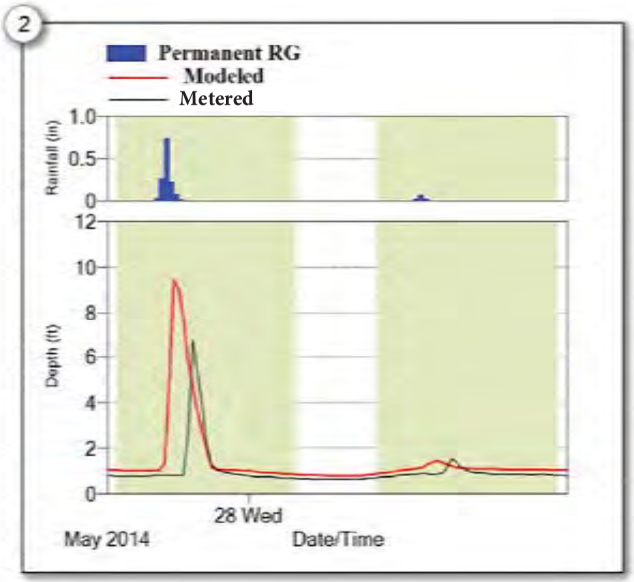
Permanent Rain Gauge Events:

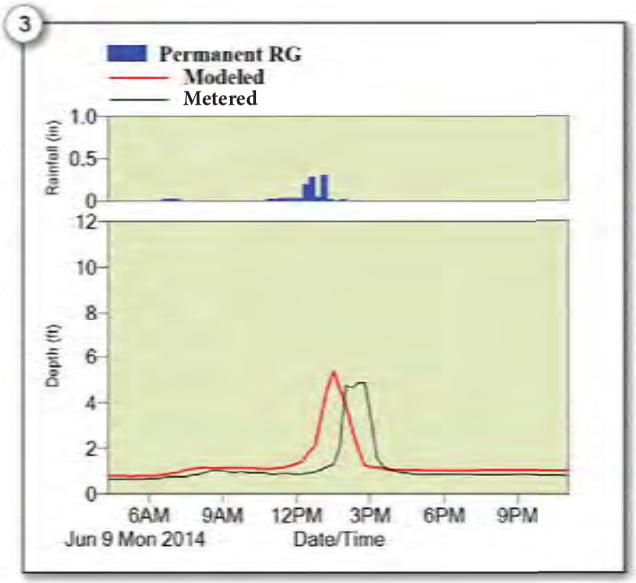
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

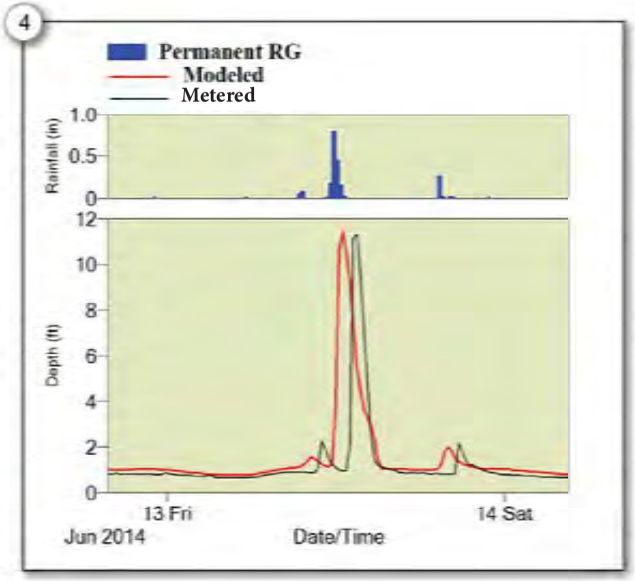
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

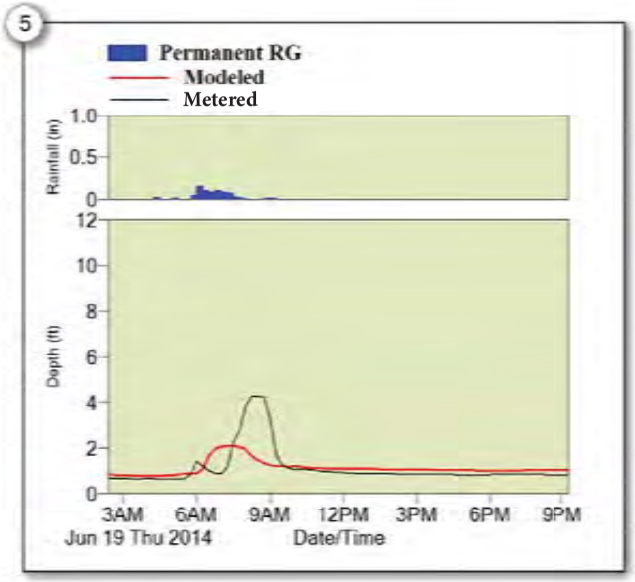
Prepared by:
CH2MHILL

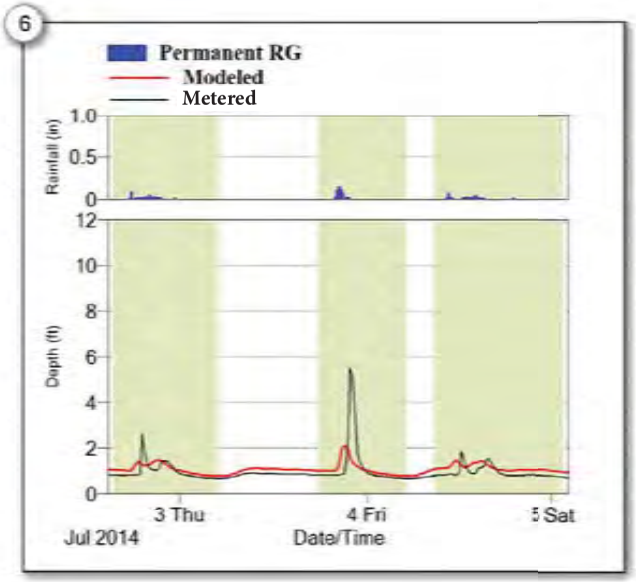












Model Calibration Results

Flow Meter: OF-025 Frontage

Event Comparison: Depth

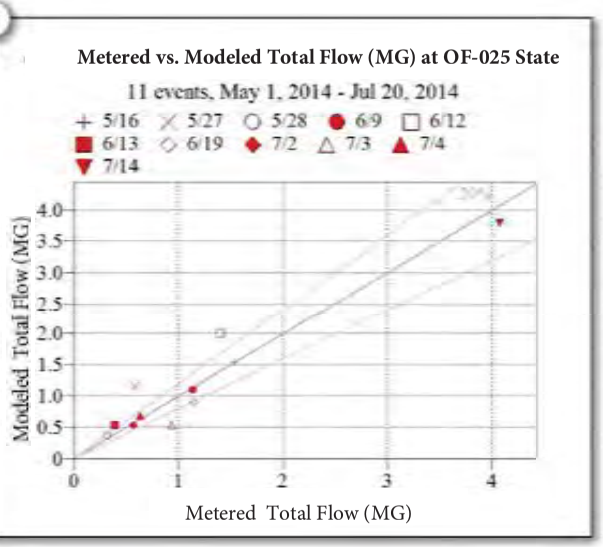
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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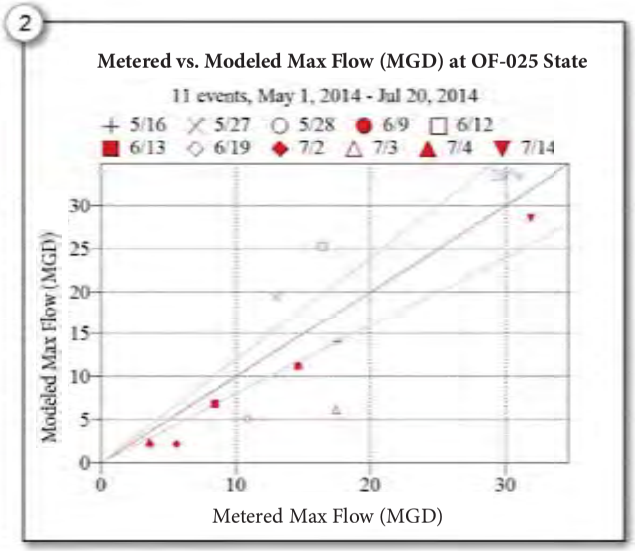

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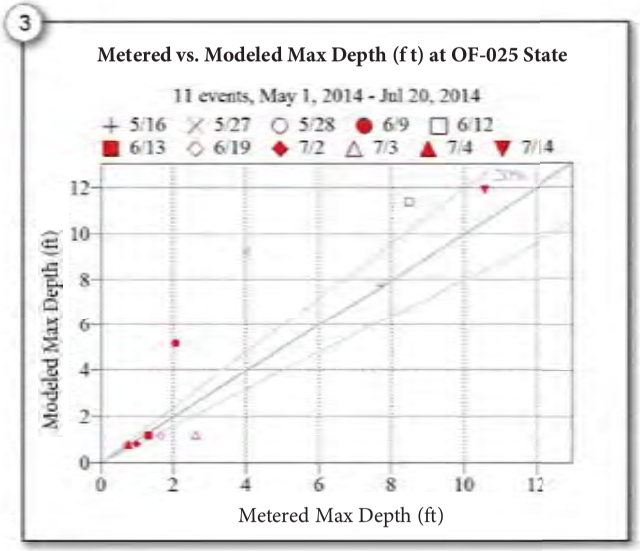

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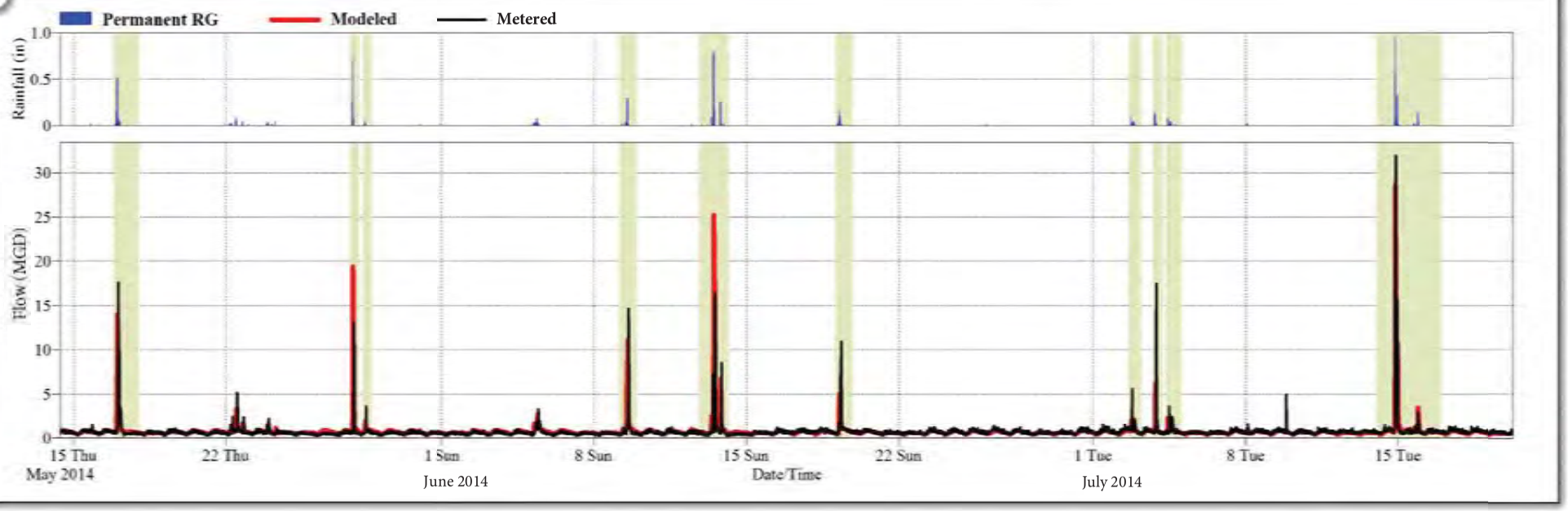


Model Calibration Results

Flow Meter: OF-25 State

Meter Summary

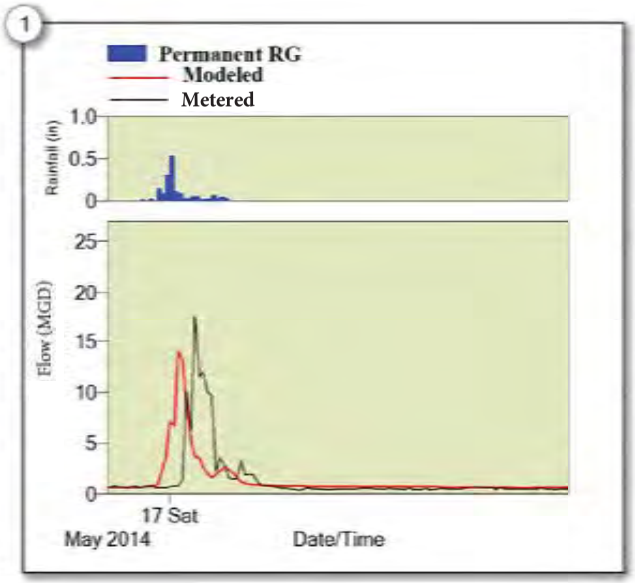
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

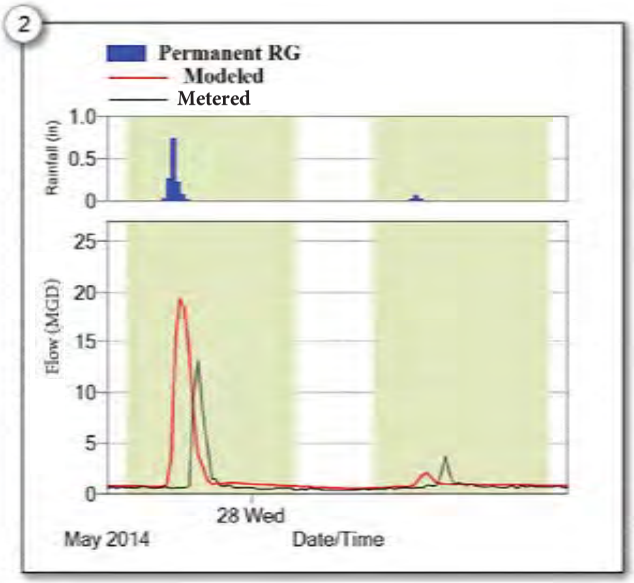
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

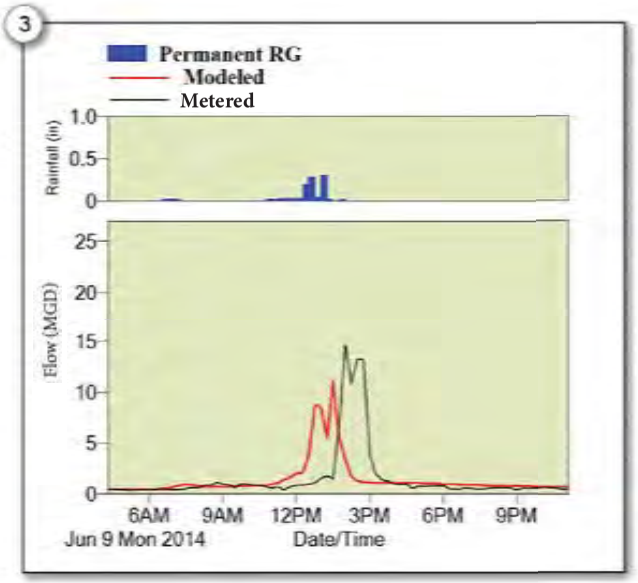
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

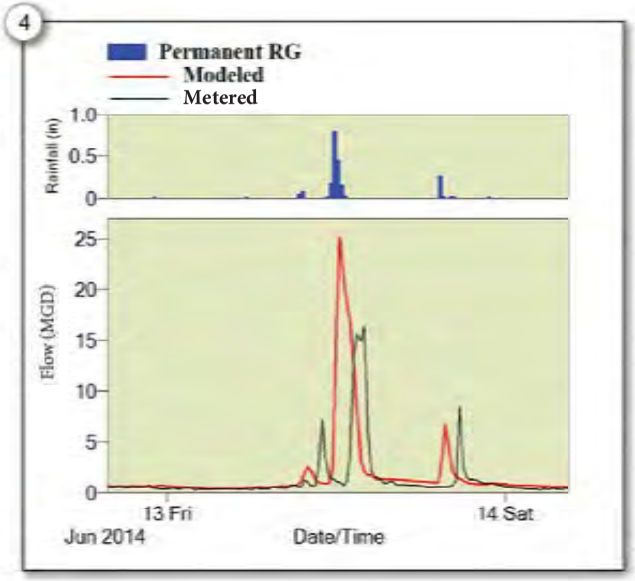
Prepared by:

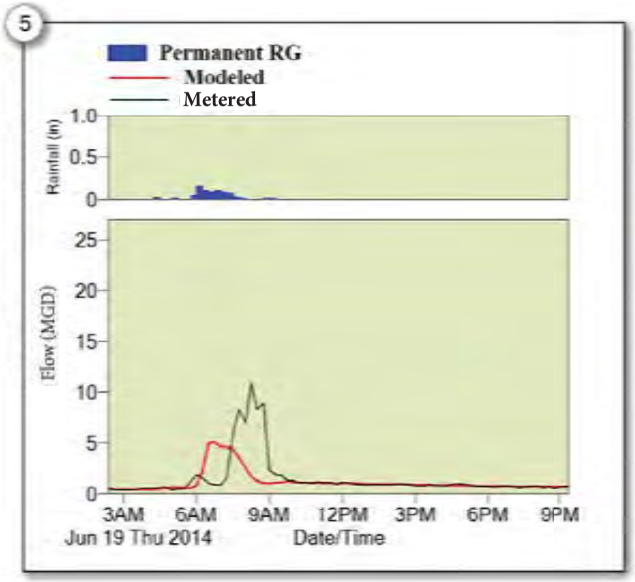
CH2MHILL

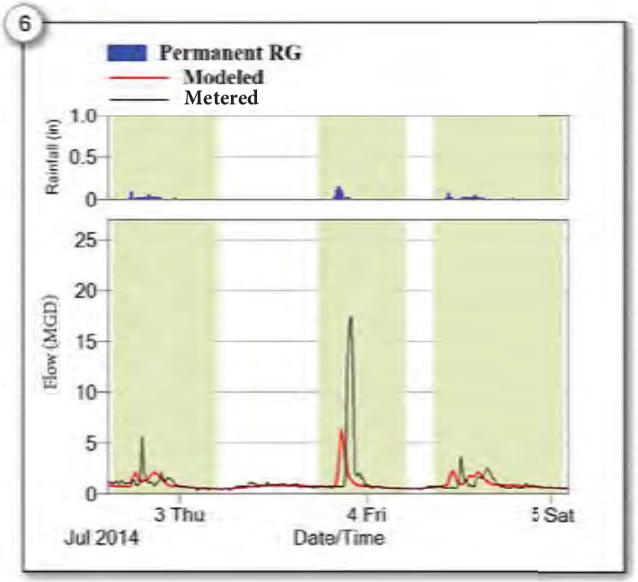












Model Calibration Results

Flow Meter: OF-025 State

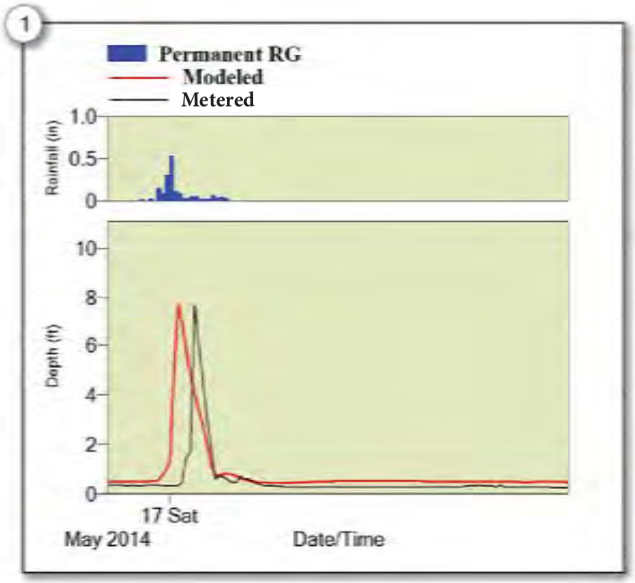
Event Comparison: Flow

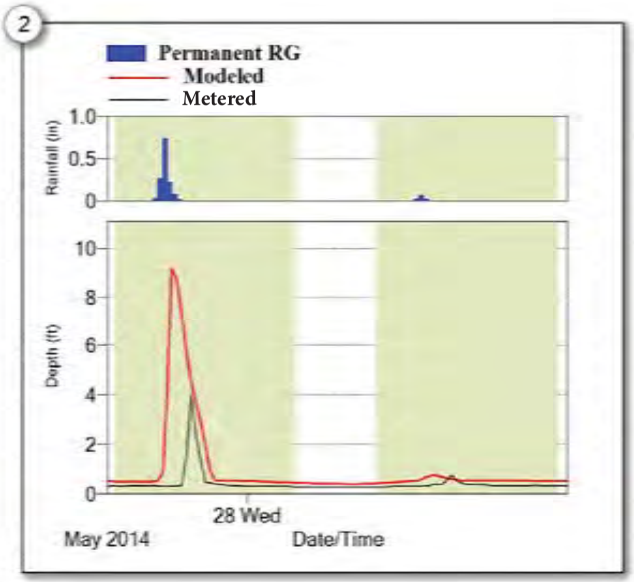
Permanent Rain Gauge Events:

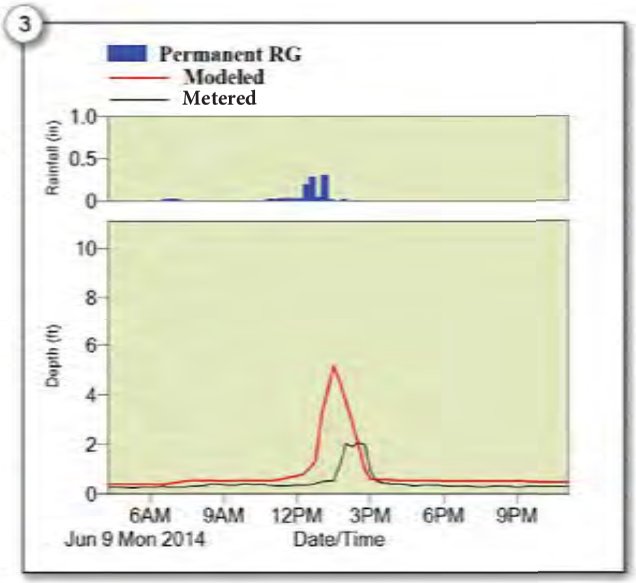
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

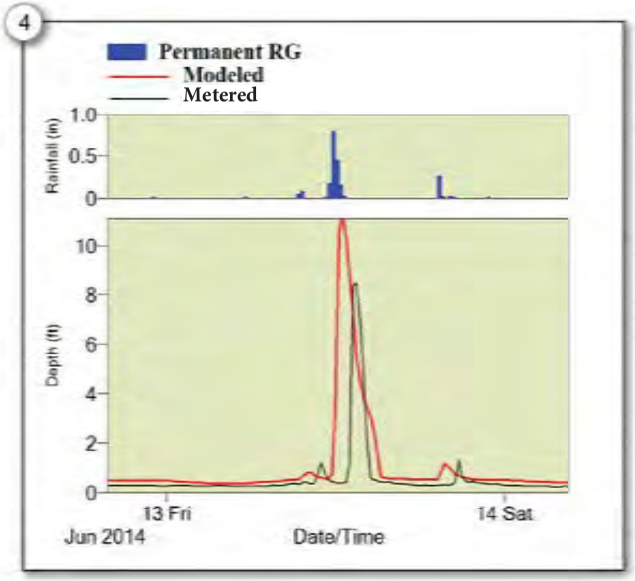
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

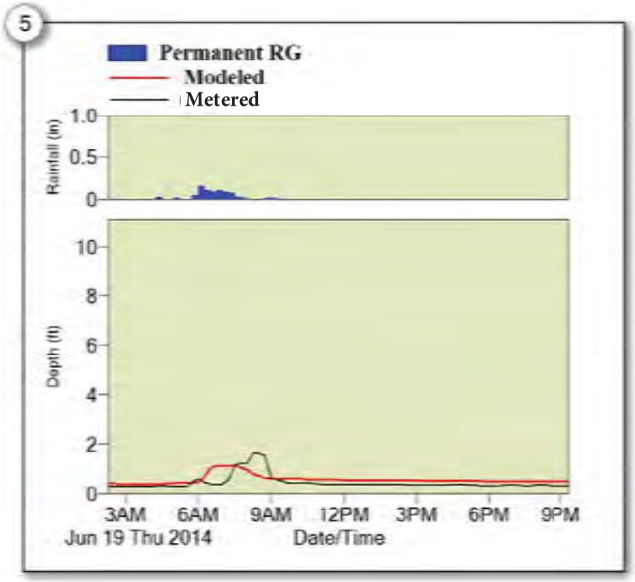
Prepared by:
CH2MHILL

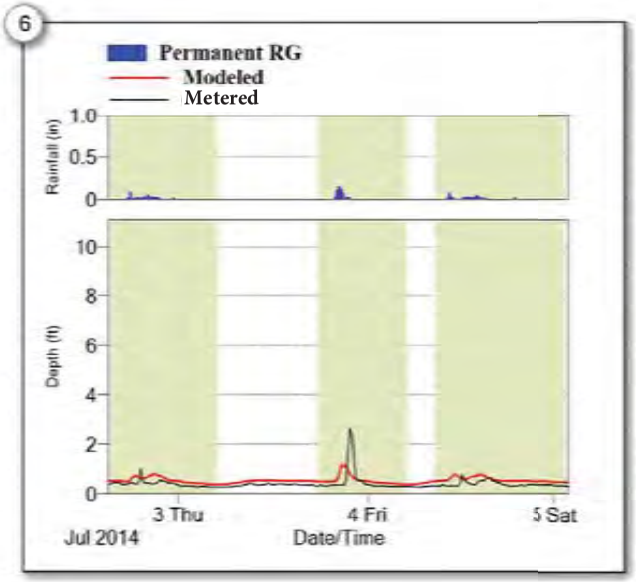












Model Calibration Results

Flow Meter: OF-025 State

Event Comparison: Depth

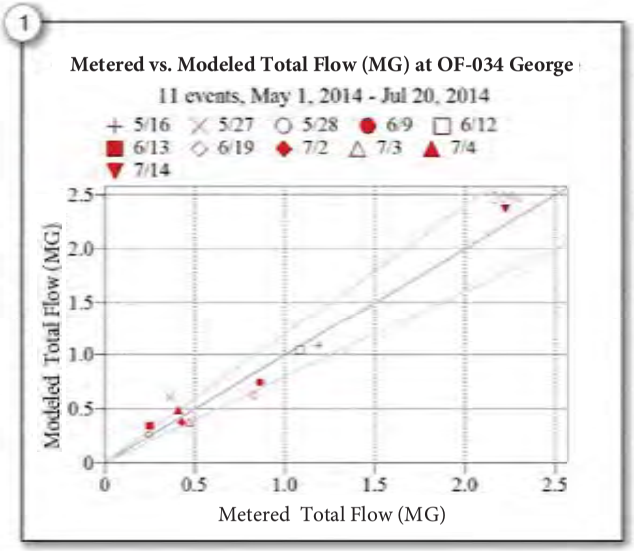
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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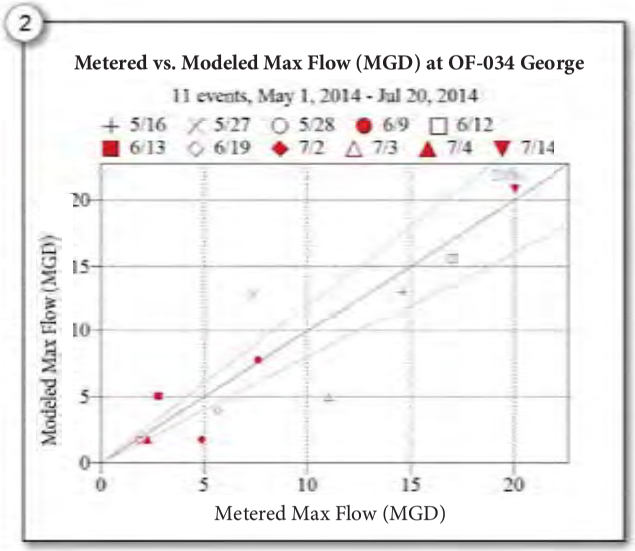

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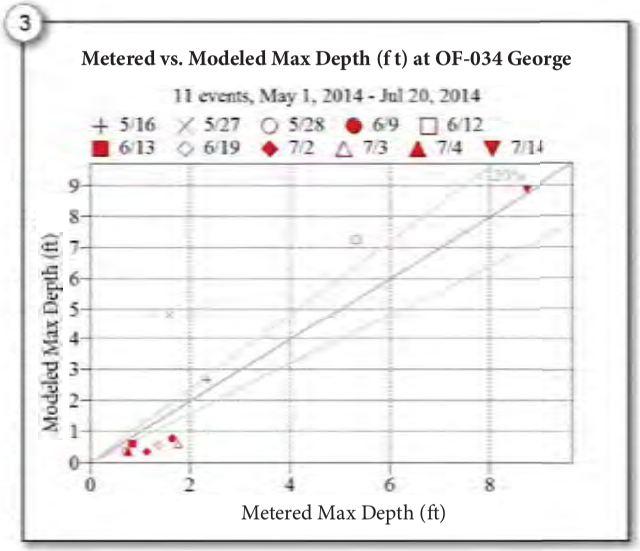

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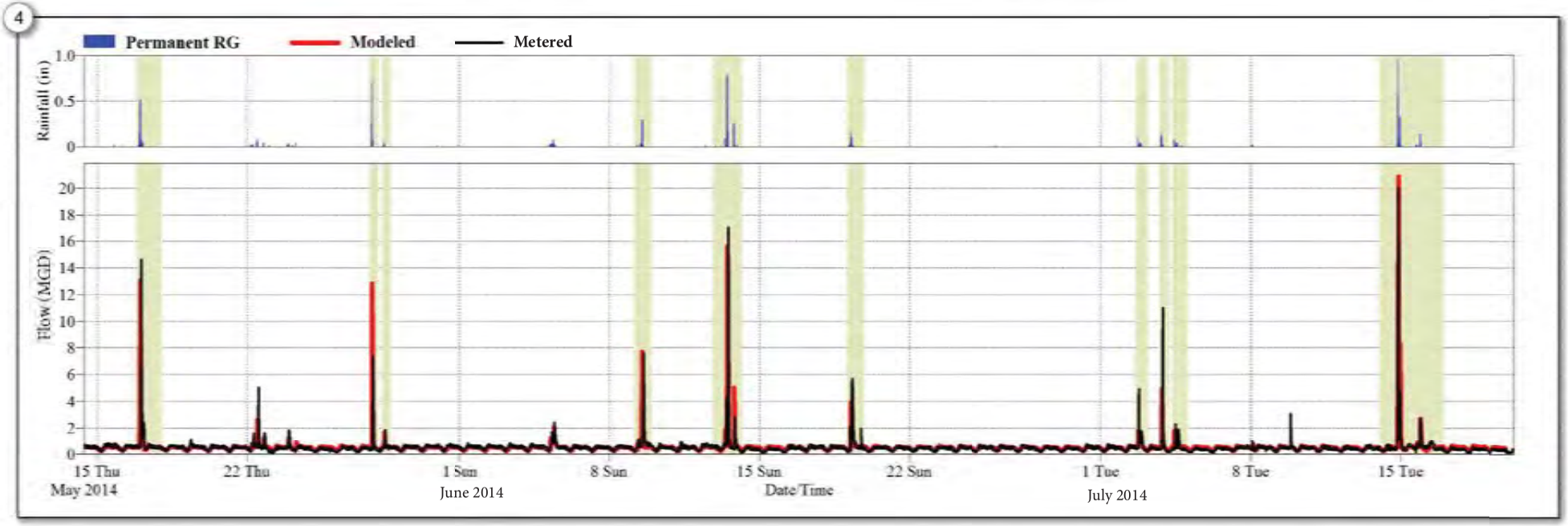


Model Calibration Results

Flow Meter: OF-034 George

Meter Summary

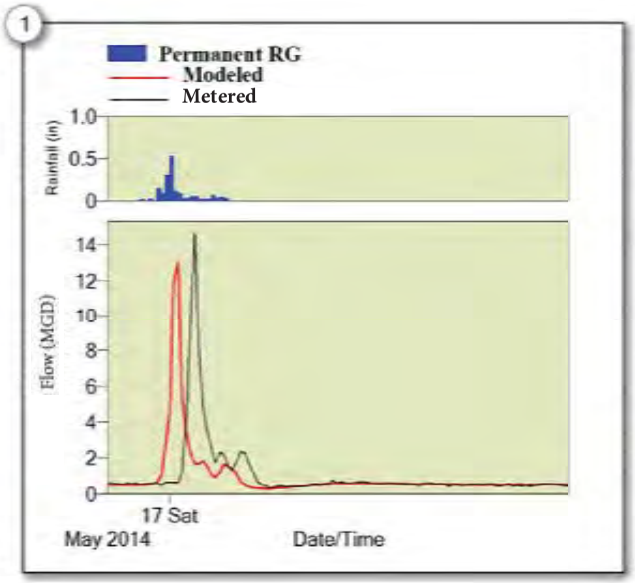
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

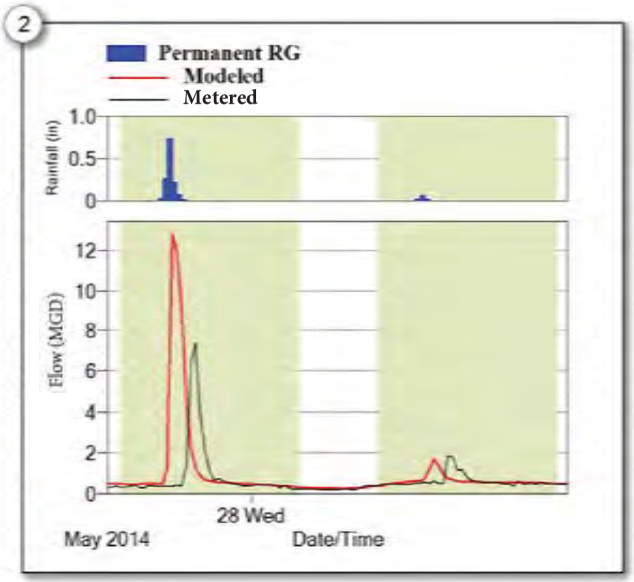
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

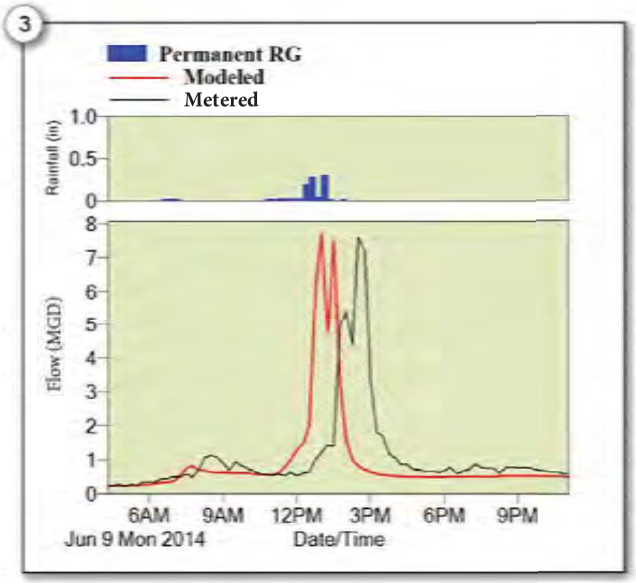
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

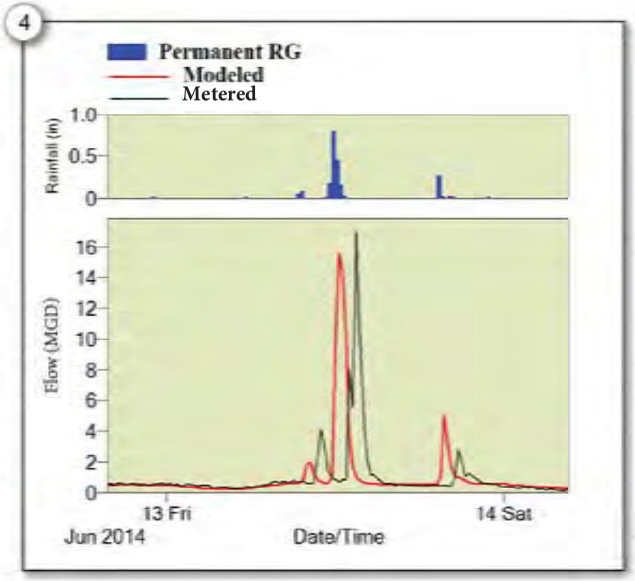
Prepared by:

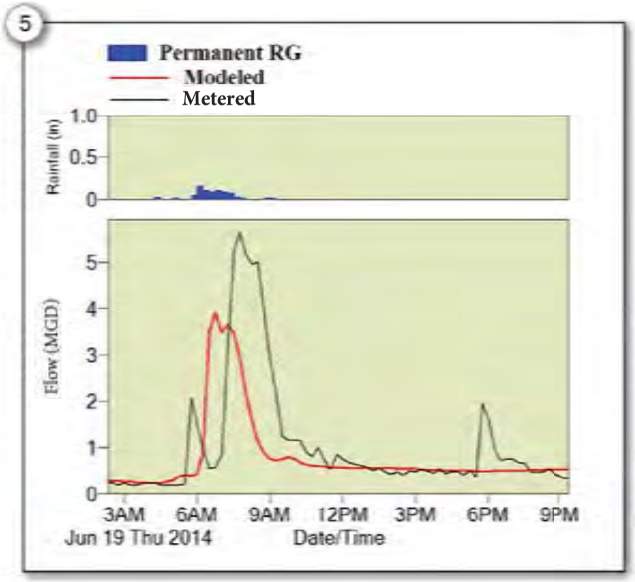
CH2MHILL

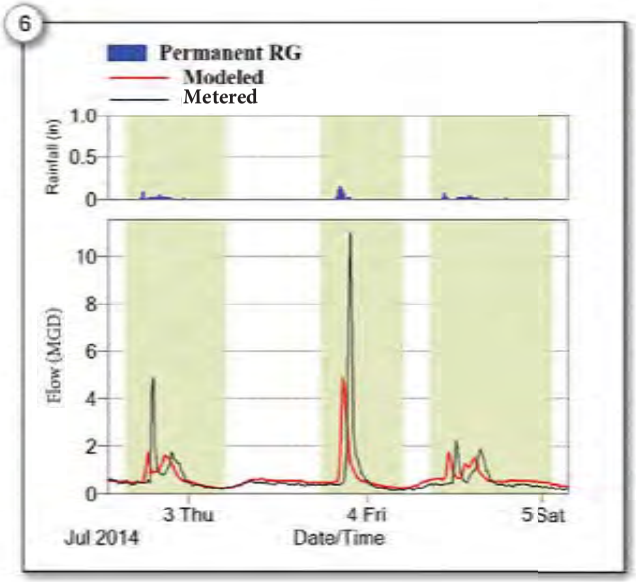












Model Calibration Results

Flow Meter: OF-034 George

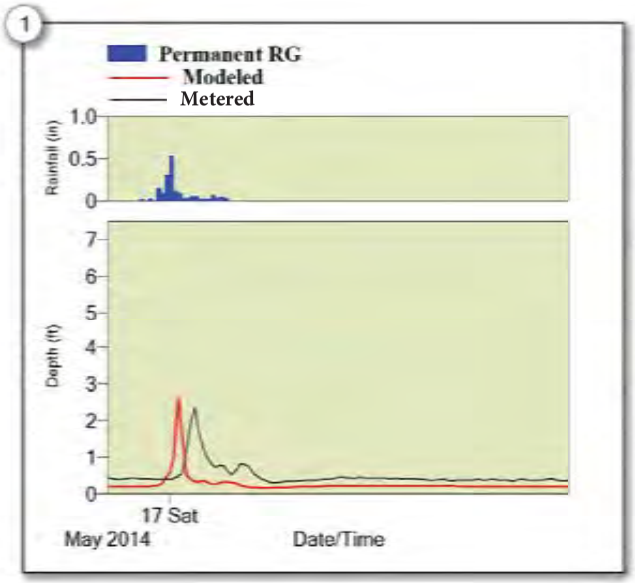
Event Comparison: Flow

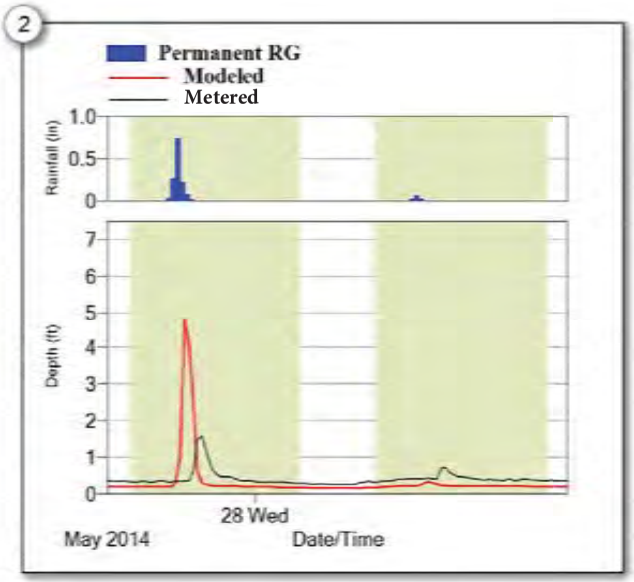
Permanent Rain Gauge Events:

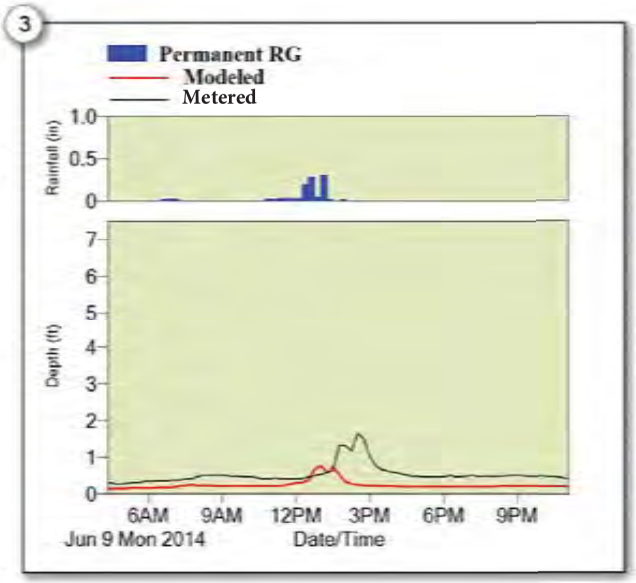
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

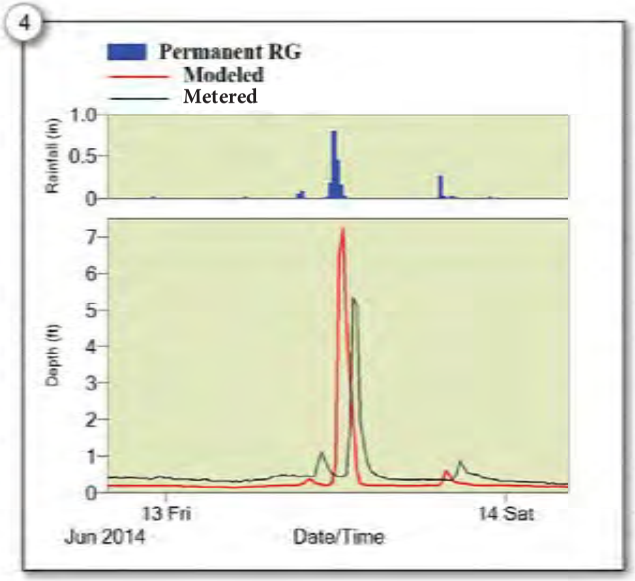
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

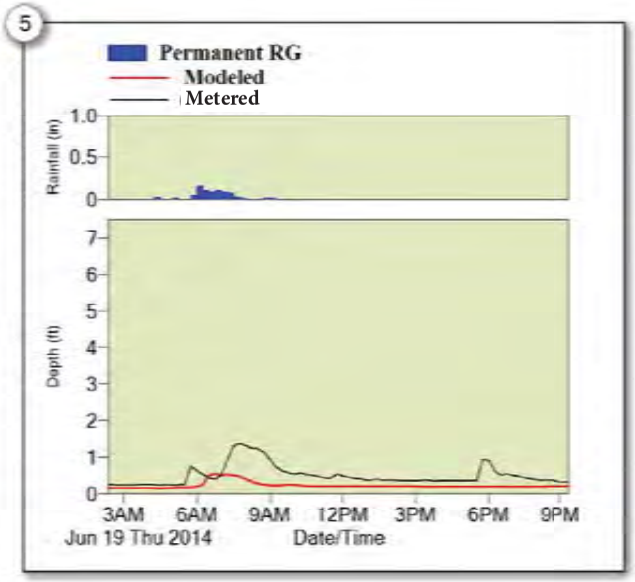
Prepared by:
CH2MHILL

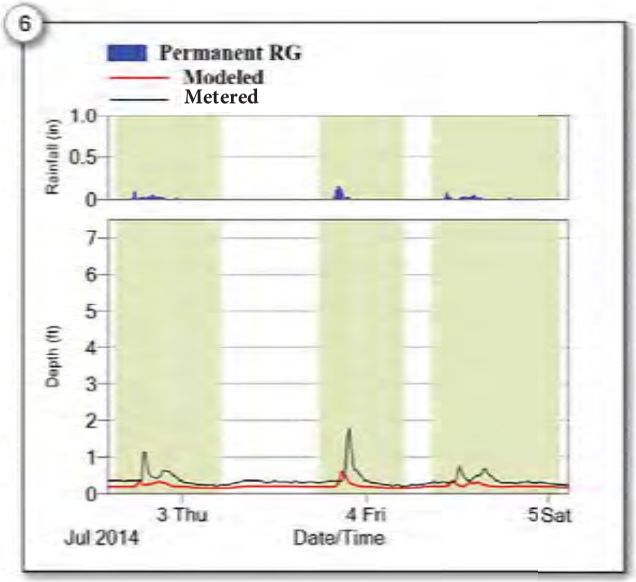












Model Calibration Results

Flow Meter: OF-034 George

Event Comparison: Depth

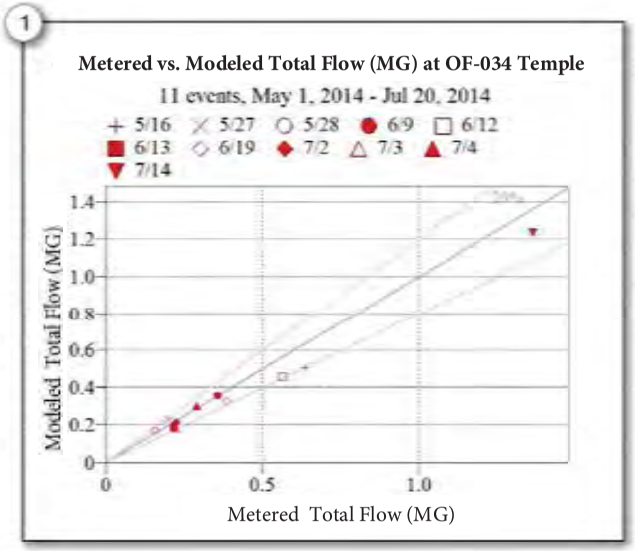
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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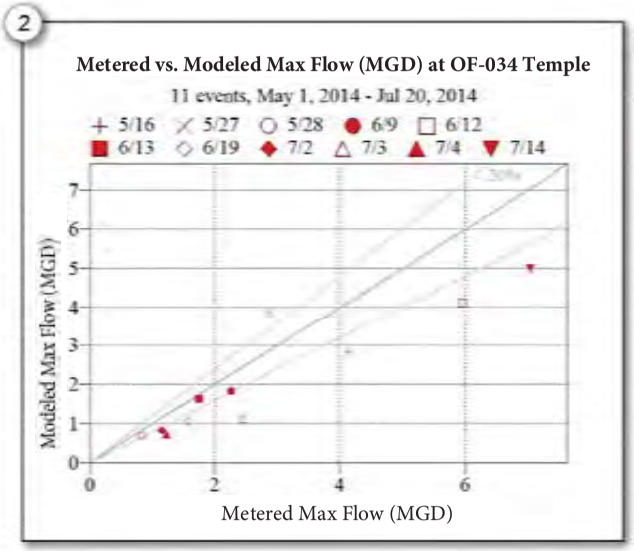

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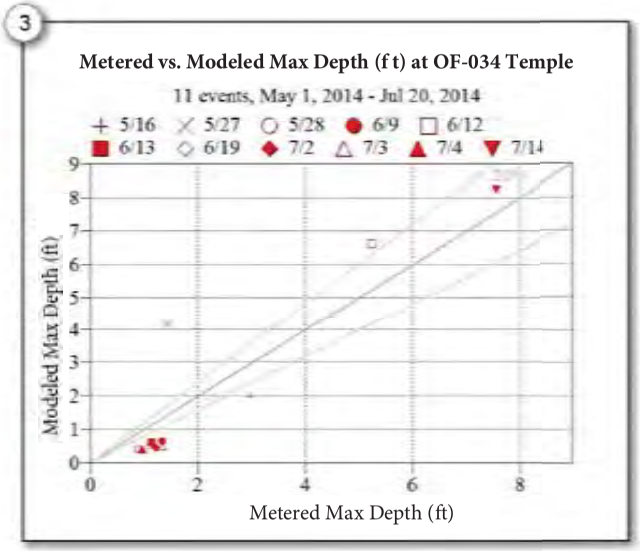

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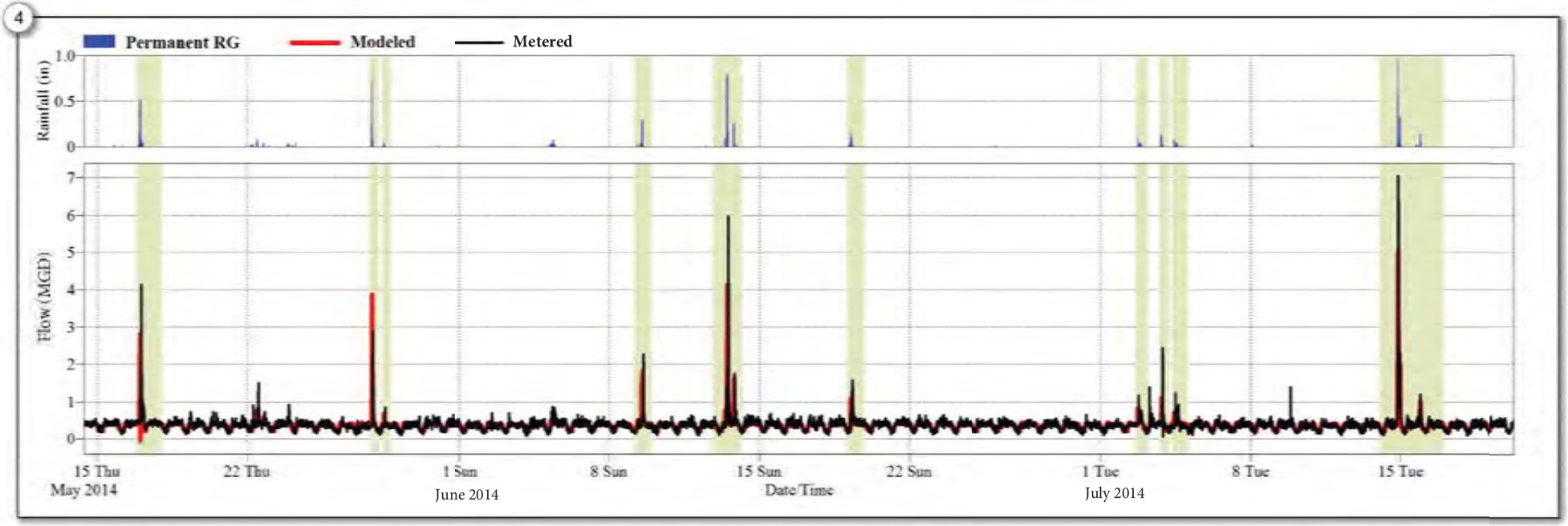


Model Calibration Results

Flow Meter: OF-034 Temple

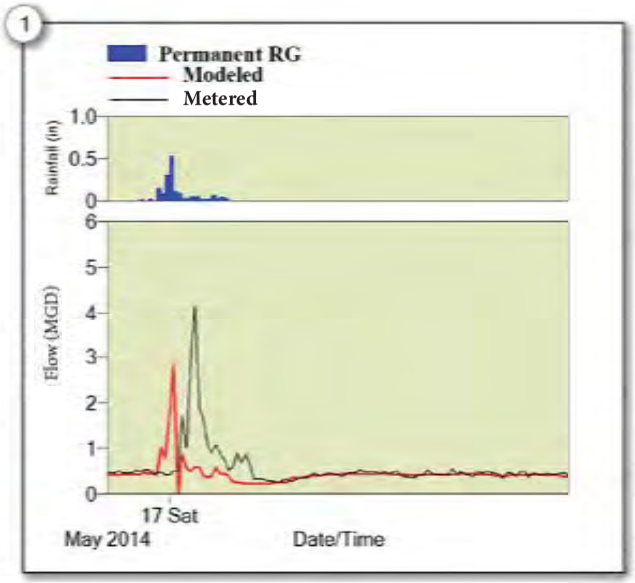
Meter Summary

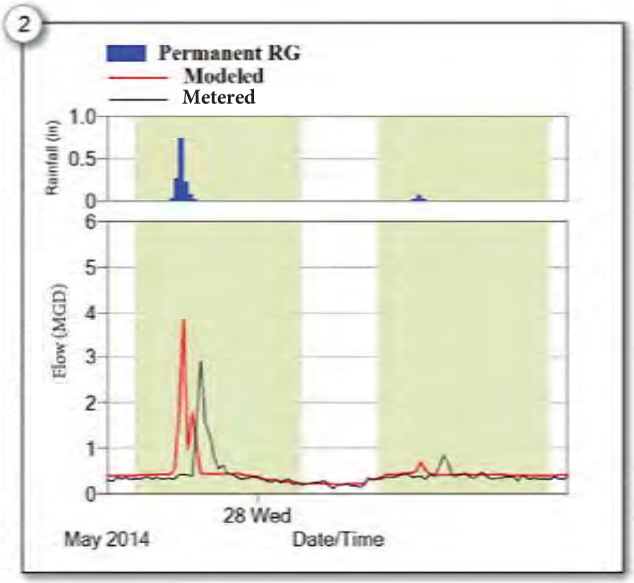
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

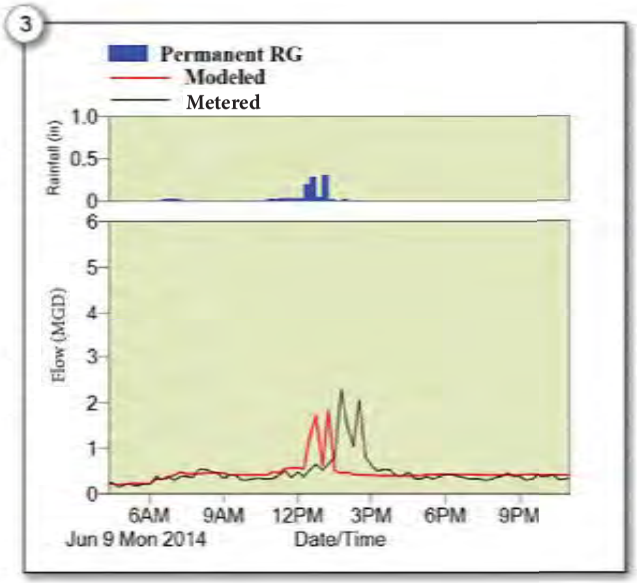
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

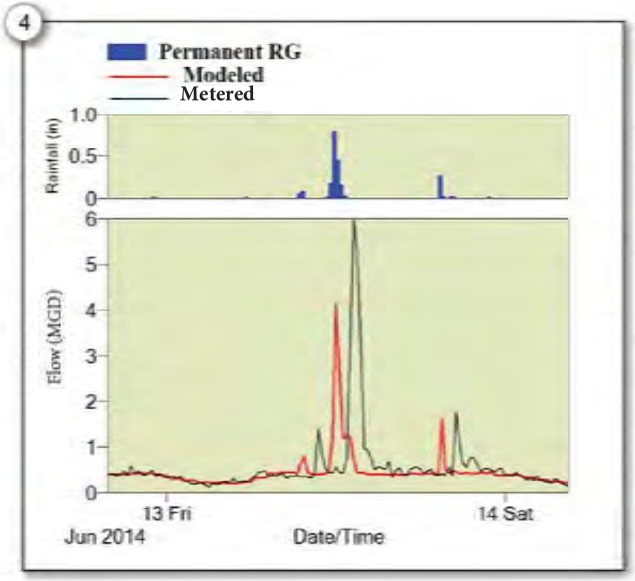
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

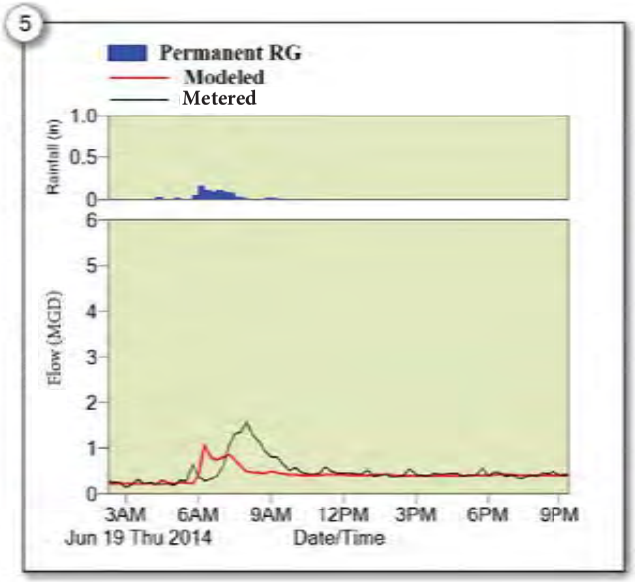
Prepared by:
CH2MHILL

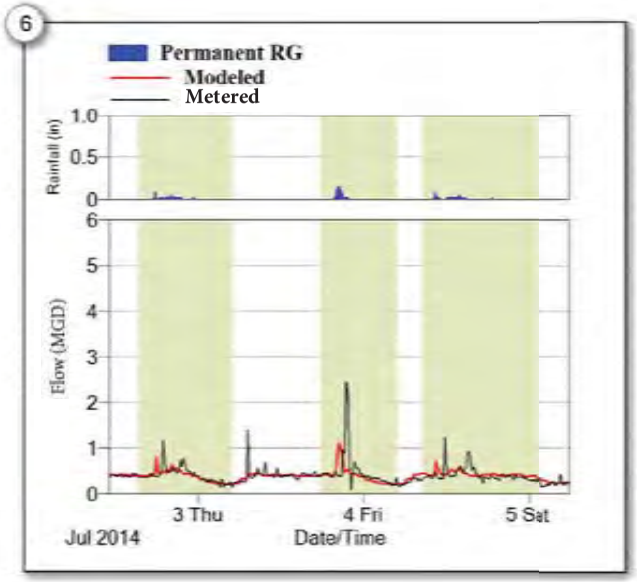












Model Calibration Results

Flow Meter: OF-034 Temple

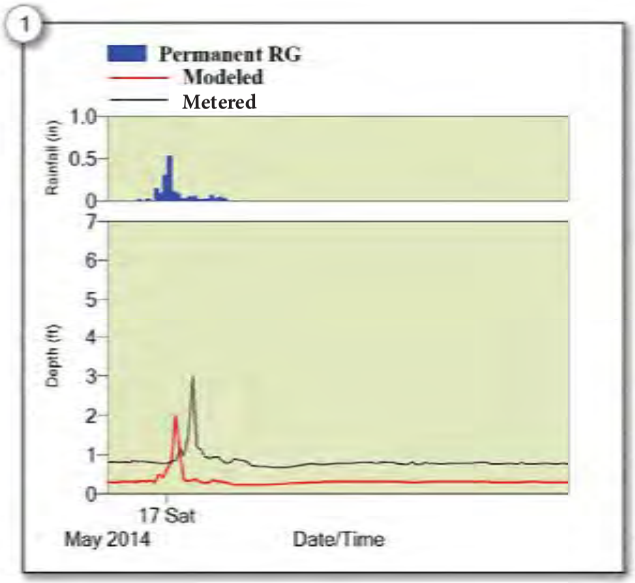
Event Comparison: Flow

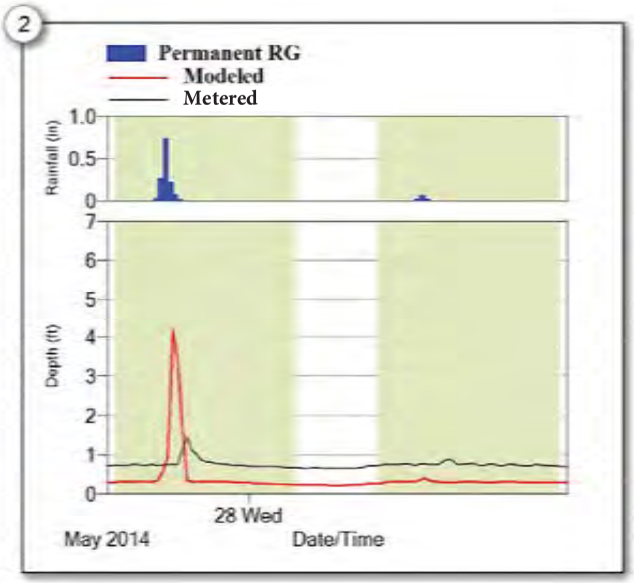
Permanent Rain Gauge Events:

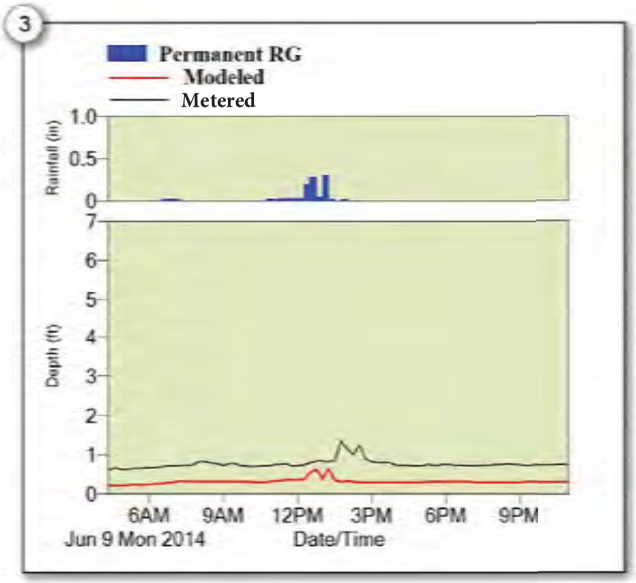
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

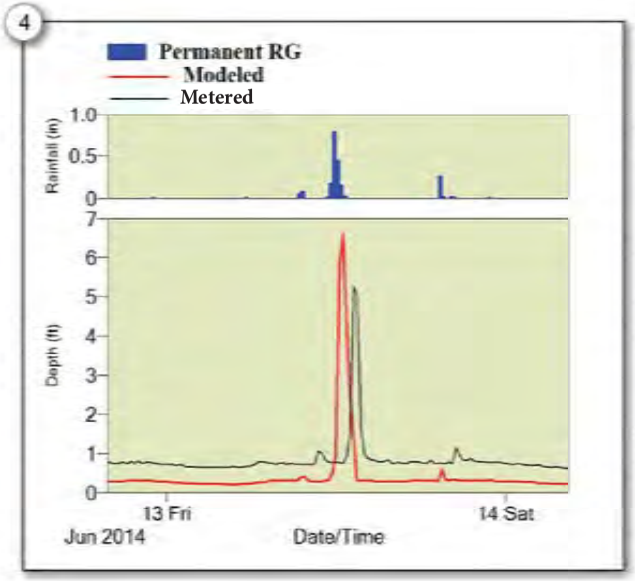
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

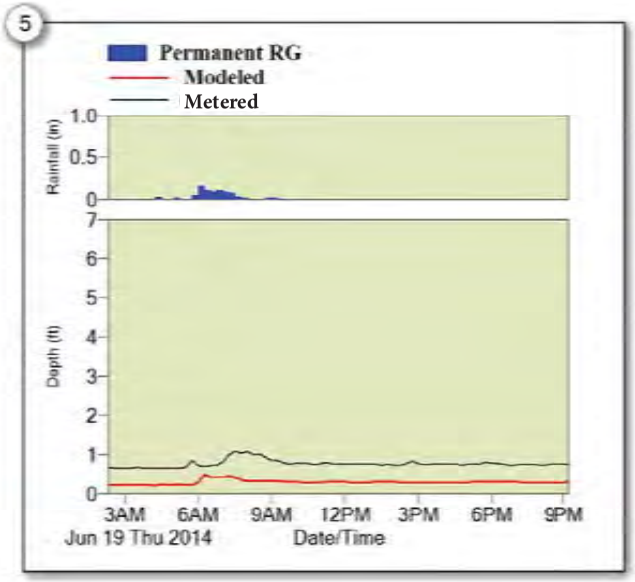
Prepared by:
CH2MHILL

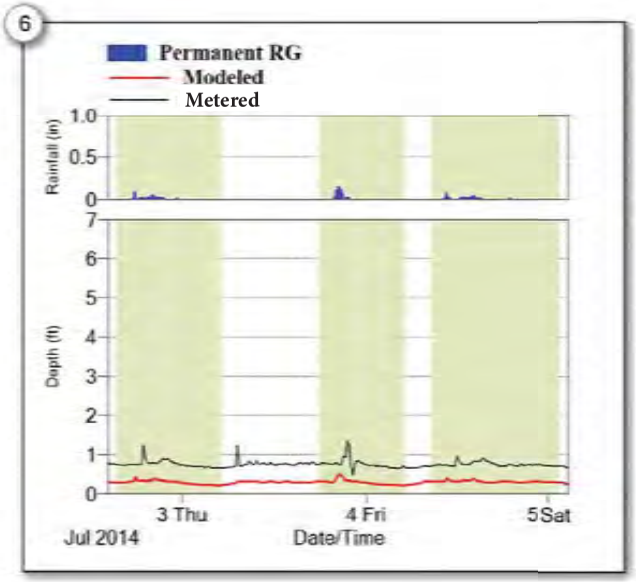












Model Calibration Results

Flow Meter: OF-034 Temple

Event Comparison: Depth

Permanent Rain Gauge Events:

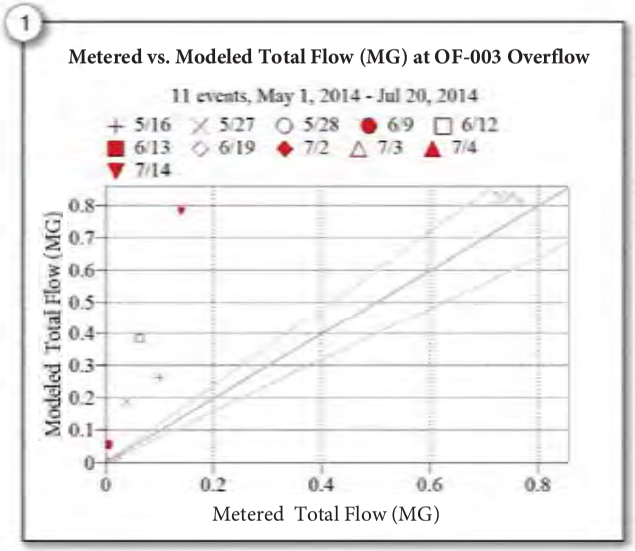
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

Appendix H
Wet Weather Flow Calibration Results – CSOs

1



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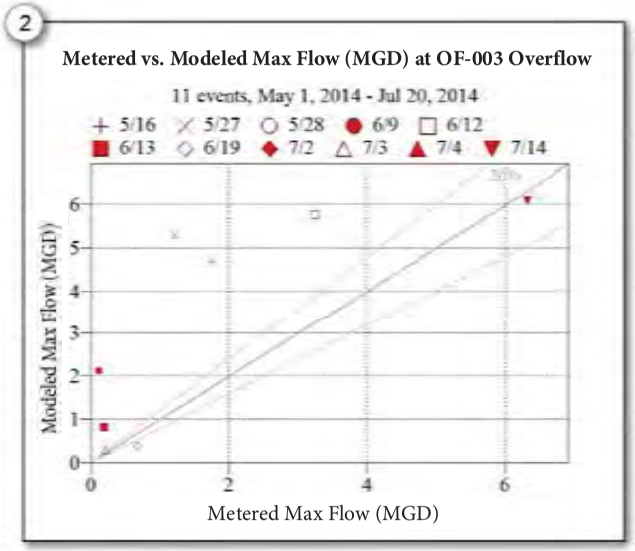

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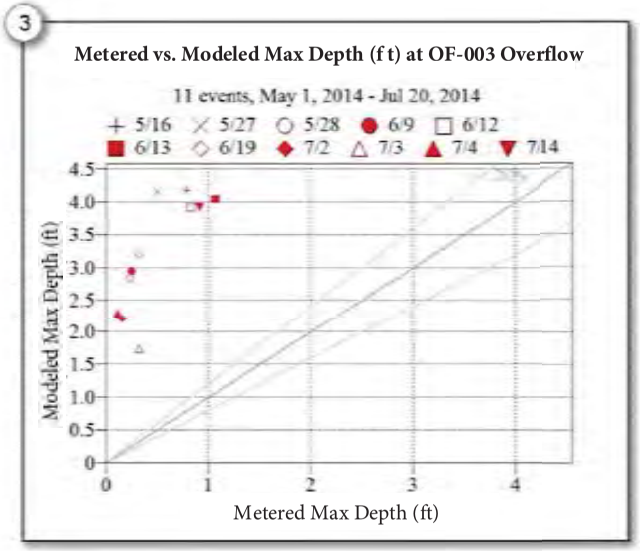

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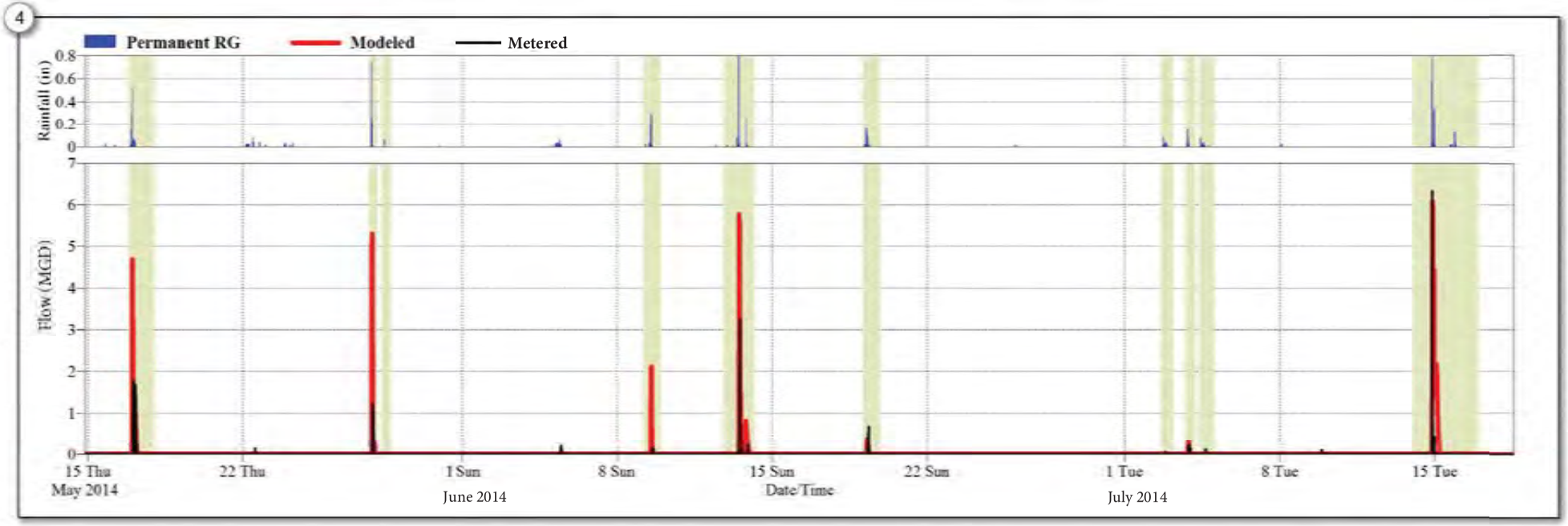


Model Calibration Results

Flow Meter: OF-003 Overflow

Meter Summary

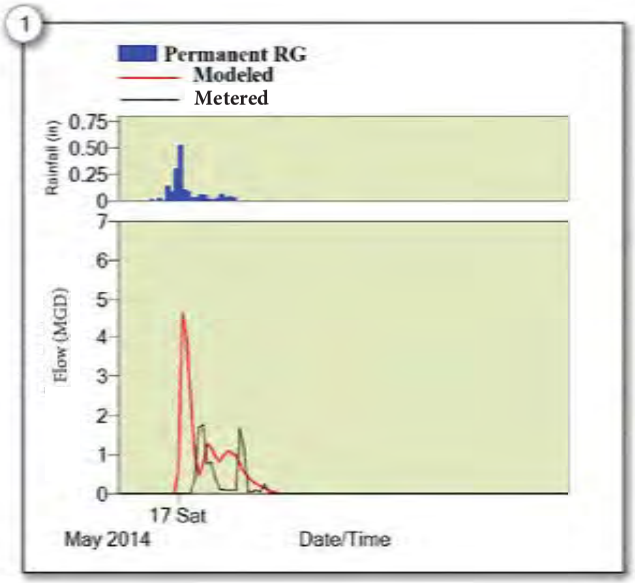
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

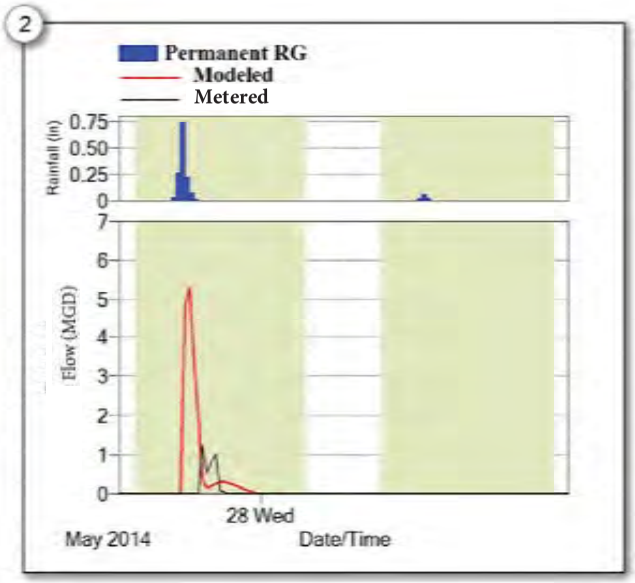
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

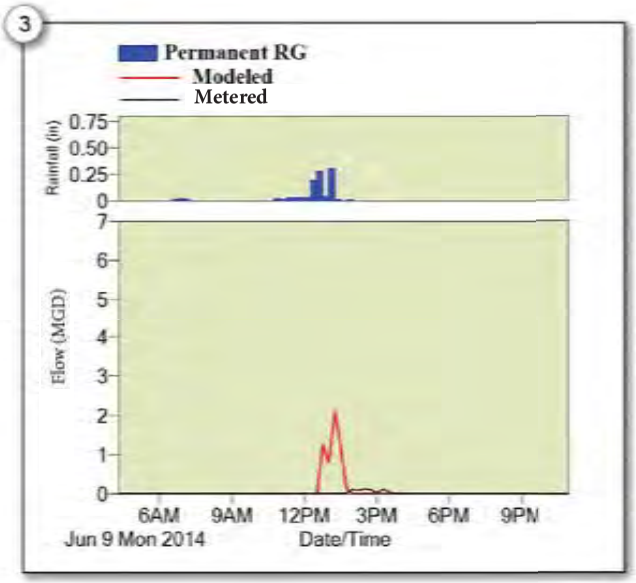
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

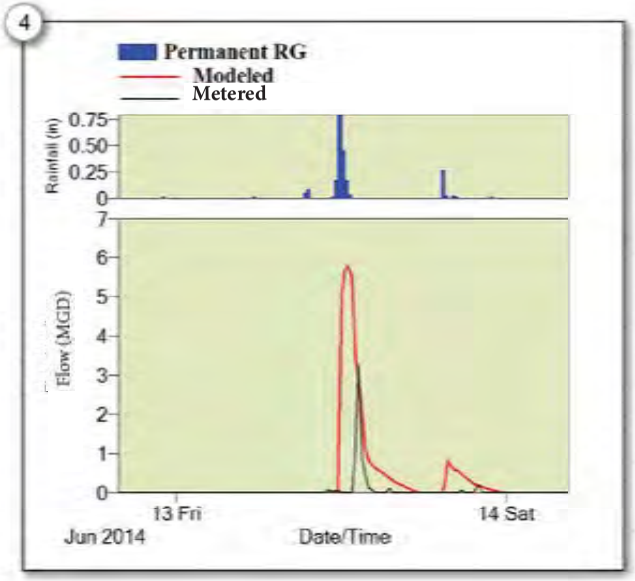
Prepared by:

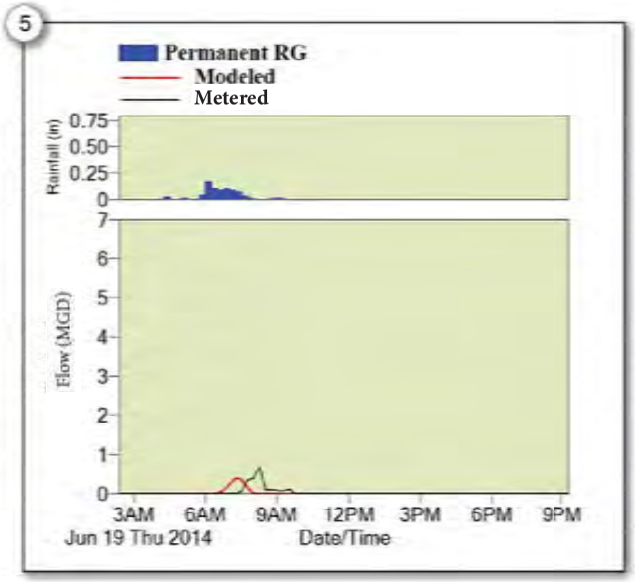
CH2MHILL

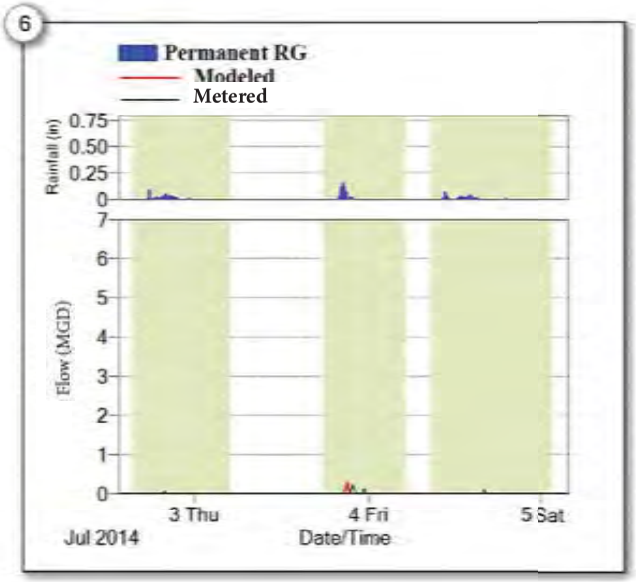












Model Calibration Results

Flow Meter: OF-003 Overflow

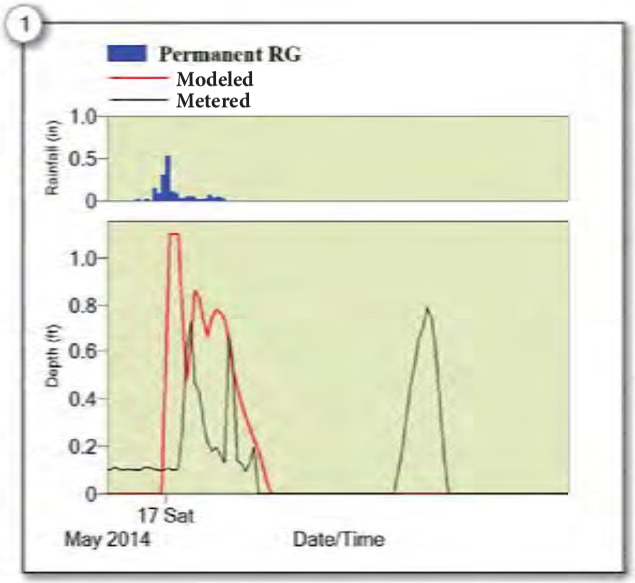
Event Comparison: Flow

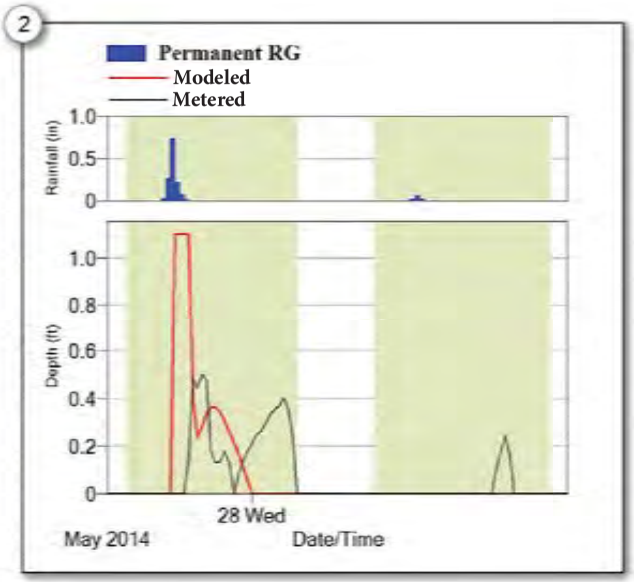
Permanent Rain Gauge Events:

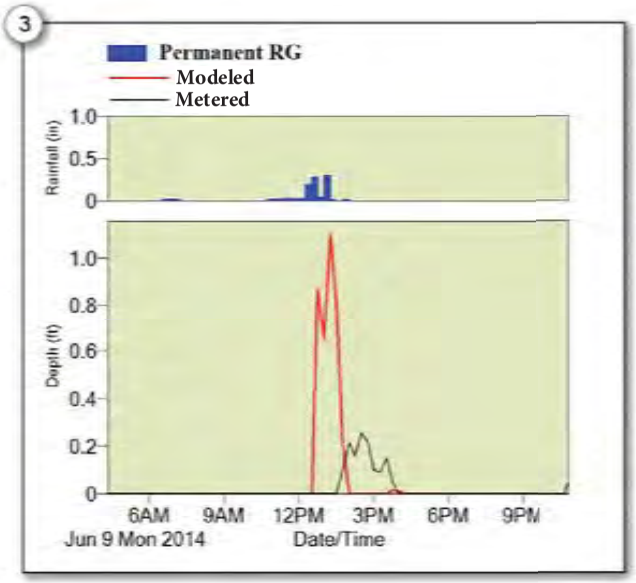
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

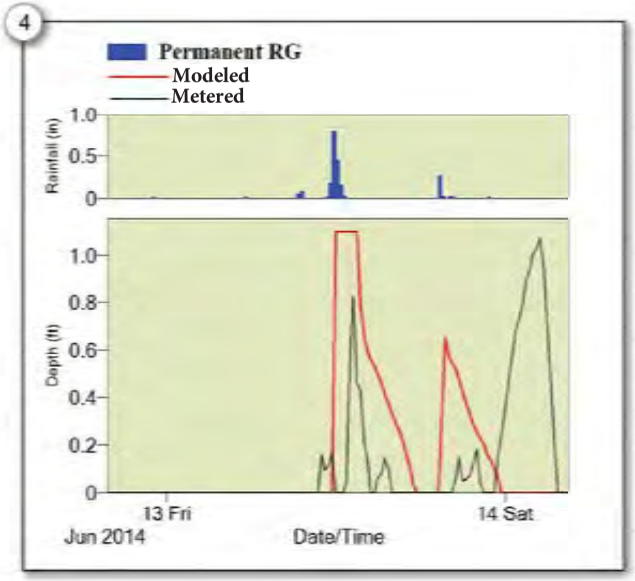
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

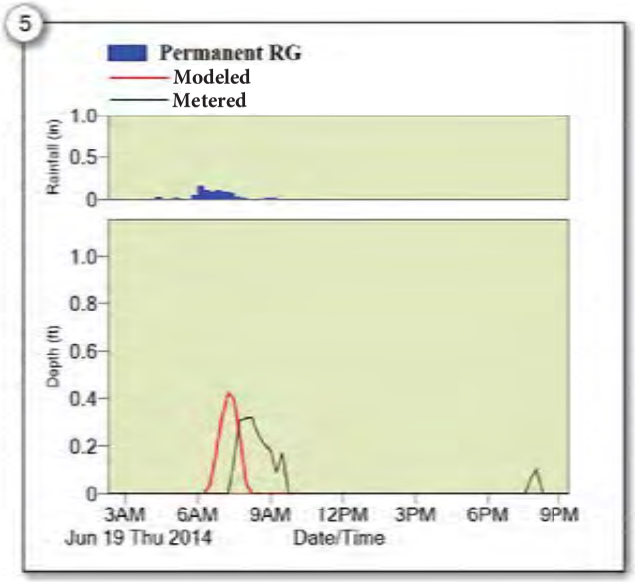
Prepared by:
CH2MHILL

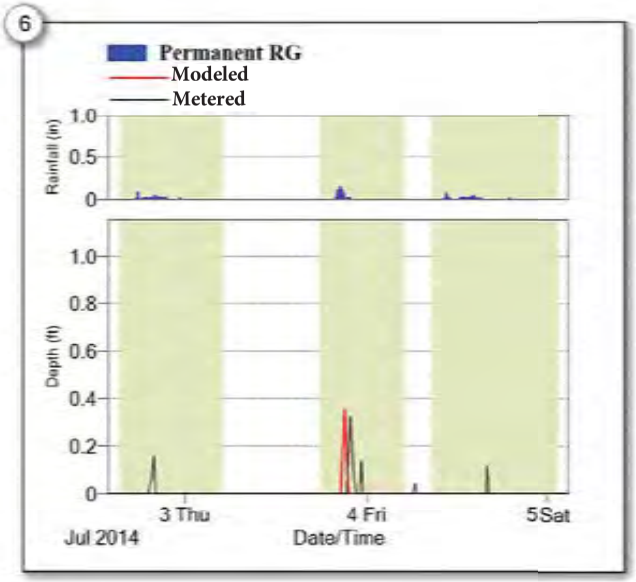












Model Calibration Results

Flow Meter: OF-003 Overflow

Event Comparison: Depth

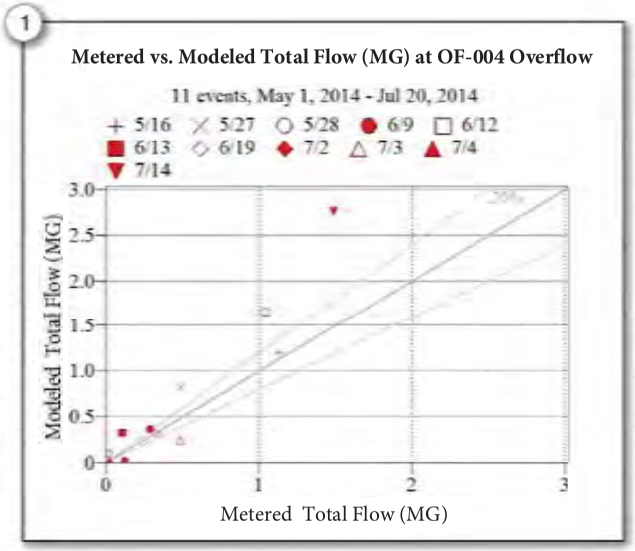
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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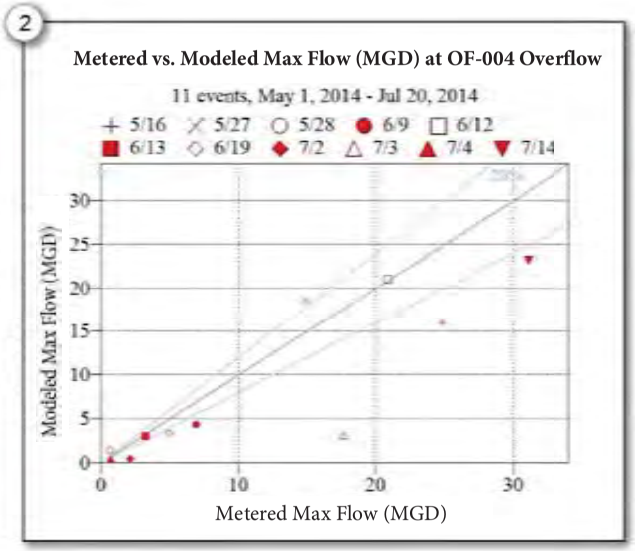

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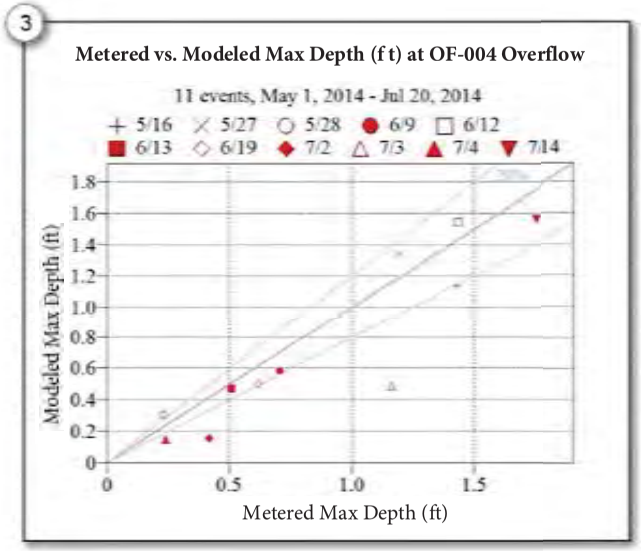

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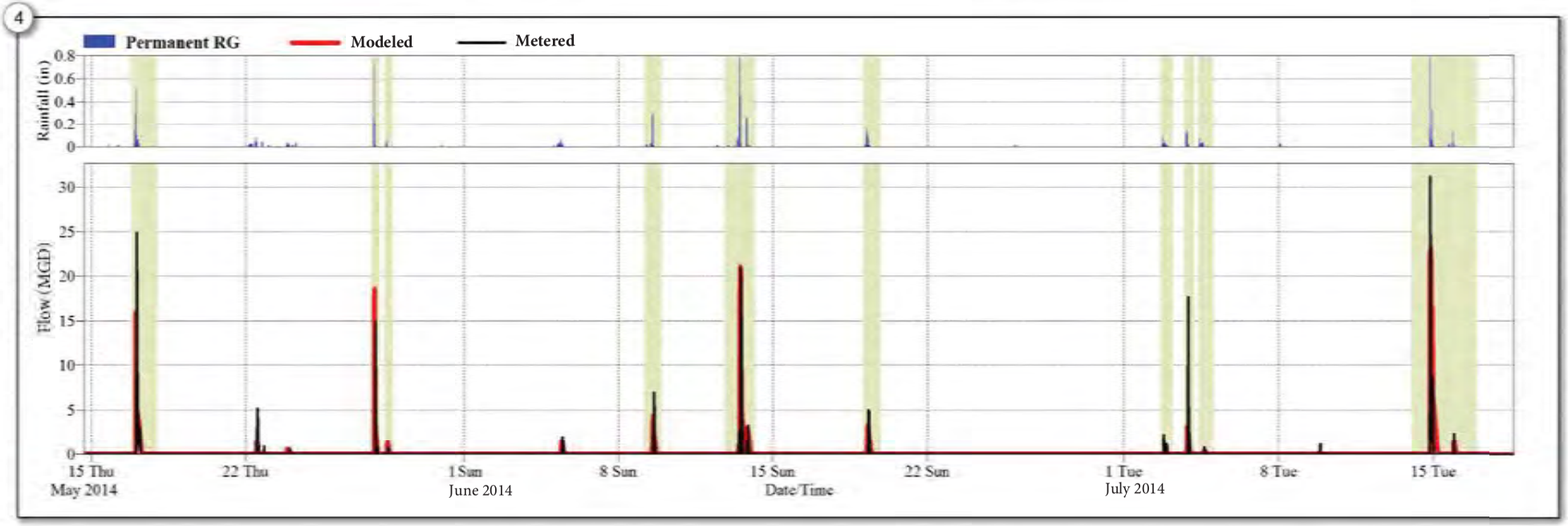


Model Calibration Results

Flow Meter: OF-004 Overflow

Meter Summary

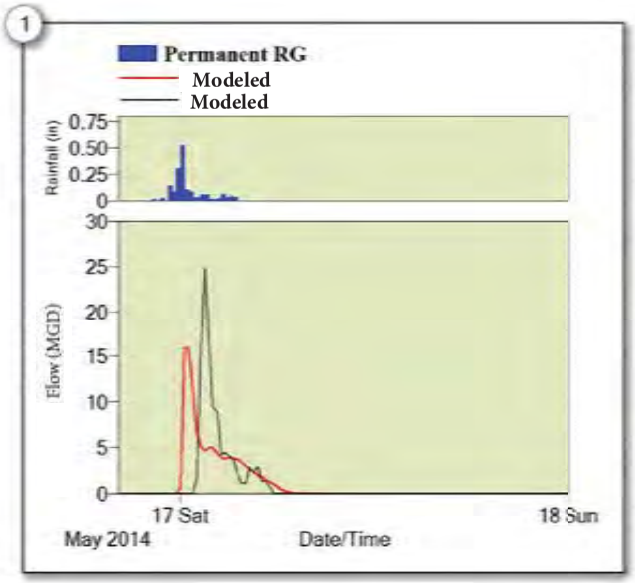
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

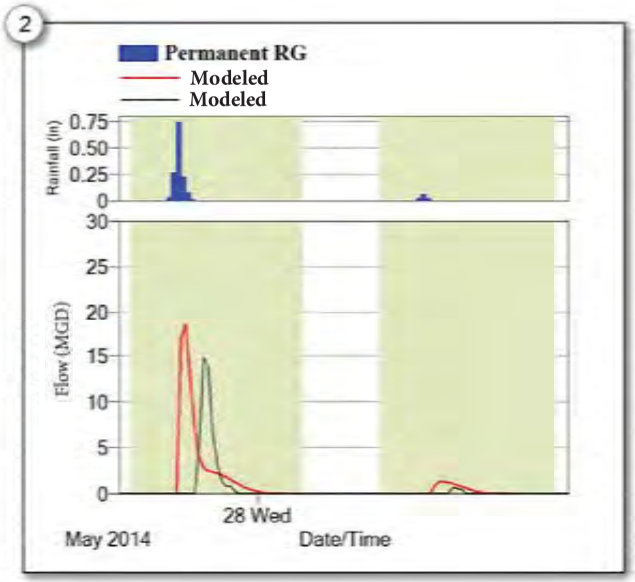
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

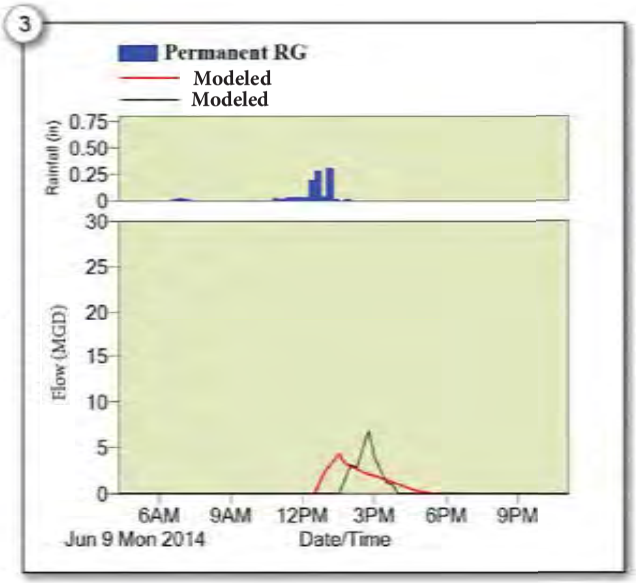
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

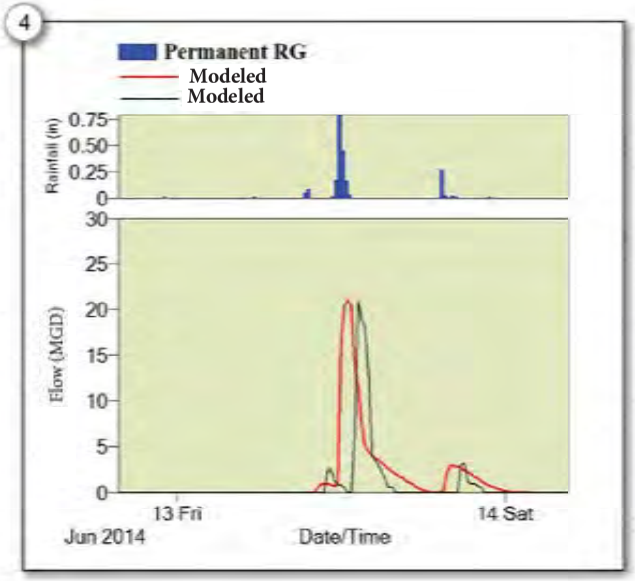
Prepared by:

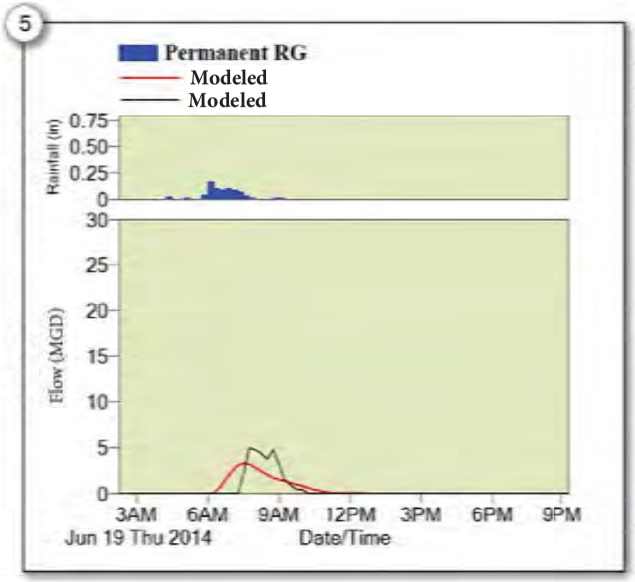
CH2MHILL

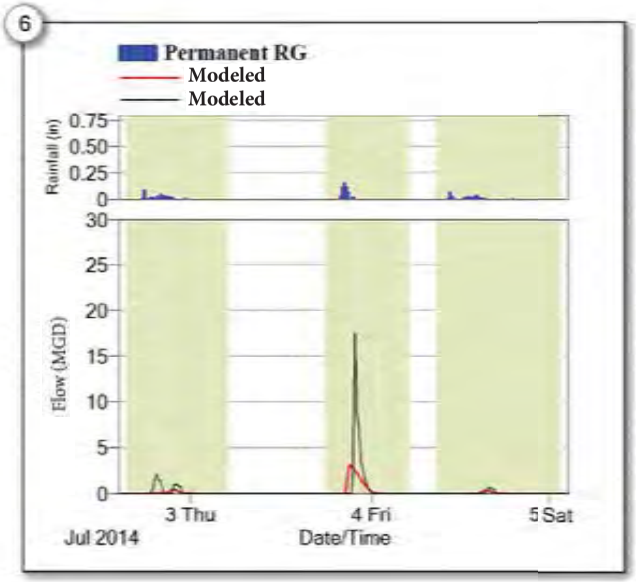












Model Calibration Results

Flow Meter: OF-004 Overflow

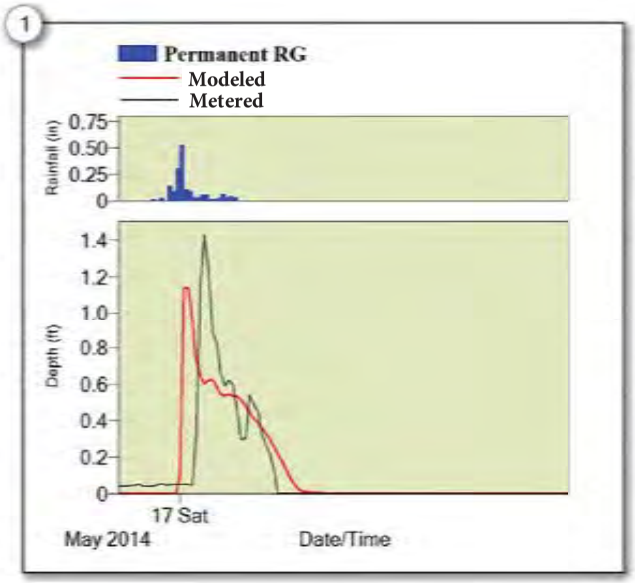
Event Comparison: Flow

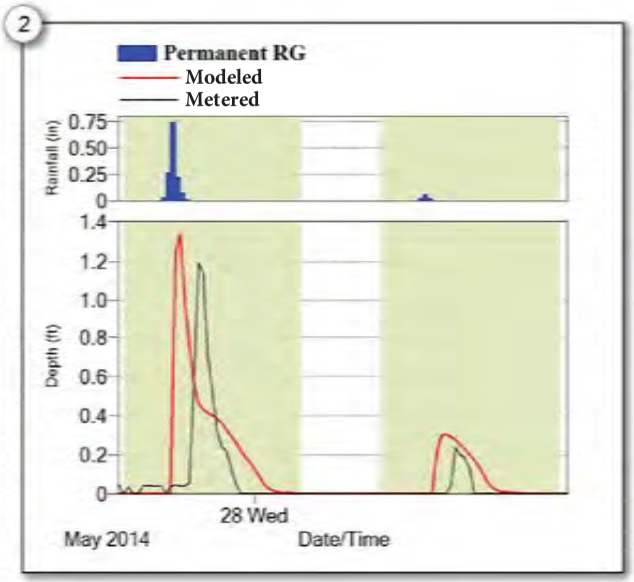
Permanent Rain Gauge Events:

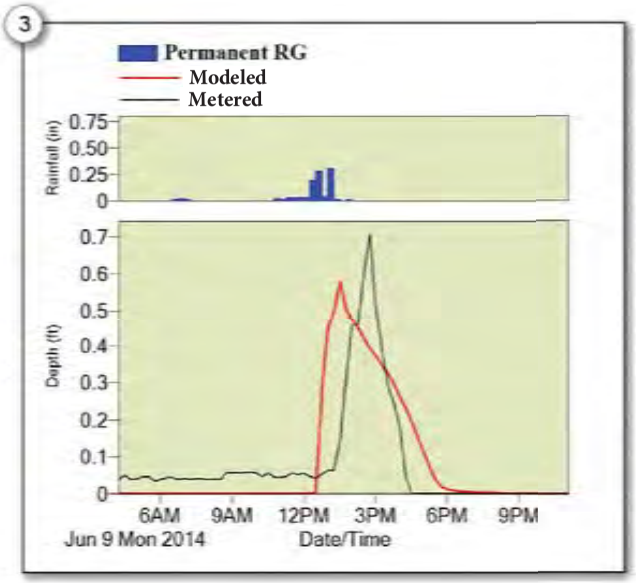
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

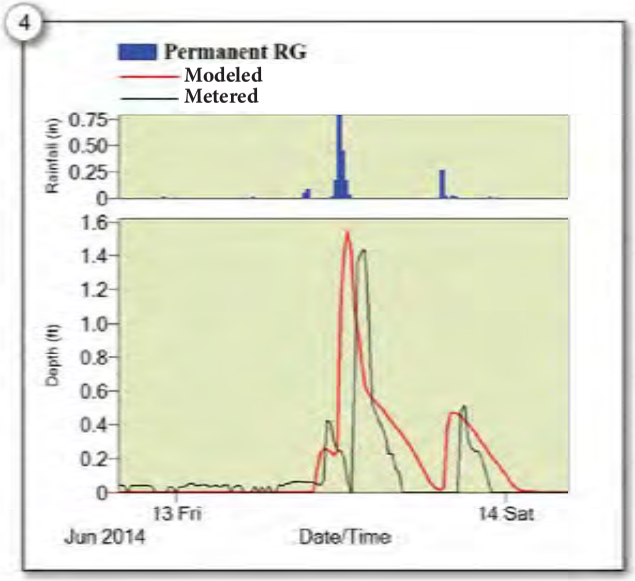
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

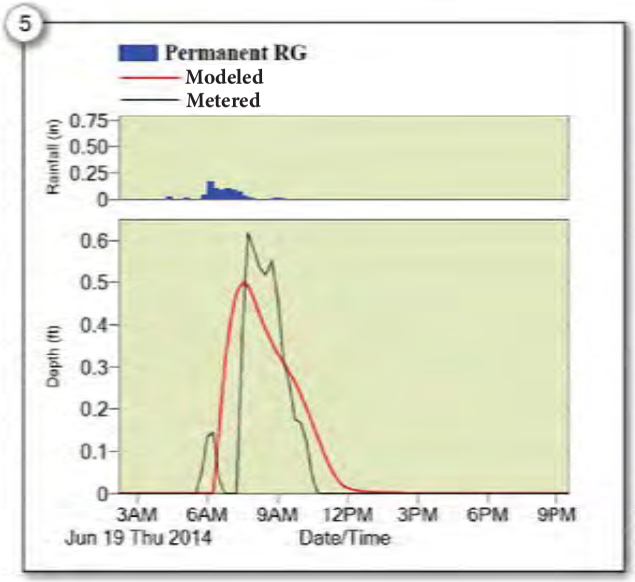
Prepared by:
CH2MHILL

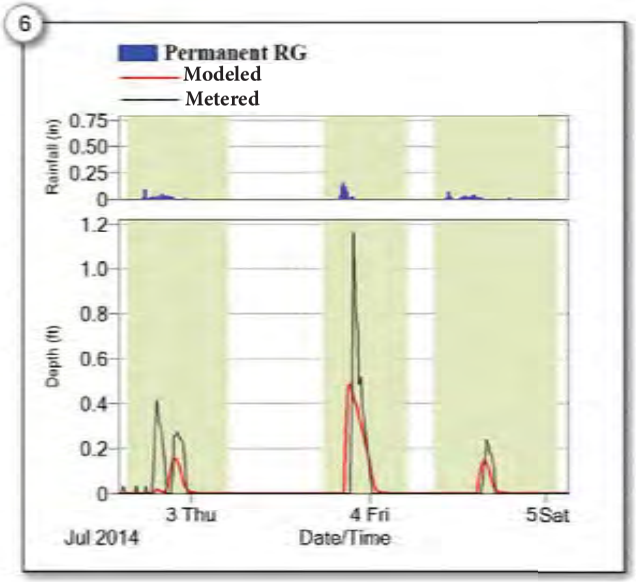












Model Calibration Results

Flow Meter: OF-004 Overflow

Event Comparison: Depth

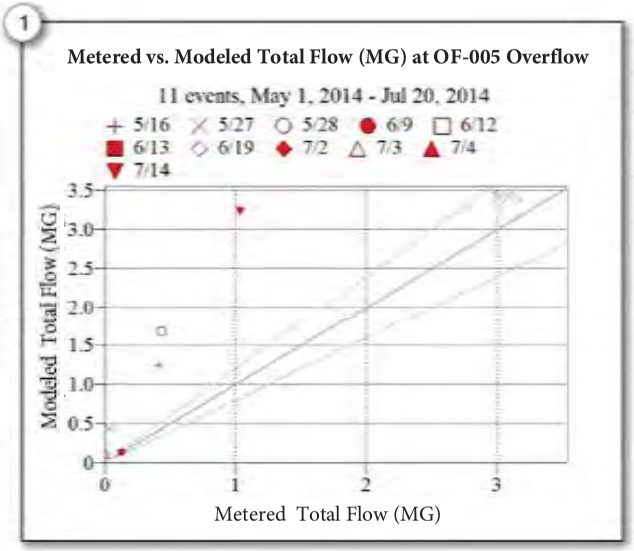
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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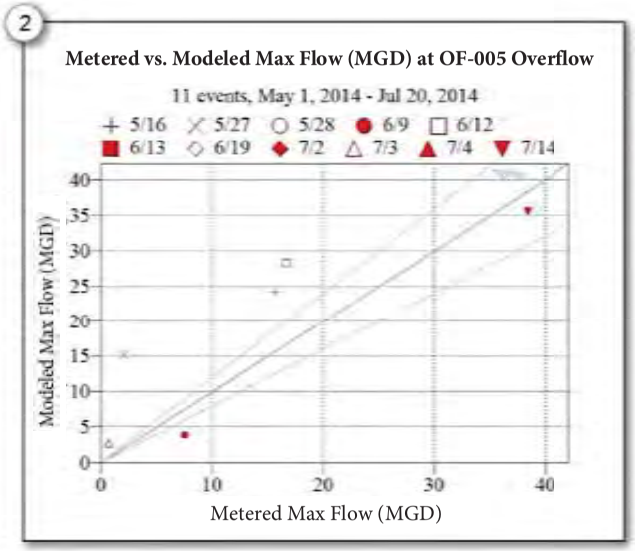

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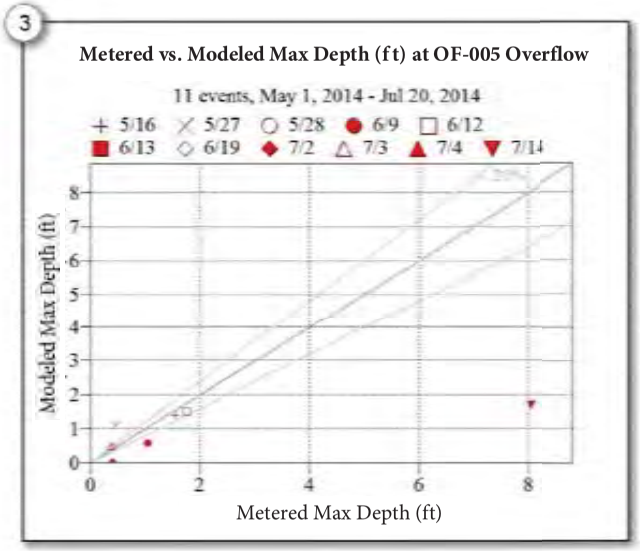

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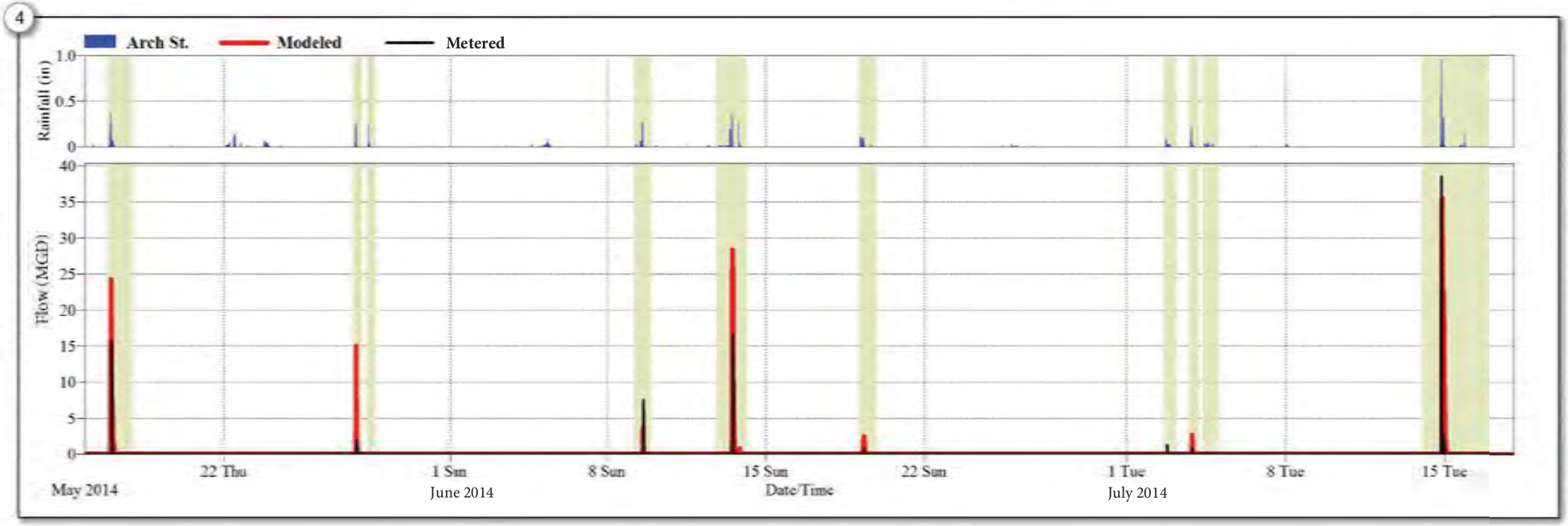


Model Calibration Results

Flow Meter: OF-005 Overflow

Meter Summary

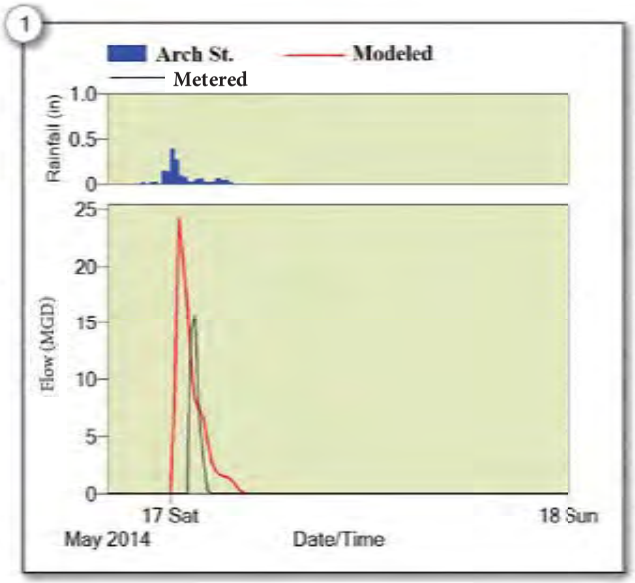
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

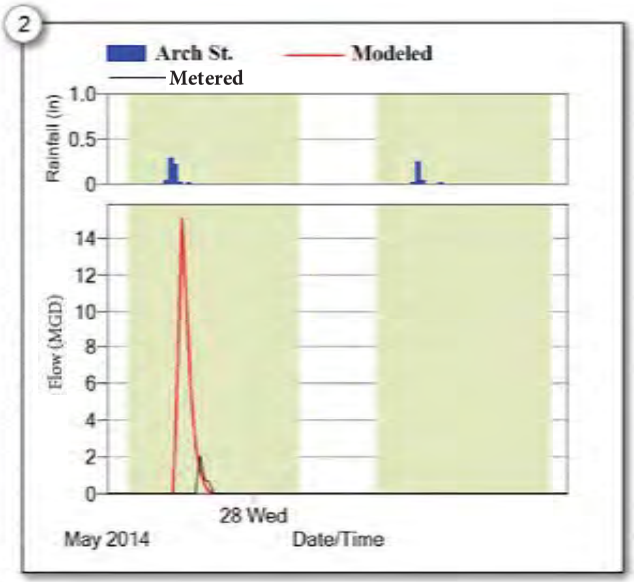
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

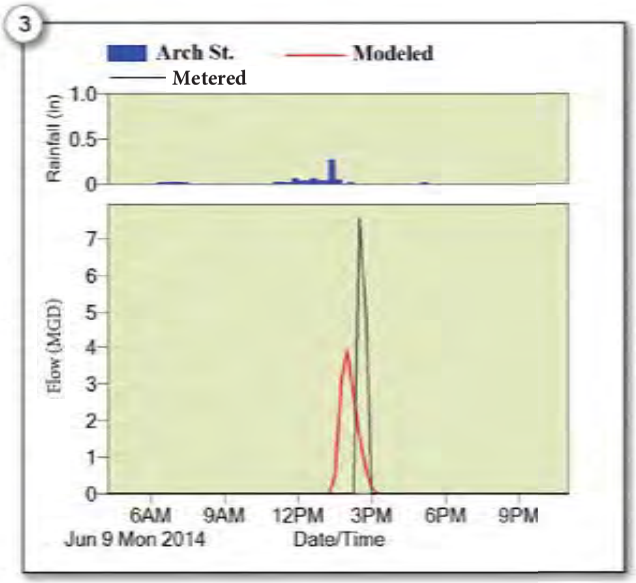
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

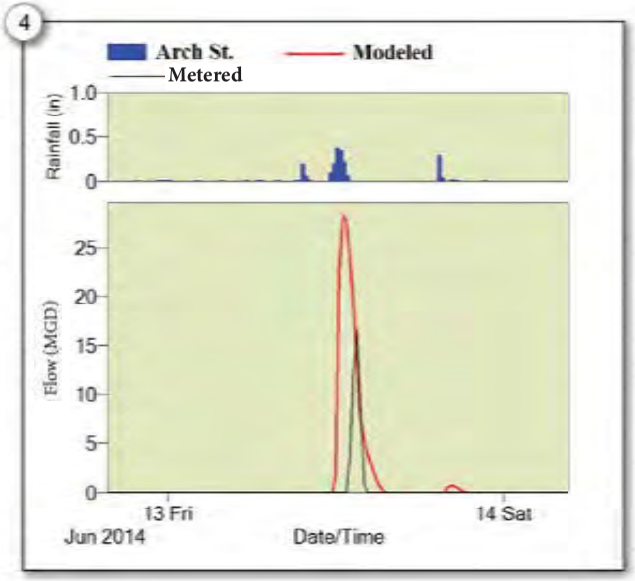
Prepared by:

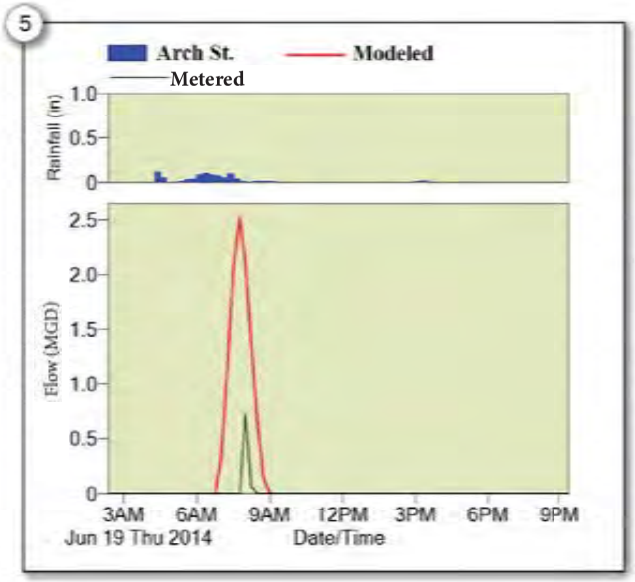
CH2MHILL

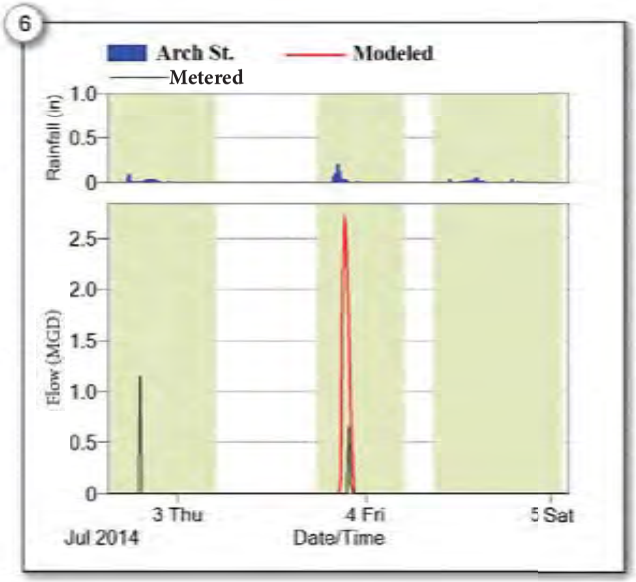












Model Calibration Results

Flow Meter: OF-005 Overflow

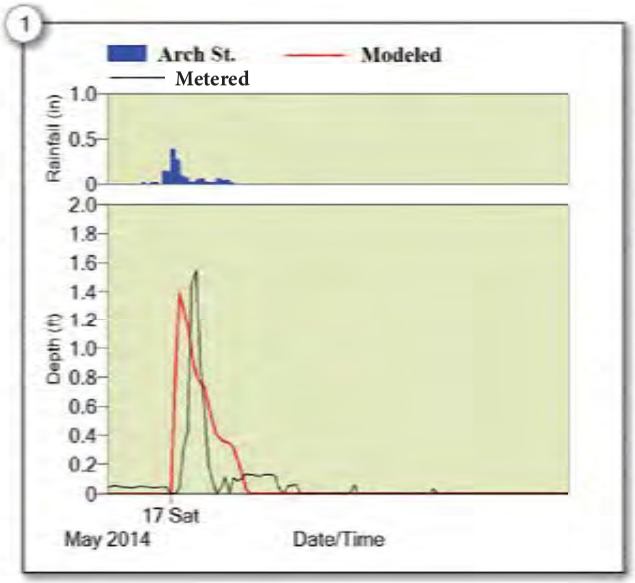
Event Comparison: Flow

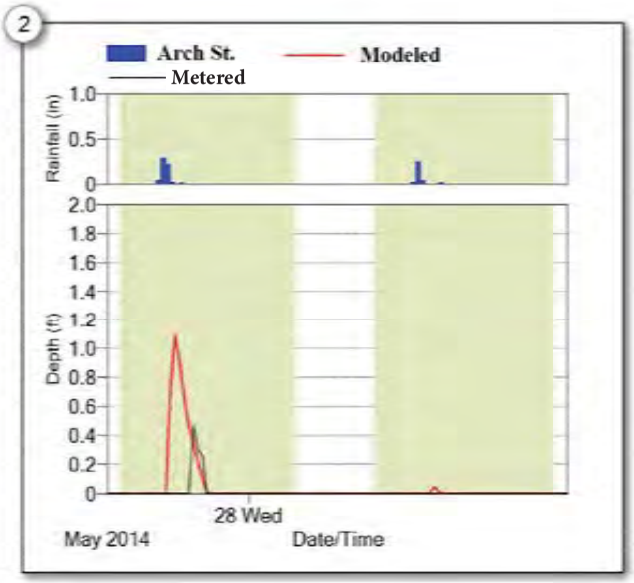
Arch St. Rain Gauge Events:

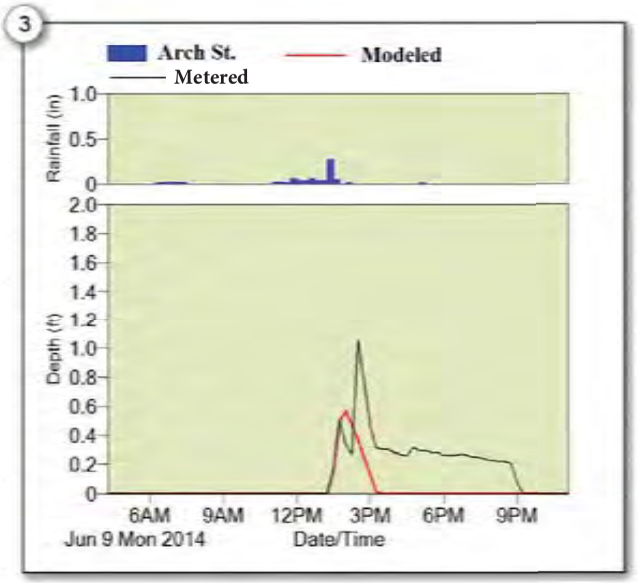
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

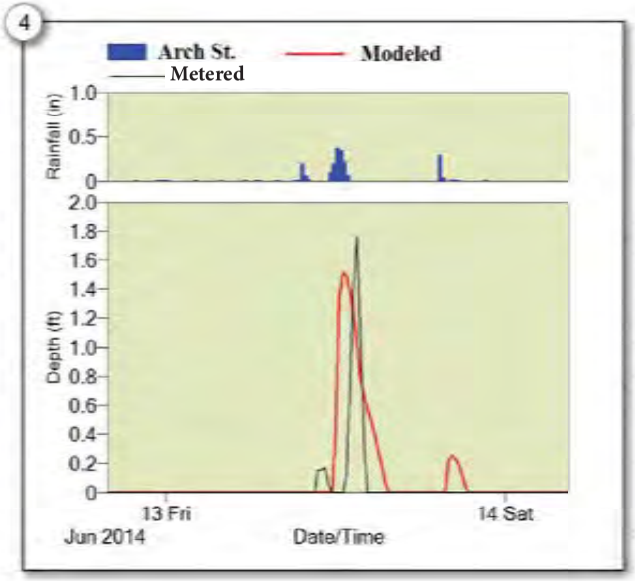
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

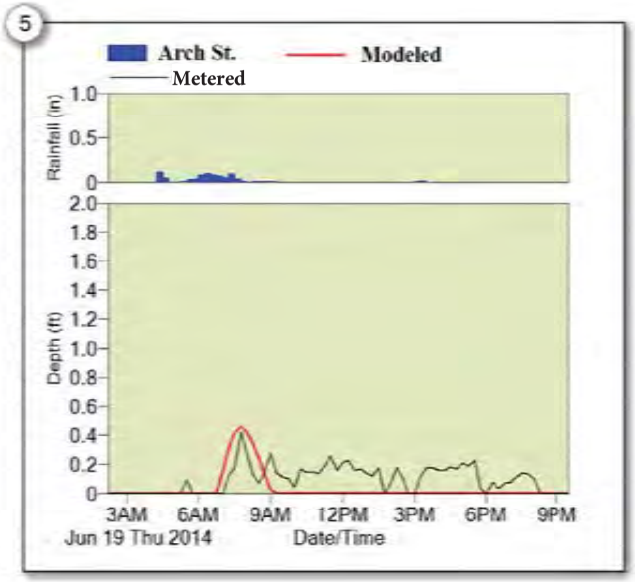
Prepared by:
CH2MHILL

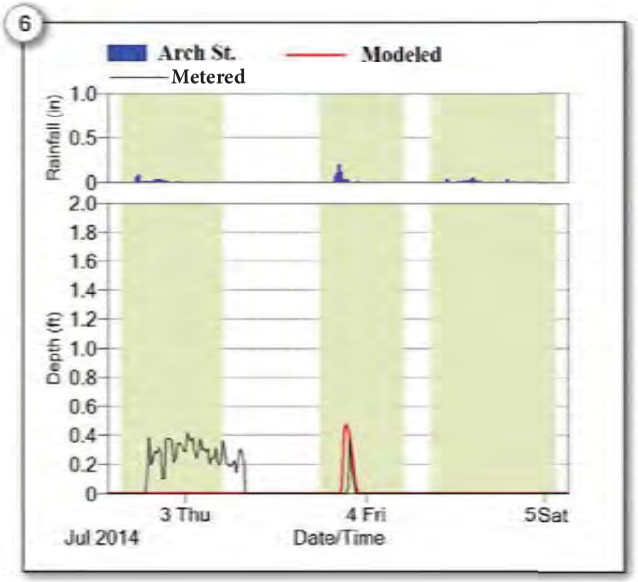












Model Calibration Results

Flow Meter: OF-005 Overflow

Event Comparison: Depth

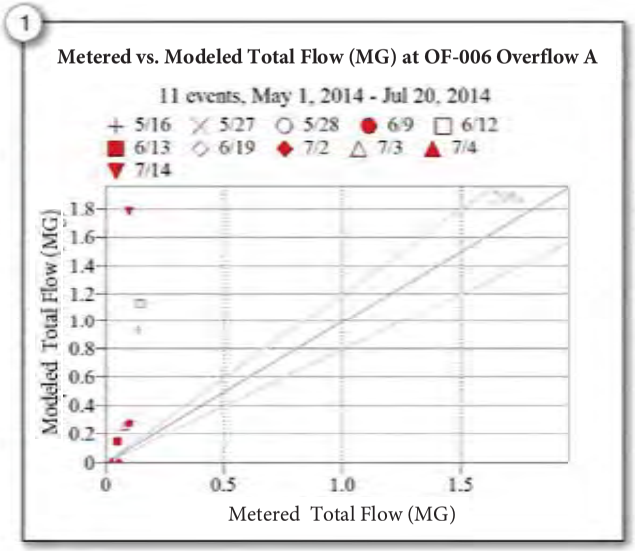
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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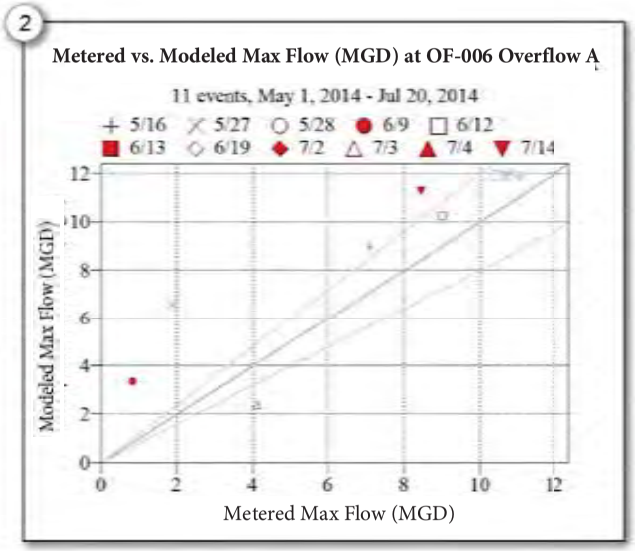

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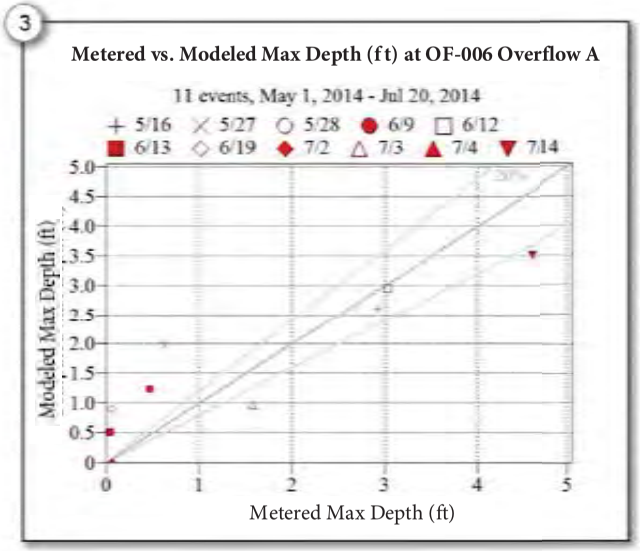

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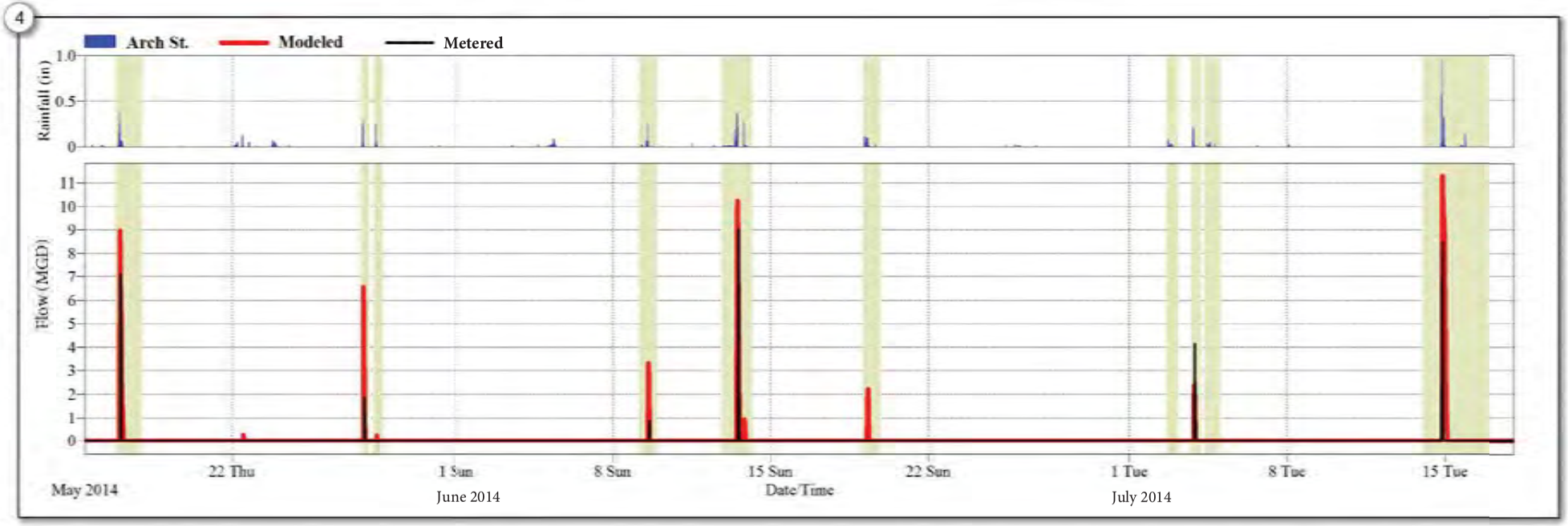


Model Calibration Results

Flow Meter: OF-006 Overflow A

Meter Summary

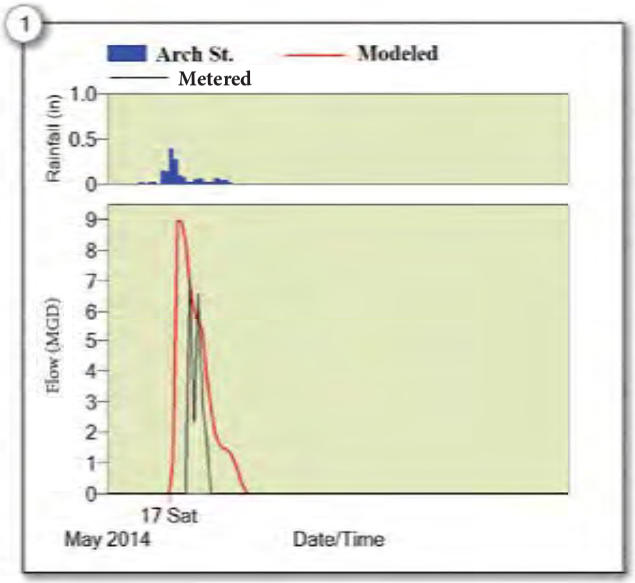
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

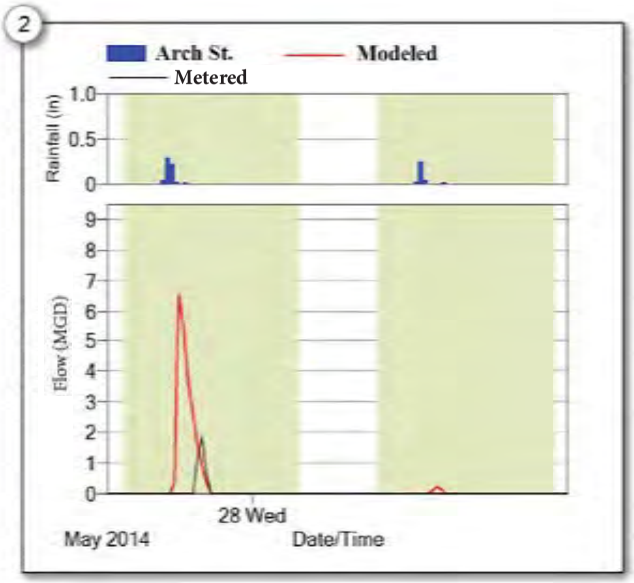
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

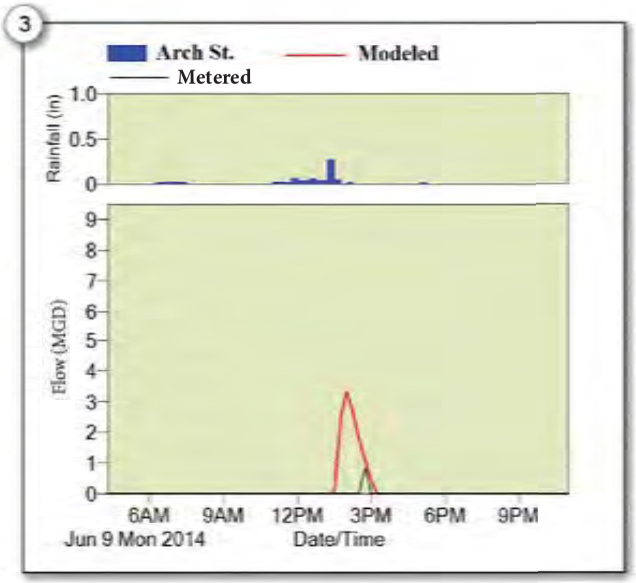
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

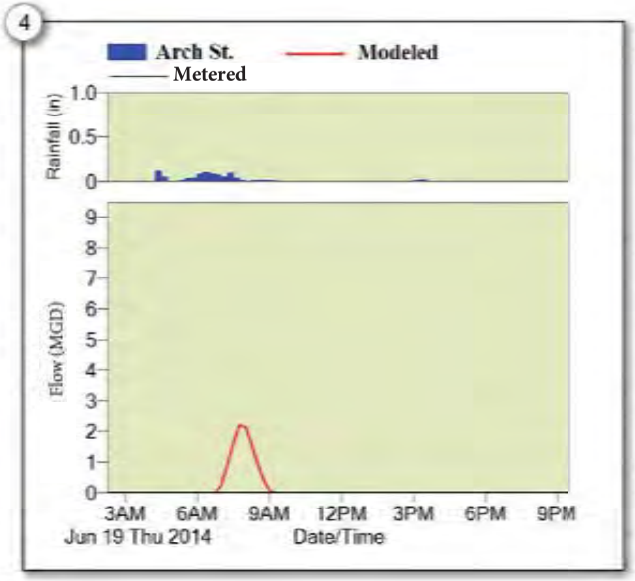
Prepared by:

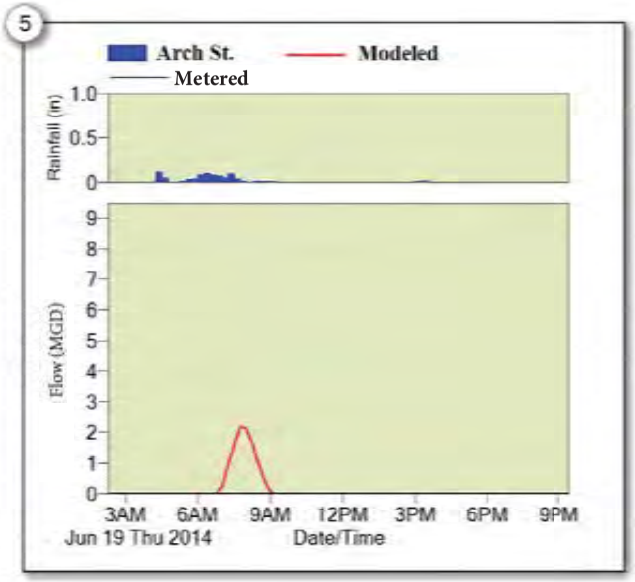
CH2MHILL

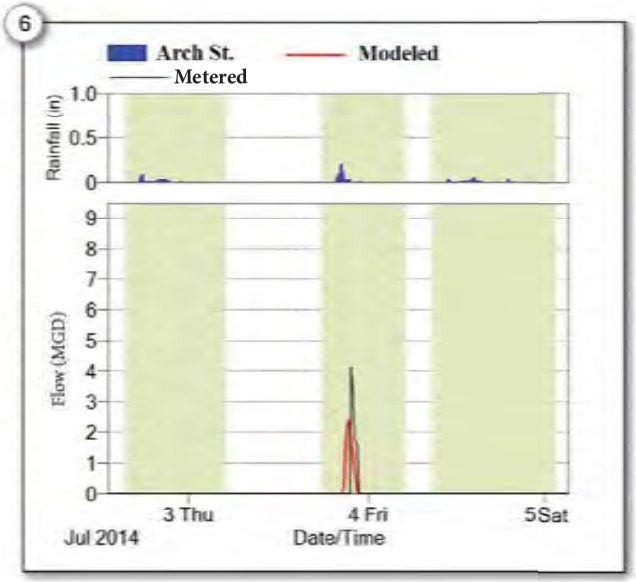












Model Calibration Results

Flow Meter: OF-006 Overflow A

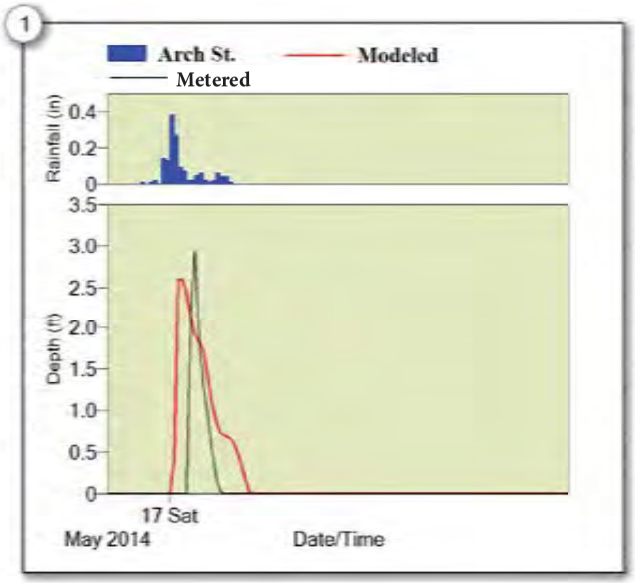
Event Comparison: Flow

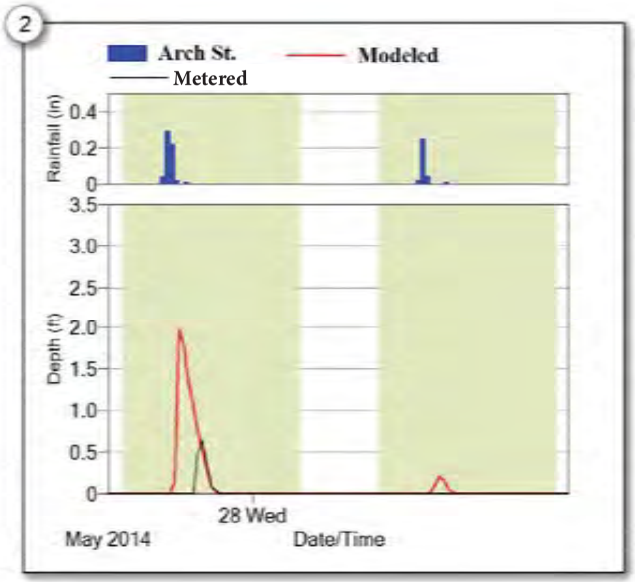
Arch St. Rain Gauge Events:

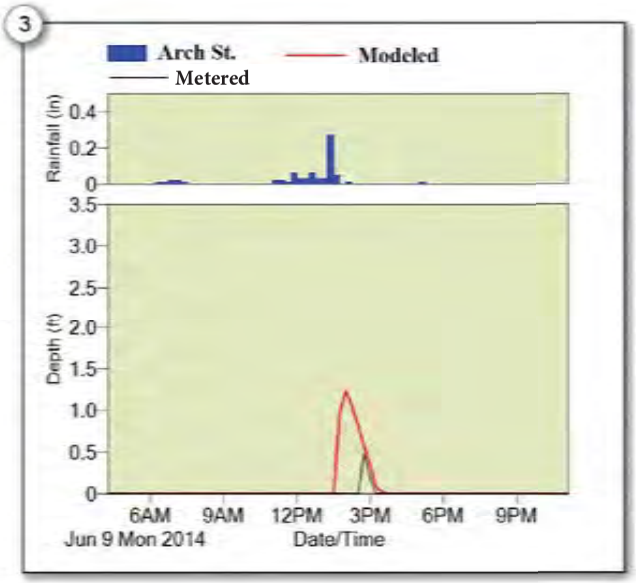
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

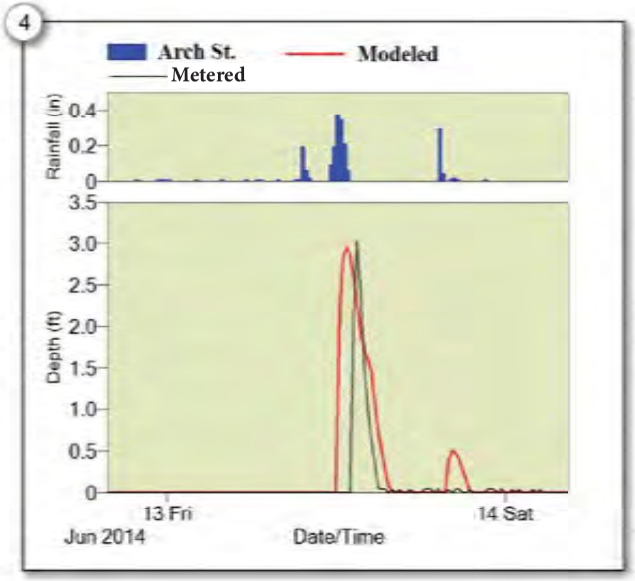
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

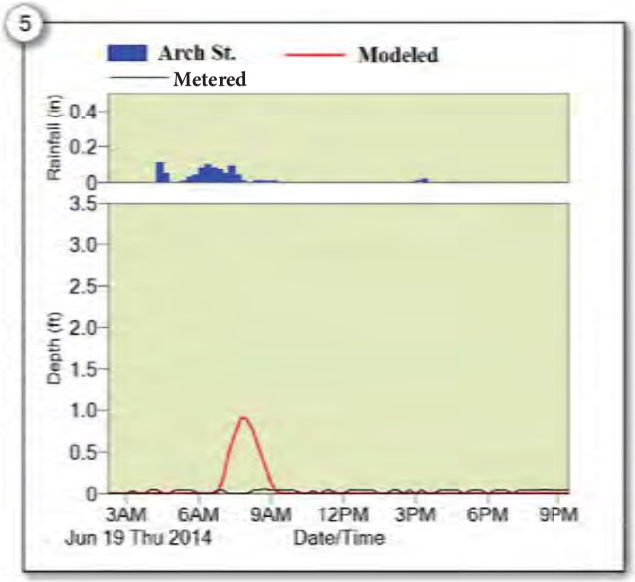
Prepared by:
CH2MHILL

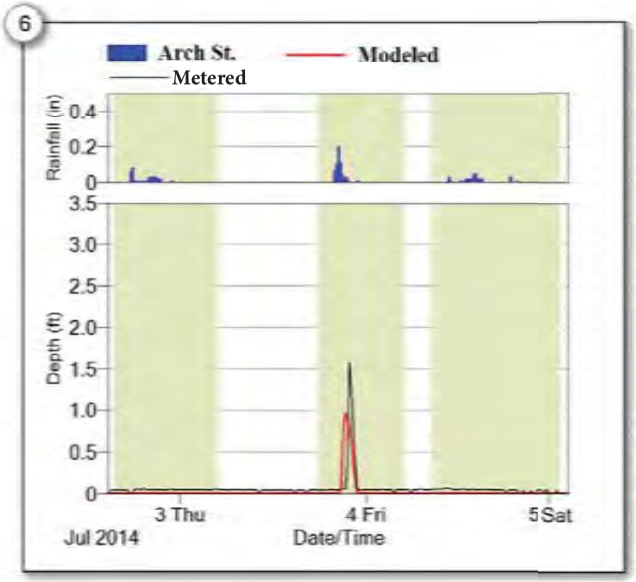












Model Calibration Results

Flow Meter: OF-006 Overflow A

Event Comparison: Depth

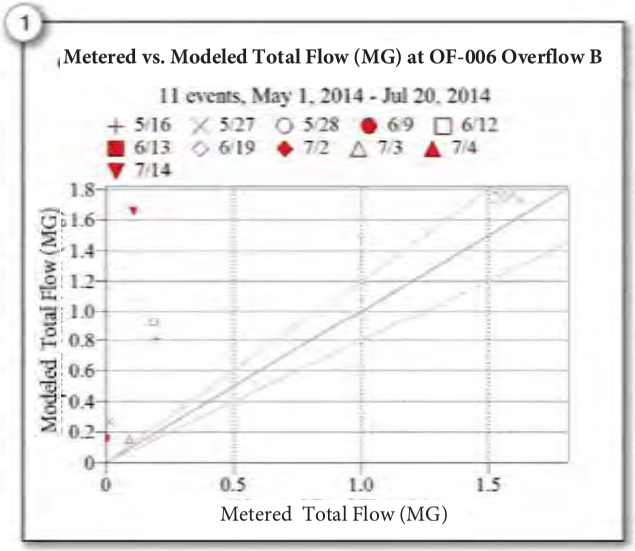
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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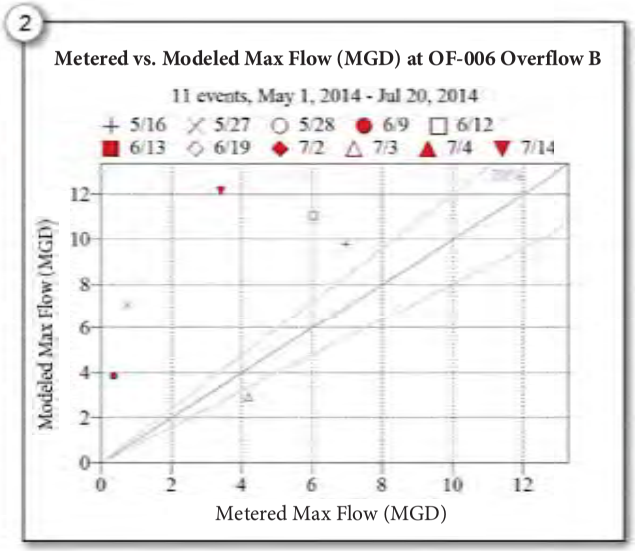

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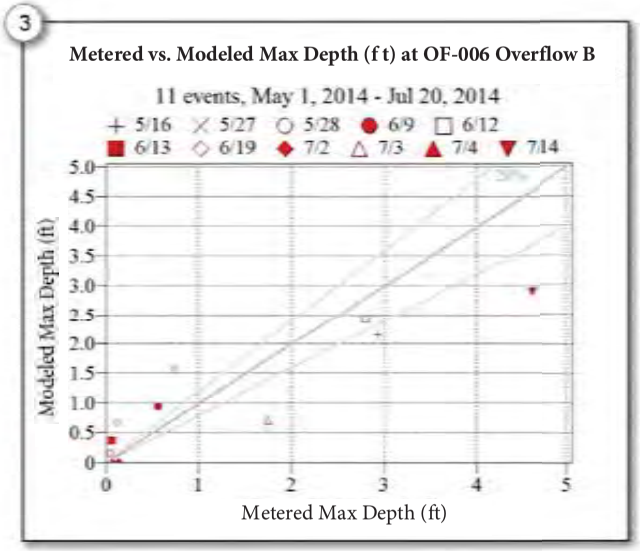

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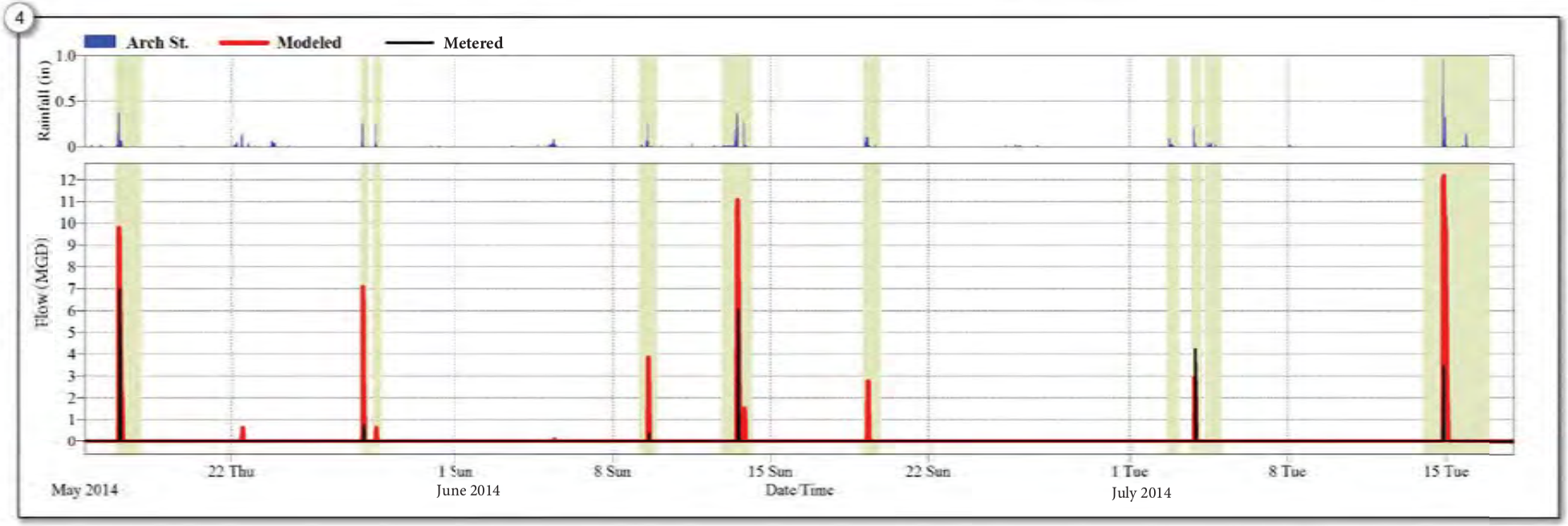


Model Calibration Results

Flow Meter: OF-006 Overflow B

Meter Summary

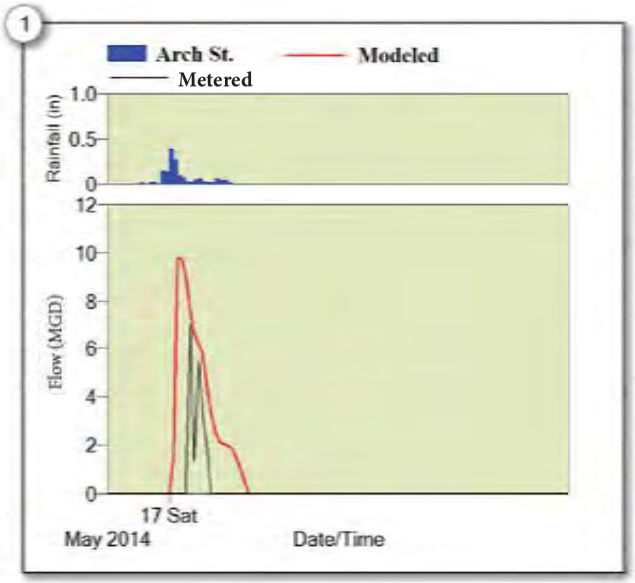
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

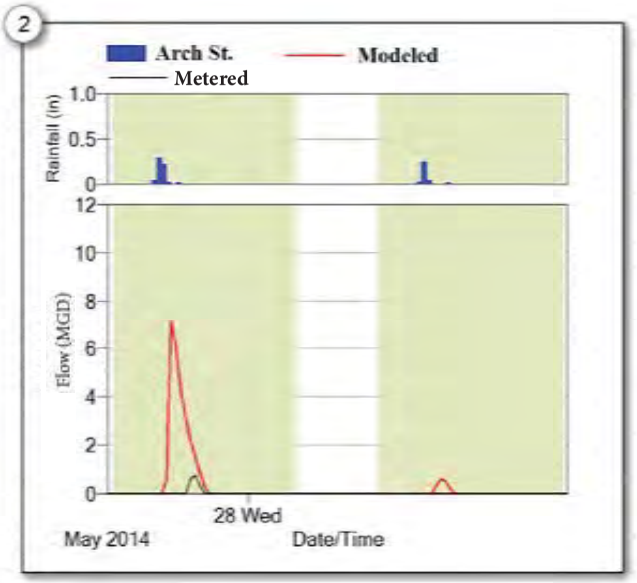
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

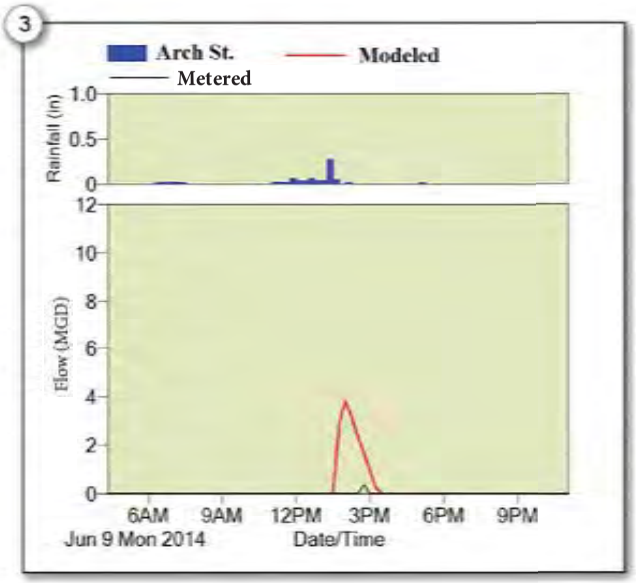
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

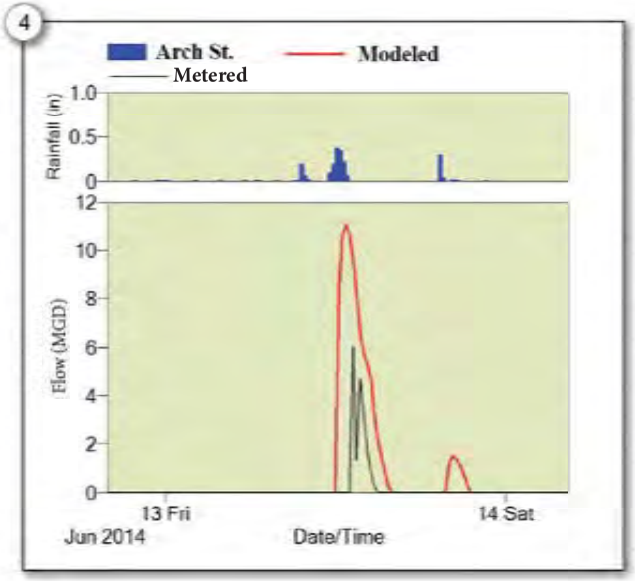
Prepared by:

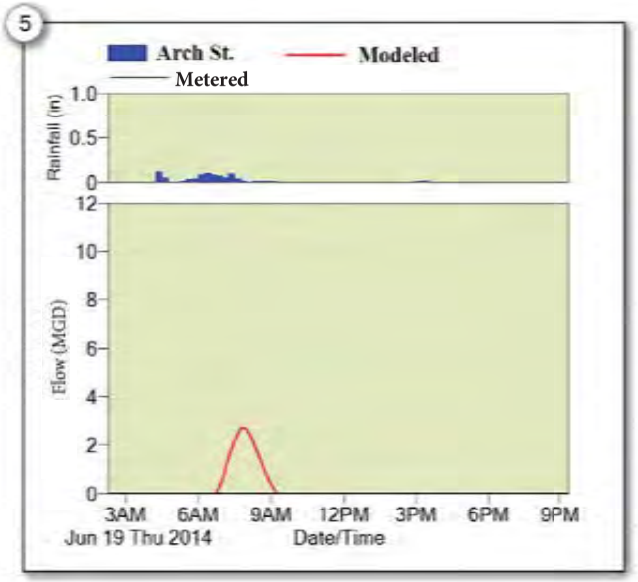
CH2MHILL

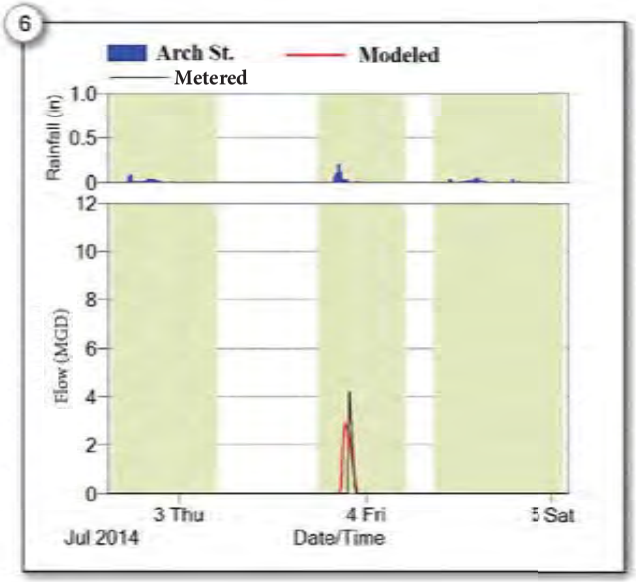












Model Calibration Results

Flow Meter: OF-006 Overflow B

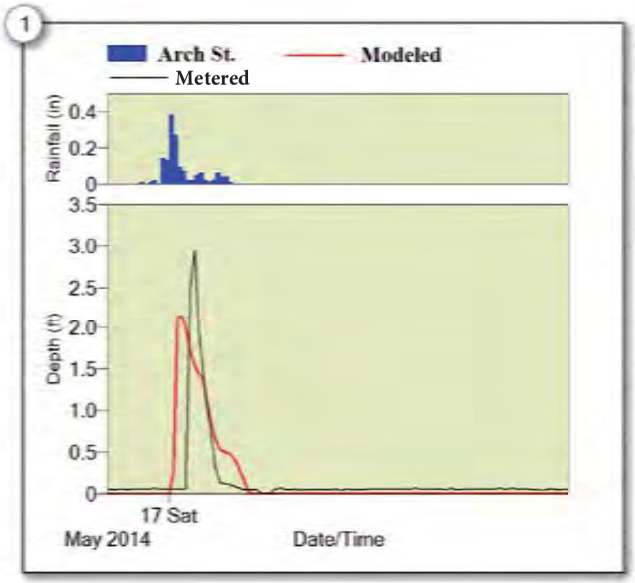
Event Comparison: Flow

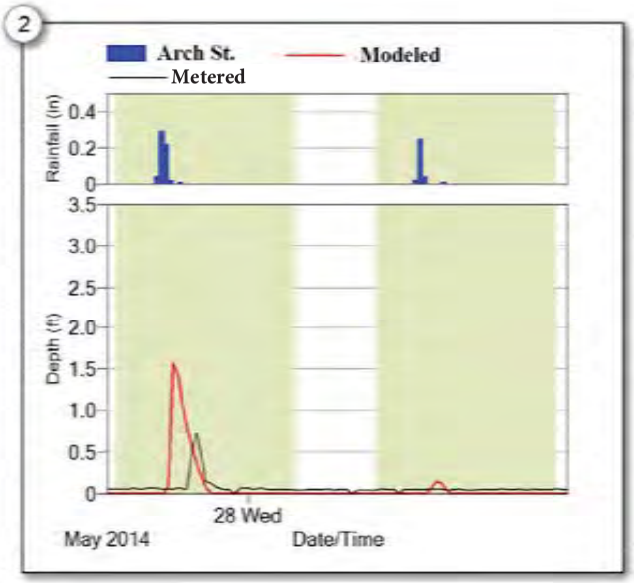
Arch St. Rain Gauge Events:

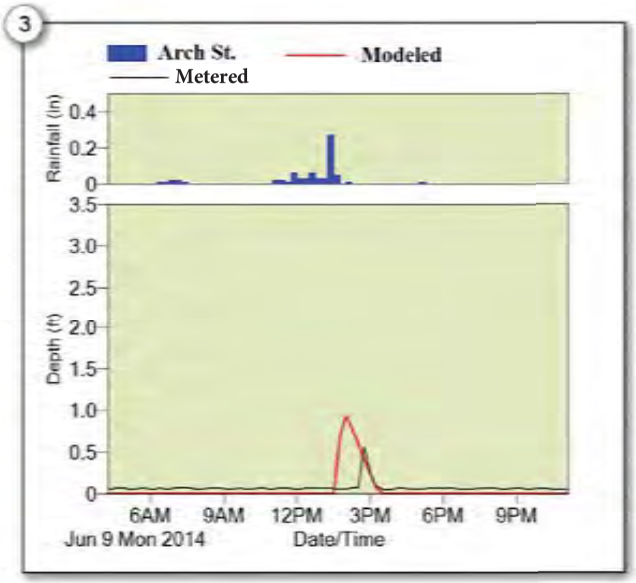
1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

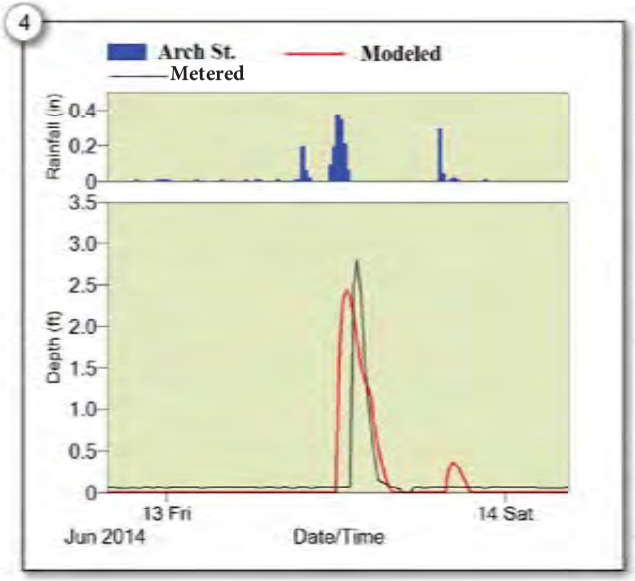
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

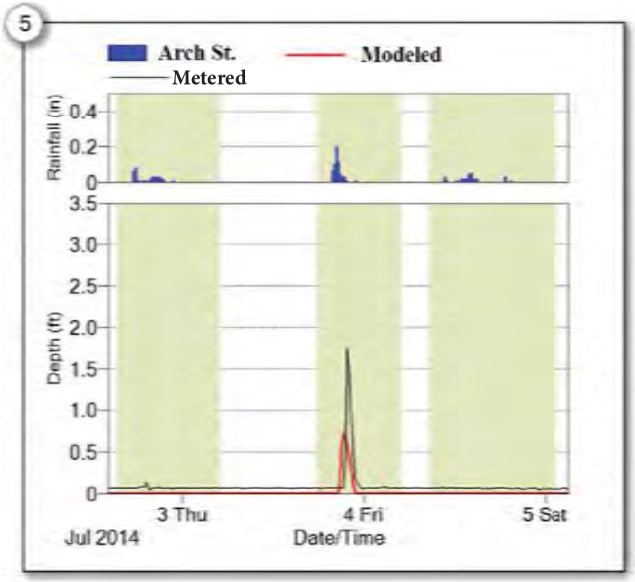
Prepared by:
CH2MHILL

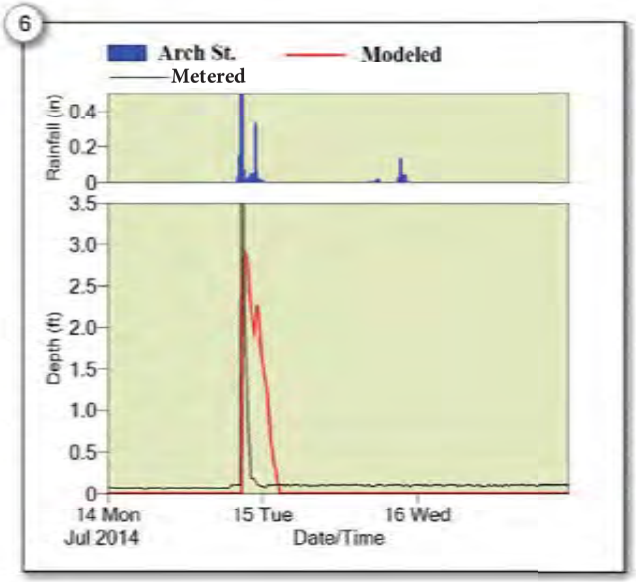












Model Calibration Results

Flow Meter: OF-006 Overflow B

Event Comparison: Depth

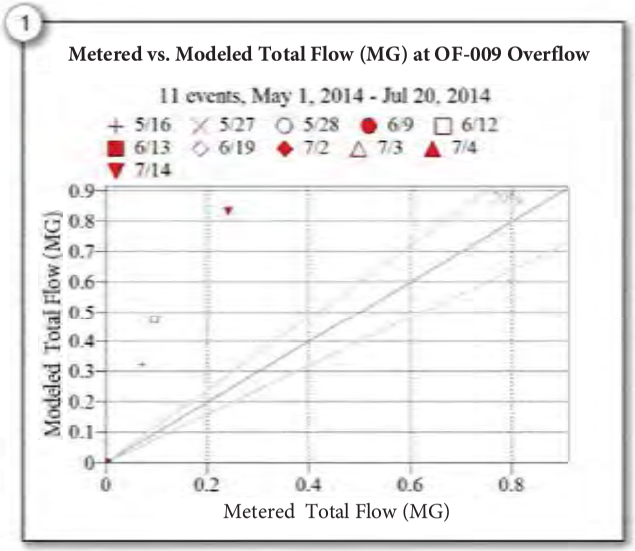
Arch St. Rain Gauge Events:

1. May 16, 2014 (1.47 in.)
2. May 27, 2014 (0.58 in.) and May 28, 2014 (0.32 in.)
3. June 9, 2014 (0.70 in.)
4. June 12, 2014 (1.66 in.) and June 13, 2014 (0.38 in.)
5. June 19, 2014 (0.83 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.58 in.) and July 4, 2014 (0.32 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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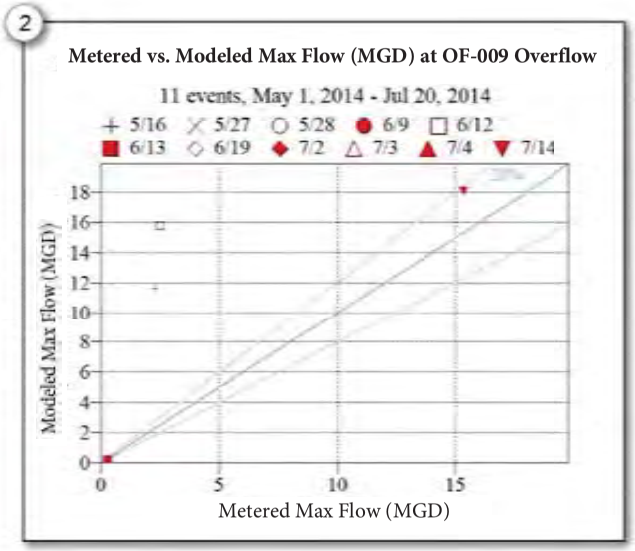

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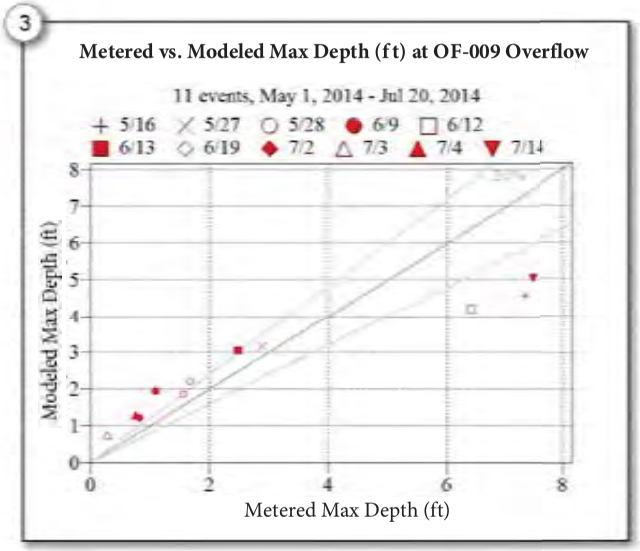

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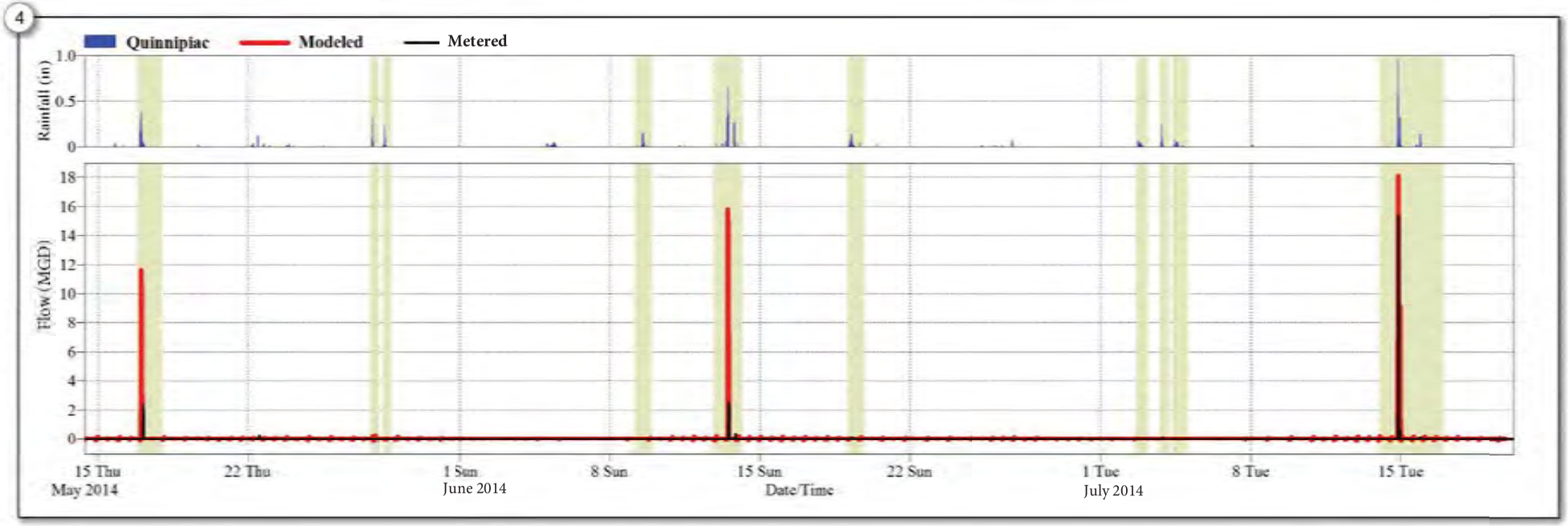


Model Calibration Results

Flow Meter: OF-009 Overflow

Meter Summary

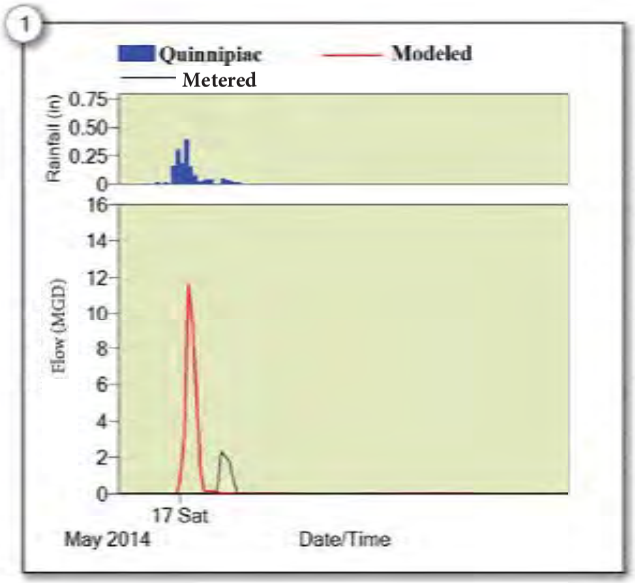
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

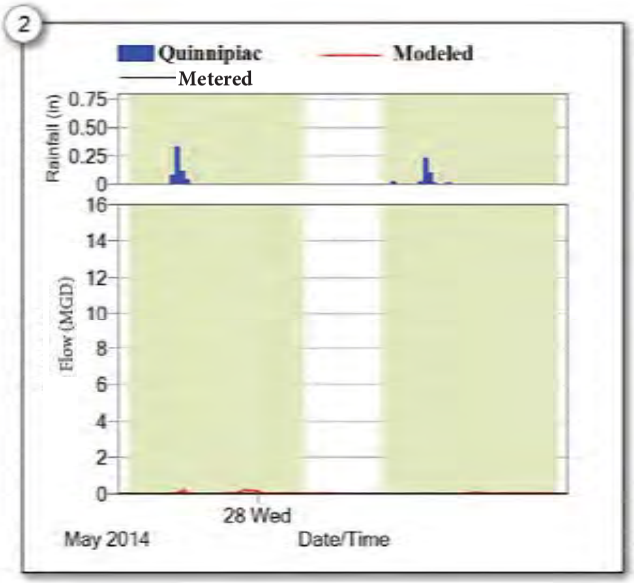
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

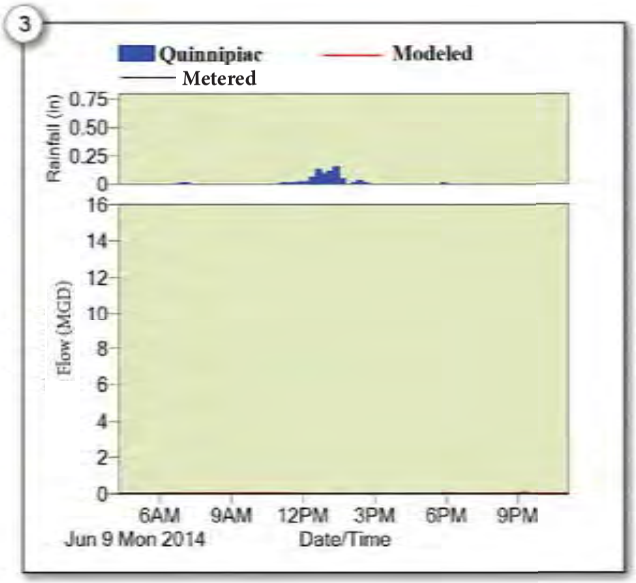
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

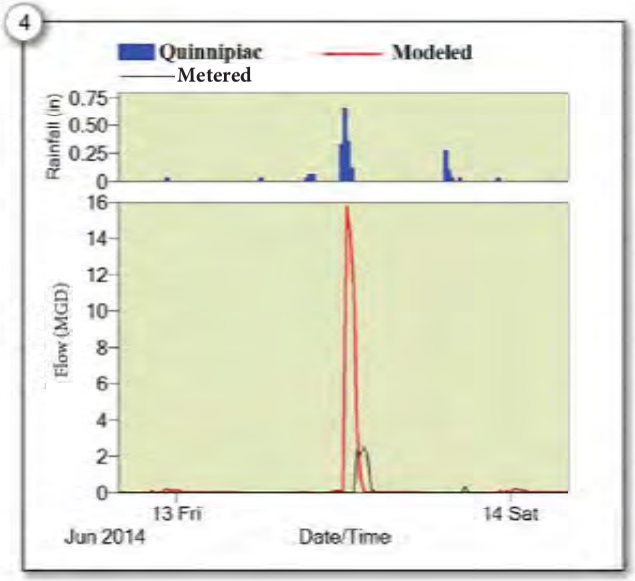
Prepared by:

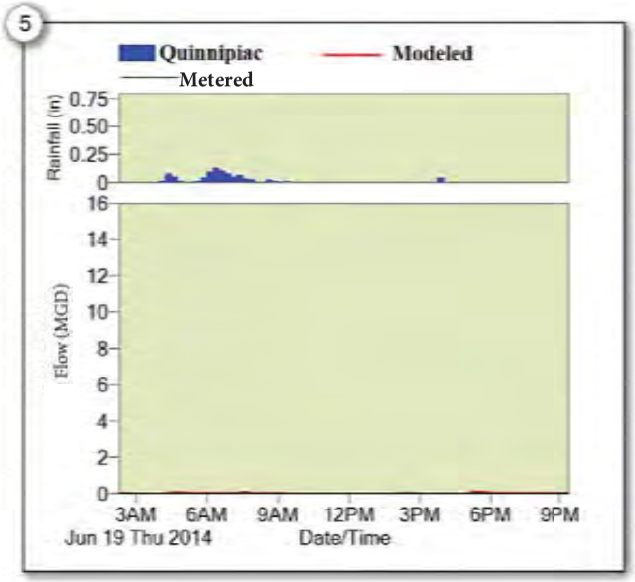
CH2MHILL

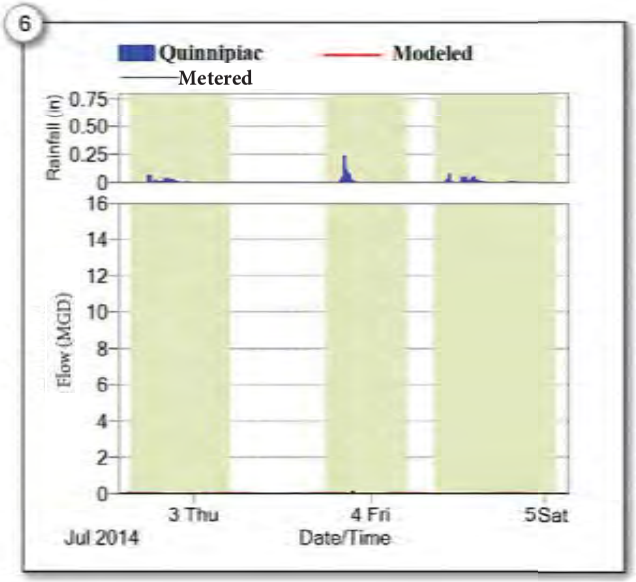












Model Calibration Results

Flow Meter: OF-009 Overflow

Event Comparison: Flow

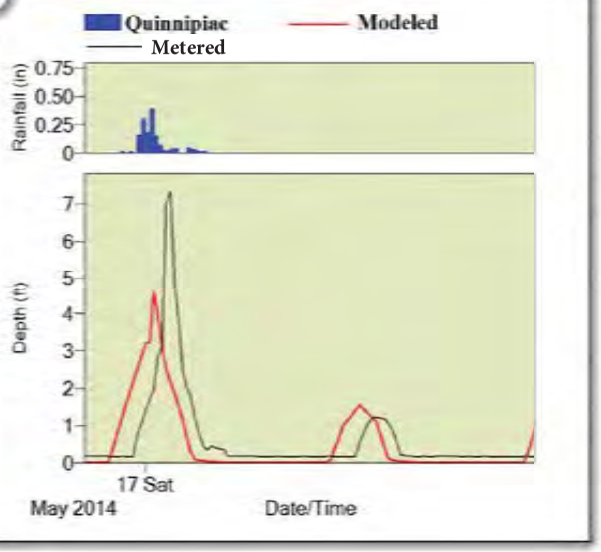
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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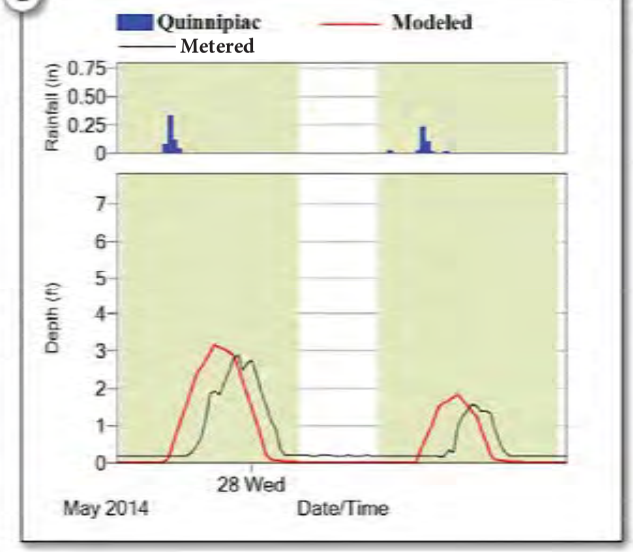

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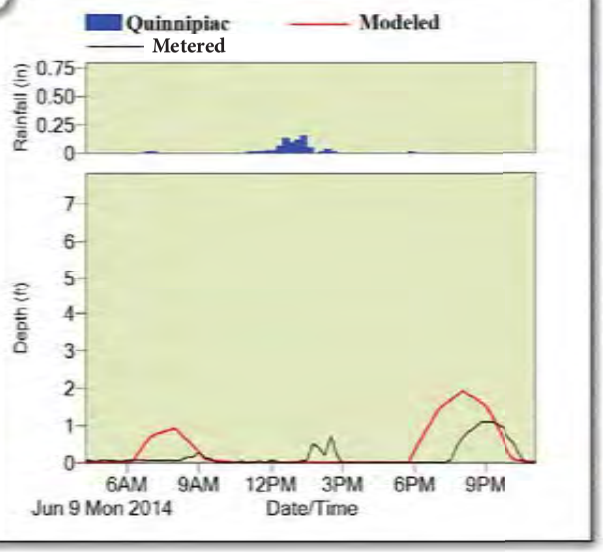

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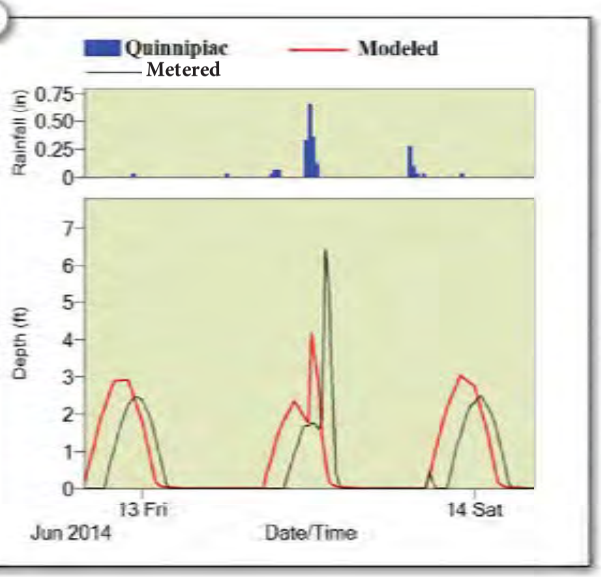

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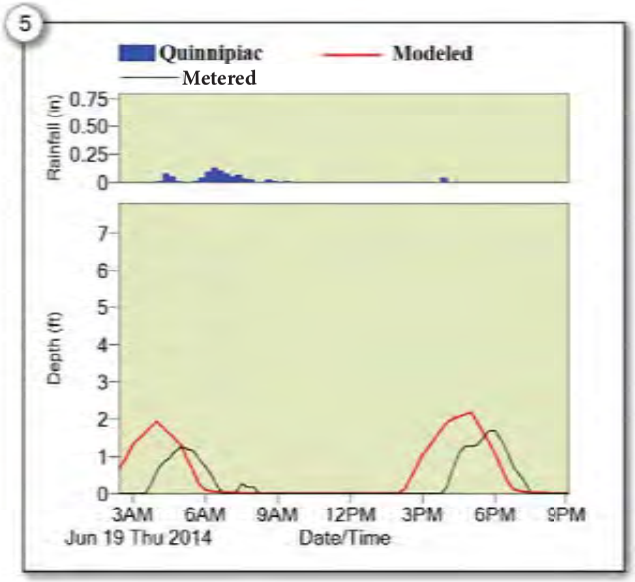

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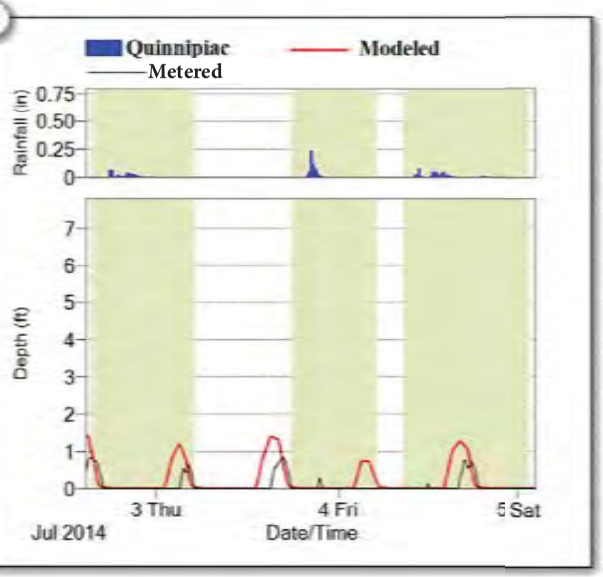


Model Calibration Results

Flow Meter: OF-009 Overflow

Event Comparison: Depth

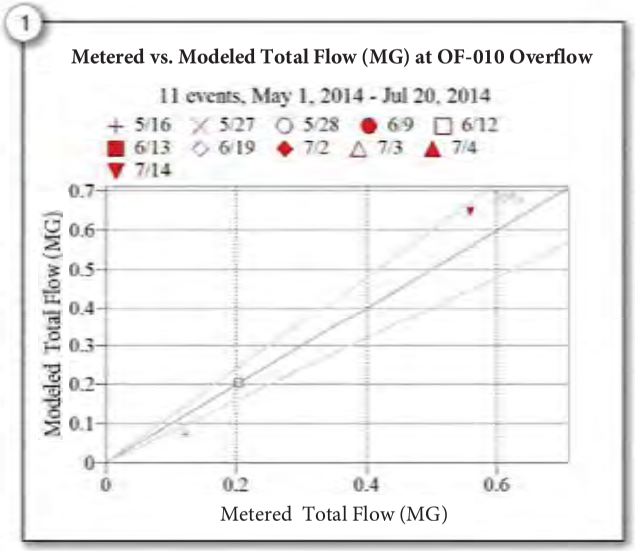
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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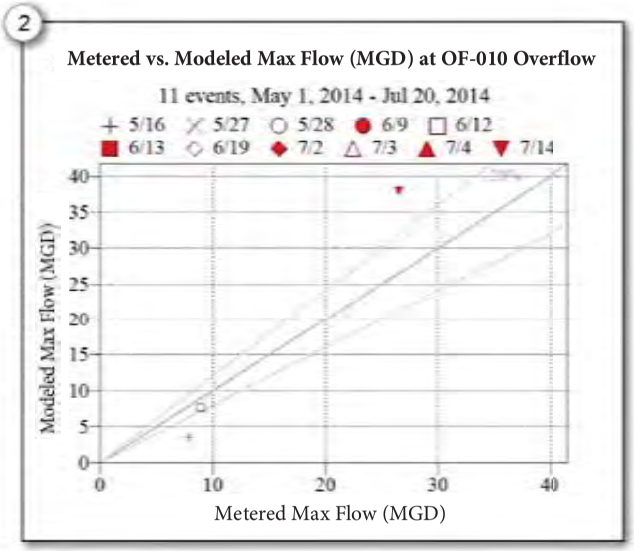

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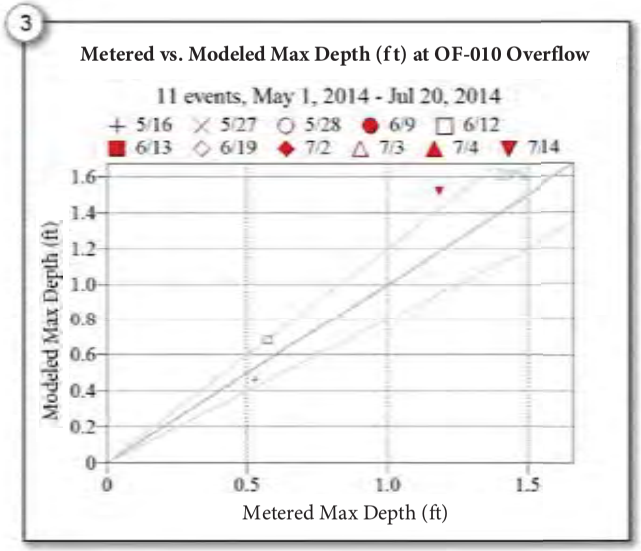

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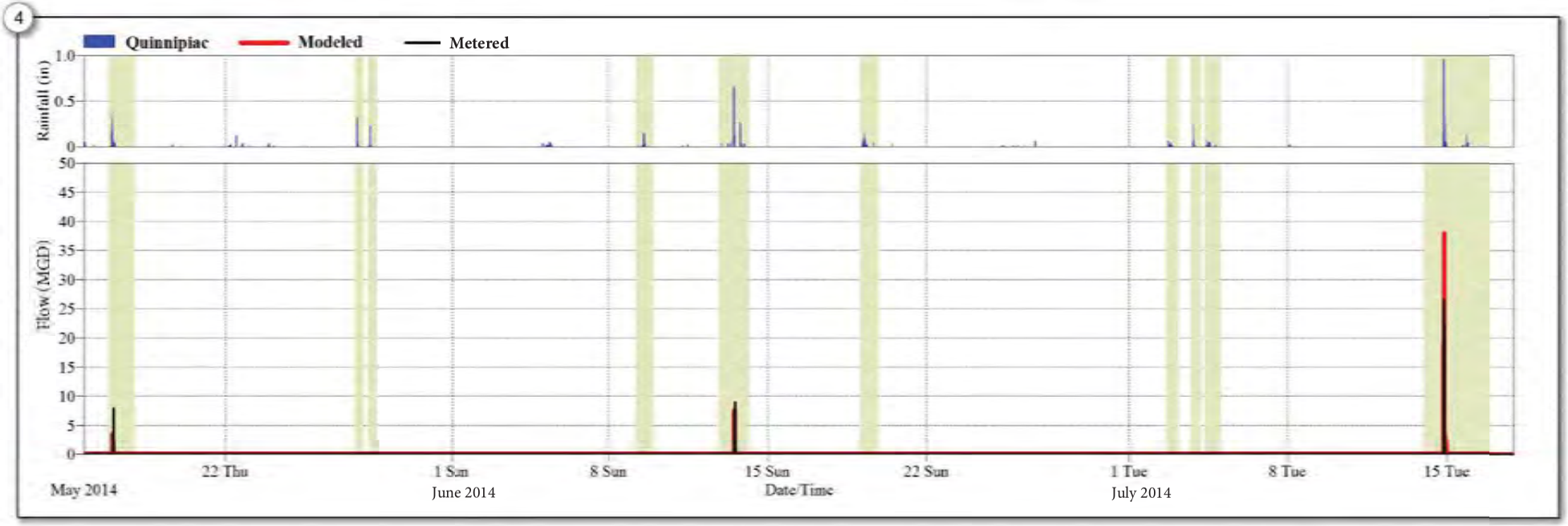


Model Calibration Results

Flow Meter: OF-010 Overflow

Meter Summary

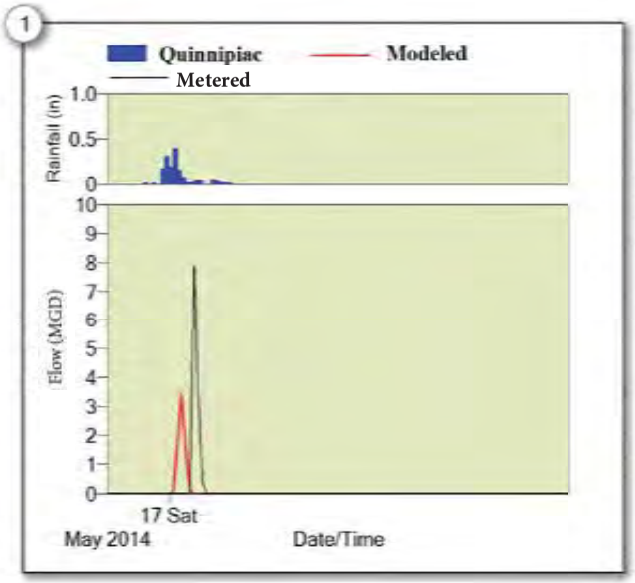
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

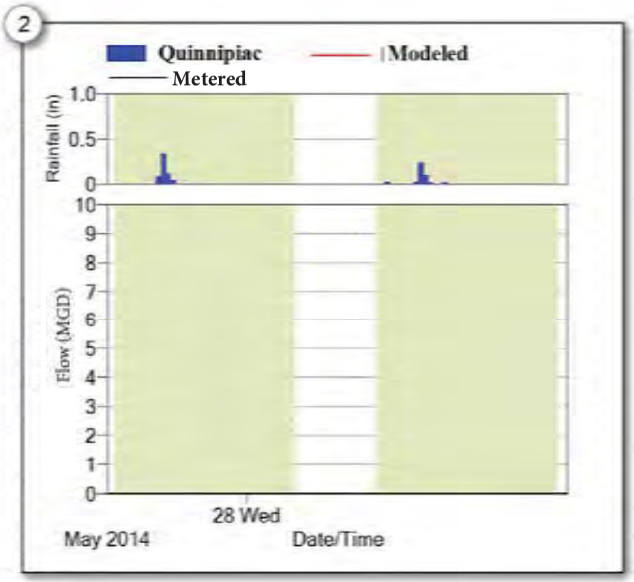
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

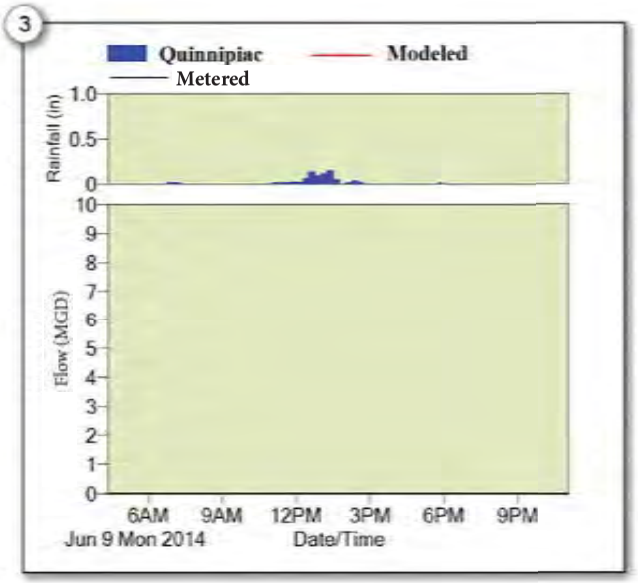
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

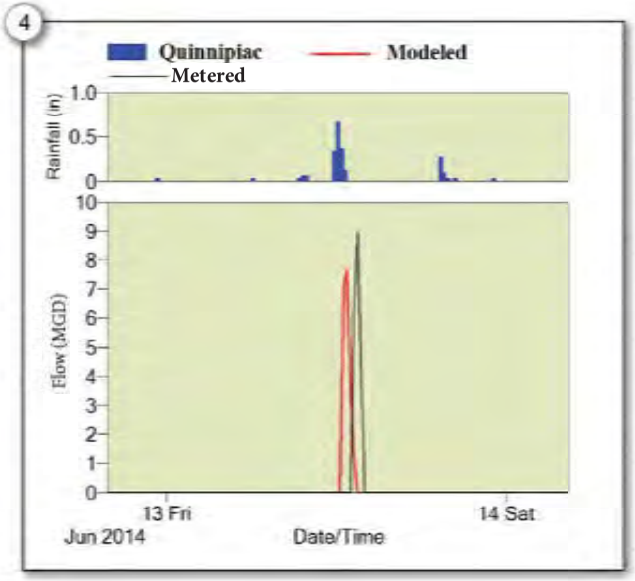
Prepared by:

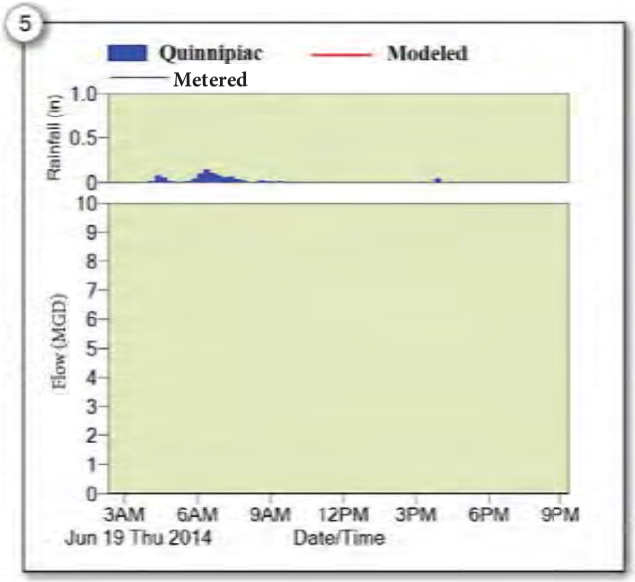
CH2MHILL

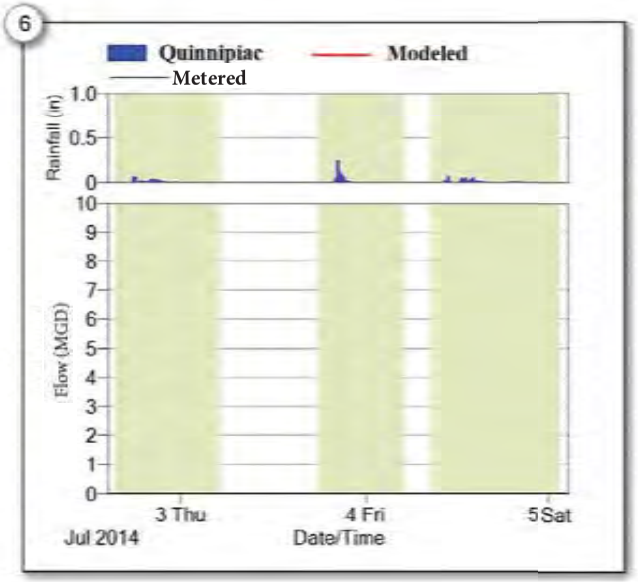












Model Calibration Results

Flow Meter: OF-010 Overflow

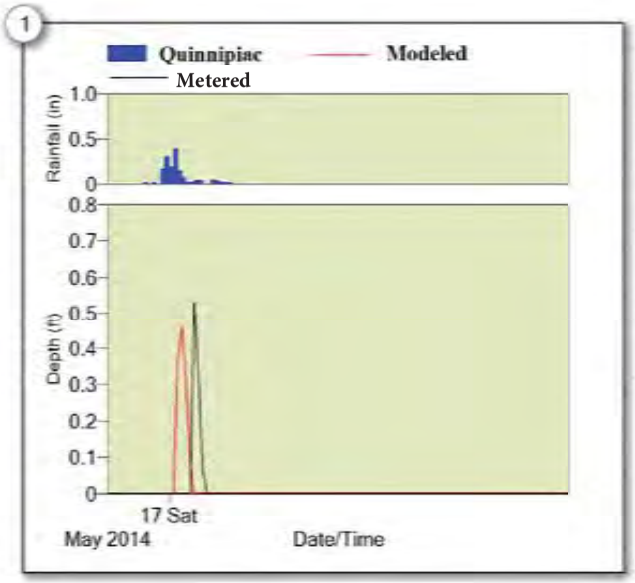
Event Comparison: Flow

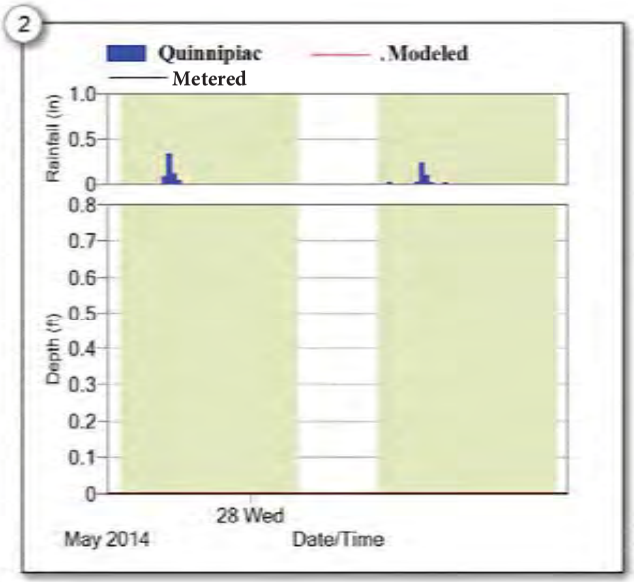
Permanent Rain Gauge Events:

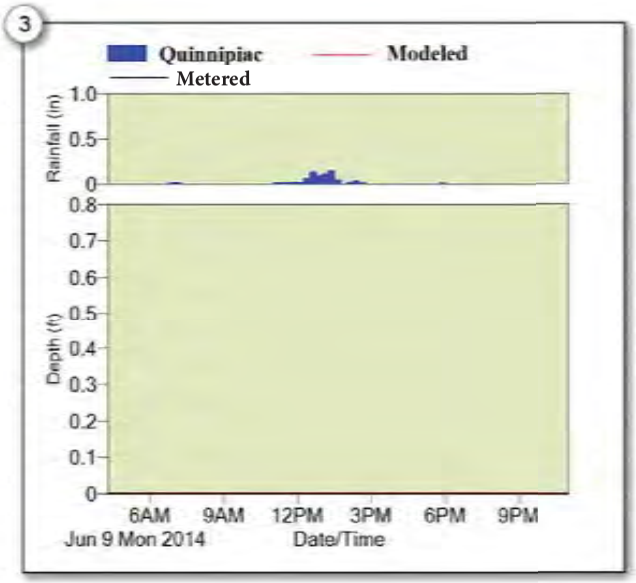
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

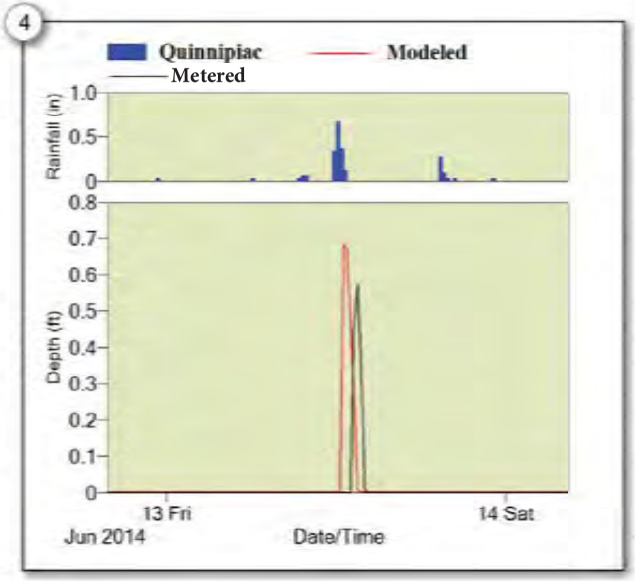
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

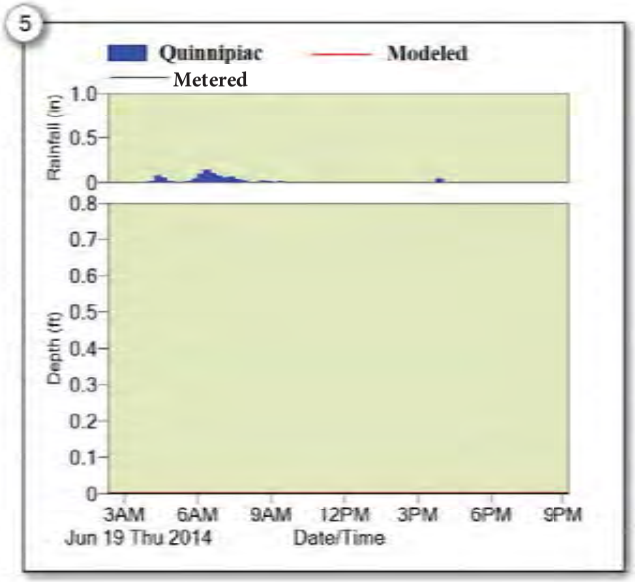
Prepared by:
CH2MHILL

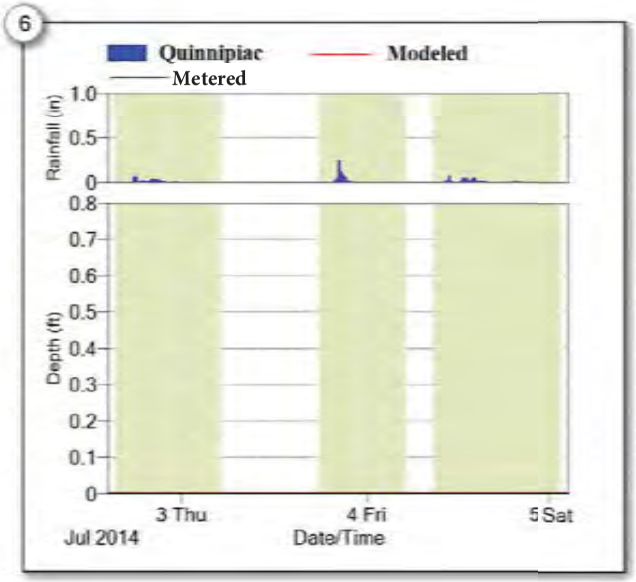












Model Calibration Results

Flow Meter: OF-010 Overflow

Event Comparison: Depth

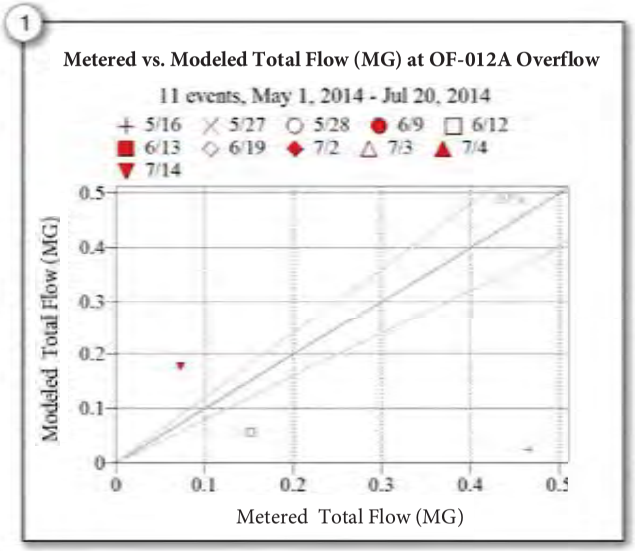
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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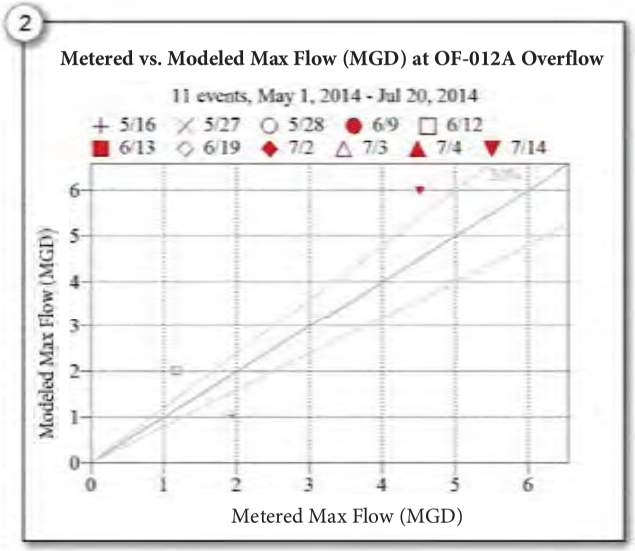

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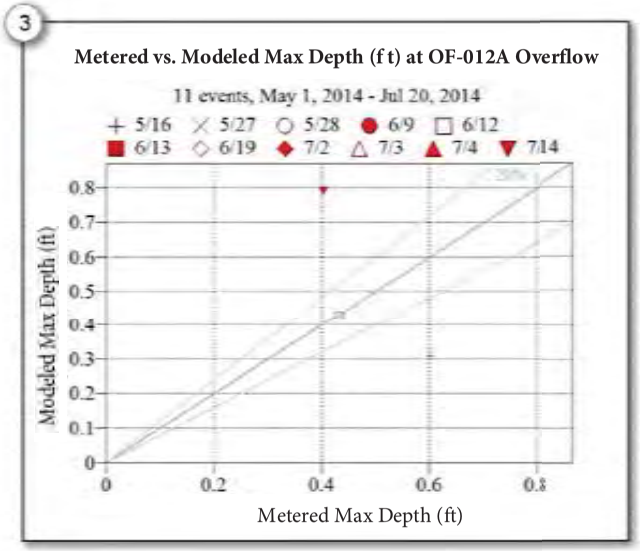

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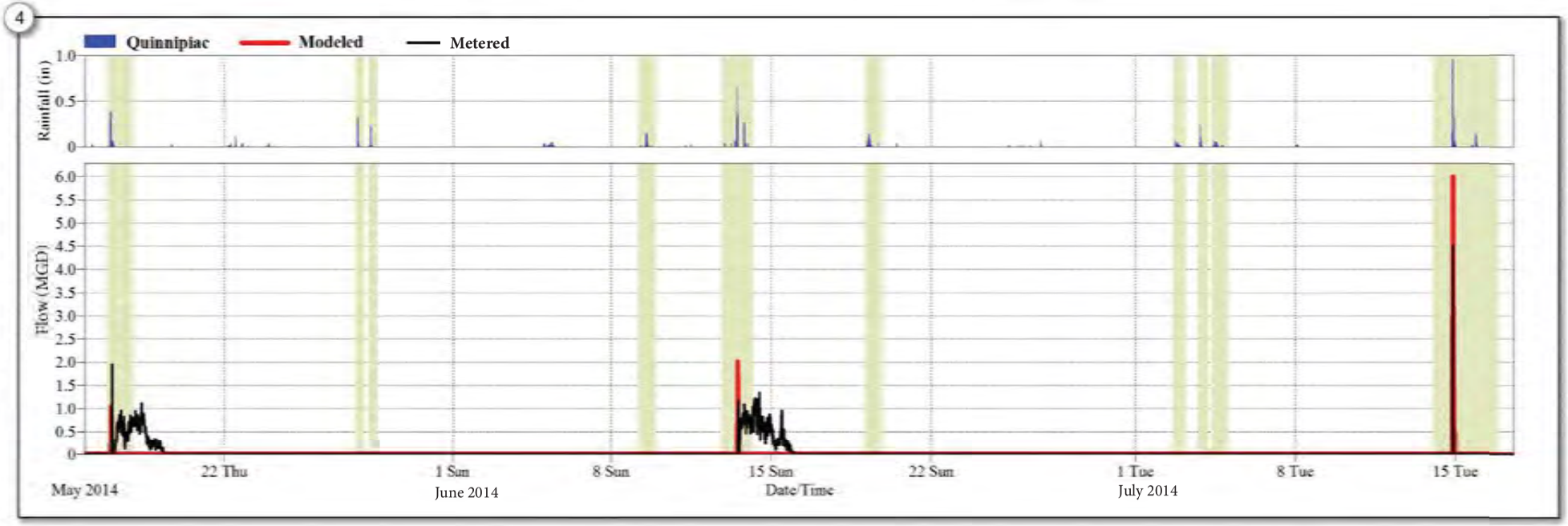


Model Calibration Results

Flow Meter: OF-012A Overflow

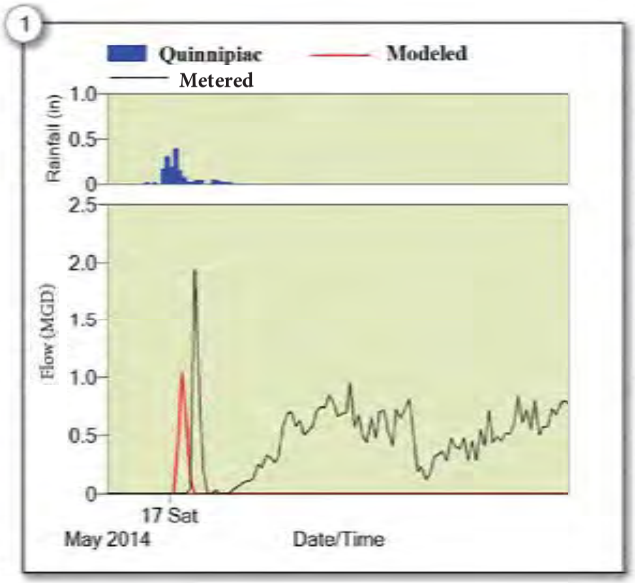
Meter Summary

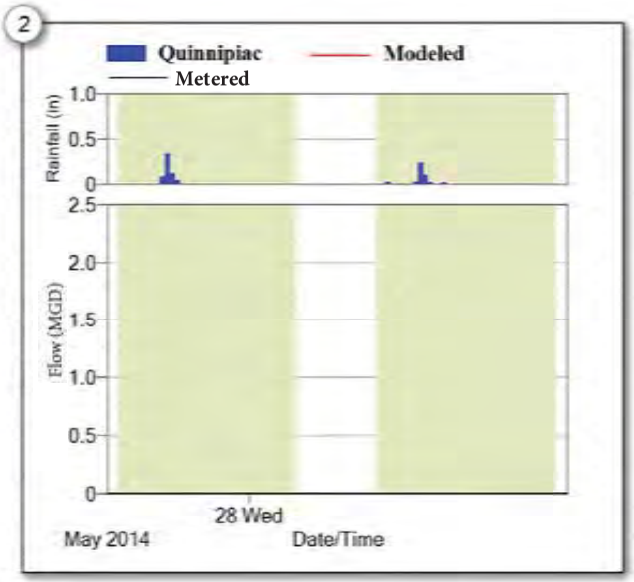
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

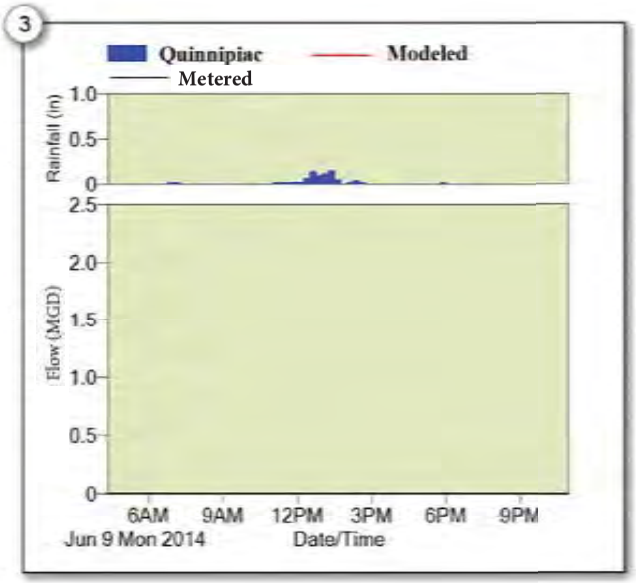
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

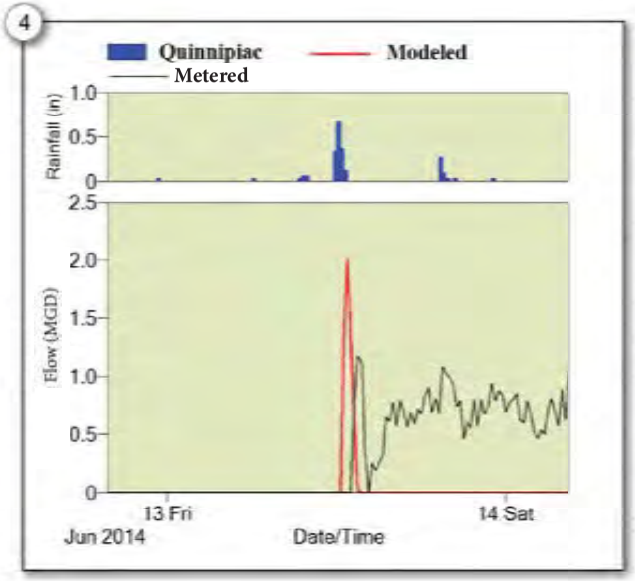
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

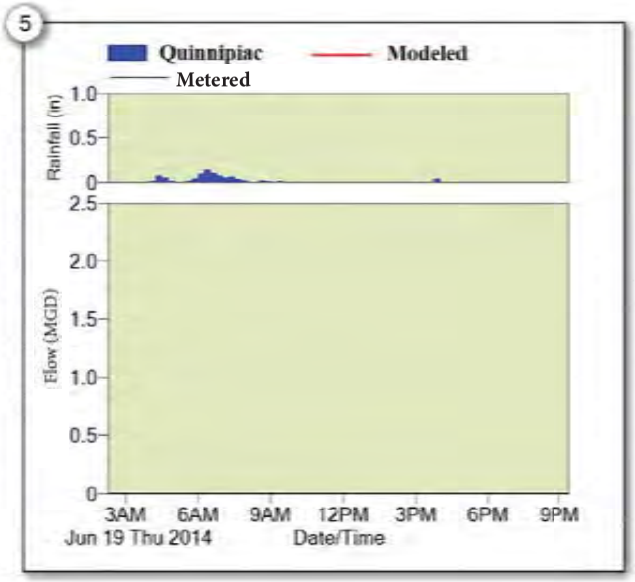
Prepared by:
CH2MHILL

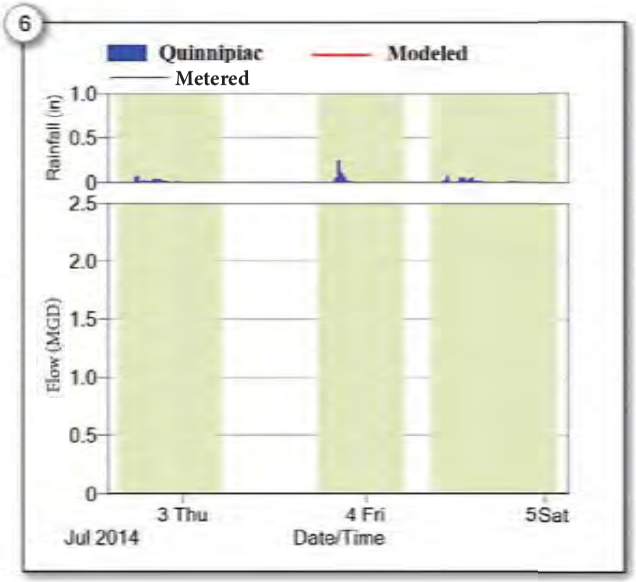












Model Calibration Results

Flow Meter: OF-012A Overflow

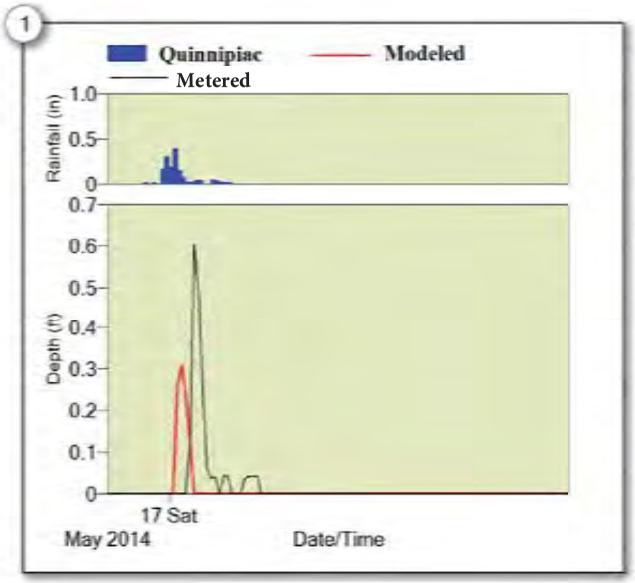
Event Comparison: Flow

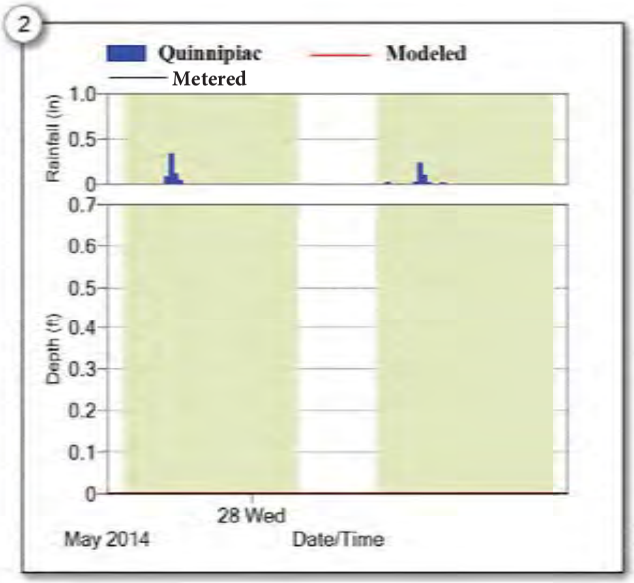
Permanent Rain Gauge Events:

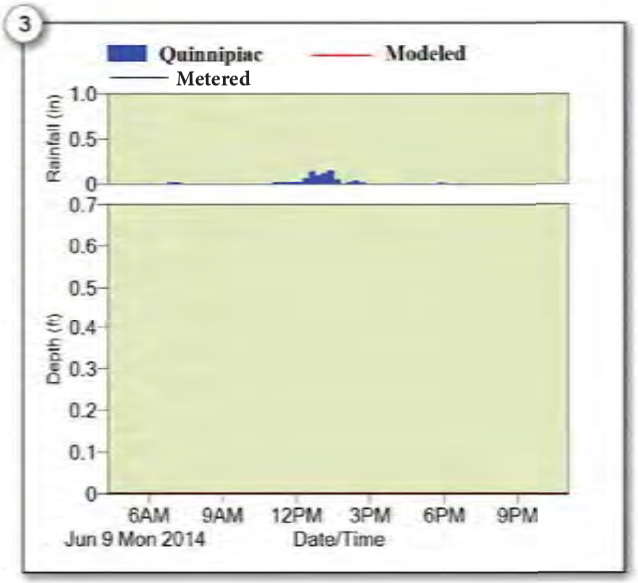
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

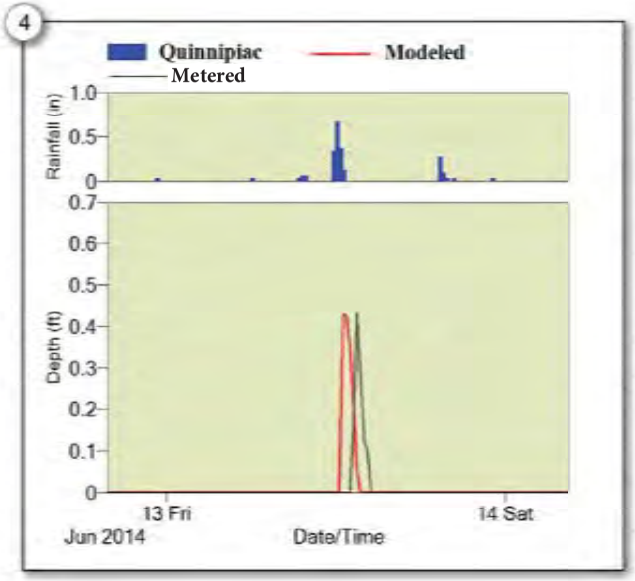
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

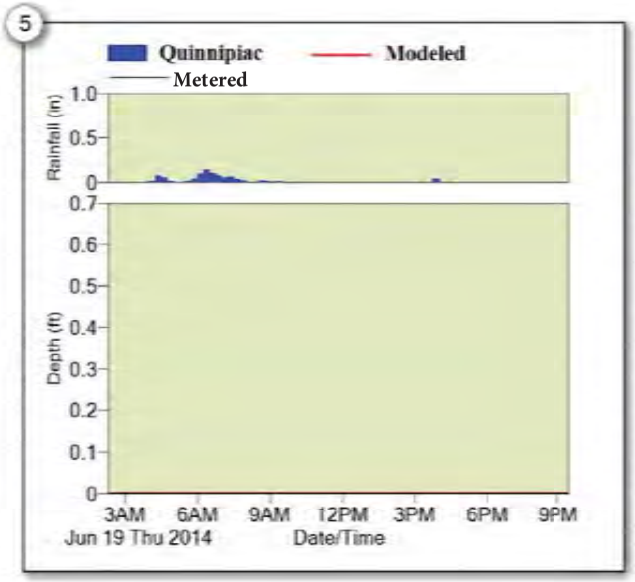
Prepared by:
CH2MHILL

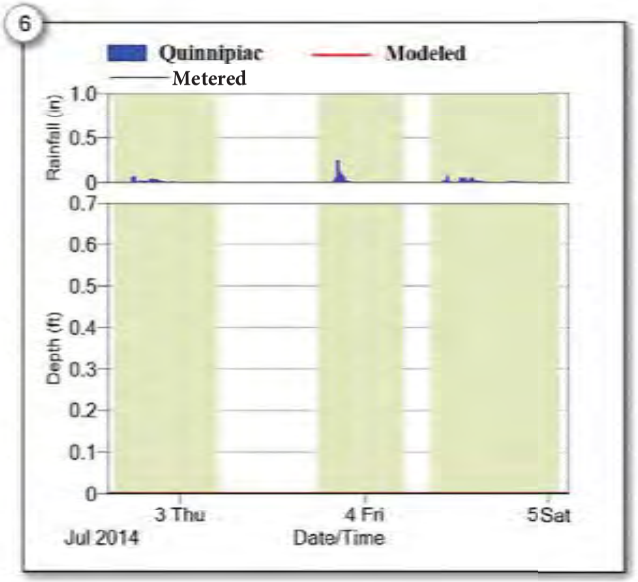












Model Calibration Results

Flow Meter: OF-012A Overflow

Event Comparison: Depth

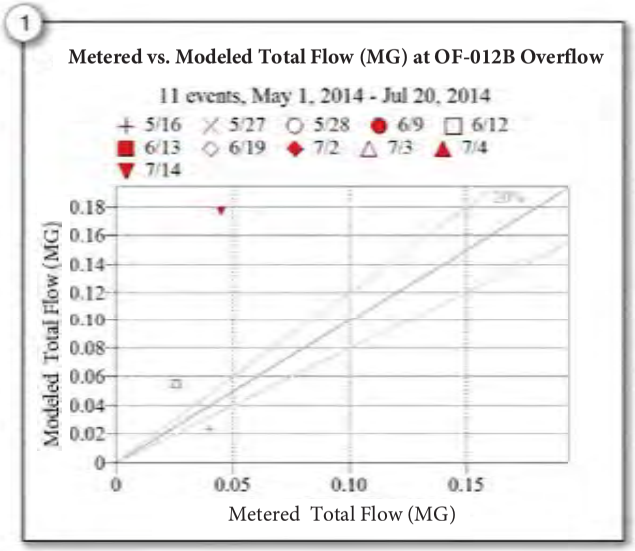
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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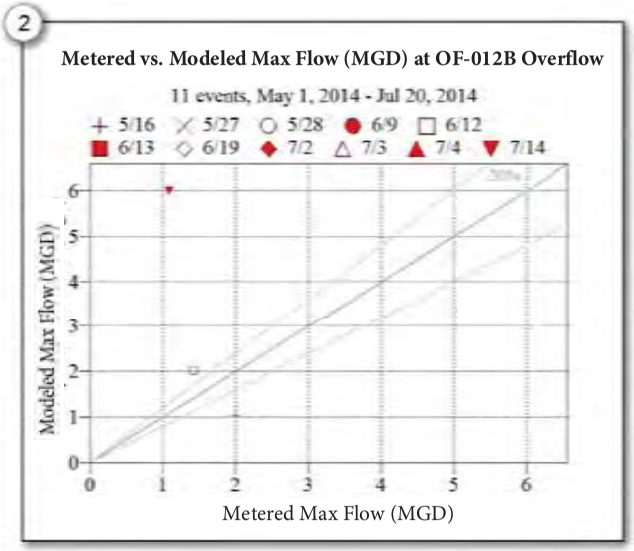

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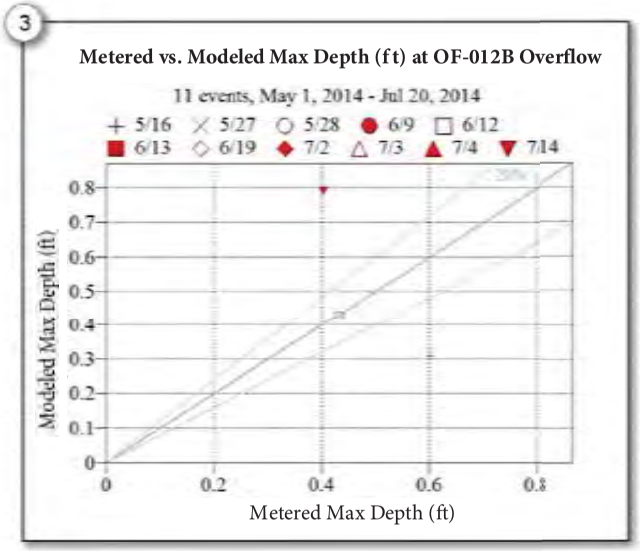

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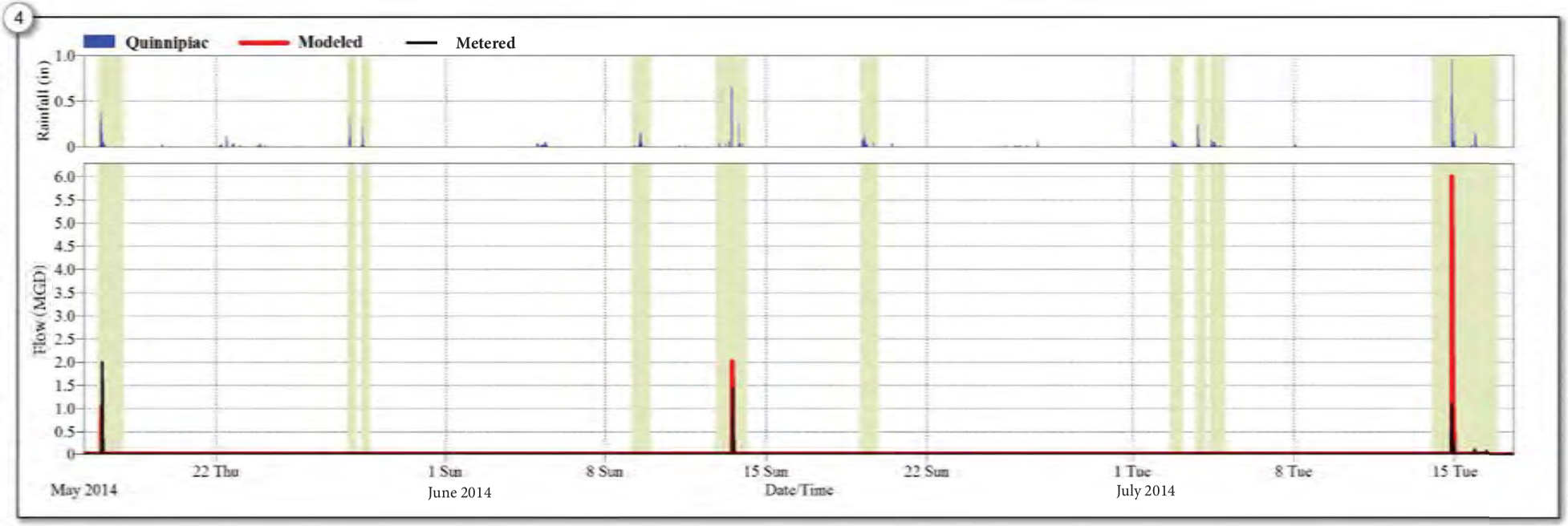


Model Calibration Results

Flow Meter: OF-012B Overflow

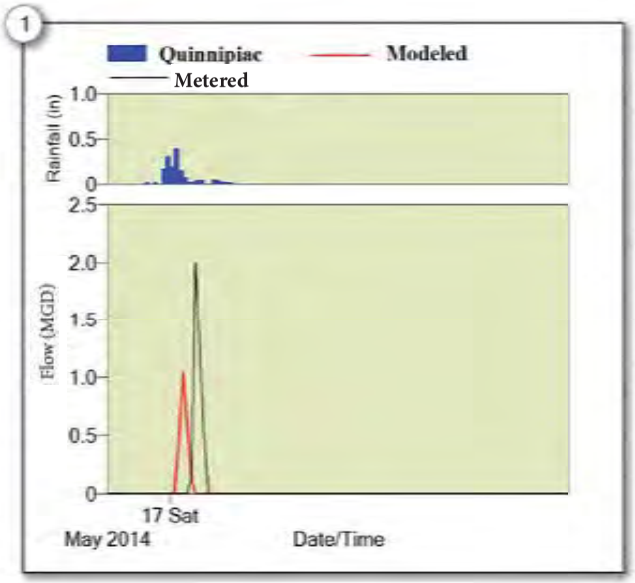
Meter Summary

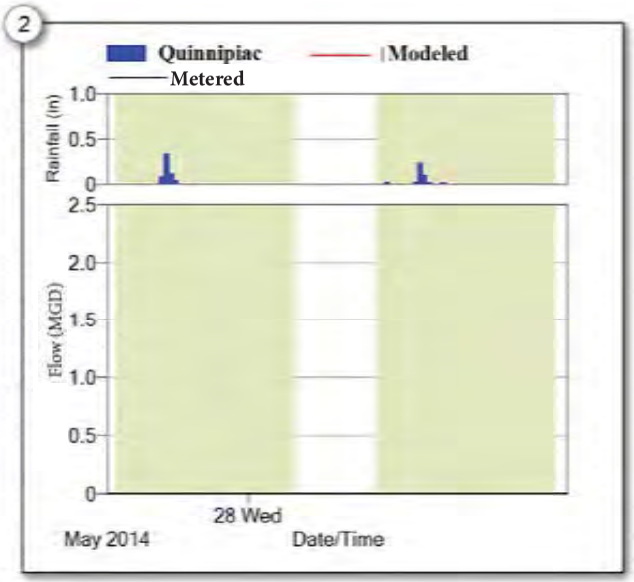
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

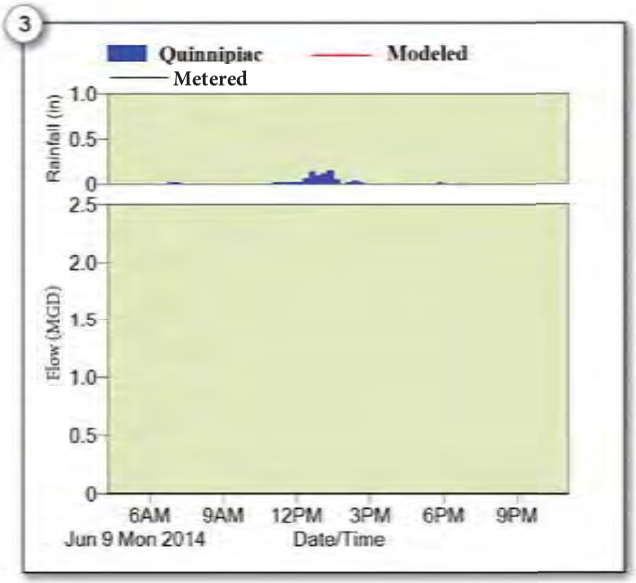
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

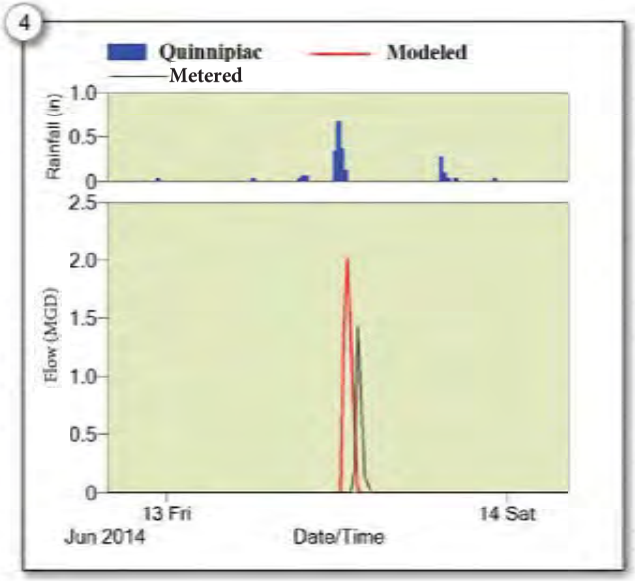
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

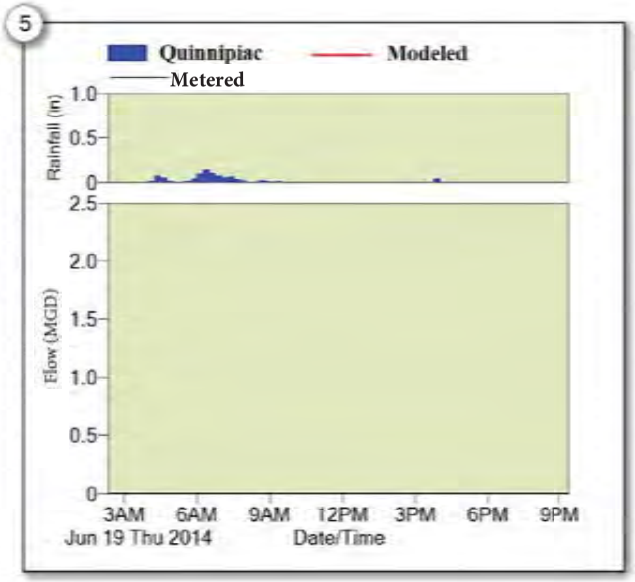
Prepared by:
CH2MHILL

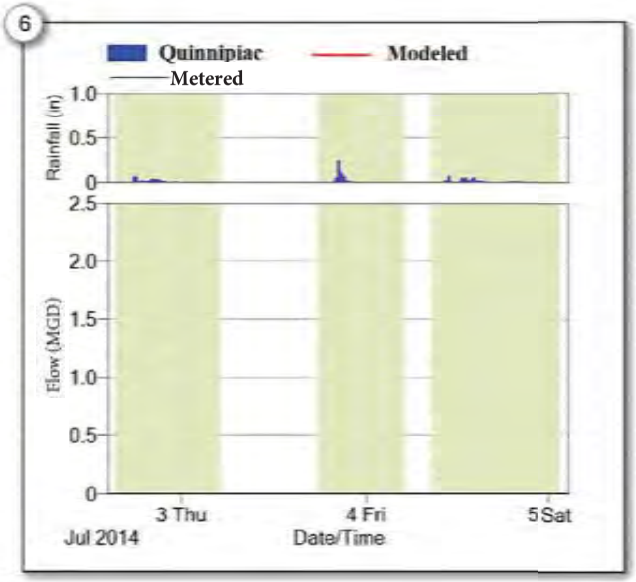












Model Calibration Results

Flow Meter: OF-012B Overflow

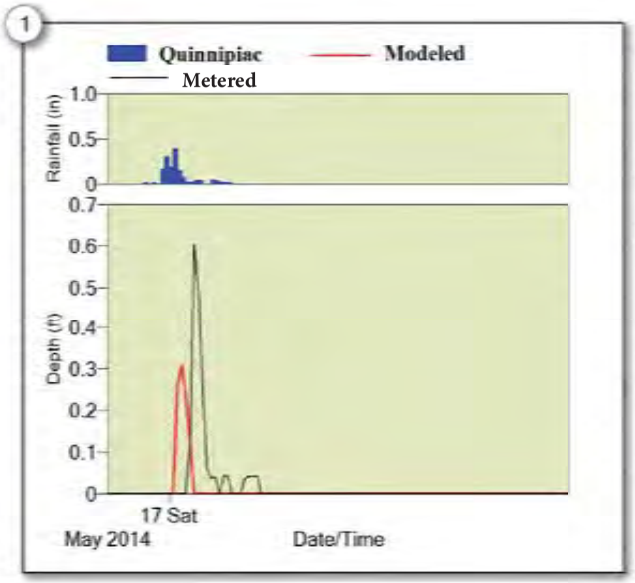
Event Comparison: Flow

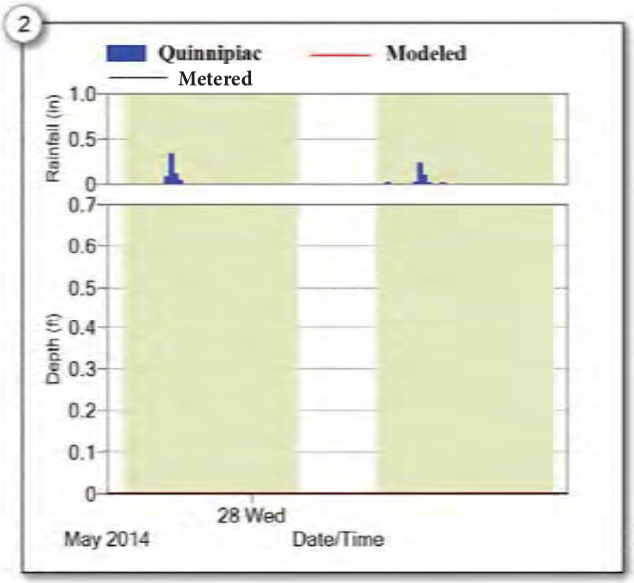
Permanent Rain Gauge Events:

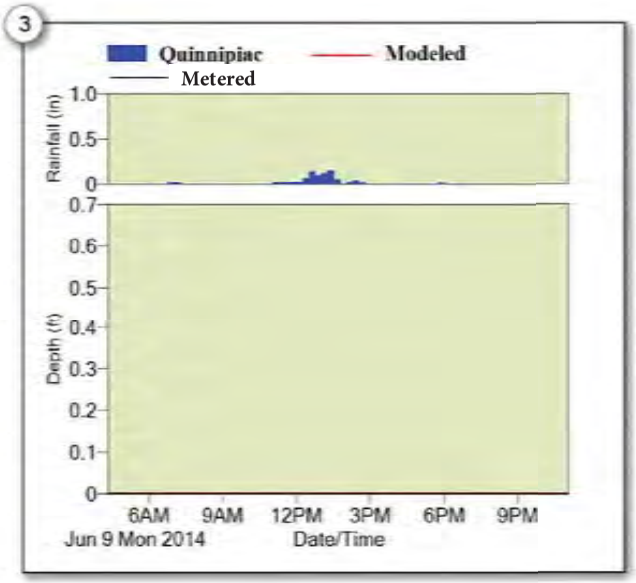
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

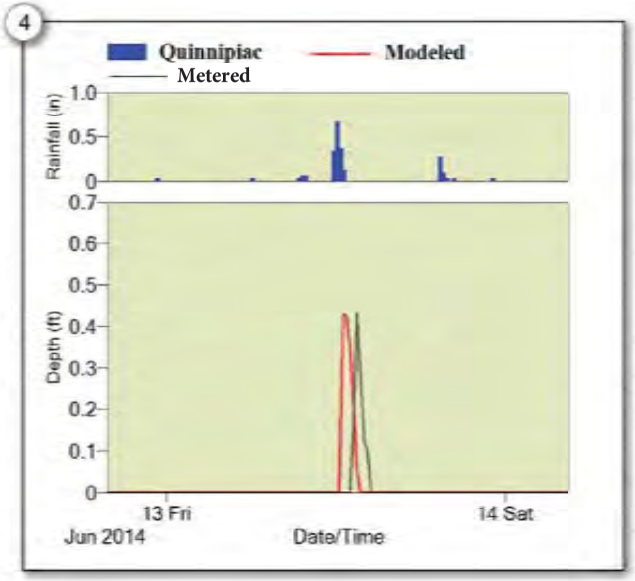
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

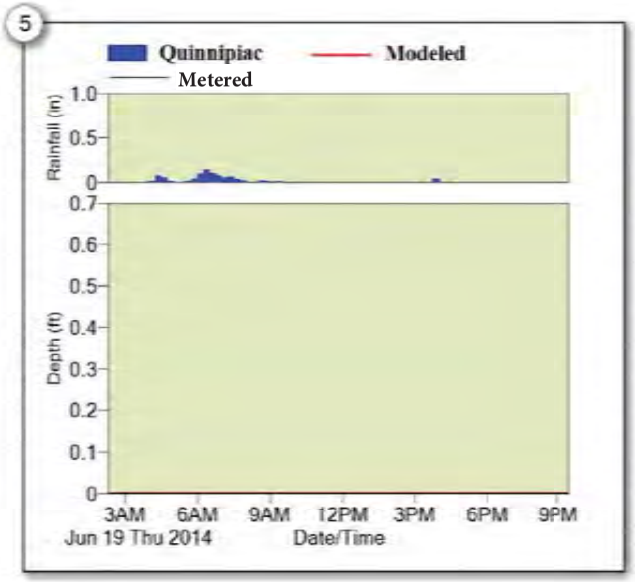
Prepared by:
CH2MHILL

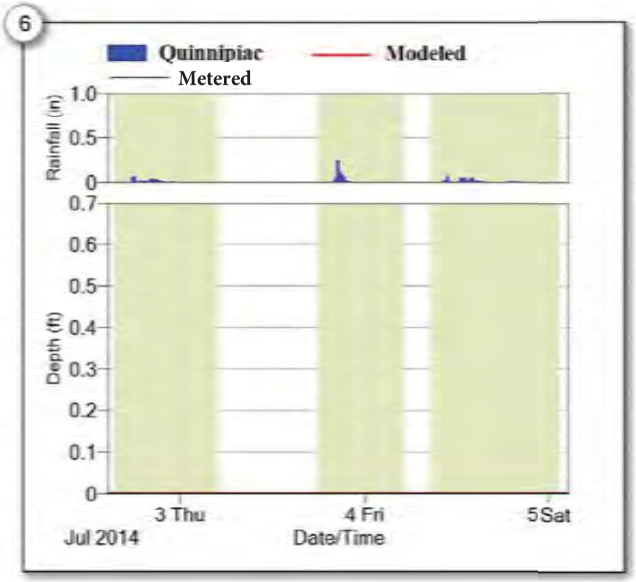












Model Calibration Results

Flow Meter: OF-012B Overflow

Event Comparison: Depth

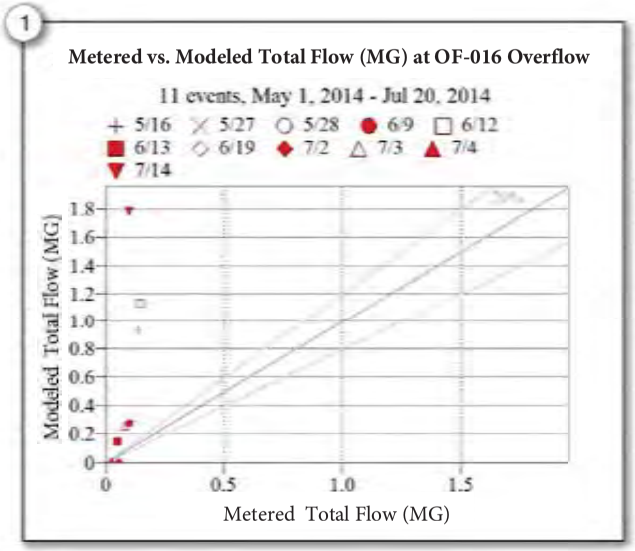
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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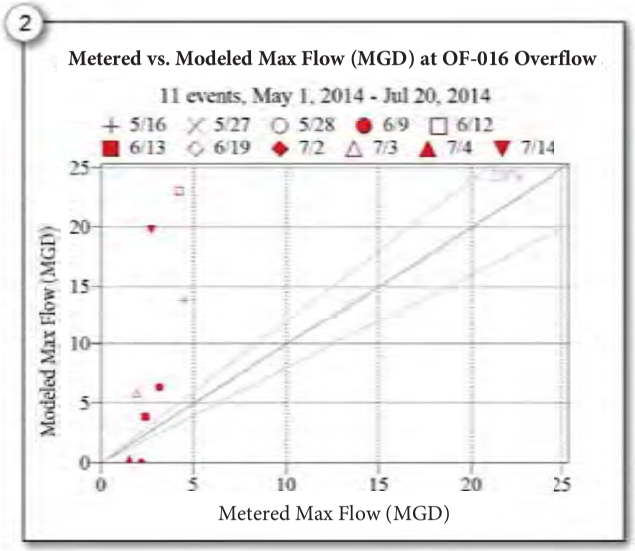

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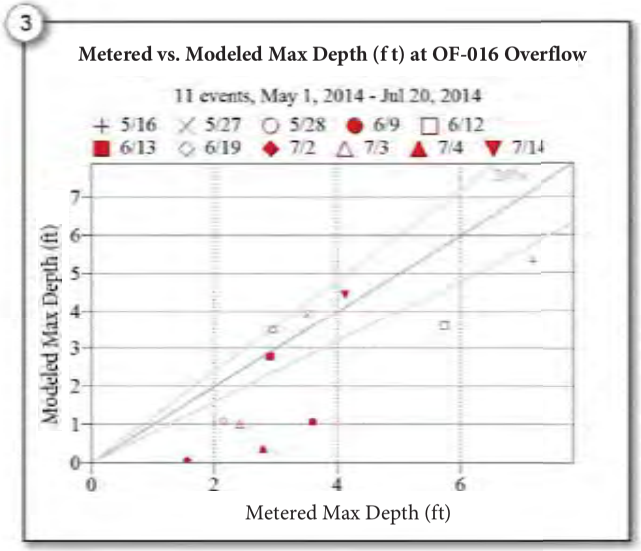

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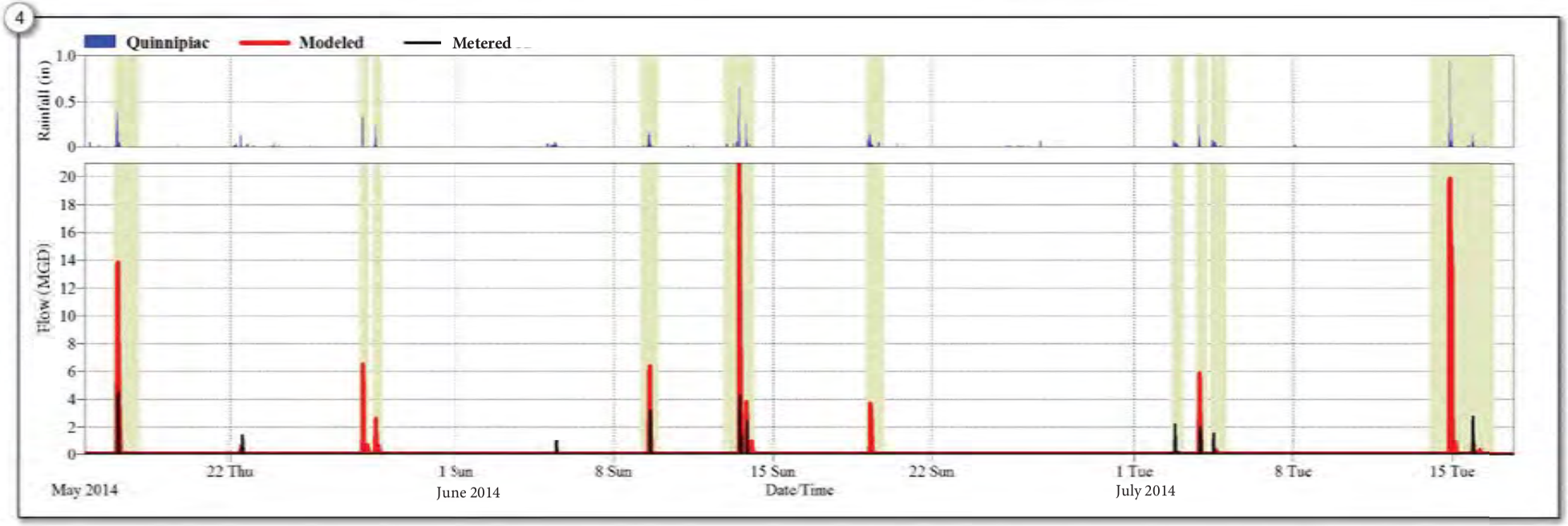


Model Calibration Results

Flow Meter: OF-016 Overflow

Meter Summary

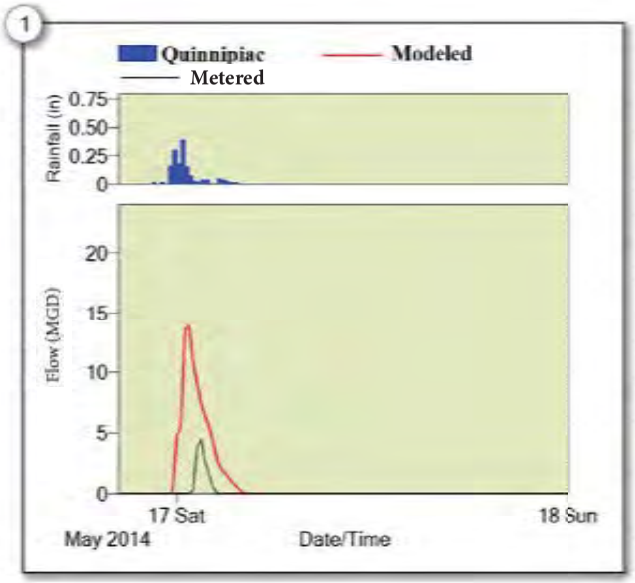
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

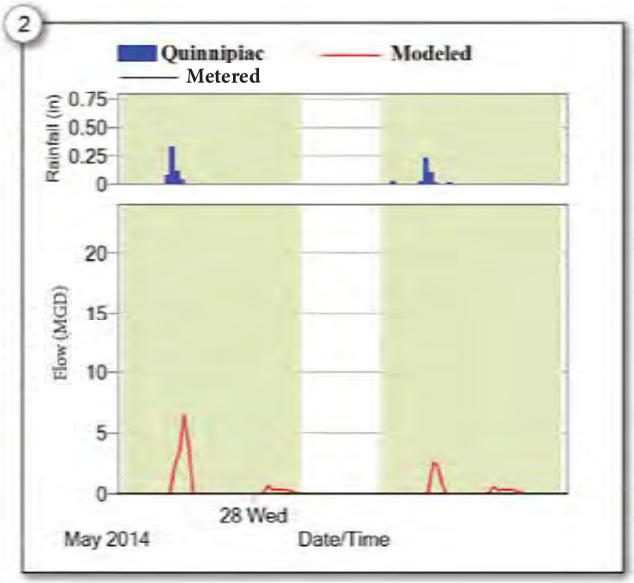
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

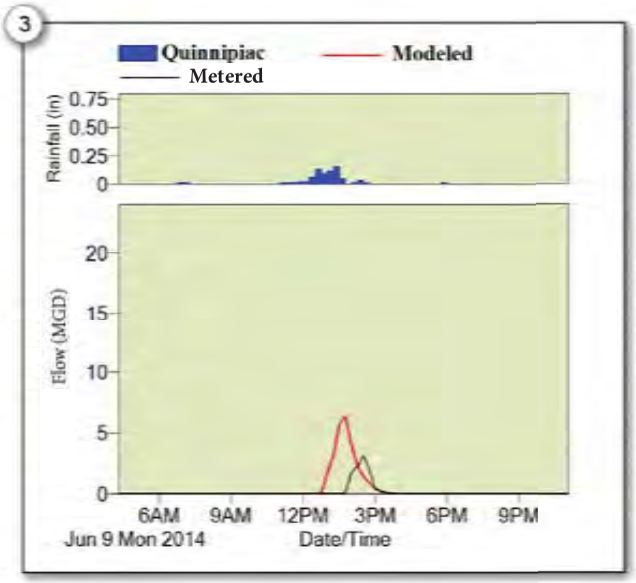
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

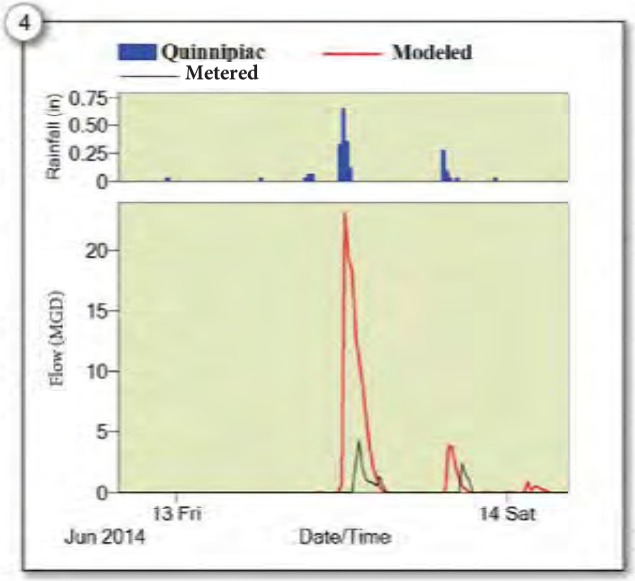
Prepared by:

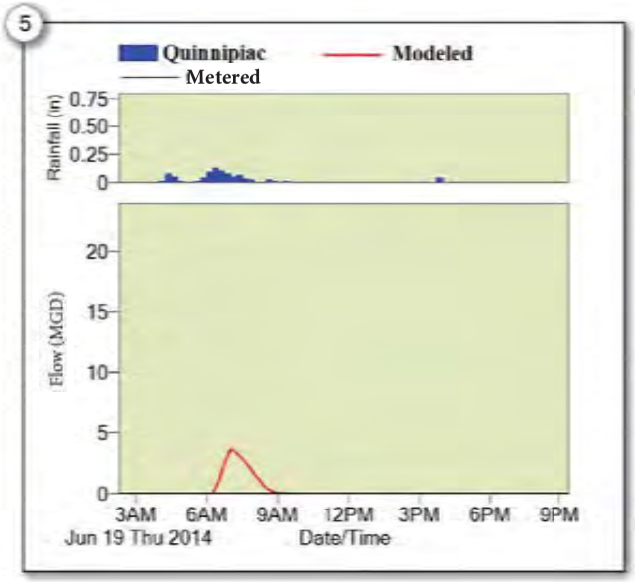
CH2MHILL

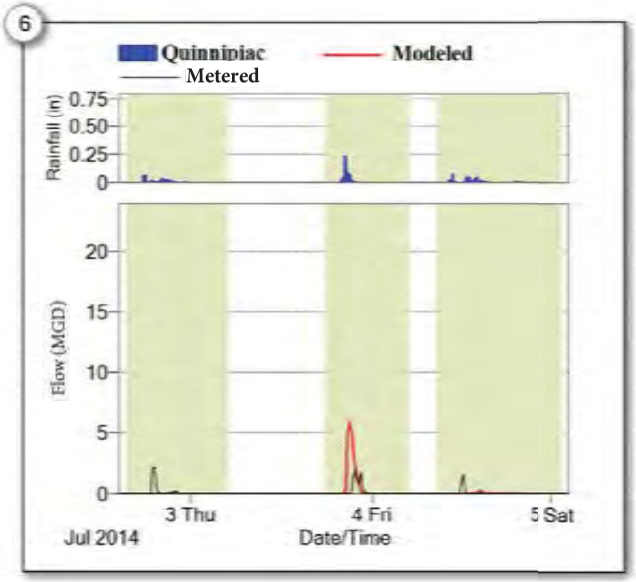












Model Calibration Results

Flow Meter: OF-016 Overflow

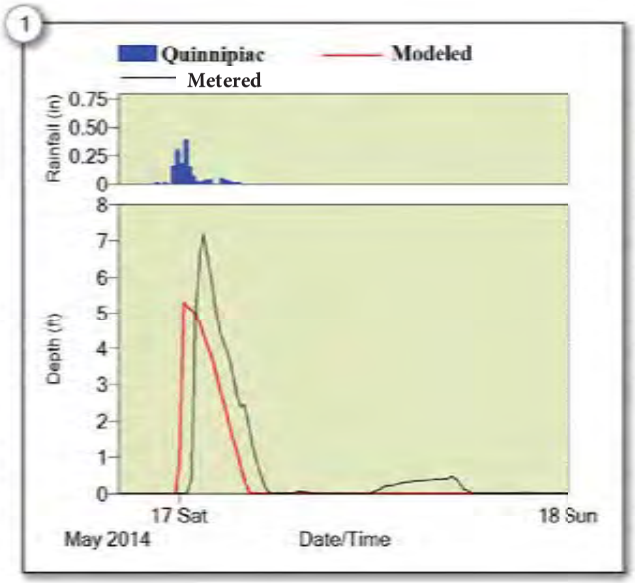
Event Comparison: Flow

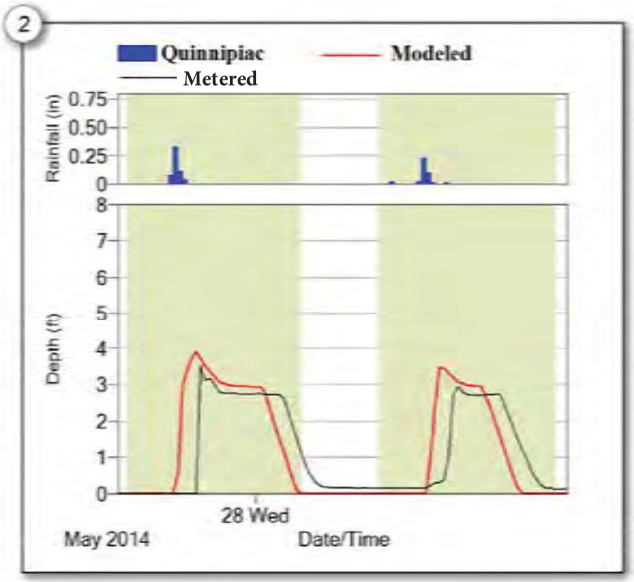
Quinnipiac Rain Gauge Events:

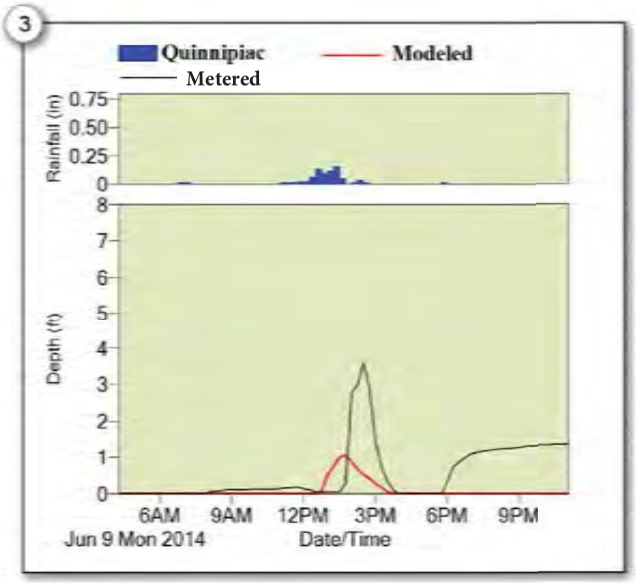
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0..74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0..60 in.) and July 4, 2014 (0.47 in.)

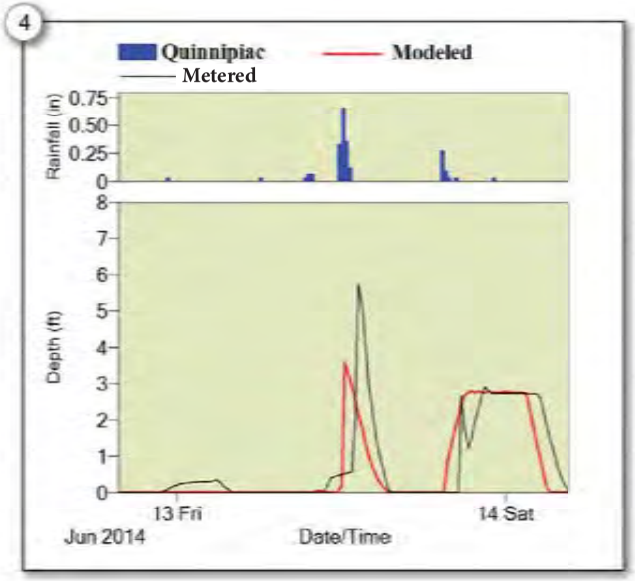
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

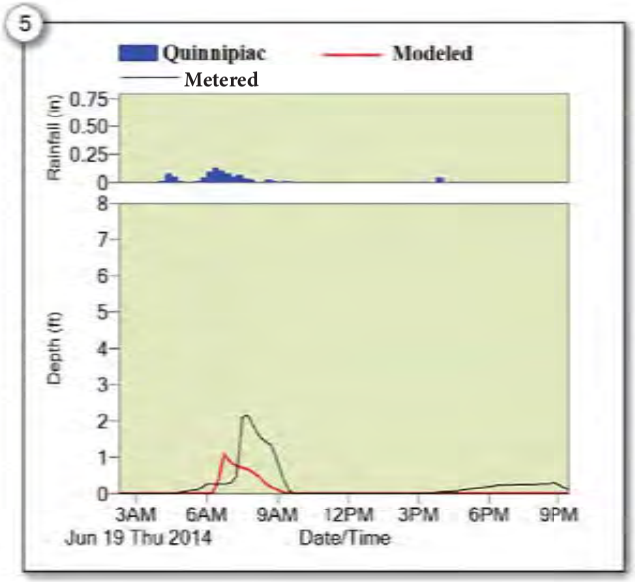
Prepared by:
CH2MHILL

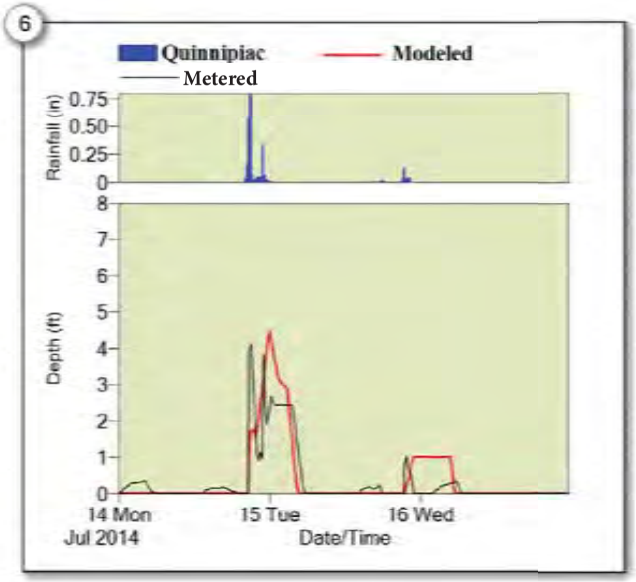












Model Calibration Results

Flow Meter: OF-016 Overflow

Event Comparison: Depth

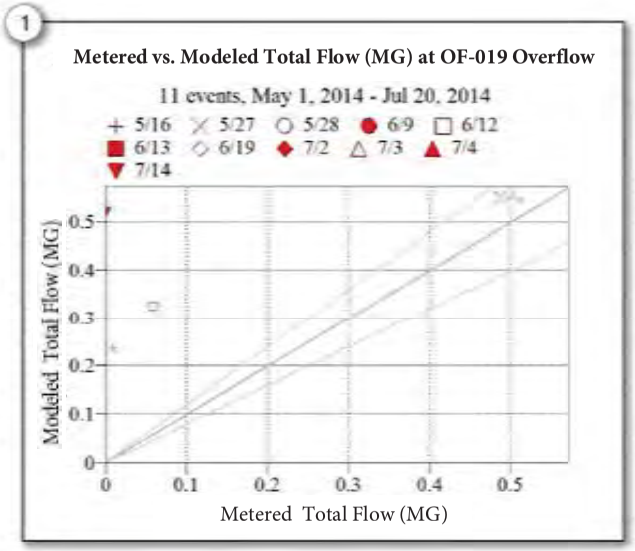
Quinnipiac Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0..74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0..60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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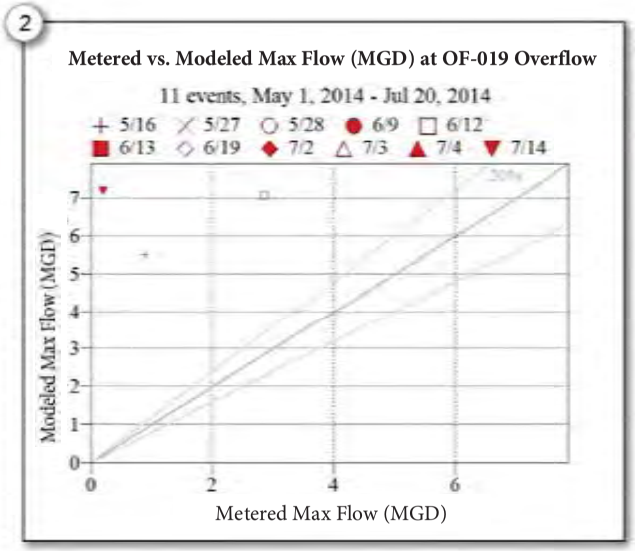

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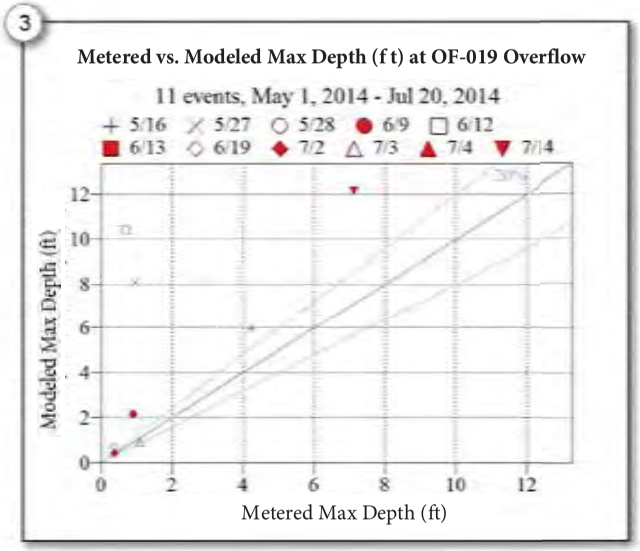

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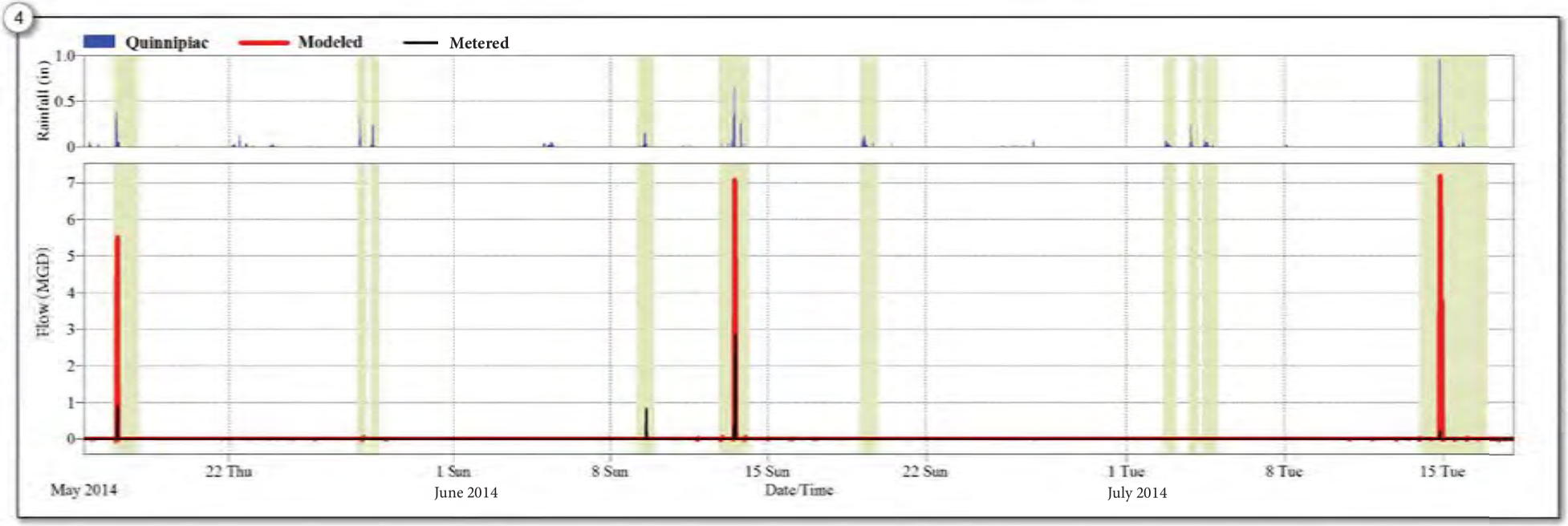


Model Calibration Results

Flow Meter: OF-019 Overflow

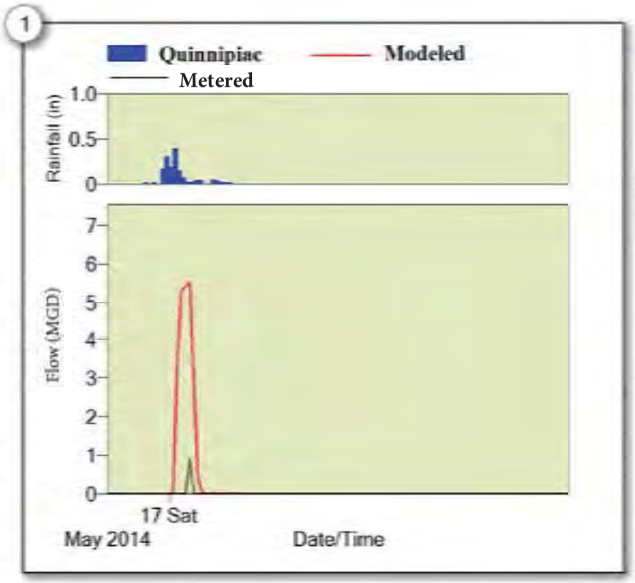
Meter Summary

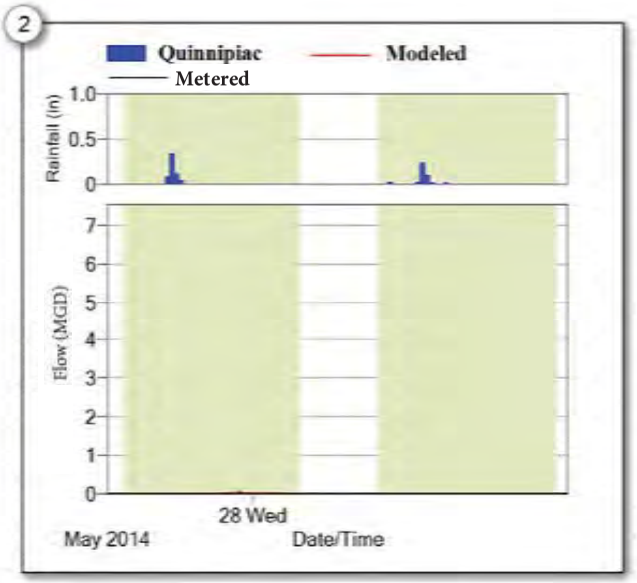
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

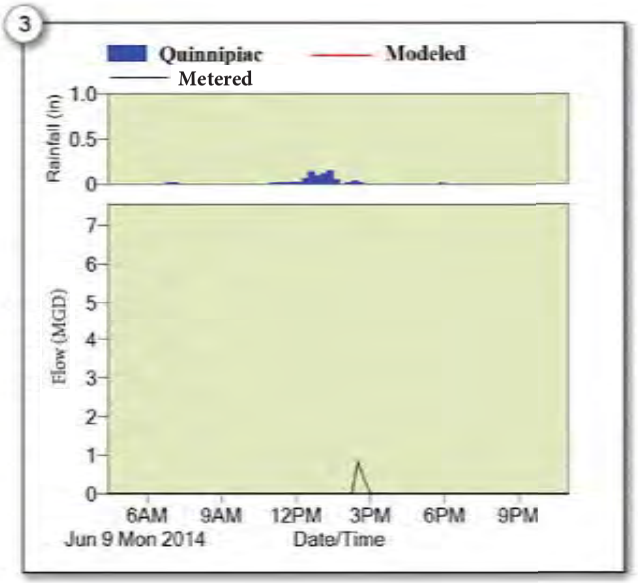
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

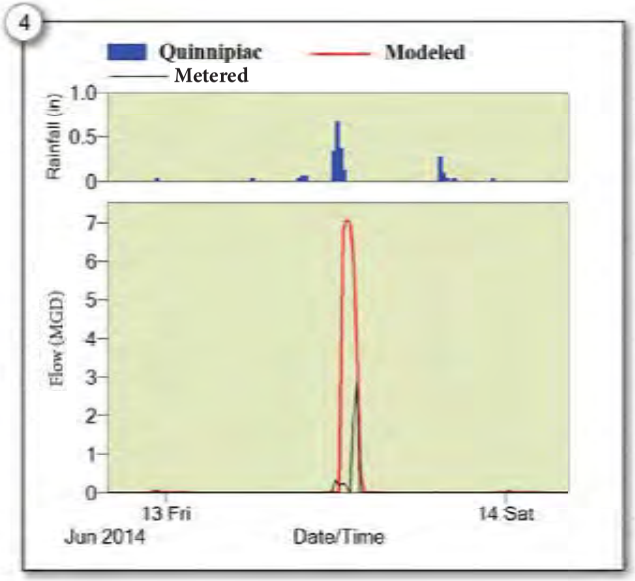
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

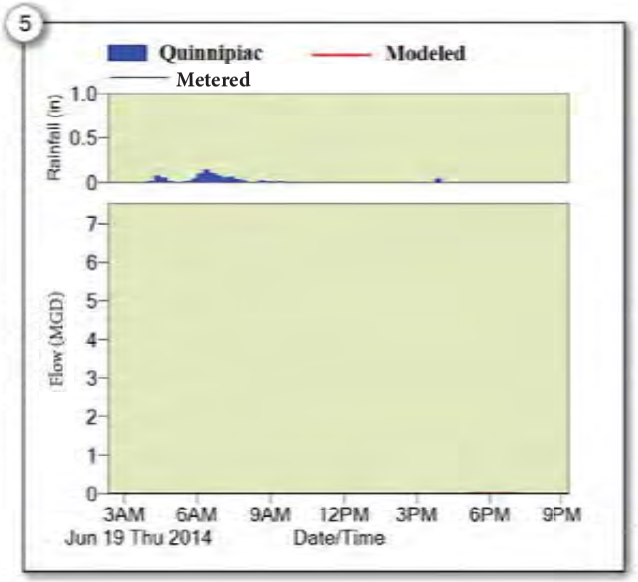
Prepared by:
CH2MHILL

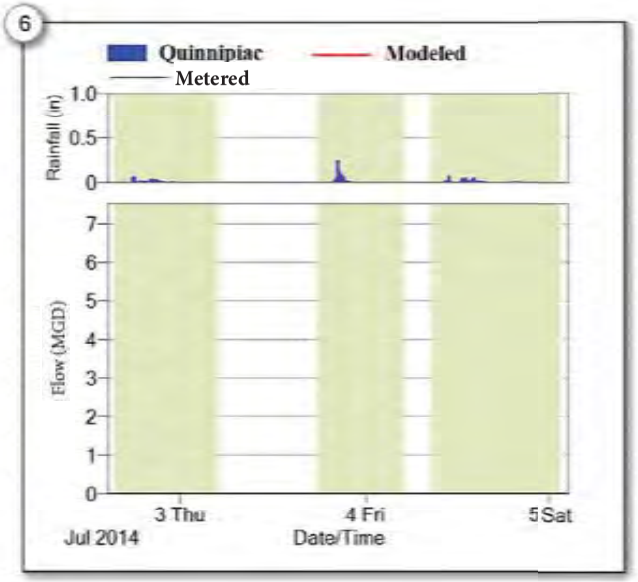












Model Calibration Results

Flow Meter: OF-019 Overflow

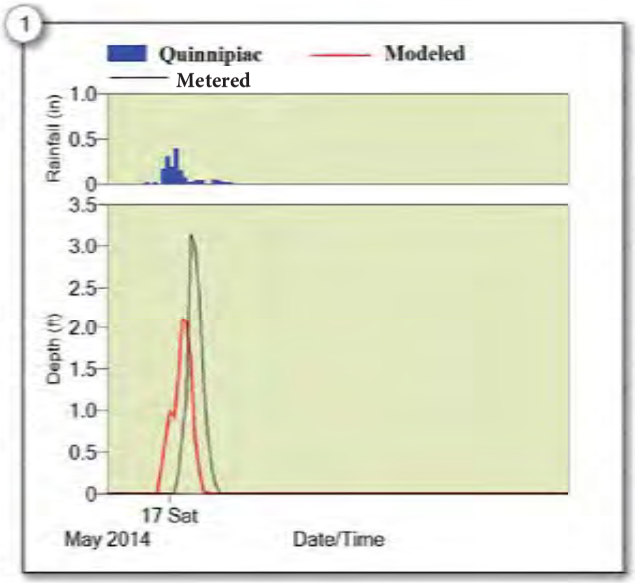
Event Comparison: Flow

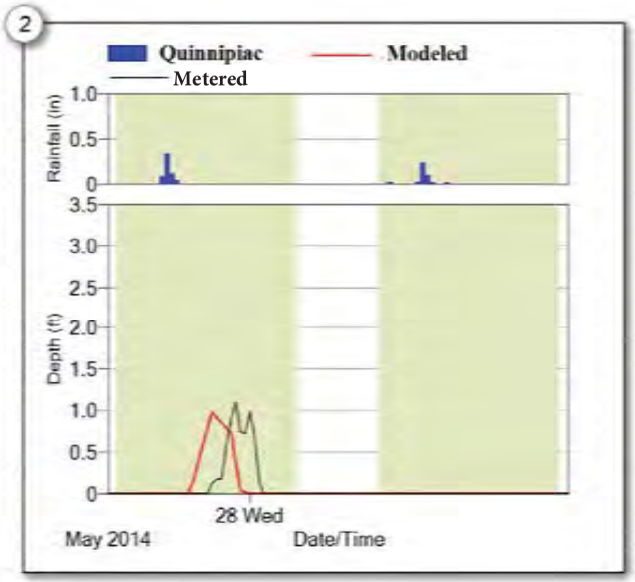
Permanent Rain Gauge Events:

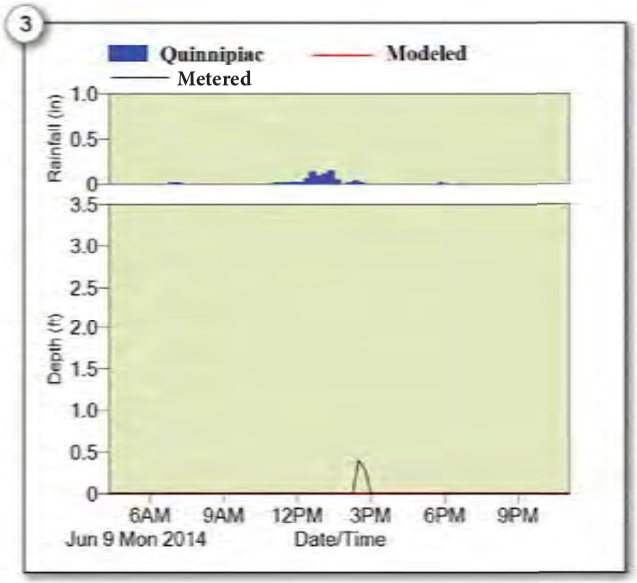
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

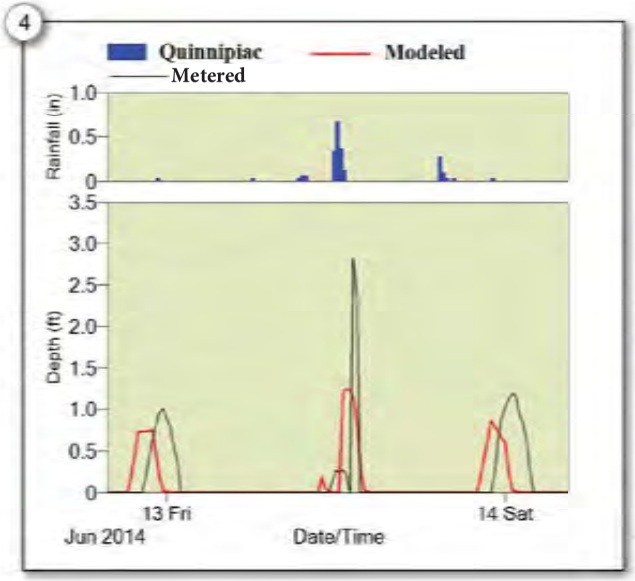
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

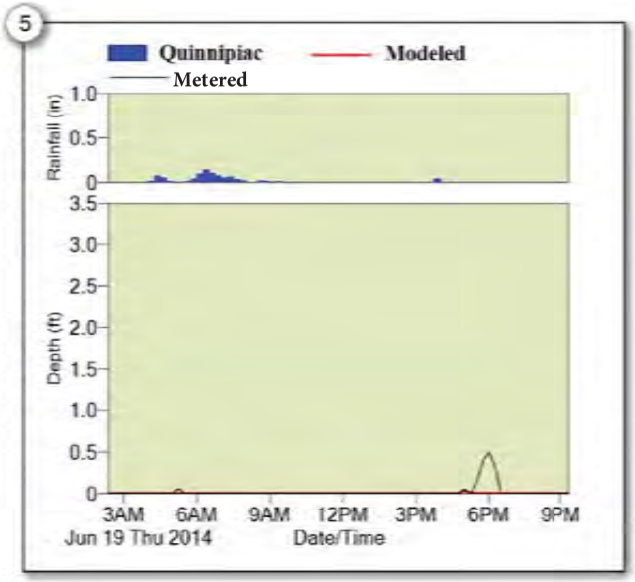
Prepared by:
CH2MHILL

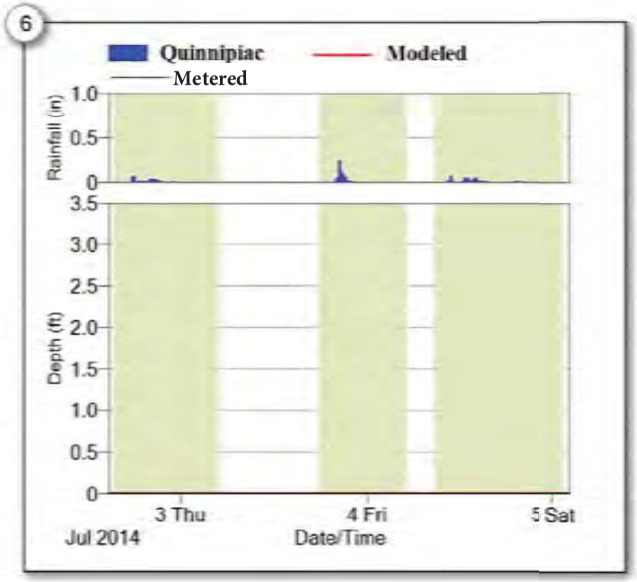












Model Calibration Results

Flow Meter: OF-019 Overflow

Event Comparison: Depth

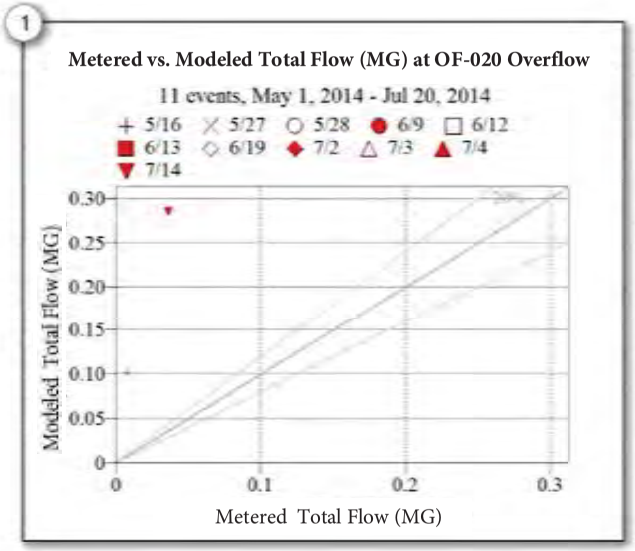
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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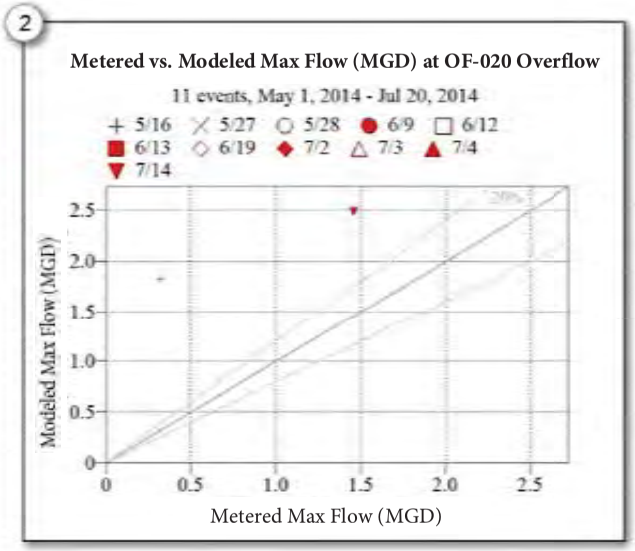

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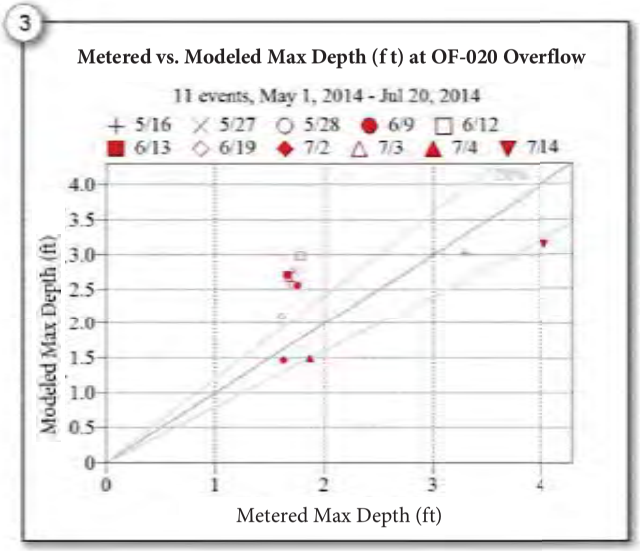

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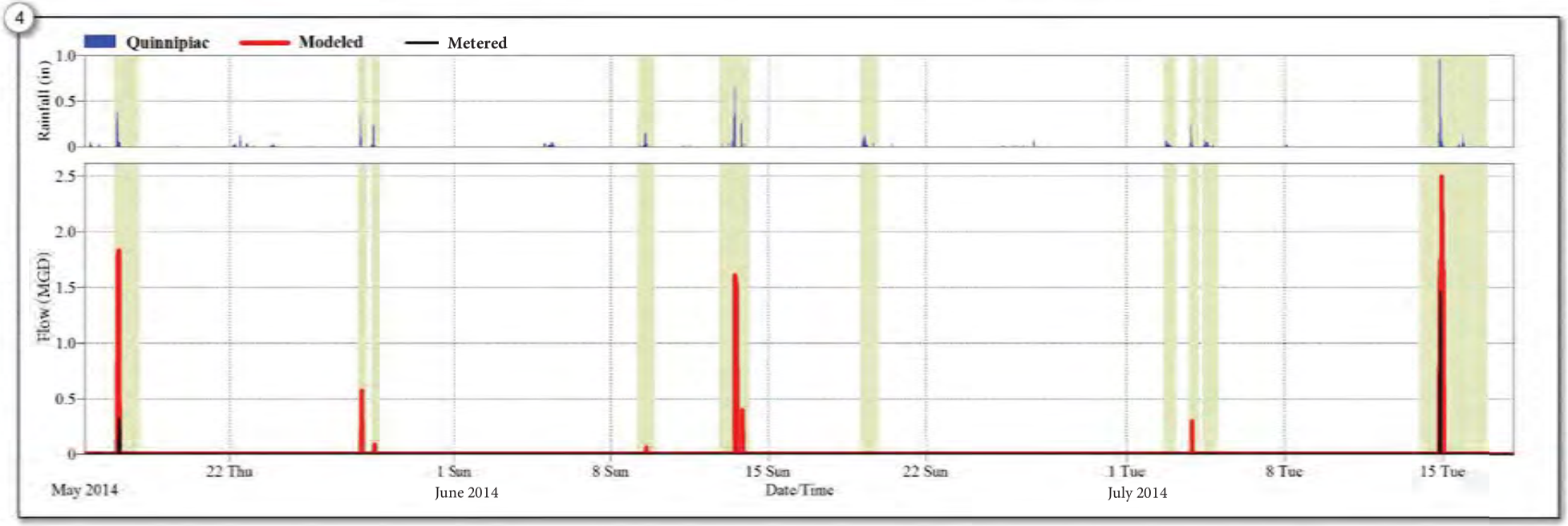


Model Calibration Results

Flow Meter: OF-020 Overflow

Meter Summary

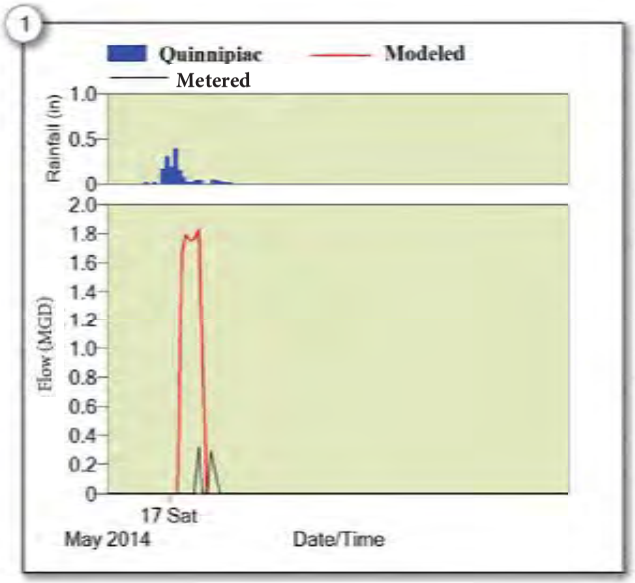
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

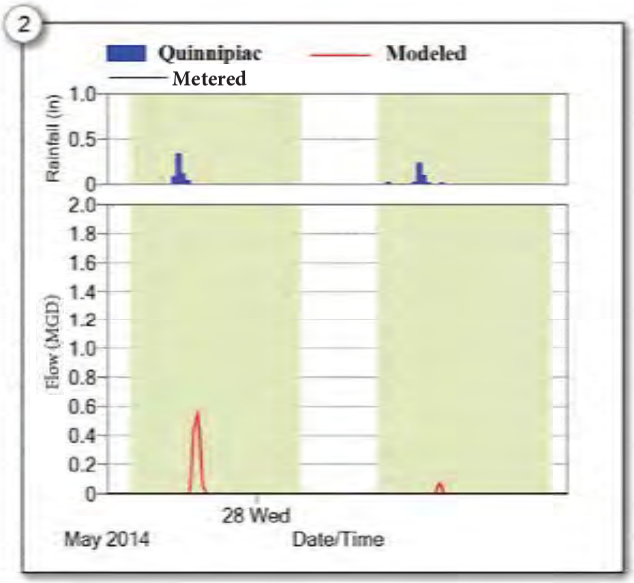
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

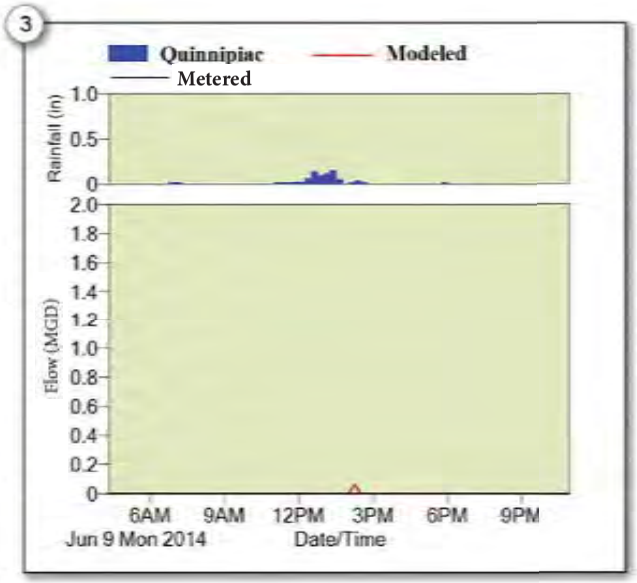
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

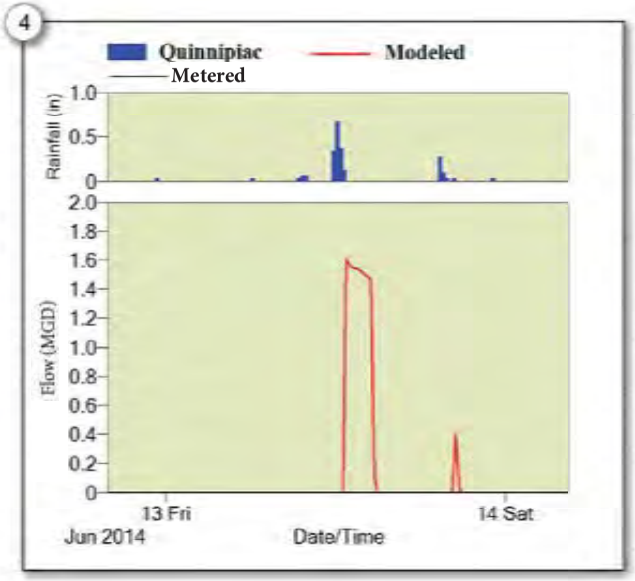
Prepared by:

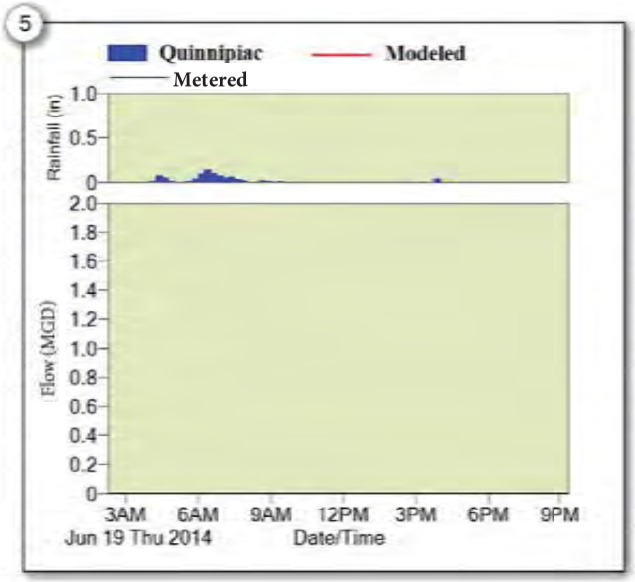
CH2MHILL

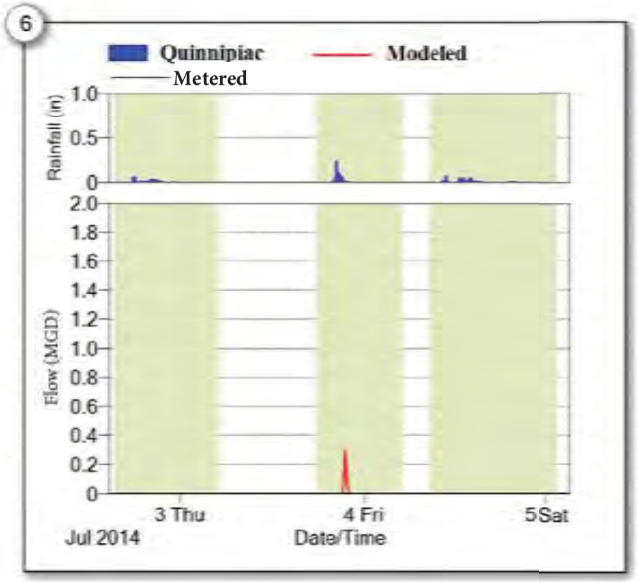












Model Calibration Results

Flow Meter: OF-020 Overflow

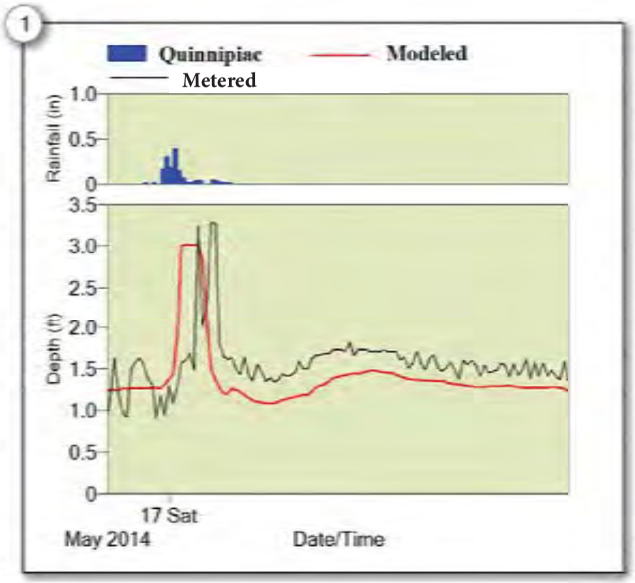
Event Comparison: Flow

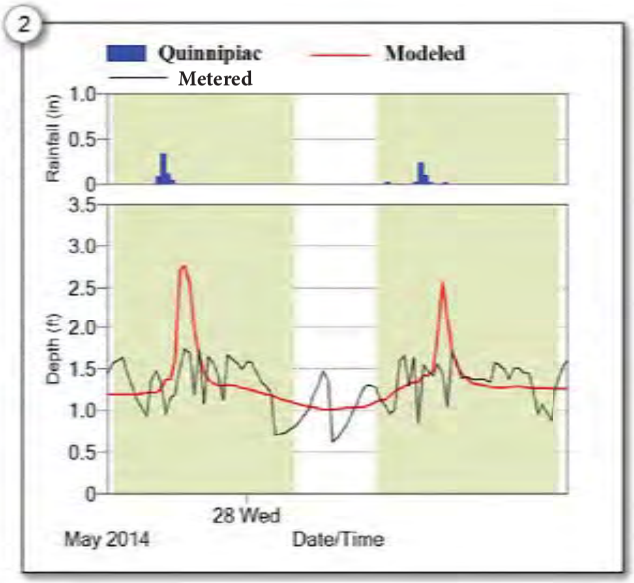
Permanent Rain Gauge Events:

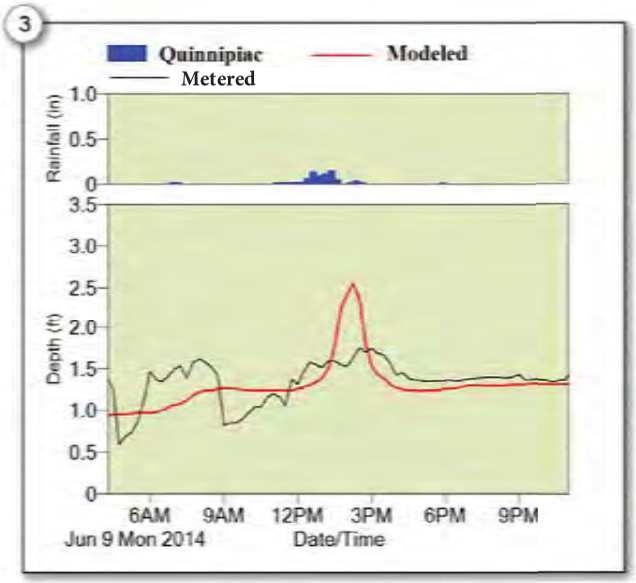
1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

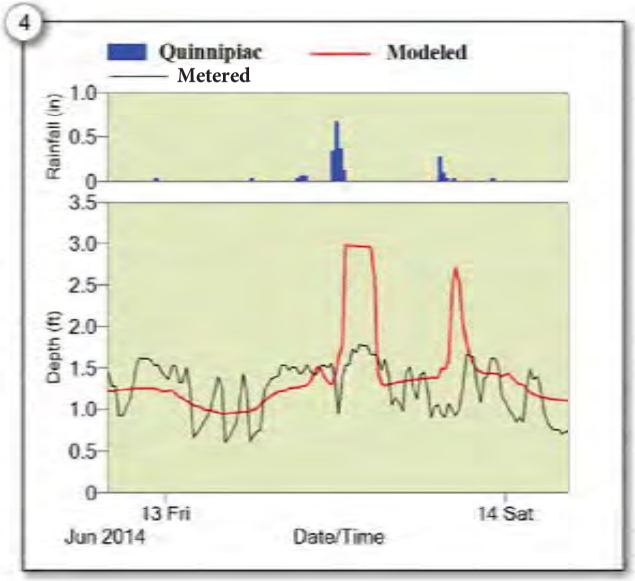
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

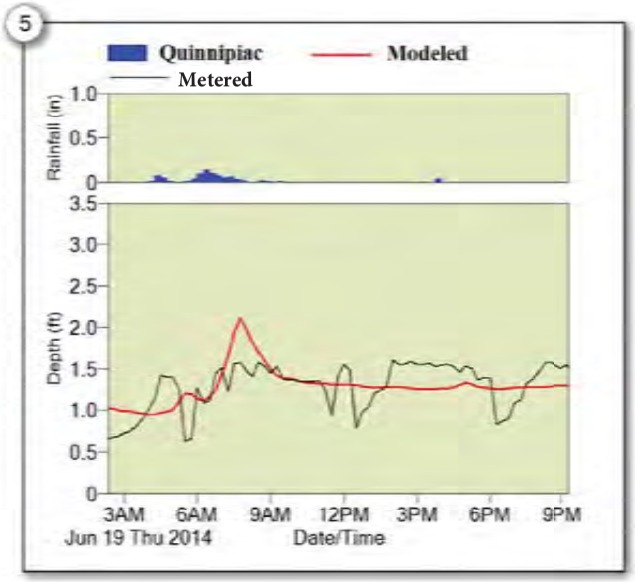
Prepared by:
CH2MHILL

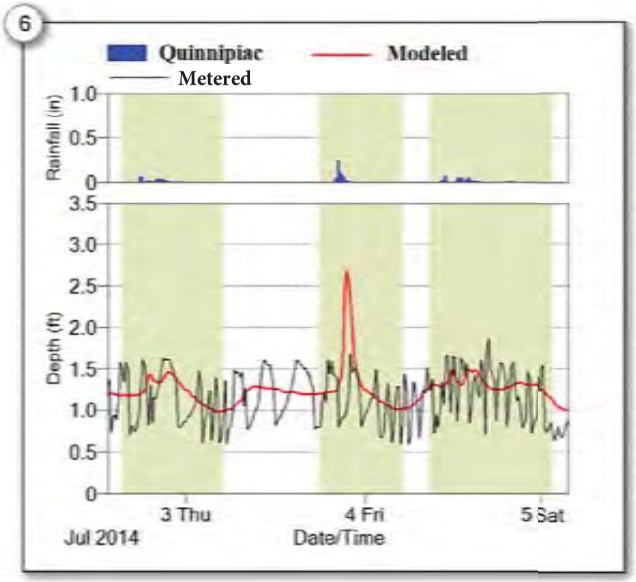












Model Calibration Results

Flow Meter: OF-020 Overflow

Event Comparison: Depth

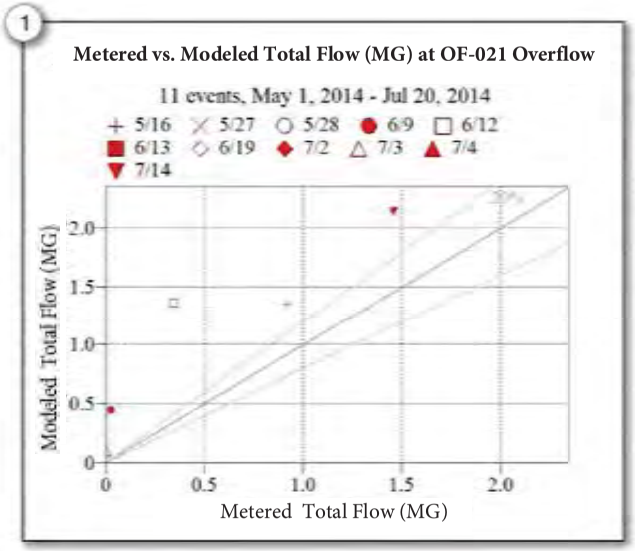
Permanent Rain Gauge Events:

1. May 16, 2014 (1.51 in.)
2. May 27, 2014 (0.56 in.) and May 28, 2014 (0.39 in.)
3. June 9, 2014 (0.74 in.)
4. June 12, 2014 (1.68 in.) and June 13, 2014 (0.45 in.)
5. June 19, 2014 (0.78 in.)
6. July 2, 2014 (0.38 in.), July 3, 2014 (0.60 in.) and July 4, 2014 (0.47 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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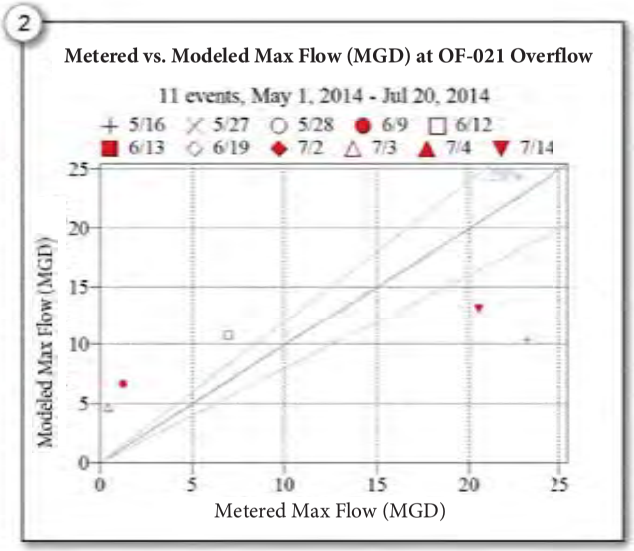

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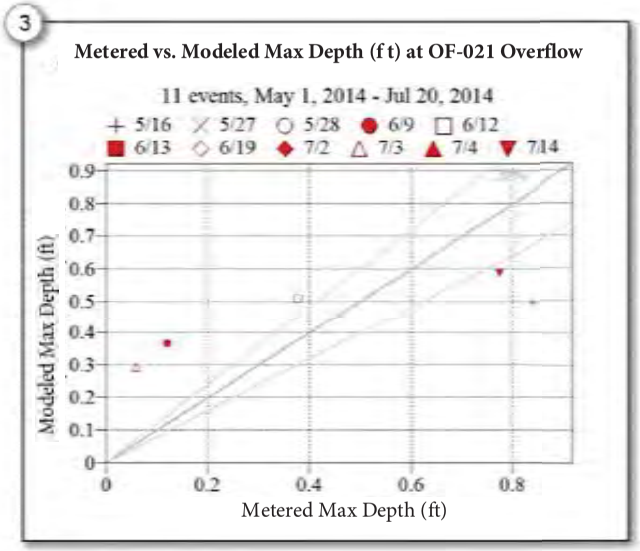

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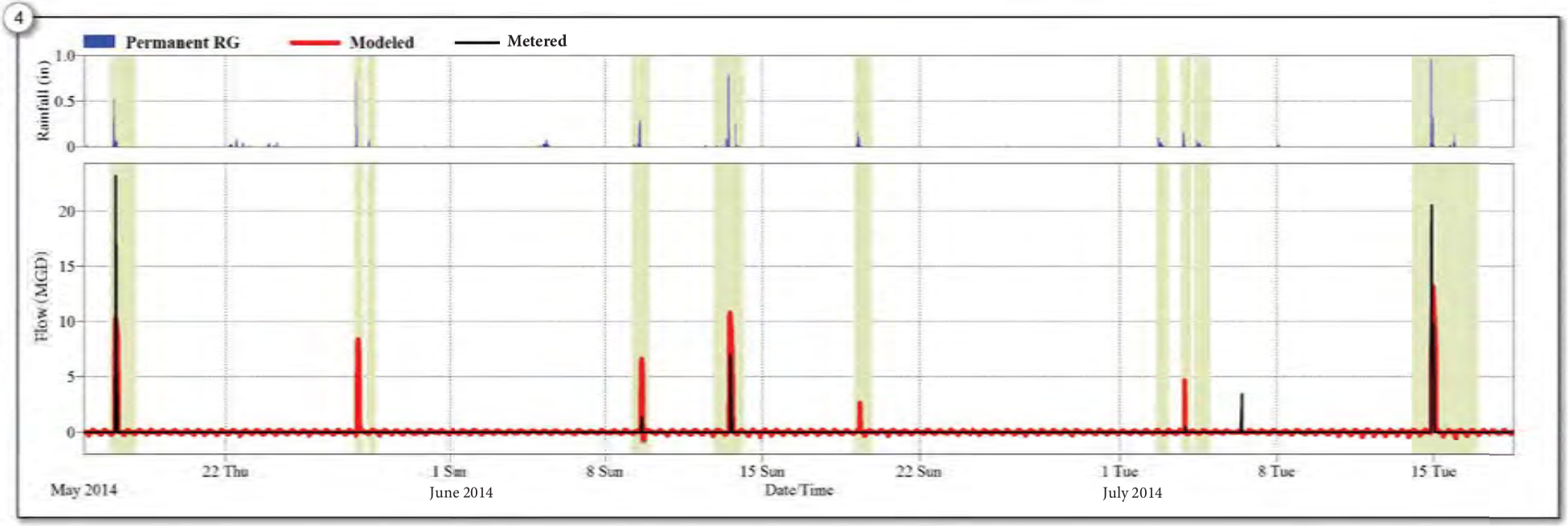


Model Calibration Results

Flow Meter: OF-021 Overflow

Meter Summary

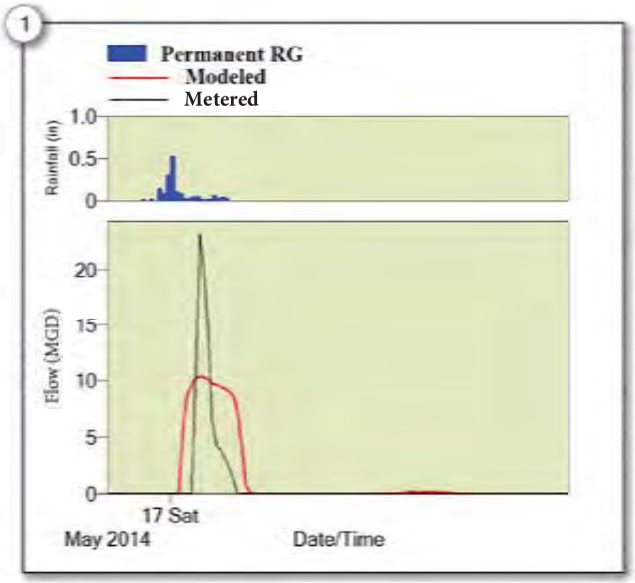
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

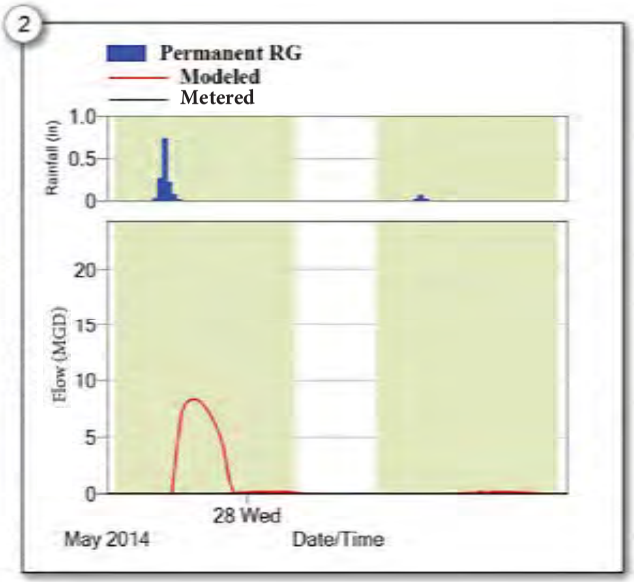
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

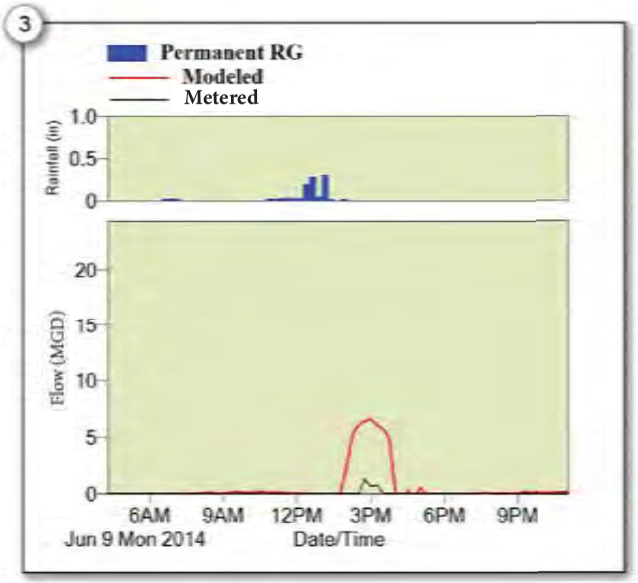
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

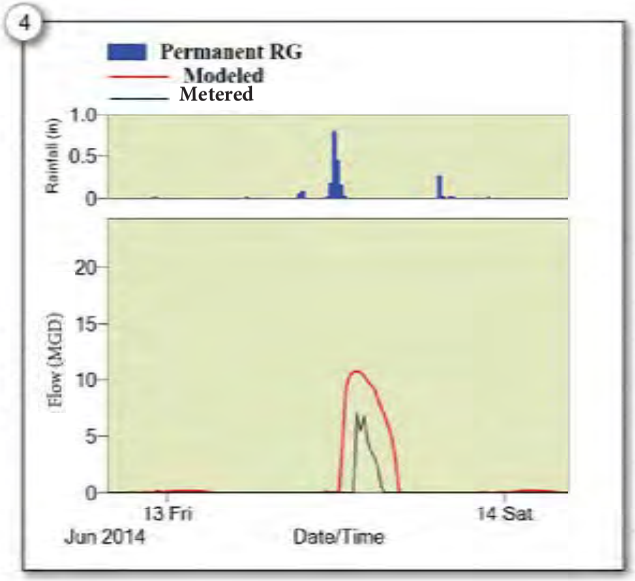
Prepared by:

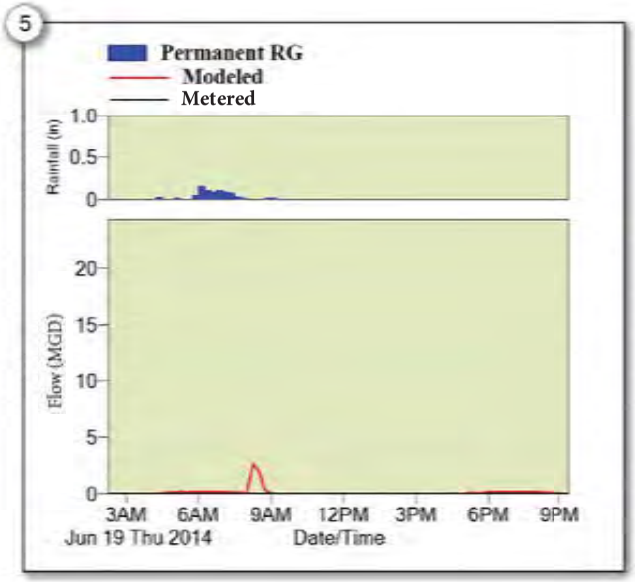
CH2MHILL

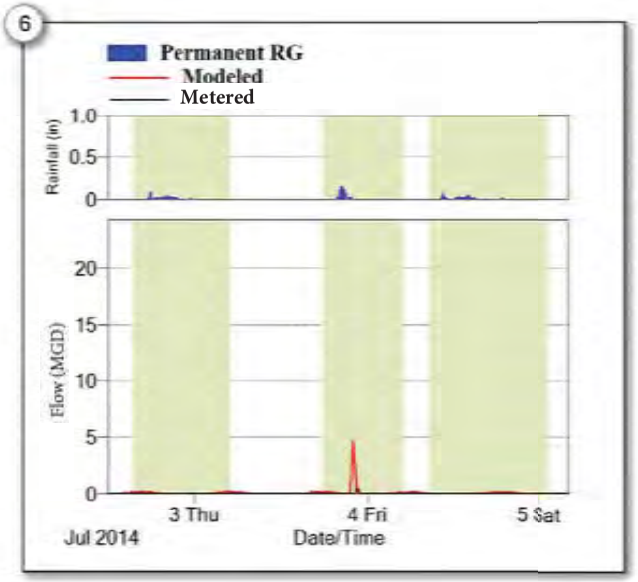












Model Calibration Results

Flow Meter: OF-021 Overflow

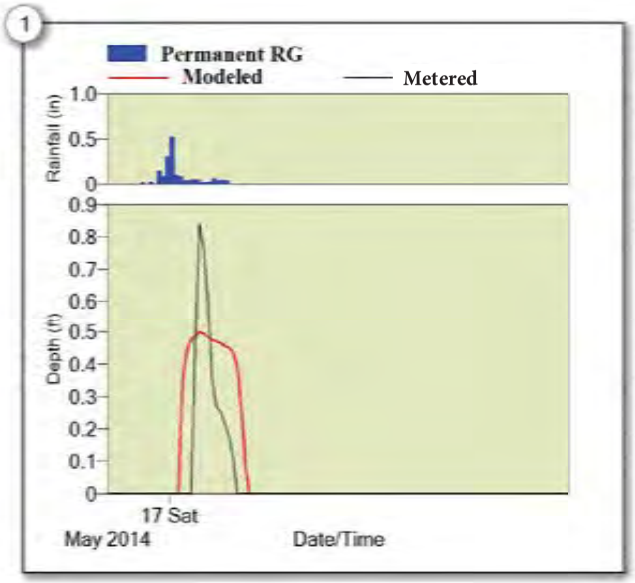
Event Comparison: Flow

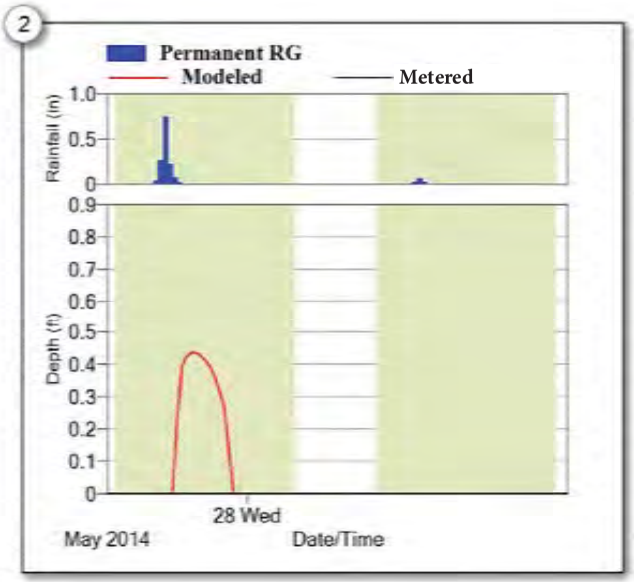
Permanent Rain Gauge Events:

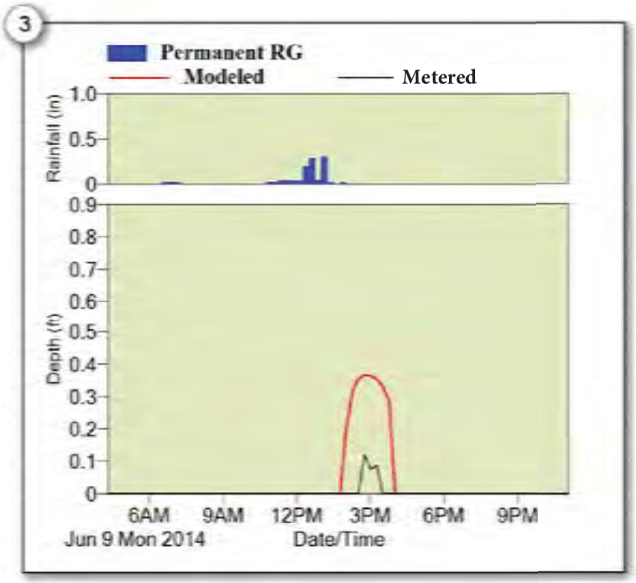
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

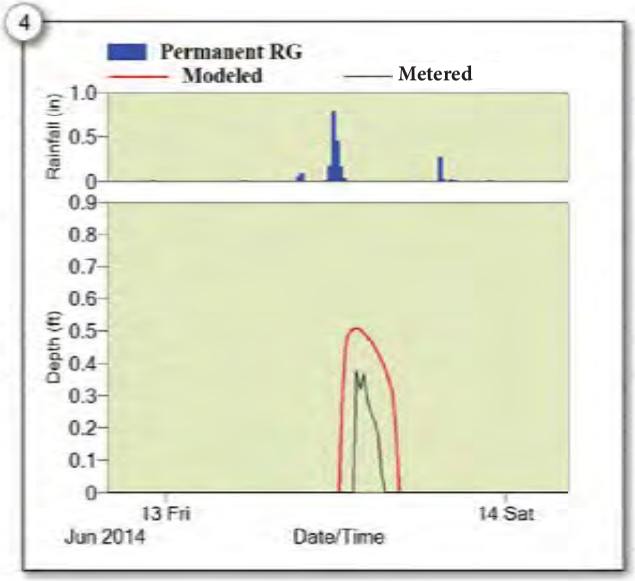
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

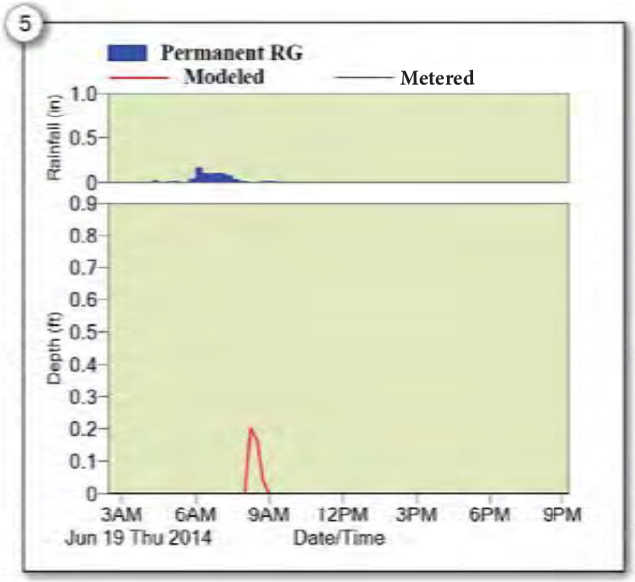
Prepared by:
CH2MHILL

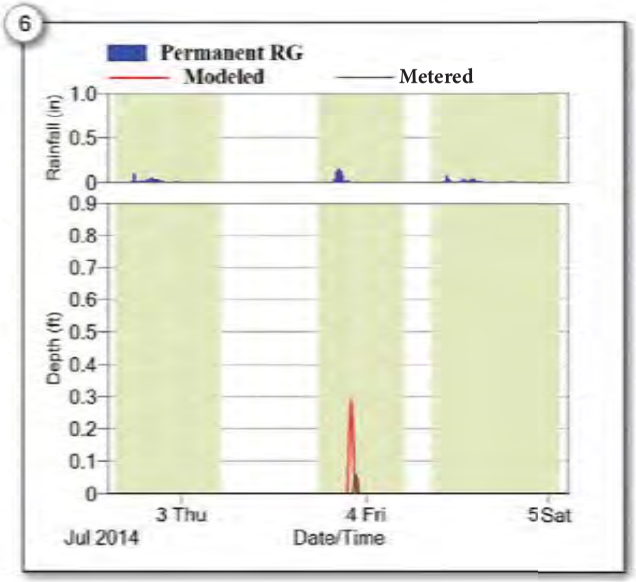












Model Calibration Results

Flow Meter: OF-021 Overflow

Event Comparison: Depth

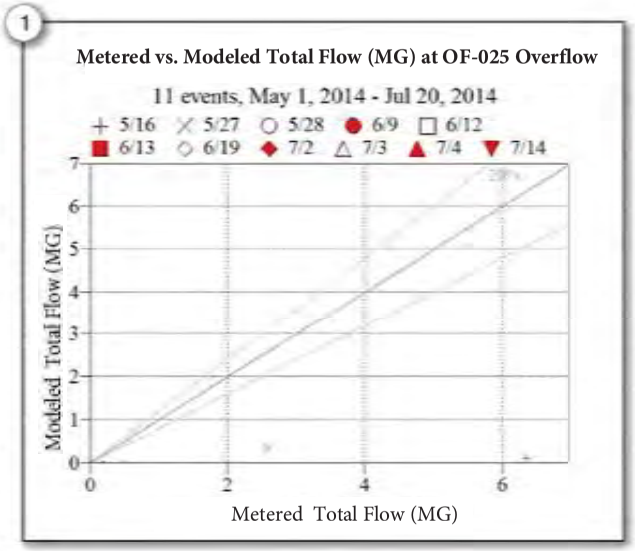
Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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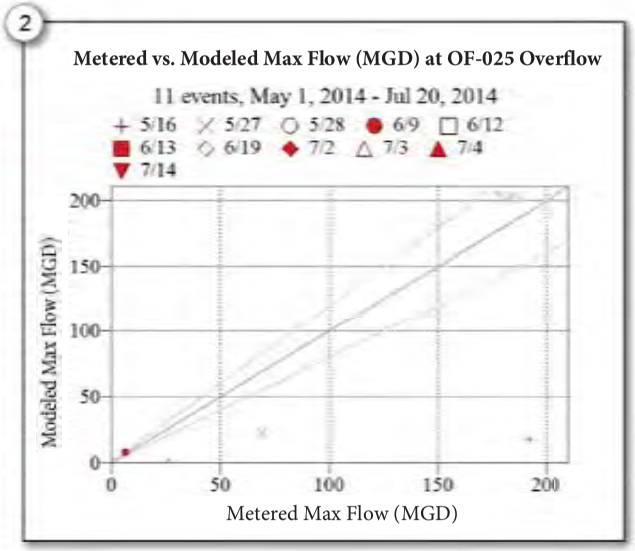

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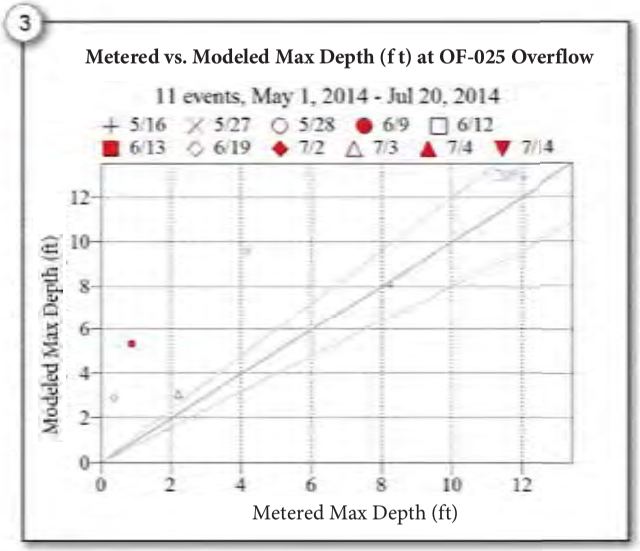

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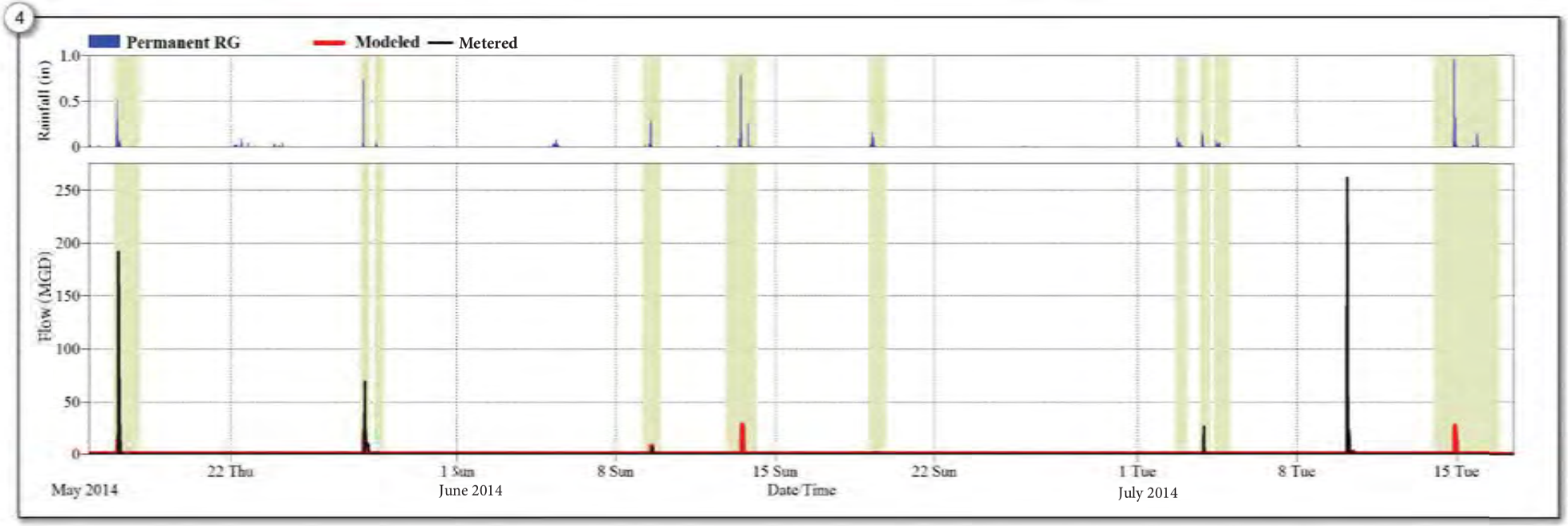


Model Calibration Results

Flow Meter: OF-25 Overflow

Meter Summary

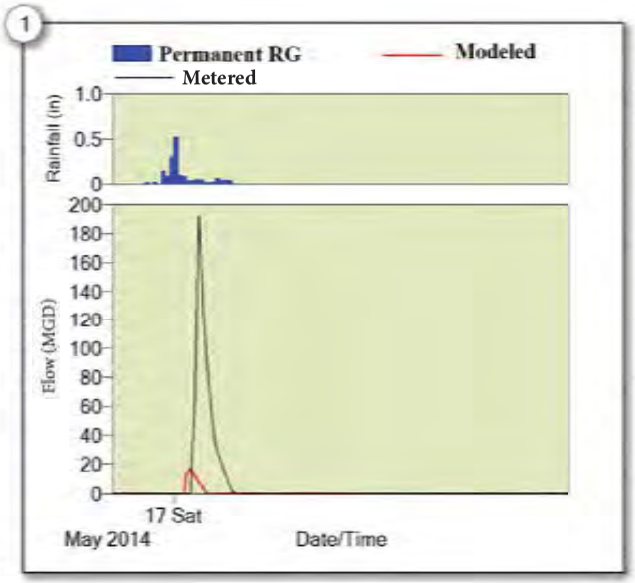
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

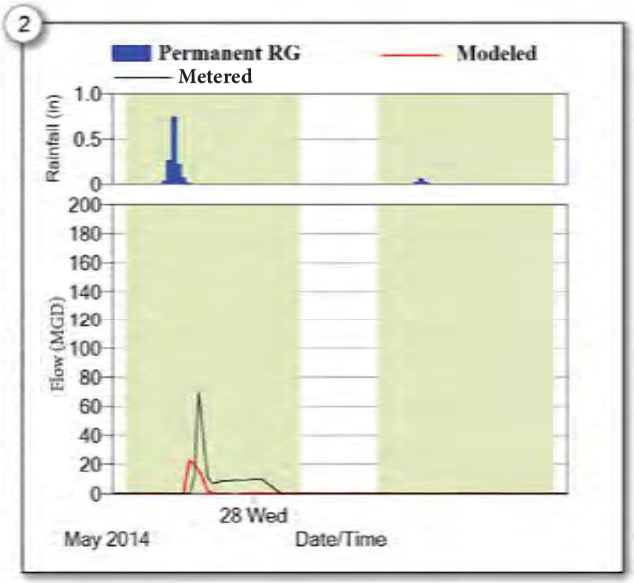
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

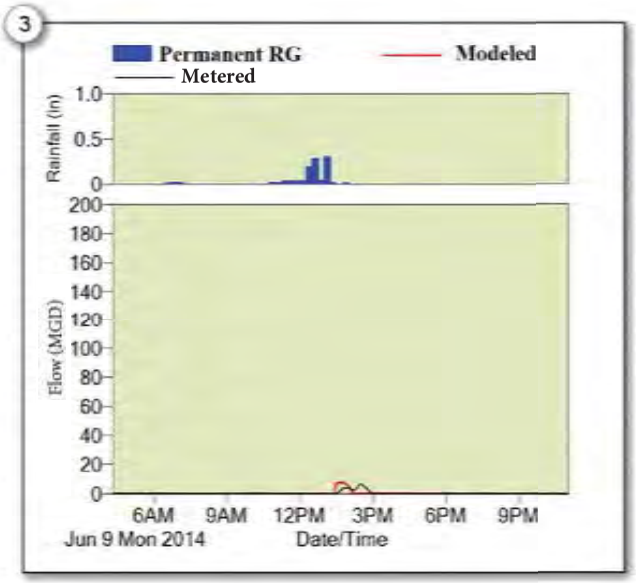
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

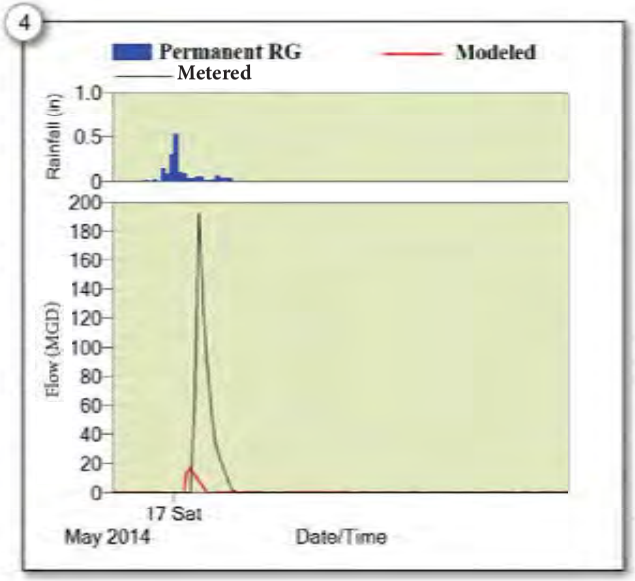
Prepared by:

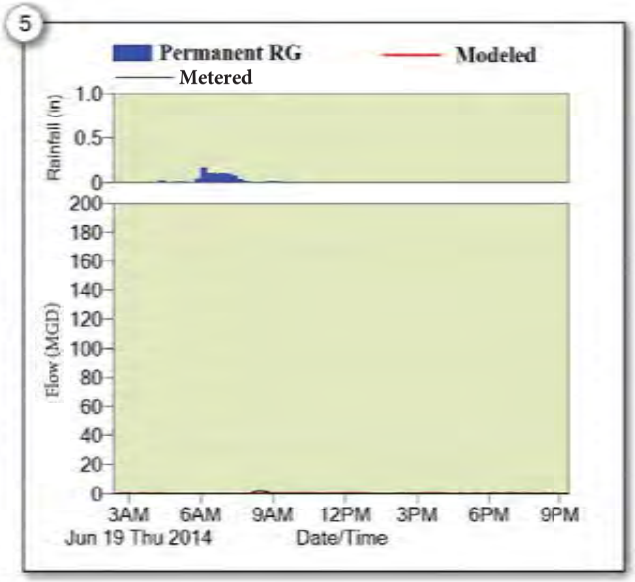
CH2MHILL

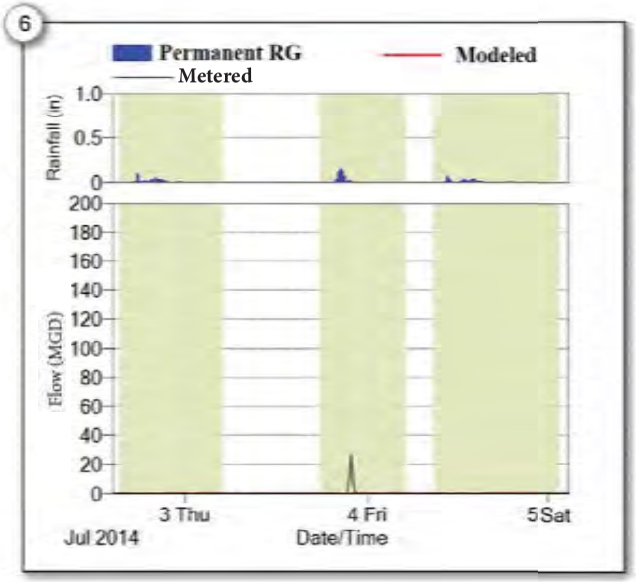












Model Calibration Results

Flow Meter: OF-025 Overflow

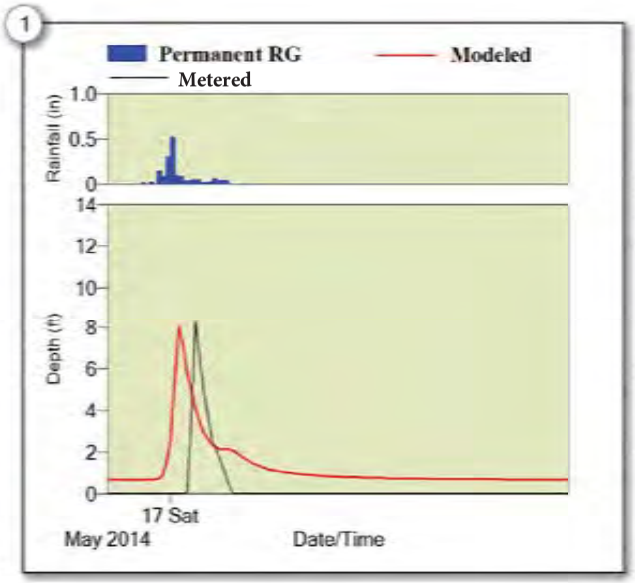
Event Comparison: Flow

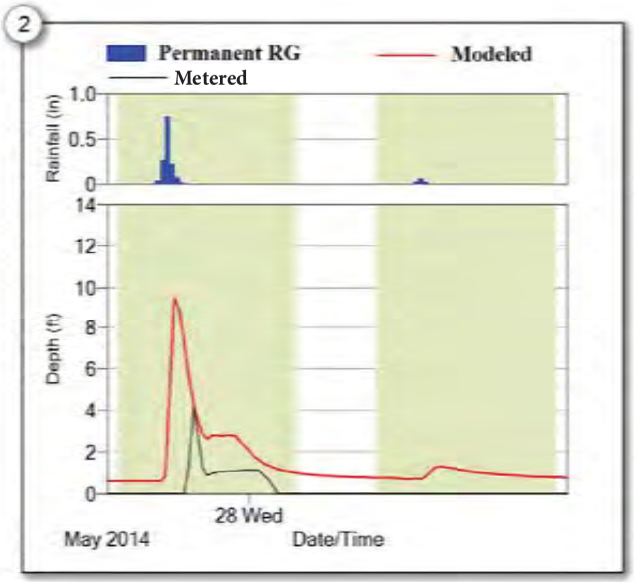
Permanent Rain Gauge Events:

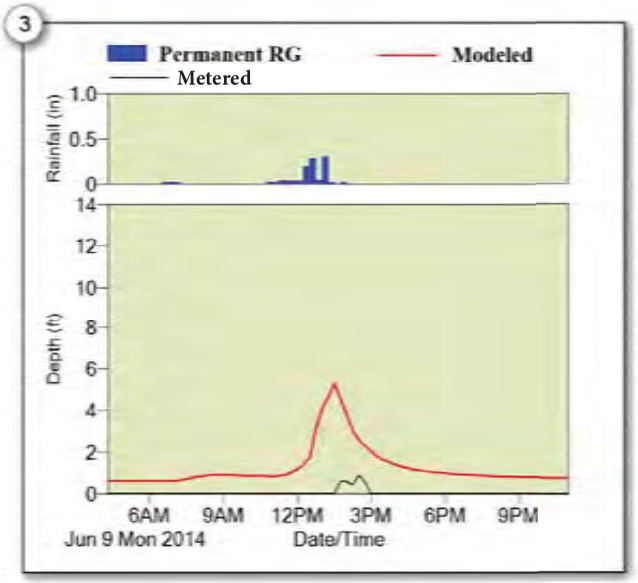
1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
3. June 9, 2014 (1.02 in.)
4. June 12, 2014 (1.78 in.) and June 13, 2014 (0.32 in.)
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

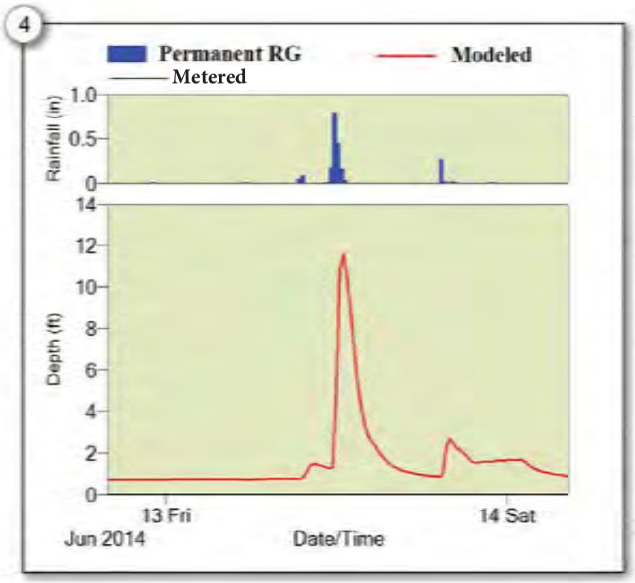
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

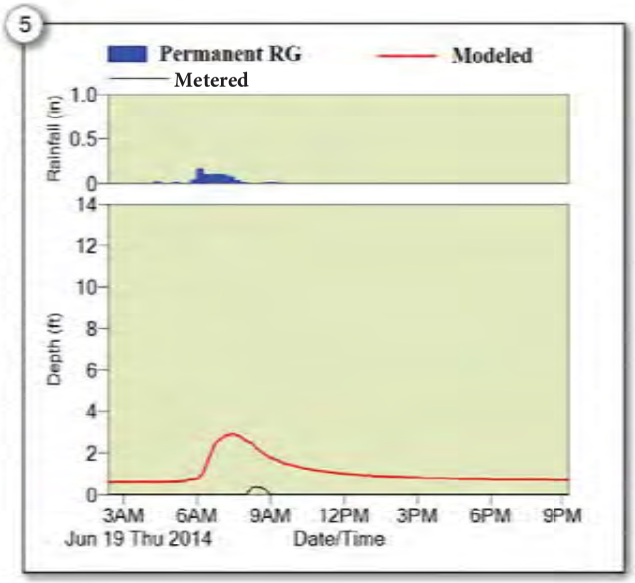
Prepared by:
CH2MHILL

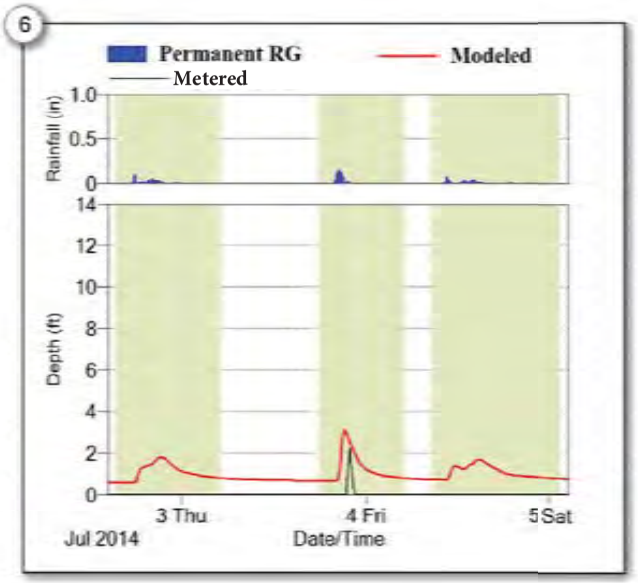












Model Calibration Results

Flow Meter: OF-025 Overflow

Event Comparison: Depth

Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
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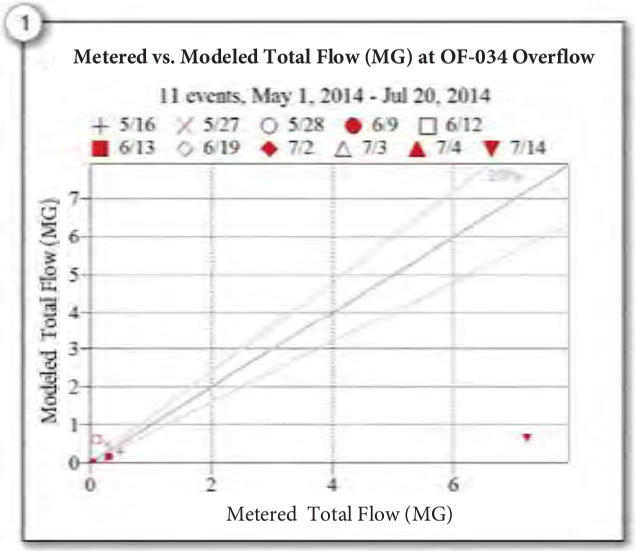
5. June 19, 2014 (0.74 in.)
6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

Prepared by:
CH2MHILL

1



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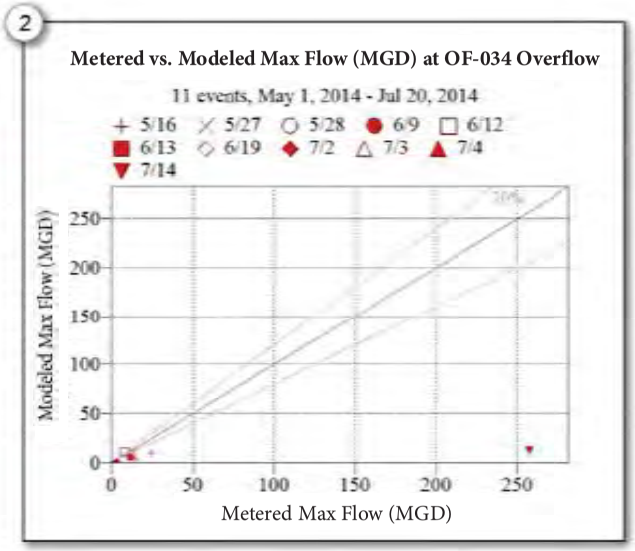

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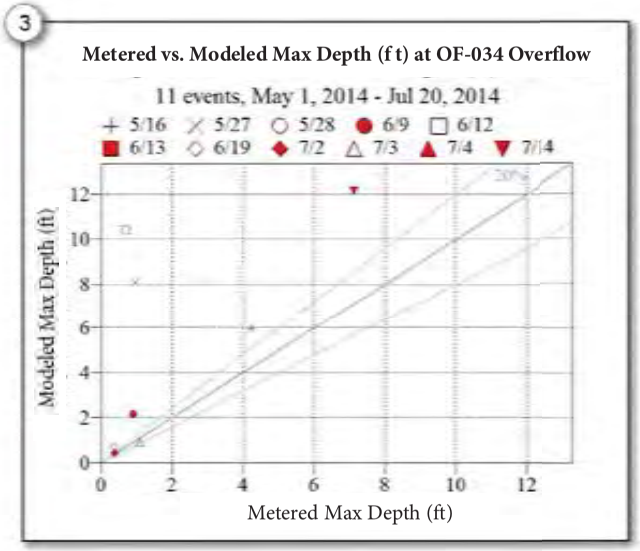

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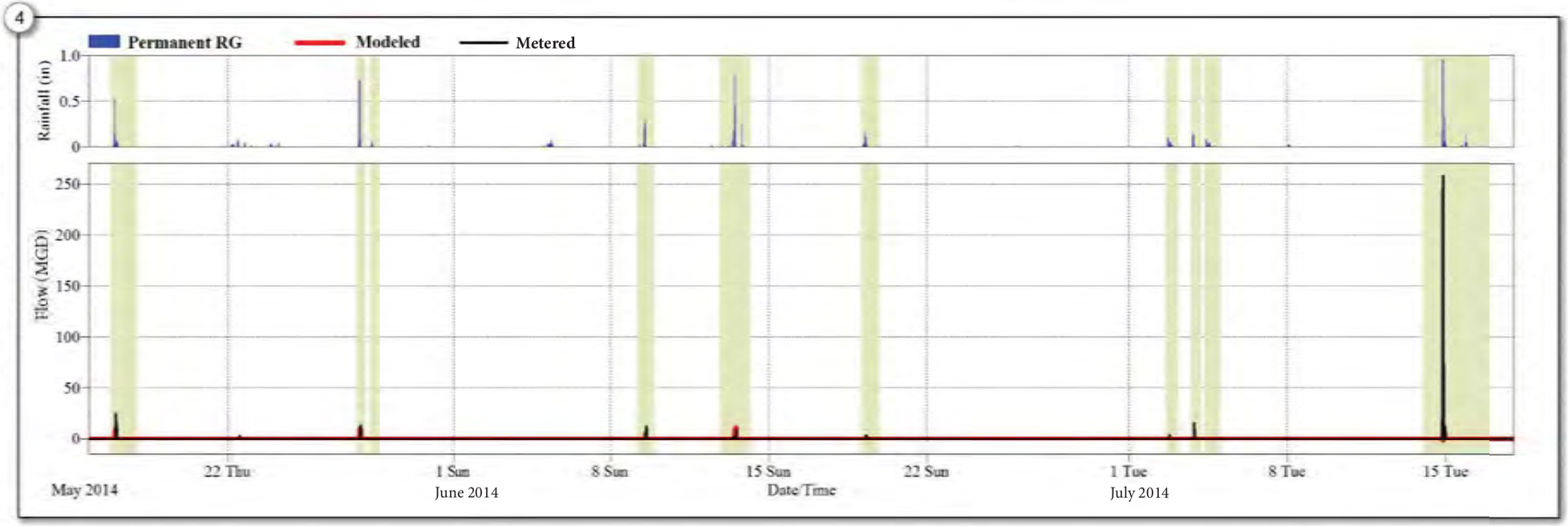


Model Calibration Results

Flow Meter: OF-034 Overflow

Meter Summary

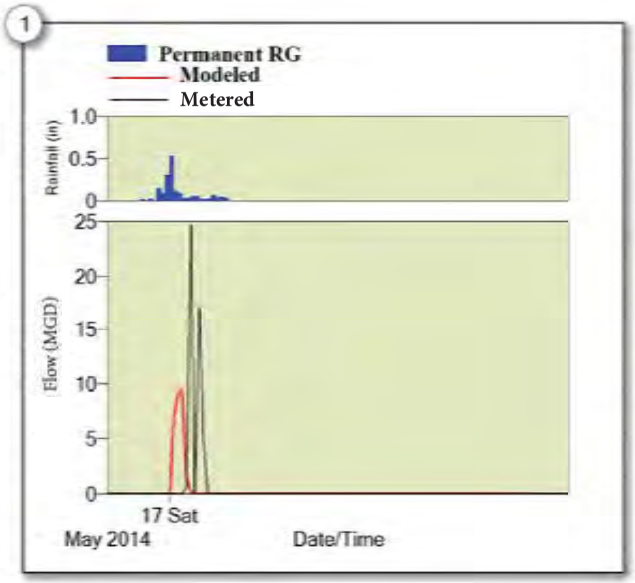
1. Total Event Volume
2. Maximum Event Flow
3. Maximum Event Depth
4. Complete Hydrograph and Hyetograph

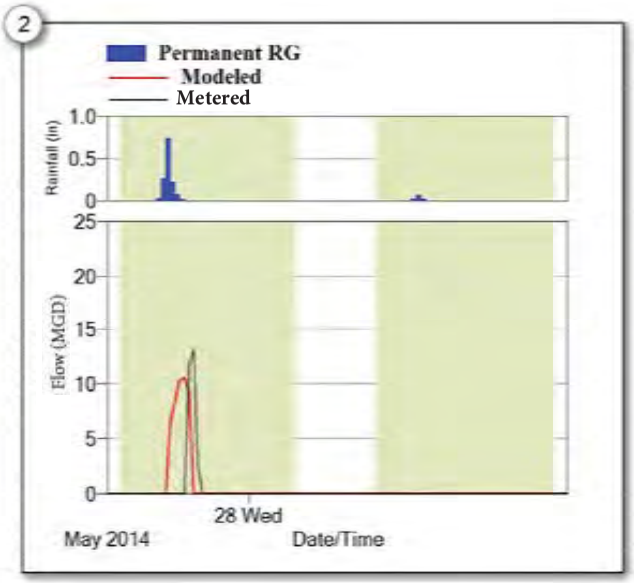
10 events fell in the May 7 - July 7, 2014 monitoring campagin with 1 validation event on July 14, 2014.

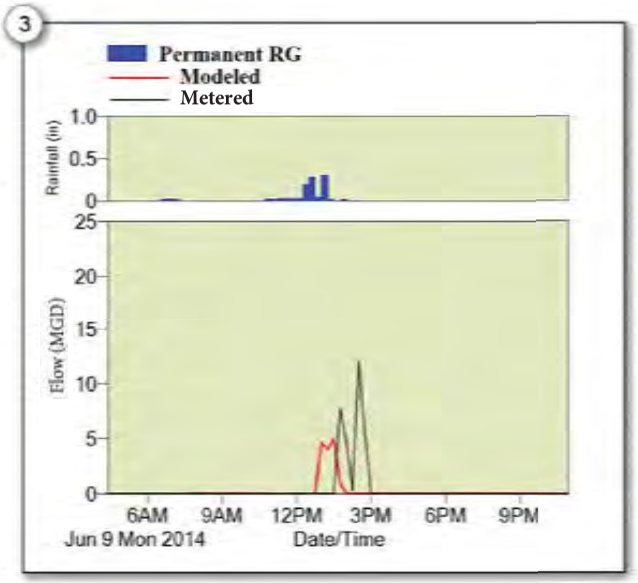
Prepared for:
Greater New Haven Water Pollution Control Authority (GNHWPCA)

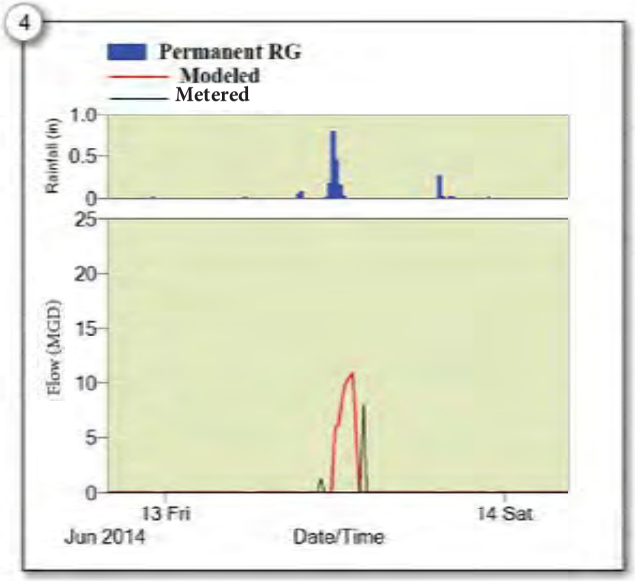
Prepared by:

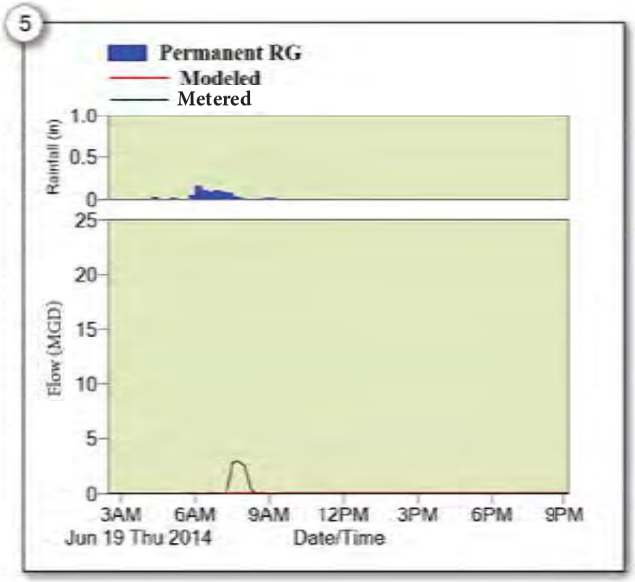
CH2MHILL

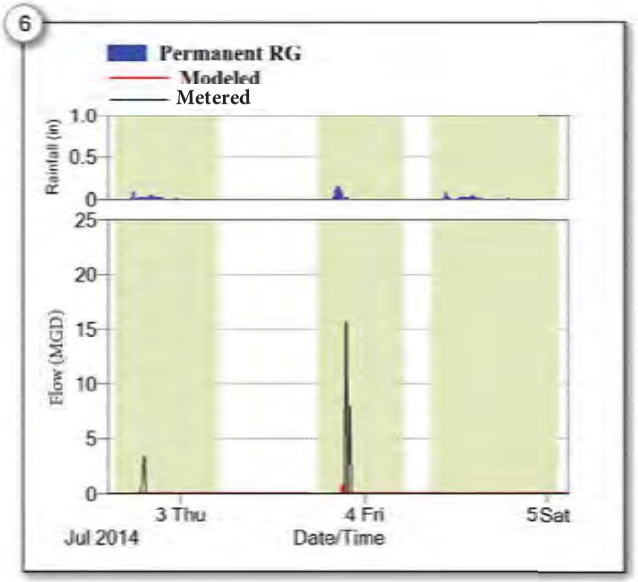












Model Calibration Results

Flow Meter: OF-034 Overflow

Event Comparison: Flow

Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
2. May 27, 2014 (1.33 in.) and May 28, 2014 (0.1 in.)
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6. July 2, 2014 (0.40 in.), July 3, 2014 (0.52 in.) and July 4, 2014 (0.36 in.)

Prepared for:
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Prepared by:
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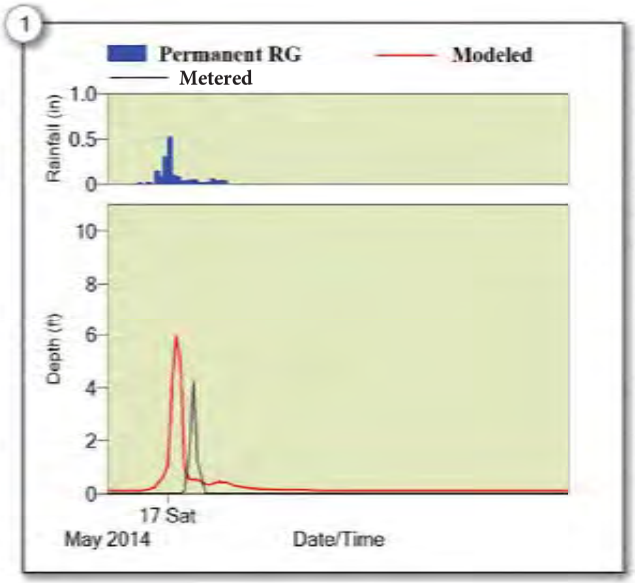

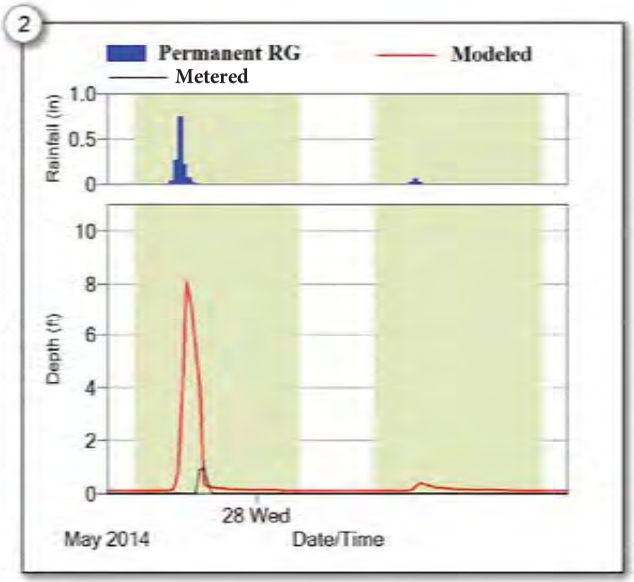

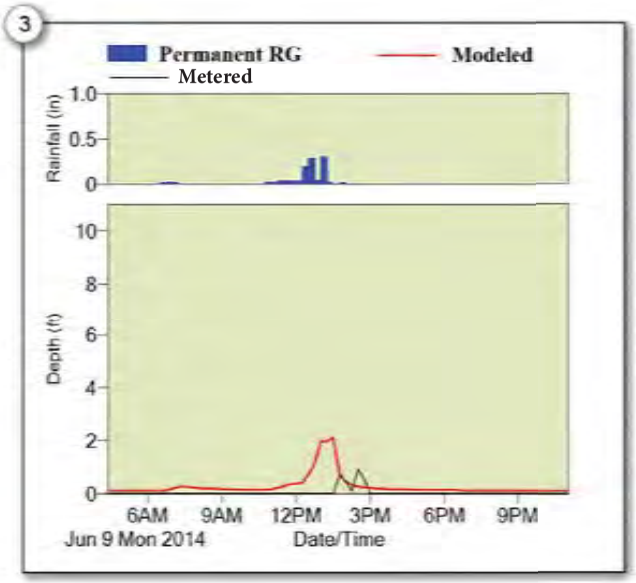

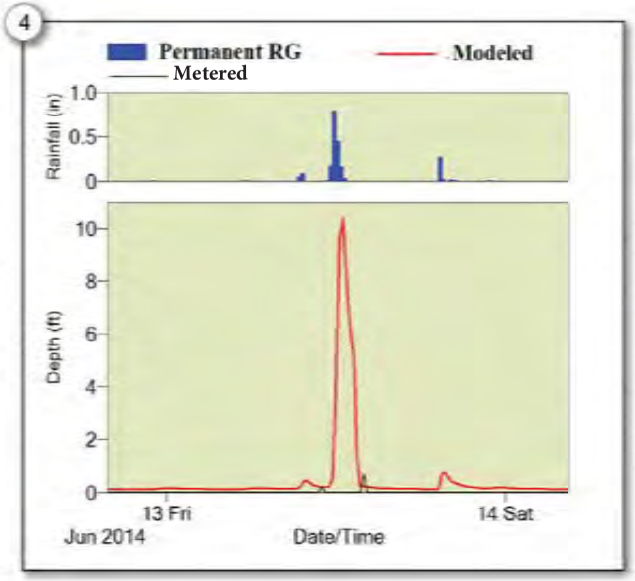

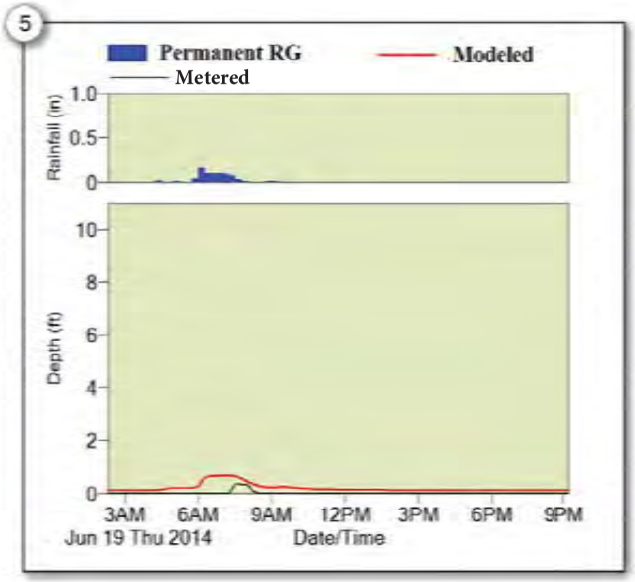

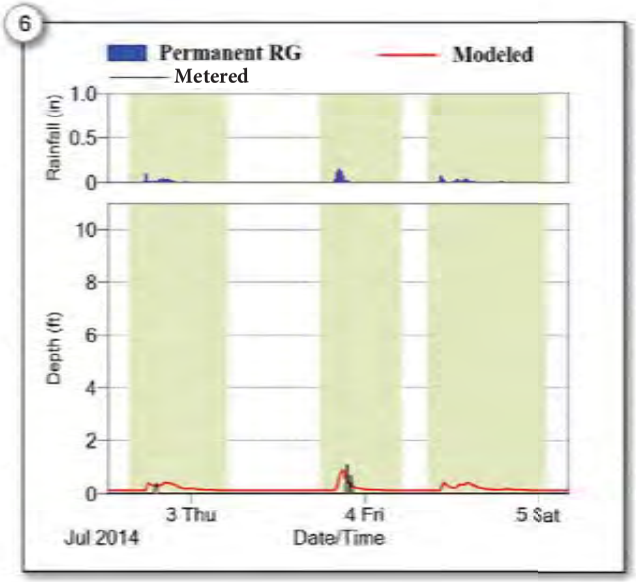

Model Calibration Results

Flow Meter: OF-034 Overflow

Event Comparison: Depth

Permanent Rain Gauge Events:

1. May 16, 2014 (1.61 in.)
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Prepared by:
CH2MHILL