



Taylors Fire and Sewer District

Annual Report

July 1, 2013 – June 30, 2014



3335 Wade Hampton Blvd.

Taylors, SC 29687

www.taylorsdistrict.org



History

In order to serve the infrastructure needs of people living outside the municipalities, Special Purpose Districts (SPD's) were created. A Special Purpose District (SPD) is a district created by an Act of the General Assembly or pursuant to general law and which provides any governmental power or function including, but not limited to, fire protection, sewerage treatment, water or natural gas distribution or recreation. A Special Purpose District also means any rural community water district authorized or created under the provisions of Chapter 13 of Title 6. Special Purpose Districts do not include any state agency, department, commission or school district.

On April 28, 1958, Act No. 1099 of the General Assembly of the State of South Carolina for the year 1958, created Taylors Water and Sewer District as a Special Purpose District in Greenville County. The District is operated, managed and governed by a commission. This commission consisted of three resident electors of the district to be elected by the qualified electors of the district. The Commission was charged with the responsibilities of constructing, operating, maintaining, improving and extending a water distribution system, a sewer system, a system for the collection and disposition of garbage and a system for fire protection within the boundaries.

On March 25, 1966, Taylors Water and Sewer District sold its water distribution system to the City of Greenville, South Carolina, Waterworks System (known now as Greenville Water) but continued to provide fire and sewer services. On June 14, 1968, Act No. 1546 of the General Assembly of the State of South Carolina for the year 1968, changed the name of Taylors Water and Sewer District in Greenville County to Taylors Fire and Sewer District and relieved the district of any authority or responsibility with reference to a public water distribution system.

In September 1970, Taylors Fire and Sewer District agreed to sell, Western Carolina Regional Sewer Authority (then Greenville County Sewer Authority, as known now as Renewable Water Resources) all sewer trunk lines, right-of-ways, and sewage treatment plants, including all plant equipment and any land adjacent to the treatment plant for future expansion. This was done to be in compliance with Section 8 of Act No. 745 of 1967, as amended, of the South Carolina Statutes. This left Taylors Fire and Sewer District with the maintenance responsibility of the collector lines which serves each resident and a large number of septic tanks.



Introduction

Taylors Fire and Sewer District is a special purpose district that operates and maintains a wastewater collection and pumping system with a service area of approximately 16 square miles. We are located in central Greenville County, northeast of the City of Greenville, and are adjacent to the western border of the City of Greer. We share district boundaries with Metropolitan Sewer Subdistrict to our northwest and southeast, and Wade Hampton Fire and Sewer District to our southwest. The wastewater collection system includes approximately 130 miles of gravity line, 3 pump stations and 3,600 manholes.

Our District Office is located at 3335 Wade Hampton Boulevard in Taylors behind the Fire Department Headquarters building.



Our Sewer Operations Shop is located at 405 Brushy Creek Road behind Fire Department Station #2.





Overview

The data included in this report is accurate as of June 30, 2014, which coincides with Taylors Fire and Sewer District's fiscal year end. This report will be updated on an annual basis, using our fiscal year as a data gathering deadline.

Taylors Fire and Sewer District and ReWa's intergovernmental agreement was signed on March 7, 2007 by Ms. Kelly Tucker, Taylors' Director of Sewer Services, and Mr. Ray Orvin, ReWa's Executive Director. After doing some research on the intergovernmental agreement, it was noted that the report was due on December 1, 2007. The reports would run from December 1st to November 30th of the following year. After going through the 2007, 2008, 2009 and 2010 reports, Ms. Samantha Bartow, Taylors' Director of Sewer Services, set up a meeting with Mr. Ray Orvin, ReWa's Executive Director and Mrs. Stacey Flax, ReWa's Customer Service / Contract Manager to discuss the timeline. During this meeting, Ms. Bartow asked if Taylors Fire and Sewer District could change the dates of the agreement so its report could run on fiscal year. Taylors' fiscal year is July 1st to June 30th. This change was requested due to how Taylors reports their financials. Mr. Orvin granted Ms. Bartow permission to change Taylors' report to fiscal year. Since this change was done in 2011 it was also agreed that for the 1st year Taylors Fire and Sewer District would turn in a report for December 1, 2010 to June 30, 2012 to incorporate the new reporting period. From this point forward Taylors Fire and Sewer District reports will run on fiscal year reporting.

As per the established Sanitary Sewer Evaluation Protocols the lines were smoked, inspected utilizing CCTV, and rated as to the amount and location of any damage. Any breaks, open cracks, misalignments, root intrusions, or damaged manholes were marked as inflow and infiltration sources and listed for repair or replacement.



Tragedy Hits Taylors

Shane Williams



Shane Williams
Easley

Shane, 38, of 137 Devon Court, passed away Sunday, January 26, 2014.

Born in Pickens County, a son of Mike and Diane Porter Williams of Easley, Shane was employed with Taylors Fire and Sewer and a member of Cedar Rock Baptist Church where he was a deacon and Sunday School teacher.

Surviving, in addition to his parents, are his wife Crystal, Shane Williams of the home; a son, Glenn Williams of the home; a brother, Travis Williams of Easley; and his grandmother, Viola Porter of Liberty.

Funeral services will be at 3:00 PM Wednesday at Cedar Rock Baptist Church. Burial will follow in the church cemetery.

Visitation will be from 1:00 until 2:45 PM Wednesday at the church, prior to the service.

The family is at the home of his parents, Mike and Diane Williams, 1259 Jernison Road, Easley, SC 29640.

Condolences may be expressed online at www.robisonfuneralhome.com or in person at Robison Funeral Home-Downtown, which is assisting the family.

On Sunday, January 26, 2014, Taylors Fire and Sewer District lost one of its family members in the Sewer Department, Shane Williams. Shane worked for Taylors Fire and Sewer District since October 1996 in different capacities, most recently as the Construction Supervisor. He was a Class A Collection System Operator and a member of the Water Environment Association of South Carolina – Blue Ridge Foothills District.

Friends mourn slain Dacusville man

Victim was shot in his home Sunday

By Cheryl P. Allen
Staff writer

It doesn't seem right looking over at the desk area where Shane A. Williams once sat and finding it empty, said Samantha Bartow, director of sewer services at Taylors Fire and Sewer District.

"It's hard to believe he's not here today," she said.

Williams, who worked for the district since October 1996, died Sunday, a day after his 38th birthday.

He was found shot dead in his Dacusville home early Sunday and the Pickens County Sheriff's Office is treating the case as a murder investigation, according to Chief Deputy Creed Hashe.

The victim's wife and a small

child, who weren't injured, told deputies that they were awakened by what sounded like gunshots, and then saw the victim on the floor, Hashe said.

The Sheriff's Office received a 911 call at 3:45 a.m. Sunday, Hashe said. Deputies arrived within six minutes and found the victim dead inside the home, he said.

An autopsy Monday determined Williams had been shot multiple times, according to the

Sheriff's Office.

Meanwhile, flags at the Taylors Fire and Sewer District stations were flying at half-staff.

Friends and co-workers remembered him as a dedicated employee and a Christian family man who enjoyed hunting and serving his church.

Williams worked for the district in different capacities, most recently as a construction supervisor, Bartow said.

"Shane was one of those people who couldn't hurt a fly," Bartow said.

Doug Wavle, a district commissioner, said Williams was an excellent, safety-conscious employee.

"He loved his job and his family," Wavle said. "People knew he was a Christian by his behavior and by his speech. We will miss him. Others will miss him, but his testimony will live on."

Slain Taylors sewer employee remembered

Williams found shot in Dacusville home

By Cheryl P. Allen
Greater Greer News
callen@greenvillenews.com

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Jan. 26, a day after his 38th birthday.

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Shane A. Williams

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An autopsy Jan. 27 determined Williams had been shot multiple times and had died of a gunshot wound, according to the Sheriff's Office.

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Doug Wavle, a district commissioner, said Williams was an excellent, safety-conscious employee.

See WILLIAMS, Page 8A

WILLIAMS

Continued from Page 1A

"I've had seven years of knowing him," Wavle said. "He loved his job and his family. People knew he was a Christian by his behavior and by his speech. We will miss him. Others will miss him but his testimony will live on."

Williams was a member of Cedar Rock Baptist Church in Easley where he served as a deacon and a Sunday school teacher, according to his obituary. "He sang in the choir and he and his wife

"He loved his job and his family. ... Others will miss him but his testimony will live on."

DOUG WAVLE,
a district commissioner

worked together with vacation Bible school and fall festivals," said Wayne Garmon, senior pastor at Cedar Rock. "They were just a hard-working family in our church. Shane was a quiet person. He was a very humble man."

The crowd of family, friends and associates that showed up at Williams' funeral spoke volumes about his life, Garmon said.

"That was the largest turnout at a funeral that I've ever seen that I've been involved with in my 20 years of ministry," he said.

Anyone with information is asked to call the Pickens County Sheriff's Office at 864-898-5677 or Crimestoppers at 1-888-CRIME-SC.

■ Staff Writer Cheryl P. Allen can be reached at 864-298-4026 or followed on Twitter at CPAllenNews.

Two charged in man's death

Wife, friend arrested in shooting at home

By Anna Lee

Staff writer
zlee@greenvillenews.com

Their pastor described Shane and Crystal Williams as a "hard-working family."

Married for 14 years, they had a young son Shane Williams had hoped to take hunting soon, said

Wayne Garmon, senior pastor of Cedar Rock Baptist Church.

They would never get to go.

Williams was shot to death Jan. 26 inside his home at 117 Devon Court in Easley, not far from the church where he taught Sunday school.

His wife, Crystal Gail Williams, 34, now faces charges of

murder and conspiracy to commit murder, according to warrants.

Also charged is Marcus Channing Johnson, 35, of 169 Walker St., with murder, conspiracy to commit murder and possession of a weapon during a violent crime.

Pickens County Sheriff Rick Clark said Crystal Williams and Johnson had known each other

since grade school.

Authorities had said Crystal Williams made the 9-1-1 call early that morning.

She told detectives she had awakened to what sounded like gunshots, and moments later found her husband lying on the floor, according to authorities.

There were no signs of forced

See SHOOTING, Page 5B

THE GREENVILLE NEWS

FRIDAY, FEBRUARY 7, 2014

greenvilleonline.com 5B

SHOOTING

Continued from Page 1B

entry, said Chief Deputy Creed Hashe. No one else was harmed, he said.

"There were things that were unique to this case that caused us to dig deeper in other areas," Hashe said.

Warrants allege that Crystal Williams unlocked

the kitchen door to let Johnson inside, then woke her husband up to tell him the fire needed more wood. Warrants allege Shane Williams walked into the living room where Johnson was waiting and was shot three times.

Investigators described the case as a tragic one, made more so because a child was involved.

"He lost a father, and now he has a mother who's

been arrested," said 13th Circuit Solicitor Walt Wilkins.

Wilkins said the two could be sentenced from 30 years to life in prison if they are convicted, though the death penalty could be sought.

"We're a long ways from those types of decisions," he said, adding that the investigation is still ongoing.

Cheryl Allen contributed.



Work Plan Updates

Vehicles Purchases

Purchase Date	Equipment	Cost
4-9-2014	2014 Honda Pilot 4WD EX-L	\$25,961.00
1-9-2014	2014 Ford Cues TV Camera Truck	\$158,470.00
1-14-2013	2013 Chevrolet Silverado 4WD Crew Cab	\$23,100.00
11-7-2012	2013 Chevrolet Silverado 4 Door Pick Up	\$37,083.00
1-27-2012	2012 Freightliner Vac-Con Truck	\$303,274.50
11-3-2010	2011 Chevrolet Silverado L. S. Pickup	\$21,512.00
6-1-2009	2009 Ford Super Duty F250 Service Truck	\$25,274.92
8-27-2008	2009 International 4300 Durastar Dump Truck	\$59,673.94
10-30-2006	2007 Ford Ranger Pick Up 4x4	\$15,030.75
12-14-2005	1997 Chevrolet C6500 Dump Truck	\$11,500.00
4-26-2002	2002 Ford Super Duty F350 XL Service Truck	\$27,102.00

Equipment Purchases

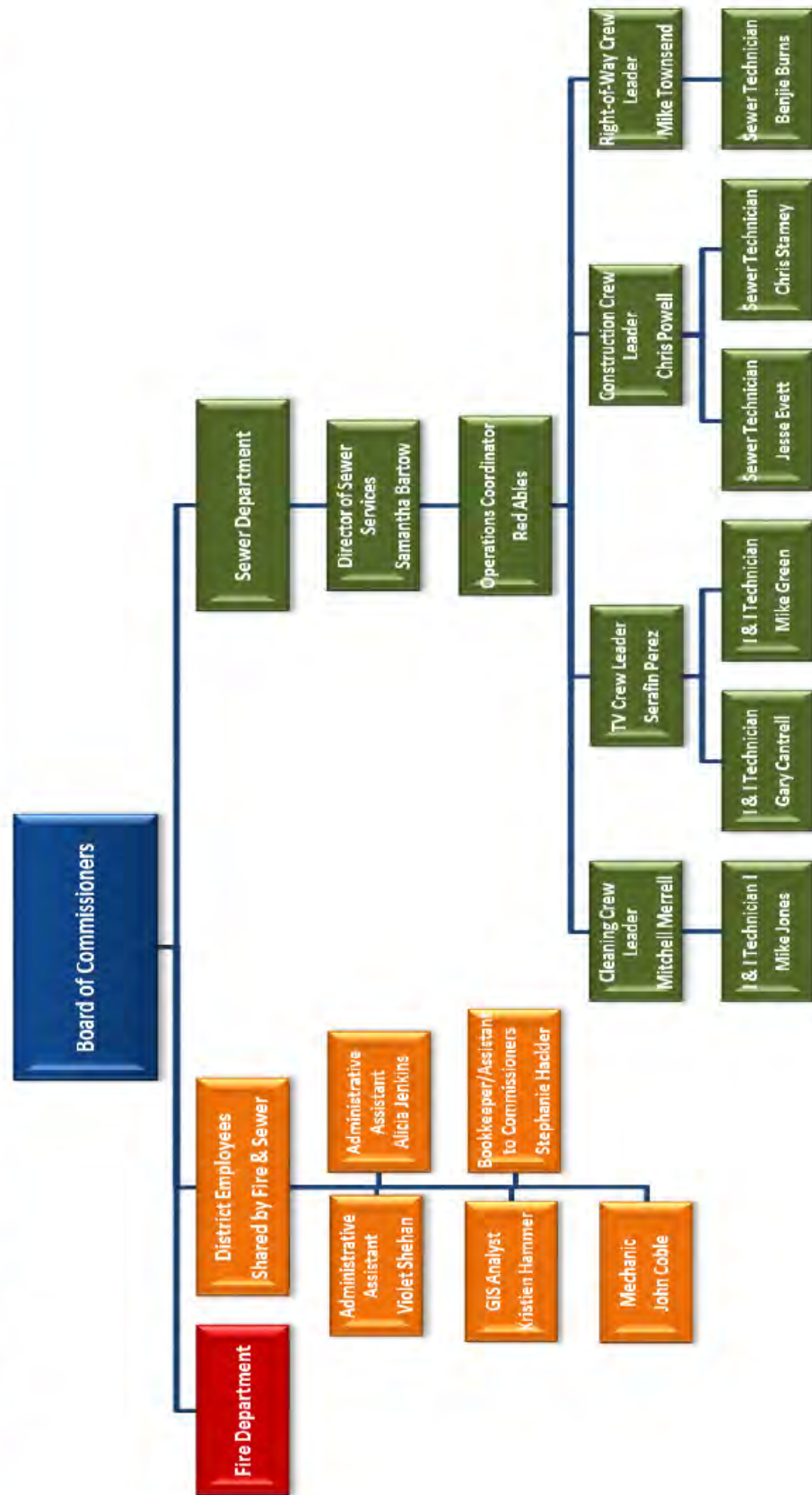
Purchase Date	Equipment	Cost
7-30-2014	Replacement Pump (XFP-100G) for Lily Pond P.S.	\$9,746.70
6-30-2014	CMMS (City Works & ArcGIS) Configuration	\$66,765.00
3-17-2014	6' High Flow Cutter	\$7,837.64
2-27-2014	70" Clear Touch Interactive Computer / Panel	\$6,956.56
11-20-2013	Caterpillar Skid Steer CTL 289 Cab Hiflow	\$54,363.00
11-15-2013	15 – Smart Phones (IPhones) for Work Order Program (CMMS)	\$1,483.86
11-15-2013	5 each iPads for Work Order Program (CMMS)	\$3,370.74
7-10-2013	Azteca – City Works GIS Software (CMMS)	\$15,000.00
7-8-2013	5 – Computers for Sewer Shop plus Software (MS Office)	\$4,939.98
7-1-2013	Generator for District Office Building	\$23,998.55
6-21-2013	Degreaser Injector with Inverter Assembly – Ominbus	\$2,341.00
6-14-2013	3 – HTT-900 Cellular Monitor for Pump Stations \$1,750/ea	\$7,525.00
6-4-2013	ArcGIS Online	\$10,600.00
6-4-2013	VMC 60" Rotary Head with Hoses	\$3,999.00
5-31-2013	ArcGIS/ArcEditor for Desktop	\$7,420.00
5-14-2013	175-195 CFM Skid Mounted Compressor	\$12,953.83
8-17-2012	Cues Sonde for Existing OZ-3 Camera	\$3,233.00
7-30-2012	Solar Tech Arrow Board 15 Lamp Solar Power	\$4,028.00

Purchase Date	Equipment	Cost
7-2-2012	Cues OZ-3 Camera with Sonde	\$21,276.32
7-2-2012	Cues Wheeled WTR Tractor Crawler (Includes 6" Rubber Wheels)	\$19,011.10
7-2-2012	Cues 8" Steel Wheels for WTR Crawler	\$1,399.20
6-13-2012	Mi-T-M 1000 psi Steam & Pressure Washer	\$4,234.70
6-22-2011	2002 Haulmark Trailer for Patch Repair includes: 10 Marker Cones Porter-Cable Compressor Power House Generator 36" Fan 10'x10' Canopy 1 – 8' Repair Bladder 36 – Connector Rods for Bladder	\$1,800.00
5-18-2011	John Bean Bulldog 3518D Single Axle Trailer Jetter	\$39,008.00
1-12-2011	Flo-Dar Flow Monitor	\$10,490.07
10-1-2010	Flo-Dar Flow Monitor	\$9,370.40
6-30-2010	Flo-Dar Flow Monitor	\$14,411.20
6-18-2010	3 – Chicago Submersible Pump 25HP for Lily Pond P.S.	\$22,188.00
6-7-2010	Hurco Ripcord 8HP Ventilaton Machine	\$1,720.50
4-22-2010	Flexidata Software Module for ESRI – GIS Program	\$6,270.00
4-21-2010	Self-Retracting Wire Rope Device with Cast Aluminum Housing, Rescue & Retrieval Three-Way Self-Retracting Device, 7' Confined Space Aluminum Tripod	\$2,356.33
3-8-2010	Insight / Vision Push Camera System	\$7,791.00
11-13-2009	Carlton 2518 18" Capacity Brush Drum Chipper	\$44,201.62
10-28-2009	Straw Blower Bale Chopper	\$1,200.00
7-22-2009	1" Bulldog Nozzle	\$2,226.00
4-23-2009	Pearpoint Camera to Cues	\$41,128.00
4-23-2009	Ditch Box & Stacking Bars	\$5,826.85
4-17-2009	GME 6' x 8' x 2" Aluminum Extruded Wall Adjustable 32"-50" (Trench Box)	\$5,826.85
9-29-2008	8' Woods Cutter	\$5,000.00
9-15-2008	D-E Dual Axle Trailer	\$1,669.50
9-1-2008	Pipehunter Sidekick Easement Machine	\$23,677.47
8-26-2008	Jet Digger Nozzle	\$3,158.80
6-25-2008	Cues K-2 Portable Camera System	\$60,208.00
6-25-2008	ODEE Portable Camera Enclosure Unit	\$9,222.00
6-23-2008	Bobcat 2200-Diesel ATV	\$8,655.20

Purchase Date	Equipment	Cost
6-29-2007	2007 Hudson 10 Ton Trailer	\$7,070.20
6-29-2007	Kobelco 80 SR Excavator with 24" & 36" Buckets	\$78,595.00
2-20-2007	Stanley Hyd. Power Unit with Misc. Tools	\$7,575.75
12-1-2005	GME Griswold Trench Box 6	\$5,479.14
8-19-2005	2005 John Deere 6415 Tractor & Boom Mower	\$65,653.43
8-12-2005	Godwin CD100M 4" Dri-Prime Pumpset	\$19,142.55
6-28-2004	Mikasa MT-65H Tamping Rammer	\$2,934.75
1-13-2004	Mikasa MVC-88GHW Plate Compactor	\$1,884.75
1-10-2003	Kohler Generator	\$5,500.00
8-28-2002	2002 John Deere 310 SG Backhoe with Cab	\$41,300.00
6-14-2001	Hobart Ironman Welder 250 Wire-Welder	\$1769.79
4-2-2001	Rhino 6'x8' Shoring Shield	\$6,632.45
8-14-1996	Data Logging Rain Gauge with 25' Cable	\$595.00
1-1-1986	1986 Ingersol-Rand Air Compressor (pull behind)	\$6,000.00
	Stone Cement Mixer 655 P.M.	\$3,000.00
	Hurco Smoke Machine	\$2,500.00
	7 – Hach Sigma 910 Flow Monitors	



Organizational Chart





District Administration Personnel



Chair
Mark Rea



**Vice Chair/
Secretary**
Doug Wavle



Treasurer
Paul Bowen

District Commissioners



Administrative Staff

Over the last few years, the District has added employees. Taylors Fire and Sewer District has three classifications for employees: Fire Department Personnel, Sewer Department Personnel and District Administration Personnel. District Administration Personnel work for both the Sewer and Fire Departments, which report to the Director of Sewer Services and Fire Chief. The Sewer Department has changed responsibilities for Crews; each Crew now has a Crew Leader to report to. Due to limited size of each crew, each employee is cross trained in other fields so as to add more manpower to either crew as required by the nature of the project.



Sewer Department Crews



Operations Coordinator



Construction Crew



Cleaning Crew

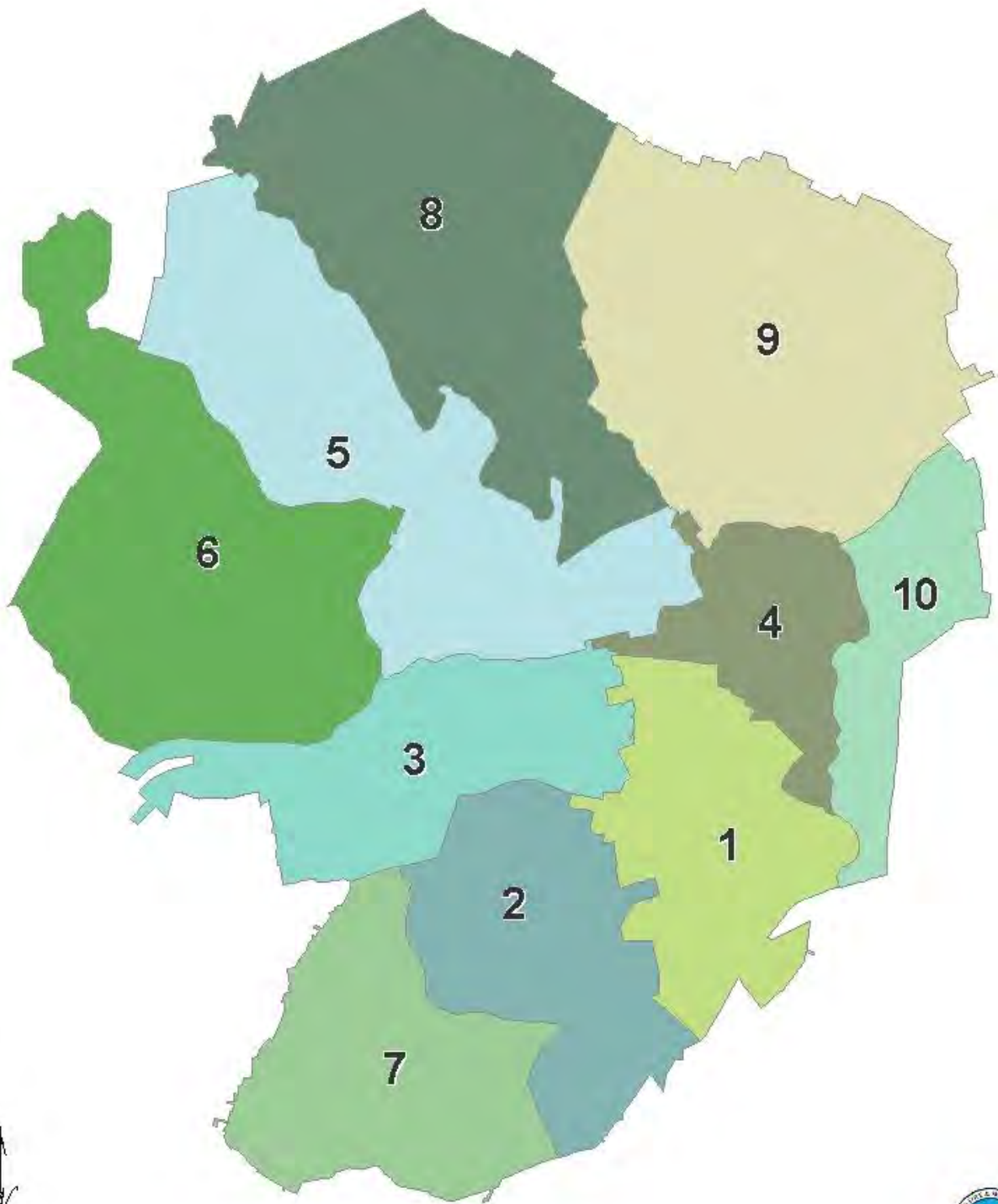


Right-of-Way Crew

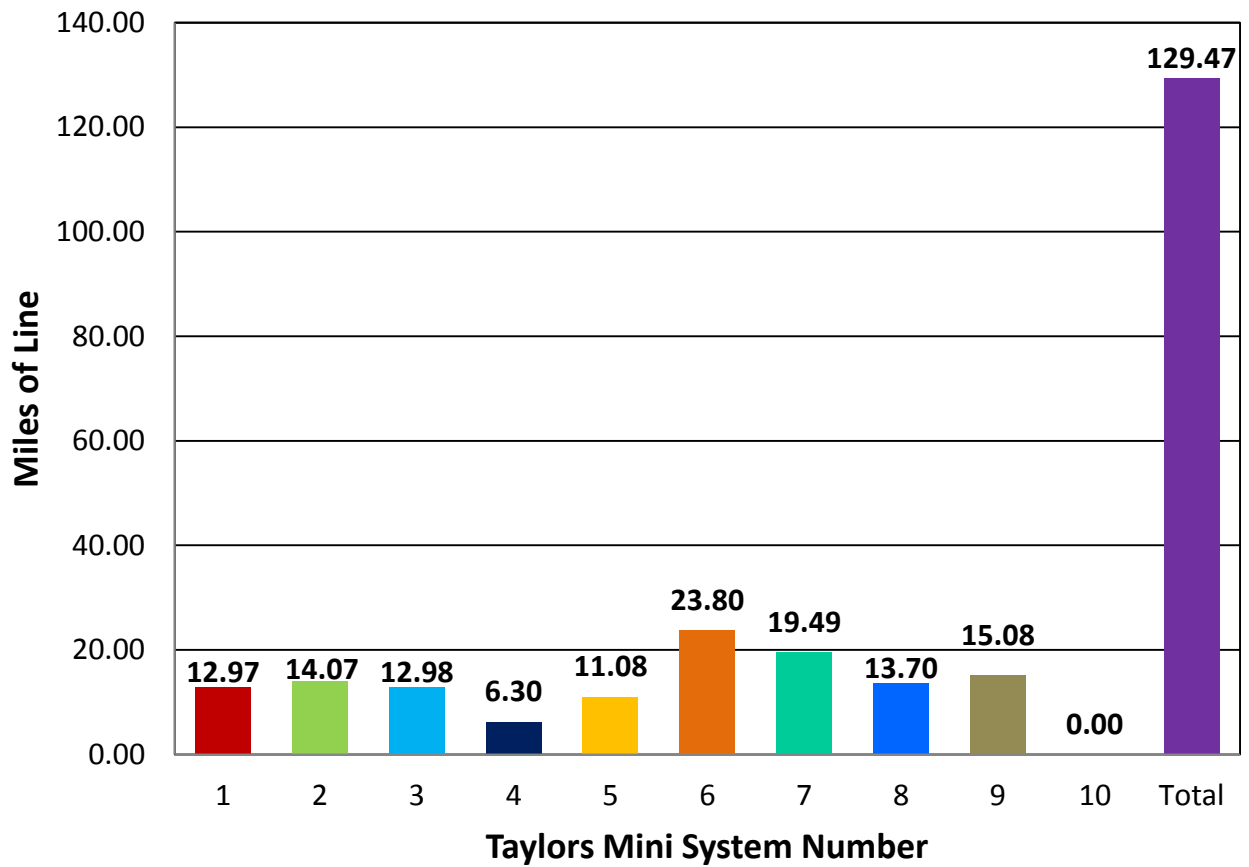


TV Crew

Taylor's Sewer District Minisystems

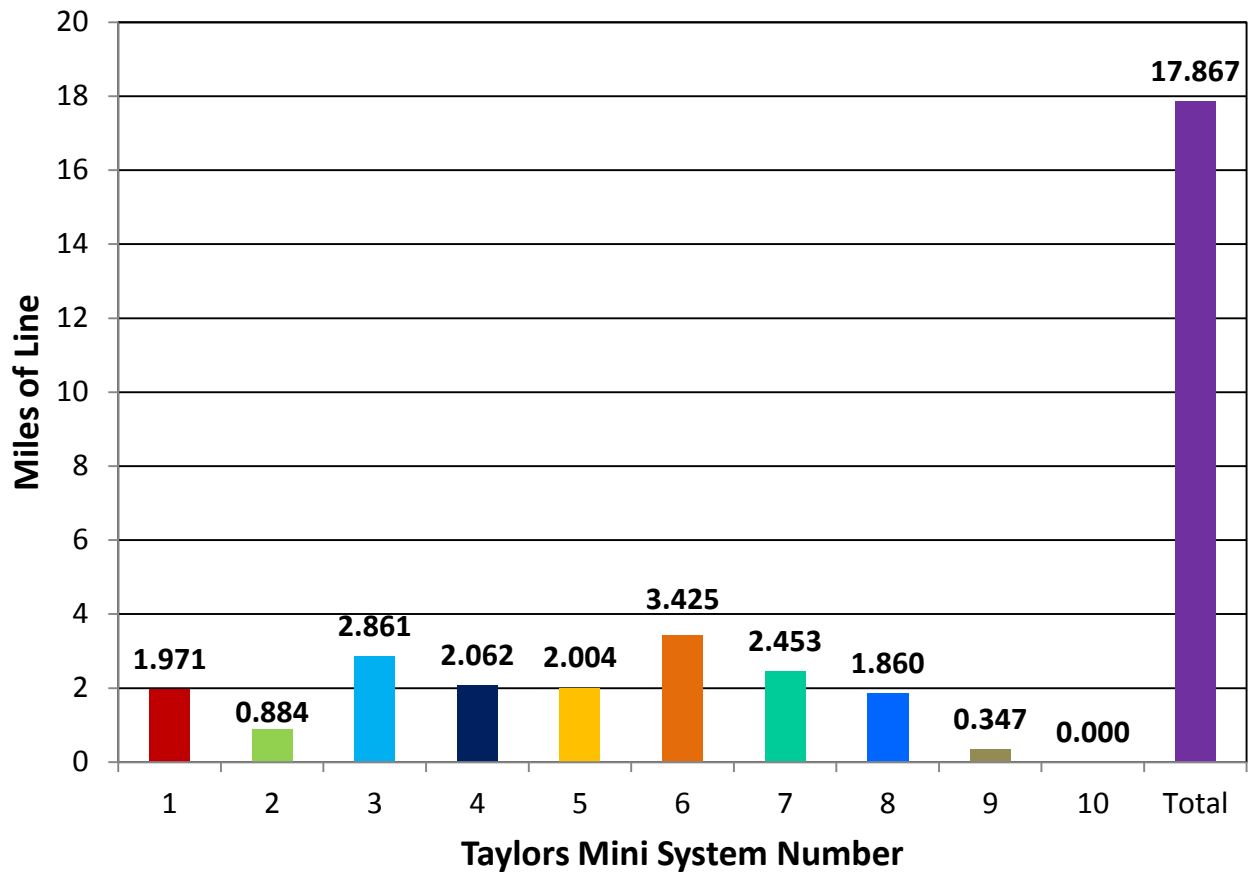


Taylors Fire and Sewer District Miles of Line

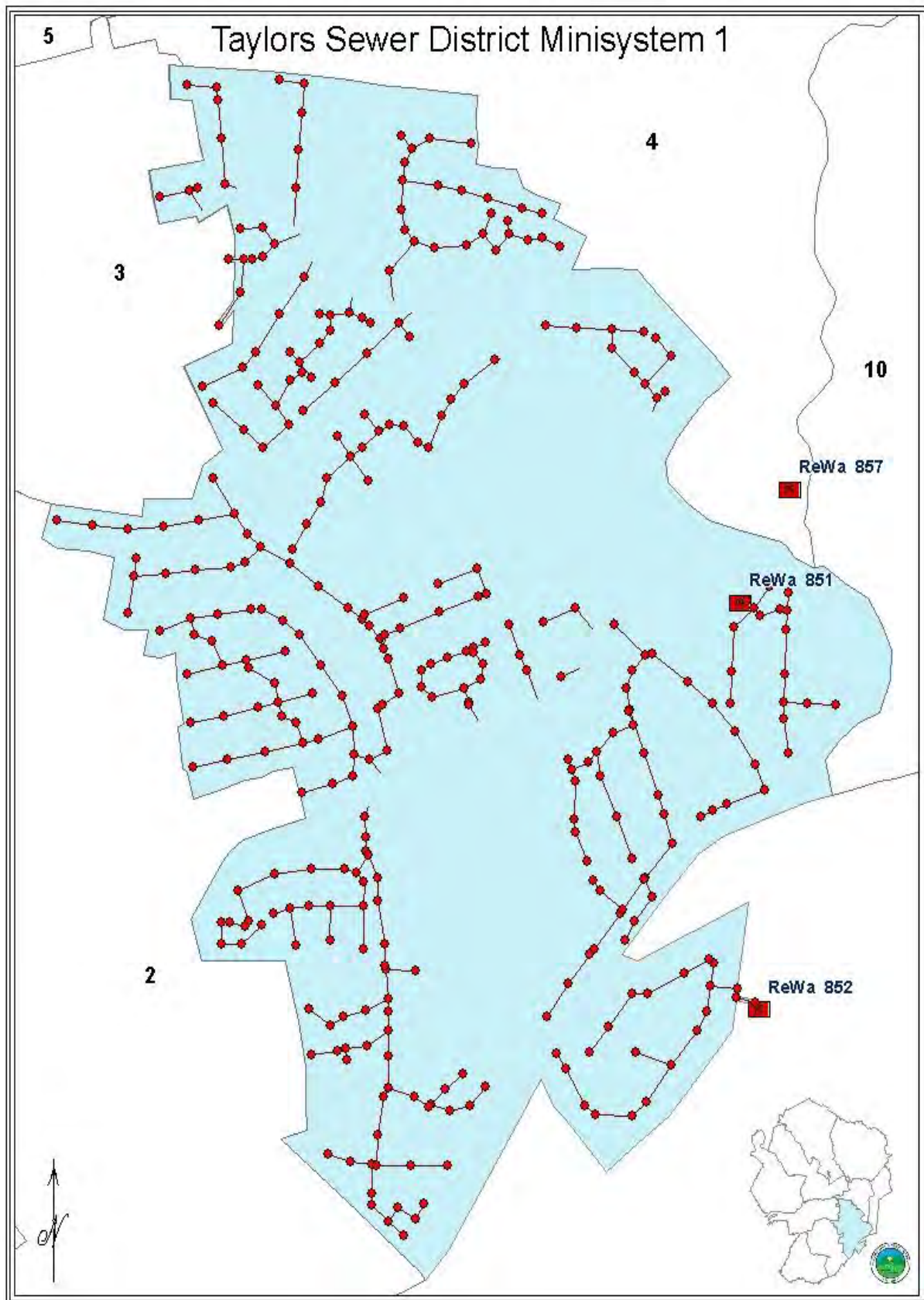


Taylors Mini System #	Taylors Miles of Line
1	12.97
2	14.07
3	12.98
4	6.30
5	11.08
6	23.80
7	19.49
8	13.70
9	15.08
10	0.00
Total:	129.47

ReWa Miles of Line in Taylors Mini System



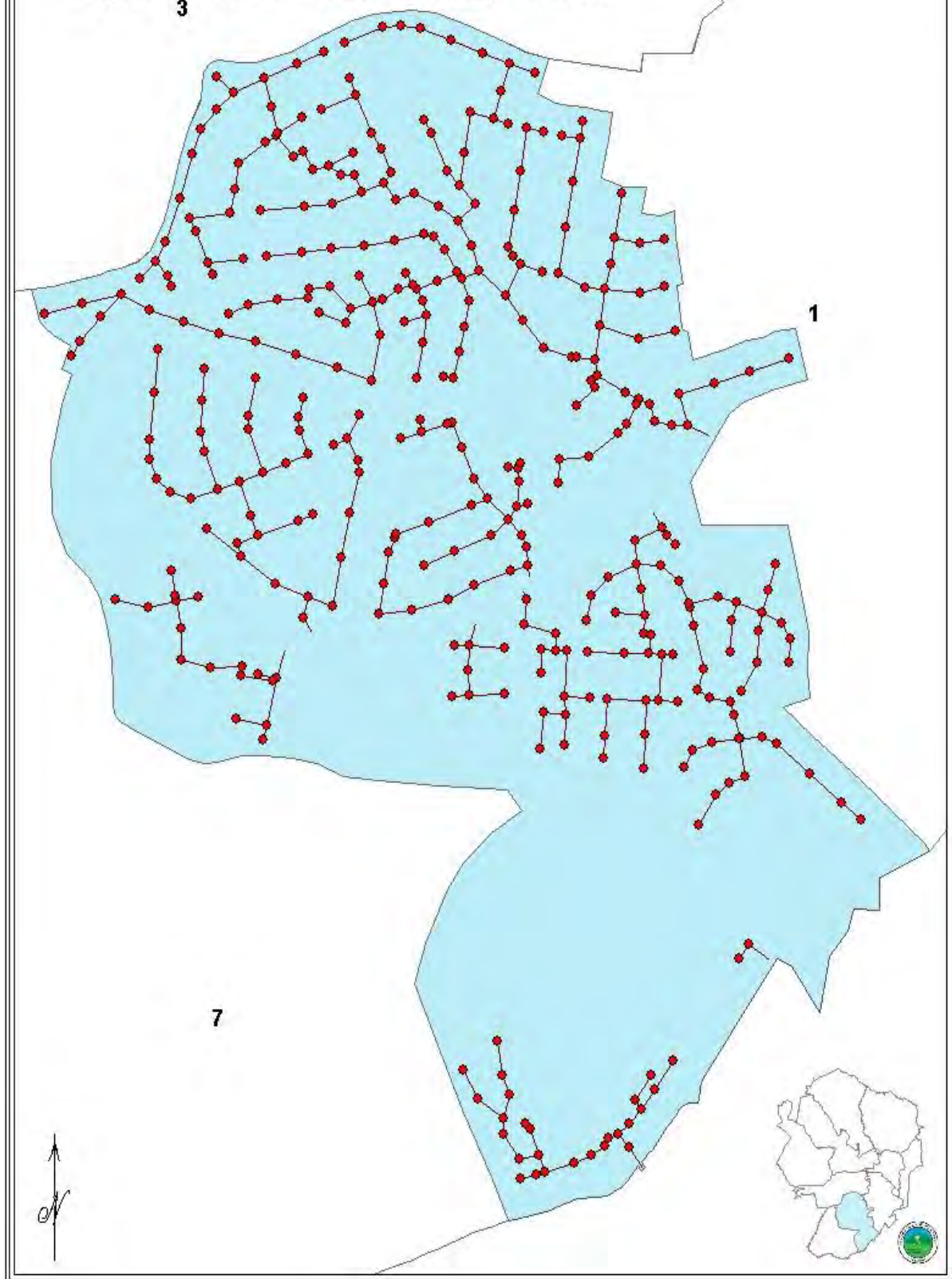
Taylors Mini System #	ReWa Miles of Line
1	1.971
2	0.884
3	2.861
4	2.062
5	2.004
6	3.425
7	2.453
8	1.860
9	0.347
10	0.000
Total:	17.134



Mini System #1 Data

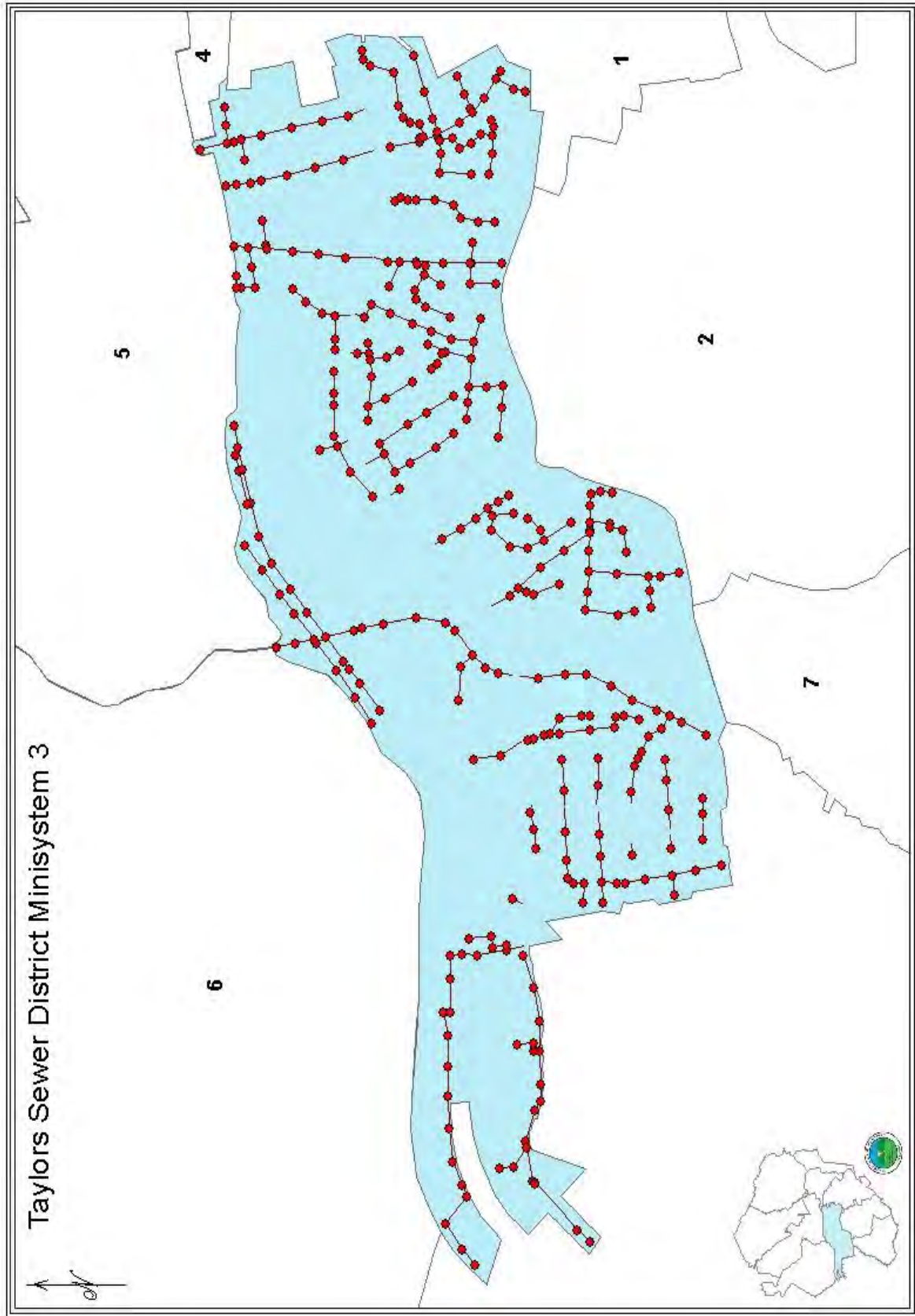
	Total	Comments
Miles of Taylors Collection Line	12.97	
Miles of 6 inch	0	
Miles of 8 inch	12.97	
Miles of 10 inch	0	
Miles of 12 inch	0	
Miles of 15 inch	0	
Miles of Taylors Force Main	0	
Miles of ReWa Trunk Line	1.92	
Miles of ReWa Force Main	0.54	
Number of Connections to ReWa Trunk Lines	17	
Number of Connections to Metro Lines	1	
Number of Connections to Greer CPW Lines	0	
Number of Connections to Wade Hampton Lines	0	
Number of Taylors Manholes	348	
Number of Taylors Pump Stations	0	
Number of ReWa Pump Stations	1	PS 851
Number of Tax Parcels	1288	
Approximate Number of Businesses/Industries	8	
Number of Public Schools	0	

Taylor's Sewer District Minisystem 2



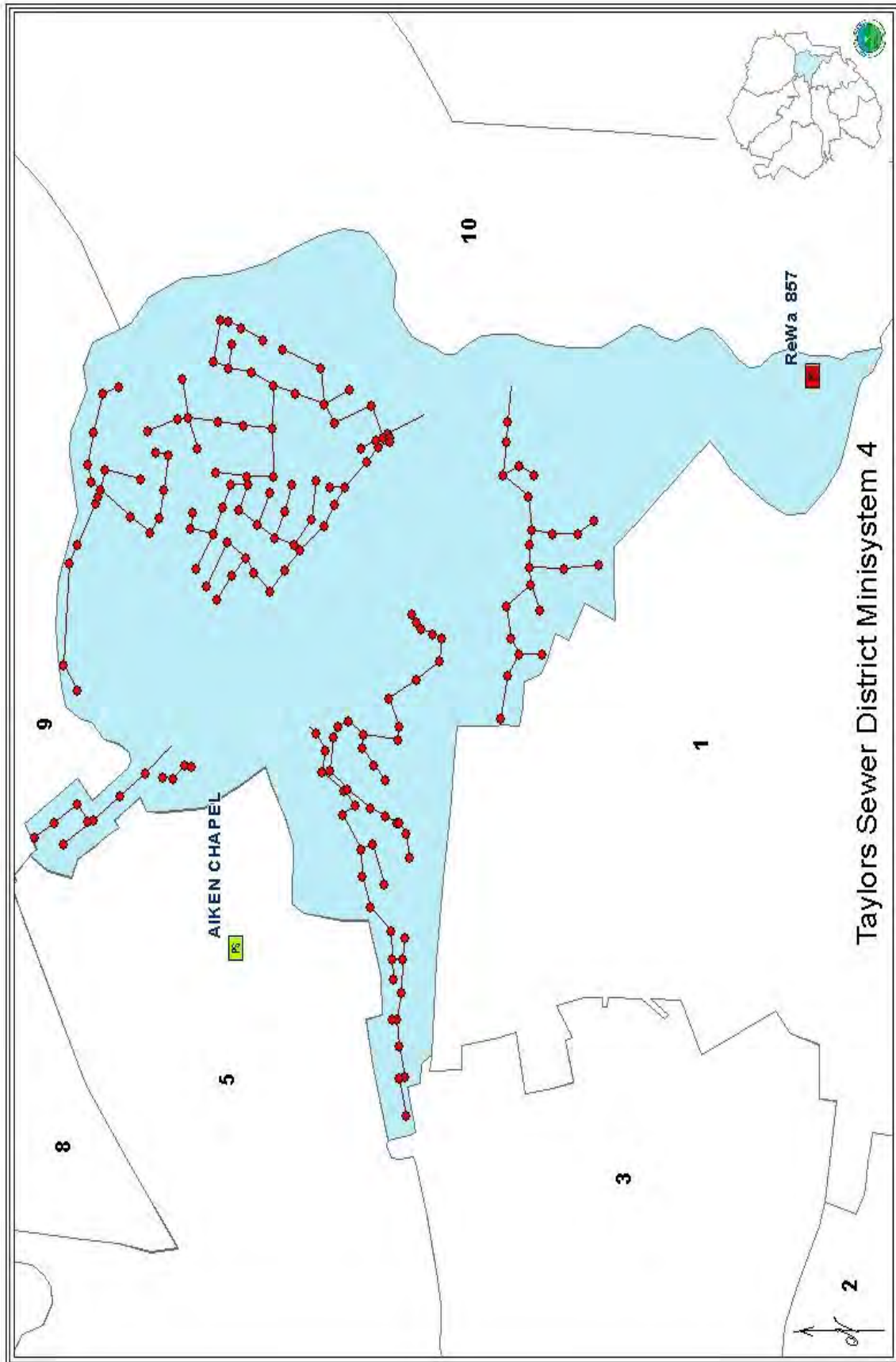
Mini System #2 Data

	Total	Comments
Miles of Taylors Collection Line	14.07	
Miles of 6 inch	0	
Miles of 8 inch	14.07	
Miles of 10 inch	0	
Miles of 12 inch	0	
Miles of 15 inch	0	
Miles of Taylors Force Main	0	
Miles of ReWa Trunk Line	0.86	
Miles of ReWa Force Main	0	
Number of Connections to ReWa Trunk Lines	7	
Number of Connections to Metro Lines	2	
Number of Connections to Greer CPW Lines	0	
Number of Connections to Wade Hampton Lines	0	
Number of Taylors Manholes	372	
Number of Taylors Pump Stations	0	
Number of ReWa Pump Stations	0	
Number of Tax Parcels	1302	
Approximate Number of Businesses/Industries	16	
Number of Public Schools	2	Eastside High School, Brushy Creek Elementary School



Mini System #3 Data

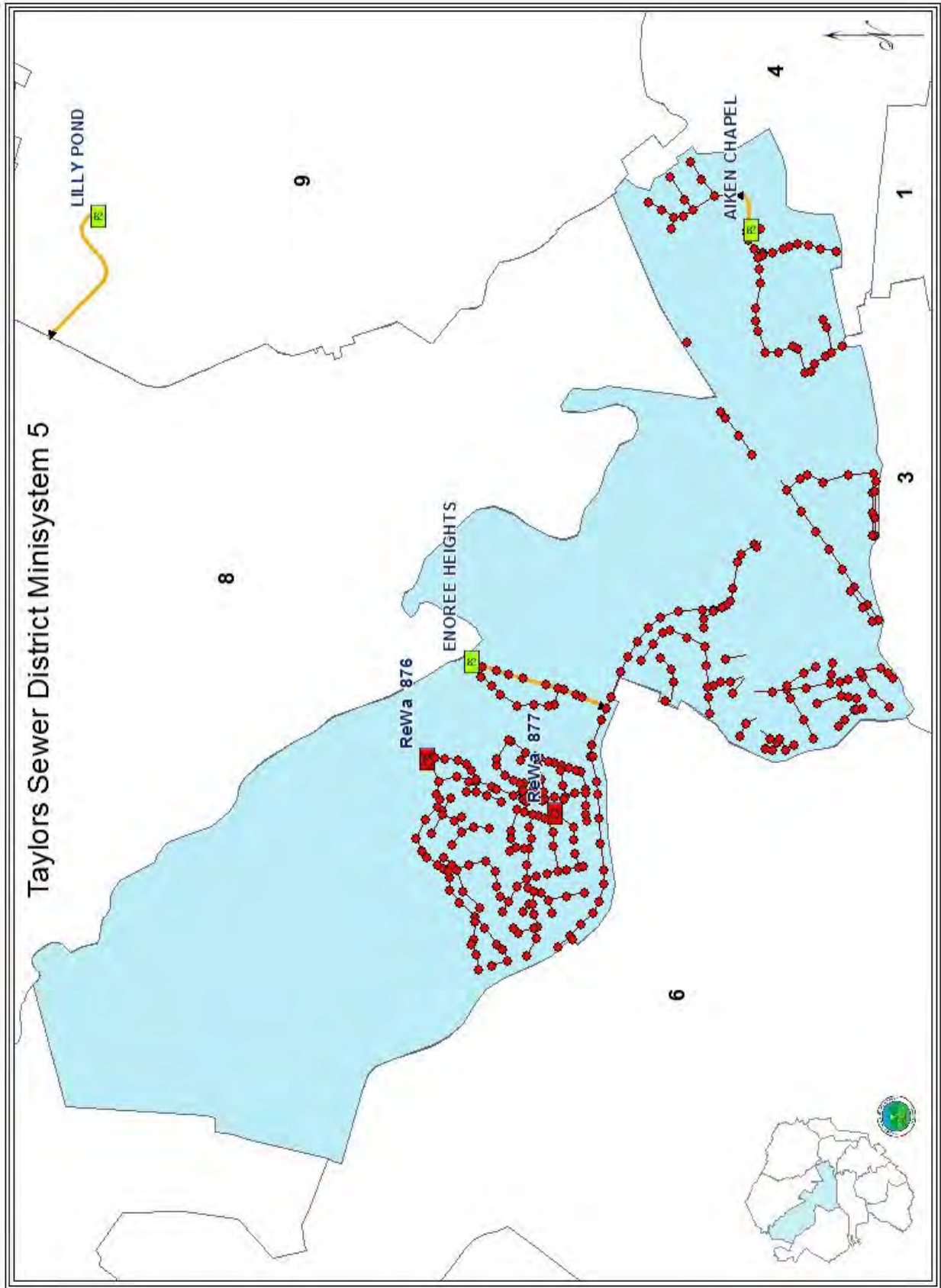
	Total	Comments
Miles of Taylors Collection Line	12.98	
Miles of 6 inch	0.26	
Miles of 8 inch	12.39	
Miles of 10 inch	0.33	
Miles of 12 inch	0	
Miles of 15 inch	0	
Miles of Taylors Force Main	0	
Miles of ReWa Trunk Line	2.81	
Miles of ReWa Force Main	0	
Number of Connections to ReWa Trunk Lines	33	
Number of Connections to Metro Lines	0	
Number of Connections to Greer CPW Lines	0	
Number of Connections to Wade Hampton Lines	0	
Number of Taylors Manholes	349	
Number of Taylors Pump Stations	0	
Number of ReWa Pump Stations	0	
Number of Tax Parcels	1042	
Approximate Number of Businesses/Industries	143	
Number of Public Schools	1	Brook Glenn Elementary School



Mini System #4 Data

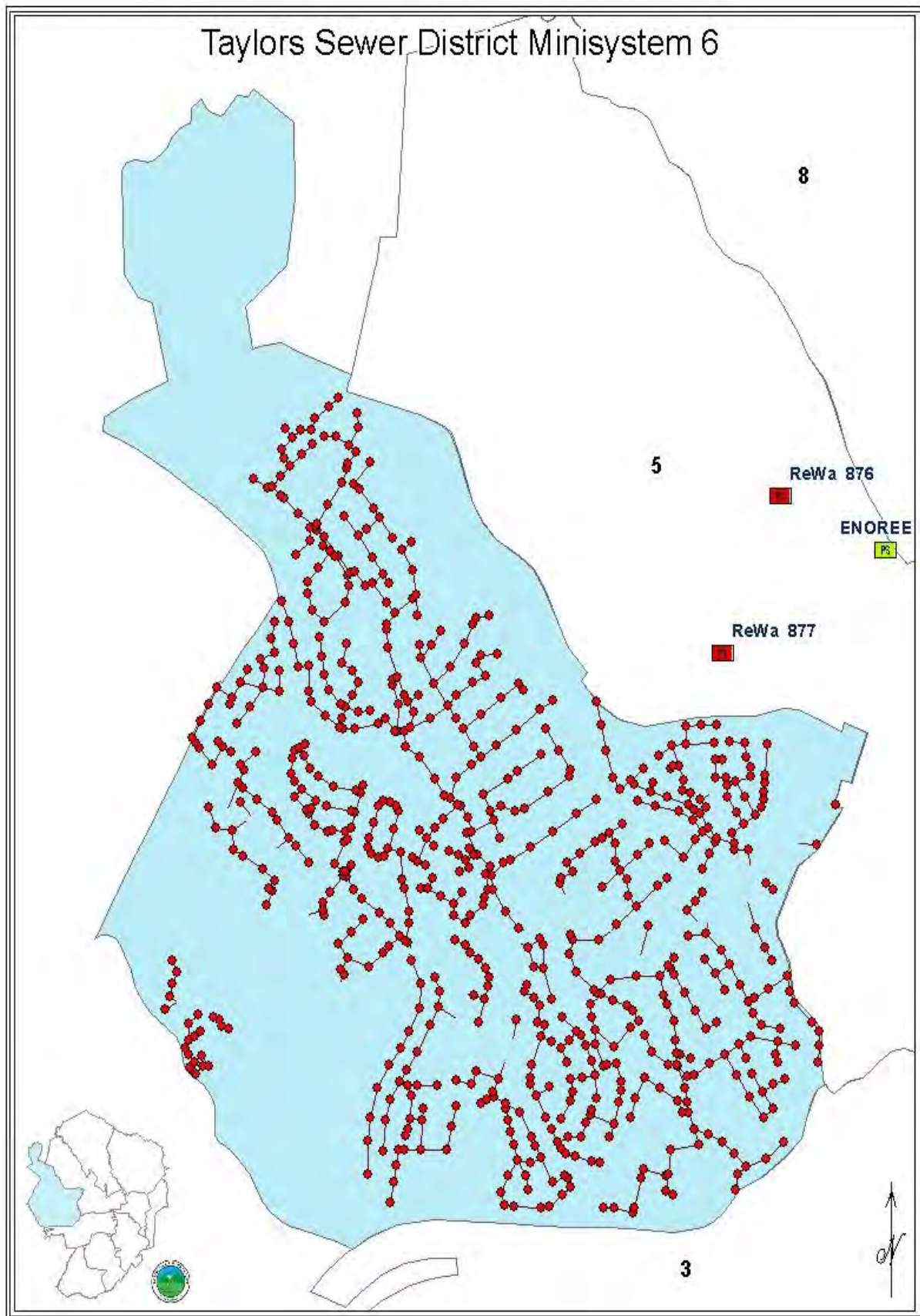
	Total	Comments
Miles of Taylors Collection Line	6.3	
Miles of 6 inch	0	
Miles of 8 inch	6.3	
Miles of 10 inch	0	
Miles of 12 inch	0	
Miles of 15 inch	0	
Miles of Taylors Force Main	0	
Miles of ReWa Trunk Line	2.01	
Miles of ReWa Force Main	0.04	
Number of Connections to ReWa Trunk Lines	8	
Number of Connections to Metro Lines	0	
Number of Connections to Greer CPW Lines	0	
Number of Connections to Wade Hampton Lines	0	
Number of Taylors Manholes	174	
Number of Taylors Pump Stations	0	
Number of ReWa Pump Stations	1	PS 857
Number of Tax Parcels	428	
Approximate Number of Businesses/Industries	42	
Number of Public Schools	1	Academy of the Arts

Taylors Sewer District Minisystem 5



Mini System #5 Data

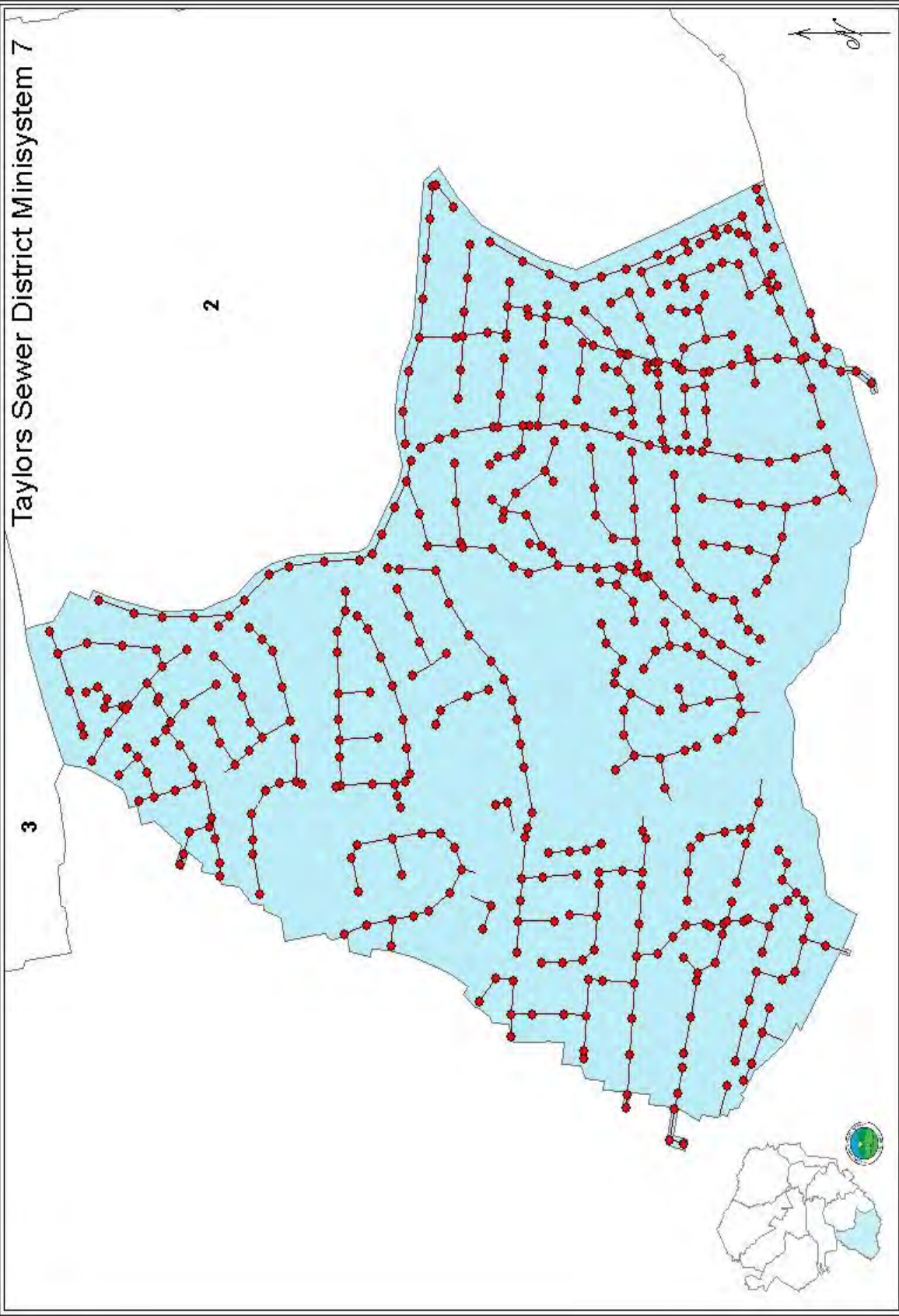
	Total	Comments
Miles of Taylors Collection Line	11.08	
Miles of 6 inch	0	
Miles of 8 inch	11.08	
Miles of 10 inch	0	
Miles of 12 inch	0	
Miles of 15 inch	0	
Miles of Taylors Force Main	0.51	
Miles of ReWa Trunk Line	1.79	
Miles of ReWa Force Main	1.17	
Number of Connections to ReWa Trunk Lines	11	
Number of Connections to Metro Lines	0	
Number of Connections to Greer CPW Lines	0	
Number of Connections to Wade Hampton Lines	0	
Number of Taylors Manholes	335	
Number of Taylors Pump Stations	2	Aiken Chapel, Enoree Heights
Number of ReWa Pump Stations	2	PS 876 PS 877
Number of Tax Parcels	1189	
Approximate Number of Businesses/Industries	46	
Number of Public Schools	0	



Mini System #6 Data

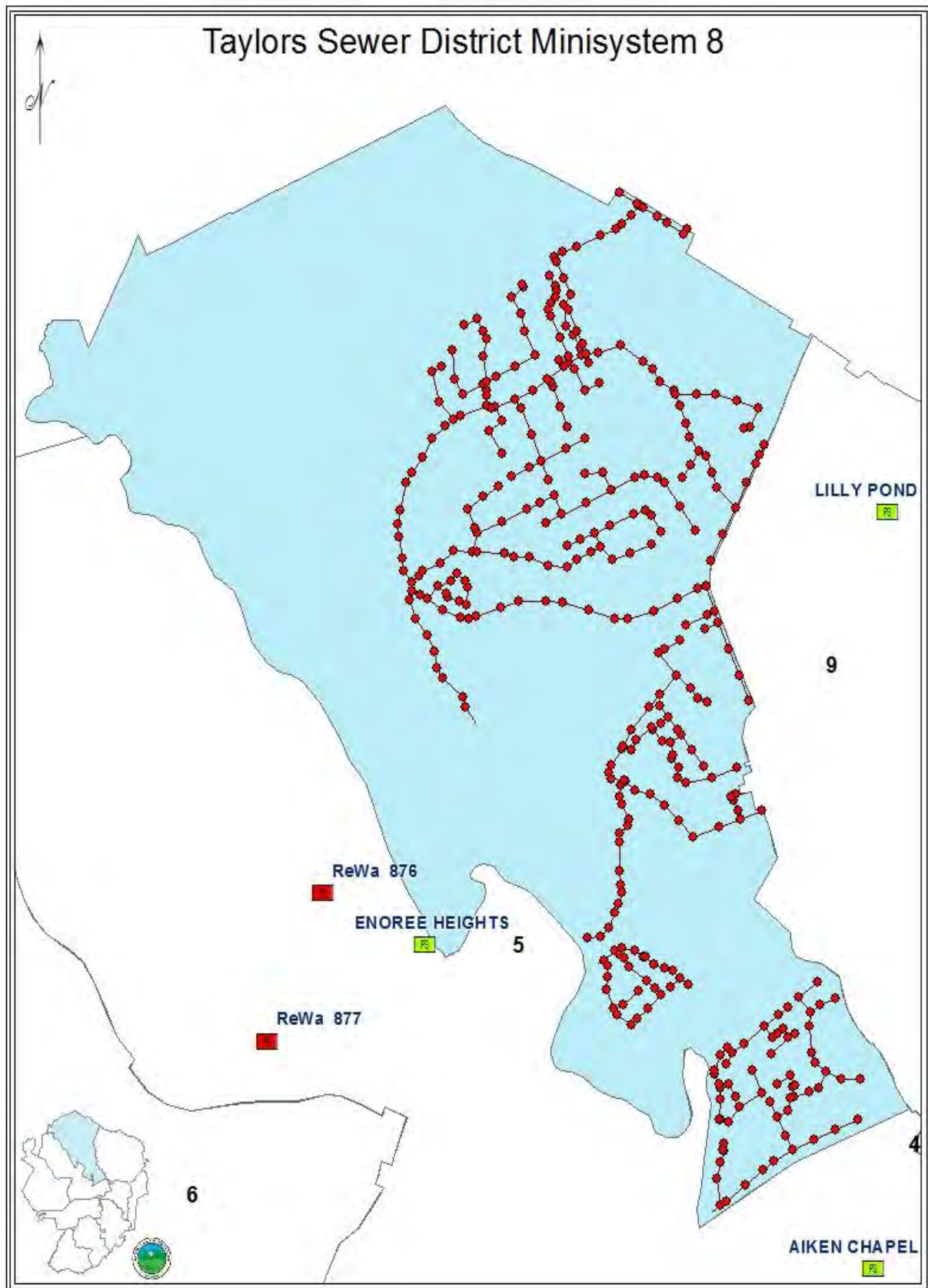
	Total	Comments
Miles of Taylors Collection Line	23.8	
Miles of 6 inch	0	
Miles of 8 inch	23.8	
Miles of 10 inch	0	
Miles of 12 inch	0	
Miles of 15 inch	0	
Miles of Taylors Force Main	0	
Miles of ReWa Trunk Line	3.28	
Miles of ReWa Force Main	0	
Number of Connections to ReWa Trunk Lines	30	
Number of Connections to Metro Lines	1	
Number of Connections to Greer CPW Lines	0	
Number of Connections to Wade Hampton Lines	0	
Number of Taylors Manholes	711	
Number of Taylors Pump Stations	0	
Number of ReWa Pump Stations	0	
Number of Tax Parcels	2097	
Approximate Number of Businesses/Industries	40	
Number of Public Schools	1	Taylors Elementary School

Taylor's Sewer District Minisystem 7



Mini System #7 Data

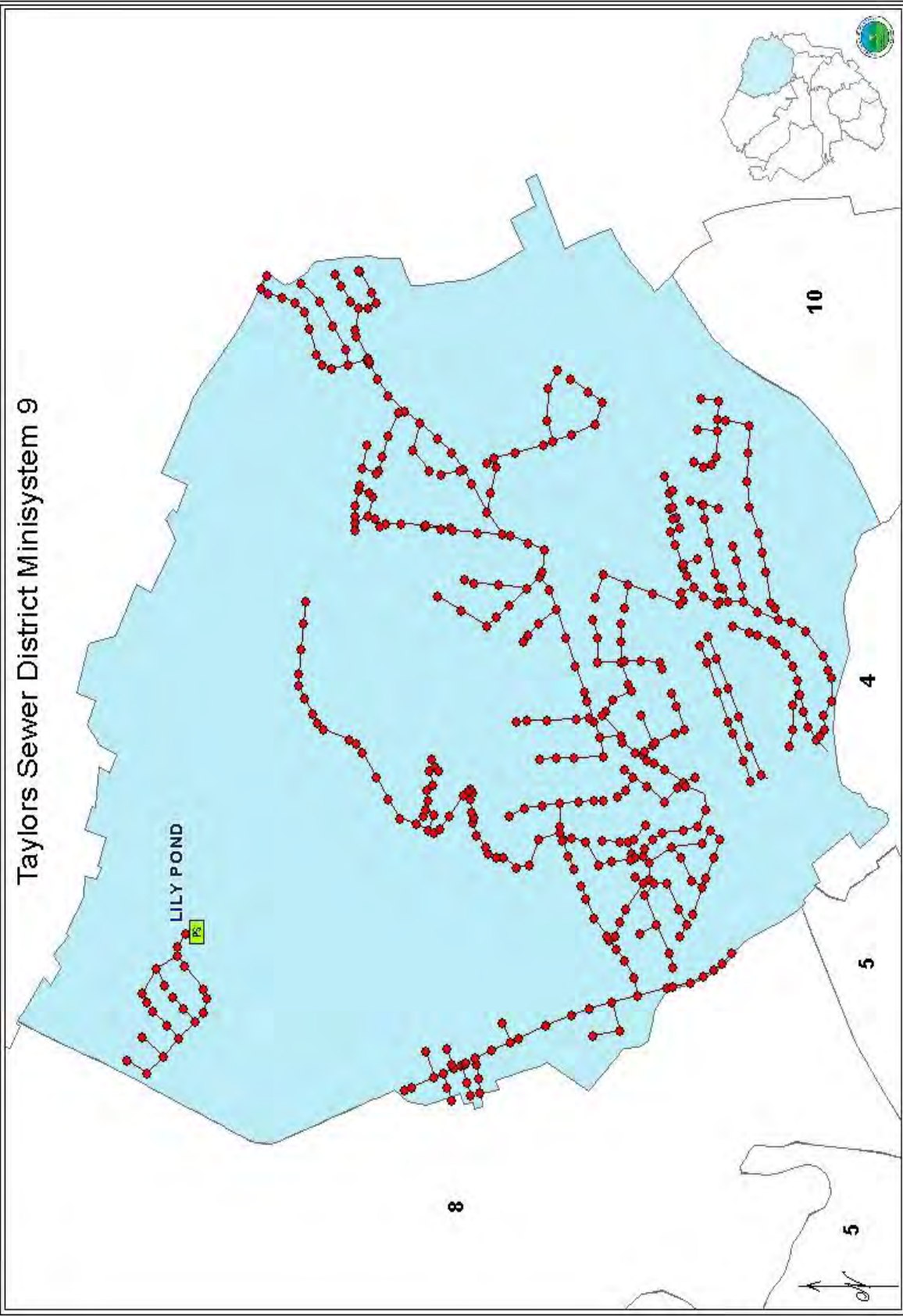
	Total	Comments
Miles of Taylors Collection Line	19.49	
Miles of 6 inch	0.11	
Miles of 8 inch	19.28	
Miles of 10 inch	0	
Miles of 12 inch	0	
Miles of 15 inch	0	
Miles of Taylors Force Main	0	
Miles of ReWa Trunk Line	2.31	
Miles of ReWa Force Main	0	
Number of Connections to ReWa Trunk Lines	27	
Number of Connections to Metro Lines	0	
Number of Connections to Greer CPW Lines	0	
Number of Connections to Wade Hampton Lines	3	
Number of Taylors Manholes	503	
Number of Taylors Pump Stations	0	
Number of ReWa Pump Stations	0	
Number of Tax Parcels	1615	
Approximate Number of Businesses/Industries	20	
Public Schools	1	Northwood Middle School



Mini System #8 Data

	Total	Comments
Miles of Taylors Collection Line	13.7	
Miles of 6 inch	0	
Miles of 8 inch	12.22	
Miles of 10 inch	0.28	
Miles of 12 inch	0	
Miles of 15 inch	1.2	
Miles of Taylors Force Main	0	
Miles of ReWa Trunk Line	1.84	
Miles of ReWa Force Main	0	
Number of Connections to ReWa Trunk Lines	5	
Number of Connections to Metro Lines	0	
Number of Connections to Greer CPW Lines	0	
Number of Connections to Wade Hampton Lines	0	
Number of Taylors Manholes	378	
Number of Taylors Pump Stations	0	
Number of ReWa Pump Stations	0	
Number of Tax Parcels	941	
Approximate Number of Businesses/Industries	30	
Number of Public Schools	1	Foothills Career Center

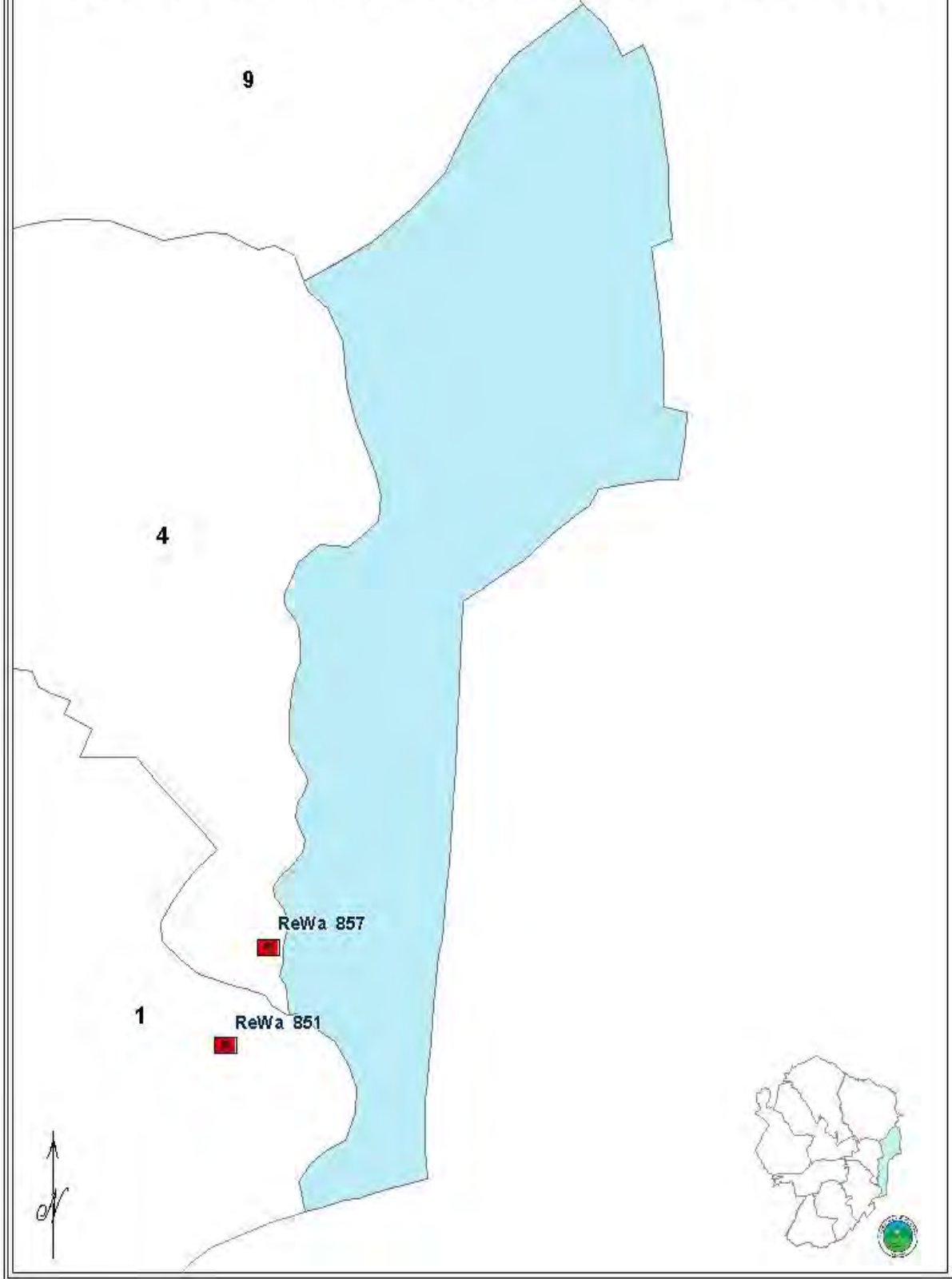
Taylors Sewer District Minisystem 9



Mini System #9 Data

	Total	Comments
Miles of Taylors Collection Line	15.08	
Miles of 6 inch	0	
Miles of 8 inch	14.87	
Miles of 10 inch	0	
Miles of 12 inch	0.21	
Miles of 15 inch	0	
Miles of Taylors Force Main	0.43	
Miles of ReWa Trunk Line	0.32	
Miles of ReWa Force Main	0	
Number of Connections to ReWa Trunk Lines	5	
Number of Connections to Greer CPW Lines	2	
Number of Connections to Metro Lines	0	
Number of Connections to Wade Hampton Lines	0	
Number of Taylors Manholes	432	
Number of Taylors Pump Stations	1	Lilly Pond
Number of ReWa Pump Stations	0	
Number of Tax Parcels	1397	
Approximate Number of Businesses/Industries	47	
Number of Public Schools	0	

Taylors Sewer District Minisystem 10 - Septic Tank Only

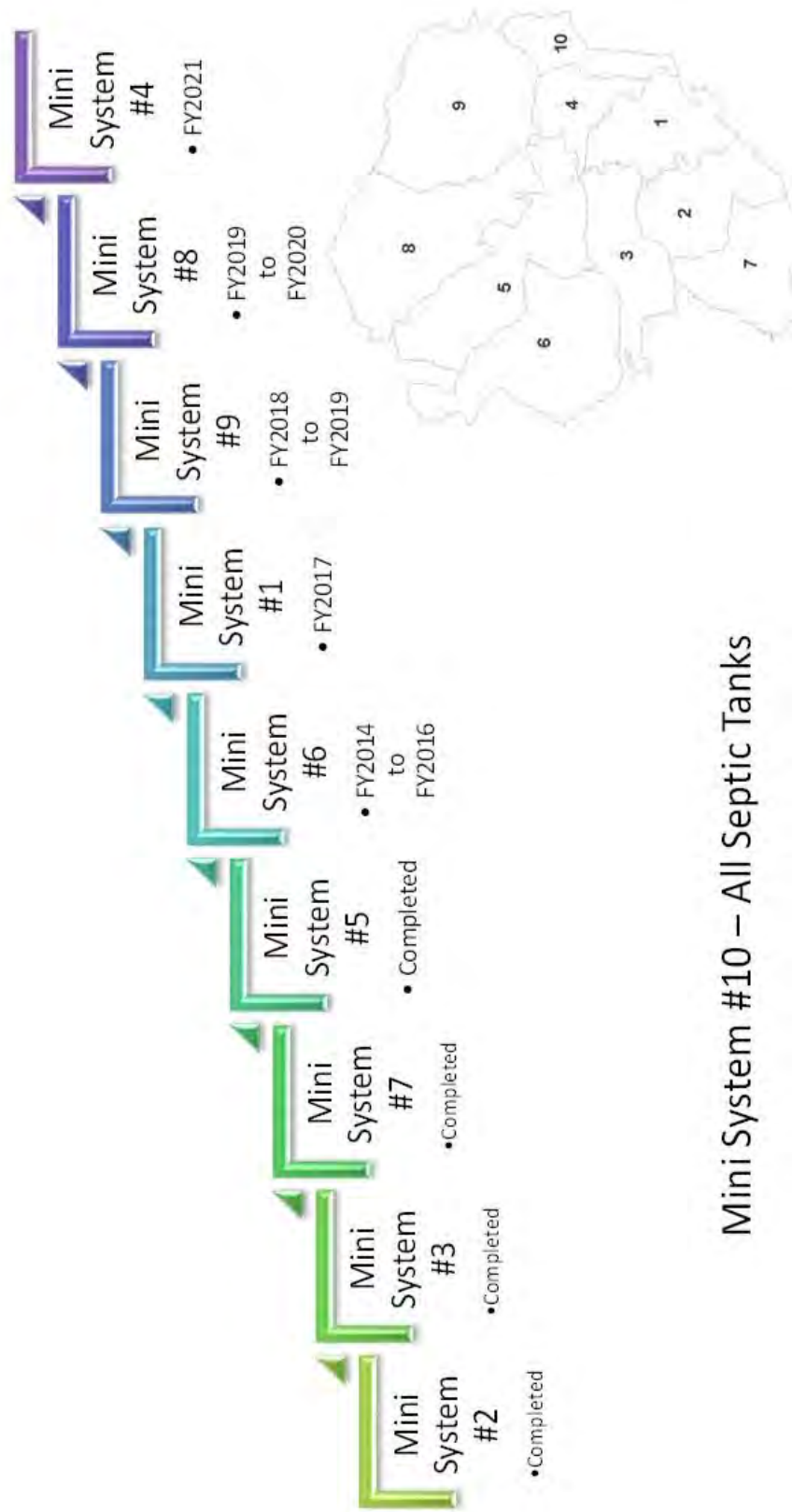


Mini System #10 Data

	Total	Comments
Miles of Taylors Collection Line	0	
Miles of 6 inch	0	
Miles of 8 inch	0	
Miles of 10 inch	0	
Miles of 12 inch	0	
Miles of 15 inch	0	
Miles of Taylors Force Main	0	
Miles of ReWa Trunk Line	0	
Miles of ReWa Force Main	0	
Number of Connections to ReWa Trunk Lines	0	
Number of Connections to Metro Lines	0	
Number of Connections to Greer CPW Lines	0	
Number of Connections to Wade Hampton Lines	0	
Number of Taylors Manholes	0	
Number of Taylors Pump Stations	0	
Number of ReWa Pump Stations	0	
Number of Tax Parcels	103	
Approximate Number of Businesses/Industries	6	
Number of Public Schools	0	



SSE/TV & Cleaning Timeline



Mini System #10 – All Septic Tanks

SSE/TV & Cleaning Timeline

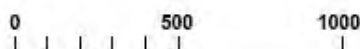
Mini System	12-1-06 to 11-30-07	12-1-07 to 11-30-08	12-1-08 to 11-30-09	12-1-09 to 11-30-10	12-1-10 to 11-30-11	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
1											↕				
2	↕ Done														
3		↕ Done													
4												↕			
5							↕ Done								
6								↕	↕	↕					
7							↕ Done								
8													↕	↕	
9												↕	↕		
10	Septic Tanks														



Mill Hill / Mill Village Project



**SEWER IMPROVEMENTS
TAYLORS MILL VILLAGE**



Taylor's Fire and Sewer District desires to Rehab the sanitary sewer serving the area to the west of Bridge Road in the area known as the Mill Village. Currently this area includes the residences located on North, Center, and South Streets, as well as, a mobile home park. The residences are currently served by lines located in the rear of the houses, not in the streets. The lines ultimately collect and pass through the mobile home park and ultimately connect to a line in Bridge Road. Some of the houses and mobile homes appear to be located on top of the existing sewer lines, making it difficult for the District to maintain the lines. The lines and manholes are allowing groundwater infiltration.

The project will address an aging sewer collection system that, due to stoppages, has the potential to overflow at manholes and has the potential to reach the Enoree River during storms. Houses are, in some cases, built immediately adjacent to the existing sewer lines and potentially present health hazards. The majority of the replacement system will be built in the public right-of-way (streets) thus allowing for easier access to the system by the District for repairs and maintenance. The aerial line crossing the Enoree River and connecting to a ReWa trunk line is in poor condition. The project encompasses installing 5,930 LF of new sewer line, primarily in the public right-of-way and provides a new modern aerial crossing at the Enoree River.

W. R. Williams, Jr. Inc. Engineer/Surveyor has studied the area and proposes the following:

On North Street, install a new sewer line running west to east and connect to an existing line in Bridge Road. This section of line in Bridge Road will need to be lowered. On the western half of Center Street install a new sewer line running west to east to Waldrop Drive and then turn southward along Waldrop Drive to South Street. On the westernmost half of the eastern half of Center Street, install a new sewer line running east to west to east and connect to the new line running southward on Waldrop Drive. On the easternmost half of the eastern half of Center Street, install a new sewer line running west to east and connect to the existing (lowered) sewer line in Bridge Road. On the western end of South Street install a new sewer line running west to east to the line running down Waldrop Drive. On the eastern half of South Street install a sewer line running east to west and connect to the line running down Waldrop Drive. Use the existing easement (or locate a better route) between the streets area and the mobile home park to pipe between the two areas. Abandon the sewer lines in the mobile home park and install new sewer in the mobile home park streets.

Now that we have what we want to accomplish defined, we are initiating full survey of the area and commencing design of the project. The next challenge is to determine how to best reverse the flow at each house and insure that we have appropriate depth of sewer to reverse the flows.

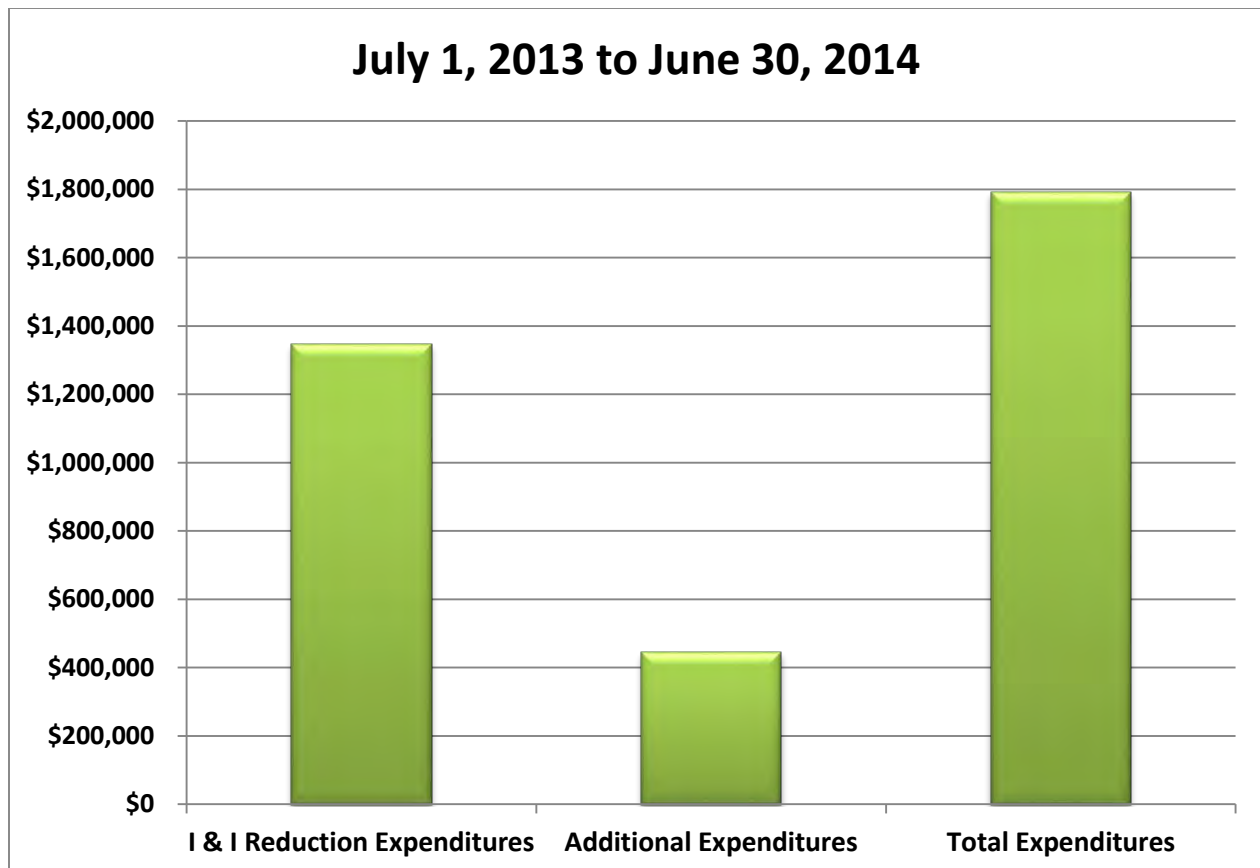




Financial Report (FY2014)

According to the budget profile for July 1, 2013 through June 30, 2014, Taylors Fire and Sewer District spent \$1,790,891 on the reduction of inflow and infiltration (I&I).

<i>I & I Reduction Expenditures:</i> July 1, 2013 to June 30, 2014	\$1,346,471
<i>Additional Expenditures:</i> July 1, 2013 to June 30, 2014	\$444,421
<i>Total Expenditures:</i> July 1, 2013 to June 30, 2014	\$1,790,891



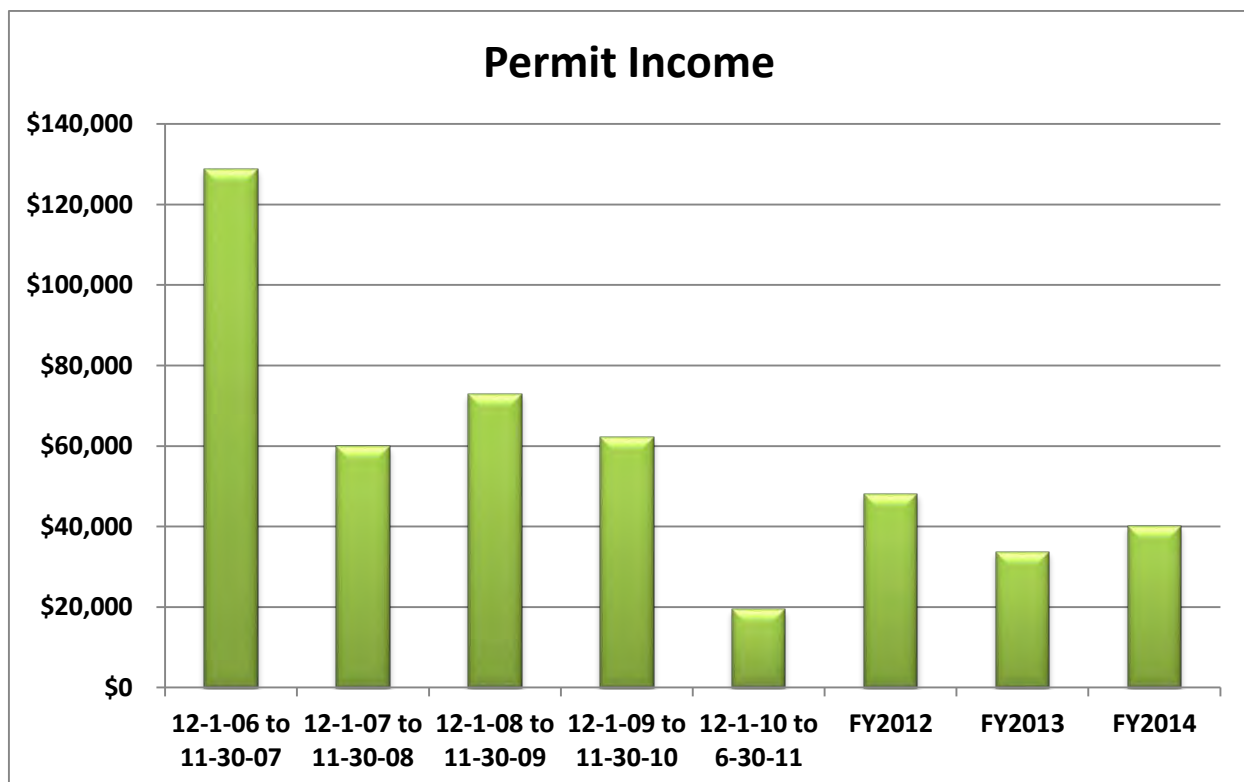
The Additional Expenditures listed above include such items as Taylors Fire and Sewer District Shared Overhead, Facilities/Utilities, Pump Station, Septic Tank Repair/Maintenance, Professional Services, and Capital Expenditures. These are all items the District must cover in order to serve our residents.

Taylors Fire and Sewer District uses a combination of methods to ensure and maintain the integrity of our system. Duke's Root Control, Insituform CIPP, and SpectraShield Liner Systems are frequent contractors for specific projects.

Taylors Fire and Sewer District has also implemented the use of higher regulations and standards for new construction. Each site is required to seal manholes with either a Uniband or Flex Seal prior to backfilling. The entire project is monitored by Engineers representing Taylors Fire and Sewer District, as well as District staff during construction in an effort to minimize and/or eliminate the amount of I&I that enters the system.

Over the past years, the slowing economy has had a direct effect on our permit income. Over the last few years we have seen a steady decline.

<i>12-1-06 to 11-30-07</i>	<i>12-1-07 to 11-30-08</i>	<i>12-1-08 to 11-30-09</i>	<i>12-1-09 to 11-30-10</i>	<i>12-1-10 to 6-30-11</i>	<i>FY2012</i>	<i>FY2013</i>	<i>FY2014</i>
\$128,800	\$59,900	\$72,975	\$62,100	\$19,375	\$48,100	\$33,625	\$40,130





Sewer User Fees

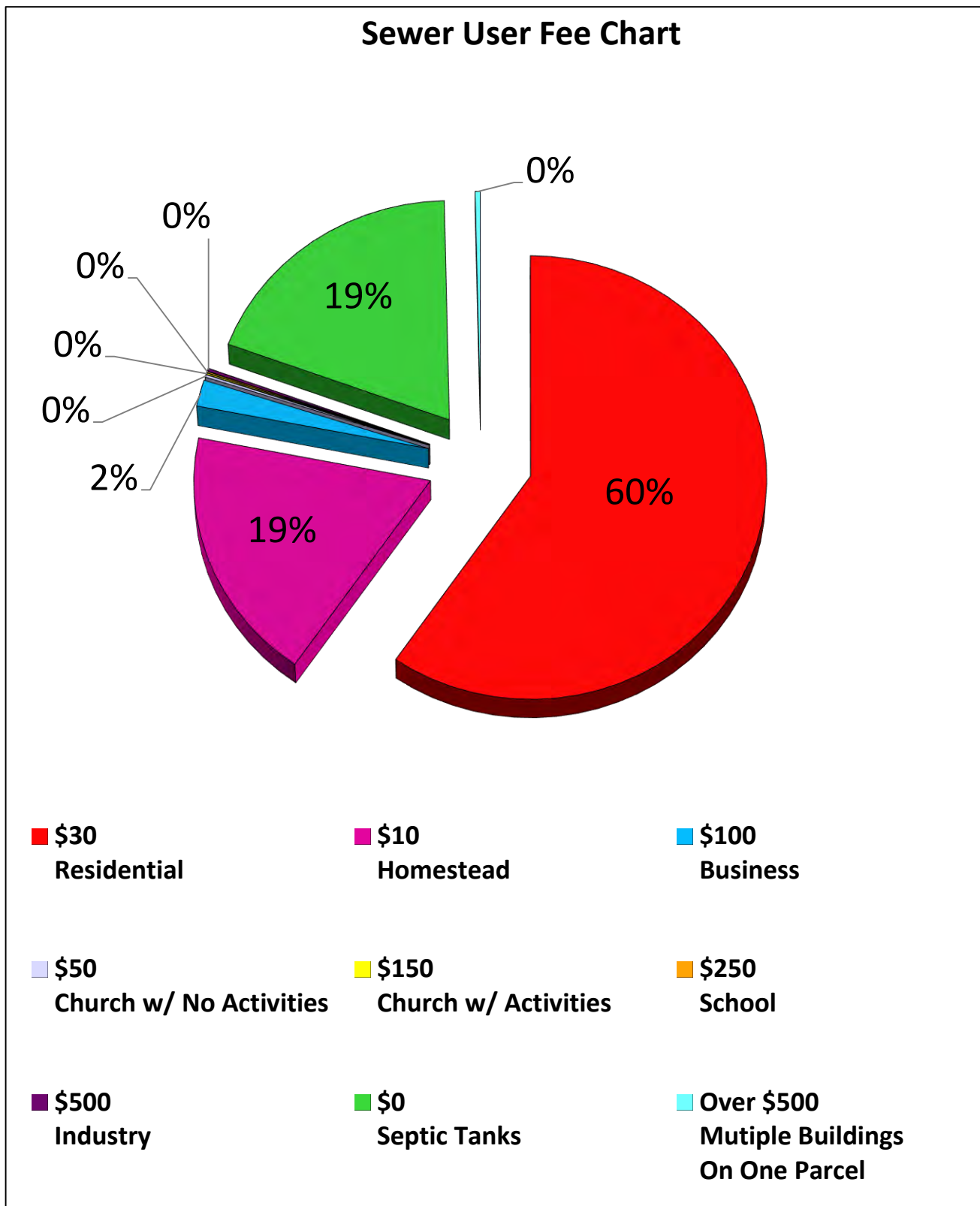
Even though the District has steadily increased the tax millage rates each year, the funds have been offset by the decrease in fair market values. During 2007, the Board of Commissioners approved the institution of a sewer user fee, however postponed the implementation. In 2009, the Board of Commissioners felt that the time had come to enact this fee in order to keep on schedule with the major repairs above and beyond regular maintenance of the sewer system.

The challenge was to set the fees low enough as to not create further financial burden on our residents and still be able to fund the improvements to our capital assets. The 2009 Board of Commissioners set a fee schedule with the stipulation that it applies to all properties connected to our sewer system. The 2014 Board of Commissioners reviewed the 2009 Sewer User Fee Schedule and realized that due to inflation, the fees needed to be revisited in order to be more consistent with current cost of materials.

Sewer User Fee Schedule

	2009 Fee	2014 Fee
Residential Unit	\$20	\$30
Homestead Exemption	\$10	\$10
Business / Commercial	\$50	\$100
Church (No Daily Activities)	\$50	\$50
Church (Daily Activities)	\$100	\$150
School	\$200	\$250
Industry	\$250	\$500

As you can see from the pie chart below majority of our fees come from Residential users.



**Taylors Fire and Sewer District
Summary of Expenditures on Sewer Services
July 1, 2013 - June 30, 2014**

I & I REDUCTION EXPENDITURES

GIS/Technology	\$4,814	
Maintenance - Equipment	\$383,508	
Personnel/Training/Safety	\$717,732	
Maintenance - Contract Services	\$230,558	
R&M Building and Grounds (ROW's, etc)	\$9,857	
Total I & I Expenditures	\$1,346,470	75%

ADDITIONAL EXPENDITURES

TFSD Shared Overhead	\$213,420	
Facilities/Utilities	\$36,365	
Pump Station	\$15,935	
Septic Tank Repair/Maintenance	\$5,000	
Professional Services	\$7,858	
Capital Expenditures	\$165,840	
Total Additional Expenditures	\$444,419	25%

Total Expenditures	\$1,790,889
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Taylor's Fire & Sewer District Finance Summary

YEAR - December 1st - November 30th	GIS / TECHNOLOGY	MAINTENANCE - EQUIPMENT	PERSONNEL / TRAINING / SAFETY	MAINTENANCE - CONTRACT SERVICES	R&M BUILDINGS & GROUNDS / FACILITIES/ UTILITIES	PUMP STATION	SEPTIC TANK REPAIR / MAINTENANCE	PROFESSIONAL SERVICES / CAPITAL EXPENDITURES	TFSD SHARED OVERHEAD	TOTALS EXPENDITURES
06-07	\$ 4,779	\$ 272,571	\$ 446,747	\$ 168,009	\$ 19,725	\$ 11,358	\$ 4,069	\$ 89,666	\$ 0	\$ 1,016,924
07-08	\$ 12,317	\$ 296,105	\$ 537,089	\$ 185,437	\$ 24,016	\$ 27,192	\$ 3,543	\$ 12,387	\$ 0	\$ 1,098,086
08-09	\$ 5,443	\$ 218,553	\$ 516,702	\$ 76,954	\$ 36,437	\$ 17,624	\$ 3,880	\$ 17,149	\$ 0	\$ 892,742
09-10	\$ 11,612	\$ 265,113	\$ 537,383	\$ 208,140	\$ 20,487	\$ 37,676	\$ 3,250	\$ 16,292	\$ 0	\$ 1,099,953
10-11*	\$ 9,892	\$ 162,614	\$ 322,284	\$ 254,268	\$ 14,836	\$ 16,703	\$ 1,875	\$ 14,634	\$ 0	\$ 797,106
11-12**	\$ 2,531	\$ 101,423	\$ 539,349	\$ 323,895	\$ 41,432	\$ 3,280	\$ 4,445	\$ 18,072	\$ 131,657	\$ 1,166,084
12-13**	\$ 3,660	\$ 244,173	\$ 588,376	\$ 218,600	\$ 54,178	\$ 8,742	\$ 6,000	\$ 179,337	\$ 183,530	\$ 1,486,596
13-14**	\$ 4,814	\$ 383,508	\$ 717,732	\$ 230,559	\$ 46,222	\$ 15,935	\$ 5,000	\$ 173,699	\$ 213,420	\$ 1,790,889



Operations & Maintenance

You may see signs like the following in neighborhoods in the Taylors area when sewer maintenance is being performed:



Taylors Fire & Sewer District Logo Manhole

You may see our equipment like the following in neighborhoods in the Taylors area when sewer maintenance is being performed:



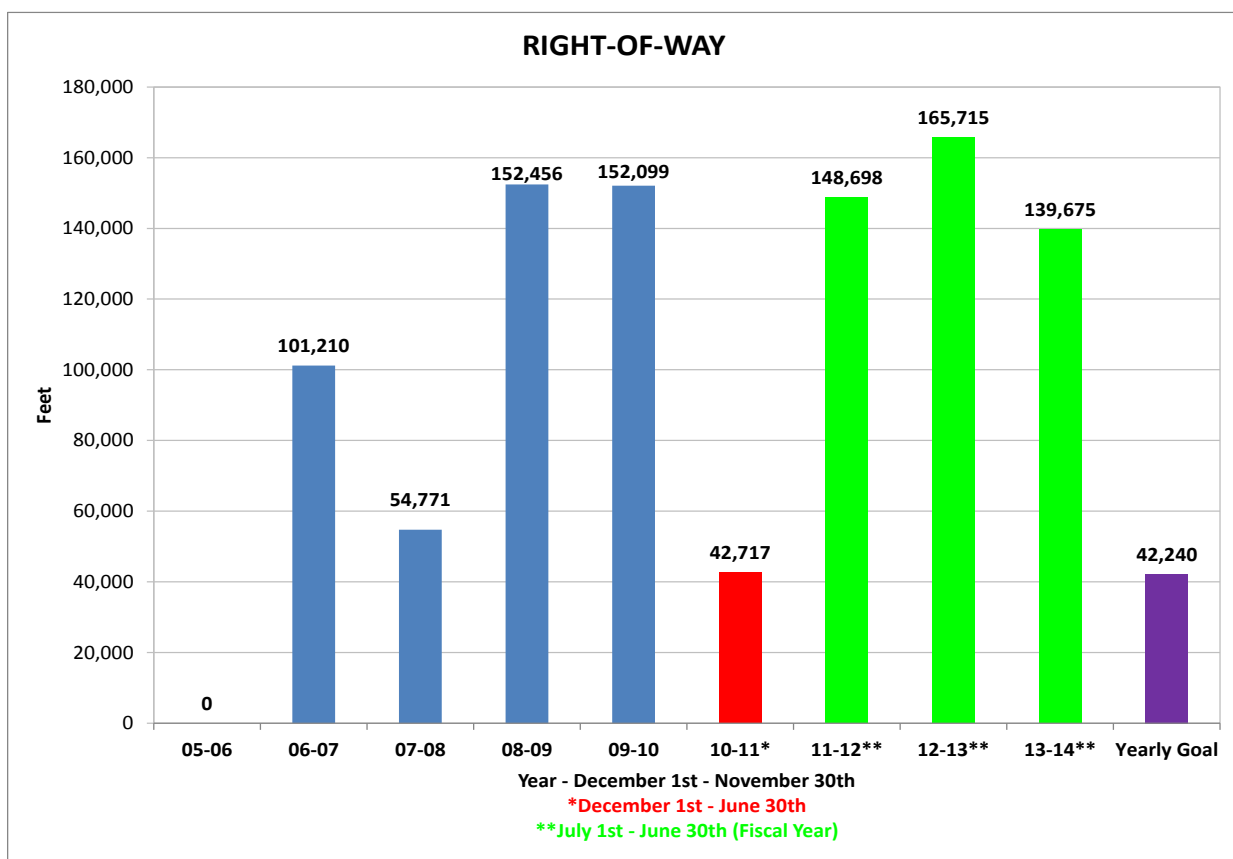
Taylors Fire & Sewer District Work Order Summary

YEAR - December 1st - November 30th *December 1st - June 30th *July 1st - June 30th (Fiscal Year)	RIGHT-OF-WAY	CCTV	REPAIR/REPLACE	CLEANING	ROOT REMOVAL	SEPTIC TANKS	MANHOLE INSPECTION	MANHOLE REPAIR/LINING	SMOKE TESTING	ROOT CONTROL
05-06	0	22,734	512	33,298	7,911	11	244	42	34,526	4,594
06-07	101,210	80,984	7,267	166,495	11,144	37	272	115	65,835	0
07-08	54,771	77,237	2,322	60,653	9,766	31	435	114	55,846	8,055
08-09	152,456	86,444	6,557	96,538	5,723	6	297	250	50,502	11,691
09-10	152,099	87,651	643	131,490	7,598	0	338	232	55,509	8,783
10-11*	42,717	92,746	3,760	105,588	7,616	0	128	45	4,346	11,207
11-12**	148,698	164,439	7,811	246,865	23,142	0	590	189	11,805	18,214
12-13**	165,715	100,804	3,992	130,141	6,882	0	355	509	15,868	8,097
13-14**	139,675	63,818	1,066	79,772	8,461	0	313	809	87,620	6,843
Total	957,341	776,857	33,929	1,050,839	88,243	85	2,972	2,305	381,857	77,484
Goal	320,320	320,320		320,320			2,275		320,320	
%Above Goal	199%	143%		228%			31%		19%	

Note: Figures have been updated for each year based on research discovery.

Right-of-Way Maintenance:

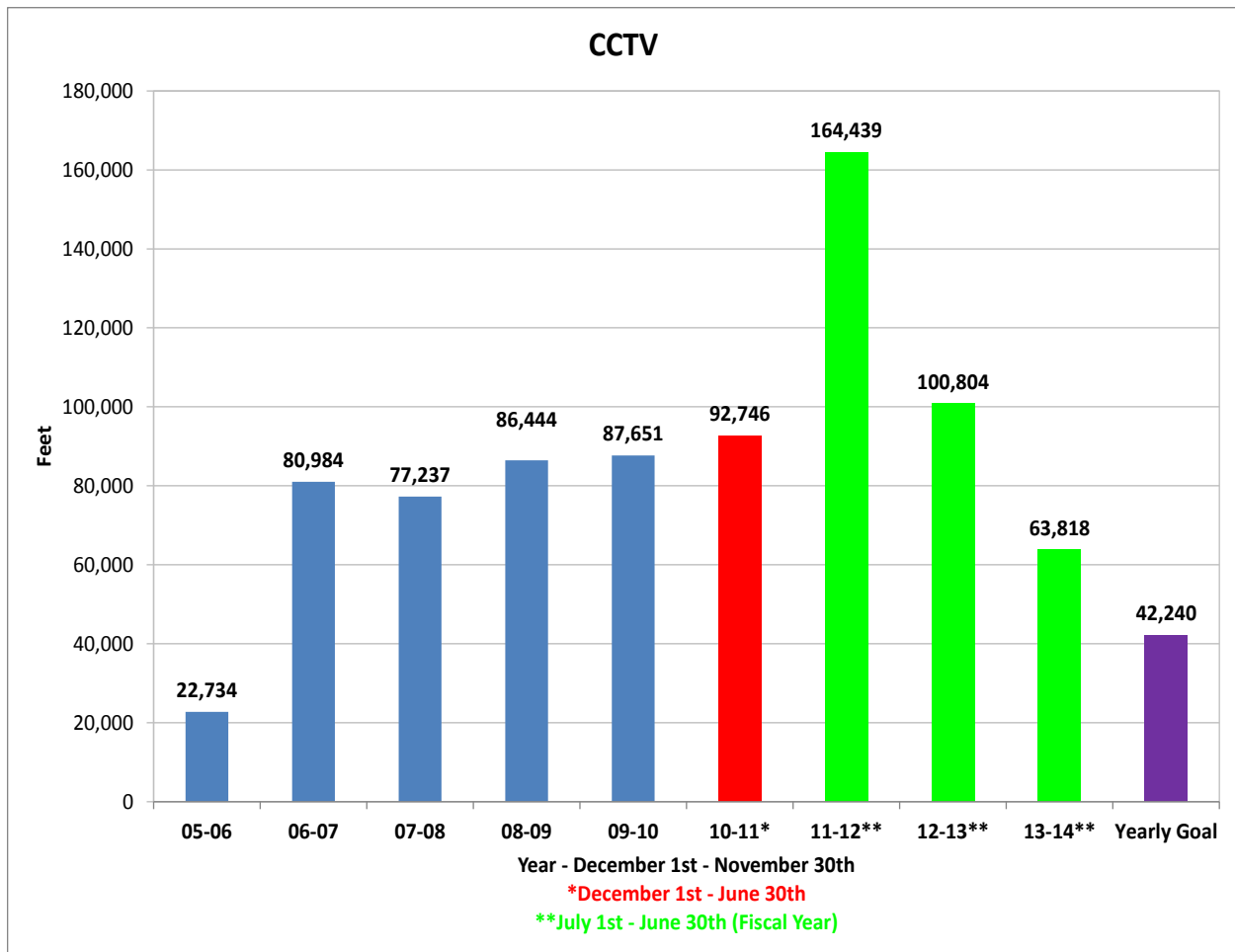
Right-of-Way Clearing – Right-of-Ways (ROW) or easements grant the right and privilege of entering private property to construct, maintain, and operate the components of our wastewater collection system. Although most Taylors Fire and Sewer District sewer lines lie underneath the road, in many cases they are located on private property. We must maintain our lines even in these areas of private property via the right-of-way/easement. Therefore, in areas where the brush and foliage is not cut back by the property owner, our crews must maintain and cut down the plant and tree growth. If this is done, we know we are able to get our heavy equipment and large trucks down through the easement to make repairs, clean lines, or conduct inspections.



Per our agreement with ReWa, Taylors Fire and Sewer District will be working and/or inspecting at least 8 miles or 42,240 L.F. per year of right-of-way maintenance. As the chart above demonstrates we have exceeded our yearly goal. 2005 to 2010 (indicated by the blue column) were reported from December 1st to November 30th. 2010 to 2011 (indicated by the red column) was reported from December 1st to June 30th. 2011 to 2012 (indicated by the green column) was reported based off of Taylors' fiscal year, July 1st to June 30th. 2012 to 2013 (indicated by the green column) was reported on fiscal year. 2013 to 2014 (indicated by the green column) was reported on fiscal year as well. Our yearly goal is indicated in purple.

CCTV:

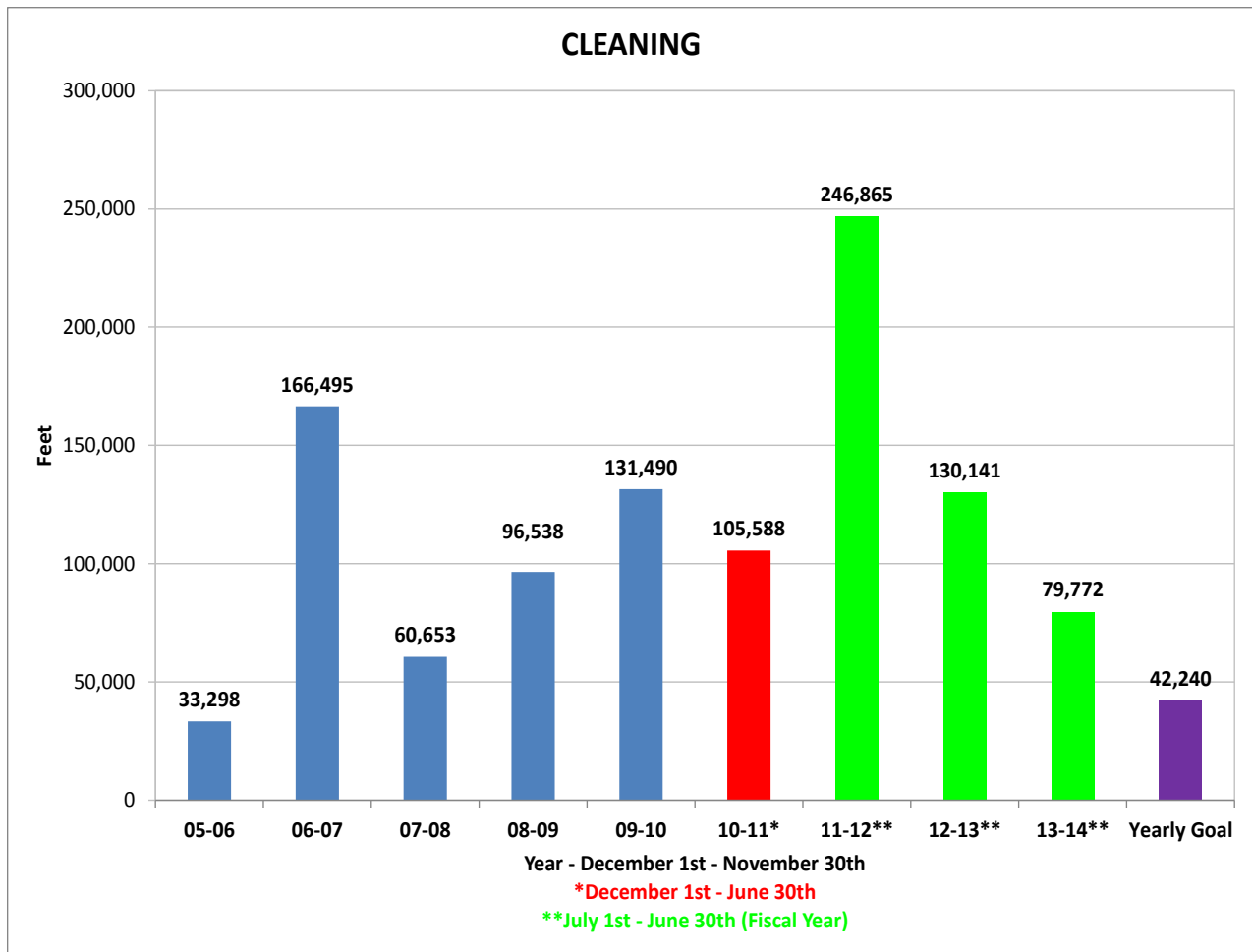
CCTV – On a daily basis, the CCTV Crew uses a Closed Circuit Television Camera to inspect and record the conditions within sewer pipes. Any defects or maintenance problems can be seen via a television monitor inside the TV van. Taylors Fire and Sewer District has one CCTV unit. CCTV data is used to view defects within the pipes and schedule maintenance, repair, and replacement of sewer infrastructure.



Per our agreement with ReWa, Taylors Fire and Sewer District will be working and/or inspecting at least 8 miles or 42,240 L.F. per year of CCTV. As the chart above demonstrates we have exceeded our yearly goal. 2005 to 2010 (indicated by the blue column) were reported from December 1st to November 30th. 2010 to 2011 (indicated by the red column) was reported from December 1st to June 30th. 2011 to 2012 (indicated by the green column) was reported based off of Taylors' fiscal year, July 1st to June 30th. 2012 to 2013 (indicated by the green column) was reported on fiscal year. 2013 to 2014 (indicated by the green column) was reported on fiscal year as well. Our yearly goal is indicated in purple.

Cleaning Maintenance:

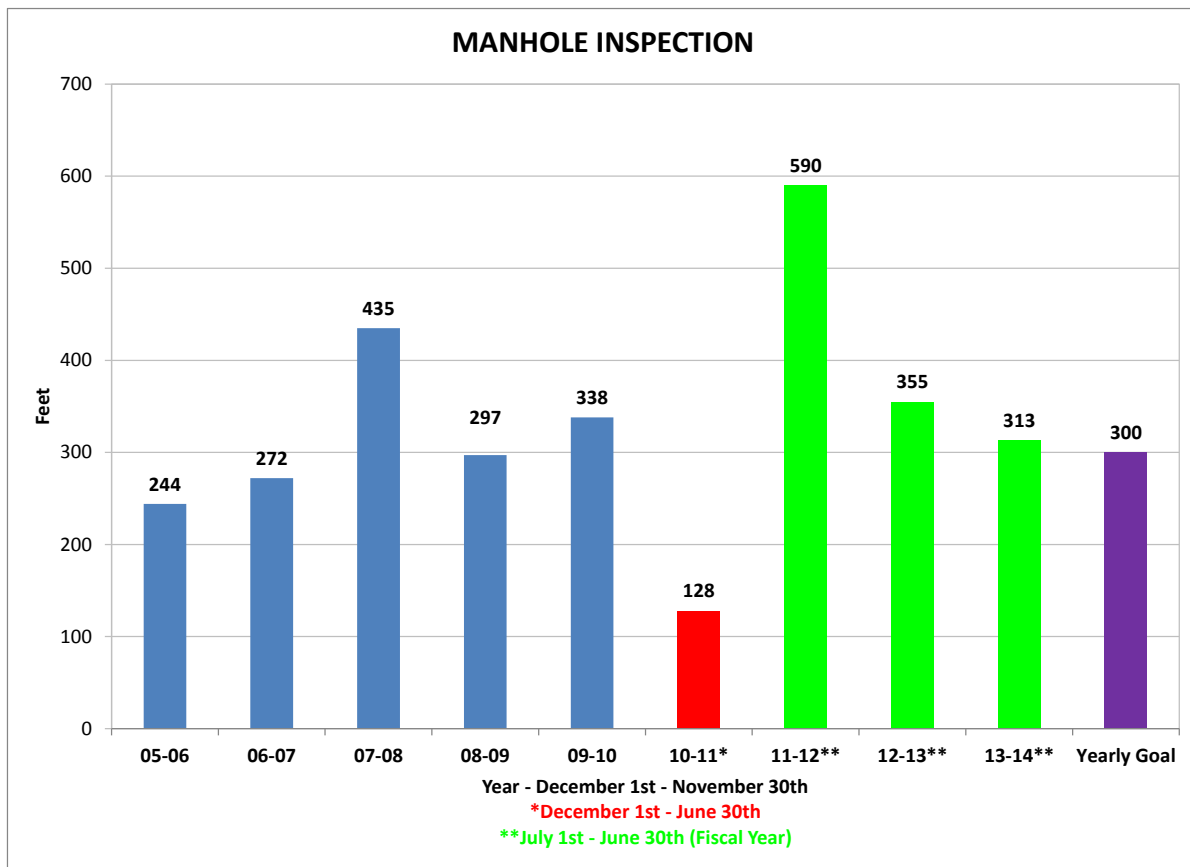
Sewer Line Cleaning - Regular cleaning of sewer lines is important to reduce I/I and keep the lines clear of foreign material. Sewer lines are cleaned using high velocity pressurized water to wash away most grit, grease, and debris. Keeping sewer lines clean is also important to allow the CCTV camera to travel through the sewer line to inspect for any problem areas to repair or rehabilitate and reduce I/I.



Per our agreement with ReWa, Taylors Fire and Sewer District will be working and/or inspecting at least 8 miles or 42,240 L.F. per year of cleaning maintenance. As the chart above demonstrates we have exceeded our yearly goal. 2005 to 2010 (indicated by the blue column) were reported from December 1st to November 30th. 2010 to 2011 (indicated by the red column) was reported from December 1st to June 30th. 2011 to 2012 (indicated by the green column) was reported based off of Taylors' fiscal year, July 1st to June 30th. 2012 to 2013 (indicated by the green column) was reported on fiscal year. 2013 to 2014 (indicated by the green column) was reported on fiscal year as well. Our yearly goal is indicated in purple.

Manhole Inspections:

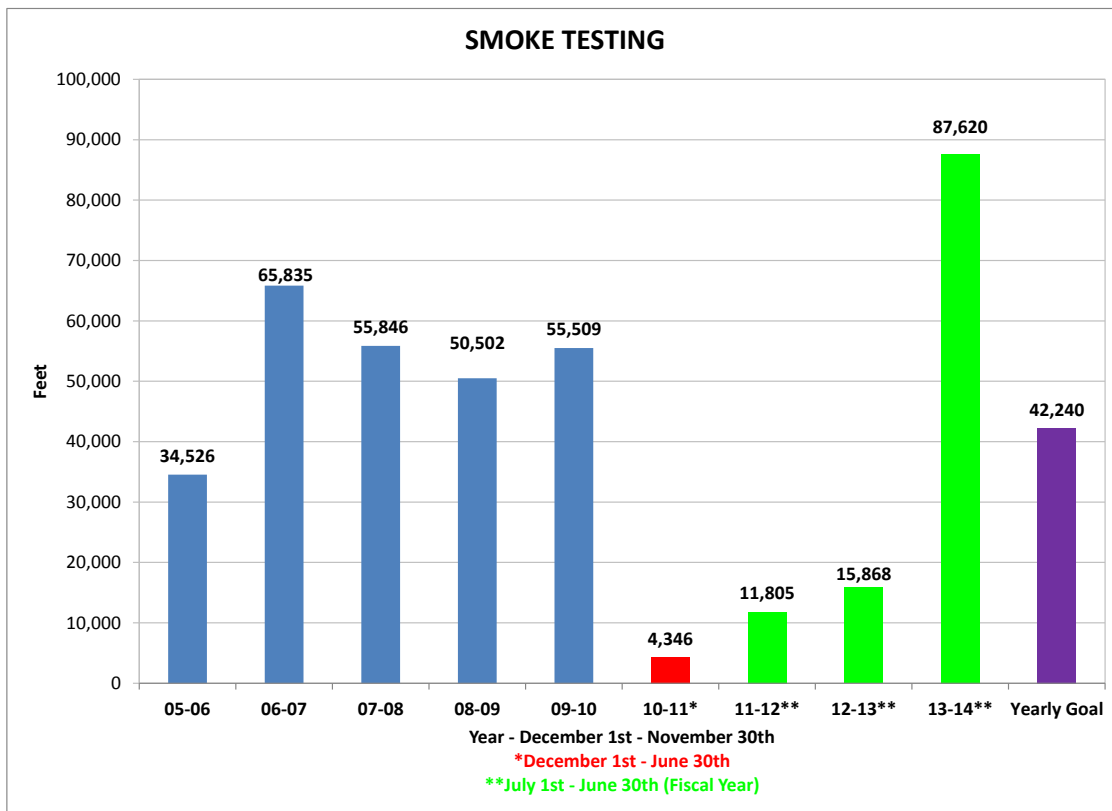
Manhole – A sewer manhole is a hole that serves as entry points for sewer employees to clean, televise, and otherwise inspect the sewer mainlines. They can be located in the road or in a right-of-way. Although there are many subterranean parts to a manhole, the only visible part of the manhole is the lid. In the bottom of the manhole there is a connection to the sewer pipe, and sewer flows through the manhole from one section of pipe to the next. As part of Operations & Maintenance and Rehabilitation, we often install, replace, and repair manholes. Manholes are sometimes referred to as access holes or maintenance holes.



Per our agreement with ReWa, Taylors Fire and Sewer District will be working and/or inspecting at least 300 manholes per year. As the chart above demonstrates we have exceeded our yearly goal in 2011 to 2012. 2005 to 2010 (indicated by the blue column) were reported from December 1st to November 30th. 2010 to 2011 (indicated by the red column) was reported from December 1st to June 30th. 2011 to 2012 (indicated by the green column) was reported based off of Taylors' fiscal year, July 1st to June 30th. 2012 to 2013 (indicated by the green column) was reported on fiscal year. 2013 to 2014 (indicated by the green column) was reported on fiscal year as well. Our yearly goal is indicated in purple. Due to the time frame of only 7 months in 2010 to 2011, we were not able to reach the goal of 300. We were able to exceed in 2011 to 2012 to make up for not meeting the goal from the previous time frame.

Smoke Testing:

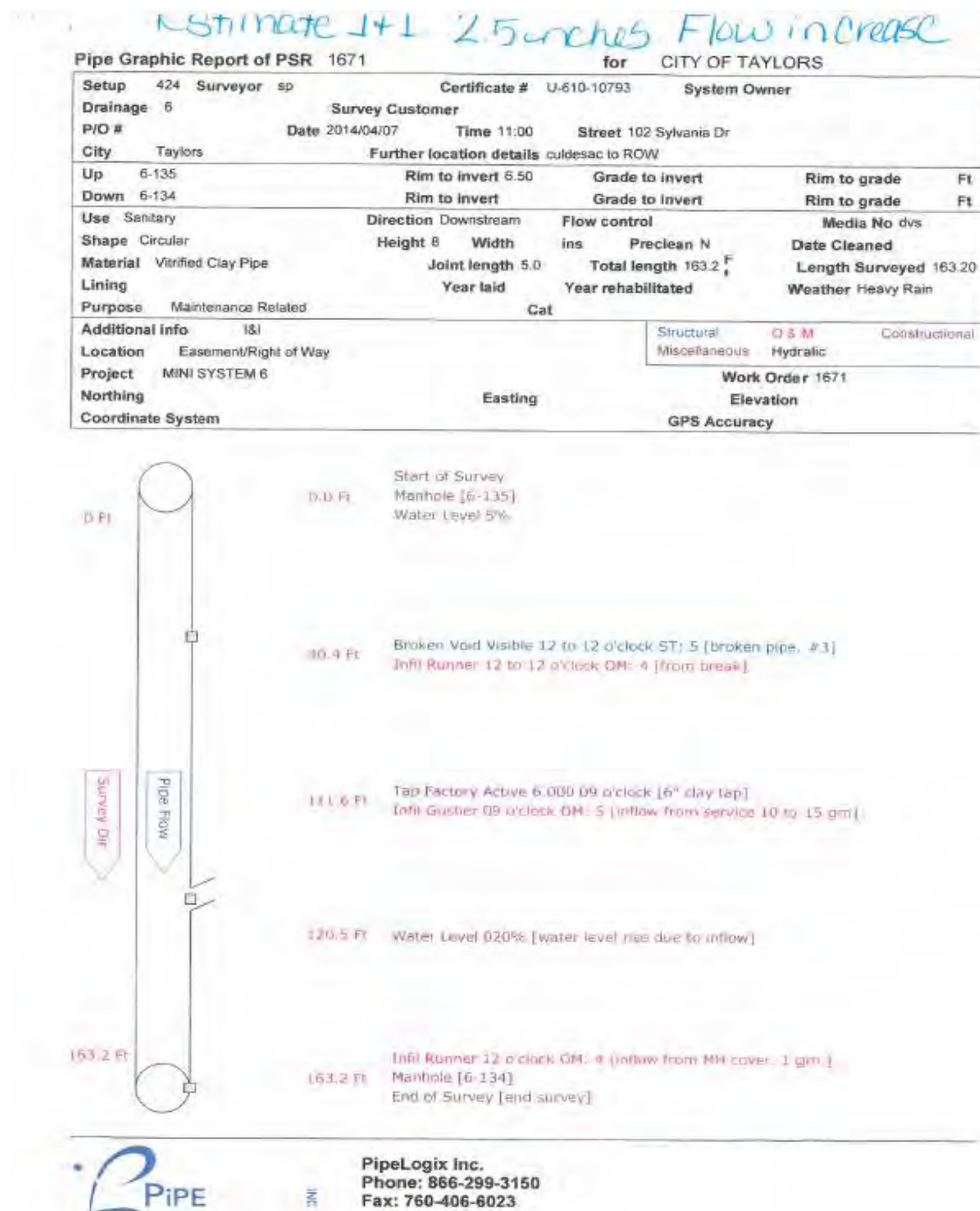
Smoke Testing – A method of blowing smoke into a closed-off section of a sewer system for the purpose of detecting sources of stormwater inflow into the sewer system. Smoke testing involves the use of a blower which forces air mixed with liquid smoke into a manhole. The smoke generated is nontoxic, has no odor, and is typically foggy white in color. The smoke is forced by the blower through the sewer system and follows the path of least resistance. Typically, the vent stacks of homes and businesses connected to the sewer pipe being testing will release the smoke into the atmosphere.



Per our agreement with ReWa, Taylors Fire and Sewer District will be working and/or inspecting at least 8 miles or 42,240 L.F per year of smoke testing. As the chart above demonstrates we have not met our yearly goal in 2011 to 2012. In March 2011, Taylors Fire and Sewer District received a complaint from a citizen in the District about our smoke testing. Due to a potential law suit, Taylors Fire and Sewer District lawyers advised us to not do any smoke testing until the issue was resolved. As you can see from the chart above, we were only able to do minimal smoke testing for the 2011-2012 year. This issue seems to be resolved for now so we can get back to our smoke testing schedule. 2005 to 2010 (indicated by the blue column) were reported from December 1st to November 30th. 2010 to 2011 (indicated by the red column) was reported from December 1st to June 30th. 2011 to 2012 (indicated by the green column) was reported based off of Taylors' fiscal year, July 1st to June 30th. 2012 to 2013 (indicated by the green

column) was reported on fiscal year. Due to the excess rain we received during this time frame, we were not able to reach our yearly goal. 2013 to 2014 (indicated by the green column) was reported on fiscal year as well. Our yearly goal is indicated in purple.

I&I Issues / Reduction:



CCTV pictures of 1671

for CITY OF TAYLORS

Work Order	Video dvs	Surveyed On 2014/04/07	Direction Downstream	Setup 424
Street Name 102 Sylvania Dr	City Name Taylors		Weather Heavy Rain	
Location Easement/Right of Way	From Manhole 6-135		To Manhole 6-134	

Date: 2014/04/07
Distance: 40.4 Ft
Obs: Infil Runner

Comments:
from break



Date: 2014/04/07
Distance: 120.5 Ft
Obs: Water Level

Comments:
water level rise due to inflow



Date: 2014/04/07
Distance: 120.5 Ft
Obs: Water Level

Comments:
water level rise due to inflow



Date: 2014/04/07
Distance: 120.5 Ft
Obs: Water Level

Comments:
water level rise due to inflow



CCTV pictures of 1671

for CITY OF TAYLORS

Work Order	Video dvs	Surveyed On	Direction	Setup
Street Name 102 Sylvania Dr	City Name Taylors	2014/04/07	Downstream	424
Location Easement/Right of Way	From Manhole 6-135		Weather Heavy Rain	To Manhole 6-134

Date: 2014/04/07

Distance: 163.2 Ft

Obs: Infil Runner

Comments:

inflow from MH cover, 1 gm,



Date: 2014/04/07

Distance: 163.2 Ft

Obs: Infil Runner

Comments:

inflow from MH cover, 1 gm.

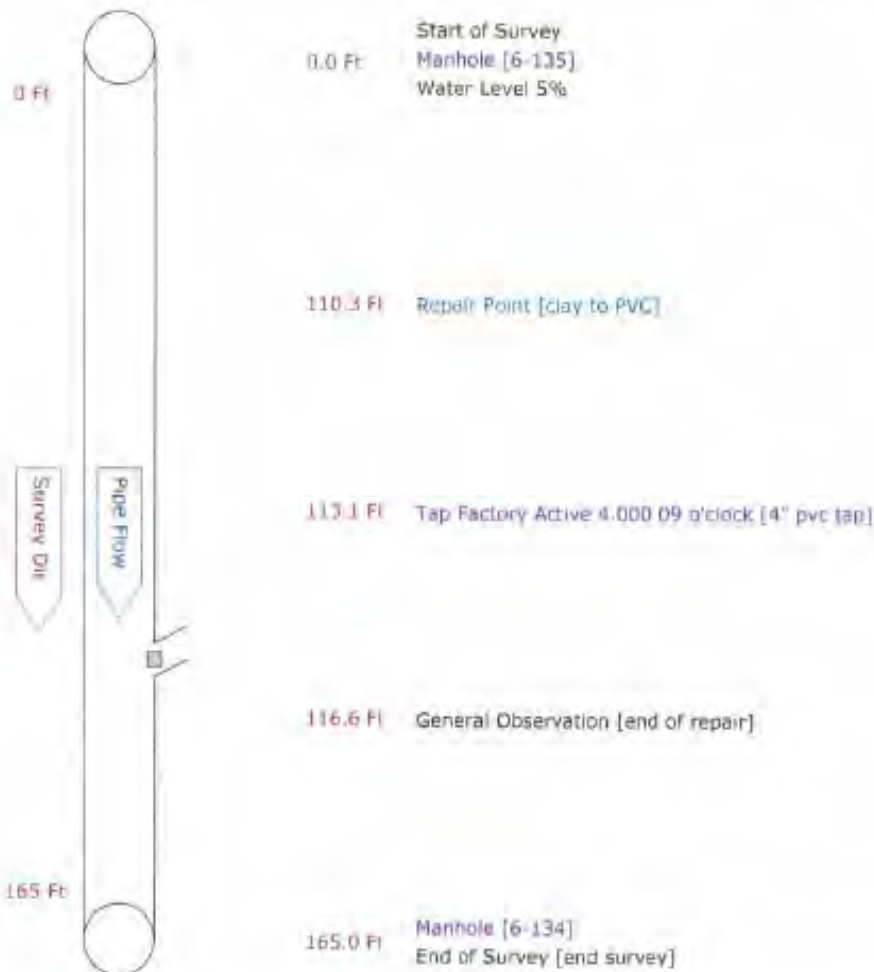




Pipe Graphic Report of PSR 1671

for CITY OF TAYLORS

Setup	434	Surveyor	sp	Certificate #	U-610-10793	System Owner
Drainage	6	Survey Customer				
P/O #		Date	2014/05/29	Time	14:20	Street
City	Taylors	Further location details				
Up	6-135	Rim to invert	6.50	Grade to invert		Rim to grade
Down	6-134	Rim to invert	6.00	Grade to invert		Rim to grade
Use	Sanitary	Direction	Downstream	Flow control		Media No
Shape	Circular	Height	8	Width	ins	Preclean N
Material	Vitrified Clay Pipe	Joint length	5.0	Total length	165.0	Date Cleaned
Lining		Year laid		Year rehabilitated		Length Surveyed
Purpose	Post Rehabilitation Survey	Cat				Weather Dry
Additional info	tv after service line repair	<div> <div>Structural</div> <div>Miscellaneous</div> </div> <div> <div>D & M</div> <div>Hydraulic</div> </div> <div> <div>Constructional</div> </div>				
Location	Easement/Right of Way	Work Order 1671				
Project	MINI SYSTEM 6	Elevation				
Northing		GPS Accuracy				
Coordinate System						



INC

PipeLogix Inc.
Phone: 866-299-3150
Fax: 760-406-6023

CCTV pictures of 1671

for CITY OF TAYLORS

Work Order	Video divs	Surveyed On 2014/05/29	Direction Downstream	Setup 434
Street Name 102 Sylvania Dr		City Name Taylors	Weather Dry	
Location Easement/Right of Way		From Manhole 6-135	To Manhole 6-134	

Date: 2014/05/29

Distance: 113.1 Ft

Obs: Tap Factory Active

Comments:

4" pvc tap



MH REHABILITATION LIST		DEPTH	ESTIMATED I/I gm	
Indian Trl	MH 6-122	6.9		0.3
IndianCir	MH 5-097	10		0.5
Ikes Rd	MH 7-291	13		0.3
" "	MH 7-293	8		0.3
Pebble Springs Dr	MH 8-264A	6		7
" " "	MH 6-264	9.5		0.2
Ginger Ln	MH 6-399	11		4
" "	MH 6-397	10		3
Rutherford Rd	MH 6-529	22		0.2
Indian Trl ROW	MH 6-153	3		0.1
" "	MH 6-150	5		0.3
Vicki Cir ROW	MH 7-084	4		0.2
" "	MH 7-070	5		0.1
" "	MH 7-069	5		0.1
" "	MH 7-063	3		0.1
Chick Springs rd	MH 8-134	9		0.1
Nova st	MH 1072	7		0.3
Cuninham Rd	MH 7-429	17		0.1
Charin Cross Rd	MH 6-264	11		2
Armsdale Dr	MH 1067	7		2
	total	172.4	Total gm	21.2

Manholes that need Rehab

Average I/I

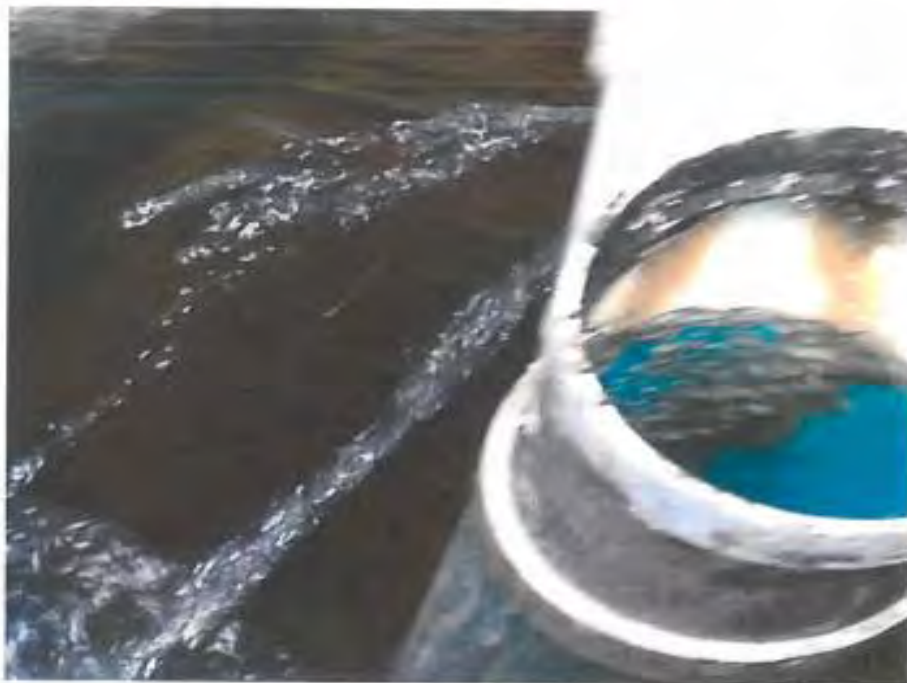
M/H #	Address:	Depth:	
6-081	Old Mill Rd	8.5	2.0 gmi
8-264B	Pebble Springs	5.7	3.0 gmi
6-234B	Lee Way Ct	10	0.2 gmi
5-255	1207 Winding Way (row)	6.7	1.0 gmi
5-177	Winding Way (row)	10	2.0 gmi
5-17b	Winding Way (row)	9	1.0 gmi
6-170	Winding Way (row)	12.6	1.0 gmi
6-359	Mt Creek Church Rd (row)	6	0.2 gmi
8-234a	Pebble Springs Dr	7.6	3.0 gmi
1078	306 N Orchard Dr	12	1.0 gmi
6-421	6 Nielson Ct (row)	6.5	5.0 gmi
6-420	4 Nielson Ct (row)	5.4	1.0 gmi
6-237	302 Tanner Dr (row)	4.7	1.0 gmi
6-467	401 Tanner Dr (row)	5.7	3.0 gmi
Total:		110.4	24.4

Rehabilitated MH

Mini system #6

6-467

3gpm

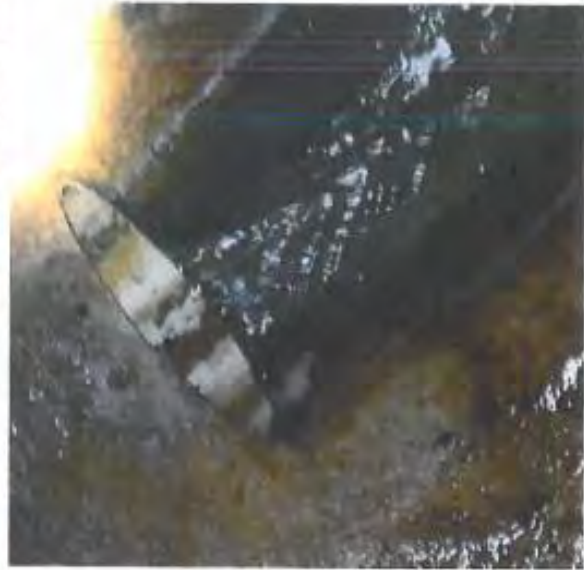


Rehabilitated MH

Mini system #6

6-237

1gpm



Rehabilitated MH

Mini system #6

6-081

2gm



Rehabilitated MH

Mini system #6

6-234B

I/I 1gm



Rehabilitated MH

Mini system #6

6-379

I/I .5gm



Rehabilitated MH

Mini system #6

6-421

I/I 5gm



Rehab MH

Min system #3

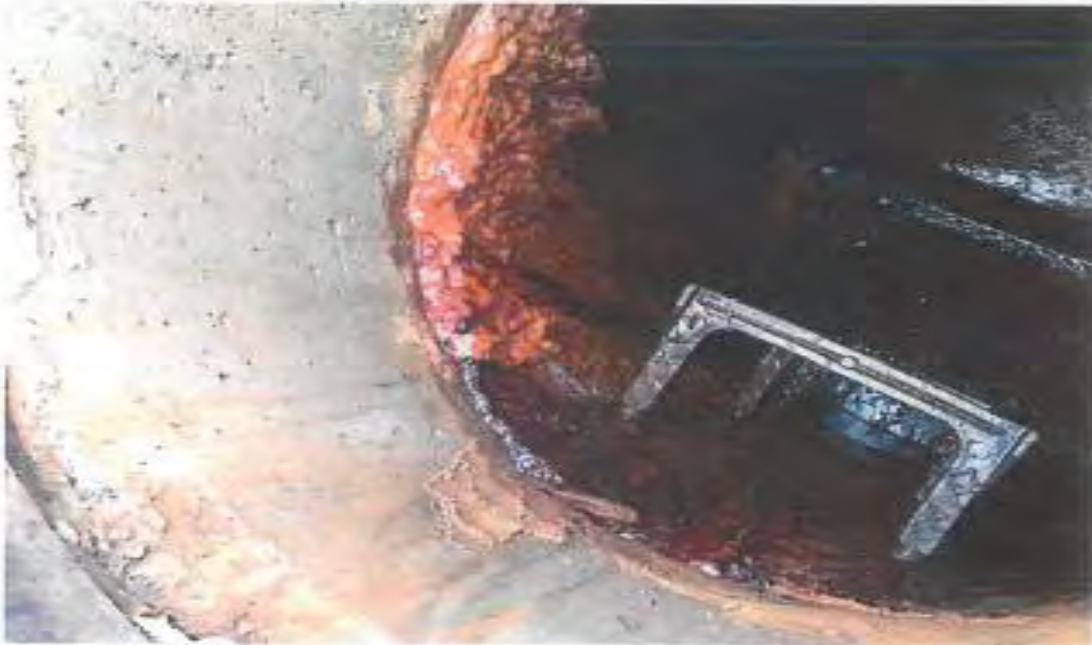
3-307A

I/I 1gmn



Rehabilitated MH
8-234D

Mini system #8
3gm



Rehabilitated MH

Mini system #8

8-264B

I/I 3gm



Rehab MH

Mini system #5

5-255



Rehab MH

Mini system #5

5-177

I/I 2gm



Rehab MH

Mini system # 5

5-176

I/I 1GPM



Rehab MH

Mini system #5

5-170

1gm



Rehabilitated MH

6-420

Mini system #6

I/I .5gm



Pump Stations:

Pump Stations (Also called Lift Stations) – Pump Stations are often found at low points in topography where wastewater must be pumped uphill to a point where it can join other gravity fed lines. A wet well gathers the wastewater, where at different times the pumps will turn on and send the wastewater out through the force main. Taylors Fire and Sewer District owns and maintains three pump stations.

Taylors Fire and Sewer District contracts with Condor Environmental who is responsible for the continuous and efficient operation and maintenance of the collection systems pump stations. If there is a problem at a pump station, they communicate with our Operations Coordinator in the event field crew assistance is needed. Their responsibility includes preventing failures in operations that would result in flooding upstream homes, businesses or streets. Condor Environmental does not have responsibility beyond the pump station site, but they can assist field crews in identifying potential blockages in the gravity line entering the pump station wet well or the force main exiting the pump station.

Taylors Fire and Sewer District staff visits the pump stations in order to perform site maintenance such as cutting grass and maintain the grounds. Field crews also check the pumps in the pump station to ensure they are operating.

In June 2013 we contracted with Pete Duty & Associates to purchase three (3) HTT-900 Cellular Monitoring Systems for our pump stations (Aiken Chapel, Lily Pond, and Enoree Heights). We are now able to receive texts, emails, and phone calls about each station. We can also view each pump station's status and print reports from online.

- **Pump Station Main Home Screen:**

Name	Lastpumpreport	Pump 1 Starts	Pump 1 Runtimes	Pump 2 Starts	Pump 2 Runtimes	Pump 1 Temp	Pump 2 Temp	High Water	Alarm History	Service History
Aiken Chapel PS	2014-09-17	4568	272.58 hrs	3617	282.78 hrs	Pump 1 Temp O K	Pump 2 Temp O K	High Water O K	Alarm History	Service History
Lily Pond PS	2014-09-17	3988	683.07 hrs	4270	966.93 hrs	Pump 1 Temp O K	Pump 2 Temp O K	High Water O K	Alarm History	Service History
Enoree Heights PS	2014-09-17	5185	89.20 hrs	5184	87.60 hrs			High Water O K	Alarm History	Service History

For Support Call 8774884882 | For Best Browsing Experience We Recommend Firefox

We started monitoring at the end of this fiscal year 2013, so we are able to provide a report for this fiscal year.

- **Aiken Chapel Pump Station Data:**

Aiken Chapel Alarm Log – 7-1-2013 to 6-30-2014			
Text	Alarm Time	Acknowledger	Acknowledge Time
External Power Ok	Fri, Mar 07 2014 12:04:32 PM	-	-
External Power Lost	Fri, Mar 07 2014 10:30:08 AM	Rusty Reid	Fri, Mar 07 2014 10:30:56 AM
Pump 2 Temp O K	Mon, Mar 03 2014 05:16:04 PM	-	-
Pump 2 Over Temp	Mon, Mar 03 2014 05:11:24 PM	-	-
Pump 2 Temp O K	Mon, Mar 03 2014 05:10:04 PM	-	-
Pump 2 Over Temp	Mon, Mar 03 2014 05:04:24 PM	-	-
Pump 2 Temp O K	Mon, Mar 03 2014 04:50:04 PM	Rusty Reid	Mon, Mar 03 2014 04:50:48 PM
Pump 2 Over Temp	Mon, Mar 03 2014 04:49:04 PM	-	-
External Power Ok	Tue, Jan 28 2014 03:37:28 PM	-	-
External Power Lost	Tue, Jan 28 2014 03:32:08 PM	-	-
Pump 1 Temp O K	Sun, Nov 24 2013 02:06:38 PM	-	-
Pump 1 Over Temp	Sun, Nov 24 2013 01:15:38 PM	Rusty Reid	Sun, Nov 24 2013 01:16:18 PM
High Water O K	Thu, Nov 21 2013 04:56:04 PM	-	-
High Water Alarm	Thu, Nov 21 2013 04:54:34 PM	-	-
External Power Ok	Mon, Nov 11 2013 09:13:36 AM	-	-
External Power Lost	Mon, Nov 11 2013 08:54:06 AM	-	-
External Power Ok	Mon, Nov 11 2013 08:51:06 AM	Rusty Reid	Mon, Nov 11 2013 08:52:20 AM
External Power Lost	Mon, Nov 11 2013 08:40:46 AM	-	-
Pump 1 Temp O K	Mon, Nov 11 2013 08:40:46 AM	Rusty Reid	Mon, Nov 11 2013 08:41:21 AM
Pump 1 Over Temp	Mon, Nov 11 2013 03:50:06 AM	-	-
External Power Ok	Sun, Oct 27 2013 01:39:02 PM	-	-
External Power Lost	Sun, Oct 27 2013 01:22:12 PM	-	-
External Power Ok	Sun, Oct 27 2013 12:20:22 PM	-	-
Pump 2 Temp O K	Sun, Oct 27 2013 12:18:22 PM	-	-
Pump 2 Over Temp	Sun, Oct 27 2013 12:15:42 PM	-	-
External Power Lost	Sun, Oct 27 2013 12:14:12 PM	-	-
Pump 2 Temp O K	Sun, Oct 27 2013 11:47:32 AM	-	-
Pump 2 Over Temp	Sun, Oct 27 2013 11:43:22 AM	Rusty Reid	Sun, Oct 27 2013 11:43:54 AM
External Power Ok	Mon, Oct 21 2013 02:59:14 PM	Rusty Reid	Mon, Oct 21 2013 02:59:47 PM
External Power Lost	Mon, Oct 21 2013 02:41:54 PM	-	-
Pump 2 Temp O K	Mon, Oct 21 2013 01:50:04 PM	Rusty Reid	Mon, Oct 21 2013 01:50:38 PM
Pump 2 Over Temp	Mon, Oct 21 2013 01:45:44 PM	-	-
Pump 1 Temp O K	Wed, Oct 02 2013 01:11:52 PM	-	-
Pump 1 Over Temp	Wed, Oct 02 2013 12:49:12 PM	-	-
Pump 1 Temp O K	Wed, Oct 02 2013 12:42:12 PM	Rusty Reid	Wed, Oct 02 2013 12:42:26 PM
Pump 1 Over Temp	Wed, Oct 02 2013 11:52:22 AM	Samantha Bartow	Wed, Oct 02 2013 12:34:41 PM

Pump 2 Temp O K	Sun, Sep 29 2013 01:39:00 PM	Rusty Reid	Sun, Sep 29 2013 01:39:25 PM
Pump 2 Over Temp	Sun, Sep 29 2013 01:35:10 PM	Rusty Reid	Sun, Sep 29 2013 01:35:28 PM
Pump 2 Temp O K	Sun, Sep 29 2013 12:09:20 PM	-	-
Pump 2 Over Temp	Sun, Sep 29 2013 12:06:00 PM	-	-
External Power Ok	Thu, Sep 19 2013 03:07:48 PM	-	-
External Power Lost	Thu, Sep 19 2013 02:37:28 PM	-	-
High Water O K	Thu, Aug 15 2013 11:57:58 PM	-	-
High Water Alarm	Thu, Aug 15 2013 11:14:18 PM	-	-
Pump 2 Temp O K	Thu, Jul 11 2013 10:48:56 AM	-	-
Pump 2 Over Temp	Thu, Jul 11 2013 10:46:26 AM	-	-
Pump 2 Temp O K	Thu, Jul 11 2013 08:21:36 AM	Rusty Reid	Thu, Jul 11 2013 08:22:04 AM
Pump 2 Over Temp	Thu, Jul 11 2013 08:18:26 AM	-	-

Aiken Chapel PS Runtimes 2013-07-01 - 2014-06-30

	Pump 1		Pump 2		Totals	
	Starts	Runtime(Hours)	Starts	Runtime(Hours)	Starts	Runtime(Hours)
2013-07-01					0	0.00
2013-07-02					0	0.00
2013-07-03					0	0.00
2013-07-04					0	0.00
2013-07-05					0	0.00
2013-07-06					0	0.00
2013-07-07					0	0.00
2013-07-08					0	0.00
2013-07-09					0	0.00
2013-07-10					0	0.00
2013-07-11					0	0.00
2013-07-12					0	0.00
2013-07-13					0	0.00
2013-07-14					0	0.00
2013-07-15					0	0.00
2013-07-16					0	0.00
2013-07-17					0	0.00
2013-07-18					0	0.00
2013-07-19					0	0.00
2013-07-20					0	0.00
2013-07-21					0	0.00
2013-07-22					0	0.00
2013-07-23					0	0.00
2013-07-24					0	0.00

2013-07-25					0	0.00
2013-07-26					0	0.00
2013-07-27					0	0.00
2013-07-28					0	0.00
2013-07-29					0	0.00
2013-07-30					0	0.00
2013-07-31					0	0.00
2013-08-01					0	0.00
2013-08-02					0	0.00
2013-08-03					0	0.00
2013-08-04					0	0.00
2013-08-05					0	0.00
2013-08-06					0	0.00
2013-08-07					0	0.00
2013-08-08					0	0.00
2013-08-09					0	0.00
2013-08-10					0	0.00
2013-08-11					0	0.00
2013-08-12					0	0.00
2013-08-13					0	0.00
2013-08-14					0	0.00
2013-08-15					0	0.00
2013-08-16					0	0.00
2013-08-17					0	0.00
2013-08-18					0	0.00
2013-08-19	8	0.57	9	0.72	17	1.28
2013-08-20	7	0.48	7	0.57	14	1.05
2013-08-21	13	0.85	13	1.00	26	1.85
2013-08-22	13	0.77	12	0.82	25	1.58
2013-08-23	8	0.47	8	0.55	16	1.02
2013-08-24	7	0.42	8	0.57	15	0.98
2013-08-25	9	0.60	9	0.73	18	1.33
2013-08-26	8	0.43	7	0.48	15	0.92
2013-08-27	6	0.33	7	0.47	13	0.80
2013-08-28	8	0.50	7	0.47	15	0.97
2013-08-29	5	0.30	6	0.37	11	0.67
2013-08-30	6	0.33	5	0.30	11	0.63
2013-08-31	4	0.23	4	0.23	8	0.47
2013-09-01	6	0.45	6	0.43	12	0.88
2013-09-02	3	0.17	3	0.18	6	0.35
2013-09-03	6	0.35	5	0.33	11	0.68
2013-09-04	8	0.48	9	0.60	17	1.08
2013-09-05	7	0.42	7	0.43	14	0.85

2013-09-06	6	0.35	6	0.37	12	0.72
2013-09-07	4	0.23	4	0.25	8	0.48
2013-09-08	8	0.57	8	0.53	16	1.10
2013-09-09	10	0.57	10	0.67	20	1.23
2013-09-10	7	0.38	7	0.43	14	0.82
2013-09-11	10	0.62	10	0.68	20	1.30
2013-09-12	6	0.35	6	0.38	12	0.73
2013-09-13	6	0.35	5	0.32	11	0.67
2013-09-14	4	0.23	4	0.25	8	0.48
2013-09-15	6	0.48	6	3.22	12	3.70
2013-09-16	8	0.47	8	0.52	16	0.98
2013-09-17	5	0.30	6	0.37	11	0.67
2013-09-18	11	0.68	10	1.55	21	2.23
2013-09-19	11	0.55	13	0.68	24	1.23
2013-09-20	6	0.35	6	0.38	12	0.73
2013-09-21	6	0.37	5	0.35	11	0.72
2013-09-22	8	0.60	9	0.60	17	1.20
2013-09-23	8	0.47	7	0.45	15	0.92
2013-09-24	5	0.30	5	0.32	10	0.62
2013-09-25	12	0.78	13	0.88	25	1.67
2013-09-26	8	0.48	8	0.52	16	1.00
2013-09-27	6	0.37	5	0.33	11	0.70
2013-09-28	4	0.23	4	0.25	8	0.48
2013-09-29	12	0.62	13	1.75	25	2.37
2013-09-30	9	0.53	8	0.53	17	1.07
2013-10-01	5	0.30	6	0.40	11	0.70
2013-10-02	14	0.68	15	0.82	29	1.50
2013-10-03	9	0.53	10	0.65	19	1.18
2013-10-04	8	0.47	8	0.53	16	1.00
2013-10-05	4	0.22	4	0.27	8	0.48
2013-10-06	8	0.50	8	0.53	16	1.03
2013-10-07	10	0.62	10	0.52	20	1.13
2013-10-08	5	10.12	4	0.23	9	10.35
2013-10-09	3	18.90	3	0.12	6	19.02
2013-10-10	5	0.28	6	0.40	11	0.68
2013-10-11	6	0.35	5	0.33	11	0.68
2013-10-12	5	0.28	6	0.33	11	0.62
2013-10-13	8	0.48	8	0.55	16	1.03
2013-10-14	10	0.60	9	0.60	19	1.20
2013-10-15	6	0.35	7	0.45	13	0.80
2013-10-16	8	0.55	8	0.52	16	1.07
2013-10-17	6	0.33	5	0.30	11	0.63
2013-10-18	4	0.23	4	0.23	8	0.47

2013-10-19	3	0.17	3	0.18	6	0.35
2013-10-20	6	0.32	7	0.55	13	0.87
2013-10-21	10	0.60	10	1.25	20	1.85
2013-10-22	5	0.28	5	0.33	10	0.62
2013-10-23	8	0.53	9	0.62	17	1.15
2013-10-24	5	0.28	5	0.32	10	0.60
2013-10-25	6	0.35	6	0.42	12	0.77
2013-10-26	4	0.22	4	0.27	8	0.48
2013-10-27	11	0.58	9	0.72	20	1.30
2013-10-28	9	0.55	9	0.45	18	1.00
2013-10-29	8	0.48	9	0.58	17	1.07
2013-10-30	10	0.65	10	0.65	20	1.30
2013-10-31	6	0.37	5	0.33	11	0.70
2013-11-01	5	0.30	5	0.32	10	0.62
2013-11-02	4	0.27	5	0.35	9	0.62
2013-11-03	7	0.50	6	0.47	13	0.97
2013-11-04	7	0.45	8	0.50	15	0.95
2013-11-05	5	0.32	5	0.32	10	0.63
2013-11-06	10	0.65	9	0.62	19	1.27
2013-11-07	7	0.42	7	0.43	14	0.85
2013-11-08	4	0.25	5	0.33	9	0.58
2013-11-09	3	0.18	3	0.20	6	0.38
2013-11-10	6	0.40	6	0.50	12	0.90
2013-11-11	10	0.57	10	0.67	20	1.23
2013-11-12	6	0.38	5	0.32	11	0.70
2013-11-13	8	0.55	9	0.63	17	1.18
2013-11-14	5	0.33	5	0.35	10	0.68
2013-11-15	5	0.33	5	0.35	10	0.68
2013-11-16	4	0.27	3	0.20	7	0.47
2013-11-17	6	0.37	7	0.53	13	0.90
2013-11-18	5	0.27	5	8.77	10	9.03
2013-11-19	0	0.00	0	24.00	0	24.00
2013-11-20	0	0.00	0	24.00	0	24.00
2013-11-21	3	0.72	5	16.18	8	16.90
2013-11-22	7	0.38	7	0.53	14	0.92
2013-11-23	5	0.27	4	0.25	9	0.52
2013-11-24	12	0.88	11	0.72	23	1.60
2013-11-25	16	0.95	0	0.00	16	0.95
2013-11-26	26	1.70	0	0.00	26	1.70
2013-11-27	15	0.88	0	0.00	15	0.88
2013-11-28	10	0.58	0	0.00	10	0.58
2013-11-29	9	0.52	0	0.00	9	0.52
2013-11-30	10	0.52	0	0.00	10	0.52

2013-12-01	14	0.98	0	0.00	14	0.98
2013-12-02	12	0.62	0	0.00	12	0.62
2013-12-03	17	0.92	0	0.00	17	0.92
2013-12-04	19	0.88	0	0.00	19	0.88
2013-12-05	18	1.02	5	0.33	23	1.35
2013-12-06	24	1.42	0	0.00	24	1.42
2013-12-07	14	0.78	0	0.00	14	0.78
2013-12-08	17	1.08	0	0.00	17	1.08
2013-12-09	20	1.17	0	0.00	20	1.17
2013-12-10	17	1.00	0	0.00	17	1.00
2013-12-11	19	1.15	0	0.00	19	1.15
2013-12-12	16	1.00	0	0.00	16	1.00
2013-12-13	12	0.72	0	0.00	12	0.72
2013-12-14	15	1.02	0	0.00	15	1.02
2013-12-15	19	1.22	0	0.00	19	1.22
2013-12-16	20	1.20	2	0.10	22	1.30
2013-12-17	14	0.88	0	0.00	14	0.88
2013-12-18	17	0.90	0	0.00	17	0.90
2013-12-19	15	0.60	0	0.00	15	0.60
2013-12-20	12	0.43	1	0.02	13	0.45
2013-12-21	8	0.30	0	0.00	8	0.30
2013-12-22	19	0.80	0	0.00	19	0.80
2013-12-23	20	1.00	0	0.00	20	1.00
2013-12-24	12	0.67	0	0.00	12	0.67
2013-12-25	8	0.43	0	0.00	8	0.43
2013-12-26	9	0.52	0	0.00	9	0.52
2013-12-27	10	0.42	0	0.00	10	0.42
2013-12-28	9	0.40	0	0.00	9	0.40
2013-12-29	24	1.03	0	0.00	24	1.03
2013-12-30	21	0.77	0	0.00	21	0.77
2013-12-31	19	0.70	0	0.00	19	0.70
2014-01-01	10	0.37	0	0.00	10	0.37
2014-01-02	12	0.47	0	0.00	12	0.47
2014-01-03	10	0.38	0	0.00	10	0.38
2014-01-04	10	0.40	0	0.00	10	0.40
2014-01-05	13	0.75	0	0.00	13	0.75
2014-01-06	16	0.93	0	0.00	16	0.93
2014-01-07	12	0.78	0	0.00	12	0.78
2014-01-08	18	1.23	0	0.00	18	1.23
2014-01-09	12	0.80	0	0.00	12	0.80
2014-01-10	12	0.85	0	0.00	12	0.85
2014-01-11	20	1.93	0	0.00	20	1.93
2014-01-12	20	1.53	0	0.00	20	1.53

2014-01-13	26	2.08	0	0.00	26	2.08
2014-01-14	21	1.50	0	0.00	21	1.50
2014-01-15	21	1.62	0	0.00	21	1.62
2014-01-16	14	0.98	0	0.00	14	0.98
2014-01-17	11	0.73	0	0.00	11	0.73
2014-01-18	10	0.72	0	0.00	10	0.72
2014-01-19	15	1.17	0	0.00	15	1.17
2014-01-20	10	0.68	0	0.00	10	0.68
2014-01-21	10	0.67	0	0.00	10	0.67
2014-01-22	17	1.30	0	0.00	17	1.30
2014-01-23	11	0.73	0	0.00	11	0.73
2014-01-24	10	0.72	0	0.00	10	0.72
2014-01-25	10	0.68	0	0.00	10	0.68
2014-01-26	13	1.12	0	0.00	13	1.12
2014-01-27	23	1.58	0	0.00	23	1.58
2014-01-28	2	0.05	1	0.07	3	0.12
2014-01-29	3	0.20	2	0.13	5	0.33
2014-01-30	2	0.13	2	0.13	4	0.27
2014-01-31	3	0.22	3	0.20	6	0.42
2014-02-01	5	0.35	5	0.35	10	0.70
2014-02-02	5	0.37	6	0.47	11	0.83
2014-02-03	7	0.50	7	0.50	14	1.00
2014-02-04	5	0.35	4	0.28	9	0.63
2014-02-05	7	0.52	8	0.55	15	1.07
2014-02-06	5	0.35	5	0.35	10	0.70
2014-02-07	6	0.43	6	0.43	12	0.87
2014-02-08	4	0.28	4	0.28	8	0.57
2014-02-09	6	0.43	6	0.57	12	1.00
2014-02-10	10	0.70	9	0.62	19	1.32
2014-02-11	3	0.20	4	0.25	7	0.45
2014-02-12	4	0.28	3	0.20	7	0.48
2014-02-13	3	0.20	3	0.20	6	0.40
2014-02-14	4	0.28	5	0.35	9	0.63
2014-02-15	4	0.28	3	0.22	7	0.50
2014-02-16	6	0.50	7	0.52	13	1.02
2014-02-17	12	0.43	12	0.42	24	0.85
2014-02-18	11	0.43	11	0.43	22	0.87
2014-02-19	21	0.87	20	0.80	41	1.67
2014-02-20	13	0.53	14	0.57	27	1.10
2014-02-21	14	0.58	13	0.53	27	1.12
2014-02-22	11	0.47	11	0.45	22	0.92
2014-02-23	14	0.62	14	0.65	28	1.27
2014-02-24	13	0.55	14	0.60	27	1.15

2014-02-25	9	0.37	9	0.37	18	0.73
2014-02-26	14	0.60	14	0.60	28	1.20
2014-02-27	9	0.35	8	0.32	17	0.67
2014-02-28	10	0.42	11	0.45	21	0.87
2014-03-01	7	0.27	7	0.28	14	0.55
2014-03-02	10	0.55	10	0.43	20	0.98
2014-03-03	14	0.65	22	0.73	36	1.38
2014-03-04	6	0.23	7	0.27	13	0.50
2014-03-05	13	0.52	13	0.50	26	1.02
2014-03-06	10	0.38	9	0.35	19	0.73
2014-03-07	14	0.63	14	0.53	28	1.17
2014-03-08	12	0.47	12	0.47	24	0.93
2014-03-09	15	0.60	14	0.60	29	1.20
2014-03-10	16	0.65	17	0.70	33	1.35
2014-03-11	10	0.38	10	0.38	20	0.77
2014-03-12	13	0.55	12	0.50	25	1.05
2014-03-13	8	0.32	9	0.35	17	0.67
2014-03-14	8	0.32	7	0.28	15	0.60
2014-03-15	4	0.15	5	0.20	9	0.35
2014-03-16	13	0.57	13	0.57	26	1.13
2014-03-17	16	0.67	16	0.67	32	1.33
2014-03-18	14	0.57	13	0.52	27	1.08
2014-03-19	16	0.70	16	0.67	32	1.37
2014-03-20	9	0.38	10	0.42	19	0.80
2014-03-21	10	0.42	10	0.40	20	0.82
2014-03-22	5	0.20	4	0.17	9	0.37
2014-03-23	9	0.43	10	0.45	19	0.88
2014-03-24	11	0.43	11	0.43	22	0.87
2014-03-25	8	0.32	8	0.32	16	0.63
2014-03-26	13	0.55	12	0.50	25	1.05
2014-03-27	8	0.33	8	0.32	16	0.65
2014-03-28	7	0.28	7	0.28	14	0.57
2014-03-29	4	0.17	4	0.15	8	0.32
2014-03-30	10	0.43	11	0.48	21	0.92
2014-03-31	12	0.48	11	0.42	23	0.90
2014-04-01	8	0.32	8	0.30	16	0.62
2014-04-02	11	0.43	11	0.45	22	0.88
2014-04-03	9	0.35	9	0.33	18	0.68
2014-04-04	9	0.33	10	0.37	19	0.70
2014-04-05	6	0.23	5	0.20	11	0.43
2014-04-06	13	0.57	14	0.63	27	1.20
2014-04-07	22	1.03	22	1.00	44	2.03
2014-04-08	22	0.95	22	0.93	44	1.88

2014-04-09	18	0.77	18	0.75	36	1.52
2014-04-10	12	0.50	12	0.48	24	0.98
2014-04-11	11	0.47	10	0.40	21	0.87
2014-04-12	6	0.25	6	0.25	12	0.50
2014-04-13	11	0.50	11	0.53	22	1.03
2014-04-14	9	0.37	9	0.37	18	0.73
2014-04-15	13	0.55	14	0.57	27	1.12
2014-04-16	10	0.43	10	0.42	20	0.85
2014-04-17	8	0.33	7	0.28	15	0.62
2014-04-18	10	0.40	10	0.37	20	0.77
2014-04-19	12	0.50	13	0.52	25	1.02
2014-04-20	16	0.75	16	0.73	32	1.48
2014-04-21	14	0.58	14	0.58	28	1.17
2014-04-22	11	0.45	10	0.40	21	0.85
2014-04-23	10	0.43	11	0.45	21	0.88
2014-04-24	9	0.48	9	0.48	18	0.97
2014-04-25	8	0.35	7	0.27	15	0.62
2014-04-26	7	0.28	8	0.32	15	0.60
2014-04-27	11	0.55	11	0.53	22	1.08
2014-04-28	9	0.37	8	0.32	17	0.68
2014-04-29	8	0.33	8	0.33	16	0.67
2014-04-30	11	0.47	11	0.45	22	0.92
2014-05-01	7	0.28	7	0.28	14	0.57
2014-05-02	6	0.25	7	0.28	13	0.53
2014-05-03	4	0.15	4	0.17	8	0.32
2014-05-04	10	0.50	9	0.42	19	0.92
2014-05-05	5	0.20	6	0.23	11	0.43
2014-05-06	8	0.32	8	0.32	16	0.63
2014-05-07	8	0.32	8	0.32	16	0.63
2014-05-08	8	0.32	7	0.28	15	0.60
2014-05-09	7	0.28	8	0.30	15	0.58
2014-05-10	6	0.23	6	0.22	12	0.45
2014-05-11	9	0.40	9	0.40	18	0.80
2014-05-12	10	0.40	10	0.40	20	0.80
2014-05-13	10	0.38	9	0.35	19	0.73
2014-05-14	10	0.40	11	0.43	21	0.83
2014-05-15	12	0.48	12	0.48	24	0.97
2014-05-16	7	0.28	7	0.28	14	0.57
2014-05-17	10	0.42	9	0.37	19	0.78
2014-05-18	10	0.50	11	0.52	21	1.02
2014-05-19	8	0.32	8	0.33	16	0.65
2014-05-20	6	0.23	5	0.20	11	0.43
2014-05-21	8	0.33	9	0.35	17	0.68

2014-05-22	7	0.30	7	0.28	14	0.58
2014-05-23	5	0.20	5	0.20	10	0.40
2014-05-24	3	0.12	3	0.12	6	0.23
2014-05-25	11	0.48	11	0.43	22	0.92
2014-05-26	4	0.15	4	0.15	8	0.30
2014-05-27	8	0.28	7	0.27	15	0.55
2014-05-28	9	0.35	10	0.38	19	0.73
2014-05-29	6	0.23	6	0.23	12	0.47
2014-05-30	8	0.32	8	0.48	16	0.80
2014-05-31	7	0.27	7	0.27	14	0.53
2014-06-01	13	0.55	12	0.48	25	1.03
2014-06-02	8	0.32	8	0.32	16	0.63
2014-06-03	6	0.22	7	0.23	13	0.45
2014-06-04	8	0.30	7	0.25	15	0.55
2014-06-05	6	0.22	7	0.23	13	0.45
2014-06-06	6	0.22	5	0.18	11	0.40
2014-06-07	4	0.15	5	0.17	9	0.32
2014-06-08	9	0.37	8	0.33	17	0.70
2014-06-09	8	0.30	9	0.33	17	0.63
2014-06-10	6	0.22	5	0.18	11	0.40
2014-06-11	6	0.22	7	0.25	13	0.47
2014-06-12	8	0.30	7	0.25	15	0.55
2014-06-13	7	0.23	7	0.23	14	0.47
2014-06-14	6	0.22	6	0.22	12	0.43
2014-06-15	10	0.40	10	0.42	20	0.82
2014-06-16	10	0.40	10	0.38	20	0.78
2014-06-17	10	0.38	10	0.40	20	0.78
2014-06-18	9	0.35	9	0.35	18	0.70
2014-06-19	10	0.38	9	0.37	19	0.75
2014-06-20	9	0.35	9	0.33	18	0.68
2014-06-21	4	0.15	5	0.18	9	0.33
2014-06-22	10	0.40	10	0.38	20	0.78
2014-06-23	7	0.25	7	0.25	14	0.50
2014-06-24	5	0.18	4	0.15	9	0.33
2014-06-25	6	0.23	6	0.22	12	0.45
2014-06-26	5	0.18	5	0.18	10	0.37
2014-06-27	4	0.15	5	0.18	9	0.33
2014-06-28	4	0.15	4	0.15	8	0.30
2014-06-29	10	0.45	10	0.43	20	0.88
2014-06-30	5	0.18	5	0.18	10	0.37

Totals	2990	186.40	2044	180.45	5034	366.85
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- **Lily Pond Pump Station Data:**

Lily Pond Alarm Log – 7-1-2013 to 6-30-2014			
Text	Alarm Time	Acknowledger	Acknowledge Time
High Water O K	Sun, Dec 29 2013 06:00:12 AM	-	-
High Water Alarm	Sun, Dec 29 2013 05:06:32 AM	Rusty Reid	Sun, Dec 29 2013 05:07:14 AM
High Water O K	Sat, Dec 28 2013 09:08:02 PM	Rusty Reid	Sat, Dec 28 2013 09:08:17 PM
High Water Alarm	Sat, Dec 28 2013 08:17:42 PM	Rusty Reid	Sat, Dec 28 2013 08:18:07 PM
External Power Ok	Fri, Dec 20 2013 10:14:56 AM	-	-
External Power Lost	Fri, Dec 20 2013 09:04:26 AM	Rusty Reid	Fri, Dec 20 2013 09:04:47 AM
High Water O K	Mon, Dec 16 2013 08:45:42 PM	-	-
High Water Alarm	Mon, Dec 16 2013 08:03:22 PM	Samantha Bartow	Mon, Dec 16 2013 08:45:36 PM
High Water O K	Sun, Dec 08 2013 02:45:54 PM	-	-
High Water Alarm	Sun, Dec 08 2013 01:57:04 PM	Samantha Bartow	Sun, Dec 08 2013 02:39:35 PM
High Water O K	Sun, Oct 27 2013 11:30:54 AM	-	-
High Water Alarm	Sun, Oct 27 2013 10:33:14 AM	Samantha Bartow	Sun, Oct 27 2013 11:15:30 AM
High Water O K	Thu, Oct 24 2013 07:16:58 AM	-	-
High Water Alarm	Thu, Oct 24 2013 07:07:48 AM	Rusty Reid	Thu, Oct 24 2013 07:08:14 AM
High Water O K	Thu, Oct 24 2013 07:06:38 AM	-	-
High Water Alarm	Thu, Oct 24 2013 05:41:58 AM	Samantha Bartow	Thu, Oct 24 2013 06:24:40 AM
External Power Ok	Mon, Sep 23 2013 03:24:48 PM	-	-
External Power Lost	Mon, Sep 23 2013 02:39:18 PM	-	-

**Lily Pond PS Runtimes
2013-07-01 - 2014-06-30**

	Pump 1		Pump 2		Totals	
	Starts	Runtime(Hours)	Starts	Runtime(Hours)	Starts	Runtime(Hours)
2013-07-01					0	0.00
2013-07-02					0	0.00
2013-07-03					0	0.00
2013-07-04					0	0.00
2013-07-05					0	0.00
2013-07-06					0	0.00
2013-07-07					0	0.00
2013-07-08					0	0.00
2013-07-09					0	0.00
2013-07-10					0	0.00
2013-07-11					0	0.00
2013-07-12					0	0.00
2013-07-13					0	0.00

2013-07-14					0	0.00
2013-07-15					0	0.00
2013-07-16					0	0.00
2013-07-17					0	0.00
2013-07-18					0	0.00
2013-07-19					0	0.00
2013-07-20					0	0.00
2013-07-21					0	0.00
2013-07-22					0	0.00
2013-07-23					0	0.00
2013-07-24					0	0.00
2013-07-25					0	0.00
2013-07-26					0	0.00
2013-07-27					0	0.00
2013-07-28					0	0.00
2013-07-29					0	0.00
2013-07-30					0	0.00
2013-07-31					0	0.00
2013-08-01					0	0.00
2013-08-02					0	0.00
2013-08-03					0	0.00
2013-08-04					0	0.00
2013-08-05					0	0.00
2013-08-06					0	0.00
2013-08-07					0	0.00
2013-08-08					0	0.00
2013-08-09					0	0.00
2013-08-10					0	0.00
2013-08-11					0	0.00
2013-08-12					0	0.00
2013-08-13					0	0.00
2013-08-14					0	0.00
2013-08-15					0	0.00
2013-08-16					0	0.00
2013-08-17					0	0.00
2013-08-18					0	0.00
2013-08-19	10	0.95	11	1.07	21	2.02
2013-08-20	9	0.87	9	0.87	18	1.73
2013-08-21	9	0.85	8	0.77	17	1.62
2013-08-22	8	0.75	8	0.77	16	1.52
2013-08-23	8	0.78	8	0.77	16	1.55
2013-08-24					0	0.00
2013-08-25	9	0.87	9	0.90	18	1.77

2013-08-26	9	0.88	8	0.80	17	1.68
2013-08-27	7	0.70	8	0.80	15	1.50
2013-08-28	9	0.87	8	0.78	17	1.65
2013-08-29	7	0.70	8	0.80	15	1.50
2013-08-30	8	0.77	8	0.78	16	1.55
2013-08-31	9	0.83	9	0.85	18	1.68
2013-09-01	8	0.77	8	0.78	16	1.55
2013-09-02	10	0.97	9	0.90	19	1.87
2013-09-03	8	0.78	9	0.88	17	1.67
2013-09-04	8	0.78	7	0.70	15	1.48
2013-09-05	7	0.70	8	0.78	15	1.48
2013-09-06	9	0.87	7	0.70	16	1.57
2013-09-07	7	0.68	8	0.78	15	1.47
2013-09-08	10	1.00	10	1.00	20	2.00
2013-09-09	9	0.87	9	0.90	18	1.77
2013-09-10	11	1.17	10	4.75	21	5.92
2013-09-11	12	1.55	5	7.13	17	8.68
2013-09-12	12	1.58	6	8.35	18	9.93
2013-09-13	10	1.33	6	6.98	16	8.32
2013-09-14	14	1.82	6	7.47	20	9.28
2013-09-15	14	1.83	7	8.43	21	10.27
2013-09-16	12	1.57	6	8.12	18	9.68
2013-09-17	12	1.57	6	7.60	18	9.17
2013-09-18	11	1.50	6	8.22	17	9.72
2013-09-19	11	1.43	5	5.82	16	7.25
2013-09-20	10	1.35	6	10.48	16	11.83
2013-09-21	16	2.18	7	6.52	23	8.70
2013-09-22	13	1.77	7	8.82	20	10.58
2013-09-23	4	0.32	5	0.33	9	0.65
2013-09-24	8	0.78	8	0.80	16	1.58
2013-09-25	9	0.90	9	0.92	18	1.82
2013-09-26	12	0.90	12	0.92	24	1.82
2013-09-27	9	0.77	10	0.82	19	1.58
2013-09-28	11	0.97	10	0.93	21	1.90
2013-09-29	9	0.78	10	0.87	19	1.65
2013-09-30	9	0.78	9	0.77	18	1.55
2013-10-01	9	0.77	8	0.70	17	1.47
2013-10-02	8	0.68	9	0.78	17	1.47
2013-10-03	9	0.77	9	0.78	18	1.55
2013-10-04	9	0.77	9	0.78	18	1.55
2013-10-05	10	0.87	10	0.87	20	1.73
2013-10-06	10	0.88	10	0.90	20	1.78
2013-10-07	10	0.90	10	0.90	20	1.80

2013-10-08	11	0.97	10	0.90	21	1.87
2013-10-09	8	0.72	9	0.80	17	1.52
2013-10-10	10	0.87	9	0.78	19	1.65
2013-10-11	10	0.88	9	0.78	19	1.67
2013-10-12	9	0.78	9	0.80	18	1.58
2013-10-13	9	0.78	9	0.80	18	1.58
2013-10-14	9	0.82	9	0.80	18	1.62
2013-10-15	8	0.72	9	0.78	17	1.50
2013-10-16	5	0.43	6	0.52	11	0.95
2013-10-17	9	0.80	8	0.72	17	1.52
2013-10-18	8	0.70	8	0.70	16	1.40
2013-10-19	9	0.78	9	0.80	18	1.58
2013-10-20	9	0.80	10	0.87	19	1.67
2013-10-21	9	0.80	9	0.80	18	1.60
2013-10-22	7	0.67	6	0.58	13	1.25
2013-10-23	7	7.18	11	1.32	18	8.50
2013-10-24	0	0.00	11	0.98	11	0.98
2013-10-25	0	0.00	16	1.45	16	1.45
2013-10-26	0	0.00	20	2.83	20	2.83
2013-10-27	5	2.82	16	7.17	21	9.98
2013-10-28	0	0.00	18	1.58	18	1.58
2013-10-29	0	0.00	18	1.58	18	1.58
2013-10-30	0	0.00	17	1.50	17	1.50
2013-10-31	0	0.00	16	1.42	16	1.42
2013-11-01	0	0.00	18	1.58	18	1.58
2013-11-02	0	0.00	21	1.93	21	1.93
2013-11-03	0	0.00	20	1.88	20	1.88
2013-11-04	0	0.00	18	1.63	18	1.63
2013-11-05	0	0.00	17	1.60	17	1.60
2013-11-06	0	0.00	17	1.60	17	1.60
2013-11-07	0	0.00	17	1.60	17	1.60
2013-11-08	0	0.00	17	1.62	17	1.62
2013-11-09	0	0.00	20	1.90	20	1.90
2013-11-10	0	0.00	20	1.90	20	1.90
2013-11-11	0	0.00	18	1.72	18	1.72
2013-11-12	0	0.00	17	1.63	17	1.63
2013-11-13	0	0.00	16	1.55	16	1.55
2013-11-14	0	0.00	17	1.65	17	1.65
2013-11-15	0	0.00	17	1.63	17	1.63
2013-11-16	0	0.00	14	1.33	14	1.33
2013-11-17	0	0.00	20	1.95	20	1.95
2013-11-18	0	0.00	8	0.80	8	0.80
2013-11-19	0	0.00	16	1.55	16	1.55

2013-11-20	0	0.00	18	1.68	18	1.68
2013-11-21	0	0.00	16	1.65	16	1.65
2013-11-22	7	0.57	13	1.00	20	1.57
2013-11-23	8	5.92	11	1.30	19	7.22
2013-11-24	6	7.37	13	1.98	19	9.35
2013-11-25	7	10.93	12	1.70	19	12.63
2013-11-26	10	9.85	21	3.28	31	13.13
2013-11-27	8	8.97	16	2.35	24	11.32
2013-11-28	8	8.88	15	2.27	23	11.15
2013-11-29	6	8.13	12	1.75	18	9.88
2013-11-30	6	7.83	13	1.97	19	9.80
2013-12-01	7	9.55	15	2.23	22	11.78
2013-12-02	7	11.65	12	1.77	19	13.42
2013-12-03	5	7.82	12	1.77	17	9.58
2013-12-04	7	8.15	12	1.75	19	9.90
2013-12-05	10	7.02	12	2.85	22	9.87
2013-12-06	12	1.53	7	10.13	19	11.67
2013-12-07	14	1.85	7	7.47	21	9.32
2013-12-08	14	3.75	6	9.85	20	13.60
2013-12-09	15	2.18	8	9.80	23	11.98
2013-12-10	13	1.77	6	7.85	19	9.62
2013-12-11	12	1.67	7	10.77	19	12.43
2013-12-12	13	1.80	6	8.13	19	9.93
2013-12-13	11	1.52	6	6.48	17	8.00
2013-12-14	17	2.57	8	9.53	25	12.10
2013-12-15	15	2.08	7	9.08	22	11.17
2013-12-16	13	3.43	10	9.82	23	13.25
2013-12-17	11	1.48	6	7.55	17	9.03
2013-12-18	12	1.65	6	8.48	18	10.13
2013-12-19	9	1.17	4	10.15	13	11.32
2013-12-20	18	1.35	15	5.45	33	6.80
2013-12-21	7	6.75	12	1.60	19	8.35
2013-12-22	8	7.72	17	2.52	25	10.23
2013-12-23	10	8.53	19	2.78	29	11.32
2013-12-24	7	9.57	15	2.27	22	11.83
2013-12-25	7	9.63	14	2.12	21	11.75
2013-12-26	7	6.93	13	1.97	20	8.90
2013-12-27	6	9.05	12	1.88	18	10.93
2013-12-28	7	8.45	15	3.73	22	12.18
2013-12-29	18	6.82	16	5.55	34	12.37
2013-12-30	8	6.33	12	1.77	20	8.10
2013-12-31	8	5.17	11	1.67	19	6.83
2014-01-01	7	9.30	13	2.28	20	11.58

2014-01-02	6	7.88	12	2.18	18	10.07
2014-01-03	4	0.50	4	0.48	8	0.98
2014-01-04	10	1.27	11	1.37	21	2.63
2014-01-05	12	1.42	11	1.32	23	2.73
2014-01-06	9	1.07	9	1.07	18	2.13
2014-01-07	9	1.08	10	1.27	19	2.35
2014-01-08	9	1.12	9	1.07	18	2.18
2014-01-09	9	1.07	8	1.15	17	2.22
2014-01-10	8	1.13	9	1.28	17	2.42
2014-01-11	15	2.17	15	2.18	30	4.35
2014-01-12	11	1.47	10	1.33	21	2.80
2014-01-13	9	1.15	10	1.28	19	2.43
2014-01-14	8	1.05	8	1.07	16	2.12
2014-01-15	9	1.18	9	1.10	18	2.28
2014-01-16	8	1.07	8	1.17	16	2.23
2014-01-17	9	1.22	9	1.23	18	2.45
2014-01-18	9	1.25	9	1.28	18	2.53
2014-01-19	1	0.13	0	0.00	1	0.13
2014-01-20	11	1.65	11	1.65	22	3.30
2014-01-21	8	1.13	8	1.20	16	2.33
2014-01-22	9	1.32	9	1.33	18	2.65
2014-01-23	8	1.18	9	1.30	17	2.48
2014-01-24	7	1.10	6	2.73	13	3.83
2014-01-25	14	2.85	6	6.82	20	9.67
2014-01-26	13	2.80	7	10.77	20	13.57
2014-01-27	11	2.22	5	7.22	16	9.43
2014-01-28	11	2.35	6	11.48	17	13.83
2014-01-29	12	2.45	6	8.18	18	10.63
2014-01-30	12	2.53	6	7.88	18	10.42
2014-01-31	11	2.20	6	7.85	17	10.05
2014-02-01	13	2.80	6	9.13	19	11.93
2014-02-02	12	2.60	6	7.72	18	10.32
2014-02-03	9	1.83	5	6.10	14	7.93
2014-02-04	12	2.42	6	10.65	18	13.07
2014-02-05	11	2.40	6	7.73	17	10.13
2014-02-06	12	2.57	6	7.60	18	10.17
2014-02-07	12	2.60	5	11.40	17	14.00
2014-02-08	12	2.58	6	10.13	18	12.72
2014-02-09	12	2.70	6	6.02	18	8.72
2014-02-10	11	2.50	6	10.58	17	13.08
2014-02-11	13	2.80	6	7.93	19	10.73
2014-02-12	13	3.12	7	11.03	20	14.15
2014-02-13	14	3.08	7	9.73	21	12.82

2014-02-14	13	3.17	6	7.42	19	10.58
2014-02-15	13	3.08	7	10.28	20	13.37
2014-02-16	13	2.83	6	9.17	19	12.00
2014-02-17	11	2.55	6	10.05	17	12.60
2014-02-18	11	2.47	5	7.90	16	10.37
2014-02-19	11	2.58	6	9.33	17	11.92
2014-02-20	11	2.50	5	7.90	16	10.40
2014-02-21	14	3.32	7	11.10	21	14.42
2014-02-22	0	0.00	1	0.68	1	0.68
2014-02-23	0	0.00	1	0.52	1	0.52
2014-02-24	11	2.70	5	7.50	16	10.20
2014-02-25	11	2.55	6	8.15	17	10.70
2014-02-26	12	2.80	6	7.92	18	10.72
2014-02-27	4	0.93	2	1.87	6	2.80
2014-02-28	10	2.40	6	10.37	16	12.77
2014-03-01	12	2.97	6	7.10	18	10.07
2014-03-02					0	0.00
2014-03-03	12	2.85	6	10.50	18	13.35
2014-03-04	5	0.78	5	0.78	10	1.57
2014-03-05	8	1.30	9	1.40	17	2.70
2014-03-06	9	1.48	8	1.27	17	2.75
2014-03-07	11	1.88	11	1.80	22	3.68
2014-03-08	9	1.50	10	1.63	19	3.13
2014-03-09	8	1.35	7	1.17	15	2.52
2014-03-10	9	1.47	9	1.42	18	2.88
2014-03-11	8	1.28	8	1.30	16	2.58
2014-03-12	5	0.65	4	0.62	9	1.27
2014-03-13	8	1.27	7	1.10	15	2.37
2014-03-14	10	1.62	10	1.55	20	3.17
2014-03-15	9	1.40	9	1.38	18	2.78
2014-03-16	11	1.83	12	1.92	23	3.75
2014-03-17	10	1.55	10	1.48	20	3.03
2014-03-18	8	1.22	8	1.23	16	2.45
2014-03-19	8	1.17	8	1.22	16	2.38
2014-03-20	8	1.12	8	1.23	16	2.35
2014-03-21	9	1.35	9	1.27	18	2.62
2014-03-22	9	1.27	9	1.37	18	2.63
2014-03-23	10	1.47	9	1.25	19	2.72
2014-03-24	8	1.15	9	1.22	17	2.37
2014-03-25	8	1.15	8	1.12	16	2.27
2014-03-26	9	1.27	9	1.28	18	2.55
2014-03-27	11	1.62	10	1.47	21	3.08
2014-03-28	8	1.10	8	1.12	16	2.22

2014-03-29	11	1.57	11	1.53	22	3.10
2014-03-30	9	1.27	9	1.22	18	2.48
2014-03-31	9	1.25	9	1.25	18	2.50
2014-04-01	8	1.13	8	1.08	16	2.22
2014-04-02	8	1.15	8	1.10	16	2.25
2014-04-03	9	1.30	9	1.25	18	2.55
2014-04-04	8	1.15	8	1.13	16	2.28
2014-04-05	10	1.48	10	1.43	20	2.92
2014-04-06	9	1.33	9	1.28	18	2.62
2014-04-07	11	1.83	12	1.95	23	3.78
2014-04-08	10	1.52	9	1.32	19	2.83
2014-04-09	8	1.18	8	1.15	16	2.33
2014-04-10	8	1.20	8	1.17	16	2.37
2014-04-11	7	1.07	8	1.15	15	2.22
2014-04-12	9	1.40	8	1.18	17	2.58
2014-04-13	9	1.43	10	1.53	19	2.97
2014-04-14	9	1.33	8	1.18	17	2.52
2014-04-15	13	1.48	12	1.37	25	2.85
2014-04-16	8	1.17	8	1.20	16	2.37
2014-04-17	9	1.33	9	1.25	18	2.58
2014-04-18	9	1.37	9	1.28	18	2.65
2014-04-19	10	1.55	11	1.62	21	3.17
2014-04-20	10	1.48	10	1.50	20	2.98
2014-04-21	9	1.35	8	1.13	17	2.48
2014-04-22	10	1.33	11	1.37	21	2.70
2014-04-23	8	1.07	8	1.02	16	2.08
2014-04-24	10	1.25	9	1.12	19	2.37
2014-04-25	8	0.85	9	1.00	17	1.85
2014-04-26	10	1.10	9	0.98	19	2.08
2014-04-27	9	1.02	9	1.02	18	2.03
2014-04-28	8	0.88	9	0.98	17	1.87
2014-04-29	9	1.00	8	0.92	17	1.92
2014-04-30	8	0.90	9	1.03	17	1.93
2014-05-01	9	1.03	9	1.02	18	2.05
2014-05-02	8	0.90	8	0.93	16	1.83
2014-05-03	10	1.18	9	1.08	19	2.27
2014-05-04	9	1.07	10	1.17	19	2.23
2014-05-05	9	1.03	9	1.05	18	2.08
2014-05-06	9	1.05	8	0.93	17	1.98
2014-05-07	8	0.95	9	1.07	17	2.02
2014-05-08	8	0.93	8	0.97	16	1.90
2014-05-09	9	1.07	8	0.93	17	2.00
2014-05-10	9	1.08	9	1.07	18	2.15

2014-05-11	9	1.07	9	1.05	18	2.12
2014-05-12	8	0.92	8	0.92	16	1.83
2014-05-13	9	1.00	10	1.02	19	2.02
2014-05-14	8	0.77	8	0.80	16	1.57
2014-05-15	11	1.05	9	0.88	20	1.93
2014-05-16	9	0.87	9	0.90	18	1.77
2014-05-17	9	0.87	9	0.90	18	1.77
2014-05-18	9	0.88	9	0.88	18	1.77
2014-05-19	10	1.00	10	0.98	20	1.98
2014-05-20	9	0.92	8	0.80	17	1.72
2014-05-21	8	0.78	9	0.92	17	1.70
2014-05-22	9	0.90	8	0.83	17	1.73
2014-05-23	7	0.70	9	0.93	16	1.63
2014-05-24	9	0.92	8	0.85	17	1.77
2014-05-25	8	0.80	9	0.95	17	1.75
2014-05-26	11	1.20	10	1.13	21	2.33
2014-05-27	8	0.83	8	0.85	16	1.68
2014-05-28	8	0.85	9	0.95	17	1.80
2014-05-29	8	0.85	8	0.85	16	1.70
2014-05-30	9	0.93	8	0.87	17	1.80
2014-05-31	8	0.85	9	0.97	17	1.82
2014-06-01	9	0.97	9	0.98	18	1.95
2014-06-02	8	0.87	8	0.85	16	1.72
2014-06-03	9	0.95	8	0.83	17	1.78
2014-06-04	8	0.82	9	0.92	17	1.73
2014-06-05	9	0.88	8	0.80	17	1.68
2014-06-06	8	0.82	9	0.90	17	1.72
2014-06-07	9	0.90	9	0.97	18	1.87
2014-06-08	9	0.92	9	1.00	18	1.92
2014-06-09	9	0.90	9	0.97	18	1.87
2014-06-10	9	0.88	9	0.95	18	1.83
2014-06-11	9	0.87	8	0.83	17	1.70
2014-06-12	9	0.87	9	0.97	18	1.83
2014-06-13	8	0.77	9	0.97	17	1.73
2014-06-14	10	0.97	9	0.98	19	1.95
2014-06-15	10	0.97	9	1.05	19	2.02
2014-06-16	9	0.85	9	1.00	18	1.85
2014-06-17	8	0.83	9	0.97	17	1.80
2014-06-18	9	0.90	9	0.92	18	1.82
2014-06-19	9	0.87	8	0.78	17	1.65
2014-06-20	9	0.88	9	0.88	18	1.77
2014-06-21	10	0.98	10	0.98	20	1.97
2014-06-22	9	0.90	10	0.98	19	1.88

2014-06-23	10	0.97	8	0.78	18	1.75
2014-06-24	9	0.88	10	0.95	19	1.83
2014-06-25	9	0.83	8	0.73	17	1.57
2014-06-26	9	0.87	9	0.83	18	1.70
2014-06-27	9	0.83	10	0.93	19	1.77
2014-06-28	11	1.03	10	0.95	21	1.98
2014-06-29	12	1.13	13	1.23	25	2.37
2014-06-30	9	0.80	9	0.80	18	1.60

Totals 2684 563.73 2967 846.65 5651 1410.38

• **Enoree Heights Pump Station Data:**

Enoree Heights Alarm Log – 7-1-2013 to 6-30-2014			
Text	Alarm Time	Acknowledger	Acknowledge Time
External Power Ok	Fri, Dec 20 2013 09:19:56 AM	-	-
Battery Voltage Ok. Battery voltage is 13.7	Fri, Dec 20 2013 09:19:56 AM	-	-
External Power Lost	Fri, Dec 20 2013 08:44:10 AM	Rusty Reid	Fri, Dec 20 2013 08:45:02 AM
Low Battery. Battery voltage is 11.4	Fri, Dec 20 2013 08:44:10 AM	Rusty Reid	Fri, Dec 20 2013 08:44:35 AM
External Power Lost	Fri, Dec 20 2013 08:36:46 AM	Rusty Reid	Fri, Dec 20 2013 08:38:01 AM

**Enoree Heights PS Runtimes
2013-07-01 - 2014-06-30**

	Pump 1		Pump 2		Totals	
	Starts	Runtime(Hours)	Starts	Runtime(Hours)	Starts	Runtime(Hours)
2013-07-01					0	0.00
2013-07-02					0	0.00
2013-07-03					0	0.00
2013-07-04					0	0.00
2013-07-05					0	0.00
2013-07-06					0	0.00
2013-07-07					0	0.00
2013-07-08					0	0.00
2013-07-09					0	0.00
2013-07-10					0	0.00

2013-07-11					0	0.00
2013-07-12					0	0.00
2013-07-13					0	0.00
2013-07-14					0	0.00
2013-07-15					0	0.00
2013-07-16					0	0.00
2013-07-17					0	0.00
2013-07-18					0	0.00
2013-07-19					0	0.00
2013-07-20					0	0.00
2013-07-21					0	0.00
2013-07-22					0	0.00
2013-07-23					0	0.00
2013-07-24					0	0.00
2013-07-25					0	0.00
2013-07-26					0	0.00
2013-07-27					0	0.00
2013-07-28					0	0.00
2013-07-29					0	0.00
2013-07-30					0	0.00
2013-07-31					0	0.00
2013-08-01					0	0.00
2013-08-02					0	0.00
2013-08-03					0	0.00
2013-08-04					0	0.00
2013-08-05					0	0.00
2013-08-06					0	0.00
2013-08-07					0	0.00
2013-08-08					0	0.00
2013-08-09					0	0.00
2013-08-10					0	0.00
2013-08-11					0	0.00
2013-08-12					0	0.00
2013-08-13					0	0.00
2013-08-14					0	0.00
2013-08-15					0	0.00
2013-08-16					0	0.00
2013-08-17					0	0.00
2013-08-18	3	0.05	3	0.05	6	0.10
2013-08-19	19	0.32	19	0.32	38	0.63
2013-08-20	9	0.15	9	0.15	18	0.30
2013-08-21	19	0.32	19	0.32	38	0.63
2013-08-22	15	0.25	15	0.25	30	0.50

2013-08-23	9	0.15	9	0.15	18	0.30
2013-08-24	8	0.13	8	0.13	16	0.27
2013-08-25	8	0.13	8	0.13	16	0.27
2013-08-26	9	0.15	9	0.15	18	0.30
2013-08-27	10	0.17	10	0.17	20	0.33
2013-08-28	9	0.15	9	0.15	18	0.30
2013-08-29	13	0.22	13	0.22	26	0.43
2013-08-30	8	0.13	8	0.13	16	0.27
2013-08-31	14	0.23	14	0.23	28	0.47
2013-09-01	7	0.12	7	0.12	14	0.23
2013-09-02	8	0.13	8	0.13	16	0.27
2013-09-03	7	0.12	7	0.12	14	0.23
2013-09-04	8	0.13	8	0.13	16	0.27
2013-09-05	9	0.15	9	0.15	18	0.30
2013-09-06	9	0.15	9	0.15	18	0.30
2013-09-07	11	0.18	11	0.18	22	0.37
2013-09-08	10	0.17	10	0.17	20	0.33
2013-09-09	8	0.13	8	0.13	16	0.27
2013-09-10	10	0.17	10	0.17	20	0.33
2013-09-11	11	0.18	11	0.18	22	0.37
2013-09-12	9	0.15	9	0.15	18	0.30
2013-09-13	10	0.17	10	0.17	20	0.33
2013-09-14	11	0.18	11	0.18	22	0.37
2013-09-15	10	0.17	10	0.17	20	0.33
2013-09-16	8	0.13	8	0.13	16	0.27
2013-09-17	10	0.17	10	0.17	20	0.33
2013-09-18	7	0.12	7	0.12	14	0.23
2013-09-19	1	0.02	1	0.02	2	0.03
2013-09-20					0	0.00
2013-09-21					0	0.00
2013-09-22					0	0.00
2013-09-23	3	0.05	3	0.05	6	0.10
2013-09-24	4	0.07	4	0.07	8	0.13
2013-09-25	15	0.25	15	0.25	30	0.50
2013-09-26	10	0.17	10	0.17	20	0.33
2013-09-27	7	0.12	7	0.12	14	0.23
2013-09-28	11	0.18	11	0.18	22	0.37
2013-09-29	10	0.17	10	0.17	20	0.33
2013-09-30	11	0.18	11	0.18	22	0.37
2013-10-01	10	0.17	10	0.17	20	0.33
2013-10-02	7	0.12	7	0.12	14	0.23
2013-10-03	6	0.10	6	0.10	12	0.20
2013-10-04	10	0.17	10	0.17	20	0.33

2013-10-05	9	0.15	9	0.15	18	0.30
2013-10-06	9	0.15	9	0.15	18	0.30
2013-10-07	10	0.17	10	0.17	20	0.33
2013-10-08	9	0.15	9	0.15	18	0.30
2013-10-09	8	0.13	8	0.13	16	0.27
2013-10-10	7	0.12	7	0.12	14	0.23
2013-10-11	8	0.13	8	0.13	16	0.27
2013-10-12	9	0.15	9	0.15	18	0.30
2013-10-13	9	0.15	9	0.15	18	0.30
2013-10-14	8	0.13	8	0.13	16	0.27
2013-10-15	10	0.17	10	0.17	20	0.33
2013-10-16	7	0.12	7	0.12	14	0.23
2013-10-17	7	0.12	7	0.12	14	0.23
2013-10-18	7	0.12	7	0.12	14	0.23
2013-10-19	7	0.12	7	0.12	14	0.23
2013-10-20	9	0.15	9	0.15	18	0.30
2013-10-21	10	0.17	10	0.17	20	0.33
2013-10-22	8	0.13	8	0.13	16	0.27
2013-10-23	8	0.13	8	0.13	16	0.27
2013-10-24	5	0.08	5	0.08	10	0.17
2013-10-25	8	0.13	8	0.13	16	0.27
2013-10-26	11	0.18	11	0.18	22	0.37
2013-10-27	10	0.17	10	0.17	20	0.33
2013-10-28	8	0.13	8	0.13	16	0.27
2013-10-29	8	0.13	8	0.13	16	0.27
2013-10-30	8	0.13	8	0.13	16	0.27
2013-10-31	10	0.17	10	0.15	20	0.32
2013-11-01	12	0.20	12	0.20	24	0.40
2013-11-02	13	0.22	13	0.22	26	0.43
2013-11-03	11	0.18	11	0.18	22	0.37
2013-11-04	8	0.13	8	0.13	16	0.27
2013-11-05	9	0.15	9	0.15	18	0.30
2013-11-06	8	0.13	8	0.13	16	0.27
2013-11-07	7	0.12	7	0.12	14	0.23
2013-11-08	9	0.15	9	0.15	18	0.30
2013-11-09	9	0.15	9	0.15	18	0.30
2013-11-10	9	0.17	9	0.15	18	0.32
2013-11-11	9	0.15	9	0.15	18	0.30
2013-11-12	7	0.12	7	0.12	14	0.23
2013-11-13	7	0.12	7	0.12	14	0.23
2013-11-14	9	0.15	9	0.15	18	0.30
2013-11-15	12	0.20	12	0.20	24	0.40
2013-11-16	9	0.15	9	0.15	18	0.30

2013-11-17	11	0.18	11	0.18	22	0.37
2013-11-18	9	0.15	9	0.15	18	0.30
2013-11-19	9	0.15	9	0.15	18	0.30
2013-11-20	7	0.12	7	0.12	14	0.23
2013-11-21	8	0.13	8	0.13	16	0.27
2013-11-22	12	0.20	12	0.20	24	0.40
2013-11-23	9	0.15	9	0.15	18	0.30
2013-11-24	7	0.12	7	0.12	14	0.23
2013-11-25	9	0.15	9	0.15	18	0.30
2013-11-26	65	1.22	65	1.13	130	2.35
2013-11-27	86	1.55	86	1.47	172	3.02
2013-11-28	14	0.23	14	0.23	28	0.47
2013-11-29	11	0.18	11	0.18	22	0.37
2013-11-30	7	0.12	7	0.12	14	0.23
2013-12-01	9	0.15	9	0.15	18	0.30
2013-12-02	10	0.17	10	0.17	20	0.33
2013-12-03	8	0.13	8	0.13	16	0.27
2013-12-04	7	0.12	7	0.12	14	0.23
2013-12-05	8	0.13	8	0.13	16	0.27
2013-12-06	8	0.13	8	0.13	16	0.27
2013-12-07	7	0.12	7	0.12	14	0.23
2013-12-08	9	0.15	9	0.15	18	0.30
2013-12-09	13	0.22	13	0.22	26	0.43
2013-12-10	22	0.37	22	0.37	44	0.73
2013-12-11	8	0.13	8	0.13	16	0.27
2013-12-12	9	0.15	9	0.15	18	0.30
2013-12-13	7	0.12	7	0.12	14	0.23
2013-12-14	42	0.75	42	0.72	84	1.47
2013-12-15	39	0.65	39	0.65	78	1.30
2013-12-16	6	0.10	6	0.10	12	0.20
2013-12-17	8	0.13	8	0.13	16	0.27
2013-12-18	7	0.12	7	0.12	14	0.23
2013-12-19	9	0.15	9	0.15	18	0.30
2013-12-20	11	0.18	11	0.18	22	0.37
2013-12-21	9	0.17	9	0.17	18	0.33
2013-12-22	15	0.27	15	0.25	30	0.52
2013-12-23	145	2.73	145	2.60	290	5.33
2013-12-24	51	0.87	51	0.85	102	1.72
2013-12-25	10	0.17	10	0.17	20	0.33
2013-12-26	7	0.12	7	0.12	14	0.23
2013-12-27	7	0.12	7	0.12	14	0.23
2013-12-28	9	0.15	9	0.15	18	0.30
2013-12-29	59	1.03	59	1.00	118	2.03

2013-12-30	22	0.37	22	0.37	44	0.73
2013-12-31	9	0.15	9	0.15	18	0.30
2014-01-01	6	0.10	6	0.10	12	0.20
2014-01-02	7	0.12	7	0.12	14	0.23
2014-01-03	8	0.13	8	0.13	16	0.27
2014-01-04	6	0.12	6	0.12	12	0.23
2014-01-05	7	0.12	7	0.12	14	0.23
2014-01-06	7	0.12	7	0.12	14	0.23
2014-01-07	8	0.13	8	0.13	16	0.27
2014-01-08	7	0.12	7	0.12	14	0.23
2014-01-09	11	0.18	11	0.18	22	0.37
2014-01-10	7	0.13	8	0.15	15	0.28
2014-01-11	112	2.17	112	2.07	224	4.23
2014-01-12	78	1.38	78	1.30	156	2.68
2014-01-13	14	0.23	14	0.23	28	0.47
2014-01-14	12	0.20	12	0.20	24	0.40
2014-01-15	6	0.10	6	0.10	12	0.20
2014-01-16	6	0.10	6	0.10	12	0.20
2014-01-17	7	0.12	7	0.12	14	0.23
2014-01-18	7	0.12	7	0.12	14	0.23
2014-01-19	8	0.13	8	0.13	16	0.27
2014-01-20	7	0.12	7	0.12	14	0.23
2014-01-21	7	0.12	7	0.12	14	0.23
2014-01-22	5	0.08	5	0.08	10	0.17
2014-01-23	8	0.13	8	0.13	16	0.27
2014-01-24	9	0.15	9	0.15	18	0.30
2014-01-25	8	0.13	8	0.13	16	0.27
2014-01-26	7	0.12	7	0.12	14	0.23
2014-01-27	7	0.12	7	0.12	14	0.23
2014-01-28	10	0.17	10	0.17	20	0.33
2014-01-29	11	0.18	11	0.18	22	0.37
2014-01-30	7	0.12	7	0.12	14	0.23
2014-01-31	8	0.12	8	0.12	16	0.23
2014-02-01	5	0.08	5	0.08	10	0.17
2014-02-02					0	0.00
2014-02-03	2	0.03	2	0.03	4	0.07
2014-02-04	9	0.15	9	0.15	18	0.30
2014-02-05	7	0.12	7	0.12	14	0.23
2014-02-06	8	0.13	8	0.13	16	0.27
2014-02-07	9	0.15	9	0.15	18	0.30
2014-02-08	7	0.12	7	0.12	14	0.23
2014-02-09	6	0.10	6	0.10	12	0.20
2014-02-10	5	0.08	5	0.08	10	0.17

2014-02-11	8	0.13	8	0.13	16	0.27
2014-02-12	9	0.15	9	0.15	18	0.30
2014-02-13	9	0.15	9	0.15	18	0.30
2014-02-14	11	0.18	11	0.18	22	0.37
2014-02-15	9	0.15	9	0.15	18	0.30
2014-02-16	8	0.13	8	0.13	16	0.27
2014-02-17	7	0.12	7	0.12	14	0.23
2014-02-18	10	0.17	10	0.17	20	0.33
2014-02-19	7	0.12	7	0.12	14	0.23
2014-02-20	7	0.12	7	0.12	14	0.23
2014-02-21	57	0.98	57	0.95	114	1.93
2014-02-22	24	0.40	24	0.40	48	0.80
2014-02-23	8	0.13	8	0.13	16	0.27
2014-02-24	7	0.12	7	0.12	14	0.23
2014-02-25	9	0.15	9	0.15	18	0.30
2014-02-26	7	0.12	7	0.12	14	0.23
2014-02-27	5	0.08	5	0.08	10	0.17
2014-02-28	4	0.07	4	0.07	8	0.13
2014-03-01	6	0.10	6	0.10	12	0.20
2014-03-02	7	0.12	7	0.12	14	0.23
2014-03-03	7	0.12	7	0.12	14	0.23
2014-03-04	8	0.13	8	0.13	16	0.27
2014-03-05	8	0.13	8	0.13	16	0.27
2014-03-06	7	0.12	7	0.12	14	0.23
2014-03-07	64	1.18	64	1.10	128	2.28
2014-03-08	38	0.65	38	0.65	76	1.30
2014-03-09	8	0.13	8	0.13	16	0.27
2014-03-10	7	0.12	7	0.12	14	0.23
2014-03-11	10	0.17	10	0.17	20	0.33
2014-03-12	2	0.03	2	0.03	4	0.07
2014-03-13					0	0.00
2014-03-14					0	0.00
2014-03-15					0	0.00
2014-03-16					0	0.00
2014-03-17					0	0.00
2014-03-18					0	0.00
2014-03-19					0	0.00
2014-03-20					0	0.00
2014-03-21					0	0.00
2014-03-22					0	0.00
2014-03-23					0	0.00
2014-03-24					0	0.00
2014-03-25					0	0.00

2014-03-26					0	0.00
2014-03-27					0	0.00
2014-03-28					0	0.00
2014-03-29					0	0.00
2014-03-30					0	0.00
2014-03-31	6	0.10	6	0.10	12	0.20
2014-04-01	11	0.18	11	0.18	22	0.37
2014-04-02	8	0.13	8	0.13	16	0.27
2014-04-03	7	0.12	7	0.12	14	0.23
2014-04-04	7	0.12	7	0.12	14	0.23
2014-04-05	7	0.12	7	0.12	14	0.23
2014-04-06	10	0.17	10	0.17	20	0.33
2014-04-07	97	1.93	97	1.80	194	3.73
2014-04-08	31	0.52	31	0.50	62	1.02
2014-04-09					0	0.00
2014-04-10					0	0.00
2014-04-11					0	0.00
2014-04-12					0	0.00
2014-04-13					0	0.00
2014-04-14					0	0.00
2014-04-15	8	0.13	8	0.13	16	0.27
2014-04-16	10	0.17	10	0.17	20	0.33
2014-04-17	10	0.17	10	0.17	20	0.33
2014-04-18	8	0.13	8	0.13	16	0.27
2014-04-19	11	0.18	11	0.18	22	0.37
2014-04-20	10	0.17	10	0.17	20	0.33
2014-04-21	9	0.15	9	0.15	18	0.30
2014-04-22	9	0.15	9	0.15	18	0.30
2014-04-23	7	0.12	7	0.12	14	0.23
2014-04-24	7	0.12	7	0.12	14	0.23
2014-04-25	9	0.15	9	0.15	18	0.30
2014-04-26	13	0.22	13	0.22	26	0.43
2014-04-27	7	0.12	7	0.12	14	0.23
2014-04-28	7	0.12	7	0.12	14	0.23
2014-04-29	6	0.10	6	0.10	12	0.20
2014-04-30	8	0.13	8	0.13	16	0.27
2014-05-01	11	0.18	11	0.18	22	0.37
2014-05-02	10	0.17	10	0.17	20	0.33
2014-05-03	8	0.13	8	0.13	16	0.27
2014-05-04	10	0.17	10	0.17	20	0.33
2014-05-05	8	0.13	8	0.13	16	0.27
2014-05-06	10	0.20	10	0.18	20	0.38
2014-05-07	9	0.15	9	0.15	18	0.30

2014-05-08	9	0.15	9	0.15	18	0.30
2014-05-09	8	0.13	8	0.13	16	0.27
2014-05-10	12	0.20	12	0.20	24	0.40
2014-05-11	9	0.15	9	0.15	18	0.30
2014-05-12	9	0.15	9	0.15	18	0.30
2014-05-13	9	0.15	9	0.15	18	0.30
2014-05-14	9	0.15	9	0.15	18	0.30
2014-05-15	17	0.28	17	0.28	34	0.57
2014-05-16	10	0.17	10	0.17	20	0.33
2014-05-17	9	0.15	9	0.15	18	0.30
2014-05-18	8	0.13	8	0.13	16	0.27
2014-05-19	9	0.15	9	0.15	18	0.30
2014-05-20	9	0.15	9	0.15	18	0.30
2014-05-21	8	0.13	8	0.13	16	0.27
2014-05-22	11	0.18	11	0.18	22	0.37
2014-05-23	10	0.17	10	0.17	20	0.33
2014-05-24	13	0.22	13	0.22	26	0.43
2014-05-25	10	0.17	10	0.17	20	0.33
2014-05-26	9	0.15	9	0.15	18	0.30
2014-05-27	9	0.15	9	0.15	18	0.30
2014-05-28	8	0.13	8	0.13	16	0.27
2014-05-29	8	0.13	8	0.13	16	0.27
2014-05-30	13	0.22	13	0.22	26	0.43
2014-05-31	9	0.15	9	0.15	18	0.30
2014-06-01	8	0.13	8	0.13	16	0.27
2014-06-02	8	0.13	8	0.13	16	0.27
2014-06-03	10	0.17	10	0.17	20	0.33
2014-06-04	7	0.12	7	0.12	14	0.23
2014-06-05	10	0.17	10	0.17	20	0.33
2014-06-06	10	0.17	10	0.17	20	0.33
2014-06-07	9	0.15	9	0.15	18	0.30
2014-06-08	10	0.17	10	0.17	20	0.33
2014-06-09	12	0.20	12	0.20	24	0.40
2014-06-10	10	0.17	10	0.17	20	0.33
2014-06-11	11	0.18	11	0.17	22	0.35
2014-06-12	12	0.20	12	0.20	24	0.40
2014-06-13	7	0.12	7	0.12	14	0.23
2014-06-14	10	0.17	10	0.17	20	0.33
2014-06-15	7	0.12	7	0.12	14	0.23
2014-06-16	7	0.12	7	0.12	14	0.23
2014-06-17	9	0.15	9	0.15	18	0.30
2014-06-18	8	0.13	8	0.13	16	0.27
2014-06-19	11	0.18	11	0.18	22	0.37

2014-06-20	16	0.27	16	0.27	32	0.53
2014-06-21	9	0.15	9	0.15	18	0.30
2014-06-22	9	0.15	9	0.15	18	0.30
2014-06-23	10	0.17	10	0.17	20	0.33
2014-06-24	8	0.13	8	0.13	16	0.27
2014-06-25	8	0.13	8	0.13	16	0.27
2014-06-26	8	0.13	8	0.13	16	0.27
2014-06-27	8	0.13	8	0.13	16	0.27
2014-06-28	13	0.22	13	0.22	26	0.43
2014-06-29	12	0.20	12	0.20	24	0.40
2014-06-30	11	0.18	11	0.18	22	0.37

Totals	3416	58.58	3417	57.68	6833	116.27
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Septic Tanks:

Taylors Fire and Sewer District

3335 Wade Hampton Blvd.
Taylors, South Carolina 29687

(864) 244-5596

FAX (864) 2924975

Septic Tank Reimbursement Policy

Effective Date: May 12, 2009

Amended Date: May 14, 2013

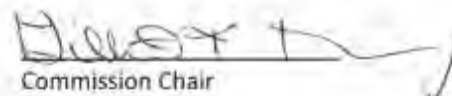
Taylors Fire and Sewer District Commissioners approved the following policy for properties with septic tanks within Taylors Fire & Sewer District:

If sewer is **NOT** available, a Property Owner may be reimbursed up to \$250.00 within the last three (3) years for pumping septic tanks contingent on the septic tank being certified as a failing system by a licensed plumber. Reimbursement is only given one time in any three year period. In order to get reimbursement, the Property Owner must bring in the original dated paid receipt for the pumping service signed by the plumber doing the service. Reimbursement will only be made if receipts are turned in within 180 days of the date on the receipt. Only septic tank pumping can get reimbursed, if you have failing drain field lines those do not fall in the reimbursement policy.

If sewer **IS** available, a Property Owner must tie onto the Taylors Fire & Sewer District Sewer System. No Septic Tank Reimbursement will be available.

Any exceptions may be considered on a case by case basis by the Commission Board.


Director of Sewer Services


Commission Chair

Attest:

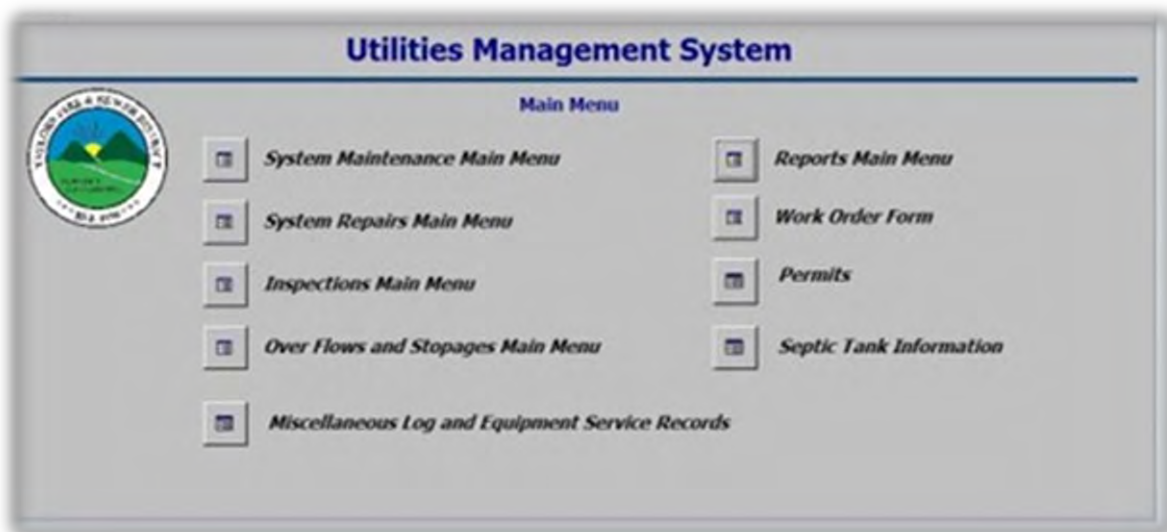

Commission Secretary

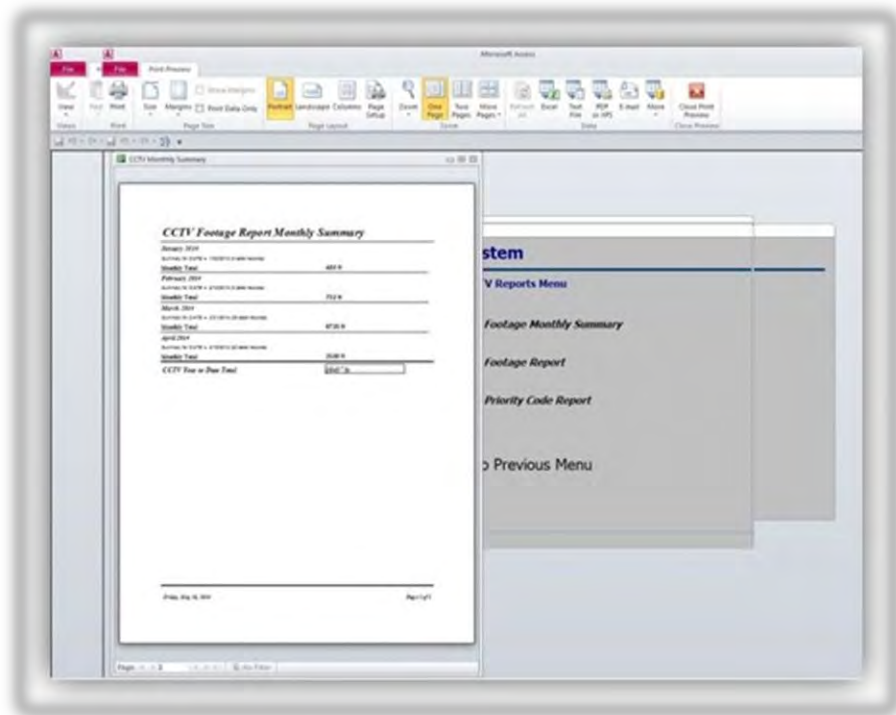
Cityworks (CMMS – Work Order Management Program):

Taylor's Fire and Sewer District had a legacy work order system. If you needed to look up what work had been done you had to go to a file cabinet in the back room in hopes of finding what work had been done.



Our work orders were in an Access Database. Work order information was filled out on paper, then input into the Access Database and then the paper was filed in a file cabinet. It was not a functional Asset Management System, but more of a digital paper archive to run reports on. It was not GIS centric. There were a lot of inaccuracies to occur from free-form paper forms in the field. We used paper maps and paper work orders for field crews.





We met with several representatives from companies who offer asset and work order management programs. We saw demos from Lucity on April 8, 2013, 311 GIS on April 12, 2013, Telepipe Service program I. T. Pipes on May 2, 2013, and City Works May 7, 2013. We compared cost and services offered of each product to determine which program would most benefit Taylors Fire and Sewer District.



We decided to sign a contract with URS for hosting our data and integrating it with our new work order management system, Cityworks. We met with URS to discuss how the implementation would be handled. URS met with us to gather GIS data and information about the activities and work flow of the Sewer Department. We conferred at length about how our GIS data content and how it would be handled within the Cityworks program. Kristien King, GIS Analyst, worked extensively with URS to calibrate our GIS data into the proper format for integrating it with the work order program. She was considered our Administrator for the program. Working with URS included a lot of activities such as sharing data, installing software, setting up a database, and editing data.

In order to collect the proper data needed, Kristien contacted our neighboring special purpose districts and acquired fresh GIS data so that our knowledge of other districts' infrastructure would be current and correct. Metropolitan Sewer Subdistrict, Greer CPW, Blue Ridge Rural

Water Company, Greenville Water, Wade Hampton Fire and Sewer, and ReWa were very accommodating in providing their data. All of our old data was replaced with the new updates in GIS.

In order to be prepared for this new venture, we realized the sewer personnel didn't have office space in order to take on such a task. The sewer department personnel redesigned our shop area by enclosing one bay area to make a crew leaders office and an office for the Operations Coordinator. The crew leader's office is shared by all four crew leaders. The remodeled sewer shop office space was done all in-house by employees of the department. We also purchased desktop computers, smart phones, and tablets for all personnel involved with using the work order management program. We purchased RAM Mounts for each vehicle so that the crews could dock their tablet while driving or out in the field. We also purchased ArcGIS online so that field crews can access our sewer data while in the field.



Enclosed Shop Bay Area



Operations Coordinator Office



Crew Leaders Office



Break Area



It was projected that this project would take approximately 16 weeks or more as long as no road blocks were encountered. In March 2014, configuration of City Works was nearly complete. Kristien was learning of all of the workings of the program. It was a very detailed process. It took longer than anticipated due to some minor software bugs, but everything was moved forward and progress was made.



Cityworks was in its final setup stages. We scheduled end-user training on April 29-30, 2014. End-user training was for the sewer department, district personnel, and fire department dispatchers. The training was held in our District Office board room, and included group instruction as well as one-on-one instruction with employees. Fire Department dispatchers were required to learn the program for taking after-hour calls for the sewer department. Once

training was finished, we allowed the employees to test/play or get familiar with the system to finish out the fiscal year. Our go live date was July 1, 2014. Our field crews and office staff are now using this program full-time to track service requests, work orders and maintenance. Prior to our go live date, final changes and preparations were made to the program per the request of crew members and the Director to allow for relation of specific job task to crew task.



Now that our work order management program is in place, we have been adjusting to the change and learning new procedures and the workings of the system.

Flow Monitoring:

In 2007 the Board of Commissioners decided to contract with The Clearwater Group to provide flow monitoring services. After the preliminary review and evaluation of the data, it became apparent that Taylors had a problem with the flow monitor data gathered. It seemed that a large segment of our mains did not have enough flow to obtain an accurate measurement.

In 2013 the Board of Commissioners decided to contract with Frazier Engineering P.A.

Attached at the end of this report is the flow monitoring report from Frazier Engineering P.A.



Public Relations

In June 2013, Taylors Fire and Sewer District launched a website to keep up with public relations. Our website address is www.taylorsdistrict.org. You can find valuable information about our District. Below are a few screen shots of the website:



[Staff Login](#) | [Sitemap](#) | [Search](#) | [Taylors Fire & Rescue](#)

Taylors Fire and Sewer District

3335 Wade Hampton Blvd, Taylors, SC 29687
Business Hours: 864-244-5596 | After Hours: 864-244-3980

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WELCOME



Welcome to the Taylors Fire and Sewer District website. Taylors Fire and Sewer District is a special purpose district that covers roughly 16 square miles. We are located in central Greenville County, northeast of the [City of Greenville](#), and are adjacent to the western border of the [City of Greer](#). We share district boundaries with [Metropolitan Sewer Subdistrict](#) to our northwest and southeast, and Wade Hampton Fire and Sewer District to our southwest. The wastewater collections system includes approximately 130 miles of gravity line and 3,600 manholes.



Our district office is located at 3335 Wade Hampton Boulevard in Taylors behind the Fire Department Headquarters building.



Our sewer operations shop is located at 405 Brushy Creek Road behind Fire Department Station 2. Sewer Tap Permits can be purchased or updated at our District Office Monday –Friday, 8:00 A.M. to 4:00 P.M.

Calendar

**Board of Commissioners
Monthly Meeting:**

Tuesday, September 9, 2014

District Office in the Board Room,
3335 Wade Hampton Blvd.,
Taylors, SC 29687 at 4:30 pm

NOTE: Dates and locations may be
changed at the discretion of the
Chairman.

[Click here for our holidays.](#)



Taylors
Fire & Rescue

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Taylors Fire and Sewer District

3335 Wade Hampton Blvd, Taylors, SC 29687
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Calendar

Board of Commissioners Monthly Meeting:

Tuesday, September 9, 2014

District Office in the Board Room,
3335 Wade Hampton Blvd.,
Taylors, SC 29687 at 4:30 pm

NOTE: Dates and locations may be
changed at the discretion of the
Chairman.

[Click here for our holidays.](#)



Taylors
Fire & Rescue

COMMISSIONERS



Doug Wavie



Mark Rea



Paul Bowen

Notice of Regular Meetings of the Taylors Fire and Sewer District

In compliance with the provisions of chapter 30-4-10 of the S.C. Code of Laws 1976, as amended, public notice is hereby given of the following regular monthly meetings for the Board of Commissioners: at Taylors Fire and Sewer District to be held at the District Office in the Board Room, 3335 Wade Hampton Blvd., Taylors, SC 29687 at 4:30 pm.

Tuesday, January 14, 2014 - [Agenda](#) | [Meeting Minutes](#)
Tuesday, February 11, 2014 - This meeting was cancelled due to inclement weather.
Tuesday, March 18, 2014 - Postponed from March 11, 2014. [Agenda](#) | [Meeting Minutes](#)
Tuesday, April 8, 2014 - [Agenda](#) | [Meeting Minutes](#)
Thursday, May 8, 2014 - [Special Called Meeting Agenda](#) | [Meeting Minutes](#)
Tuesday, May 13, 2014 - This meeting was cancelled since a Special Called Meeting took place.
Tuesday, May 27, 2014 - [Special Called Meeting Minutes](#)
Tuesday, June 19, 2014 - (rescheduled from June 10, 2014) - [Sewer User Fee Changes](#) | [Fiscal Year \(FY\) 2015 General Fund Budget](#) | [Agenda](#) | [Meeting Minutes](#)
Tuesday, July 8, 2014 - [Agenda](#) | [Meeting Minutes](#)
Thursday, July 10, 2014, 7:30 am - [Special Called Meeting Agenda](#) | [Meeting Minutes](#)
Tuesday, August 12, 2014 - [Agenda](#)
Tuesday, September 9, 2014 - [Agenda](#)
Tuesday, October 14, 2014
Tuesday, November 11, 2014
Tuesday, December 9, 2014

[Click here for previous minutes.](#)

Agendas for regularly scheduled meetings shall be posted in the window at the District Office.

Notice of any called, special or rescheduled meetings shall be posted as early as practical, but not later than twenty-four hours prior.

NOTE: Dates and locations may be changed at the discretion of the Chairman.

Bylaws

Request to be heard: Any person or entity wishing to be heard upon any matter at a regular or special meeting of the Commission shall, at least one (1) day prior to the date set for the meeting, make his or its request known in writing to the Chairman of the Commission. The Chairman shall determine if the request may be honored, and further, the Chairman shall have the ability to stop anyone addressing the Commission if the person speaking to the Commission goes outside the bounds of decency or decorum.

Presentations shall be limited to five (5) minutes per person or entity, although this time limit may be increased upon request. Following any presentation from anyone addressing the Commission, no person other than a member of the Commission will be recognized to question the speaker or make any other statement.

The Chairman, in his/her discretion, may waive the one-day notice requirement if he/she feels such a waiver is warranted. Revised 07/09/13 [Click here for PDF version.](#)



Summary

Taylors Fire and Sewer District is steadily moving forward and quickly becoming one of the leaders in the local sewer industry. From innovative methodologies to plain old common sense and ingenuity, Taylors has risen to and exceeded the challenge of not only reducing inflow and infiltration but setting a higher standard for others to follow.

Taylors Fire and Sewer District was awarded the 2013 Excellence in Collection System Operations Award from the Water Environment Association of South Carolina – Blue Ridge Foothills District. This award is presented to the Collection System that best demonstrates significant, lasting, and measurable excellence in the operation and maintenance of a collection system, or the prevention of the degradation of the water quality in a region, basin, or body of water through improvements or management practices.



William “Red” Ables, Operations Coordinator was awarded the 2013 Collection System Operator of the Year Award from the Water Environment Association of South Carolina – Blue Ridge Foothills District. This award is given annually to an Association member for excellent achievement in the maintenance of a wastewater collection system.

The staff has excelled in training opportunities. All of the employees of Taylors Fire and Sewer District’s Sewer Department, are currently certified Wastewater Collection System Operators.

Four District Administration employees are also certified Wastewater Collection System Operator.

Certification's: Number of Employees & Certification's
Wastewater Collection System Operators: A's <u>4</u> B's <u>2</u> C's <u>5</u> D's <u>3</u>
Biological Wastewater Operator Trainee: <u>1</u>
Nassco's PACP (Pipeline Assessment Certification Program), MACP (Manhole Assessment Certification Program), and LACP (Lateral Assessment and Certification Program) Certified – <u>4</u>

Taylors Fire and Sewer District employees are not only dedicated to their positions with the organization, but are also very involved in the Water Environment Association of South Carolina (WEASC) and the Water Environment Federation (WEF). Our Director of Sewer Services is a Past Chair of the Blue Ridge Foothills District of the WEASC. She is currently the Chair of the Voluntary Certification Committee and serves on many other committees with the Water Environment Association of South Carolina and Water Environment Federation. Taylors Fire and Sewer District is also a member in good standings with the Greenville County Geographic Information Alliance (GCGIA) and Greenville Area Utilities Coordination Committee (GAUCC). Taylors Fire and Sewer District with the other Sewer SPD's in Greenville County sponsor the September meeting of the GAUCC each year. In January 2014, Samantha Bartow, Director of Sewer Services was appointed to the Secretary position of the GAUCC and Doug Wavle, Commissioner, was appointed to the Chair position. Taylors Fire and Sewer District is also very active in the Greenville County Special Purpose District Association. Our Commissioner, Doug Wavle, is currently the Vice-Chair and Director, Samantha Bartow, is the Secretary.

The implementation of a User Fee has been designated for the major capital improvements to ensure the funds needed are available as we continue to not only maintain the integrity of our sewer system, but also expand our services to meet the growth of the Taylors area. We continue to become more creative and seek out alternative avenues to make each investment the most economically feasible.

It continues to be the mission of Taylors Fire and Sewer District to not only improve the quality of life for our residents, but to also be the best stewards of their tax dollars as humanly possible. We believe our records speak for themselves as we consistently exceed our established goals while remaining within, and often below, the confines of our budget.



FRAZIER
ENGINEERING P.A.

TAYLORS FIRE AND SEWER DISTRICT

FLOW MONITORING REPORT

JULY 16, 2014

**TAYLORS FIRE AND SEWER DISTRICT
FLOW MONITORING REPORT
JULY 16, 2014**

Frazier Engineering, P.A. monitored flow at 13 sites in Taylors Fire and Sewer District's wastewater collection system. The purpose of the flow monitoring was to determine sewer capacity, average daily flow in the collection system, and wet-weather flow (infiltration and inflow (I/I)). This report summarizes the flow monitoring work and sewer system capacity analysis.

Monitor Locations

Eleven flow meters were installed throughout Taylors' collection system. The flow meters were installed on January 15 – 16, 2014 and removed on April 10, 2014. Figure 1 shows the meter locations and associated meter basin boundaries. Note that Sites 49 and 91 shown on Figure 1 are Renewable Water Resources' (ReWa) permanent meters which were also utilized in this study.

Flow Meter Information

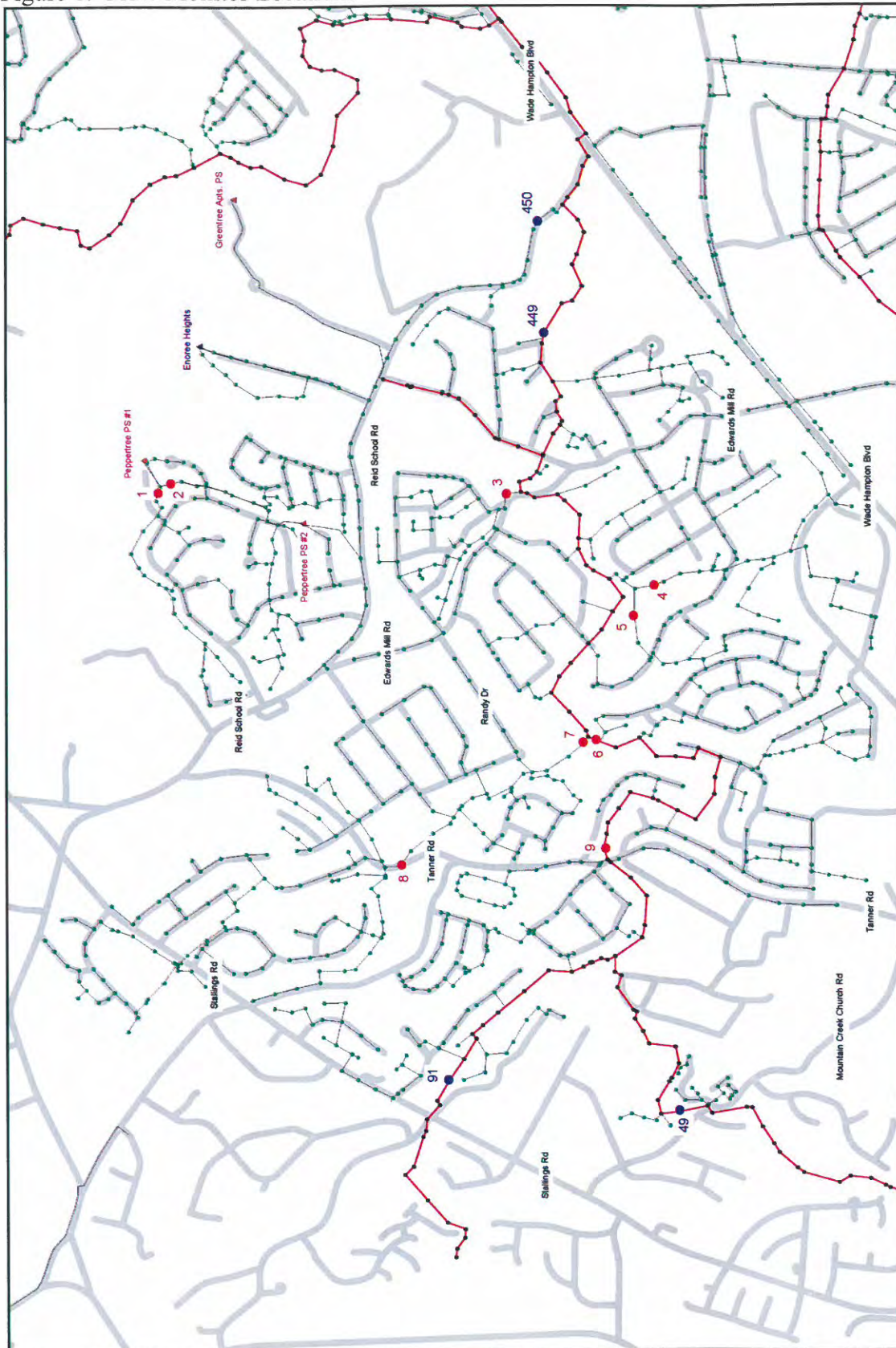
The flow meters installed and maintained by Frazier Engineering were American Sigma meters with submerged area-velocity sensor. The Sigma meter measures average velocity using twin piezoelectric crystals utilizing ultrasonic one-MHz Doppler technology. Multiple measurements are taken by bouncing the Doppler signal off of any and all particulates found throughout the flow stream and then averaged. Flow depth is measured using a pressure transducer. Appendix A contains additional detailed information on this meter.

Flow Meter Installation, Calibration, and Maintenance

The meters were calibrated at installation by adjusting the depth of flow recorded by the meter to match a manual depth measurement. The velocity recorded by the meter was also verified by comparing it to a hand held velocity meter. The meters were set up to record depth and velocity at 15-minute intervals.

The meters were visited weekly to download the data, to perform any necessary maintenance (such as scrubbing the sensor to remove debris), and to calibrate the meters per the methodology outlined above. Data was reviewed on site for overall data quality and any problems were immediately addressed.

Figure 1. Flow Monitor Locations



Average Daily Dry-Weather Flow During Monitoring Period

Typical, average daily flows provide valuable information on the current sewer system use and operation. Average daily flows facilitate capacity analyses and decisions on whether the sewers can handle additional flow. In addition, average dry-weather flows are critical for proper analyses of wet-weather flow data. The average dry-weather flows are directly compared with flows during rain events, and the difference between the flows is the volume of I/I entering the system.

To develop the average dry-weather flow, Frazier Engineering reviewed flows during each day of the monitoring period. Days that appeared to be typical throughout the period were averaged to obtain the average daily flow. Days with apparent atypical flows (such as flows that appear to be affected by silt/debris over the sensor or by rain events) were excluded from the analyses. If present, daily ground water infiltration into the sewers is included in the average daily flow presented in this report.

Table 1 includes the estimated current sewer capacity at the meter sites. The metered flows and flow depths were used to estimate the current capacity of the sewer. Metered depths were plotted against metered flows. Theoretical capacity curves for that particular diameter pipe were then placed on the metered depths and flows until a best fit was achieved for a specific capacity. Note that the current sewer capacity may be affected by older sewer pipe (higher friction factor), increased silt and debris in the sewer, or obstructions in the sewer. The estimated capacity shown is at the meter site only and does not reflect conditions or capacities above or below the meter site.

As an example, Figure 2 shows the sewer capacity analysis for Site 449. Note that this methodology of estimating capacity is independent of pipe slope. Additional analyses using the original design slope would be necessary to determine how the estimated capacities presented herein compare to design capacities.

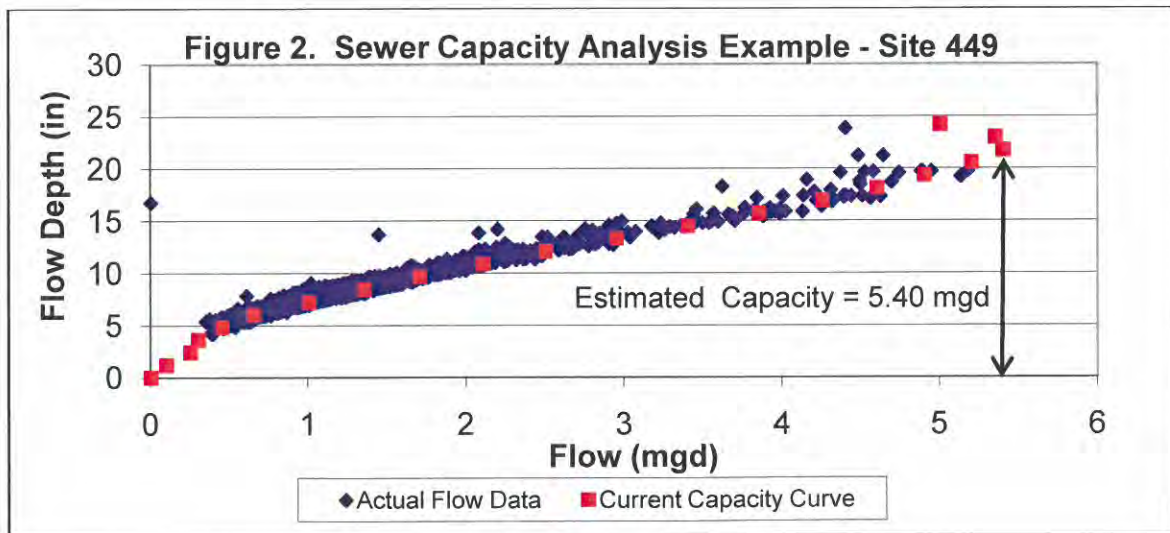


Table 1 summarizes the average flow and depth during the monitoring period for each site. The average daily flow as a percentage of the estimated pipe capacity and the average flow depth as a percentage of the pipe diameter are also shown.

Table 1. Average Dry-Weather Flow Monitoring Summary

Site	Estimated Capacity (mgd)	Pipe Diameter (in)	Average Flow		Average Depth	
			mgd	% of Est. Capacity	in	% of Pipe Diameter
1	0.38	8	0.021	5.7%	1.87	24.9%
2	1.35	8	0.128	9.5%	2.12	26.9%
3	0.59	8	0.049	8.2%	1.89	23.7%
4	1.08	8	0.079	7.4%	2.12	26.5%
5	0.24	8	0.015	6.2%	1.47	18.3%
6	5.94	21	0.840	14.1%	5.70	26.8%
7	0.54	8	0.103	19.2%	2.81	35.1%
8	0.65	8	0.069	10.7%	2.31	28.9%
9	8.10	21	0.612	7.6%	4.41	21.0%
449	5.40	24	0.993	18.4%	7.54	31.1%
450	1.89	8	0.150	8.0%	1.79	22.3%
49 (ReWa)	4.31	18	0.443	10.3%	4.08	22.6%
91 (ReWa)	2.07	15	0.117	5.6%	2.84	18.9%

Wet-Weather Flow During Monitoring Period

The peak wet-weather flows during a rain event are considered to be caused by inflow. Inflow is generally defined as water other than wastewater that directly enters the sewer system through storm/sewer cross connections, vented manhole covers, roof leader connections to the sewers, service line connections and missing cleanout caps, and other such direct sources. Inflow produces the rapid flow increase after rains begin and the associated high peak flows. Peak I/I flows are typically the main cause of sewer system surcharging and overflows during wet weather.

Infiltration is generally defined as water other than wastewater that seeps through the ground and into the sanitary sewers through defects (such as broken pipes, defective pipe joints, service connections and manhole walls). Infiltration is usually slower to enter the sewer and may remain evident in the sewer system for more than a day after a rain event ends. Infiltration generally leads to high volumes of I/I but not high peak flows.

Based on rain data collected at ReWa's Taylors rain gauge, Table 2 summarizes the three rain events that exceeded 1 inch during the monitoring period.

Table 2. Rain Events Summary

Date	Total Rain (in)	Peak Intensity (in/hr)	Duration (hrs:min)
March 7, 2014	1.79	0.26	19:15
March 16, 2014	1.32	0.20	39:00
April 7, 2014	2.51	0.42	24:45

Figure 3 graphically represents these rain events in comparison to a 1-year average recurrence interval rainfall. As can be noted, these rain events were less than a 1-year recurrence interval rainfall. The average recurrence interval information was obtained from "Precipitation-Frequency Atlas of the United States" NOAA Atlas 14, Volume 2, Version 3 for the Greenville, South Carolina area.

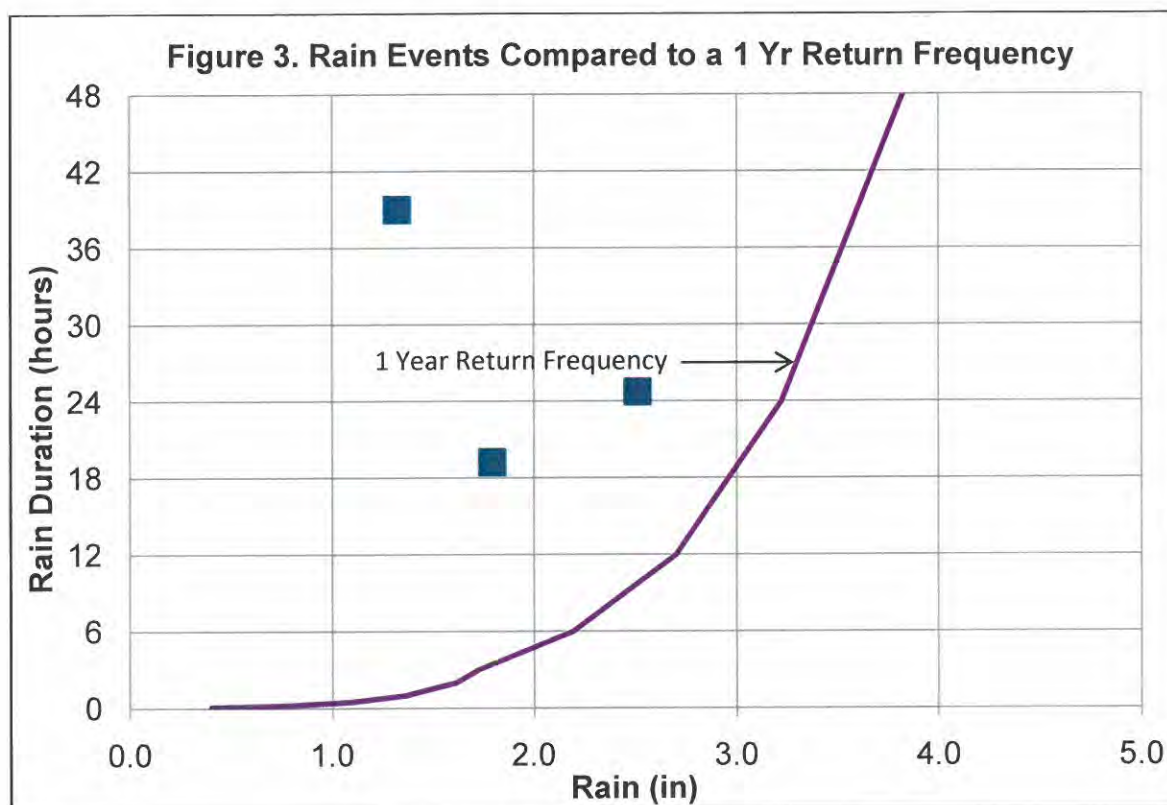


Table 3 shows the peak flow rate and peak flow depth recorded during the three evaluated rain events at each of the meters. The peaking factor (peak hourly flow divided by the average daily dry-weather flow) is also shown. The Babbitt equation peaking factor is also shown in Table 3. The Babbitt equation uses the average daily flow (population) to predict the maximum allowable peaking factor. ReWa uses the Babbitt equation as a benchmark to determine whether peak wet-weather flows from the sub-districts' sewer systems are excessive.

Table 3. Taylors Fire and Sewer District Flow Monitoring Summary - Rain Events

Date	Rain (in)	Basin	Estimated Capacity (mgd)	Avg. Flow (mgd)	Pipe Diameter (in)	Peak Hourly Flow			Babbitt		Peak Depth		I/I Start Date and Time	I/I End Date and Time	Duration (hrs:min)	Total I/I Volume at Meter (gal)
						mgd	% of Est. Capacity	Peaking Factor ¹	Allowable Babbitt PF	Does PF Exceed Babbitt?	In	% of Pipe Diameter				
March 7, 2014	1.79	1	0.38	0.021	8	0.074	19.4%	3.4	6.5	NO	2.92	38.9%	3/7/14 5:30 AM	3/8/14 2:45 AM	21:15	19,365
		2	1.35	0.128	8	0.329	24.4%	2.6	4.8	NO	3.15	39.9%	3/7/14 2:15 AM	3/8/14 5:45 AM	27:30	125,406
		3	0.59	0.049	8	0.194	32.7%	4.0	5.6	NO	3.38	42.2%	3/6/14 10:30 PM	3/6/14 2:15 AM	51:45	129,052
		4	1.08	0.079	8	0.410	37.9%	5.2	6.2	NO	3.94	49.2%	3/6/14 8:15 PM	3/6/14 5:15 AM	57:00	263,500
		5	0.24	0.015	6	0.081	25.6%	4.1	3.5	NO	2.54	31.8%	3/7/14 2:45 AM	3/7/14 3:15 PM	12:30	10,740
		6	5.94	0.840	21	2.504	42.2%	3.0	6.9	NO	10.05	47.3%	3/7/14 12:00 AM	3/6/14 6:30 AM	54:30	995,825
		7	0.54	0.103	8	0.260	48.2%	2.5	5.0	NO	4.55	56.9%	3/6/14 11:15 PM	3/8/14 6:15 AM	31:00	55,052
		8	0.65	0.069	8	0.213	32.9%	3.1	5.3	NO	3.64	45.5%	3/7/14 6:30 AM	3/8/14 8:45 AM	26:15	76,333
		9	8.10	0.612	21	1.848	22.8%	3.0	3.7	NO	7.34	35.0%	3/6/14 11:15 PM	3/6/14 7:45 AM	56:30	681,490
		449	5.40	0.993	24	2.914	54.0%	2.9	3.4	NO	13.95	57.5%	3/7/14 12:00 AM	3/6/14 6:15 AM	54:15	1,333,427
March 16, 2014	1.32	450	1.89	0.150	8	0.631	33.4%	4.2	4.7	NO	3.71	46.4%	3/6/14 11:45 PM	3/7/14 4:30 PM	18:45	164,979
		1	0.38	0.021	8	0.049	13.0%	2.3	6.5	NO	2.51	33.4%	3/16/14 1:00 PM	3/16/14 11:00 PM	10:00	7,323
		2	1.35	0.128	8	0.301	22.3%	2.4	4.8	NO	3.04	38.6%	3/16/14 7:30 AM	3/17/14 6:15 AM	22:45	90,848
		3	0.59	0.049	8	0.114	19.2%	2.4	5.6	NO	2.74	34.3%	3/16/14 8:30 AM	3/16/14 3:45 PM	79:15	102,260
		4	1.08	0.079	8	0.226	20.9%	2.8	5.2	NO	3.23	40.3%	3/16/14 9:30 AM	3/18/14 6:45 AM	45:15	140,010
		5	0.24	0.015	8					No Significant I/I Reaction to the Rain Event						
		6	5.94	0.840	21	1.824	30.7%	2.2	3.5	NO	8.82	40.6%	3/16/14 10:45 AM	3/19/14 8:30 AM	69:45	1,249,542
		7	0.54	0.103	8	0.216	40.0%	2.1	5.0	NO	4.14	51.8%	3/16/14 11:45 AM	3/17/14 7:15 PM	31:30	48,927
		8	0.65	0.069	8	0.191	29.5%	2.8	5.3	NO	3.49	43.6%	3/16/14 12:45 PM	3/17/14 7:45 PM	31:00	58,375
		9	8.10	0.612	21	1.392	17.2%	2.3	3.7	NO	6.55	31.2%	3/16/14 10:30 AM	3/19/14 6:30 AM	68:00	827,771
April 7, 2014	2.51	449	5.40	0.993	24	2.314	42.9%	2.3	3.4	NO	11.74	48.4%	3/16/14 10:15 AM	3/19/14 9:45 AM	71:30	1,492,510
		450	1.89	0.150	8	0.519	27.4%	3.4	4.7	NO	3.38	42.3%	3/16/14 3:30 PM	3/17/14 7:15 PM	27:45	158,042
		1	0.38	0.021	8	0.133	35.2%	6.2	6.5	NO	3.52	47.0%	4/7/14 1:30 AM	4/8/14 8:45 PM	43:15	84,890
		2	1.35	0.128	8	0.370	27.4%	2.9	4.8	NO	3.65	46.3%	4/7/14 4:00 AM	4/8/14 5:00 PM	37:00	224,365
		3	0.59	0.049	8	0.356	60.0%	7.3	5.6	YES	4.79	59.9%	4/7/14 2:15 AM	4/10/14 3:00 AM	72:45	286,594
		4	1.08	0.079	8	0.684	63.3%	8.6	6.2	YES	6.29	78.6%	4/7/14 2:15 AM	4/9/14 5:45 AM	51:30	408,198
		5	0.24	0.015	6	0.106	44.5%	7.2	6.9	YES	4.95	61.9%	4/7/14 5:45 AM	4/8/14 8:30 AM	26:45	35,552
		6	5.94	0.840	21	3.450	56.1%	4.1	3.5	YES	12.94	60.9%	4/7/14 3:15 AM	4/10/14 7:45 AM	79:30	2,838,875
		7	0.54	0.103	8	0.383	71.0%	3.7	5.0	NO	5.04	63.0%	4/7/14 3:30 AM	4/9/14 6:15 PM	62:45	214,948
		8	0.65	0.069	8	0.399	61.6%	5.8	5.3	YES	4.88	61.0%	4/7/14 3:30 AM	4/9/14 4:00 PM	50:30	333,365
		449	5.40	0.993	24	4.975	92.1%	5.0	3.4	YES	23.92	96.8%	4/7/14 3:15 AM	4/10/14 9:30 AM	78:00	2,464,875
		450	1.89	0.150	8	0.811	42.9%	5.4	4.7	YES	4.06	50.8%	4/7/14 6:00 AM	4/8/14 4:00 PM	34:00	429,490

Notes:
(1) Peaking factor is defined as the peak flow divided by the average daily flow.

The total estimated volume of I/I measured is shown in Table 3 as well as the duration of time from when I/I flows began until flow returned to normal. Note that there was no significant I/I reaction to March 16, 2014 rain event at Site 5.

Appendix B shows flow during the rain events versus the typical, dry-weather flow for each site for each meter.

Conclusions

Average Dry-Weather Flows

The sewers monitored have significant dry-weather capacity available. The average dry-weather flow utilized less than 20% of the estimated pipe capacity at all sites. In addition, the average depth of flow used 35% or less of the pipe diameter. It appears that significant capacity is available for future dry-weather flow at all sites including the ReWa sites.

Wet-Weather Flows

During the March 6 - 7 and March 16 - 17 rain events, none of the sites had peaking factors that exceeded the Babbitt allowable peaking factor. In addition, only one site had a peak flow that used more than 50% of the estimated capacity (Site 449 used 54% of the capacity during the March 6 - 7 rain event). None of the sites surcharged (defined as depth of flow exceeding the pipe diameter) during either rain event. Note that Site 4 had a peaking factor of 5.2 during the March 6 - 7 rain event, which was equivalent to the Babbitt allowable peaking factor.

During the April 7 rain event (the largest monitored rain event), 10 of the 13 sites had peaking factors that exceeded the Babbitt allowable peaking factor. Site 1 did not exceed the Babbitt but had a large peaking factor of 6.2 (allowable Babbitt peaking factor of 6.5). Sites 2 and 7 had low peaking factors that did not exceed the Babbitt. Note that even though Site 7 did not exceed the Babbitt, the peak flow used nearly three-fourths of the estimated capacity. In addition, the peak flows at Sites 3, 4, 6, 8, and 449 used approximately 60% of the estimated capacity or more with Site 449 using over 90% of the estimated capacity. None of the sites surcharged during this rain event but the peak depth at Site 449 was nearly at full pipe.

Note that Sites 49 and 91 (Permanent ReWa meter sites) both had peaking factors that exceeded the Babbitt allowable peaking factor during the April 7 rain event. There is very minimal flow from Taylors' collection system that is measured at Site 49 and none at Site 91. The high peak flows coming from sewers upstream of the Taylors' sewer system (from MSSD sewers) contribute to the high peaking factors measured at the downstream Taylors' sites (Sites 6, 9, and 449). I/I reduction in the MSSD sewers upstream of the Taylors' system needs to be accomplished to facilitate meeting the Babbitt equation at these Taylors' sites.

From a wet-weather flow perspective and taking into account the flow data from all three evaluated rain events, the areas served by Sites 1, 3, 4, and 5 are the highest priority areas for I/I identification and reduction activities. These basins generally had the largest peaking factors. Taylors has already begun performing sewer rehabilitation in these priority basins.

Sites 6, 7, 8, 9, 449, and 450 showed I/I reactions at varying levels of severity. These sites are listed below under Basin Priority for Rehabilitation as second priority basins behind Sites 1, 3, 4, and 5. Note that these results are for less than one year average recurrence rain events. I/I rates and volumes will likely increase during larger and/or more intense rain events.

Site 2 had minimal I/I reactions during all rain events and is not recommended for I/I reduction activities at this time.

Summary and Recommendations

1. Available Pipe Capacity: Based on the flow data collected, all sites appear to have significant dry-weather capacity available for future flows. This includes the ReWa meter sites.
2. Babbitt Equation: ReWa compares wet-weather peaking factors with peaking factors computed using the Babbitt equation. The Babbitt equation uses population to compute a peaking factor. Per ReWa, the peaking factor computed by the Babbitt equation is the "allowable" peaking factor in the subdistricts' sewer systems.

Table 3 shows the peak flow and associated peaking factor from each of the sites during the three rain events that exceeded 1 inch. The comparison of the actual peaking factors to the Babbitt equation peaking factors is used to help prioritize areas for rehabilitation as listed below.

3. Basin Priority for Rehabilitation: The basins listed below are recommended for further evaluation and rehabilitation. The initial focus should be on reducing inflow throughout all of the priority basins followed by comprehensive infiltration reduction as needed to achieve the desired reductions. The basins are listed by priority.

For the purposes of this report and to provide Taylors with a phased approach for rehabilitating the system and for budgeting for the rehabilitation work, the basins that generally had the largest peaking factors are listed as Priority 1 areas. The basins with moderate peaking factors but that still exceeded the Babbitt during the April 7 rain event are listed as Priority 2 areas. The exception within the Priority 2 basins is Site 7. Site 7 did not exceed the Babbitt but its peak flow used nearly three-fourths of the estimated capacity.

Priority 1 Basins (highest priority): Sites 1, 3, 4, and 5

Priority 2 Basins (second priority): Sites 6, 7, 8, 9, 449, and 450

NOTE: As mentioned previously, the high peak flows coming from sewers upstream of the Taylors' sewer system (from MSSD sewers) contribute to the high peaking factors measured at downstream Sites 6, 9, and 449. I/I reduction in the MSSD sewers upstream of the Taylors' system needs to be accomplished to facilitate meeting the Babbitt equation at these sites. Any evaluation and rehab work undertaken by Taylors in the sewers draining to Sites 6, 9 and 449 needs to be coordinated with I/I reduction efforts by MSSD to verify the overall goals are met.

Basin with Little I/I Problems Identified from Metering: Site 2

Figure 4 shows all basins with the Priority 1 basins highlighted.

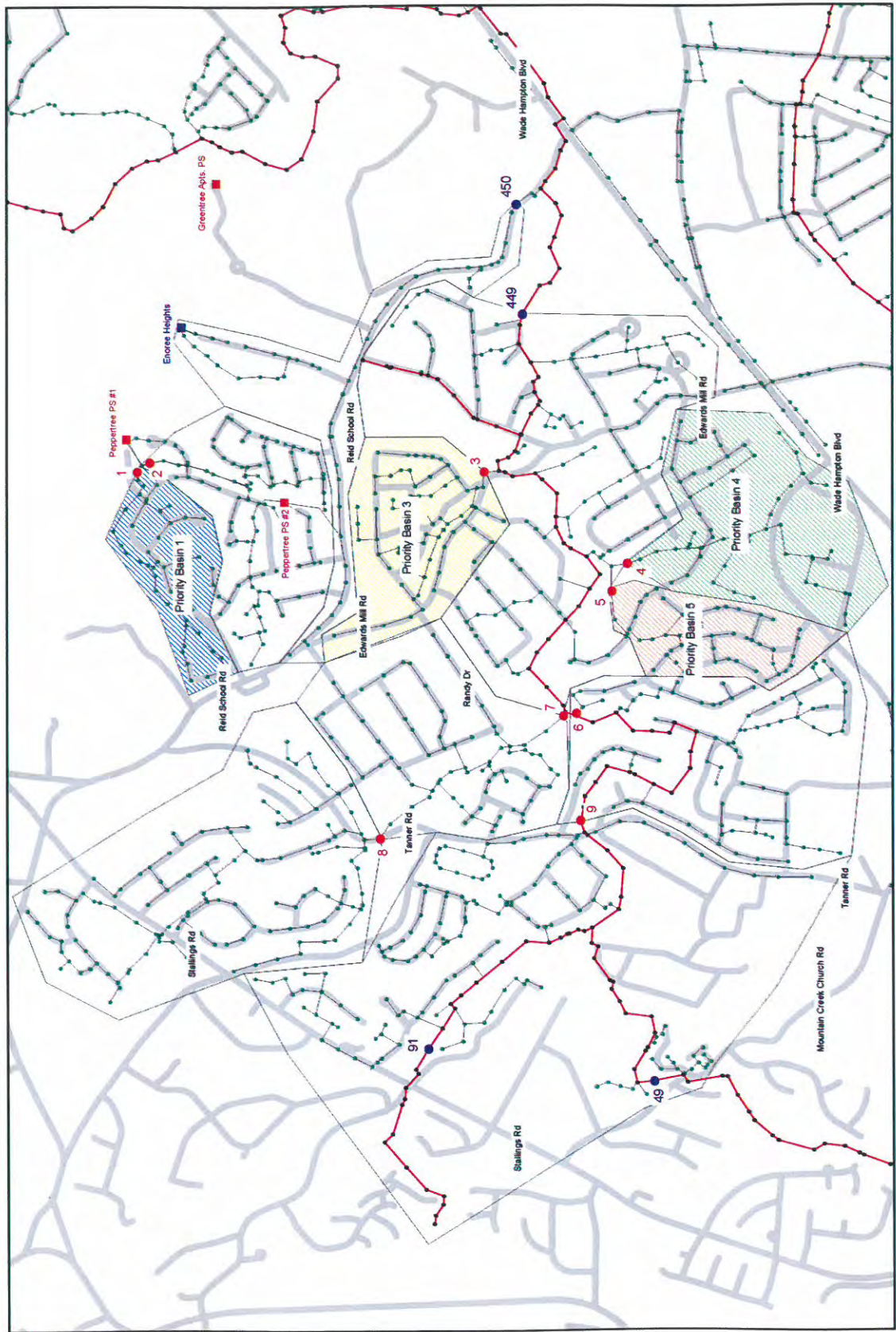
4. Focus on Inflow Reduction and Recommended SSES Work: The initial focus of Taylors' rehabilitation program should be to focus on inflow reduction (reduction of the high peak flows). Reduction of infiltration rates and volumes should also be performed, but the inflow reduction should be the initial focus. The high peak wet-weather flows may lead to sewer system surcharging and overflows.

Inflow identification and reduction activities include manhole inspections and smoke testing. Our recommendations are summarized below.

- Priority 1 Basins: We recommend that the manhole inspections and smoke testing proceed in the Priority 1 basins as identified. The length of sewer in these basins totals approximately 38,000 feet so sewer system evaluation work (SSES) can quickly and cost-effectively be performed. All significant inflow defects identified from the SSES should then be repaired. Television inspections of the sewers may be required to complete the SSES work and/or Taylors may consider simply televising the entire basins to identify all major sewer system defects (depending on available resources). The TV inspections can be identified after the manhole inspections and smoke testing are complete. Wet-weather inspections are also very beneficial for identifying inflow defects.

As noted previously herein, Taylors has already begun SSES work and rehab work in the highest priority basins. We recommend that Taylors clearly document all defects that are identified and repaired including estimating volumes of I/I that have been removed from the rehab work.

Figure 4. Priority 1 Basins



- Post-Rehab Flow Monitoring: After rehabilitation measures are completed in the Priority 1 basins, Taylors should perform post-rehabilitation flow monitoring to document the success of the rehabilitation work and to determine if additional rehabilitation work is required to achieve the required I/I reduction. Peak flows from the post-rehabilitation monitoring should be compared with the peaking factors reported in Table 3 and with the peaking factors computed using the Babbitt equation.
- Priority 2 Basins: Once the desired results are achieved in the Priority 1 basins, we recommend that Taylors perform SSES in the Priority 2 basins. The total footage in the Priority 2 basins is approximately 111,000 feet. All identified significant inflow defects should be repaired, and post-rehab flow monitoring should be performed to document the results of the work and to determine if additional rehabilitation is required.

As an alternate, Taylors could consider performing SSES in the Priority 2 basins at the same time as the Priority 1 basins (at least smoke testing and manhole inspections) to provide Taylors with an overall plan for removing inflow in the worst sewer basins. Estimated costs for repairing the inflow defects could be then determined, and Taylors could manage and budget for the rehabilitation work over the next few years.

Note that the above plan focuses on inflow reduction. Infiltration reduction may also be required to significantly reduce the peak flows below the Babbitt equation. Infiltration reduction will be identified from the post-rehabilitation metering. Infiltration reduction is much more costly than inflow reduction, and takes significantly more time to achieve.

APPENDIX A
FLOW MONITOR INFORMATION

Hach Sigma 910 Portable Area Velocity Flow Meter

FLOW



The compact 4.5 x 18 in. design and weight of less than 8 lb. (with battery) makes the Hach Sigma 910 Flow Meter one of your best options for remote environments. Use it to log level and velocity data for more than 60 days without changing the battery. Its sealed design provides superior system protection against surcharge conditions.

Features and Benefits

Simple and Reliable Flow Measurement

The compact and lightweight Hach Sigma 910 Portable Area Velocity Flow Meter measures average velocity directly, without the need for time-consuming and costly flow profiling. Hach's exclusive Submersible Area Velocity Sensor assures accuracy and reliability for unsurpassed versatility, even in the harshest open-channel applications.

Ideal for Remote Environments

The Noryl housing of the Hach Sigma 910 flow meter is NEMA 6P sealed to withstand submergence and prolonged surcharge conditions. Its compact size makes it easily portable and provides for easy storage and fit in a variety of applications such as sewer and storm water monitoring.

Advanced Technology for Accuracy

The technology used in the Hach Sigma 910 flow meter automatically corrects the effect of temperature on level measurement for a higher level of accuracy. The patented* "Drawdown Correction" feature corrects the effects of velocity on accurate level measurement. Advanced, ultrasonic one-MHz Doppler technology avoids signal dropouts and ensures—without the need for on-site calibration—high levels of accuracy in low-flow, full-pipe, or reversed-flow conditions. The hydrodynamic body and side-mounted cable also maintains accuracy by reducing turbulence along the sensor body.

*Patent pending.

Easy Installation and Maintenance

The 4.5-inch diameter of the Hach Sigma 910 flow meter means it can install almost anywhere. It has a low profile for reduced maintenance. The low maintenance sensor is detachable and interchangeable for flexibility. An oil-filled probe greatly reduces sensor fouling and need for regular cleaning schedules. Single point calibration (atmospheric) makes calibration quick and accurate.

Applications

The Sigma 910 Portable Area Velocity Flow Meter is ideal for short-term flow studies and sanitary sewer evaluation studies.



WW

IW

C

DW = drinking water WW = wastewater municipal PW = pure water / power
IW = industrial water E = environmental C = collections FB = food and beverage



Be Right™

Specifications*

910 Flow Meter

Units of Measurement

Level: m, cm, ft., in.

Flow: gps, gpm, gph, lps, lpm, lph, mgd, afd, cfs, cfm, cfh, cfd, m³s, m³m, m³h, m³d

Totalized Flow: L, m³, ft.³, gal., acre-ft.,

Monitoring Intervals

1, 2, 3, 5, 6, 10, 12, 15, 20, 30, and 60 minutes

Operating Temperature

-18 to 60°C (0 to 140°F)

Storage Temperature

-40 to 60°C (-40 to 140°F)

Time-Based Accuracy

±1 second per day

User Interface

IBM-compatible PC

Program Memory

Non-volatile programmable flash, can be updated via RS-232 port

Data Storage

Capacity: 90 days of 1 level and 1 velocity reading at 15-minute recording intervals

Data Types: Level and velocity

Storage Mode: Wrap or slate

RAM Memory: 128 K

Communications

Serial connection to IBM-compatible computer with Hach analysis software

Enclosure Material

PVC

Enclosure Rating

NEMA 6P (IP67)

Power Source

One Energizer EN-529 alkaline 6 Vdc battery

Battery Life

60 days typical (with 15-minute recording interval, 1 level and 1 velocity, data download once per week, at 10°C (50°F), also affected by site conditions)

Dimensions

11.4 cm diameter x 44.8 cm (4.5 in. diameter x 17.625 in.)

Weight

3.54 kg (7.8 lbs.) with battery

Submerged Depth/Velocity (AV) Sensor

VELOCITY MEASUREMENT

Range

-1.52 to 6.10 m/s (-5 to 20 ft./s)

Zero Stability

0.015 m/s (<0.05 ft./s)

Accuracy

±2% of reading

Operating Temperature

-18 to 60°C (0 to 140°F)

Typical Minimum Depth for Velocity

2 cm (0.8 in.)

Method

Doppler ultrasonic

Transducer Type

Twin 1 MHz piezoelectric crystals

LEVEL MEASUREMENT

Range

Standard: 0 to 3 m (0 to 10 ft.)

Extended: 0 to 9 m (0 to 30 ft.)

Accuracy

±0.16% full scale ±1.5% of reading at constant temp (±2.5°C)

±0.20% full scale ±1.75% of reading from 0 to 30°C (32 to 86°F)

±0.25% full scale ±2.1% of reading from 0 to 70 °C (32 to 160°F)

Maximum Allowable Level

Standard: 10.5 m (34.5 ft.)

Extended: 31.5 m (103.5 ft.)

Air Intake

Atmospheric pressure reference is desiccant protected

Method

Pressure transducer with stainless steel diaphragm

GENERAL

Material

Noryl® plastic outer shell with epoxy potting

Cable

Standard: 9, 15, 23, and 30.5 m (30, 50, 75 and 100 ft.)

Custom: greater than 30.5 m (100 ft.)

Maximum: 76 m (250 ft.)

Cable Diameter

0.91 cm (0.36 in.)

Sensor Dimensions

2.3 x 3.8 x 13.5 cm (0.9 x 1.5 x 5.3 in.)

Engineering Specifications

910 Flow Meter

1. The flow meter system shall consist of a flow meter and a submerged depth/velocity sensor.
2. The sensor shall be equipped with level drawdown correction to compensate for the effects of velocity in level measurement accuracy.
3. The flow meter housing shall be made of NEMA 6P (IP67) PVC sealed to withstand submergence and prolonged surcharge conditions.
4. The flow meter shall be capable of reporting in the following units:
 - a. Level; m, cm, ft., in.
 - b. Flow; gps, gpm, gph, lps, lpm, lph, mgd, afd, cfs, cfm, cfh, cfd, m³s, m³m, m³h, m³d.
 - c. Totalized flow; L, m³, ft.³, gal., acre-ft.
5. The flow meter shall monitor at 1, 2, 3, 5, 6, 10, 12, 15, 20, 30, and 60-minute intervals.
6. The flow meter shall be capable of storing data in non-volatile, programmable flash memory that can be updated via RS232 port.
 - a. Capacity shall be 90 days of one level and one velocity reading at 15-minute recording intervals.
 - b. Data types shall be level and velocity.
 - c. Storage mode shall be wrap or slate.
7. The flow meter shall have Modbus® and GSM wireless communication functionality.
8. Exterior dimensions shall not exceed 4.5 inches diameter and 17.625 inches length.
9. The flow meter shall be the Sigma Model 910 Portable Area Velocity Flow Meter manufactured by Hach Company.

Submerged Depth/Velocity (AV) Sensor

1. The sensor shall be capable of directly measuring average velocity.
2. The method of velocity measurement shall employ transducer type that is twin 1-MHz piezoelectric crystals.
3. The method of level measurement shall be pressure transducer with stainless steel diaphragm.
4. Velocity range shall be -1.52 to 6.10 m/s (-5 to 20 ft./s)
5. The range of level measurement shall be 0 to 3 m (0 to 10 ft.), standard, and 0 to 9 m (0 to 30 ft.), extended.
6. The body material of the sensor shall be Noryl® plastic outer shell with epoxy potting.
7. The connector of the sensor shall be hard anodized and satisfy Military Spec 5015.
8. Power consumption of the sensor shall be less than or equal to 1.2 W at 12 Vdc.
9. The sensor shall be the Sigma AV Sensor Flow Sensor manufactured by Hach Company

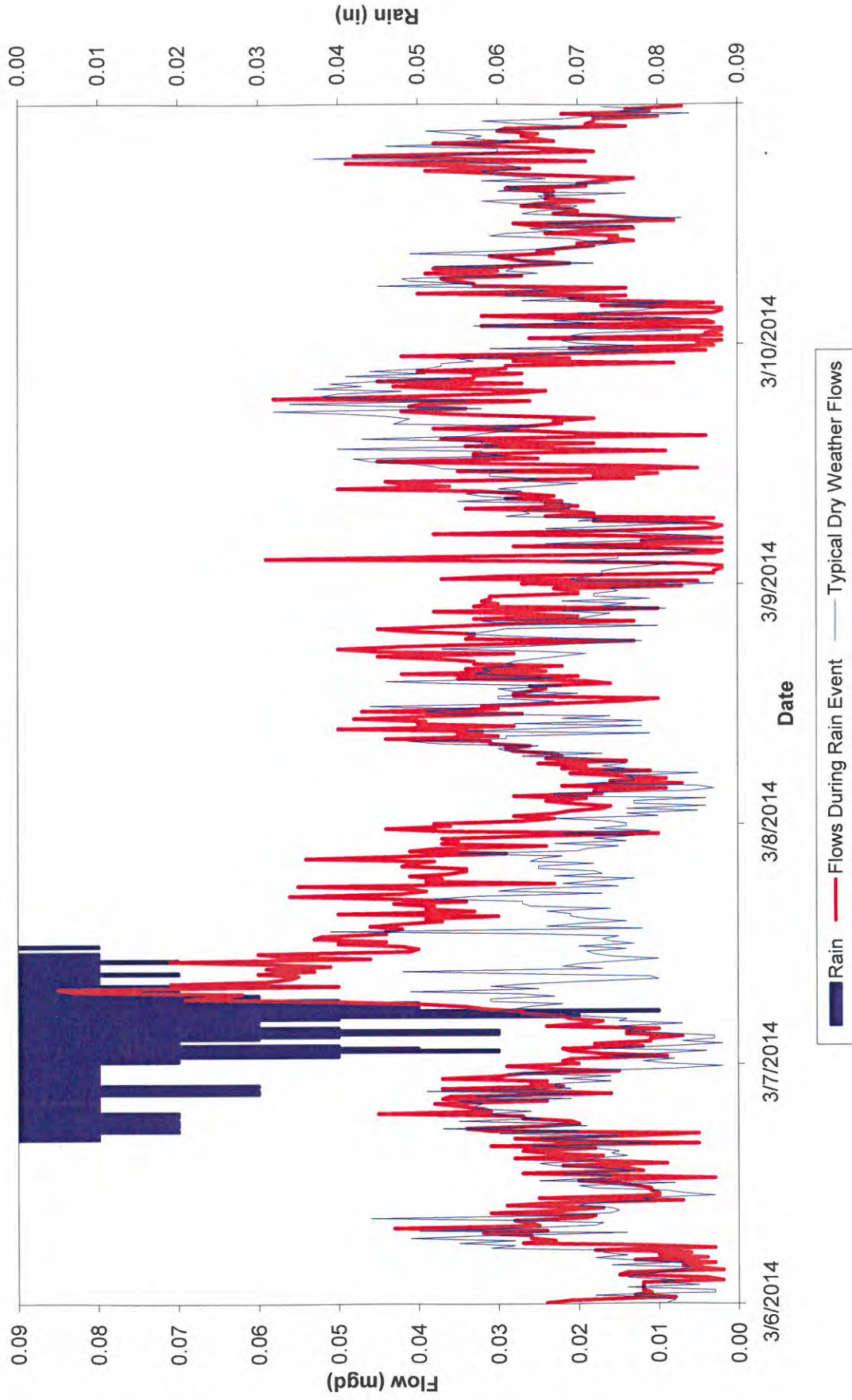
Dimensions

The Hach Sigma 910 Portable Area Velocity Flow Meter should not be used in hazardous locations where combustible gases may be present. Mount the meter so that the connectors face down. When not in use, cover the connectors with their protective caps to prevent corrosion. Always use the appropriate manhole support bracket/spanner bar.

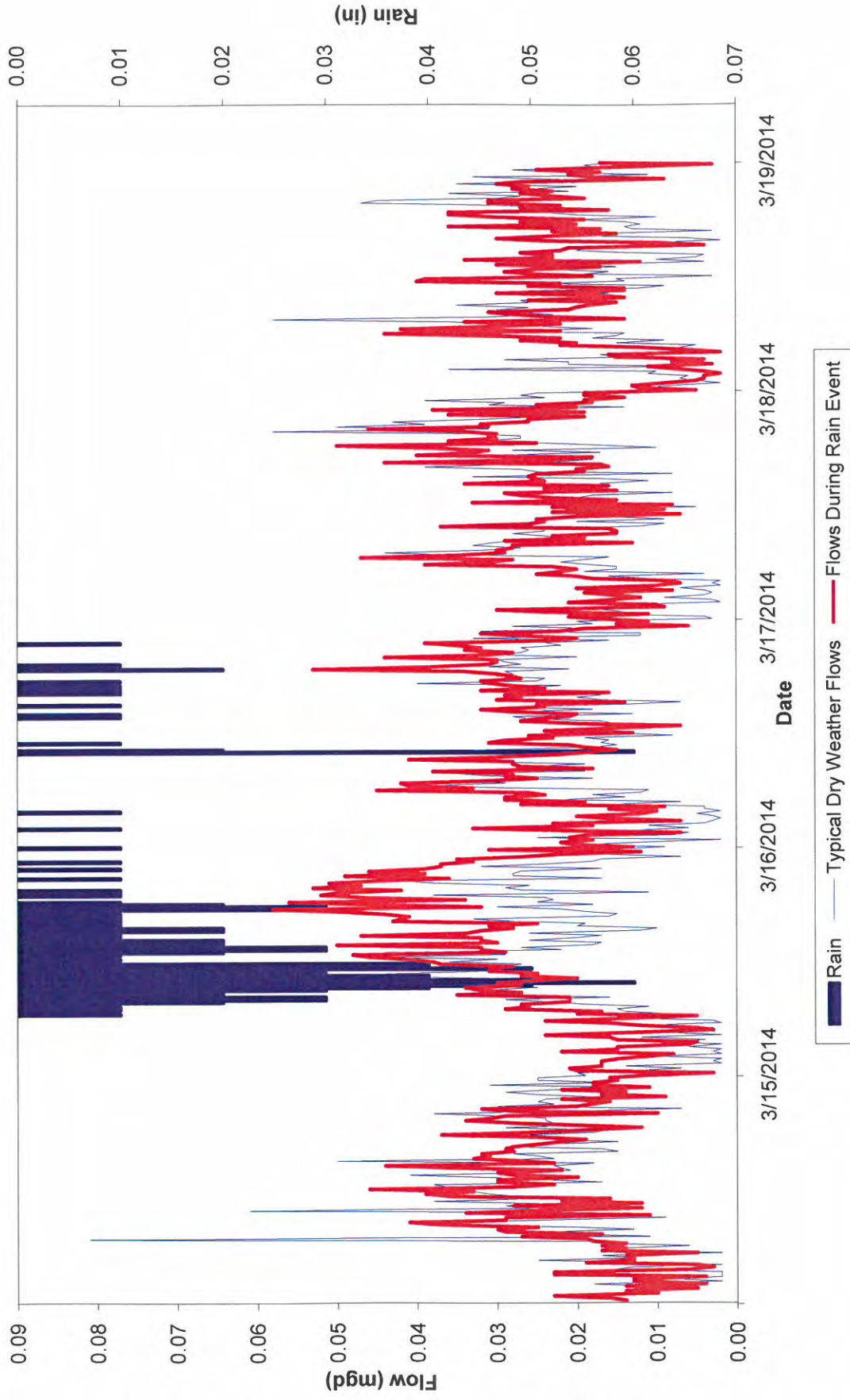


APPENDIX B
RAIN EVENT FLOW GRAPHS

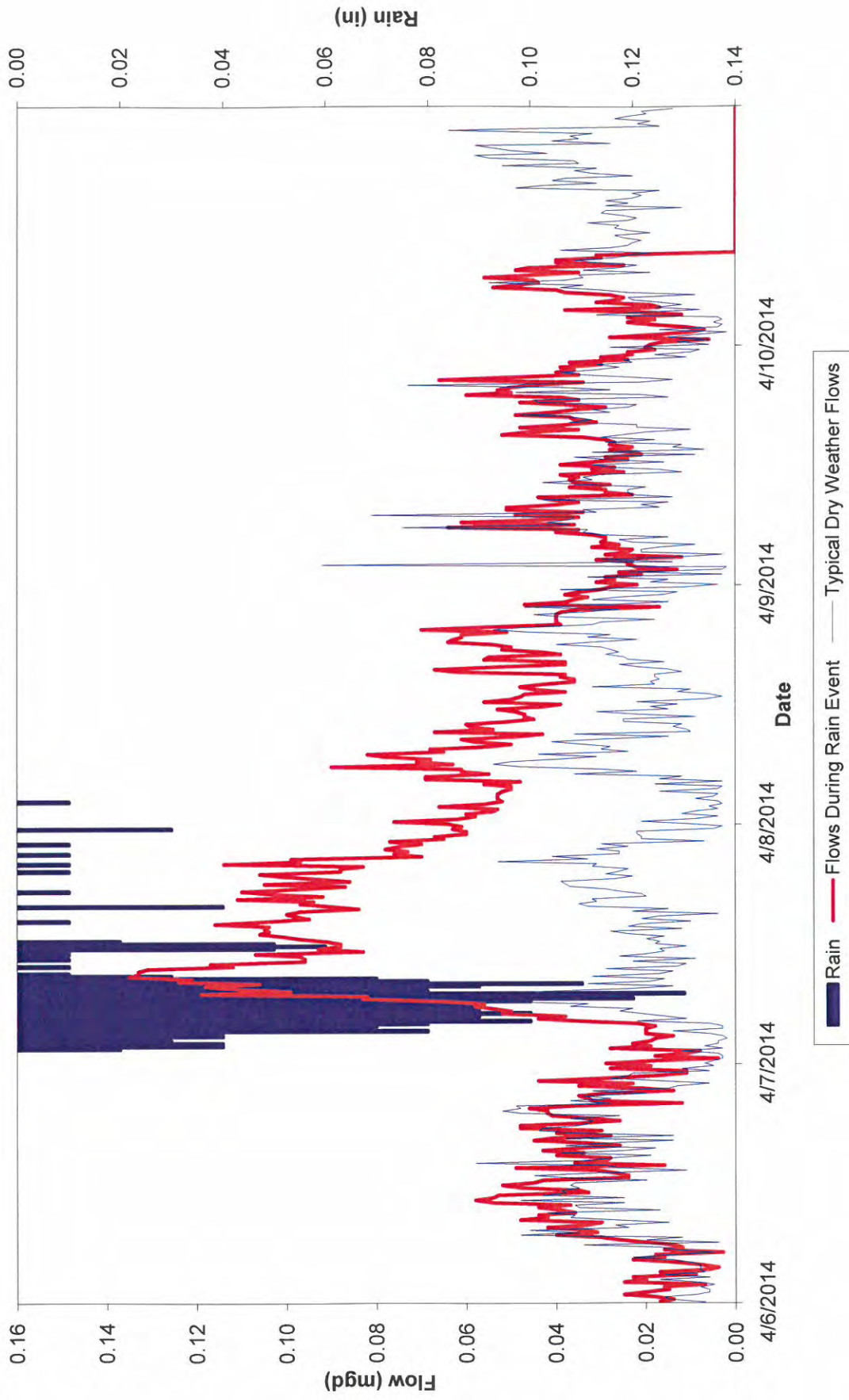
Taylor's Flow Monitoring
Site 1 - March 6 - 7, 2014 Rain Event



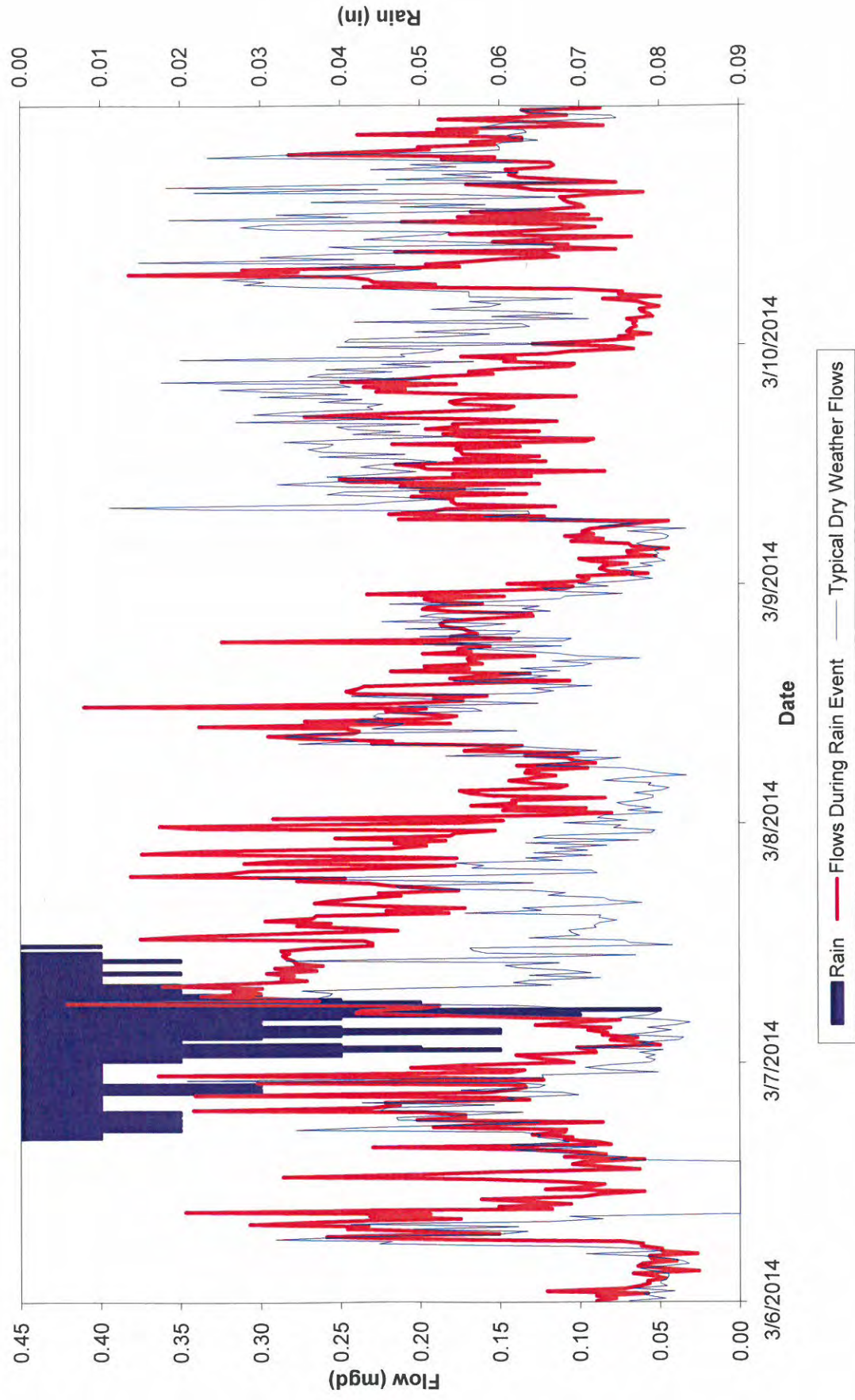
**Taylor's Flow Monitoring
Site 1 - March 16 - 17, 2014 Rain Event**



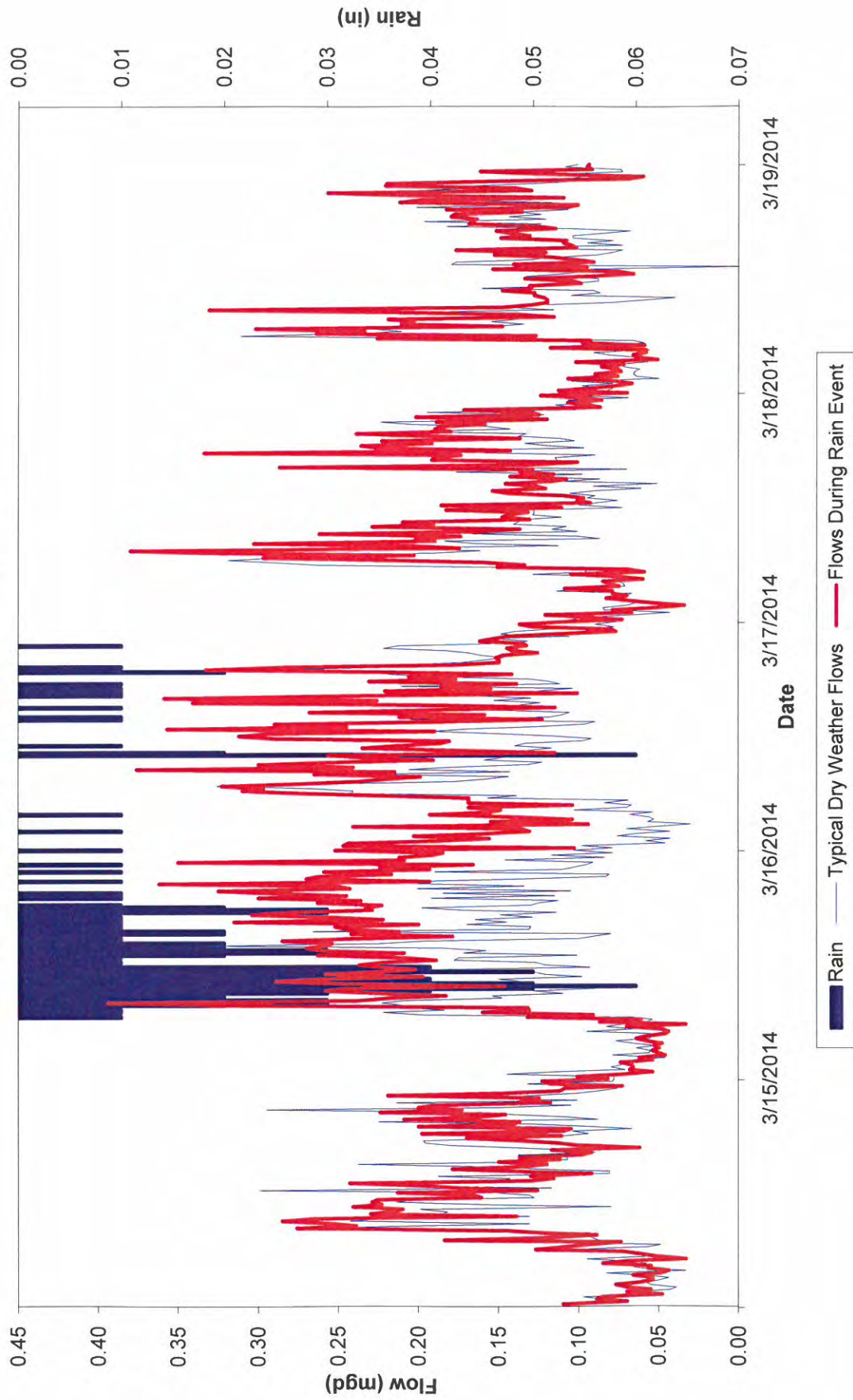
Taylor's Flow Monitoring
Site 1 - April 7, 2014 Rain Event



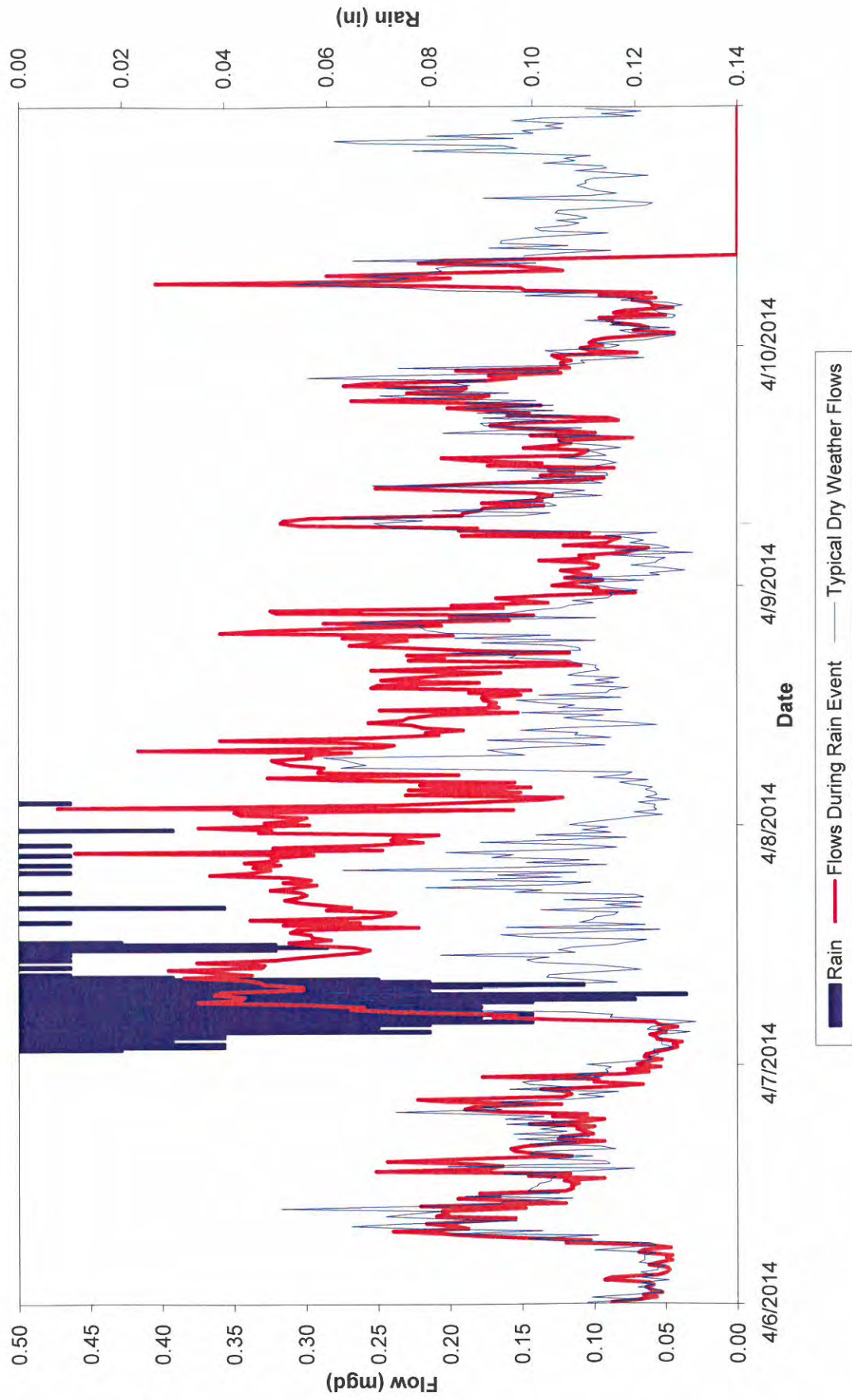
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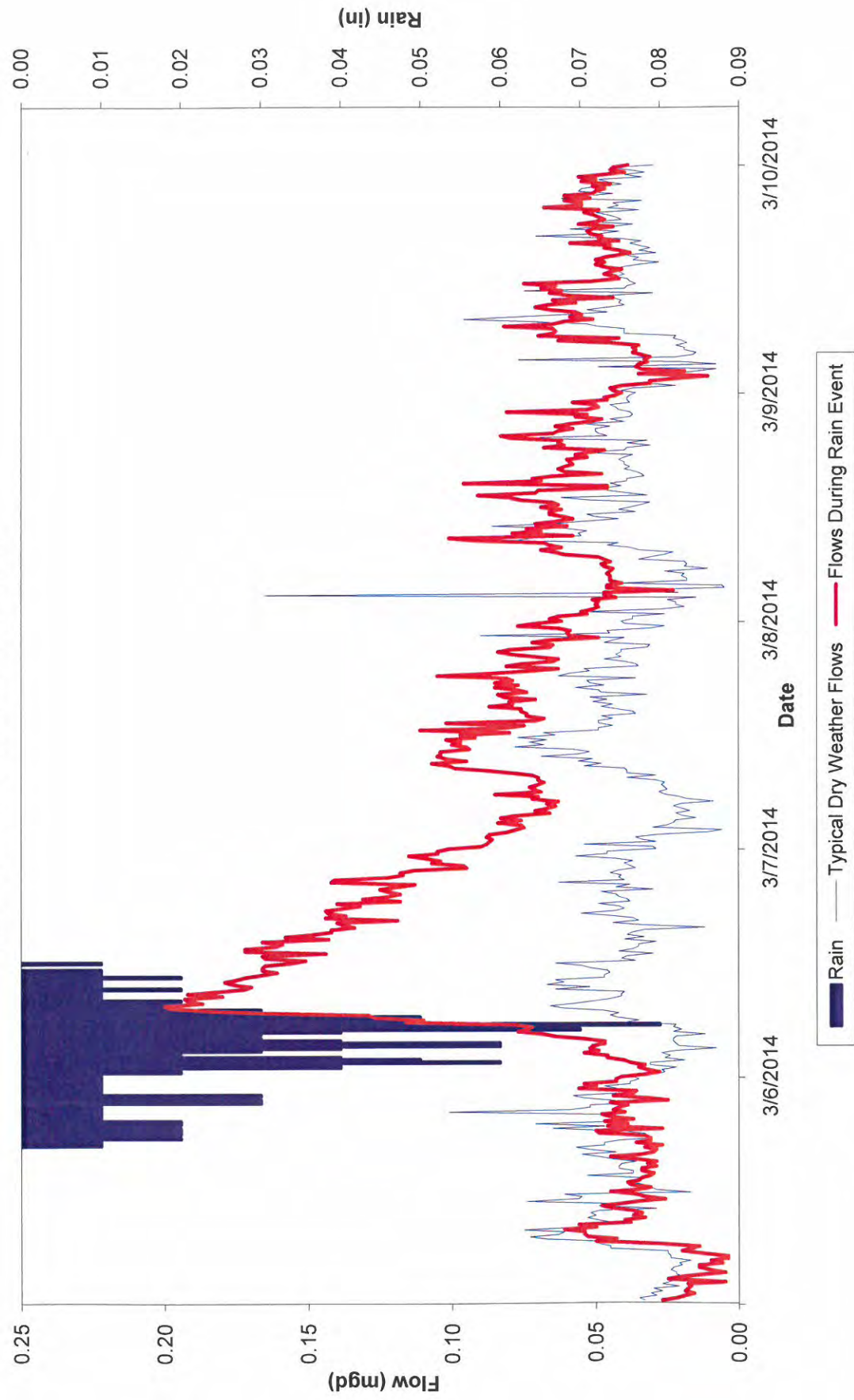
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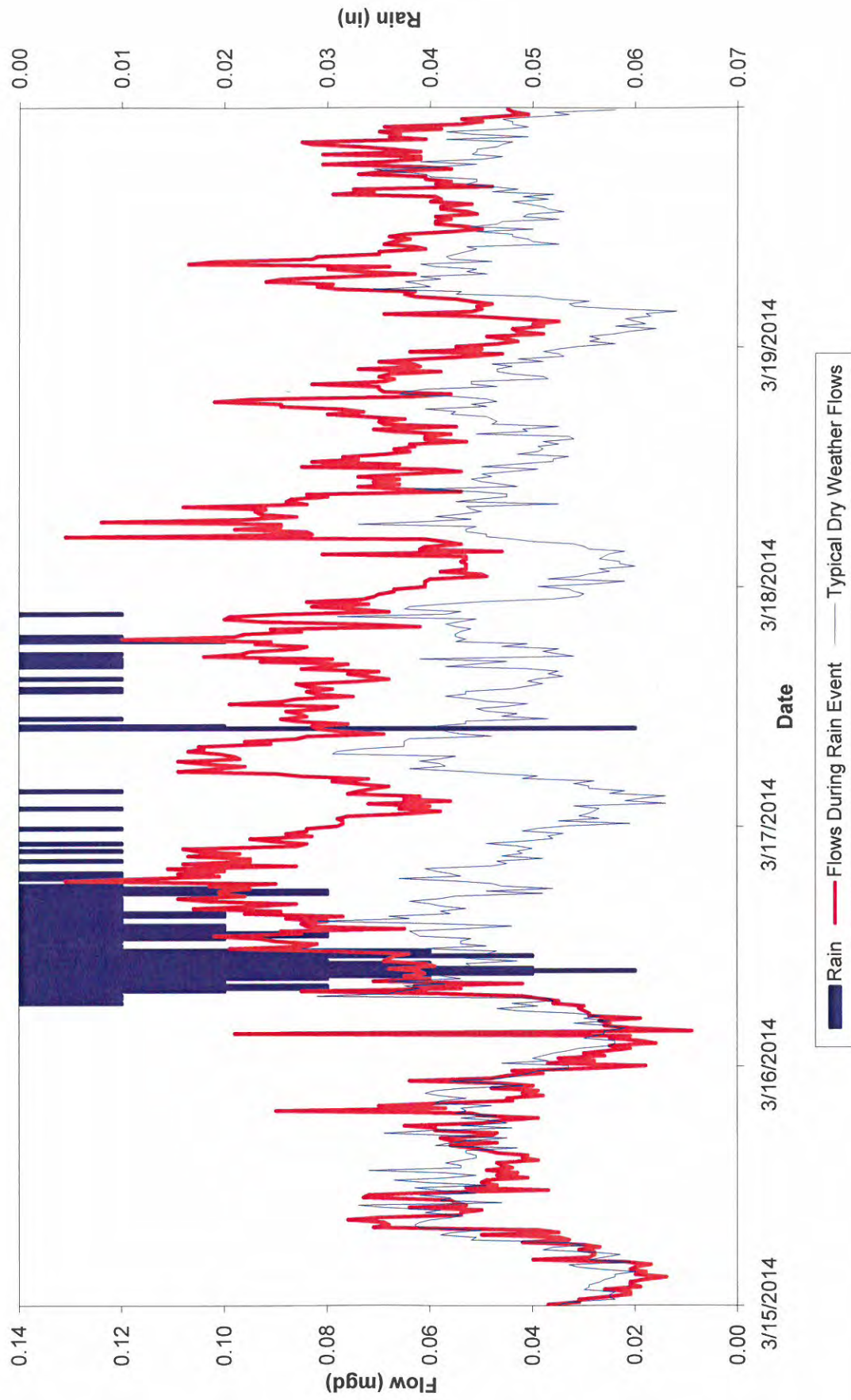
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Site 2 - April 7, 2014 Rain Event



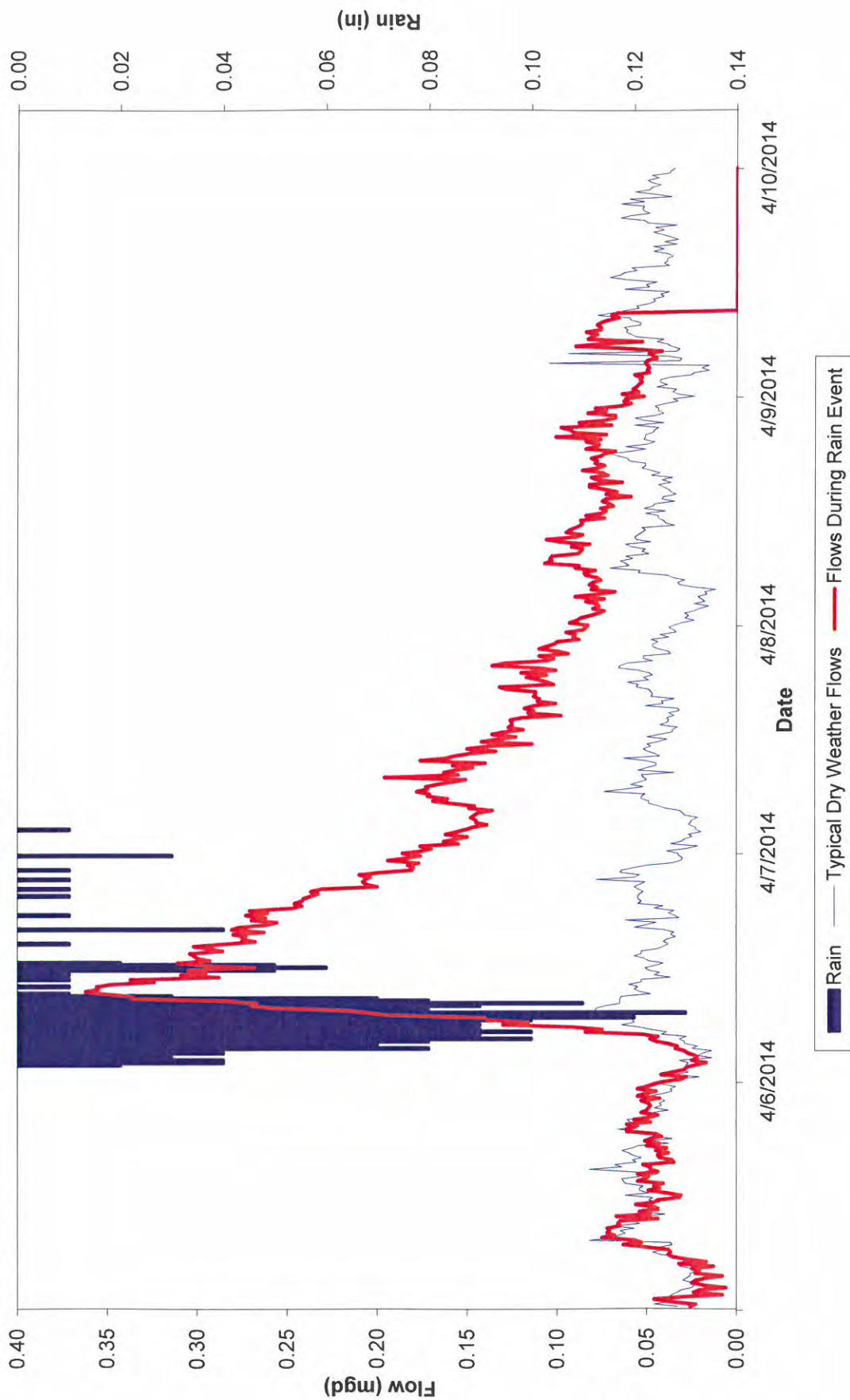
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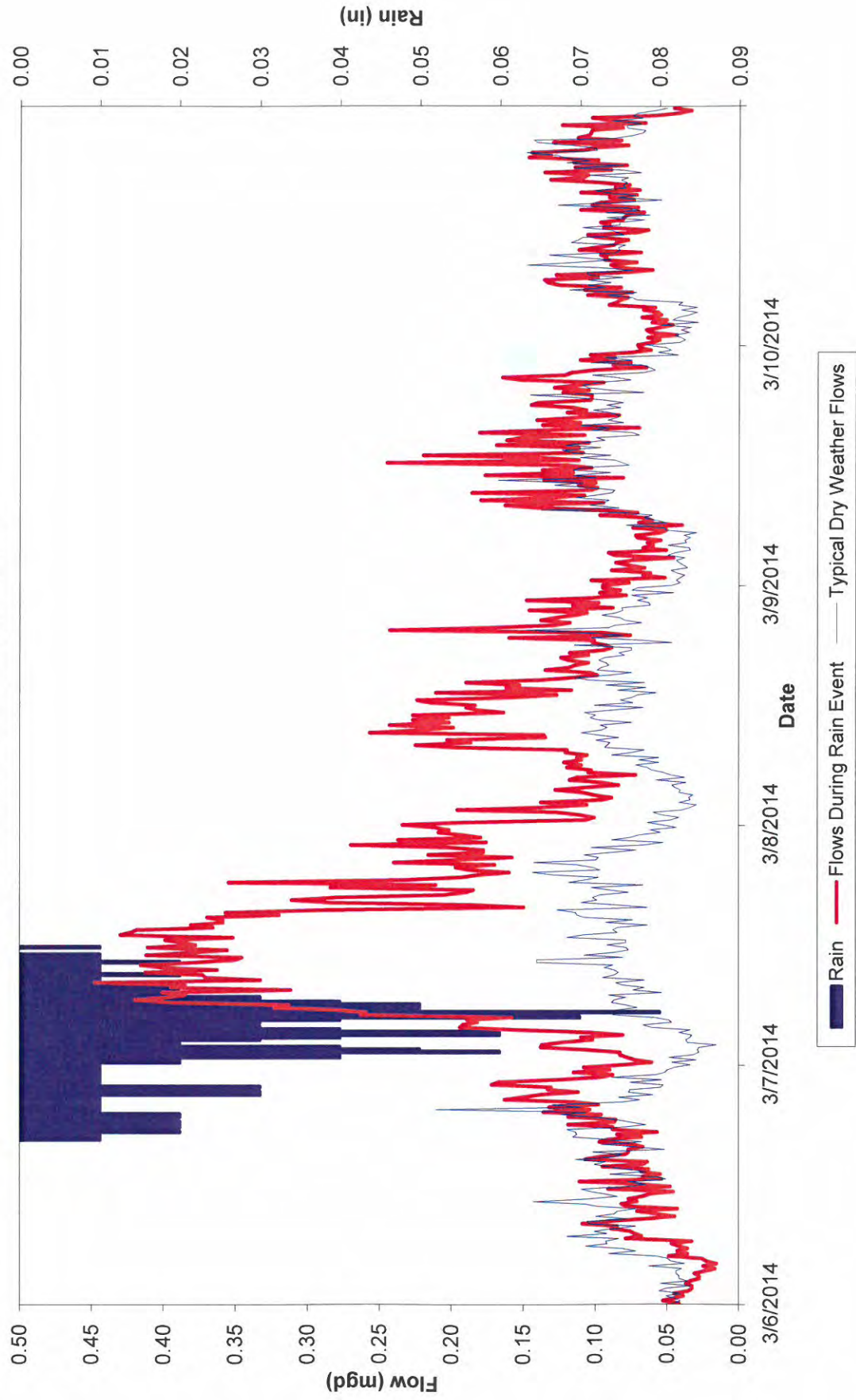
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Site 3 - March 16 - 17, 2014 Rain Event



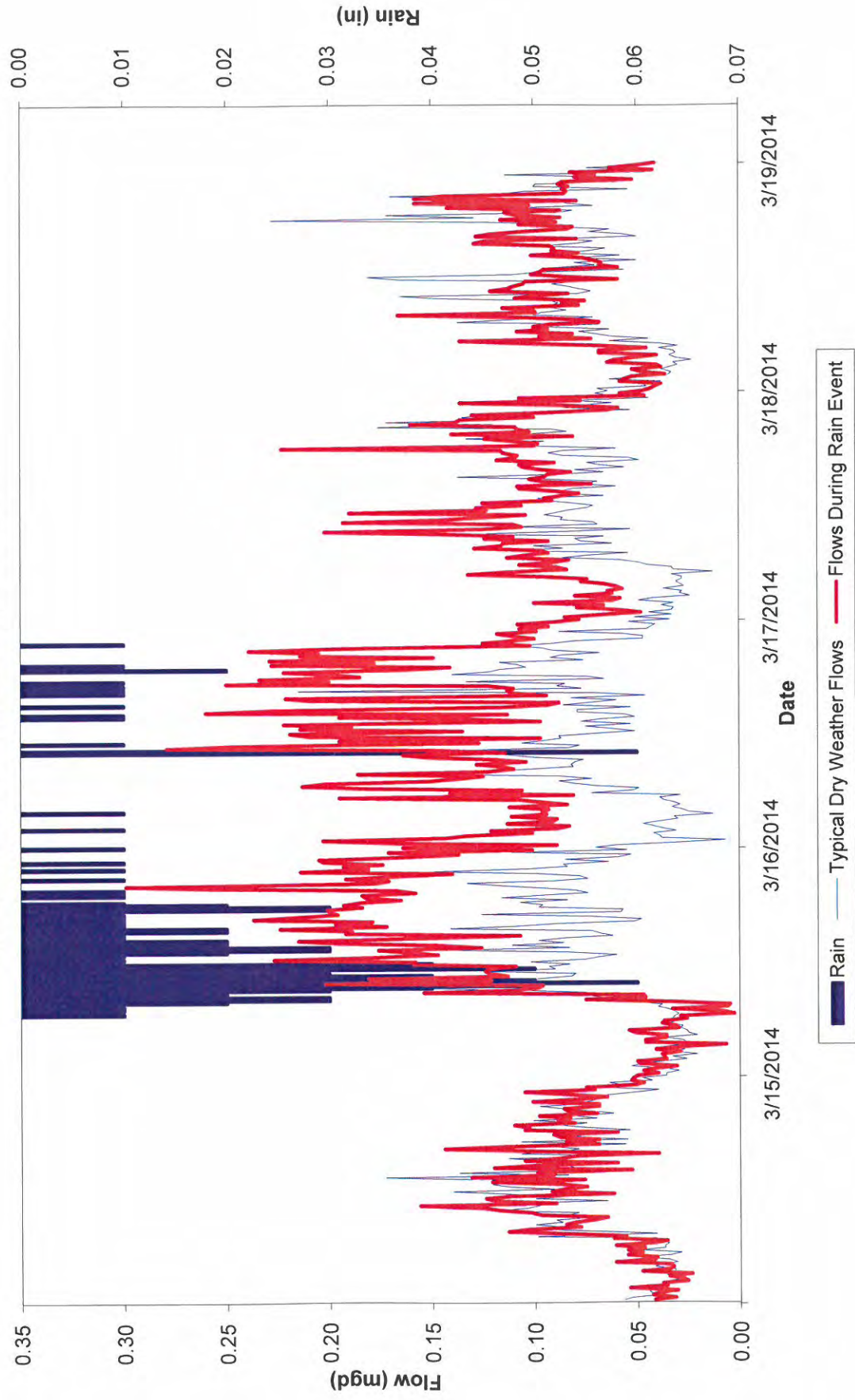
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Site 3 - April 7, 2014 Rain Event



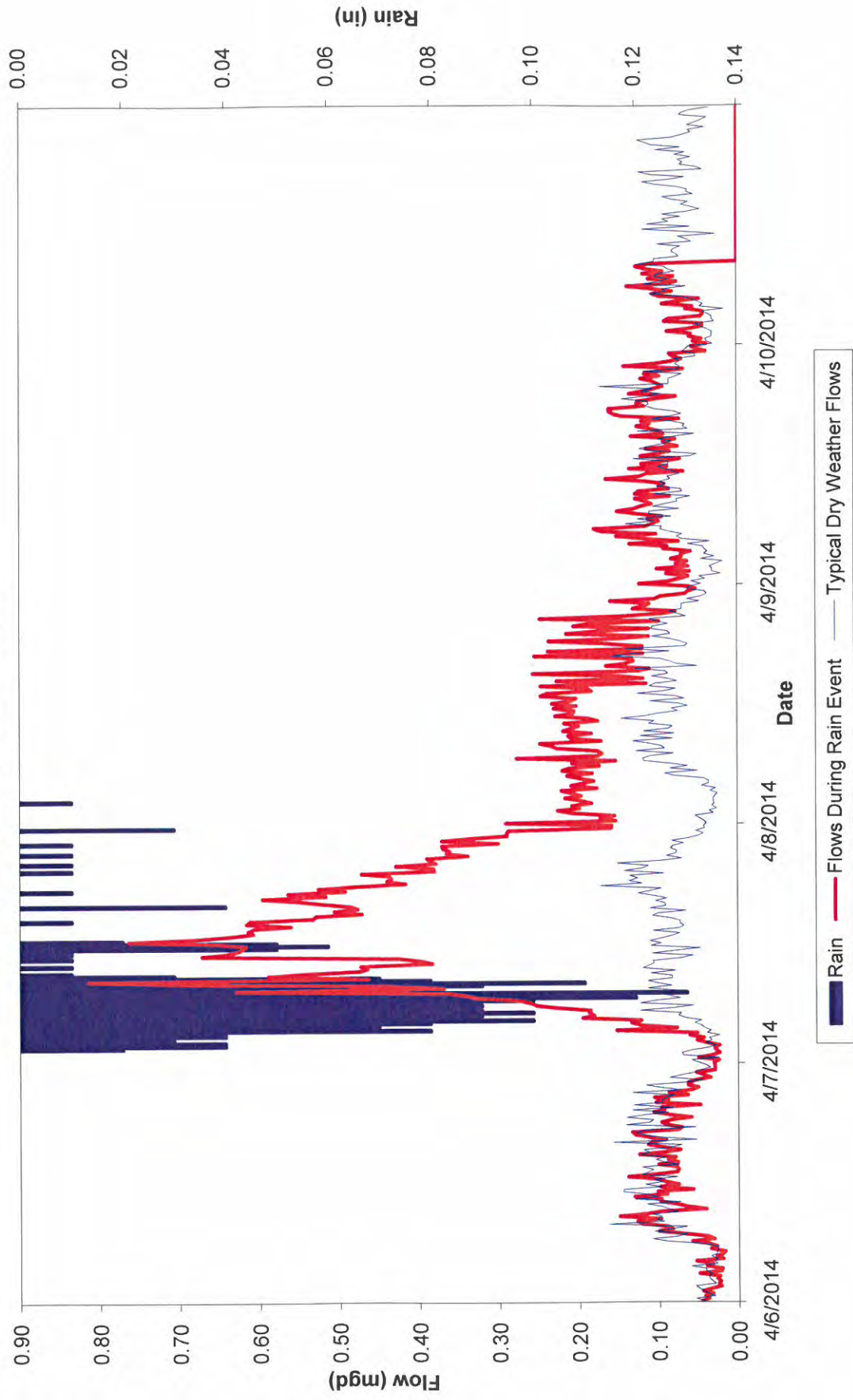
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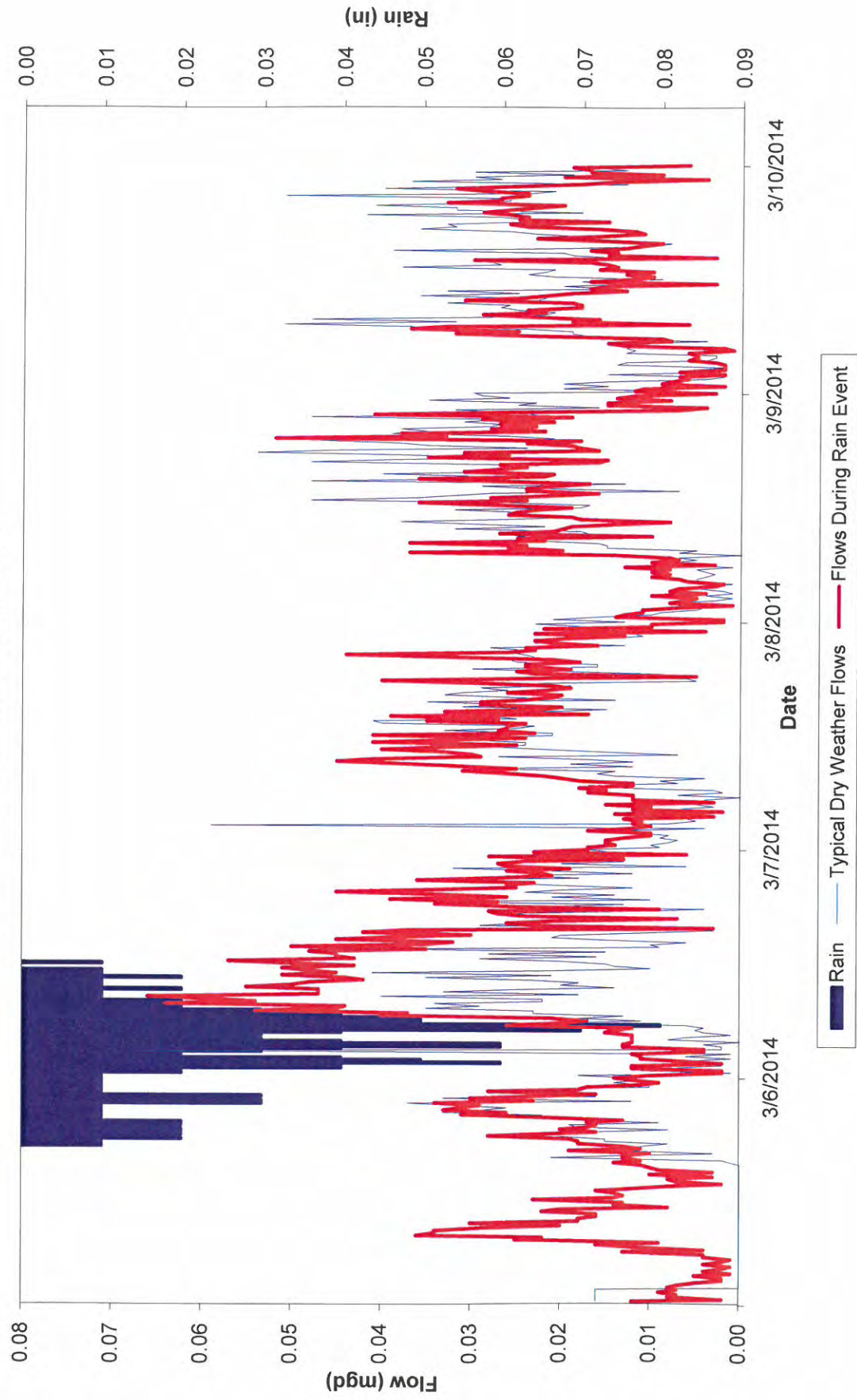
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Site 4 - March 16 - 17, 2014 Rain Event



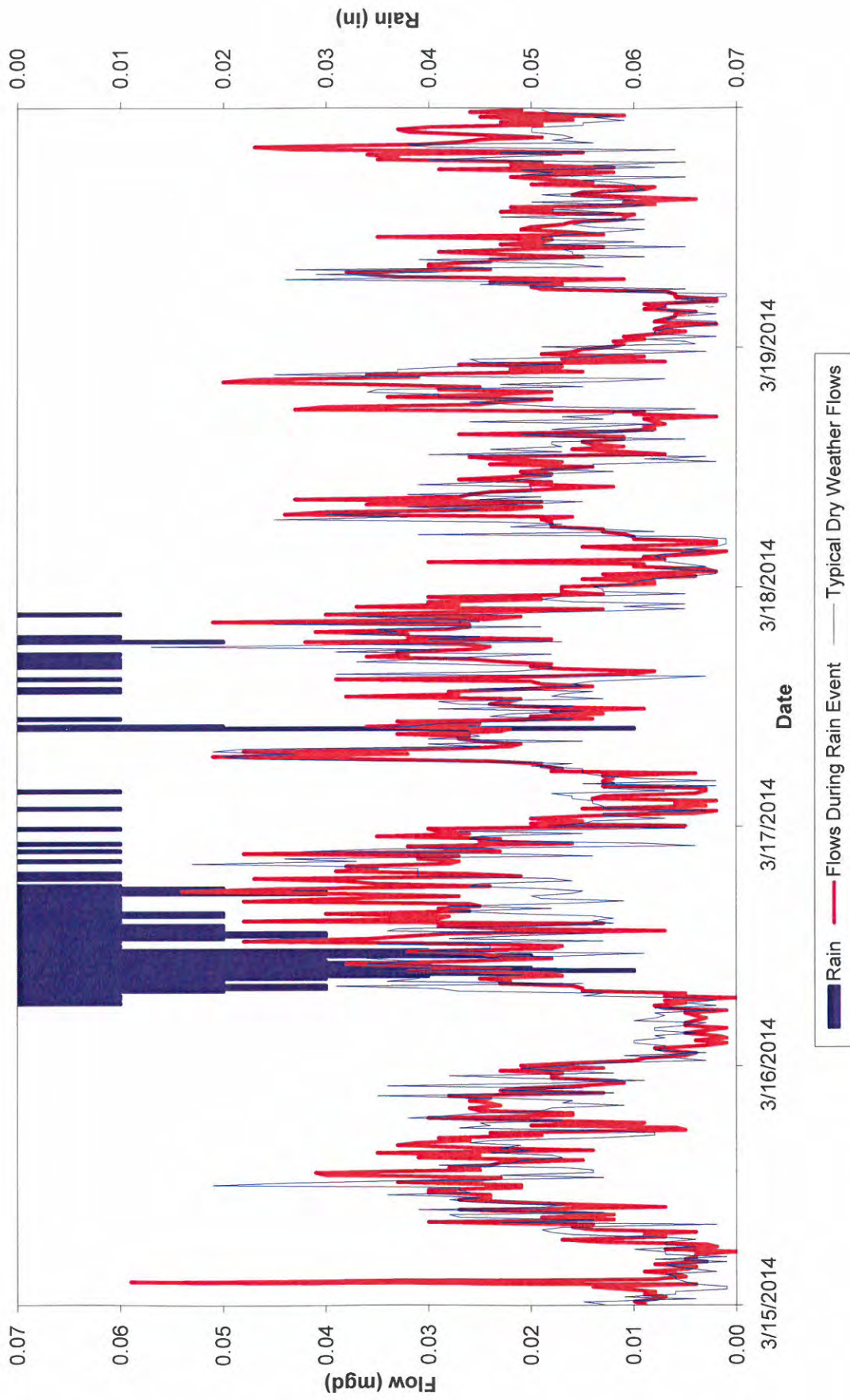
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Site 4 - April 7, 2014 Rain Event



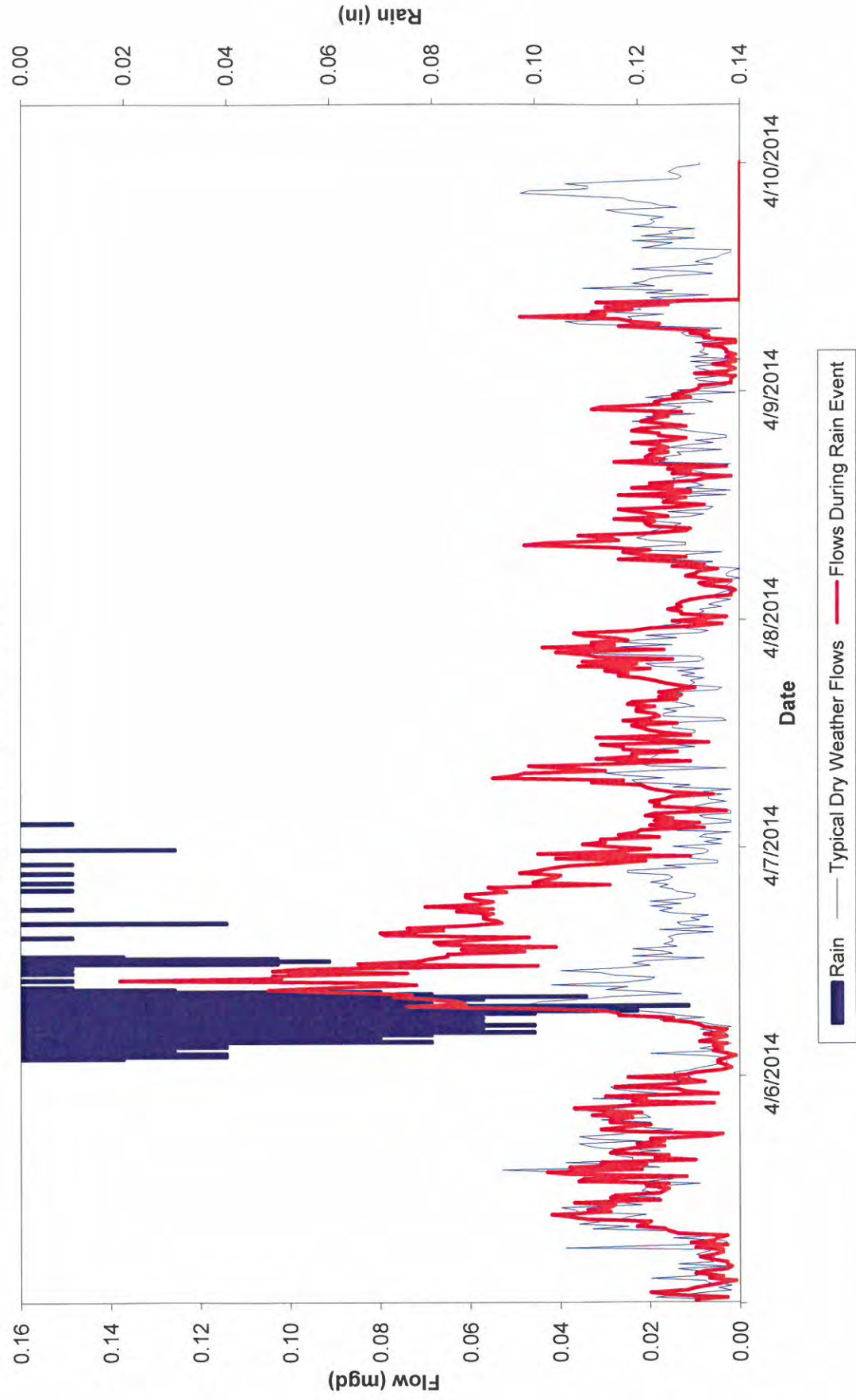
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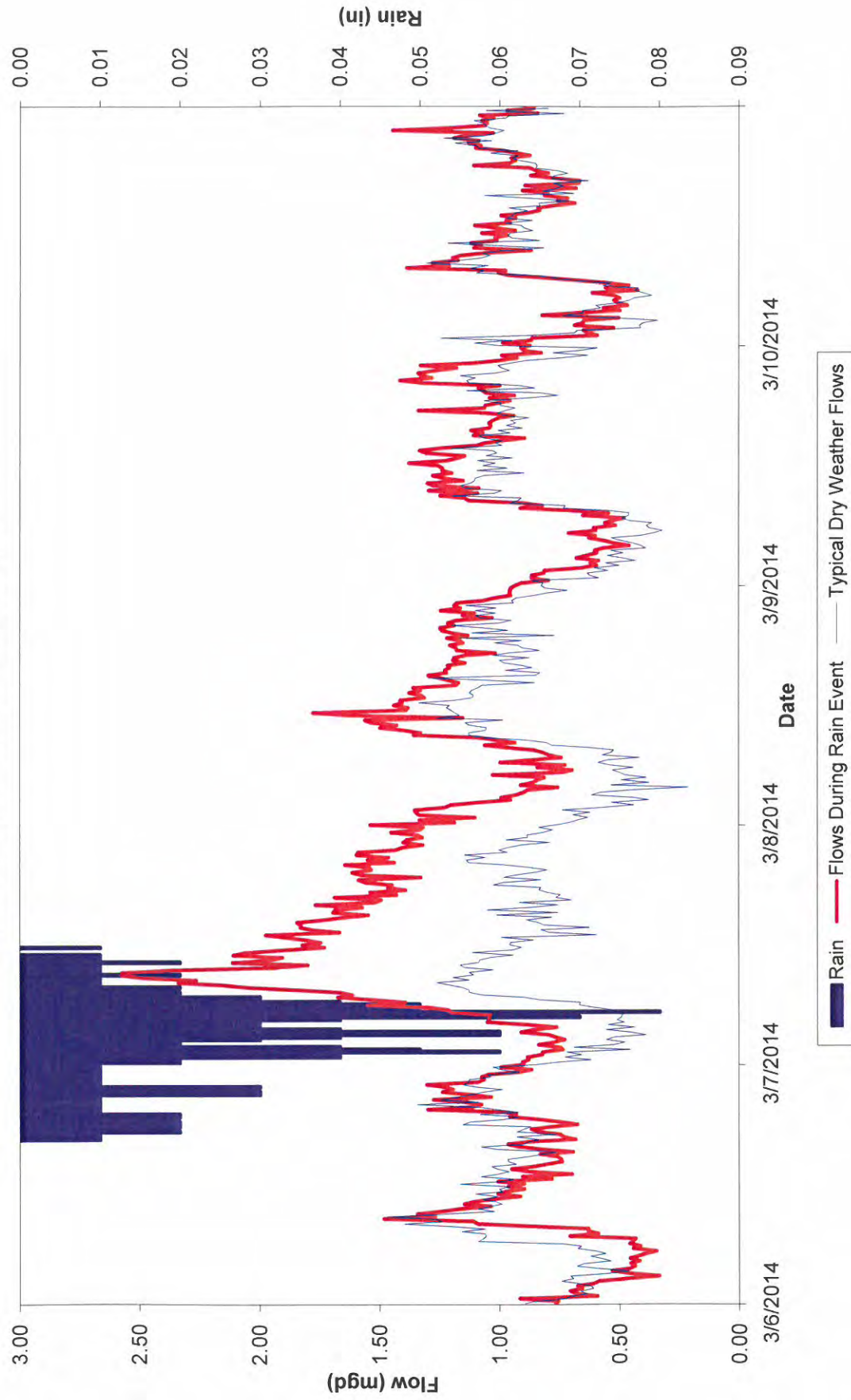
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Site 5 - March 16 - 17, 2014 Rain Event



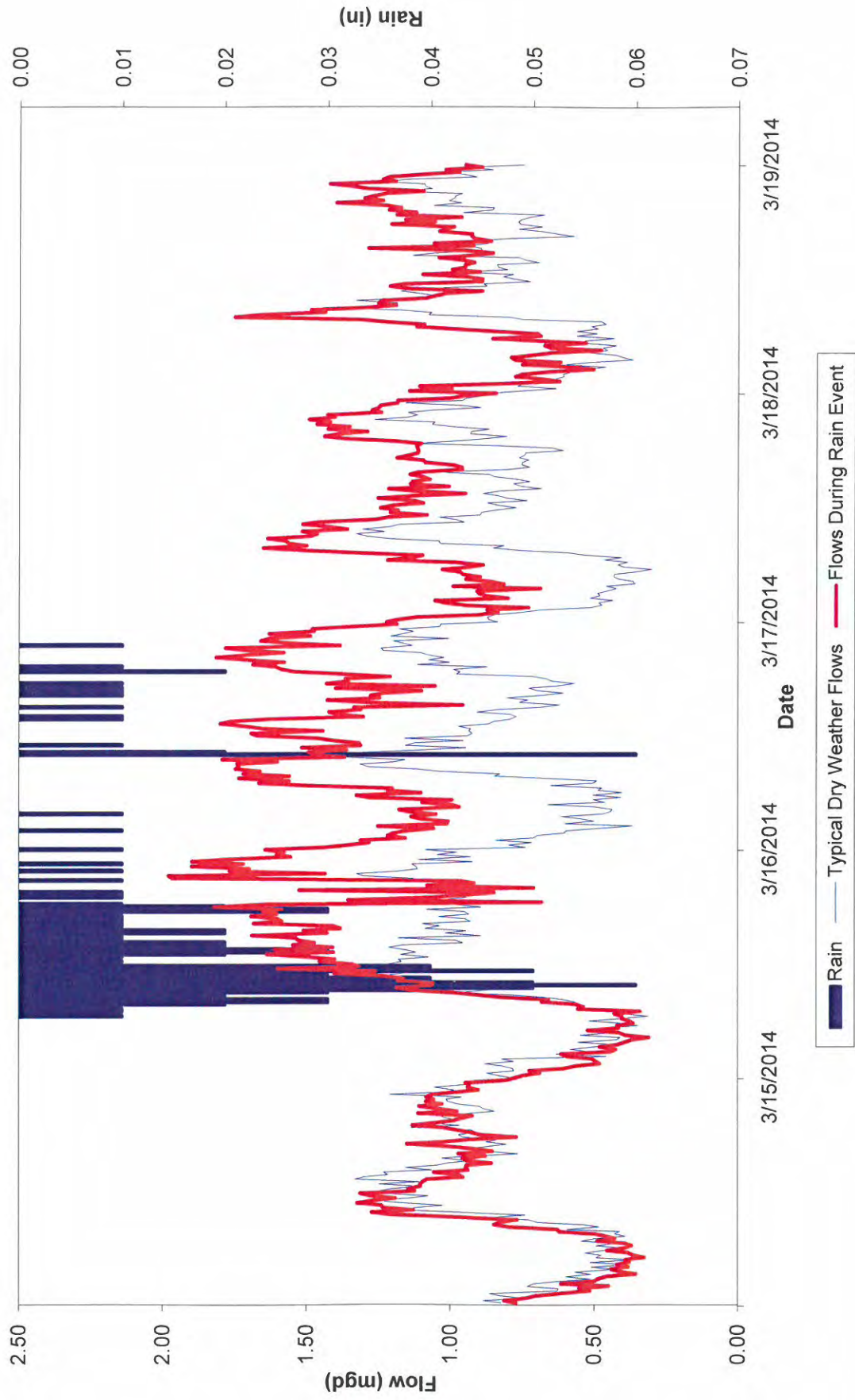
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Site 5 - April 7, 2014 Rain Event



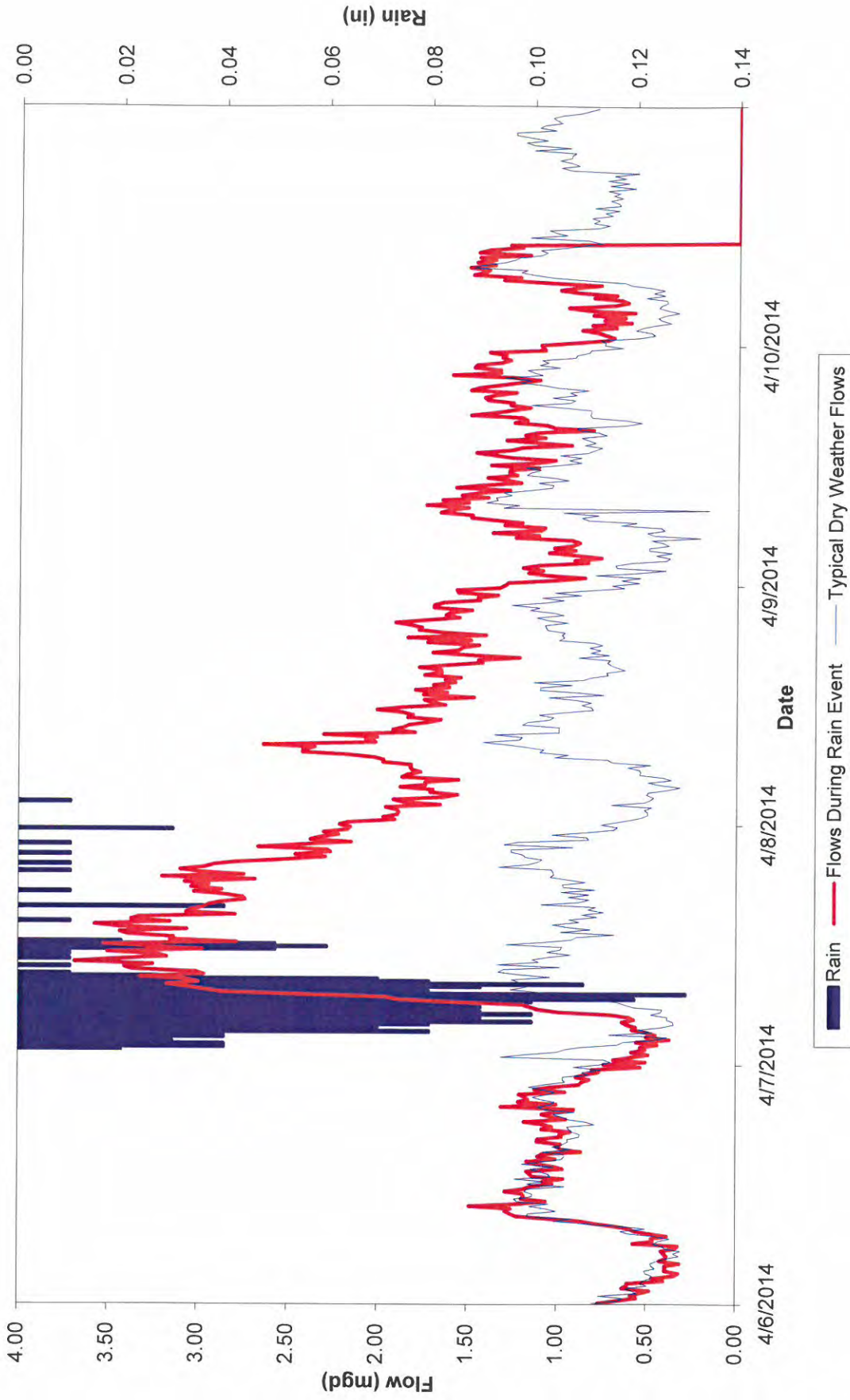
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Site 6 - March 6 - 7, 2014 Rain Event



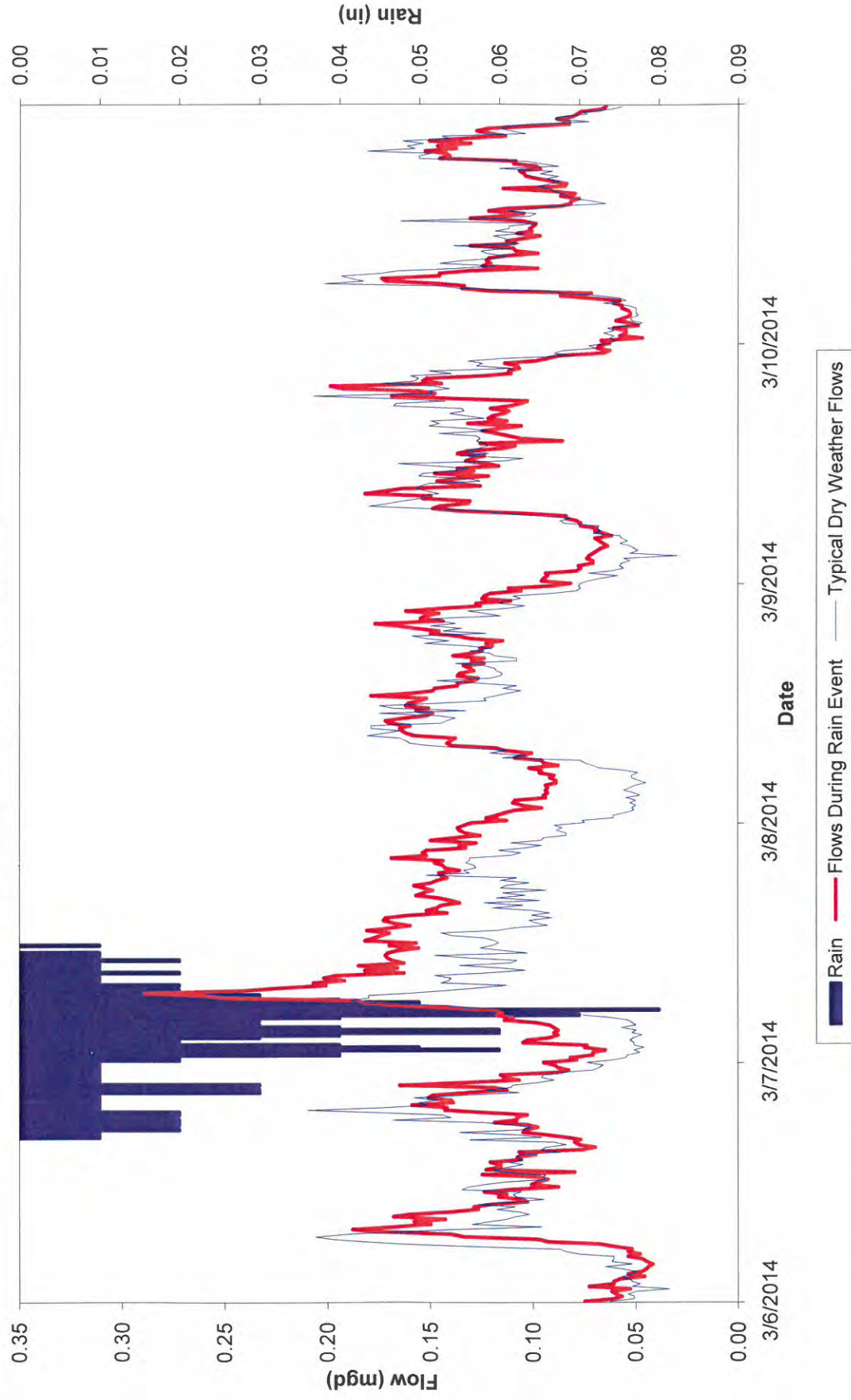
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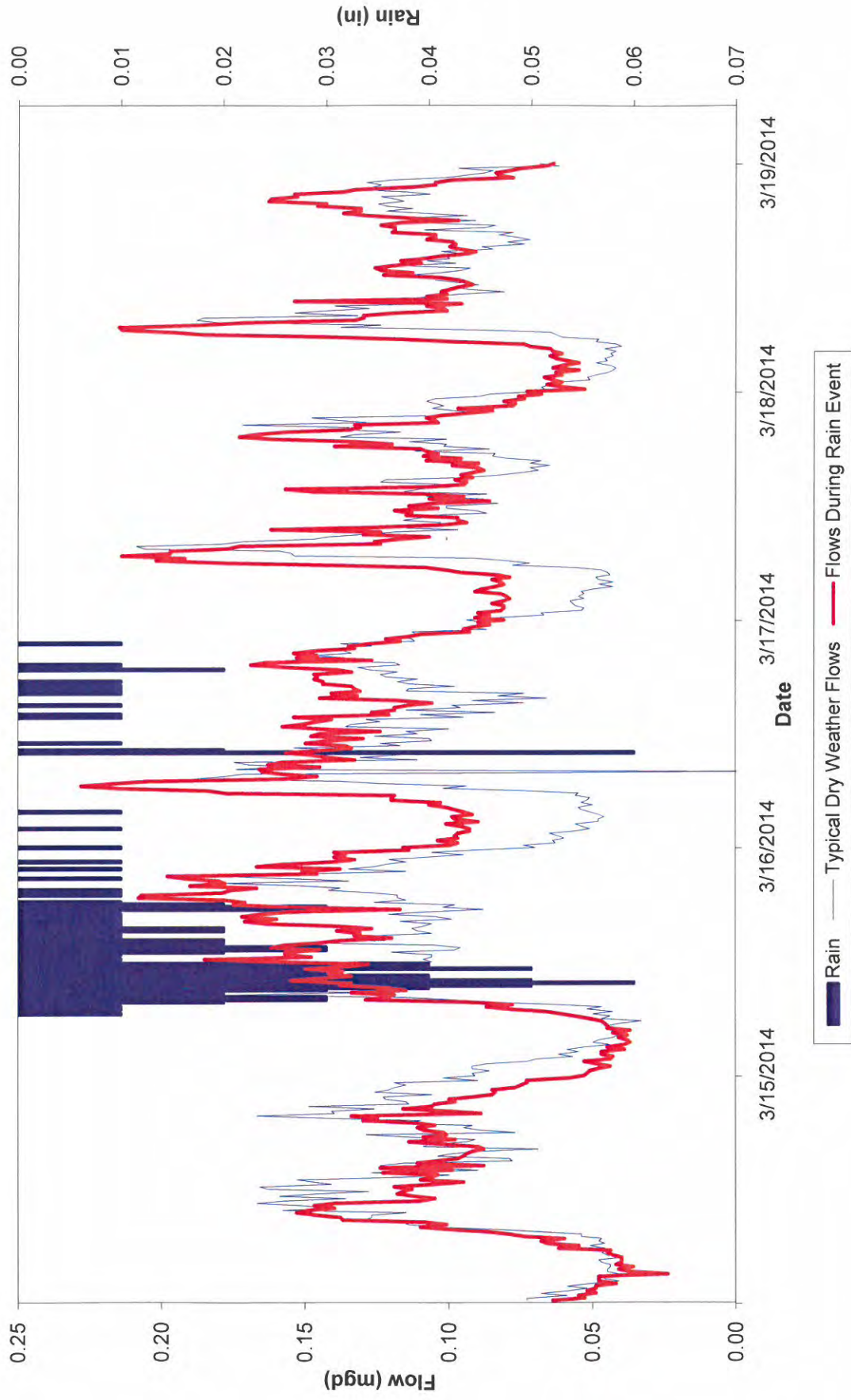
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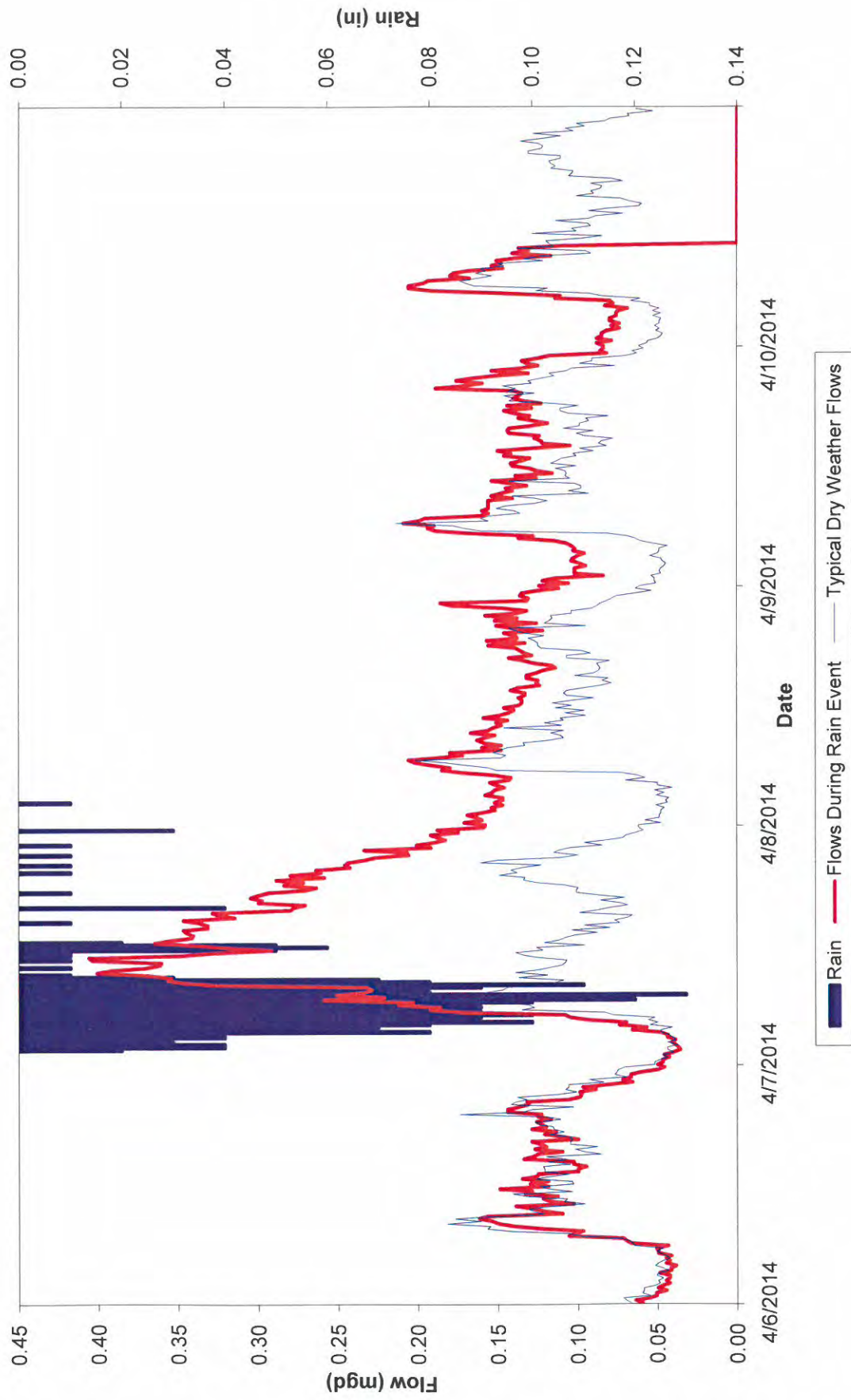
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Site 7 - March 6 - 7, 2014 Rain Event



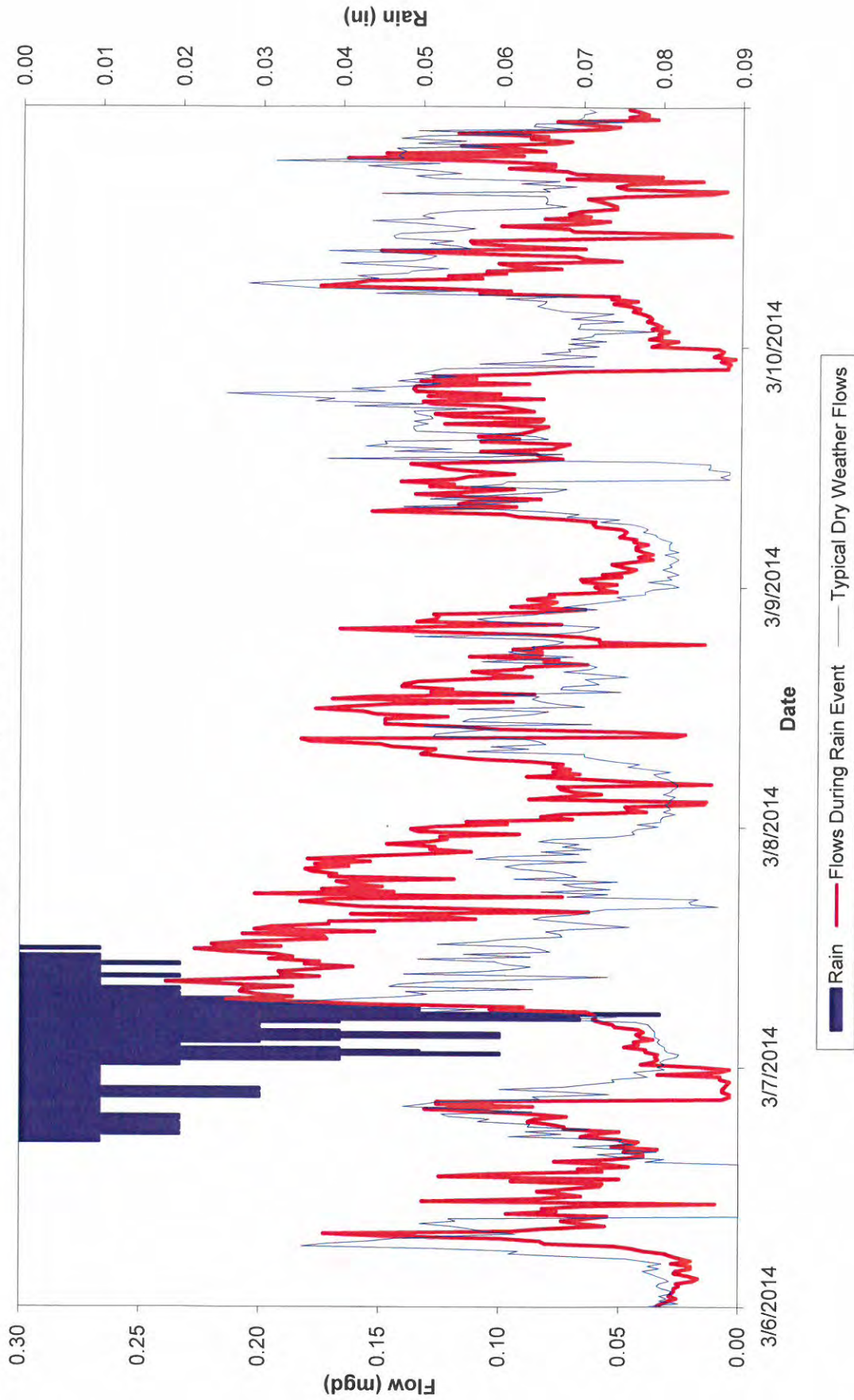
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Site 7 - March 16 - 17, 2014 Rain Event**



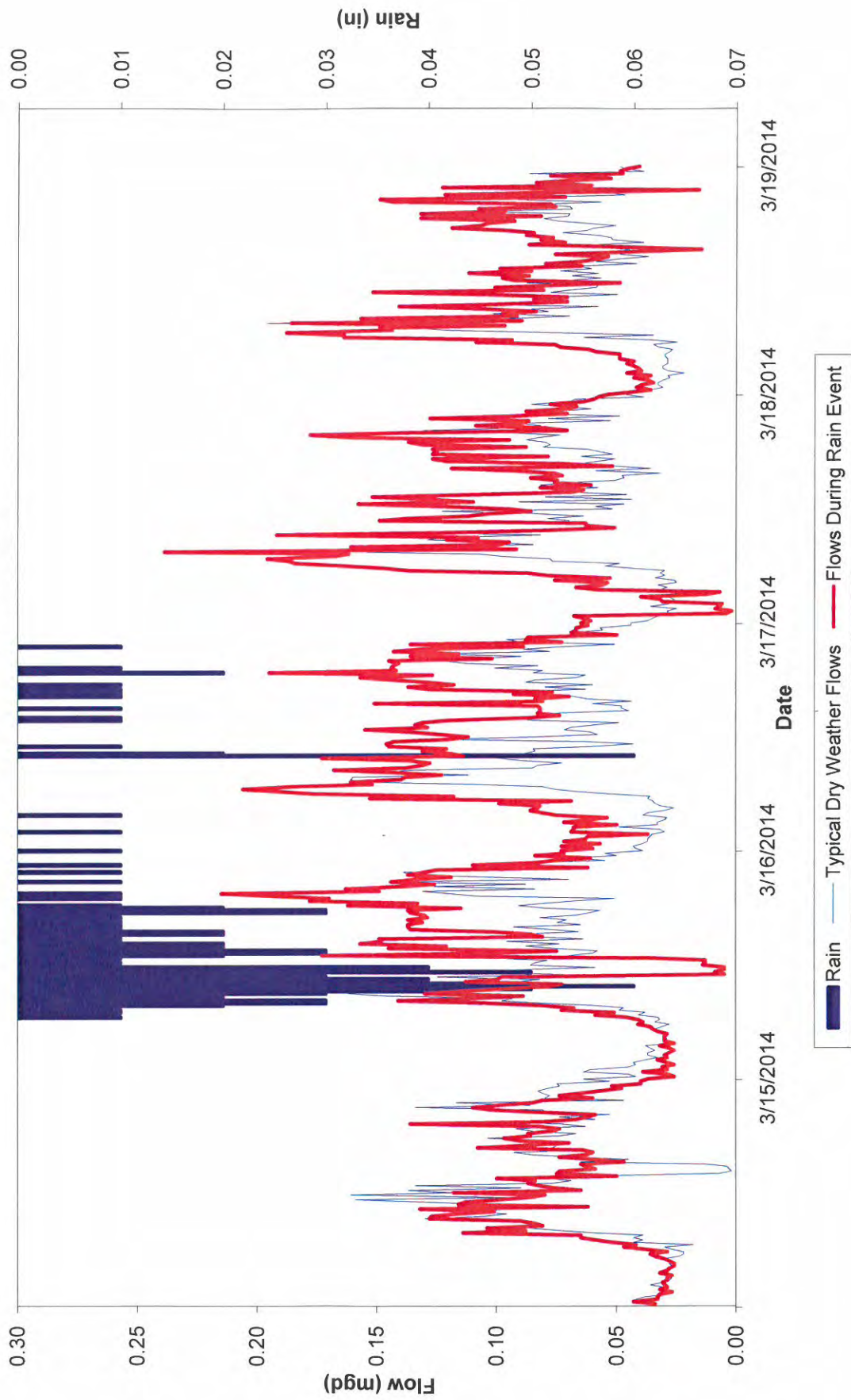
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Site 7 - April 7, 2014 Rain Event



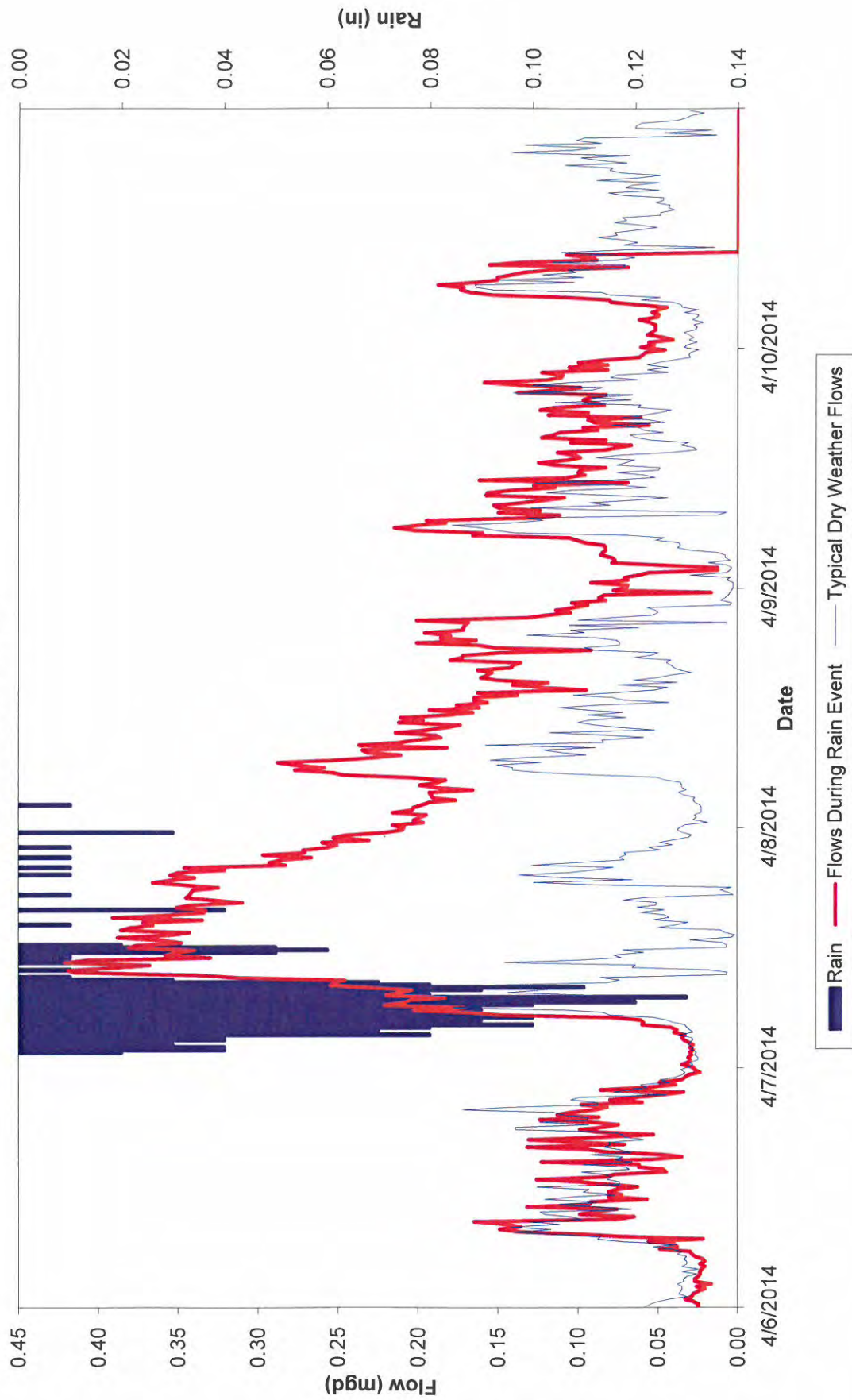
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Site 8 - March 6 - 7, 2014 Rain Event



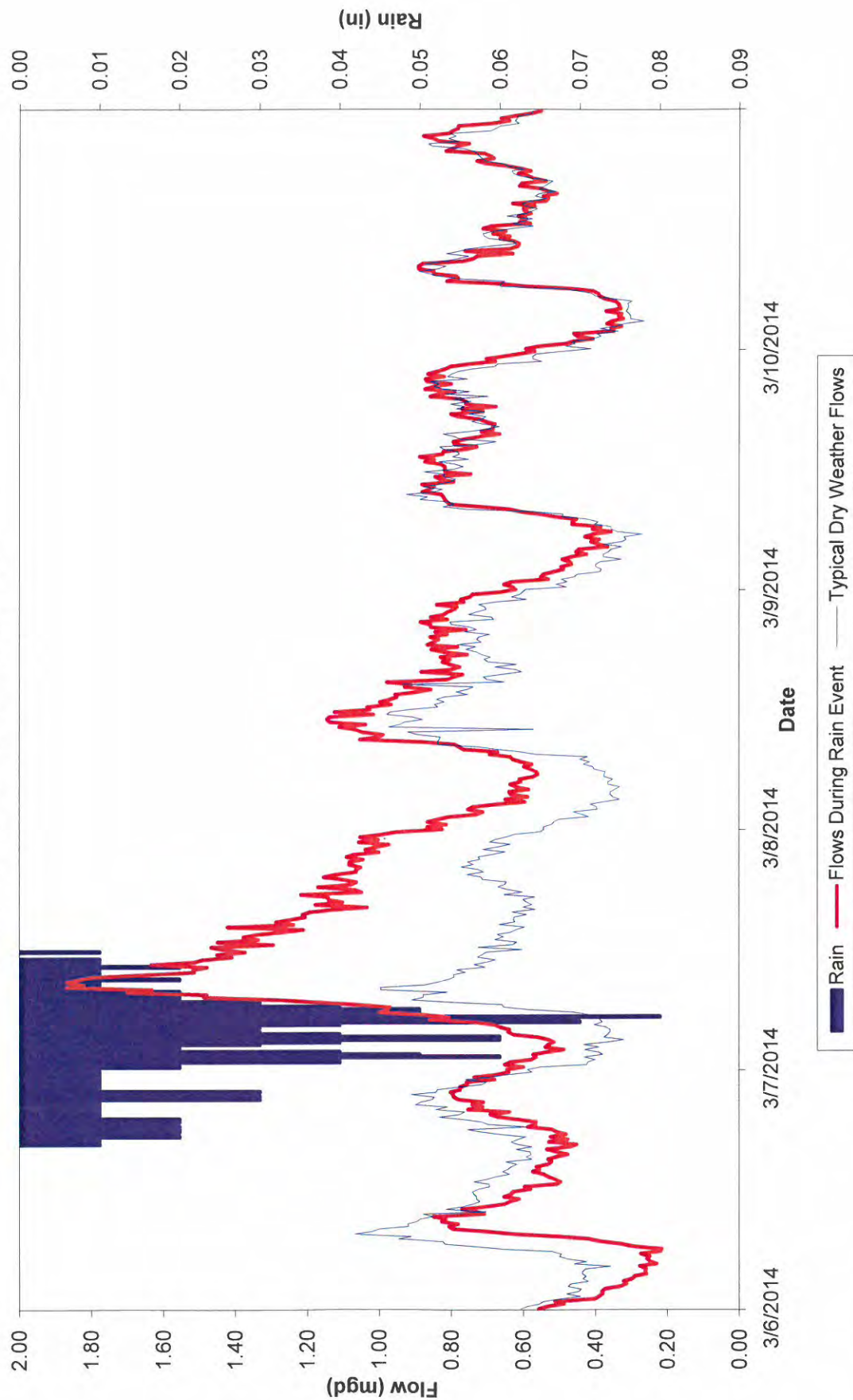
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Site 8 - March 16 - 17, 2014 Rain Event



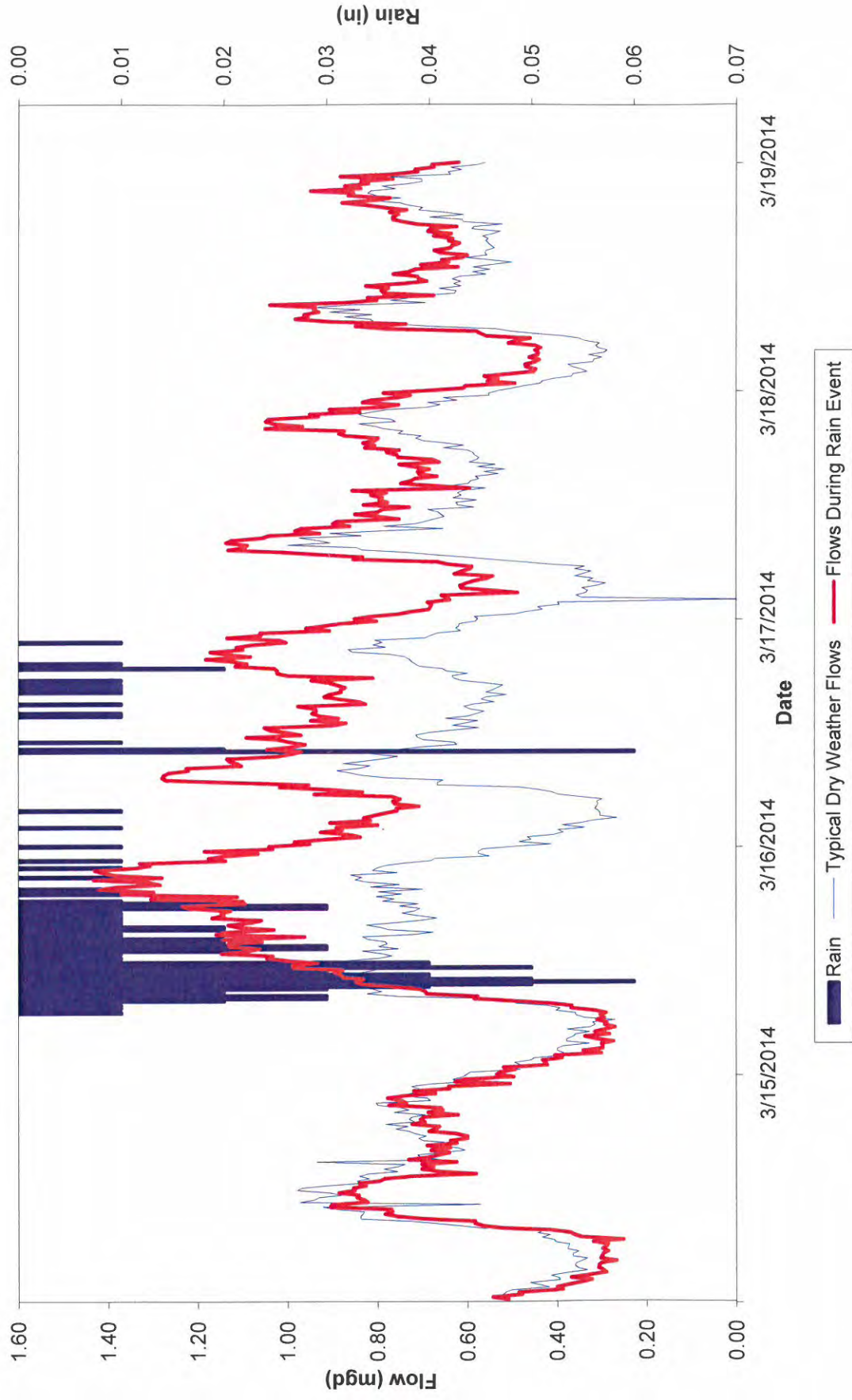
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Site 8 - April 7, 2014 Rain Event



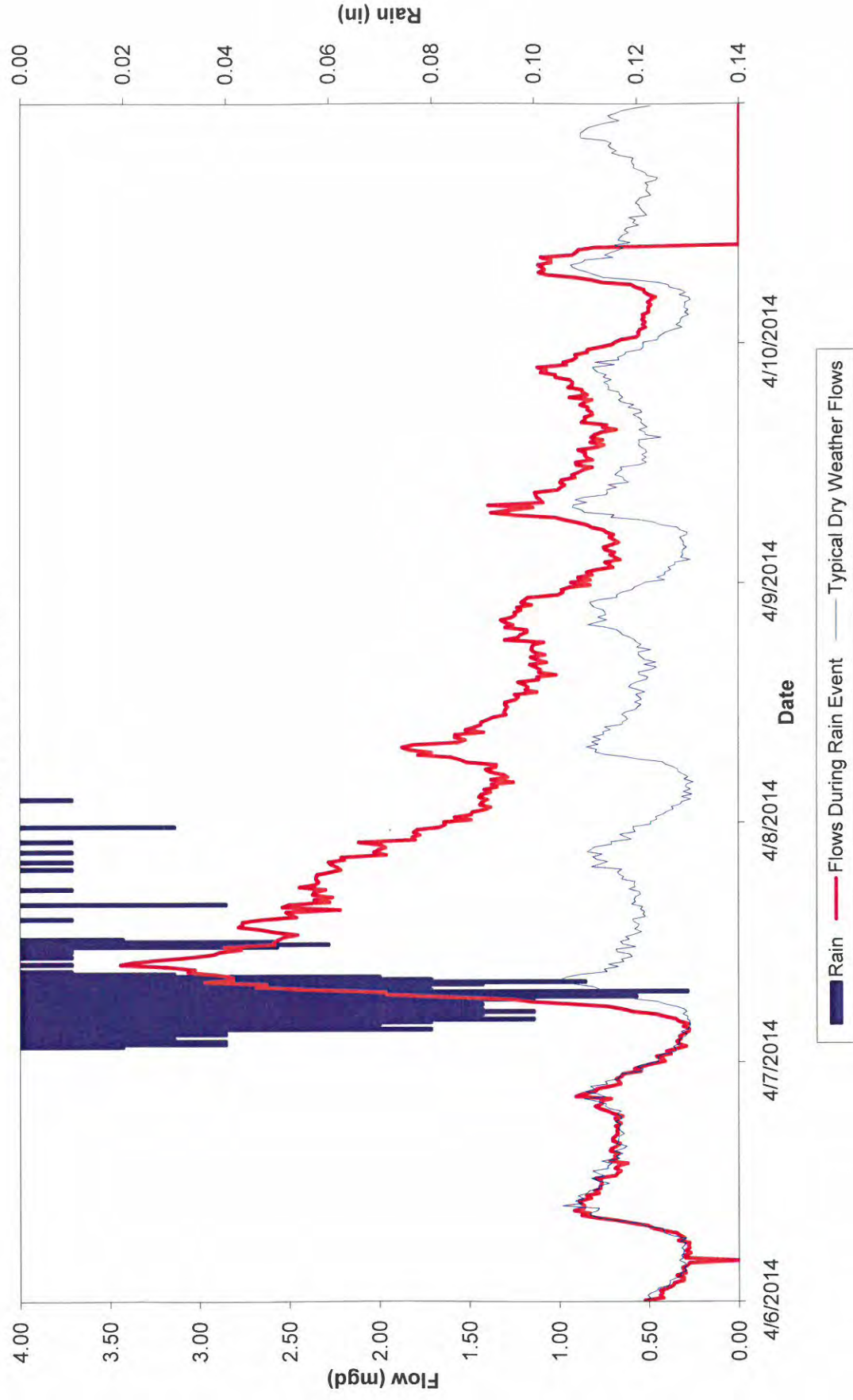
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Site 9 - March 6 - 7, 2014 Rain Event



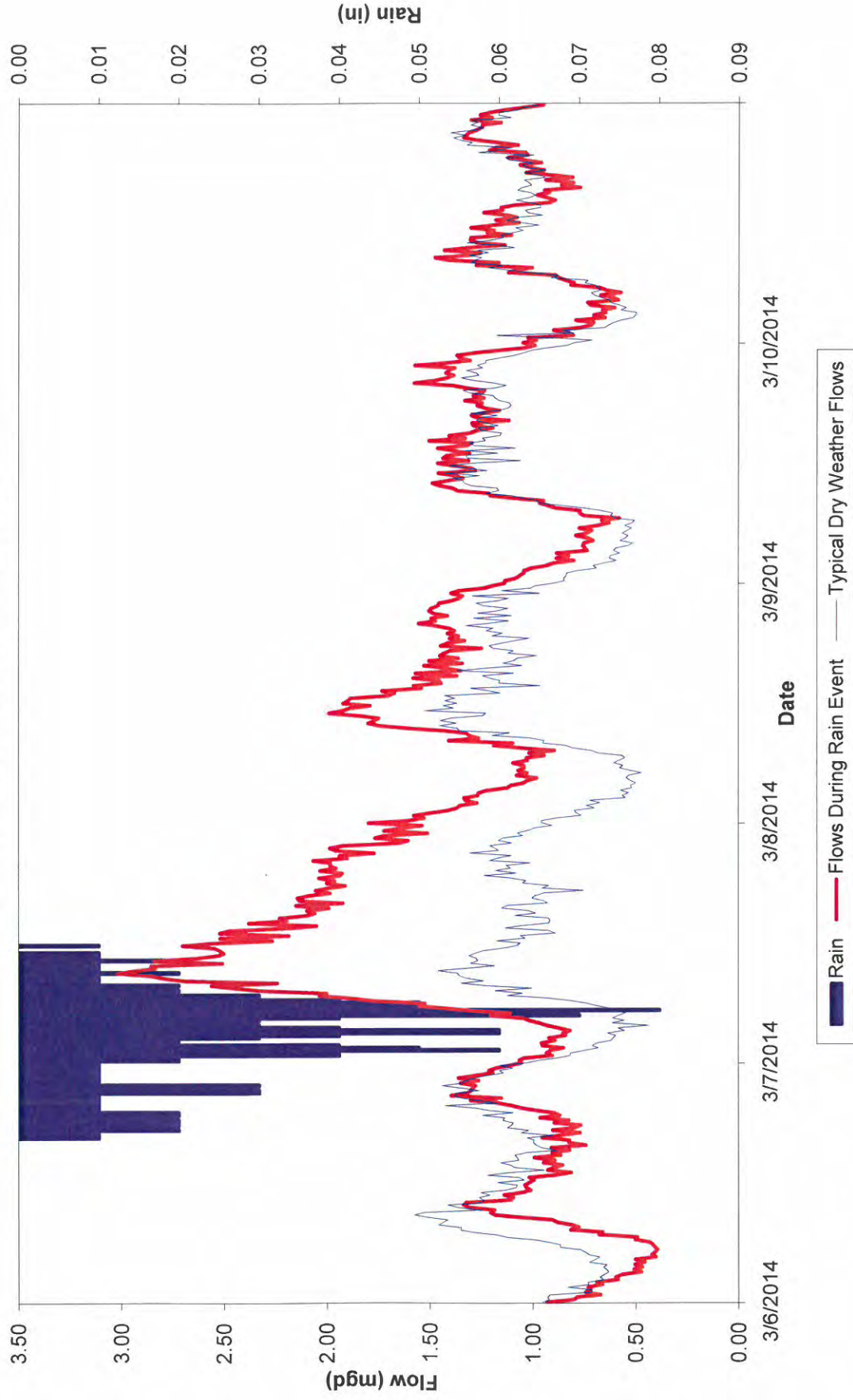
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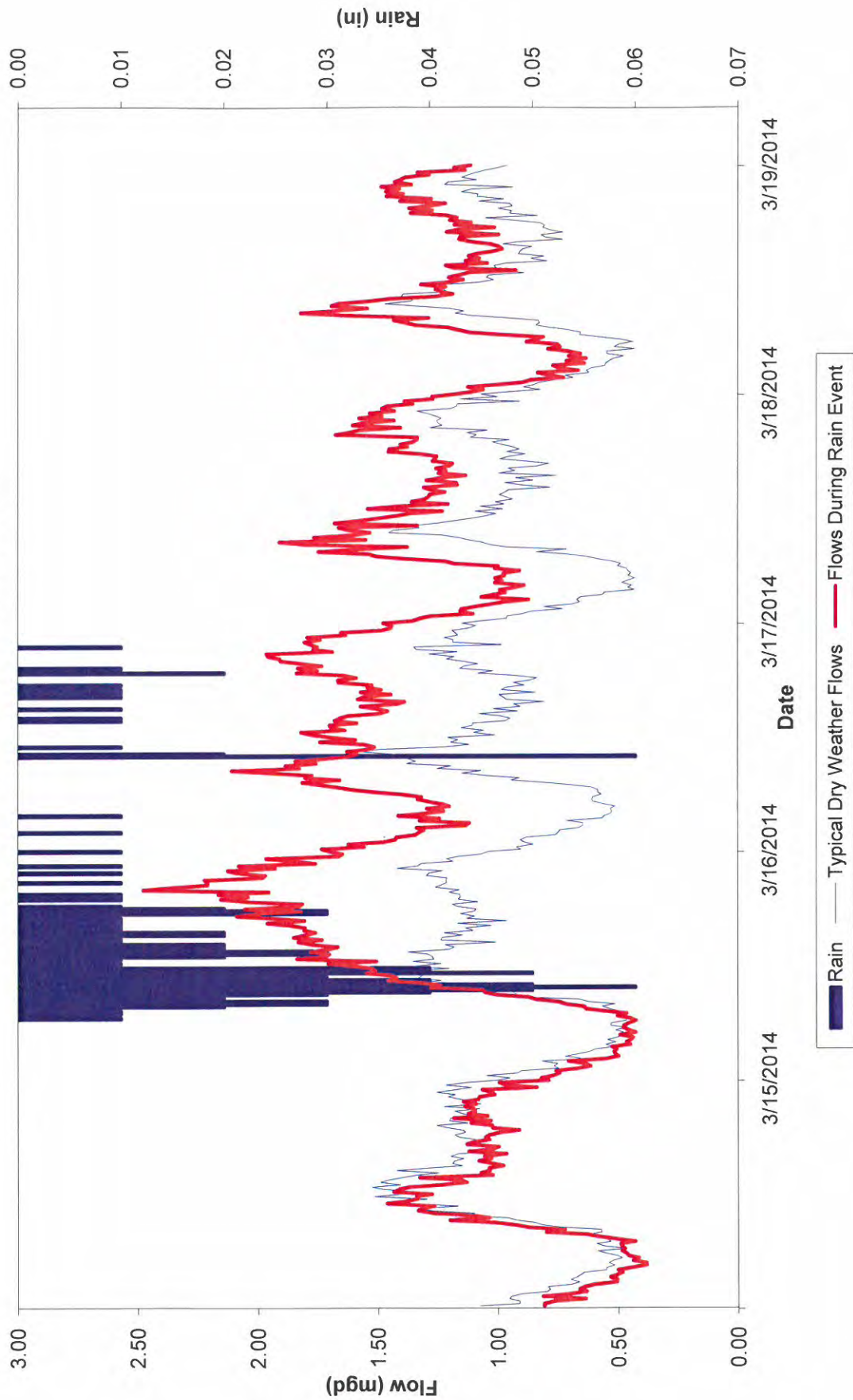
Taylor's Flow Monitoring
Site 9 - April 7, 2014 Rain Event



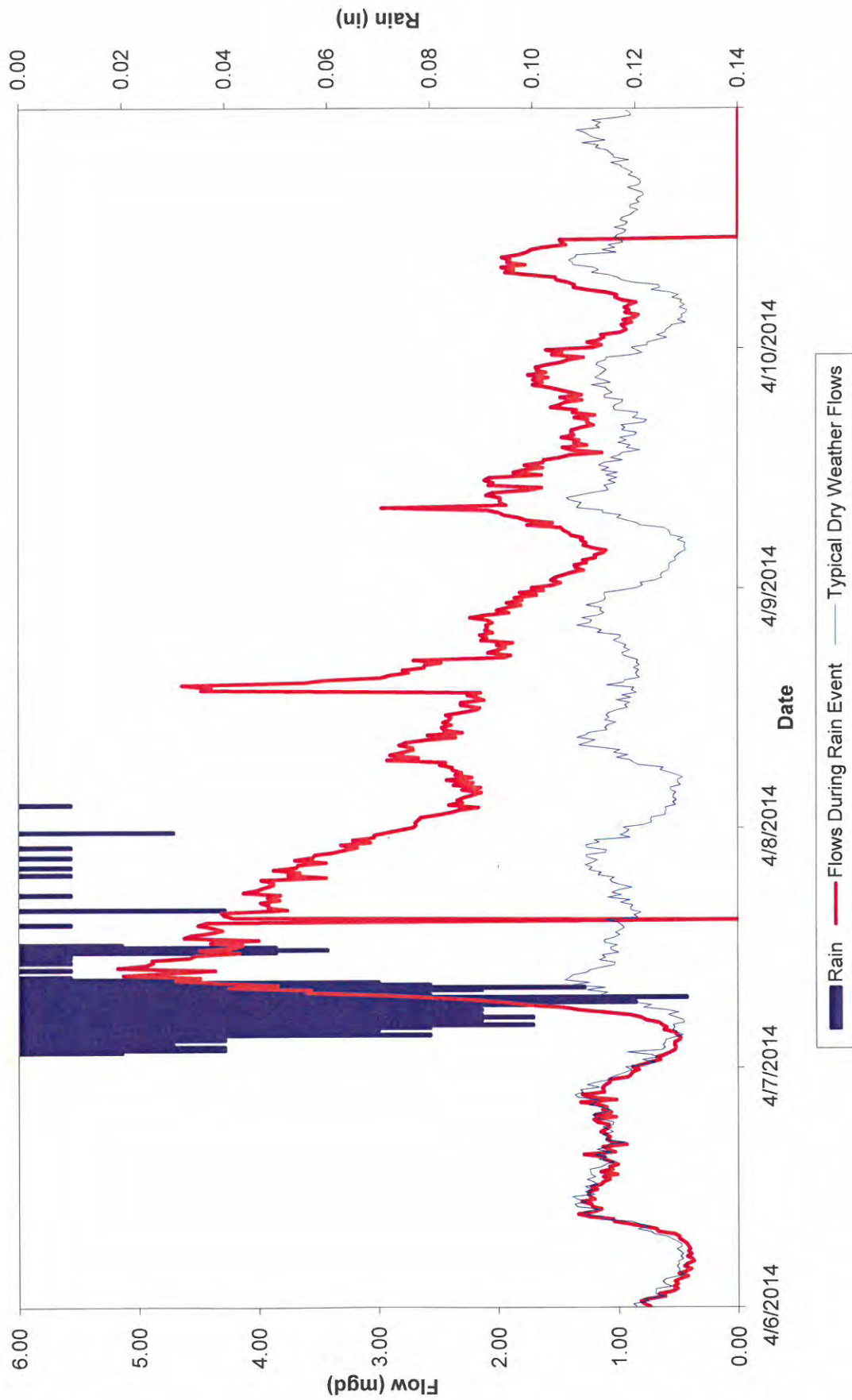
Taylors Flow Monitoring
Site 449 - March 6 - 7, 2014 Rain Event



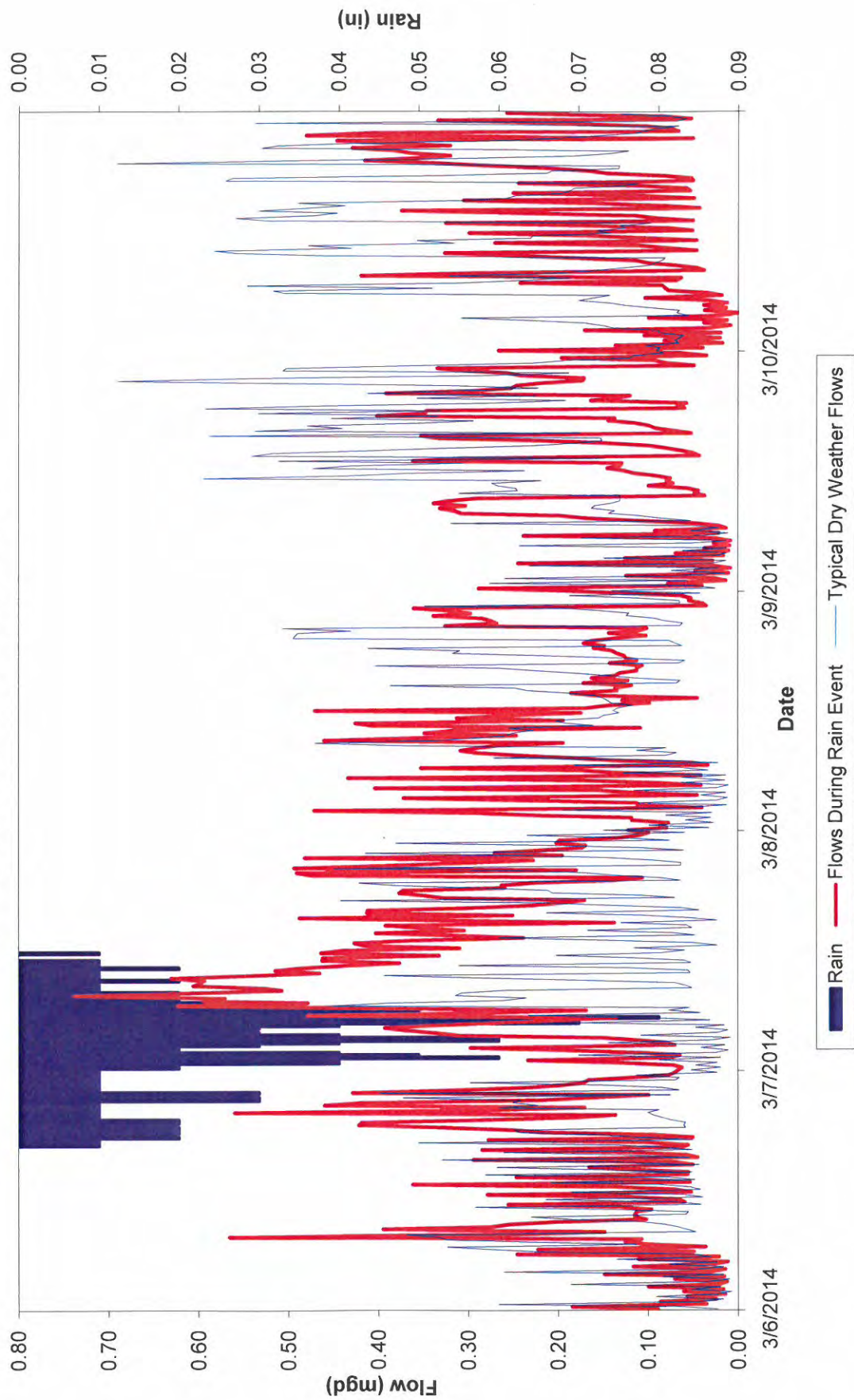
Taylor's Flow Monitoring
Site 449 - March 16 - 17, 2014 Rain Event



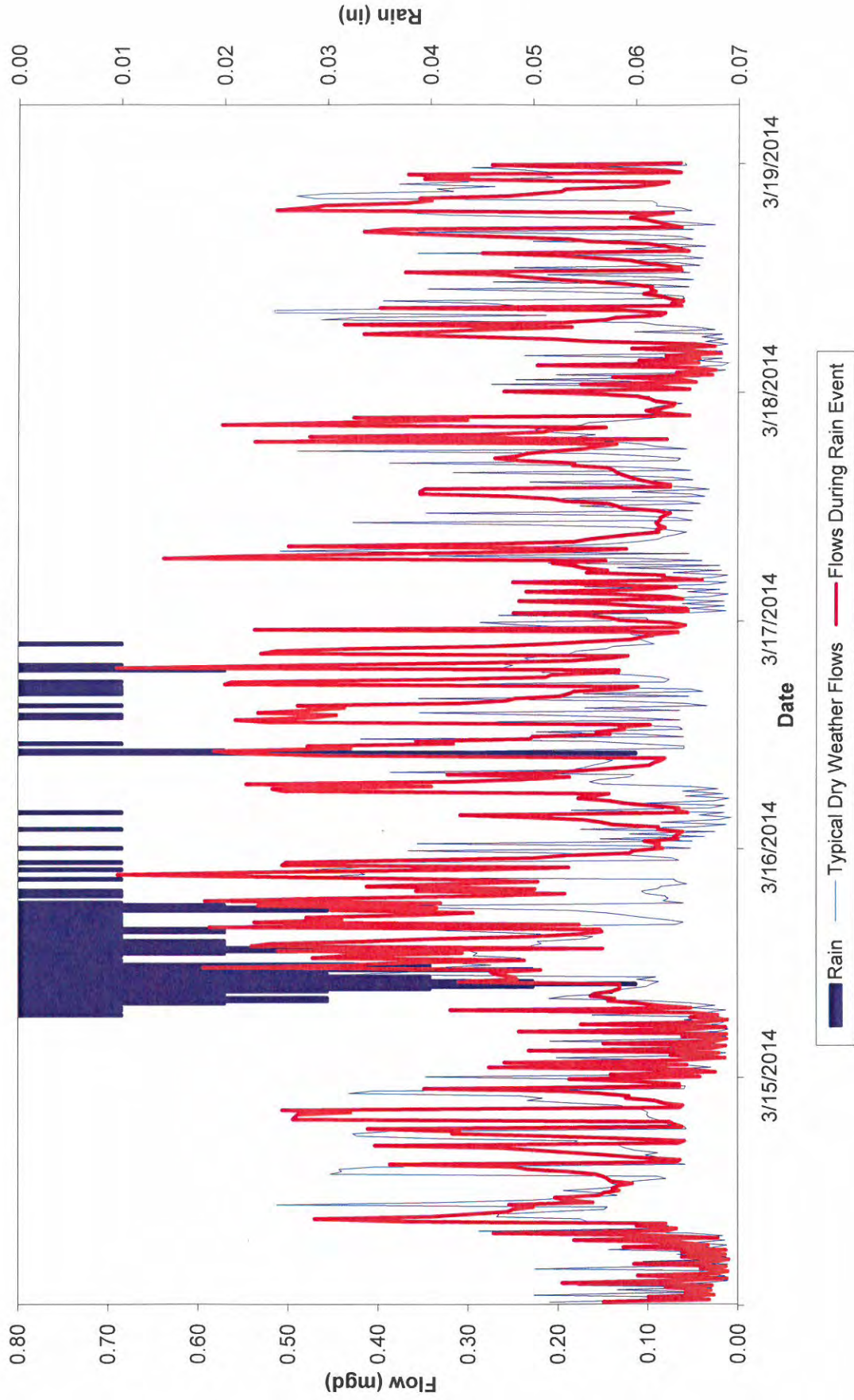
Taylors Flow Monitoring
Site 449 - April 7, 2014 Rain Event



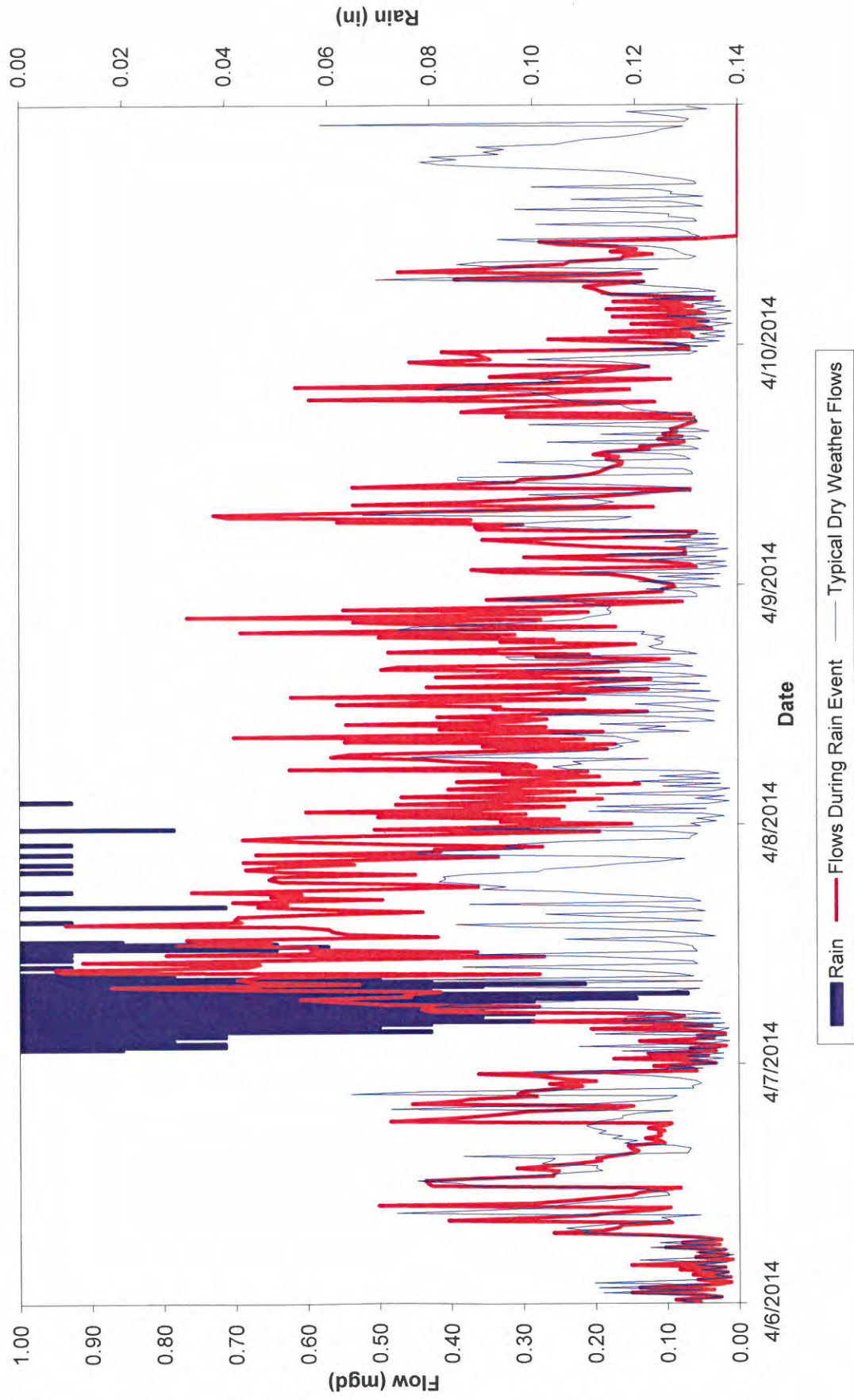
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Site 450 - March 6 - 7, 2014 Rain Event



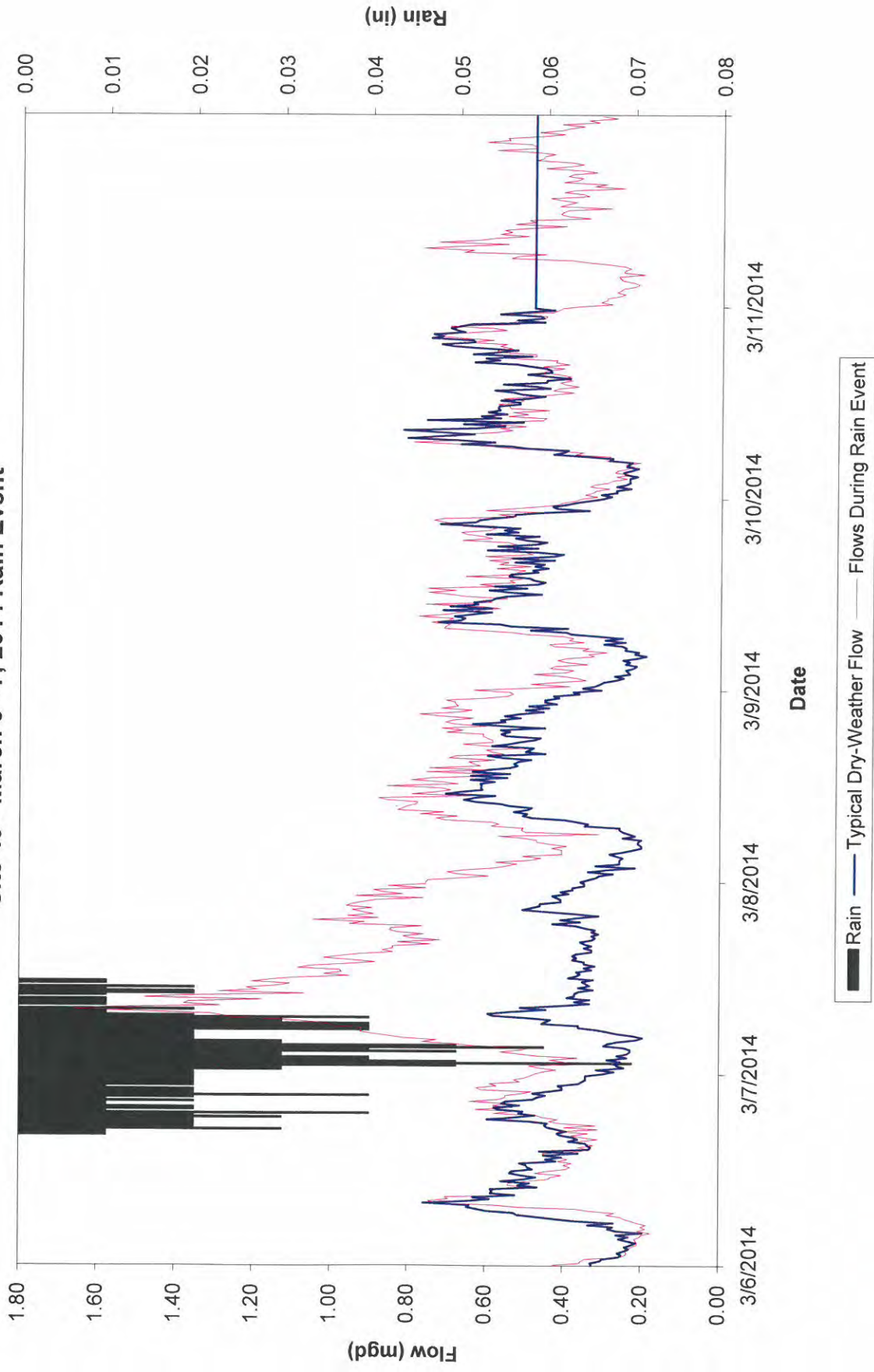
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Site 450 - March 16 - 17, 2014 Rain Event



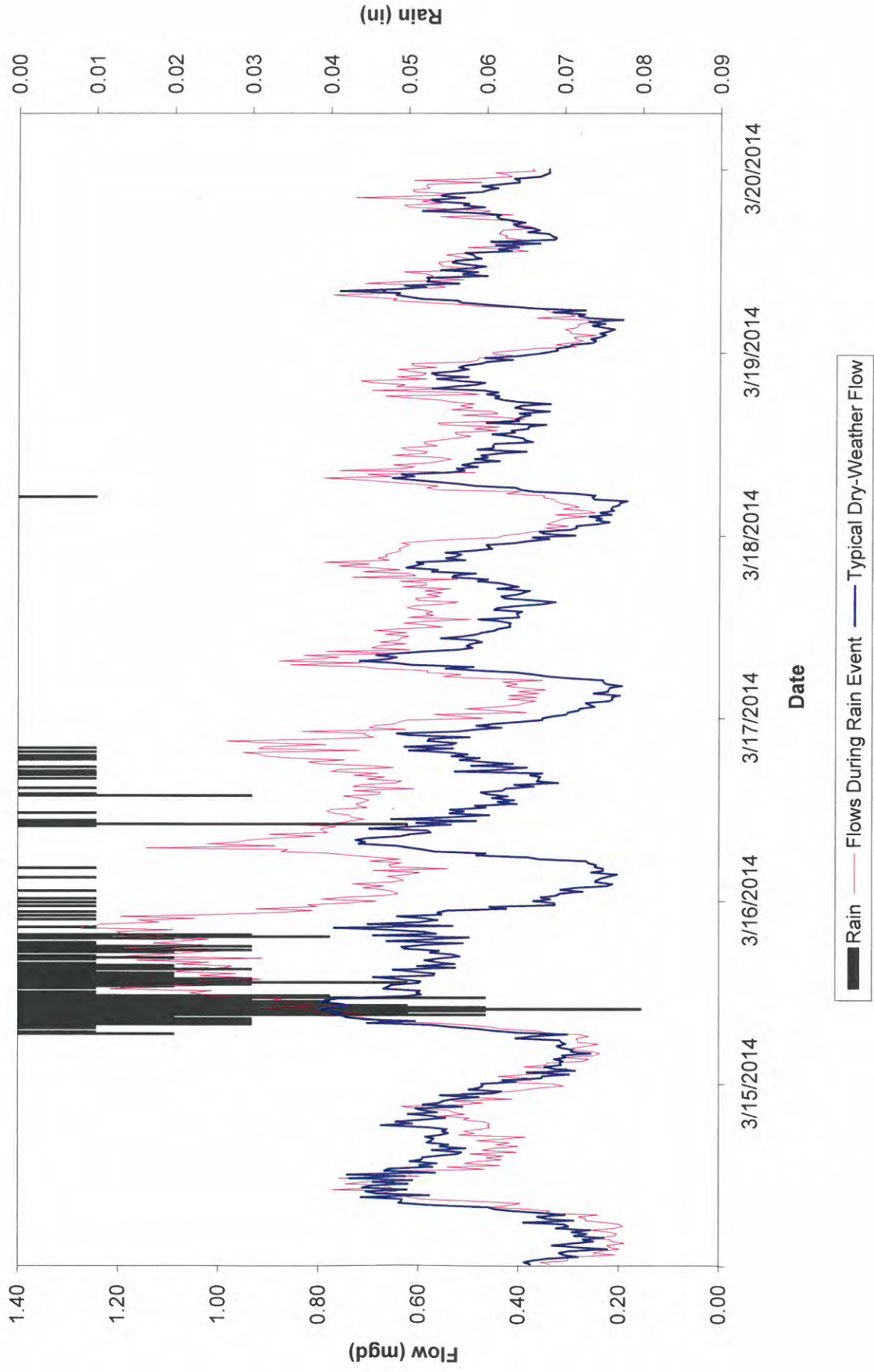
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Site 450 - April 7, 2014 Rain Event



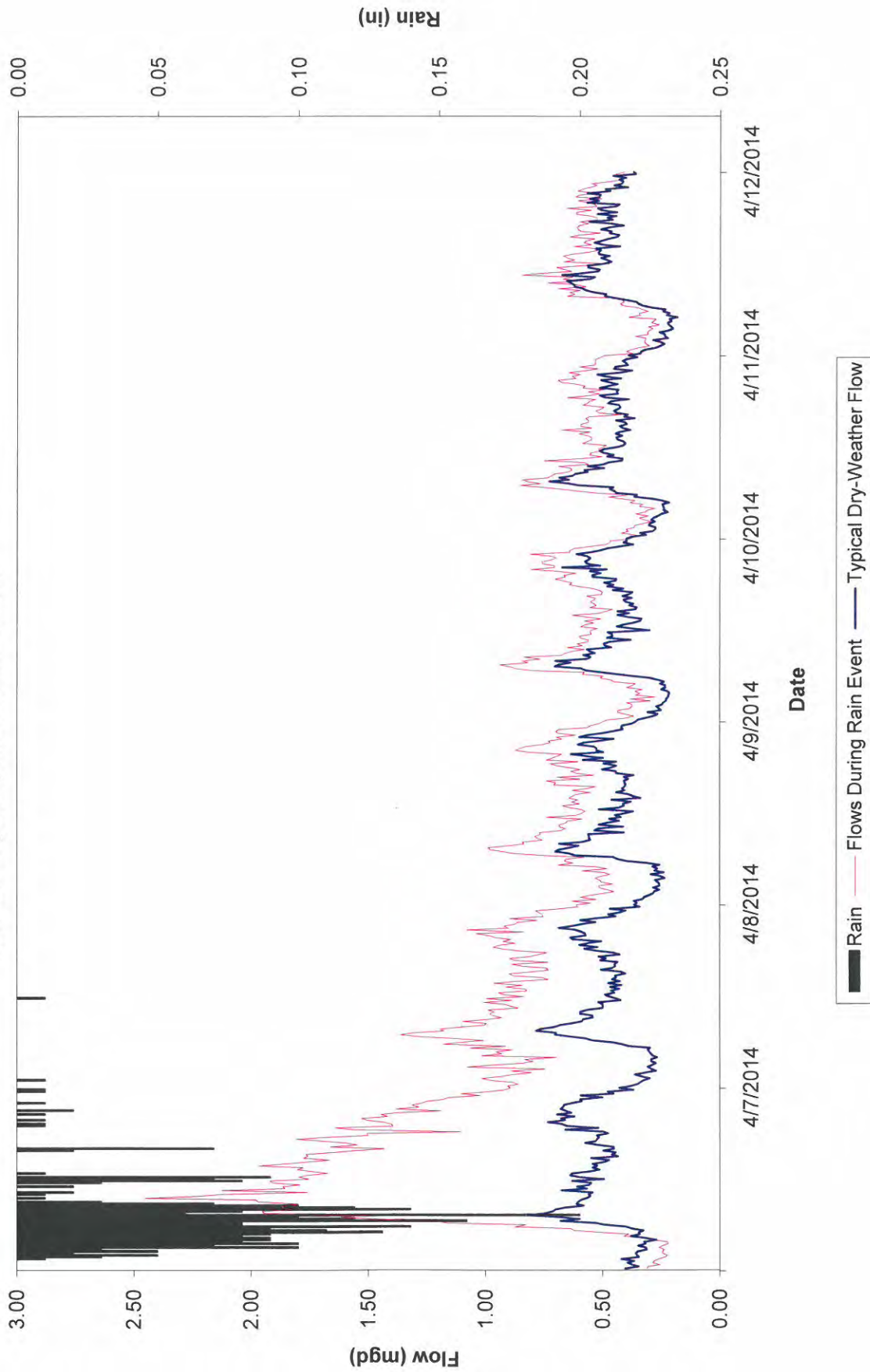
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Site 49 - March 6 - 7, 2014 Rain Event**



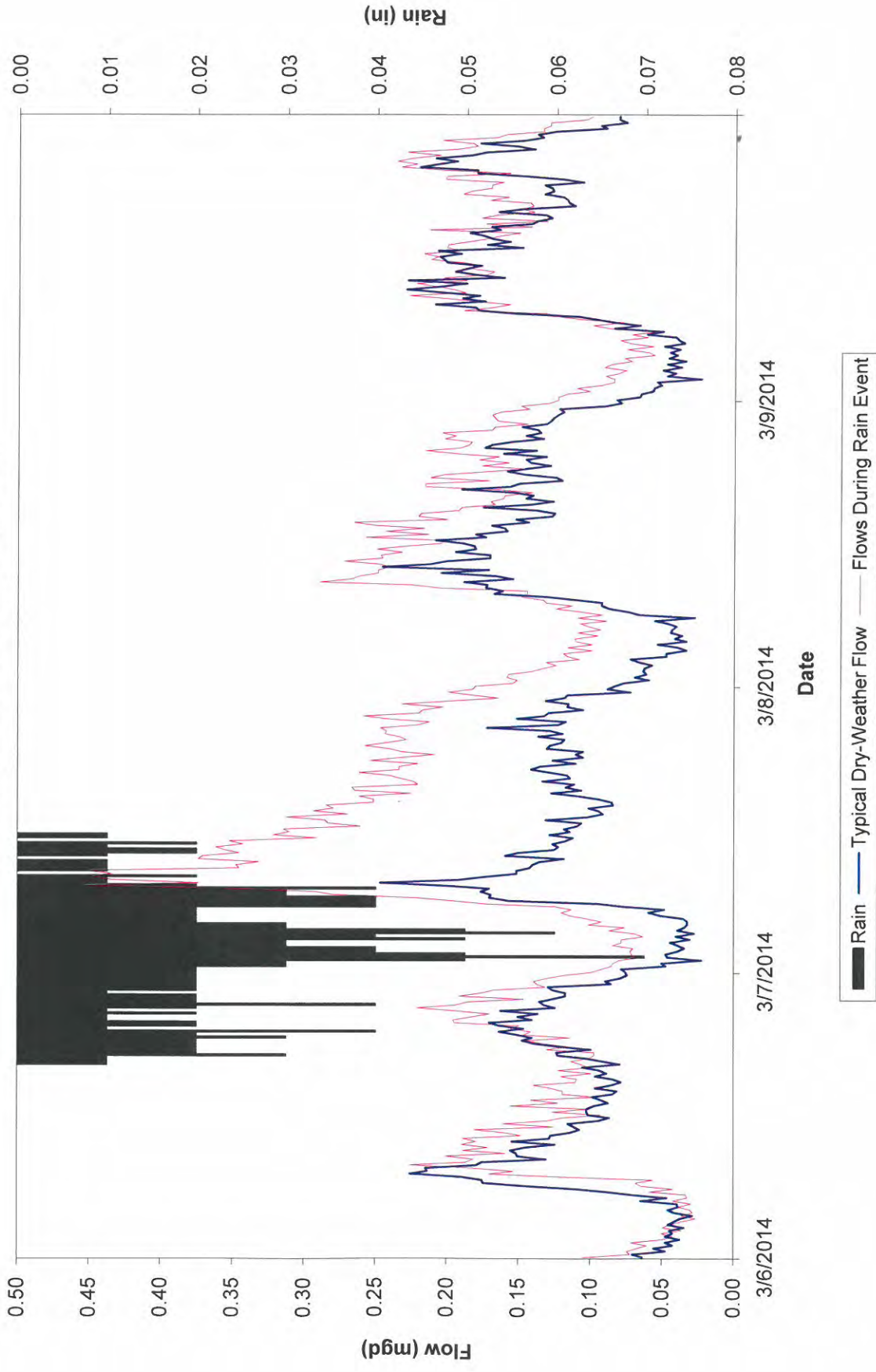
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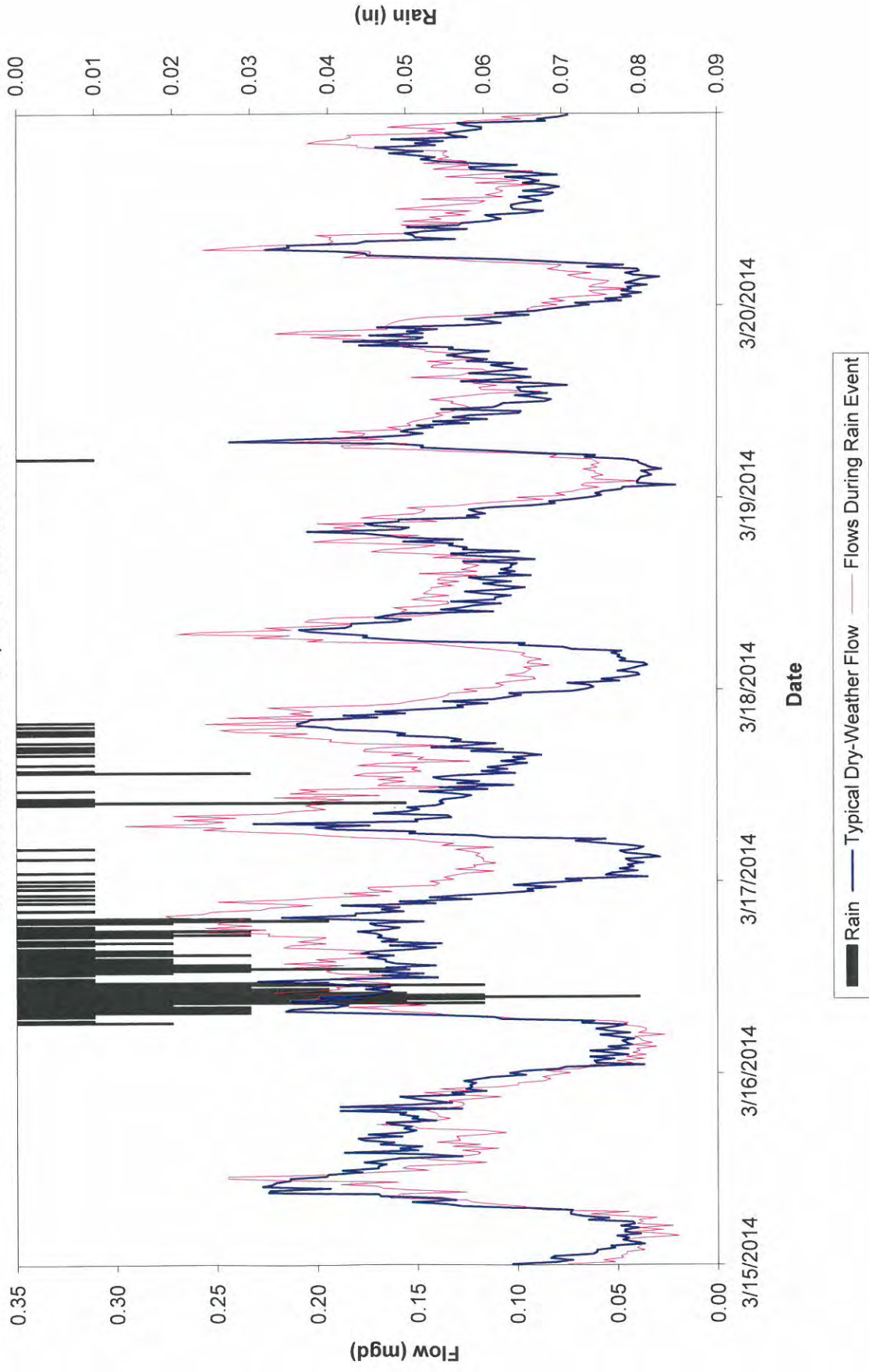
Taylor's Flow Monitoring
Site 49 - April 7, 2014 Rain Event



**Taylor's Flow Monitoring
Site 91 - March 6 - 7, 2014 Rain Event**



Taylor's Flow Monitoring
Site 91 - March 16 - 17, 2014 Rain Event



Taylors Flow Monitoring
Site 91 - April 7, 2014 Rain Event

