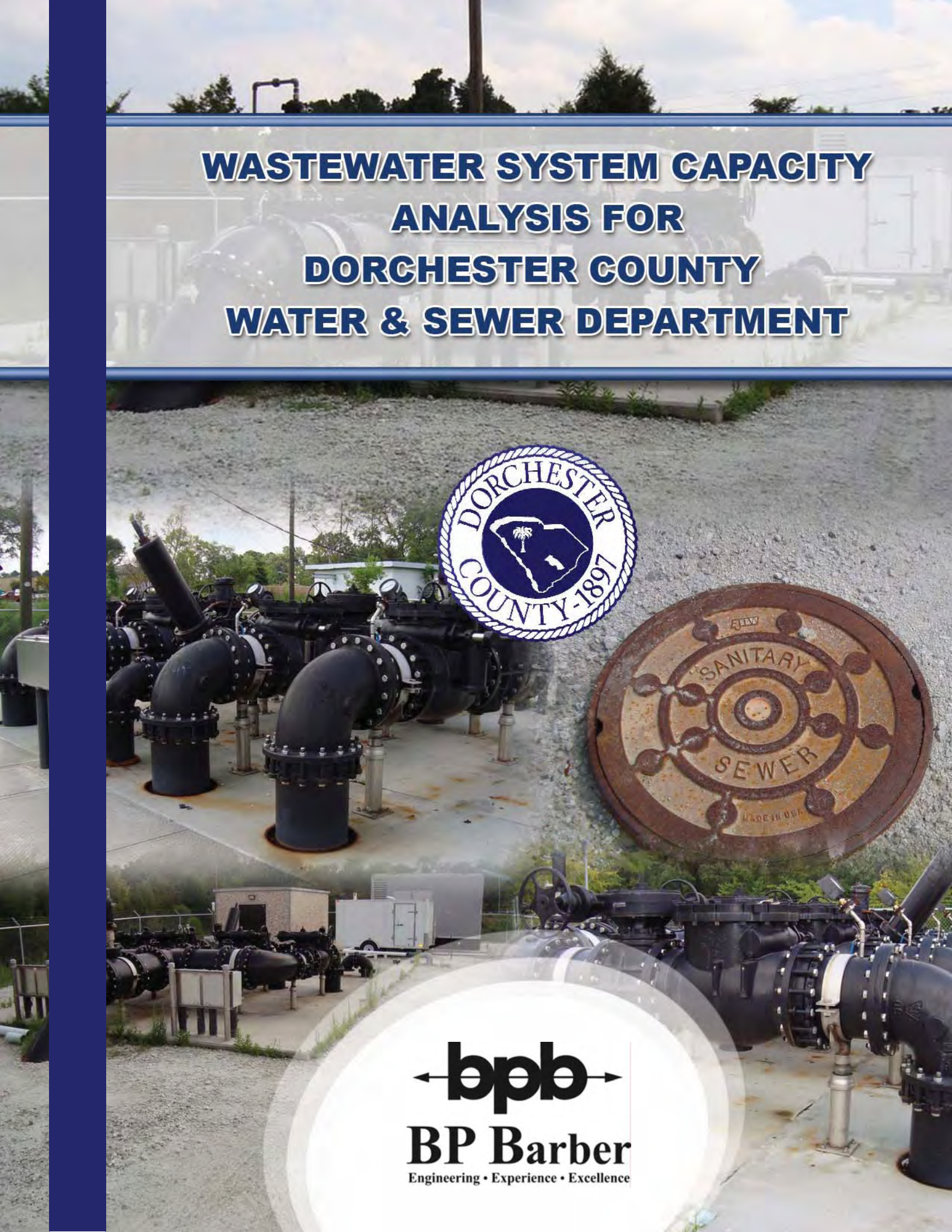
WASTEWATER SYSTEM CAPACITY ANALYSIS FOR DORCHESTER COUNTY WATER & SEWER DEPARTMENT



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WASTEWATER SYSTEM CAPACITY ANALYSIS

FOR

DORCHESTER COUNTY WATER & SEWER DEPARTMENT

PREPARED FOR:

Dorchester County
Water & Sewer Department
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EXECUTIVE SUMMARY

This report consists of an evaluation of the wastewater collection system that serves the lower portion of Dorchester County, excluding the Summerville CPW service area. The intent of this evaluation is to provide Dorchester County with a guide to implementing system improvements in a logical cost-effective manner. The main elements of this evaluation include:

- compilation and review of existing sewer flow data,
- existing system capacity analysis,
- inflow and infiltration analysis,
- pump station consolidation analysis,
- phased-approach master plan for system improvements that is based on future flow projections.

In the **Existing System Capacity Analysis** we examined the minimum recommended station capacity, average monthly peaking factor, maximum daily peaking factor, average daily flow/month, average run time, and the existing pumping capacity for each pump station and evaluated flows at the WWTP. System flow charts were developed to illustrate the flow path and assist in the analysis of the impact of pump station upgrades on the downstream system. Our analysis indicates that several pump stations currently have flows that exceed the design capacity and are in need of upgrades to maintain existing flow conditions, accommodate future flows, and prevent potential overflows throughout the system. We have incorporated these recommended upgrades into Phase I of the Preliminary Master Plan.

The **Inflow and Infiltration Analysis** is an examination of the impact of inflow and infiltration on the system and the prioritization of corrective actions. Inflow is rainwater that makes its way into the sewers through drains, uncapped cleanouts, holes in manhole covers and other surface structures connected to the sewer system. Infiltration is comprised of groundwater which enters the sewer system through defects in the sewer lines and manholes located below the groundwater table. These conditions reduce the system capacity, result in potential sewer overflows and increase the costs of operations and maintenance associated with pumping and treatment of the additional flows. To quantify inflow and infiltration in the system, rainfall data for the year 2007 was plotted against the flow rates seen at each pump station and the WWTP. Higher priorities were assigned to pump stations operating above 30% capacity (on average) and whose flows would decrease significantly from I&I repairs to bring that pump station below 30% capacity. These pump stations are further prioritized by the estimated volume of I&I.

The **Pump Station Consolidation Analysis** is a preliminary investigation to determine if there are any pump stations that can be eliminated and diverted to another nearby pump station via gravity sewer. This will provide improved system management and reduced operations and maintenance costs. This analysis identified eight (8) pump stations for possible elimination: Pump Stations #43, #72, #99, #27, #48, #31, #92, and #64. Further investigation is necessary to confirm these stations can be eliminated and to assess the cost-effectiveness of diverting each pump station.

The **Preliminary Master Plan** provides an outline to serve undeveloped residential, commercial and economic development areas within the lower Dorchester County service area. Flow projections developed in the 2007 WWTP Preliminary Engineering Report were updated based upon the recent Dorchester County Comprehensive Plan (BCDCOG) and MeadWestvaco's East Edisto Master Plan. The Preliminary Master Plan has been divided into two phases. Phase I addresses immediate system needs as well as future flows while the Phase II improvements account for projected flows beyond Phase I. The chief concern within the County's system, following the completion of Phase I improvements, is the available capacities at Pump Stations #1 and #2. To overcome this situation, Phase II suggests two alternatives. One is the previously considered alternate route to the WWTP which crosses the Ashley River parallel to the power line easement and ties into the existing force main on Dorchester Road. The other is constructing a new WWTP, utilizing land application technology, on the west side of the Ashley River. Because additional improvements beyond Phase I are not anticipated for up to ten (10) years, we recommend the County continue to monitor flows by annually updating the capacity analysis. Once the 3 to 5 year improvements from Phase I, as listed in the table below, have been implemented, an alternatives analysis for Phase II should begin.

Listed below is a description of the system improvements for Phases I of the preliminary master plan.

Preliminary Master Plan – Phase I System Modifications

Pump Station	Upgrade / System Layout Change Description	Time Frame (Years)	Preliminary Cost Estimate
15	Redirect flow to Pump Station #70.	3-5	$435,000
96	Redirect flow to Pump Station #70.	3-5	$690,000
70	Redirect flow to new 17A Bus Pump Station via new 12" force main and upgrade capacity to 800 gpm	3-5	$3,500,000
17A Bus	New pump station with a recommended capacity of 1,050 gpm to collect East Edisto development flows. Downstream Pump station is Pump Station #67	3-5	$2,110,000
67	Upgrade capacity to 2,110 gpm	3-5	$455,000
30	Upgrade capacity to 828 gpm	3-5	$610,000
79	Upgrade capacity to 518 gpm	3-5	$705,000
11	Upgrade capacity to 955 gpm	3-5	$845,000
NEW	180 gpm Pump Station & Force Main (Summerville Airport Sewer Service)	3-5	$640,000
NEW	180 gpm Pump Station & Force Main (Hodge Tract Sewer Service)	3-5	$580,000
		Total	**$10,570,000**
5	Upgrade capacity to 1,225 gpm and install a new 16" force main between Pump Station #5 and #4.	5-10	$2,590,000
4	Upgrade capacity to 4,000 gpm and install a new 18" force main between Pump Station #4 and #3.	5-10	$3,375,000
3	Upgrade capacity to 5,000 gpm and install a new 20" force main between Pump Station #3 and #2.	5-10	$4,570,000
2	Upgrade capacity to 9,000 gpm	5-10	$170,000
		Total	**$ 10,705,000**

Note: Estimates account for current rate of inflation and include 20% contingencies.

INTRODUCTION

1.1 Background

Dorchester County Government has a network of interceptors, pump stations, and force mains that is operated by the Water & Sewer Department (DCWS) to provide sewer service to residential, commercial and industrial users in the portion of the County below Four Holes Swamp (Lower Dorchester County), excluding the Summerville CPW Service Area. A list of pump stations with number and location is provided in Appendix E. The Lower Dorchester County Wastewater Treatment Plant (WWTP), located off Dorchester Road southwest of its intersection with Coosaw Creek, treats wastewater from this system prior to discharge via Coosaw Creeek into the Ashley River.

DCWS is currently implementing system improvements to accommodate increases in flow, but has requested that BP Barber perform a Wastewater System Capacity Analysis of the system as a whole so that it will adequately handle existing & future flows. In addition, there are several large developments in the planning stages that will add additional wastewater to the existing system. The current system serves approximately 20,311 customer s over a service area of approximately 263 square miles.

This Wastewater System Capacity Analysis will serve as an update to the Sanitary Sewer Flow Study completed in 2001 and later revised in 2003 to include all pump stations within the County's wastewater system. This analysis includes an existing sewer flow analysis, capacity analysis, flow projections, inflow and infiltration analysis, pump station consolidation analysis, preliminary master plan, and proposed system layout with preliminary cost estimates.

Based upon an analysis of the run time data collected for the year 2007, there are several pump stations that currently receive flows that exceed the design capacity of the station. These pump stations are in need of upgrades to accommodate existing flow conditions, accommodate future flows, and prevent potential overflows within the system. This analysis indicates that peak flowrates at some pump stations within the system can be reduced with infrastructure rehabilitation. These stations are identified in the inflow and infiltration analysis (Section 4).

The recommendations made in this report will also aid DCWS in meeting the Environmental Protection Agency (EPA) requirements for capacity, management, operation and maintenance (CMOM). CMOM requires that adequate capacity be provided to convey base and peak flow as well as proper management, operation and maintenance of the system. The capacity analysis in Section 3 describes in detail what should be done within the next few years to meet the system requirements. Recommendations made in other sections which include expanding the SCADA system, increased staffing, means to eliminate inflow and infiltration, and consolidation of pump stations will improve the management, operation and maintenance of the system.

EXISTING SEWER FLOW ANALYSIS

2.1 Background

The current system includes approximately 107 pump stations, 300 miles of gravity sewer, 110 miles of force main, and 10,000 manholes. Nineteen (19) of those pump stations send flow to the North Charleston Sewer District (NCSD) at a combined total rated capacity of 2,290 gpm. Operating and maintaining a system of this size requires frequent monitoring and re-evaluation to ensure the system as a whole is sized adequately. Awareness of the amount of capacity that is available in each area also aids DCWS in the approval process for new developments.

An existing sewer flow analysis was conducted to determine the current condition of the existing system. The conditions examined include existing pumping capacity, average runtime, average daily flow per month, minimum recommended station capacity, average monthly peaking factor, and maximum daily peaking factor. BP Barber, using the information provided by DCWS, determined which pump stations were sized appropriately and which pump stations require additional pumping capacity. This analysis only considers the actual flows at each pump station and not future flows.

Daily runtime data for the year 2007 recorded by the DCWS Supervisory Control And Data Acquisition (SCADA) system was provided for Pump Stations #1-48, #50-55, #57, #60, #61, #66, and #69-71. Total monthly hours and monthly average runtimes, compiled from operator recorded data, were provided for the remaining pump stations. Draw-down data and existing pump design information also provided by DCWS was used to determine the rated capacity for all pump stations.

A SCADA system collects data from the pump stations using various sensors such as flow meters and sends that data to a central computer. SCADA uses remote terminal units (RTU) and/or programmable logic controllers (PLC) located at the pump stations to transfer the collected data. The SCADA system's central computer then manages and controls the data. Control settings can also be changed and data managed by operators at the central computer using a human-machine interface (HMI).

Pump Station #1 is not included in the evaluation because the station operates on variable frequency drives (VFD) and the runtime data cannot be used without flow meter data. VFD's allow motors to be operated at the output level best suited to the current demand since full power is not always necessary. The VFD controls the frequency of the electrical power supplied to the pump's motor leading to energy cost savings.

2.2 Evaluation Methodology

In order to evaluate the system's pump stations, the following approach was utilized.

Existing Pumping Capacity: This is the average of the two draw-down tests or the pumps design capacity if a draw down was not performed.

Average Run Time: This is the percentage of time a pump was running during the month.

$$\frac{\left[\text{Run Time}\left(\frac{\text{Hours}}{\text{Month}}\right)\right]}{\left[30\left(\frac{\text{Days}}{\text{Month}}\right)\right]\left[24\left(\frac{\text{Hours}}{\text{Day}}\right)\right]}$$

Average Daily Flow / Month: This is the average flow that passes through the station during the month. It is expressed as gallons per day (gpd).

$$\frac{\left[\text{Run Time}\left(\frac{\text{Hours}}{\text{Month}}\right)\right]\left[\text{Design Capacity}\left(\frac{\text{Gallons}}{\text{Minute}}\right)\right]\left[60\left(\frac{\text{Minutes}}{\text{Hour}}\right)\right]}{\left[30\left(\frac{\text{Days}}{\text{Month}}\right)\right]}$$

Minimum Recommended Station Capacity: This is based on an average daily demand (ADD) set to 30-percent of the total capacity. Pump stations that have average flows in excess of 30% are recommended to be upgraded. This is based on a peaking factor of three (3), which equals a station capacity of 90-percent with a 10-percent safety factor. It is calculated as follows:

$$\frac{\left[\text{Average Daily Flow}\left(\frac{\text{Gallons}}{\text{Day}}\right)\right]}{\left[30\left(\frac{\text{Days}}{\text{Month}}\right)\right]\quad[30(\%)]\quad\left[60\left(\frac{\text{Minutes}}{\text{Hour}}\right)\right]}$$

Average Month Peaking Factor: This is calculated as the maximum average monthly flow divided by average flow.

$$\frac{[\text{Max Average Monthly Flow}]}{[\text{Average Flow}]}$$

Maximum Daily Peaking Factor: The maximum daily peaking factor is calculated as the maximum daily flow divided by average flow.

$$\frac{[\text{Max Daily Flow}]}{[\text{Average Flow}]}$$

2.3 Results

The calculated results from the equations above are shown in Appendix A - Table I. Because daily runtime data was only available for a portion of the pump stations, the second peaking factor is not listed for all pump stations.

A flow chart of the existing layout of the pump stations is shown in Appendix B – Figure 1 and a map of the existing system is shown in Appendix C – Figure 2.

CAPACITY ANALYSIS

3.1 Purpose

With a growing population and an aging sewer system, ongoing maintenance and improvement projects are necessary to provide an efficient and effective delivery of services. Accordingly, DCWS has underway a number of improvement projects to increase capacities and flow path modifications in several areas as described in Section 3.4. While these improvements have been included in the following evaluation, a more detailed analysis has been completed to see how these changes affect the system as a whole as well as the downstream components including the WWTP.

3.2 Information Gathered

The same runtimes and draw-down data for the year 2007 were used in this portion of the evaluation as for Section 2. In addition, system flow charts were developed to illustrate the flow path from one pump station to the next and to analyze the impact of a pump station upgrade on the downstream system. The flow charts also aided in the evaluation of the effect of future development and economic growth on the system.

DHEC has offered an agreement that will allow the County to permit flows up to 12 MGD without requiring an upgrade to 12 MGD. However, DHEC could require that the County proceed with the upgrade if actual flows approach 8 MGD or if the WWTP was not meeting the required limits. To determine when the next upgrade may be required, a graph was generated using the permitted, projected, and actual flows. DCWS provided the actual flows in the form of average daily flow at the WWTP for the years 1994 to 2007. DHEC provided the flow inventory for the plant and flow projections had been prepared by BP Barber in the PER for the previous WWTP expansion.

3.3 Procedure

The **minimum** design capacity for each pump station was calculated in the previous section of this report. However, because of influence exerted by upstream conditions, the **recommended** design criterion is typically higher. If an upstream pump station has been increased to meet the 30% run time criteria, then the downstream pump station must be able to handle that increase. Therefore, the recommended pump station capacity is calculated from the sum of all influent flows which include force mains and peak gravity flow. Due to the limitations of downstream pump stations, some required capacities calculated will not be applied under this analysis. All calculations under this procedure are based on the current planned improvements that are in progress.

The recommended pump station capacities are listed on Table II in Appendix A. This table also

includes the actual upgrade capacities, based on the current planned improvements. In some cases, the actual upgrade capacity is not the same as the recommended capacity. In these instances, prior approval by DCWS was given based on earlier investigations.

To evaluate the WWTP, comparisons were made between the actual, projected, and permitted flows. A linear growth rate of actual flows was determined based on the average flow between 1994 and 2007. The growth rate was then used to determine when actual flows will reach 8 MGD. The permitted flows identified on the SCDHEC flow inventory as well as the flow projections prepared previously were used to predict when permitted flows will reach 12 MGD.

3.4 Results & Recommendations

The current planned improvements include redirecting the pump stations delivering flow to the North Charleston Sewer District to the Lower Dorchester WWTP, upgrading the capacity at six (6) pump stations, lowering the capacity at three (3) pump stations, the addition of two (2) new pump stations, and the decommissioning of one pump station. These improvements are summarized in Table III below.

Table III. Current Planned Improvements

Pump Station	Upgrade / System Layout Change
104	Redirect flow to Pump Station #5 and Upgrade capacity to 200 gpm
4	Upgrade capacity to 2,500 gpm
3	Upgrade capacity to 3,250 gpm
7	Upgrade capacity to 800 gpm & Redirect flow to the new High School Pump Station
Poplar Grove	New pump station with a capacity of 180 gpm to new High School Pump Station
High School	New pump station with a capacity of 1,060 gpm flows to Pump Station #67
67	Redirect flow to Pump Station #2 and upgrade capacity to 1,450 gpm
2	Upgrade capacity to 7,500 gpm
8	Redirect flow to Pump Station #30 and lower capacity to 320 gpm
16	Redirect flow to the WWTP and lower capacity to 1000 gpm
14	Redirect flow to Pump Station #79 and lower capacity to 180 gpm
12	Take offline and allow flows which meet at Pump Station #12 to flow by gravity to the WWTP

A flow chart of the current planned improvements, with the changes highlighted in red, is shown in Appendix B – Figure 3 and a map of the current planned improvements is shown in Appendix C – Figure 4.

The capacity analysis identified several pump stations with existing flows that exceed the current design capacity and are in need of upgrades to maintain existing flow conditions, accommodate future flows, and prevent potential overflows throughout the system. Those pump stations requiring upgrades which are not included in the current planned improvements were incorporated into Phase I of the Preliminary Master Plan. A more detailed description of Phase I of the Preliminary Master Plan can be found in Section 6 of this report.

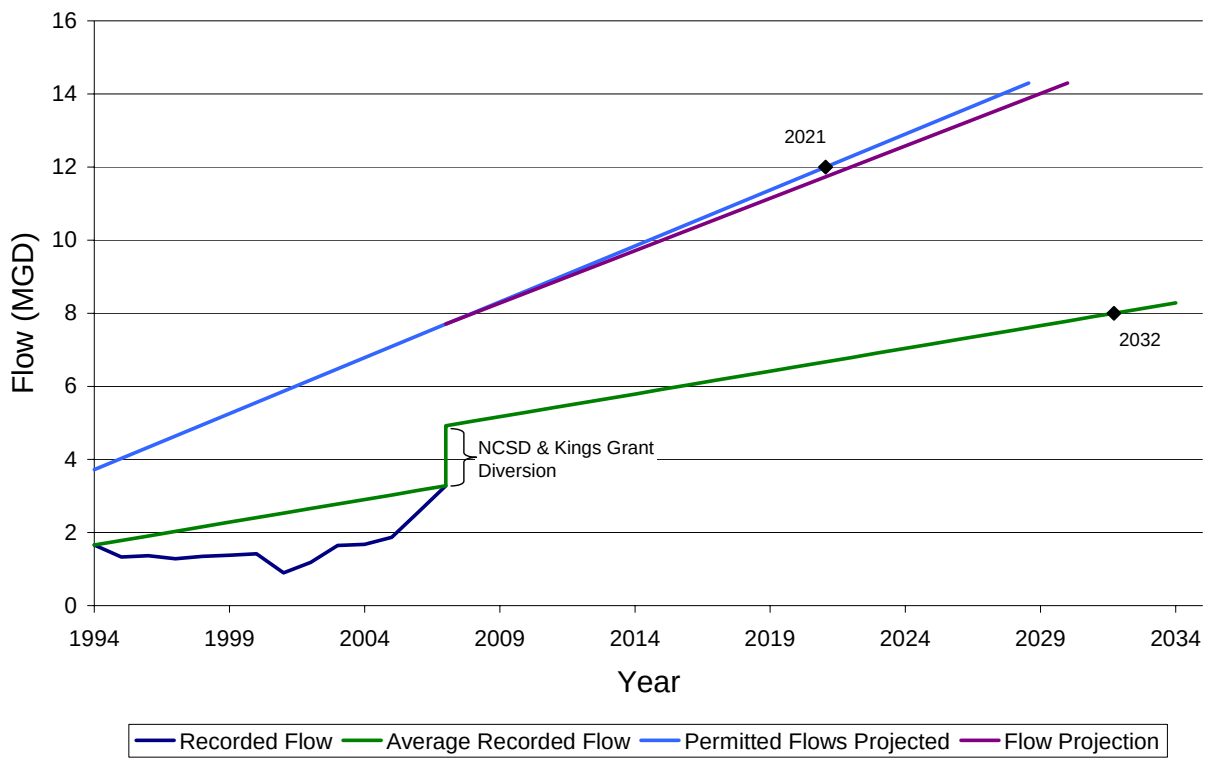
In addition to the upgrades listed above, a number of pump stations are identified to receive SCADA integration, flow meters, and generators. We recommend that that all pump stations not connected to the SCADA system undergo improvements and that DCWS budget funds to have a minimum of four (4) pump stations equipped with SCADA over the next 9 years. This will provide the ability to monitor and maintain the system at optimum operating conditions. A table identifying the prioritization of 35 pump stations recommended to be included in the SCADA system is provided in Appendix A – Table IV. Pump stations with moderate I&I were given the highest priority, then the pump stations identified as continue to monitor for I&I, last are the pump stations with minimal I&I. Within each of these categories, the pump stations were further prioritized based on average flow rate.

A flow meter is currently scheduled to be installed at Pump Station #1 under the Pump Station #2 Upgrade Project. Pump Stations #2, #3, and #4 are also scheduled to receive flow meters and generators. We further recommend that Pump Stations #5, #10, and #16 receive flow meters and generators and Pump Station #9 receive a flow meter.

Predicted flows at the WWTP are shown on Figure 5, provided below. Actual flows at the plant are not projected to reach 8 MGD until the year 2032. Following the trend in permitted flows, 12 MGD will be allocated by 2021. A preliminary engineering report (PER) detailing the plant upgrade beyond 12 MGD is recommended to be completed within the next five years. This should be completed in order to obtain the required allocations through DHEC.

Based on the SCDHEC flow inventory dated September 8, 2008 there are approximately 4,300 equivalent residential units (ERU) permitted but not active. An additional 15,000 ERU's are available up to the 12.0 MGD effluent disposal capacity. If the trends in growth continue at a similar rate, as predicted, the permitted flows will reach 12 MGD prior to the actual flows reaching 8 MGD. Therefore, upgrades for a 12 MGD plant may not be necessary until 2021.

Figure 5. WWTP Flowrate over Time



INFLOW AND INFILTRATION ANALYSIS

4.1 Purpose

Inflow and Infiltration (I&I) is a problem in many areas of the County's sewer system. I&I reduces the system capacity, resulting in potential sewer overflows and an increased cost of operations and maintenance associated with pumping and treatment of the additional flows. In severe cases within the DWCS system, I&I can represent a third of the flow received at a particular pump station. I&I in the system is directly reflected in the influent flows to the WWTP. The Lower Dorchester WWTP appears to be experiencing flow fluctuations of approximately 1.1 MGD due to I&I. The large volume of I&I needs to be identified at its source to allow for maximum use of the system by the intended users.

4.2 Investigation

Inflow is rainwater that makes its way into the sewers through drains, uncapped cleanouts, holes in manhole covers and other surface structures which connect to the sewer system. Infiltration is comprised of low groundwater infiltration (LGI), and high groundwater infiltration (HGI). LGI is water that enters the system on a daily basis and is present the entire year. LGI enters the sewer system through defects in the sewer lines and manholes that are below the low groundwater table. HGI is water that enters the sewer system when the water table is high. This occurs after rainfalls and is especially evident after extended periods of rainfall. HGI also enters the sewer system through defects in the lines and manholes like LGI, but may also become evident in service connections.

An I&I analysis was prepared for the Dorchester County sewer system as part of this wastewater system capacity analysis to examine the impact of I&I on the system and determine a prioritization for corrective actions. To determine the presence of and to quantify I&I in the system, rainfall data for the year 2007 was gathered and plotted against the flow rates seen at each pump station as well as the WWTP. These graphs have been included in Appendix D of the report. Inflow can be identified when a spike in flow rate occurs very soon after heavy rainfall. The runoff from the rain event enters the system and travels though a series of pipes to the pump station immediately impacting the flow at the pump station. Infiltration was evaluated by comparing the average dry-weather (LGI) flow to the average wet-weather (HGI) flow. Only pump stations with daily flow data available were evaluated for inflow.

4.3 Results

I&I within the sewer system was evaluated at each pump station during the investigation. Table V, provided in Appendix A, lists the pump stations with any degree of I&I and the extent of the problem. A flow chart is shown indicating pump stations with I/I in Appendix B - Figure 6.

4.4 System Recommendations

Each pump station exhibiting I&I was assigned a severity level and repair priority. The severity is determined by the difference between wet weather flow and dry weather flow. Repair Priority takes into consideration the severity of I&I as well as the impact repairs will have on the pump station capacities. Higher priorities were assigned to pump stations operating on average above 30% capacity and whose flows would decrease significantly enough from I&I repairs to bring that pump station below 30% capacity. Priorities one (1) thru nine (9) fall into this category. These pump stations are further prioritized by volume of I&I. Following the first nine priority pump stations, the repairs are ordered based on volume of I&I alone.

Continued investigations should be used to begin identifying needed repairs. Recommended methods include a combination of inflow surveying, smoke testing, and televising.

Some pump stations exhibiting I&I have special circumstances which are addressed in the following text. Flows vs. rainfall graphs of each of these pump stations with upstream pump stations were created to further investigate I&I and its source. These graphs are provided in Appendix D.

Pump Station #21 - Signs of I&I during the first half of the year may have been caused by I&I problems at upstream Pump Station #15. However, areas upstream of Pump Station #15 received rehabilitation work which eliminated I&I problems and can be seen on the graph for that pump station. Pump Station #21 still has I&I problems which need to be addressed for downstream pump stations to fully benefit from these I&I repairs. It is recommended that this investigation begin with Leiber Prison's onsite infrastructure.

Pump Station #10 – The flows at this pump station mirror those of Pump Station #21 closely indicating that I&I seen at Pump Station #10 should be significantly reduced once I&I are addressed at Pump Station #21.

Pump Station #28 - I&I seen at this pump station is not significant and is most likely caused by I&I at upstream Pump Station #95.

Pump Station #7 - I&I seen at this pump station does not appear to be influenced by any upstream pump stations. Two (2) of the pump stations upstream of Pump Station #7 show signs of moderate I&I but their combined flows only represent about a third of Pump Station #7's flow. An investigation should begin by examining some of the older sections that gravity flow to this pump station.

Pump Station #6 – The flows at this station mirror those of Pump Station #7 closely, in most months, indicating that I&I seen at Pump Station #6 should be significantly reduced once I&I is addressed at Pump Station #7. It should be noted that the data for all months but February and September appear to be unreliable. Therefore, these recommendations are based on only two months of data observations.

Pump Station #3 – The flows at this station mirror those of Pump Station #4 closely, indicating that I&I seen at Pump Station #3 should be significantly reduced once I&I is addressed at Pump Station #4. However, the data for the months of September and October appear to be unreliable. Continued monitoring at this station should occur.

There are several pump stations listed as "Continue to Monitor" on the flow chart. In most cases, the data available was insufficient to make an accurate assessment of I&I due to either pump/valve failures or SCADA malfunctions. In the case of Pump Station #1, the data was not applicable because that particular station has VFD's. Continued monitoring at these pump stations should occur.

PUMP STATION CONSOLIDATION ANALYSIS

5.1 Background/Information Gathered

The pump station consolidation analysis is a preliminary investigation to determine if there are any pump stations that could be eliminated and diverted to another nearby pump station via gravity sewer. With over 100 pump stations in the DCWS system, eliminating pump stations would provide improved system management and reduced operations and maintenance costs. As part of the consolidation analysis, the DCWS system was compared to neighboring sewer systems with respect to infrastructure. The following information was used to perform the consolidation analysis:

1) Dorchester County Geographic Information System (GIS) shape files (which include property line, right-of-way, pump station and sewer line information.
2) Dorchester County Water & Sewer Pump Station Flow Chart.
3) Digital Elevation Model (DEM) extracted from Google Earth.
4) USGS Quadrangle Sheets (used to extract topographical information which was used along with the DEMs).
5) System Data for DCWS, North Charleston Sewer District (NCSD), Berkeley County Water and Sanitation Authority (BCWSA), Summerville Commissioners of Public Works (SCPW), and Orangeburg Department of Public Utilities (ODPU).

5.2 Procedure

Using the information gathered and the overall layout (map) of the Dorchester County sewer system, the map was then evaluated to determine one or more of the following:

1) Which pump station(s) could be eliminated by diverting its gravity feed to a nearby system; and/or
2) Which pump station(s) could be eliminated by constructing a new central pump station which would accept the gravity feeds of each eliminated pump station.

Once these areas were identified, a preliminary surface was created with the aid of the DEMs and the quadrangle sheets. The surface was then used to determine the feasibility of diverting and/or extending current gravity feed systems, thereby making the pump station consolidations possible.

5.3 Results & Recommendations

Eight (8) pump stations were identified for possible elimination; Pump Stations #43, #72, #99, #27, #48, #31, #92, and #64.

1) Pump Station #43 could be eliminated by diverting its gravity feed to Pump Station #85.
2) Pump Station #72 could be eliminated by diverting its gravity feed to Pump Station #41.
3) Pump Station #99 could be eliminated by diverting its gravity feed to Pump Station #41.
4) Pump Station #27 could be eliminated by diverting its gravity feed to Pump Station #23.
5) Pump Station #48 could be eliminated by diverting its gravity feed to Pump Station #26.
6) Pump Station #31 could be eliminated by diverting its gravity feed to Pump Station #106.
7) Pump Station #92 and Pump Station #64 could be eliminated with the construction of a new pump station.

To further confirm the possibility of these stations being eliminated, we recommend a survey be completed at each location and preliminary cost estimates be prepared to access the feasibility of each pump station consolidation. The required surveying could be completed in-house.

5.4 Comparison To Neighboring Systems

A summary of the infrastructure which makes up the DCWS sewer system was compared to the neighboring systems. The number of pump stations per square mile of service area was used as a direct comparison. DCWS has the least number of pump stations; at 0.4 pump stations per square mile. DCWS sewer system serves the smallest population among those included in the comparison and is spread out over the second largest area. DCWS does not appear to have an unreasonable number of pump stations or miles of sewer line when considering the area of service. Table VI below summarizes the systems compared.

Table VI. Sewer System Infrastructure Comparison

	DCWS	NCSD	BCWSA	SCPW	ODPU
Miles of Gravity Sewer & Force Main	410	527	554	246	135
Number of Pump Stations	107	59	140	47	18
Service Area (mile^2)	263	59	225	32	56
Number of Customers	20,311	27,250	26,800	18,595	10,000
Pump Stations/mile^2	**0.40**	**0.99**	**0.62**	**1.47**	**0.32**

Level of staffing was also investigated while comparing the infrastructure of the DCWS system to neighboring systems. To maintain a wastewater system efficiently, it is important to have the

adequate staff. The staffing comparison was based on their operations and maintenance staff for the collection system and the pump stations. Table VII below shows how DCWS compares with similarly sized systems. The numbers indicate that DCWS has fewer staff then neighboring systems. Inadequate staffing levels may not allow for proper operation and preventative maintenance to be performed. We recommend further evaluation to determine the adequacy of operation and maintenance staff levels at DCWS Department.

Table VII. Sewer System Staffing Comparison

	DCWS	NCSD	BCWSA	SCPW
Miles of Gravity Sewer & Force Main	410	527	554	246
Total Collection System Staff	8	24	26	21
Miles of Line / Staff Member	**51**	**22**	**21**	**12**
Number of Pump Stations	107	59	140	47
Electrical Pump Station Staff	1	7	8	3
Electrical Supervisor	(shared)	(shared)	1	(shared)
Mechanical Pump Station Staff	4	6	13	3
Mechanical Supervisor	(shared)	(shared)	1	(shared)
Total Pump Station Staff	7	16	24	5
Pump Stations / Staff Member	**15**	**4**	**6**	**9**

PRELIMINARY MASTER PLAN

6.1 Introduction

BP Barber has prepared this Preliminary Master Plan to provide an outline for serving undeveloped residential, commercial and economic development areas within the lower Dorchester County service area. The flow projections developed in the 2007 WWTP Preliminary Engineering Report were updated based upon the recent Dorchester County Comprehensive Plan prepared by BCDCOG and MeadWestvaco's East Edisto Master Plan. The Preliminary Master Plan has been divided into two phases. Phase I addresses immediate system needs as well as future flows while the Phase II improvements account for projected flows beyond Phase I.

6.2 Phase I

Phase I of the Preliminary Master Plan encompasses the following changes.

Flows from the Ridgeville area would be diverted away from Pump Station #21 to Pump Station #70 at the Bridlewood Subdivision. In addition, Pump Stations #3, #4 & #5 would be upgraded. These improvements and diversions will allow for additional flows from the East Port Industrial area as well as miscellaneous residential and commercial developments. Pump Station #21 would continue to pump to Pump Station #10 as part of the Phase I modifications. By diverting the flows from the Ridgeville area, this pump station would not require an upgrade.

Pump Station #96 would also be diverted to the Bridlewood Subdivision thus allowing for additional flows from the Hwy 27/Hwy 78 employment area and miscellaneous residential developments to Pump Station #15. Pump Station #15 would be diverted through recently installed infrastructure from the Bridlewood Subdivision. From that point flows would be pumped to a new pump station located near Hwy 17A in the proposed 17A Business Park. This pump station would be capable of accepting flows from the 17A Business Park as well as portions of East Edisto Developments. The pump station located near the 17A Business Park would then pump to Pump Station #67 located on Summer Drive and from there the flows would be pumped to Pump Station #2.

These improvements will provide capacity for additional flows from various areas throughout the County. However, all flows will continue to be routed to Pump Station #2. Pump Station #2 is currently being upgraded including provisions for the addition of a fourth pump. As the flows increase, this pump will need to be installed and the installation of the pump has been included under Phase I.

Other Improvements recommended under this phase include upgrades to three pump stations associated with the NCSD Diversions.

A flow chart of the Phase I System Improvements, with the changes highlighted in red, is shown in Appendix B – Figure 7 and a map of the Phase I System Improvements is shown in Appendix C – Figure 8. Phase I System Modifications are summarized in Table VIII below with an estimated time frame required and a preliminary cost estimate. A detailed list of Phase I System Improvements is provided in Appendix A – Table IX.

Table VIII. Preliminary Master Plan – Phase I System Modifications

Pump Station	Upgrade / System Layout Change Description	Time Frame (Years)	Preliminary Cost Estimate
15	Redirect flow to Pump Station #70.	3-5	$435,000
96	Redirect flow to Pump Station #70.	3-5	$690,000
70	Redirect flow to new 17A Bus Pump Station via new 12" force main and upgrade capacity to 800 gpm	3-5	$3,500,000
17A Bus	New pump station with a recommended capacity of 1,050 gpm to collect East Edisto development flows. Downstream Pump station is Pump Station #67	3-5	$2,110,000
67	Upgrade capacity to 2,110 gpm	3-5	$455,000
30	Upgrade capacity to 828 gpm	3-5	$610,000
79	Upgrade capacity to 518 gpm	3-5	$705,000
11	Upgrade capacity to 955 gpm	3-5	$845,000
NEW	180 gpm Pump Station & Force Main (Summerville Airport Sewer Service)	3-5	$640,000
NEW	180 gpm Pump Station & Force Main (Hodge Tract Sewer Service)	3-5	$580,000
		Total	**$10,570,000**
5	Upgrade capacity to 1,225 gpm and install a new 16" force main between Pump Station #5 and #4.	5-10	$2,590,000
4	Upgrade capacity to 4,000 gpm and install a new 18" force main between Pump Station #4 and #3.	5-10	$3,375,000
3	Upgrade capacity to 5,000 gpm and install a new 20" force main between Pump Station #3 and #2.	5-10	$4,570,000
2	Upgrade capacity to 9,000 gpm	5-10	$170,000
		Total	**$ 10,705,000**

Note: Estimates account for current rate of inflation and include 20% contingencies.

6.3 Phase II

Implementation of Phase II of the Preliminary Master Plan will be required as future flows occur and as other pump stations begin to reach their capacity limits. The main constraint to the County's system, once Phase I modifications are complete, will be the available capacities at Pump Stations #1 and #2. Once these stations reach their capacities it will be necessary to find either an alternate route to the County's WWTP or to construct a new WWTP. One alternative is based on an alternate route to the WWTP that was previously considered by the County. This was the crossing of the Ashley River parallel to the power line easement to the existing 36-inch force main on Dorchester Road as shown in Appendix C – Figure 9. Paralleling the power line easement would be less expensive than paralleling high way right-of-way along Hwy 165

and Hwy 61. The other alternative is a new WWTP utilizing land application technology on the west side of the Ashley River. However, there are limited areas that contain suitable soils for land application in the area that additional capacity may be required.

At this time, it is difficult to accurately predict which alternative would be in the County's best interest without further investigation. It is anticipated that additional improvements beyond Phase I will be not required for a period of up to ten (10) years. However, we recommend the County continue to monitor flows by annually updating the capacity analysis. Once the 3 to 5 year improvements from Phase I, as listed in Table VIII, have been implemented, an alternatives analysis for Phase II should begin.

TABLES

Table I Existing System Evaluation

Pump Station	Design (gpm)	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Max Avg. Month	Avg. Flow	Avg. Run Time %	Max Avg Month / Avg. P.F.*	Max Daily / Avg. P.F.*	Rec. design (gpm) @ 30% Run Time
Pump Station No. 2	3300																		Upgrade
Run Time (Hrs./month)		390	351	340	287	542	322	400	576	890	1022	902	764						8507
Run Time (%)		54	49	47	40	75	45	56	80	124	142	125	106			78.6			
Avg. Daily Flow/Month (GPD)		2,493,333	2,483,250	2,171,400	1,895,143	3,461,586	2,123,379	2,557,500	3,680,069	5,874,000	6,527,400	5,953,200	4,881,462	6,527,400	3,675,144		1.8	2.1	
Avg. Daily Flow/Month (GPM)		1,731	1,724	1,508	1,316	2,404	1,475	1,776	2,556	4,079	4,533	4,134	3,390	4,533	2,552				
Pump Station No.3	1600																		Upgrade
Run Time (Hrs./month)		641	604	562	459	436	533	443	480	414	433	413	509						3615
Run Time (%)		89	84	78	64	61	74	62	67	58	60	57	71			68.6			
Avg. Daily Flow/Month (GPD)		1,984,000	2,072,000	1,740,800	1,467,429	1,350,621	1,704,828	1,372,000	1,486,345	1,324,800	1,340,800	1,321,600	1,576,615	2,072,000	1,561,820		1.3	3.0	
Avg. Daily Flow/Month (GPM)		1,378	1,439	1,209	1,019	938	1,184	953	1,032	920	931	918	1,095	1,439	1,085				
Pump Station No. 4	1725																		Upgrade
Run Time (Hrs./month)		528	483	440	375	373	373	366	415	491	413	374	453						3343
Run Time (%)		73	67	61	52	52	52	51	58	68	57	52	63			58.8			
Avg. Daily Flow/Month (GPD)		1,763,333	1,785,375	1,469,700	1,293,750	1,245,569	1,288,397	1,220,438	1,384,759	1,693,950	1,380,000	1,290,300	1,512,692	1,785,375	1,444,022		1.2	3.4	
Avg. Daily Flow/Month (GPM)		1,225	1,240	1,021	898	865	895	848	962	1,176	958	896	1,050	1,240	1,003				
Pump Station No. 5	700																		Upgrade
Run Time (Hrs./month)		361	314	268	253	249	258	329	416	431	318	256	305						1001
Run Time (%)		50	44	37	35	35	36	46	58	60	44	36	42			43.5			
Avg. Daily Flow/Month (GPD)		488,444	470,750	362,600	354,000	337,448	360,621	446,250	563,379	603,400	431,200	358,400	413,538	603,400	432,503		1.4	2.4	
Avg. Daily Flow/Month (GPM)		339	327	252	246	234	250	310	391	419	299	249	287	419	300				
Pump Station No. 6	525																		Current design o.k.
Run Time (Hrs./month)		277	253	210	191	190	202	192	210	287	197	203	217						
Run Time (%)		38	35	29	26	26	28	27	29	40	27	28	30			30.4			
Avg. Daily Flow/Month (GPD)		281,167	284,813	213,150	200,250	193,345	211,810	195,563	212,897	301,350	200,550	213,150	220,500	301,350	227,379		1.3	3.5	
Avg. Daily Flow/Month (GPM)		195	198	148	139	134	147	136	148	209	139	148	153	209	158				
Pump Station No. 7	360																		Upgrade
Run Time (Hrs./month)		445	366	363	320	351	403	324	338	390	419	332	545						630
Run Time (%)		62	51	50	44	49	56	45	47	54	58	46	76			53.2			
Avg. Daily Flow/Month (GPD)		310,400	282,600	252,720	230,657	244,303	290,483	225,900	235,366	280,800	291,600	239,040	379,662	379,662	271,961		1.4	2.5	
Avg. Daily Flow/Month (GPM)		216	196	176	160	170	202	157	163	195	203	166	264	264	189				
Pump Station No. 8	380																		Current design o.k.
Run Time (Hrs./month)		99	96	92	70	80	60	59	59	63	64	59	62						
Run Time (%)		14	13	13	10	11	8	8	8	9	9	8	9			10.0			
Avg. Daily Flow/Month (GPD)		72,622	77,900	67,640	52,929	58,966	45,600	43,700	43,241	47,880	47,120	44,840	45,600	77,900	54,003		1.4	1.7	
Avg. Daily Flow/Month (GPM)		50	54	47	37	41	32	30	30	33	33	31	32	54	38				
Pump Station No. 9	2667																		Current design o.k.
Run Time (Hrs./month)		301	104	103	90	95	96	102	109	122	128	108	118						
Run Time (%)		42	14	14	13	13	13	14	15	17	18	15	16			17.1			
Avg. Daily Flow/Month (GPD)		1,552,787	593,408	533,400	480,060	491,096	513,168	526,733	562,829	650,748	661,416	576,072	609,307	1,552,787	645,919		2.4	7.9	
Avg. Daily Flow/Month (GPM)		1,078	412	370	333	341	356	366	391	452	459	400	423	1,078	449				
Pump Station No. 10	580																		Upgrade
Run Time (Hrs./month)		421	392	369	341	328	318	319	322	327	300	279	308						889
Run Time (%)		59	54	51	47	46	44	44	45	45	42	39	43			46.6			
Avg. Daily Flow/Month (GPD)		473,022	487,200	414,120	395,229	368,400	368,400	358,150	361,200	379,320	336,400	323,640	345,323	487,200	384,200		1.3	2.4	
Avg. Daily Flow/Month (GPM)		328	338	288	274	256	256	249	251	263	234	225	240	338	267				
Pump Station No. 11	732																		Upgrade
Run Time (Hrs./month)		271	244	225	199	205	199	230	218	246	256	223	246						770
Run Time (%)		38	34	31	28	29	28	32	30	34	36	31	34			32.0			
Avg. Daily Flow/Month (GPD)		383,893	382,470	319,152	291,754	290,781	290,781	325,740	308,954	360,144	363,072	326,472	347,982	383,893	332,600		1.2	2.0	
Avg. Daily Flow/Month (GPM)		267	266	222	203	202	202	226	215	250	252	227	242	267	231				
Pump Station No. 12	760																		Current design o.k.
Run Time (Hrs./month)		625	657	523	486	554	416	420	493	624	549	490	569						due to NCSD diversion
Run Time (%)		87	91	73	68	77	58	58	68	87	76	68	79			74.1			
Avg. Daily Flow/Month (GPD)		918,756	1,069,700	769,120	739,371	814,510	632,110	617,500	724,883	948,480	807,120	744,800	836,585	1,069,700	801,911		1.3	2.5	
Avg. Daily Flow/Month (GPM)		638	743	534	513	566	439	429	503	659	561	517	581	743	557				

Pump Station	Design (gpm)	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Max Avg. Month	Avg. Flow	Avg. Run Time %	Max Avg Month / Avg. P.F.*	Max Daily / Avg. P.F.*	Rec. design (gpm) @ 30% Run Time
Pump Station No. 13	350																		Upgrade
Run Time (Hrs./month)		304	274	257	213	205	210	211	207	225	289	247	223						382
Run Time (%)		42	38	36	30	29	29	29	29	31	40	34	31			33.2			
Avg. Daily Flow/Month (GPD)		206,111	205,625	174,300	149,250	139,034	147,000	142,625	140,483	157,500	196,000	172,900	151,038	206,111	165,156		1.2	1.8	
Avg. Daily Flow/Month (GPM)		143	143	121	104	97	102	99	98	109	136	120	105	143	115				
Pump Station No. 14	300																		Current design o.k.
Run Time (Hrs./month)		102	92	85	77	109	192	96	109	102	95	87	98						
Run Time (%)		14	13	12	11	15	27	13	15	14	13	12	14			14.4			
Avg. Daily Flow/Month (GPD)		59,333	59,250	49,200	46,286	63,310	115,448	55,500	63,310	61,200	55,200	52,200	56,769	115,448	61,417		1.9	4.7	
Avg. Daily Flow/Month (GPM)		41	41	34	32	44	80	39	44	43	38	36	39	80	43				
Pump Station No. 15	373																		Current design o.k.
Run Time (Hrs./month)		220	257	194	177	118	101	93	73	60	84	68	31						
Run Time (%)		31	36	27	25	16	14	13	10	8	12	9	4			17.1			
Avg. Daily Flow/Month (GPD)		159,147	205,150	140,248	131,882	84,890	75,629	67,140	52,477	44,760	60,426	50,728	22,380	205,150	91,238		2.2	5.7	
Avg. Daily Flow/Month (GPM)		111	142	97	92	59	53	47	36	31	42	35	16	142	63				
Pump Station No. 16	1610																		Current design o.k.
Run Time (Hrs./month)		493	408	301	273	294	274	337	328	410	619	335	398						due to NCSD diversion
Run Time (%)		68	57	42	38	41	38	47	46	57	86	47	55			51.7			
Avg. Daily Flow/Month (GPD)		1,534,867	1,408,750	937,020	879,750	916,034	882,724	1,050,525	1,022,628	1,320,200	1,928,780	1,078,700	1,240,938	1,928,780	1,183,410		1.6	2.7	
Avg. Daily Flow/Month (GPM)		1,066	978	651	611	636	613	730	710	917	1,339	749	862	1,339	822				
Pump Station No. 17	200																		Current design o.k.
Run Time (Hrs./month)		76	79	40	41	38	41	48	15	-	25	47	110						
Run Time (%)		11	11	6	6	5	6	7	2	-	3	7	15			7.1			
Avg. Daily Flow/Month (GPD)		29,333	34,000	15,600	16,286	14,897	16,552	18,500	5,793	-	9,600	18,800	42,462	42,462	20,166		2.1	9.1	
Avg. Daily Flow/Month (GPM)		20	24	11	11	10	11	13	4	-	7	13	29	29	14				
Pump Station No. 18	100																		Current design o.k.
Run Time (Hrs./month)		85	83	71	55	67	61	61	41	30	45	54	57						
Run Time (%)		12	12	10	8	9	8	8	6	4	6	8	8			8.2			
Avg. Daily Flow/Month (GPD)		16,444	17,750	13,800	10,929	13,034	12,207	11,750	7,862	6,000	8,800	10,800	11,077	17,750	11,704		1.5	5.1	
Avg. Daily Flow/Month (GPM)		11	12	10	8	9	8	8	5	4	6	8	8	12	8				
Pump Station No. 19	100																		Current design o.k.
Run Time (Hrs./month)		8	9	5	13	10	7	12	-	-	7	12	18						
Run Time (%)		1	1	1	2	1	1	2	-	-	1	2	2			1.4			
Avg. Daily Flow/Month (GPD)		1,556	2,000	1,000	2,571	1,862	1,448	2,250	-	-	1,400	2,400	3,462	3,462	1,995		1.7	7.1	
Avg. Daily Flow/Month (GPM)		1	1	1	2	1	1	2	-	-	1	2	2	2	1				
Pump Station No. 20	350																		Current design o.k.
Run Time (Hrs./month)		156	92	10	9	6	2	5	3	4	5	4	35						
Run Time (%)		22	13	1	1	1	0	1	0	1	1	1	5			3.8			
Avg. Daily Flow/Month (GPD)		105,778	69,125	7,000	6,000	4,345	1,448	3,500	2,172	2,800	3,500	2,800	23,423	105,778	19,324		5.5	26.4	
Avg. Daily Flow/Month (GPM)		73	48	5	4	3	1	2	2	2	2	2	16	73	13				
Pump Station No. 21	450																		Upgrade
Run Time (Hrs./month)		478	446	409	326	165	348	386	286	240	283	381	396						711
Run Time (%)		66	62	57	45	23	48	54	40	33	39	53	55			48.0			
Avg. Daily Flow/Month (GPD)		416,000	429,750	356,400	293,143	143,379	312,828	336,375	249,517	216,000	246,600	342,900	344,769	429,750	307,305		1.4	2.7	
Avg. Daily Flow/Month (GPM)		289	298	248	204	100	217	234	173	150	171	238	239	298	213				
Pump Station No. 22	300																		Current design o.k.
Run Time (Hrs./month)		49	53	52	35	41	49	63	75	92	69	47	30						
Run Time (%)		7	7	7	5	6	7	9	10	13	10	7	4			7.6			
Avg. Daily Flow/Month (GPD)		28,667	33,750	30,000	21,214	23,586	29,172	36,750	43,448	55,200	40,200	28,200	17,308	55,200	32,291		1.7	2.8	
Avg. Daily Flow/Month (GPM)		20	23	21	15	16	20	26	30	38	28	20	12	38	22				
Pump Station No. 23	202																		Current design o.k.
Run Time (Hrs./month)		181	166	165	154	175	164	161	153	184	156	141	216						
Run Time (%)		25	23	23	21	24	23	22	21	26	22	20	30			23.4			
Avg. Daily Flow/Month (GPD)		70,924	71,710	64,640	62,331	68,541	66,451	63,125	59,764	74,336	61,004	56,964	84,374	84,374	67,014		1.3	4.3	
Avg. Daily Flow/Month (GPM)		49	50	45	43	48	46	44	42	52	42	40	59	59	47				
Pump Station No. 24	211																		Current design o.k.
Run Time (Hrs./month)		70	69	70	148	80	53	52	58	62	67	68	67						
Run Time (%)		10	10	10	21	11	7	7	8	9	9	9	9			10.0			
Avg. Daily Flow/Month (GPD)		28,602	31,123	28,696	62,396	32,741	22,264	21,100	23,574	26,164	27,430	28,696	27,268	62,396	30,004		2.1	10.1	
Avg. Daily Flow/Month (GPM)		20	22	20	43	23	15	15	16	18	19	20	19	43	21				

Pump Station	Design (gpm)	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Max Avg. Month	Avg. Flow	Avg. Run Time %	Max Avg Month / Avg. P.F.*	Max Daily / Avg. P.F.*	Rec. design (gpm) @ 30% Run Time
Pump Station No. 25	225																		Current design o.k.
Run Time (Hrs./month)		220	175	162	129	153	129	111	72	120	121	111	124						
Run Time (%)		31	24	23	18	21	18	15	10	17	17	15	17			18.8			
Avg. Daily Flow/Month (GPD)		96,000	84,375	70,650	57,857	66,569	58,190	48,375	31,190	54,000	52,650	49,950	54,000	96,000	60,317		1.6	5.4	
Avg. Daily Flow/Month (GPM)		67	59	49	40	46	40	34	22	38	37	35	38	67	42				
Pump Station No. 26	152																		Current design o.k.
Run Time (Hrs./month)		123	111	111	100	100	111	97	98	109	102	105	109						
Run Time (%)		17	15	15	14	14	15	13	14	15	14	15	15			14.8			
Avg. Daily Flow/Month (GPD)		36,142	36,100	32,528	30,291	29,561	33,650	28,500	28,932	33,136	30,096	31,920	31,920	36,142	31,898		1.1	3.4	
Avg. Daily Flow/Month (GPM)		25	25	23	21	21	23	20	20	23	21	22	22	25	22				
Pump Station No. 27	155																		Current design o.k.
Run Time (Hrs./month)		102	90	92	89	82	87	84	80	83	110	75	85						
Run Time (%)		14	12	13	12	11	12	12	11	12	15	10	12			12.3			
Avg. Daily Flow/Month (GPD)		30,656	29,838	27,590	27,568	24,693	26,938	25,188	24,052	25,730	32,860	23,250	25,396	32,860	26,980		1.2	4.5	
Avg. Daily Flow/Month (GPM)		21	21	19	19	17	19	17	17	18	23	16	18	23	19				
Pump Station No. 28	405																		Current design o.k.
Run Time (Hrs./month)		219	194	162	136	105	120	102	157	142	120	102	137						
Run Time (%)		30	27	23	19	15	17	14	22	20	17	14	19			19.6			
Avg. Daily Flow/Month (GPD)		171,900	168,075	127,170	110,218	82,117	97,200	79,988	123,176	115,020	93,960	82,620	107,481	171,900	113,244		1.5	5.4	
Avg. Daily Flow/Month (GPM)		119	117	88	77	57	68	56	86	80	65	57	75	119	79				
Pump Station No. 29	120																		Current design o.k.
Run Time (Hrs./month)		565	358	285	227	199	314	222	388	658	408	320	448						once I&I is addressed
Run Time (%)		78	50	40	32	28	44	31	54	91	57	44	62			50.8			
Avg. Daily Flow/Month (GPD)		131,200	92,100	66,240	54,514	46,179	75,476	51,600	90,124	157,920	94,800	76,800	104,123	157,920	86,756		1.8	3.9	
Avg. Daily Flow/Month (GPM)		91	64	46	38	32	52	36	63	110	66	53	72	110	60				
Pump Station No. 30	675																		Current design o.k.
Run Time (Hrs./month)		100	86	85	79	76	84	89	88	89	102	93	95						
Run Time (%)		14	12	12	11	11	12	12	12	12	14	13	13			12.3			
Avg. Daily Flow/Month (GPD)		130,500	124,875	110,700	107,036	99,155	113,121	116,438	114,517	120,150	133,650	125,550	124,615	133,650	118,359		1.1	2.1	
Avg. Daily Flow/Month (GPM)		91	87	77	74	69	79	81	80	83	93	87	87	93	82				
Pump Station No. 31	85																		Current design o.k.
Run Time (Hrs./month)		87	76	60	54	48	61	48	55	79	62	37	47						
Run Time (%)		12	11	8	7	7	8	7	8	11	9	5	6			8.2			
Avg. Daily Flow/Month (GPD)		14,356	13,813	9,860	9,107	7,914	10,376	7,863	8,969	13,430	10,200	6,290	7,650	14,356	9,986		1.4	2.6	
Avg. Daily Flow/Month (GPM)		10	10	7	6	5	7	5	6	9	7	4	5	10	7				
Pump Station No. 32	180	No Data due to SCADA malfunction																	Continue to Monitor
Run Time (Hrs./month)																			
Run Time (%)																			
Avg. Daily Flow/Month (GPD)																			
Avg. Daily Flow/Month (GPM)																			
Pump Station No. 33	260																		Current design o.k.
Run Time (Hrs./month)		121	116	99	87	80	87	80	102	120	94	82	95						
Run Time (%)		17	16	14	12	11	12	11	14	17	13	11	13			13.5			
Avg. Daily Flow/Month (GPD)		60,667	64,350	49,920	45,129	40,345	45,186	40,300	51,103	62,400	47,320	42,640	48,000	64,350	49,780		1.3	3.1	
Avg. Daily Flow/Month (GPM)		42	45	35	31	28	31	28	35	43	33	30	33	45	35				
Pump Station No. 34	200																		Current design o.k.
Run Time (Hrs./month)		201	12	19	15	16	20	19	27	30	19	18	23						
Run Time (%)		28	2	3	2	2	3	3	4	4	3	3	3			4.8			
Avg. Daily Flow/Month (GPD)		77,778	5,000	7,200	6,000	6,207	7,862	7,500	10,345	12,000	7,200	7,200	8,769	77,778	13,588		5.7	21.0	
Avg. Daily Flow/Month (GPM)		54	3	5	4	4	5	5	7	8	5	5	6	54	9				
Pump Station No. 35	510																		Current design o.k.
Run Time (Hrs./month)		215	198	179	144	153	156	164	183	213	226	169	227						
Run Time (%)		30	28	25	20	21	22	23	25	30	31	23	31			25.8			
Avg. Daily Flow/Month (GPD)		211,933	216,750	176,460	146,443	150,890	159,331	161,925	180,434	217,260	223,380	172,380	223,615	223,615	186,733		1.2	3.0	
Avg. Daily Flow/Month (GPM)		147	151	123	102	105	111	112	125	151	155	120	155	155	130				
Pump Station No. 36	200																		Current design o.k.
Run Time (Hrs./month)		146	127	93	83	92	111	107	112	116	119	222	153						
Run Time (%)		20	18	13	11	13	15	15	16	16	17	31	21			17.1			
Avg. Daily Flow/Month (GPD)		56,444	54,500	36,000	33,000	35,586	44,276	41,500	43,448	46,400	46,000	88,800	59,077	88,800	48,753		1.8	5.4	
Avg. Daily Flow/Month (GPM)		39	38	25	23	25	31	29	30	32	32	62	41	62	34				

Pump Station	Design (gpm)	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Max Avg. Month	Avg. Flow	Avg. Run Time %	Max Avg Month / Avg. P.F.*	Max Daily / Avg. P.F.*	Rec. design (gpm) @ 30% Run Time
Pump Station No. 37	687	No Data due to SCADA malfunction																	Continue to Monitor
Run Time (Hrs./month)																			
Run Time (%)																			
Avg. Daily Flow/Month (GPD)																			
Avg. Daily Flow/Month (GPM)																			
Pump Station No. 38	194	No Data due to SCADA malfunction																	Continue to Monitor
Run Time (Hrs./month)																			
Run Time (%)																			
Avg. Daily Flow/Month (GPD)																			
Avg. Daily Flow/Month (GPM)																			
Pump Station No. 39	106																		Current design o.k.
Run Time (Hrs./month)		22	21	23	24	19	22	80	24	25	27	24	27						
Run Time (%)		3	3	3	3	3	3	11	3	3	4	3	4			3.9			
Avg. Daily Flow/Month (GPD)		4,476	4,770	4,664	4,997	3,948	4,606	16,430	4,825	5,300	5,512	5,088	5,626	16,430	5,853		2.8	26.0	
Avg. Daily Flow/Month (GPM)		3	3	3	3	3	3	11	3	4	4	4	4	11	4				
Pump Station No. 41	200																		Current design o.k.
Run Time (Hrs./month)		0	0	135	129	123	114	121	142	165	267	521	123						
Run Time (%)		0	0	19	18	17	16	17	20	23	37	72	17			21.3			
Avg. Daily Flow/Month (GPD)		0	0	52,200	51,600	47,640	45,600	46,800	54,960	66,000	103,320	208,440	47,640	208,440	60,350		0.0	0.0	
Avg. Daily Flow/Month (GPM)		0	0	36	36	33	32	33	38	46	72	145	33	145	42				
Pump Station No. 42	320																		Current design o.k.
Run Time (Hrs./month)		100	106	141	109	108	82	70	74	94	84	98	109						
Run Time (%)		14	15	20	15	15	11	10	10	13	12	14	15			13.6			
Avg. Daily Flow/Month (GPD)		61,867	72,800	87,040	69,943	66,869	52,303	43,200	45,683	60,160	51,840	62,720	67,200	87,040	61,802		1.4	2.8	
Avg. Daily Flow/Month (GPM)		43	51	60	49	46	36	30	32	42	36	44	47	60	43				
Pump Station No. 43	130																		Current design o.k.
Run Time (Hrs./month)		183	104	112	81	84	80	81	92	118	137	108	106						
Run Time (%)		25	14	16	11	12	11	11	13	16	19	15	15			14.9			
Avg. Daily Flow/Month (GPD)		45,933	28,925	28,080	21,171	21,248	20,710	20,475	23,131	30,680	34,580	28,080	26,700	45,933	27,476		1.7	4.0	
Avg. Daily Flow/Month (GPM)		32	20	20	15	15	14	14	16	21	24	20	19	32	19				
Pump Station No. 44	250																		Current design o.k.
Run Time (Hrs./month)		237	215	219	192	201	198	209	212	218	234	212	235						
Run Time (%)		33	30	30	27	28	27	29	29	30	32	29	33			29.9			
Avg. Daily Flow/Month (GPD)		114,444	115,000	106,000	95,893	97,241	98,793	101,250	102,414	109,000	113,000	106,000	113,654	115,000	106,057		1.1	1.6	
Avg. Daily Flow/Month (GPM)		79	80	74	67	68	69	70	71	76	78	74	79	80	74				
Pump Station No. 45	61																		Current design o.k.
Run Time (Hrs./month)		116	84	78	73	89	80	88	86	425	84	53	70						
Run Time (%)		16	12	11	10	12	11	12	12	59	12	7	10			15.3			
Avg. Daily Flow/Month (GPD)		13,691	10,980	9,150	8,889	10,475	9,718	10,370	10,097	51,850	9,882	6,466	8,305	51,850	13,323		3.9	6.6	
Avg. Daily Flow/Month (GPM)		10	8	6	6	7	7	7	7	36	7	4	6	36	9				
Pump Station No. 46	220																		Current design o.k.
Run Time (Hrs./month)		195	175	163	151	154	160	154	161	177	193	166	180						
Run Time (%)		27	24	23	21	21	22	21	22	25	27	23	25			23.5			
Avg. Daily Flow/Month (GPD)		83,111	82,500	69,520	66,471	65,545	70,552	65,450	68,731	77,880	82,280	73,040	76,662	83,111	73,478		1.1	1.8	
Avg. Daily Flow/Month (GPM)		58	57	48	46	46	49	45	48	54	57	51	53	58	51				
Pump Station No. 47	261																		Current design o.k.
Run Time (Hrs./month)		195	175	163	151	154	160	154	161	177	193	166	180						
Run Time (%)		27	24	23	21	21	22	21	22	25	27	23	25			23.5			
Avg. Daily Flow/Month (GPD)		98,600	97,875	82,476	78,859	77,760	83,700	77,648	81,540	92,394	97,614	86,652	90,948	98,600	87,172		1.1	1.8	
Avg. Daily Flow/Month (GPM)		68	68	57	55	54	58	54	57	64	68	60	63	68	61				
Pump Station No. 48	98																		Current design o.k.
Run Time (Hrs./month)		87	65	67	61	72	118	118	88	114	154	69	114						
Run Time (%)		12	9	9	8	10	16	16	12	16	21	10	16			13.0			
Avg. Daily Flow/Month (GPD)		16,551	13,720	12,740	11,970	13,585	23,114	22,295	16,626	22,344	29,204	13,524	21,711	29,204	18,115		1.6	8.4	
Avg. Daily Flow/Month (GPM)		11	10	9	8	9	16	15	12	16	20	9	15	20	13				
Pump Station No. 49	250																		Current design o.k.
Run Time (Hrs./month)		-	54	63	63	49	54	-	59	35	146	-	-						
Run Time (%)		-	8	9	9	7	8	-	8	5	20	-	-			9.1			
Avg. Daily Flow/Month (GPD)		-	28,950	30,450	31,500	23,700	27,000	-	28,500	17,550	70,650	-	-	70,650	32,288		2.2	**N/A	
Avg. Daily Flow/Month (GPM)		-	20	21	22	16	19	-	20	12	49	-	-	49	22				

Pump Station	Design (gpm)	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Max Avg. Month	Avg. Flow	Avg. Run Time %	Max Avg Month / Avg. P.F.*	Max Daily / Avg. P.F.*	Rec. design (gpm) @ 30% Run Time
Pump Station No. 50	150																		Current design o.k.
Run Time (Hrs./month)		23	21	25	23	9	16	18	18	24	28	29	26						
Run Time (%)		3	3	3	3	1	2	3	3	3	4	4	4			3.0			
Avg. Daily Flow/Month (GPD)		6,667	6,750	7,200	6,750	2,483	4,655	5,250	5,276	7,200	8,100	8,700	7,615	8,700	6,387		1.4	2.8	
Avg. Daily Flow/Month (GPM)		5	5	5	5	2	3	4	4	5	6	6	5	6	4				
Pump Station No. 51	170																		Current design o.k.
Run Time (Hrs./month)		73	69	72	63	61	68	68	64	74	71	107	150						
Run Time (%)		10	10	10	9	8	9	10	9	10	10	15	21			10.9			
Avg. Daily Flow/Month (GPD)		24,178	25,075	23,800	21,493	20,048	23,214	22,525	21,103	25,160	23,460	36,380	49,431	49,431	26,322		1.9	9.3	
Avg. Daily Flow/Month (GPM)		17	17	17	15	14	16	16	15	17	16	25	34	34	18				
Pump Station No. 52	98																		Current design o.k.
Run Time (Hrs./month)		30	32	31	21	24	23	43	28	39	37	29	32						
Run Time (%)		4	4	4	3	3	3	6	4	5	5	4	4			4.3			
Avg. Daily Flow/Month (GPD)		5,662	6,615	5,880	4,200	4,461	4,461	8,085	5,272	7,644	7,056	5,684	6,106	8,085	5,927		1.4	12.9	
Avg. Daily Flow/Month (GPM)		4	5	4	3	3	3	6	4	5	5	4	4	6	4				
Pump Station No. 53	100																		Current design o.k.
Run Time (Hrs./month)		276	225	192	155	139	186	171	177	240	202	157	274						
Run Time (%)		38	31	27	22	19	26	24	25	33	28	22	38			27.7			
Avg. Daily Flow/Month (GPD)		53,333	48,250	37,200	31,071	26,897	37,241	33,000	34,345	48,000	39,000	31,400	53,077	53,333	39,401		1.4	3.8	
Avg. Daily Flow/Month (GPM)		37	34	26	22	19	26	23	24	33	27	22	37	37	27				
Pump Station No. 54	240																		Current design o.k.
Run Time (Hrs./month)		73	98	73	153	295	83	137	217	226	240	252	194						
Run Time (%)		10	14	10	21	41	11	19	30	31	33	35	27			23.6			
Avg. Daily Flow/Month (GPD)		34,133	50,400	34,080	73,543	137,048	39,724	63,600	100,800	108,480	111,360	120,960	90,277	137,048	80,367		1.7	4.5	
Avg. Daily Flow/Month (GPM)		24	35	24	51	95	28	44	70	75	77	84	63	95	56				
Pump Station No. 55	521																		Current design o.k.
Run Time (Hrs./month)		26	26	23	20	17	26	14	35	31	19	28	18						
Run Time (%)		4	4	3	3	2	4	2	5	4	3	4	2			3.3			
Avg. Daily Flow/Month (GPD)		26,629	28,655	22,924	21,212	17,247	26,948	14,328	35,572	32,302	18,756	29,176	18,035	35,572	24,315		1.5	5.2	
Avg. Daily Flow/Month (GPM)		18	20	16	15	12	19	10	25	22	13	20	13	25	17				
Pump Station No. 56	400																		Current design o.k.
Run Time (Hrs./month)		10	6	10	4	13	10	6	8	11	14	12	0						
Run Time (%)		1	1	1	1	2	1	1	1	2	2	2	0			1.2			
Avg. Daily Flow/Month (GPD)		7,680	5,040	7,680	3,120	10,080	7,920	4,560	6,240	8,880	10,800	9,600	0	10,800	6,800		1.6	**N/A	
Avg. Daily Flow/Month (GPM)		5	4	5	2	7	6	3	4	6	8	7	0	8	5				
Pump Station No. 57	180																		Current design o.k.
Run Time (Hrs./month)		48	54	25	26	20	26	25	41	54	31	31	52						
Run Time (%)		7	7	3	4	3	4	3	6	8	4	4	7			5.0			
Avg. Daily Flow/Month (GPD)		16,800	20,700	8,640	9,257	7,076	9,310	8,550	14,152	19,440	10,800	11,160	18,277	20,700	12,847		1.6	7.6	
Avg. Daily Flow/Month (GPM)		12	14	6	6	5	6	6	10	14	8	8	13	14	9				
Pump Station No. 58	107																		Current design o.k.
Run Time (Hrs./month)		15	13	8	9	8	8	9	10	14	10	9	19						
Run Time (%)		2	2	1	1	1	1	1	1	2	1	1	3			1.5			
Avg. Daily Flow/Month (GPD)		3,084	2,977	1,733	1,926	1,669	1,733	1,862	2,054	3,017	2,054	1,926	3,852	3,852	2,324		1.7	**N/A	
Avg. Daily Flow/Month (GPM)		2	2	1	1	1	1	1	1	2	1	1	3	3	2				
Pump Station No. 59	150																		Current design o.k.
Run Time (Hrs./month)		33	16	0	12	12	18	12	27	31	16	8	27						
Run Time (%)		5	2	0	2	2	3	2	4	4	2	1	4			2.5			
Avg. Daily Flow/Month (GPD)		9,540	5,130	0	3,600	3,510	5,400	3,510	7,830	9,270	4,680	2,430	7,830	9,540	5,228		1.8	**N/A	
Avg. Daily Flow/Month (GPM)		7	4	0	3	2	4	2	5	6	3	2	5	7	4				
Pump Station No. 60	300																		Current design o.k.
Run Time (Hrs./month)		48	76	74	53	33	49	119	61	70	68	42	42						
Run Time (%)		7	11	10	7	5	7	17	8	10	9	6	6			8.5			
Avg. Daily Flow/Month (GPD)		28,000	48,750	43,200	31,500	19,241	29,172	69,000	35,379	42,000	39,600	25,200	24,231	69,000	36,273		1.9	16.9	
Avg. Daily Flow/Month (GPM)		19	34	30	22	13	20	48	25	29	28	18	17	48	25				
Pump Station No. 61	490																		Current design o.k.
Run Time (Hrs./month)		39	37	35	36	34	41	44	40	44	44	42	45						
Run Time (%)		5	5	5	5	5	6	6	5	6	6	6	6			5.6			
Avg. Daily Flow/Month (GPD)		37,022	39,200	33,320	35,700	32,441	40,552	41,650	37,510	43,120	42,140	41,160	42,969	43,120	38,899		1.1	1.5	
Avg. Daily Flow/Month (GPM)		26	27	23	25	23	28	29	26	30	29	29	30	30	27				

Pump Station	Design (gpm)	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Max Avg. Month	Avg. Flow	Avg. Run Time %	Max Avg Month / Avg. P.F.*	Max Daily / Avg. P.F.*	Rec. design (gpm) @ 30% Run Time
Pump Station No. 62	50																		Current design o.k.
Run Time (Hrs./month)		86	-	63	164	92	96	104	-	292	70	64	-						
Run Time (%)		12	-	9	23	13	13	14	-	41	10	9	-			15.9			
Avg. Daily Flow/Month (GPD)		8,310	-	6,090	16,410	8,910	9,600	10,050	-	29,190	6,780	6,390	-	29,190	11,303		2.6	**N/A	
Avg. Daily Flow/Month (GPM)		6	-	4	11	6	7	7	-	20	5	4	-	20	8				
Pump Station No. 63	407																		Current design o.k.
Run Time (Hrs./month)		86	74	31	52	44	4	8	14	8	8	6	-						
Run Time (%)		12	10	4	7	6	1	1	2	1	1	1	-			4.2			
Avg. Daily Flow/Month (GPD)		67,643	64,713	24,420	42,247	34,676	3,175	6,349	10,989	6,593	6,349	4,884	-	67,643	24,731		2.7	**N/A	
Avg. Daily Flow/Month (GPM)		47	45	17	29	24	2	4	8	5	4	3	-	47	17				
Pump Station No. 64	157																		Current design o.k.
Run Time (Hrs./month)		-	-	-	0	2	2	0	2	12	2	2	0						
Run Time (%)		-	-	-	0	0	0	0	0	2	0	0	0			0.3			
Avg. Daily Flow/Month (GPD)		-	-	-	0	565	659	0	565	3,768	565	659	0	3,768	754		5.0	**N/A	
Avg. Daily Flow/Month (GPM)		-	-	-	0	0	0	0	0	3	0	0	0	3	1				
Pump Station No. 65	825	NEW PUMP STATION BEING CONSTRUCTED																	Current design o.k.
Run Time (Hrs./month)																			
Run Time (%)																			
Avg. Daily Flow/Month (GPD)																			
Avg. Daily Flow/Month (GPM)																			
Pump Station No. 66	200	NEW PUMP STATION BEING CONSTRUCTED																	Current design o.k.
Run Time (Hrs./month)								44	40	44	44	66	45						
Run Time (%)								6	5	6	6	9	6			6.6			
Avg. Daily Flow/Month (GPD)								17,000	15,310	17,600	17,200	26,400	17,538	26,400	18,508		1.4	3.9	
Avg. Daily Flow/Month (GPM)								12	11	12	12	18	12	18	13				
Pump Station No. 67	90	NEW PUMP STATION BEING CONSTRUCTED																	Current design o.k.
Run Time (Hrs./month)	1450																		
Run Time (%)																			
Avg. Daily Flow/Month (GPD)																			
Avg. Daily Flow/Month (GPM)																			
Pump Station No. 68	112	NEW PUMP STATION BEING CONSTRUCTED																	Current design o.k.
Run Time (Hrs./month)																			
Run Time (%)																			
Avg. Daily Flow/Month (GPD)																			
Avg. Daily Flow/Month (GPM)																			
Pump Station No. 69	106	NEW PUMP STATION BEING CONSTRUCTED																	Current design o.k.
Run Time (Hrs./month)																			
Run Time (%)																			
Avg. Daily Flow/Month (GPD)																			
Avg. Daily Flow/Month (GPM)																			
Pump Station No. 70	275	NEW PUMP STATION BEING CONSTRUCTED																	Current design o.k.
Run Time (Hrs./month)																			
Run Time (%)																			
Avg. Daily Flow/Month (GPD)																			
Avg. Daily Flow/Month (GPM)																			
Pump Station No. 71	428	NEW PUMP STATION BEING CONSTRUCTED																	Current design o.k.
Run Time (Hrs./month)																			
Run Time (%)																			
Avg. Daily Flow/Month (GPD)																			
Avg. Daily Flow/Month (GPM)																			
Pump Station No. 72	102																		Current design o.k.
Run Time (Hrs./month)		193	87	96	97	92	74	75	85	92	94	-	-						
Run Time (%)		27	12	13	13	13	10	10	12	13	13	-	-			13.7			
Avg. Daily Flow/Month (GPD)		38,102	18,972	18,972	19,768	18,176	15,116	14,810	16,769	18,788	18,544	-	-	38,102	19,802		1.9	**N/A	
Avg. Daily Flow/Month (GPM)		26	13	13	14	13	10	10	12	13	13	-	-	26	14				
Pump Station No. 73	158																		Current design o.k.
Run Time (Hrs./month)		40	101	153	145	157	153	146	154	197	175	141	-						
Run Time (%)		6	14	21	20	22	21	20	21	27	24	20	-			19.7			
Avg. Daily Flow/Month (GPD)		12,229	34,223	46,831	45,788	47,969	48,348	44,651	47,116	62,284	53,562	44,651	-	62,284	44,332		1.4	**N/A	
Avg. Daily Flow/Month (GPM)		8	24	33	32	33	34	31	33	43	37	31	-	43	31				

Pump Station	Design (gpm)	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Max Avg. Month	Avg. Flow	Avg. Run Time %	Max Avg Month / Avg. P.F.*	Max Daily / Avg. P.F.*	Rec. design (gpm) @ 30% Run Time
Pump Station No. 74	140																		Current design o.k.
Run Time (Hrs./month)		-	39	32	23	19	10	19	22	26	-	20	-						
Run Time (%)		-	5	4	3	3	1	3	3	4	-	3	-			3.2			
Avg. Daily Flow/Month (GPD)		-	11,676	8,652	6,468	5,124	2,772	5,124	5,964	7,308	-	5,628	-	11,676	6,524		1.8	**N/A	
Avg. Daily Flow/Month (GPM)		-	8	6	4	4	2	4	4	5	-	4	-	8	5				
Pump Station No. 75	138																		Current design o.k.
Run Time (Hrs./month)		148	127	127	118	111	298	117	127	296	122	110	-						
Run Time (%)		21	18	18	16	15	41	16	18	41	17	15	-			21.5			
Avg. Daily Flow/Month (GPD)		39,496	37,591	33,948	32,540	29,642	82,220	31,216	33,948	81,724	32,623	30,388	-	82,220	42,303		1.9	**N/A	
Avg. Daily Flow/Month (GPM)		27	26	24	23	21	57	22	24	57	23	21	-	57	29				
Pump Station No. 76	92																		Current design o.k.
Run Time (Hrs./month)		-	292	-	115	109	154	110	140	338	205	-	-						
Run Time (%)		-	41	-	16	15	21	15	19	47	28	-	-			25.4			
Avg. Daily Flow/Month (GPD)		-	57,574	-	21,142	19,430	28,318	19,596	24,950	62,210	36,487	-	-	62,210	33,713		1.8	**N/A	
Avg. Daily Flow/Month (GPM)		-	40	-	15	13	20	14	17	43	25	-	-	43	23				
Pump Station No. 77	265																		Current design o.k.
Run Time (Hrs./month)		278	257	224	216	201	231	232	221	230	225	198	214						
Run Time (%)		39	36	31	30	28	32	32	31	32	31	28	30			31.6			
Avg. Daily Flow/Month (GPD)		142,623	145,962	114,957	114,480	103,032	122,430	118,932	113,367	121,953	115,434	104,940	109,710	145,962	118,985		1.2	**N/A	
Avg. Daily Flow/Month (GPM)		99	101	80	80	72	85	83	79	85	80	73	76	101	83				
Pump Station No. 78	102																		Current design o.k.
Run Time (Hrs./month)		-	-	51	40	46	41	44	44	47	40	31	39						
Run Time (%)		-	-	7	6	6	6	6	6	7	6	4	5			5.9			
Avg. Daily Flow/Month (GPD)		-	-	10,098	8,140	9,058	8,384	8,690	8,690	9,608	7,895	6,304	7,711	10,098	8,458		1.2	**N/A	
Avg. Daily Flow/Month (GPM)		-	-	7	6	6	6	6	6	7	5	4	5	7	6				
Pump Station No. 79	380																		Current design o.k.
Run Time (Hrs./month)		214	171	82	175	163	181	191	276	164	134	215	-						
Run Time (%)		30	24	11	24	23	25	27	38	23	19	30	-			24.8			
Avg. Daily Flow/Month (GPD)		157,320	139,308	60,420	132,924	119,928	137,484	140,448	202,920	124,716	98,496	163,476	-	202,920	134,313		1.5	**N/A	
Avg. Daily Flow/Month (GPM)		109	97	42	92	83	95	98	141	87	68	114	-	141	93				
Pump Station No. 80	21																		Current design o.k.
Run Time (Hrs./month)		172	138	368	178	200	584	279	236	104	141	431	-						
Run Time (%)		24	19	51	25	28	81	39	33	14	20	60	-			35.7			
Avg. Daily Flow/Month (GPD)		6,993	6,212	14,956	7,472	8,127	24,532	11,340	9,589	4,372	5,733	18,106	-	24,532	10,676		2.3	**N/A	
Avg. Daily Flow/Month (GPM)		5	4	10	5	6	17	8	7	3	4	13	-	17	7				
Pump Station No. 81	47																		Current design o.k.
Run Time (Hrs./month)		30	22	25	21	20	26	34	39	44	26	27	-						
Run Time (%)		4	3	3	3	3	4	5	5	6	4	4	-			4.0			
Avg. Daily Flow/Month (GPD)		2,735	2,228	2,284	1,974	1,833	2,453	3,102	3,553	4,145	2,369	2,538	-	4,145	2,656		1.6	**N/A	
Avg. Daily Flow/Month (GPM)		2	2	2	1	1	2	2	2	3	2	2	-	3	2				
Pump Station No. 82	85																		Current design o.k.
Run Time (Hrs./month)		-	38	44	51	97	54	43	39	32	44	-	-						
Run Time (%)		-	5	6	7	13	8	6	5	4	6	-	-			6.8			
Avg. Daily Flow/Month (GPD)		-	6,936	7,242	8,670	15,963	9,180	7,089	6,426	5,457	7,242	-	-	15,963	8,245		1.9	**N/A	
Avg. Daily Flow/Month (GPM)		-	5	5	6	11	6	5	4	4	5	-	-	11	6				
Pump Station No. 83	50																		Current design o.k.
Run Time (Hrs./month)		348	278	286	288	282	165	295	217	108	71	89	-						
Run Time (%)		48	39	40	40	39	23	41	30	15	10	12	-			30.7			
Avg. Daily Flow/Month (GPD)		33,690	29,790	27,690	28,800	27,300	16,500	28,560	21,000	10,800	6,870	8,910	-	33,690	21,810		1.5	**N/A	
Avg. Daily Flow/Month (GPM)		23	21	19	20	19	11	20	15	8	5	6	-	23	15				
Pump Station No. 84	153																		Current design o.k.
Run Time (Hrs./month)		348	278	286	288	282	165	295	217	108	71	89	-						
Run Time (%)		48	39	40	40	39	23	41	30	15	10	12	-			30.7			
Avg. Daily Flow/Month (GPD)		103,091	91,157	84,731	88,128	83,538	50,490	87,394	64,260	33,048	21,022	27,265	-	103,091	66,739		1.5	**N/A	
Avg. Daily Flow/Month (GPM)		72	63	59	61	58	35	61	45	23	15	19	-	72	46				
Pump Station No. 85	110																		Current design o.k.
Run Time (Hrs./month)		150	129	137	151	163	18	20	19	19	24	18	-						
Run Time (%)		21	18	19	21	23	3	3	3	3	3	3	-			10.7			
Avg. Daily Flow/Month (GPD)		31,944	30,426	29,172	33,198	34,716	3,960	4,290	4,026	4,158	5,082	3,960	-	34,716	16,812		2.1	**N/A	
Avg. Daily Flow/Month (GPM)		22	21	20	23	24	3	3	3	3	4	3	-	24	12				

Pump Station	Design (gpm)	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Max Avg. Month	Avg. Flow	Avg. Run Time %	Max Avg Month / Avg. P.F.*	Max Daily / Avg. P.F.*	Rec. design (gpm) @ 30% Run Time
Pump Station No. 86	168																		Current design o.k.
Run Time (Hrs./month)		72	54	76	78	70	73	201	-	227	225	93	-						
Run Time (%)		10	8	11	11	10	10	28	-	32	31	13	-			16.2			
Avg. Daily Flow/Month (GPD)		23,386	19,454	24,696	26,208	22,781	24,494	65,318	-	76,306	73,181	31,248	-	76,306	38,707		2.0	**N/A	
Avg. Daily Flow/Month (GPM)		16	14	17	18	16	17	45	-	53	51	22	-	53	27				
Pump Station No. 87	200																		Current design o.k.
Run Time (Hrs./month)		86	71	69	71	60	75	69	153	83	64	54	104						
Run Time (%)		12	10	10	10	8	10	10	21	11	9	7	15			11.1			
Avg. Daily Flow/Month (GPD)		33,480	30,600	26,640	28,440	23,400	30,000	26,520	59,160	33,000	24,600	21,480	40,440	59,160	31,480		1.9	**N/A	
Avg. Daily Flow/Month (GPM)		23	21	19	20	16	21	18	41	23	17	15	28	41	22				
Pump Station No. 88	180																		Current design o.k.
Run Time (Hrs./month)		134	121	106	98	87	127	91	137	206	126	169	-						
Run Time (%)		19	17	15	14	12	18	13	19	29	17	23	-			17.7			
Avg. Daily Flow/Month (GPD)		46,656	46,656	36,936	35,316	30,348	45,684	31,752	47,736	74,196	43,848	60,804	-	74,196	45,448		1.6	**N/A	
Avg. Daily Flow/Month (GPM)		32	32	26	25	21	32	22	33	52	30	42	-	52	32				
Pump Station No. 89	145																		Current design o.k.
Run Time (Hrs./month)		125	74	95	79	73	69	68	67	89	80	65	-						
Run Time (%)		17	10	13	11	10	10	9	9	12	11	9	-			11.2			
Avg. Daily Flow/Month (GPD)		35,061	22,968	26,622	22,881	20,445	20,010	19,053	18,792	25,839	22,446	18,792	-	35,061	22,992		1.5	**N/A	
Avg. Daily Flow/Month (GPM)		24	16	18	16	14	14	13	13	18	16	13	-	24	16				
Pump Station No. 90	428																		Current design o.k.
Run Time (Hrs./month)		84	-	70	78	72	72	72	75	69	109	-	-						
Run Time (%)		12	-	10	11	10	10	10	10	10	15	-	-			10.8			
Avg. Daily Flow/Month (GPD)		69,593	-	58,037	66,768	59,578	61,632	59,578	62,146	59,064	90,394	-	-	90,394	65,199		1.4	**N/A	
Avg. Daily Flow/Month (GPM)		48	-	40	46	41	43	41	43	41	63	-	-	63	45				
Pump Station No. 91	115																		Current design o.k.
Run Time (Hrs./month)		196	-	161	163	165	246	203	189	183	159	158	201						
Run Time (%)		27	-	22	23	23	34	28	26	25	22	22	28			25.6			
Avg. Daily Flow/Month (GPD)		43,608	-	35,811	37,467	36,708	56,580	45,195	42,090	42,090	35,397	36,363	44,712	56,580	41,456		1.4	**N/A	
Avg. Daily Flow/Month (GPM)		30	-	25	26	25	39	31	29	29	25	25	31	39	29				
Pump Station No. 92	32																		Current design o.k.
Run Time (Hrs./month)		93	82	83	78	69	79	59	72	81	73	70	-						
Run Time (%)		13	11	12	11	10	11	8	10	11	10	10	-			10.6			
Avg. Daily Flow/Month (GPD)		5,760	5,626	5,146	4,992	4,282	5,050	3,648	4,454	5,184	4,512	4,454	-	5,760	4,828		1.2	**N/A	
Avg. Daily Flow/Month (GPM)		4	4	4	3	3	4	3	3	4	3	3	-	4	3				
Pump Station No. 93	198																		Current design o.k.
Run Time (Hrs./month)		-	112	135	74	159	62	132	109	125	129	-	-						
Run Time (%)		-	16	19	10	22	9	18	15	17	18	-	-			16.0			
Avg. Daily Flow/Month (GPD)		-	47,520	51,678	29,344	60,944	24,592	50,609	41,818	49,540	49,421	-	-	60,944	45,052		1.4	**N/A	
Avg. Daily Flow/Month (GPM)		-	33	36	20	42	17	35	29	34	34	-	-	42	31				
Pump Station No. 94	175																		Current design o.k.
Run Time (Hrs./month)		-	68	66	64	46	53	62	63	73	39	-	-						
Run Time (%)		-	9	9	9	6	7	9	9	10	5	-	-			8.2			
Avg. Daily Flow/Month (GPD)		-	25,515	22,365	22,365	15,540	18,585	21,000	21,315	25,515	13,230	-	-	25,515	20,603		1.2	**N/A	
Avg. Daily Flow/Month (GPM)		-	18	16	16	11	13	15	15	18	9	-	-	18	14				
Pump Station No. 95	170																		Current design o.k.
Run Time (Hrs./month)		219	197	159	104	95	289	95	119	162	123	102	-						
Run Time (%)		30	27	22	14	13	40	13	17	23	17	14	-			21.0			
Avg. Daily Flow/Month (GPD)		72,012	71,808	52,326	35,394	31,212	98,226	31,212	39,168	55,080	40,494	34,680	-	98,226	51,056		1.9	**N/A	
Avg. Daily Flow/Month (GPM)		50	50	36	25	22	68	22	27	38	28	24	-	68	35				
Pump Station No. 96	139																		Current design o.k.
Run Time (Hrs./month)		365	372	282	109	91	76	77	68	171	165	144	186						
Run Time (%)		51	52	39	15	13	11	11	9	24	23	20	26			24.4			
Avg. Daily Flow/Month (GPD)		98,162	110,839	75,894	30,274	24,520	21,100	20,683	18,265	47,538	44,369	40,032	50,040	110,839	48,476		2.3	**N/A	
Avg. Daily Flow/Month (GPM)		68	77	53	21	17	15	14	13	33	31	28	35	77	34				
Pump Station No. 97	180																		Current design o.k.
Run Time (Hrs./month)		79	71	61	50	45	45	42	46	52	47	44	-						
Run Time (%)		11	10	8	7	6	6	6	6	7	7	6	-			7.4			
Avg. Daily Flow/Month (GPD)		27,540	27,432	21,276	18,036	15,660	16,200	14,580	15,984	18,684	16,416	15,876	-	27,540	18,880		1.5	**N/A	
Avg. Daily Flow/Month (GPM)		19	19	15	13	11	11	10	11	13	11	11	-	19	13				

Pump Station	Design (gpm)	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Max Avg. Month	Avg. Flow	Avg. Run Time %	Max Avg Month / Avg. P.F.*	Max Daily / Avg. P.F.*	Rec. design (gpm) @ 30% Run Time
Pump Station No. 98	300																		Current design o.k.
Run Time (Hrs./month)		18	14	15	14	13	8	5	6	9	8	4	-						
Run Time (%)		2	2	2	2	2	1	1	1	1	1	1	-			1.4			
Avg. Daily Flow/Month (GPD)		10,440	9,000	8,640	8,460	7,560	4,860	2,880	3,420	5,400	4,680	2,340	-	10,440	6,153		1.7	**N/A	
Avg. Daily Flow/Month (GPM)		7	6	6	6	5	3	2	2	4	3	2	-	7	4				
Pump Station No. 99	274																		Current design o.k.
Run Time (Hrs./month)		-	108	118	100	96	93	92	117	122	134	-	-						
Run Time (%)		-	15	16	14	13	13	13	16	17	19	-	-			15.1			
Avg. Daily Flow/Month (GPD)		-	63,458	62,636	54,745	50,964	50,964	48,827	61,979	66,911	71,021	-	-	71,021	59,056		1.2	**N/A	
Avg. Daily Flow/Month (GPM)		-	44	43	38	35	35	34	43	46	49	-	-	49	41				
Pump Station No. 100	182																		Current design o.k.
Run Time (Hrs./month)		-	112	126	47	41	33	34	36	36	38	-	-						
Run Time (%)		-	16	17	7	6	5	5	5	5	5	-	-			7.8			
Avg. Daily Flow/Month (GPD)		-	43,680	44,335	17,144	14,414	12,012	12,012	12,667	13,104	13,432	-	-	44,335	20,311		2.2	**N/A	
Avg. Daily Flow/Month (GPM)		-	30	31	12	10	8	8	9	9	9	-	-	31	14				
Pump Station No. 101	198																		Current design o.k.
Run Time (Hrs./month)		-	76	82	92	76	62	106	91	81	81	-	-						
Run Time (%)		-	11	11	13	11	9	15	13	11	11	-	-			11.5			
Avg. Daily Flow/Month (GPD)		-	32,195	31,482	36,472	29,106	24,592	40,630	34,927	32,076	31,007	-	-	40,630	32,498		1.3	**N/A	
Avg. Daily Flow/Month (GPM)		-	22	22	25	20	17	28	24	22	22	-	-	28	23				
Pump Station No. 102	172																		Current design o.k.
Run Time (Hrs./month)		328	179	-	-	172	176	194	181	216	197	191	245						
Run Time (%)		46	25	-	-	24	24	27	25	30	27	27	34			28.9			
Avg. Daily Flow/Month (GPD)		109,186	65,945	-	-	57,276	60,578	64,603	60,269	74,304	65,532	65,738	81,528	109,186	70,496		1.5	**N/A	
Avg. Daily Flow/Month (GPM)		76	46	-	-	40	42	45	42	52	46	46	57	76	49				
Pump Station No. 103	90																		Current design o.k.
Run Time (Hrs./month)		-	-	-	-	280	256	269	282	276	266	-	-						
Run Time (%)		-	-	-	-	39	36	37	39	38	37	-	-			37.7			
Avg. Daily Flow/Month (GPD)		-	-	-	-	48,762	46,062	46,872	49,140	49,680	46,332	-	-	49,680	47,808		1.0	**N/A	
Avg. Daily Flow/Month (GPM)		-	-	-	-	34	32	33	34	35	32	-	-	35	33				
Pump Station No. 104	112																		Current design o.k.
Run Time (Hrs./month)		38	-	38	34	48	38	26	29	30	29	27	29						
Run Time (%)		5	-	5	5	7	5	4	4	4	4	4	4			4.6			
Avg. Daily Flow/Month (GPD)		8,131	-	8,198	7,661	10,349	8,467	5,645	6,384	6,653	6,182	6,048	6,317	10,349	7,276		1.4	**N/A	
Avg. Daily Flow/Month (GPM)		6	-	6	5	7	6	4	4	5	4	4	4	7	5				
Pump Station No. 105	400																		Current design o.k.
Run Time (Hrs./month)		-	46	44	36	30	30	29	35	44	40	-	-						
Run Time (%)		-	6	6	5	4	4	4	5	6	6	-	-			5.2			
Avg. Daily Flow/Month (GPD)		-	39,360	34,080	28,800	23,280	24,000	22,560	27,120	35,280	30,960	-	-	39,360	29,493		1.3	**N/A	
Avg. Daily Flow/Month (GPM)		-	27	24	20	16	17	16	19	25	22	-	-	27	20				
Pump Station No. 106	180																		Current design o.k.
Run Time (Hrs./month)		53	45	45	36	41	79	34	34	40	53	32	-						
Run Time (%)		7	6	6	5	6	11	5	5	6	7	4	-			6.2			
Avg. Daily Flow/Month (GPD)		18,468	17,388	15,660	12,960	14,256	28,404	11,880	11,880	14,364	18,468	11,448	-	28,404	15,925		1.8	**N/A	
Avg. Daily Flow/Month (GPM)		13	12	11	9	10	20	8	8	10	13	8	-	20	11				
Pump Station No. 107	35																		Current design o.k.
Run Time (Hrs./month)		79	73	78	73	71	75	71	49	64	72	72	83						
Run Time (%)		11	10	11	10	10	10	10	7	9	10	10	11			10.0			
Avg. Daily Flow/Month (GPD)		5,355	5,481	5,313	5,103	4,809	5,250	4,809	3,318	4,473	4,872	5,040	5,607	5,607	4,953		1.1	**N/A	
Avg. Daily Flow/Month (GPM)		4	4	4	4	3	4	3	2	3	3	4	4	4	3				

* P.F. = Peaking Factor
**PS not connected to SCADA.

Dorchester County Water & Sewer
Table II Current Planned Improvements

Pump Station	Upstream Pump Station	Upstream Station Capacity (gpm)	Upstream Pump Station Avg. Run Time %	Upstream Pump Station Average Flow (gpm)	Pump Station Avg. Run Time %	Pump Station Average Flow (gpm)	Gravity Flow to Pump Station (gpm)	Max F.M. Flow to Station (gpm)	Peak Gravity Flow Into the Station (gpm)	Pump Station Current Capacity (gpm)	Minimum Recommended Station Capacity (gpm)	Recommended Station Capacity (gpm) (original recommendation for 2007)	Actual Upgraded Station Capacity (gpm)
17	18	100	8	8	7	14	5	200	11	200	OK	211	None
	19	100	1	1									
96	17	200	7	14	24	34	20	200	49	139	OK	249	None
15	78	102	6	6	17	64	20	541	49	373	OK	590	None
	96	139	24	34									
	98	300	1	4									
21	15	373	17	64	**48**	216	152	648	380	450	719	1,028 (1,092)	None
	70	275	0	0									
10	21	450	48	216	**47**	270	54	878	136	580	900	1,014 (1,410)	None
	71	428	0	0									
28	95	170	21	36	20	80	44	170	109	405	OK	None	None
25	102	172	29	50	19	42	0	172	0	225	OK	None	None
104	N/A	N/A	N/A	N/A	5	5	5	N/A	13	112	OK	None	200
73	83	50	31	15	20	31	16	50	40	158	OK	None	None
5	73	158	20	31	**43**	304	240	703	600	700	1,015	1,303 (1,227)	None
	87	200	9	17									
	89	145	11	16									
	104	200	5	5									
59	58	107	2	2	3	4	2	107	6	150	OK	None	None
33	59	150	3	4	13	35	31	150	77	260	OK	None	None
4	5	700	43	304	**59**	1,015	178	2,938	444	1,725	3,384	3,382 (3,909)	02500 **
	10	580	47	270									
	25	225	19	42									
	28	405	20	80									
	33	260	13	35									
	47	261	23	61									
	64	157	0	1									
	75	138	21	30									
	92	32	11	3									
	106	180	6	11									
56	57	180	5	9	1	5	0	380	0	400	OK	None	None
	66	200	3	7									
3	4	2,500	59	1,015	**69**	1,098	41	3,413	103	1,600	3,658	3,516 (5,020)	3,250 **
	31	85	8	7									
	45	61	15	9									
	56	400	1	5									
	74	140	3	5									
	81	47	4	2									
	97	180	7	13									
6	103	90	38	34	6	34	0	90	0	525	OK	None	None
23	34	200	5	10	23	47	38	200	94	202	OK	294	None
24	51	170	11	19	10	21	3	170	6	211	OK	None	None
7	23	202	23	47	**53**	192	85	762	212	360	638	974 (1,689) - N/A Route Change	800
	24	211	10	21									
	27	155	12	19									
	38*	194	10*	20									

Pump Station	Upstream Pump Station	Upstream Station Capacity (gpm)	Upstream Pump Station Avg. Run Time %	Upstream Pump Station Average Flow (gpm)	Pump Station Avg. Run Time %	Pump Station Average Flow (gpm)	Gravity Flow to Pump Station (gpm)	Max F.M. Flow to Station (gpm)	Peak Gravity Flow Into the Station (gpm)	Pump Station Current Capacity (gpm)	Minimum Recommended Station Capacity (gpm)	Recommended Station Capacity (gpm) (original recommendation for 2007)	Actual Upgraded Station Capacity (gpm)
High School Pump Station	Poplar Grove	180	0	0	0	192	0	980	0	1,060	OK	None	None
	7	800	53	192									
67	High School	1,060	0	192	0	192	0	1,060	0	1,450	OK	None	None
55	N/A	N/A	N/A	N/A	3	17	17	N/A	43	521	OK	None	None
2	3	3,250	69	1,098	**79**	2,592	1,167	7,596	2,918	3,300	8,641	10,514 (8,366)	7,500 **
	6	525	30	160									
	26	152	15	22									
	29	120	51	61									
	48	98	13	13									
	55	521	3	17									
	60	300	9	26									
	65	825	0	0									
	67	1,450	0	0									
	88	180	8	15									
	94	175	8	14									
105	61	490	6	27	5	21	0	490	0	400	OK	490	None
37*	36	200	17	34	10*	69	35	200	88	687	OK	None	None
1	2	7,500	79	2,592	N/A	N/A	N/A	8,785	N/A	10,000	N/A	None (9,814)	None
	37*	687	10*	69									
	101	198	12	23									
	105	400	5	21									
14	N/A	N/A	N/A	N/A	14	43	43	N/A	108	300	144	108	180
79	14	180	14	43	**36**	138	60	369	149	380	458	518	None
	80	21	36	8									
	86	168	16	27									
11	52	98	4	4	**38**	277	136	478	339	732	924	817	None
	79	380	25	138									
16	12	760	74	563	17	270	92	773	231	1,610	899	1,004	1,000
	42	320	14	43									
	77	265	32	84									
	84	153	31	47									
	107	35	10	3									
41	76	92	25	23	21	43	19	92	48	200	OK	None	None
8	93	198	16	32	10	38	6	198	16	380	126	214	320
49	68	112	0	0	9	23	23	112	57	250	OK	None	None
30	8	320	10	38	18	121	61	676	152	675	OK	828	None
	49	250	9	23									
	69	106	0	0									
9	30	675	12	83	19	494	256	1,671	639	2,667	OK	None	None
	32	180	0	0									
	41	200	21	43									
	54	240	24	57									
	72	102	14	14									
	99	274	15	41									
35	53	100	28	28	26	131	104	100	259	510	OK	None	None
46	91	115	26	29	23	52	22	115	56	220	OK	None	None
44	43	130	15	19	30	75	55	130	138	250	OK	268	None

Pump Station	Upstream Pump Station	Upstream Station Capacity (gpm)	Upstream Pump Station Avg. Run Time %	Upstream Pump Station Average Flow (gpm)	Pump Station Avg. Run Time %	Pump Station Average Flow (gpm)	Gravity Flow to Pump Station (gpm)	Max F.M. Flow to Station (gpm)	Peak Gravity Flow Into the Station (gpm)	Pump Station Current Capacity (gpm)	Minimum Recommended Station Capacity (gpm)	Recommended Station Capacity (gpm) (original recommendation for 2007)	Actual Upgraded Station Capacity (gpm)
Plant	1	10,000	24	1,329									
	9	2,667	17	456									
	11	732	32	277									
	13	350	33	116									
	16	1,000	52	833									
	35	510	26	131									
	39	106	4	4	Max FM Flow to WWTP								
	44	250	30	75	gpm	gpd							
	46	220	23	52	17,065	24,573,600	Peak						
	50	150	3	4		9,829,440	Average						
	62	50	16	8									
	63	407	4	17									
	82	85	7	6									
	85	110	11	12									
	90	428	11	46									

*Inaccurate data.

**Actual Ugraded Station Capacity is different from the Recommended Station Capacity due to previously planned and approved designs for the 2006 Bond issue

Gravity Flow to Pump Station = Pump Station Average Flow - Σ Upstream Pump Station Average Flow

Max F.M. Flow to Station = Σ Upstream Pump Station Capacities

Peak Gravity Flow Into the Station = Gravity Flow to Pump Station * Peaking Factor of 2.5

Recommended Design @ 30% Run Time = Pump Station Average Flow / 0.30

Recommended Station Capacity = Peak Gravity Flow into the Station + Max F.M. Flow to Station

Available Station Capacity = Pump Station Current Capacity or Actual Upgraded Station Capacity if shown * 0.30 - Pump Station Average Flow

Table IV. Prioritized Recommendation of Pump Stations Receiving SCADA Integration

SCADA Priority	Pump Station	Rated Flow Capacity (gpm)	Average Runtime (%)	Average Flow Capacity (gpm)	Description
1	77	265	31.6	83.7	Moderate I&I
2	95	170	21.0	35.7	Moderate I&I
3	76	92	25.4	23.4	Moderate I&I
4	79	380	24.8	94.2	Continue to Monitor for I&I
5	84	153	30.7	47.0	Continue to Monitor for I&I
6	102	172	28.9	49.7	Continue to Monitor for I&I
7	86	168	16.2	27.2	Continue to Monitor for I&I
8	83	50	30.7	15.4	Continue to Monitor for I&I
9	85	110	10.7	11.8	Continue to Monitor for I&I
10	62	50	15.9	8.0	Continue to Monitor for I&I
11	90	428	10.8	46.2	
12	99	274	15.1	41.4	
13	96	139	24.4	33.9	
14	103	90	37.7	33.9	
15	93	198	16.0	31.7	
16	75	138	21.5	29.7	
17	91	115	25.6	29.4	
18	101	198	11.5	22.8	
19	87	200	11.1	22.2	
20	105	400	5.2	20.8	
21	88	112	17.7	19.8	
22	89	145	11.2	16.2	
23	94	175	8.2	14.4	
24	97	180	7.4	13.3	
25	106	180	6.2	11.2	
26	80	21	35.7	7.5	
27	78	102	5.9	6.0	
28	82	85	6.8	5.8	
29	104	112	4.6	5.2	
30	74	140	3.2	4.5	
31	98	300	1.4	4.2	
32	107	35	10.0	3.5	
33	92	32	10.6	3.4	
34	81	47	4.0	1.9	

Table V. Instances of Inflow and Infiltration in the Dorchester Sewer System as of 12/31/2007

Priority	Pump Station	Degree of I&I and additional remarks	Average Wet Weather Flow	Average Dry Weather Flow	Estimated I&I (gpd)
1	4	Heavy I&I	1,763,333	1,293,750	96,863
2	29	Heavy I&I	131,200	54,514	76,686
3	13	Moderate I&I	206,111	149,250	56,861
4	16	Heavy I&I; data errors inflating volume of I&I	1,427,533	879,750	340,256
5	3	Heavy I&I; Over 350gpm of I&I is sent to Pump Station #3 via upstream pump stations. Actual I&I is moderate.	1,984,000	1,467,429	46,988
6	11	Moderate I&I	383,893	291,754	92,139
7	77	Moderate I&I	142,623	114,480	28,143
8	7	Heavy I&I	310,400	230,657	79,743
9	12	Heavy I&I; Just under 100gpm of I&I is sent to Pump Station #12 via upstream pump stations.	918,756	739,371	5,115
10	9[2]	Heavy I&I; Approximately 60gpm of I&I at Pump Station #9 is sent via upstream pump stations.	650,748	480,060	77,301
11	35	Heavy I&I; About a third of I&I at Pump Station #35 is sent via upstream Pump Station #53. Actual I&I is moderate.	211,933	146,443	43,229
12	25	Moderate I&I	96,000	57,857	38,143
13	76[2]	Moderate I&I	62,210	21,142	41,069
14	95	Moderate I&I	72,012	35,394	36,618
15	54[2]	Moderate I&I	108,480	73,543	34,937
16	28	Moderate I&I, Over half of I&I at Pump Station #28 is sent via upstream Pump Station #95.	171,900	110,218	25,064
17	21[1]	Moderate I&I	416,000	312,828	19,655
18	63	Moderate I&I	67,643	42,247	25,397
19	36	Moderate I&I	56,444	33,000	23,444
20	53	Moderate I&I	53,333	31,071	22,262
21	47	Moderate I&I	98,600	78,859	19,741
22	44	Moderate I&I; not much indication of inflow.	114,444	95,893	18,552
23	30	Moderate I&I	96,667	79,286	17,381
24	46	Moderate I&I	83,111	66,471	16,640
25	37	Moderate I&I	99,233	58,886	16,903
26	33	Moderate I&I	60,667	45,129	15,538
N/A	15	Heavy I&I, Calculated from months prior to rehab work, current I&I at Pump Station #15 is minimal.	159,147	75,629	83,518
N/A	10[1]	Heavy I&I; Nearly all I&I at Pump Station #10 sent via upstream Pump Station #21. Actual I&I is minimal.	473,022	368,400	1,450
N/A	6	Heavy I&I; All I&I at Pump Station #6 sent via upstream Pump Station #7. Actual I&I is minimal.	281,167	200,250	1,174

[1]Pump Station #21 Data shows unusually low and fluctuating flows from April 20th to June 1st suggesting data errors are present. The next driest month with no obvious data error is June. June data was used to calculate I&I at Pump Station #10 as well as upstream Pump Station #21.

[2]Pump Station #9 data has errors during the month of January causing the monthly average to be over twice the station average. The second wettest month, September, was used to calculate I&I at Pump Station #9 as well as at upstream Pump Stations #54 and #76.

Dorchester County Water & Sewer
Table IX Preliminary Master Plan - Phase I

Pump Station	Upstream Pump Station	Upstream Station Capacity (gpm)	Upstream Pump Station Avg. Run Time %	Upstream Pump Station Average Flow (gpm)	Pump Station Avg. Run Time %	Pump Station Average Flow (gpm)	Gravity Flow to Pump Station (gpm)	Max F.M. Flow to Station (gpm)	Peak Gravity Flow Into the Station (gpm)	Pump Station Current Capacity (gpm)	Minimum Recommended Station Capacity (gpm)	Recommended Station Capacity (gpm)	Actual Upgraded Station Capacity (gpm)
10	21	450	34	152	**36**	206	54	878	136	580	688	1,014	None
	71	428	0	0									
28	95	170	21	36	20	80	44	170	109	405	OK	None	None
25	102	172	29	50	19	42	0	172	0	225	OK	None	None
73	83	50	31	15	20	31	16	50	40	158	OK	None	None
5	73	158	20	31	**43**	304	235	703	587	700	1,015	1,290	1,225 *
	87	200	9	17									
	89	145	11	16									
	104	200	5	5									
59	58	107	2	2	3	4	2	107	6	150	OK	None	None
33	59	150	3	4	13	35	31	150	77	260	OK	None	None
4	5	1,225	43	304	**38**	951	178	3,463	444	2,500	3,171	3,907	4,000 *
	10	580	36	206									
	25	225	19	42									
	28	405	20	80									
	33	260	13	35									
	47	261	23	61									
	64	157	0	1									
	75	138	21	30									
	92	32	11	3									
	106	180	6	11									
56	57	180	5	9	1	5	0	380	0	400	OK	None	None
	66	200	3	7									
3	4	4,000	38	951	**32**	1,034	41	4,913	103	3,250	3,446	5,016	5,000 *
	31	85	8	7									
	45	61	15	9									
	56	400	1	5									
	74	140	3	5									
	81	47	4	2									
	97	180	7	13									
6	103	90	38	34	6	34	0	90	0	525	OK	None	None
17	18	100	8	8	7	14	5	200	11	200	OK	211	None
	19	100	1	1									
96	17	200	7	14	24	34	20	200	49	139	OK	249	None
15	78	102	6	6	8	30	20	402	49	373	OK	451	None
	98	300	1	4									
70	15	373	17	30	23	64	0	512	0	275	OK	512	700
	96	139	24	34									
17A Bus	70	700	23	64	0	204	140	700	350	0	679	1,050	1,050
23	34	200	5	10	23	47	38	200	94	202	OK	294	None
24	51	170	11	19	10	21	3	170	6	211	OK	None	None
7	23	202	23	47	24	192	85	762	212	800	OK	974	None
	24	211	10	21									
	27	155	12	19									
	38	194	10	20									

Pump Station	Upstream Pump Station	Upstream Station Capacity (gpm)	Upstream Pump Station Avg. Run Time %	Upstream Pump Station Average Flow (gpm)	Pump Station Avg. Run Time %	Pump Station Average Flow (gpm)	Gravity Flow to Pump Station (gpm)	Max F.M. Flow to Station (gpm)	Peak Gravity Flow Into the Station (gpm)	Pump Station Current Capacity (gpm)	Minimum Recommended Station Capacity (gpm)	Recommended Station Capacity (gpm)	Actual Upgraded Station Capacity (gpm)
High School Pump Station	Poplar Grove	180	0	0	0	192	0	980	0	1,060	OK	None	None
	7	800	53	192									
67	17A Buss	1,050	0	204	0	395	0	2,110	0	1,450	OK	2,110	2,110
	High School	1,060	0	192									
2	3	5,000	32	1,034	35	2,592	818	10,006	2,046	7,500	8,641	12,052	9,000 *
	6	525	30	160									
	26	152	15	22									
	29	120	51	61									
	48	98	13	13									
	55	521	3	17									
	60	300	9	26									
	65	825	0	0									
	67	2,110	0	395									
	88	180	18	32									
	94	175	8	14									
105	61	490	6	27	5	21	0	490	0	400	OK	490	None
37	36	200	17	34	10	69	35	200	88	687	OK	None	None
1	2	9,000	79	2,592	N/A	N/A	N/A	10,285	N/A	10,000	N/A	10,285	None
	37	687	10	69									
	101	198	12	23									
	105	400	5	21									
79	14	180	14	43	36	138	60	369	149	380	458	518	518
	80	21	36	8									
	86	168	16	27									
11	52	98	4	4	38	277	136	616	339	732	924	955	955
	79	518	36	138									
16	42	320	14	43	27	270	92	773	231	1,000	OK	1,004	None
	77	265	32	84									
	84	153	31	47									
	107	35	10	3									
41	76	92	25	23	21	23	0	92	0	200	OK	None	None
8	93	198	16	32	10	38	6	198	16	320	OK	None	None
49	68	112	0	0	9	23	23	112	57	250	OK	None	None
30	8	320	10	38	18	121	61	676	152	675	OK	828	828
	49	250	9	23									
	69	106	0	0									
9	30	828	12	121	19	494	218	1,824	544	2,667	OK	None	None
	32	180	0	0									
	41	200	21	43									
	54	240	24	57									
	72	102	14	14									
	99	274	15	41									
35	53	100	28	28	26	131	104	100	259	510	OK	None	None
46	91	115	26	29	23	52	22	115	56	220	OK	None	None
44	43	130	15	19	30	75	55	130	138	250	OK	268	None

Pump Station	Upstream Pump Station	Upstream Station Capacity (gpm)	Upstream Pump Station Avg. Run Time %	Upstream Pump Station Average Flow (gpm)	Pump Station Avg. Run Time %	Pump Station Average Flow (gpm)	Gravity Flow to Pump Station (gpm)	Max F.M. Flow to Station (gpm)	Peak Gravity Flow Into the Station (gpm)	Pump Station Current Capacity (gpm)	Minimum Recommended Station Capacity (gpm)	Recommended Station Capacity (gpm)	Actual Upgraded Station Capacity (gpm)
Plant	1	10,000	24	N/A									
	9	2,667	17	456									
	11	955	32	234									
	13	350	33	116									
	16	1,610	52	833	Max FM Flow to WWTP								
	35	510	26	131	gpm	gpd							
	39	106	4	4	17,898	25,772,599	Peak						
	44	250	30	75		10,309,040	Average						
	46	220	23	52									
	50	150	3	4									
	62	50	16	8									
	63	407	4	17									
	82	85	7	6									
	85	110	11	12									
	90	428	11	46									

*Actual Ugraded Station Capacity is different from the Recommended Station Capacity due to previously planned and approved designs for the 2006 Bond issue

Gravity Flow to Pump Station = Pump Station Average Flow - Σ Upstream Pump Station Average Flow

Max F.M. Flow to Station = Σ Upstream Pump Station Capacities

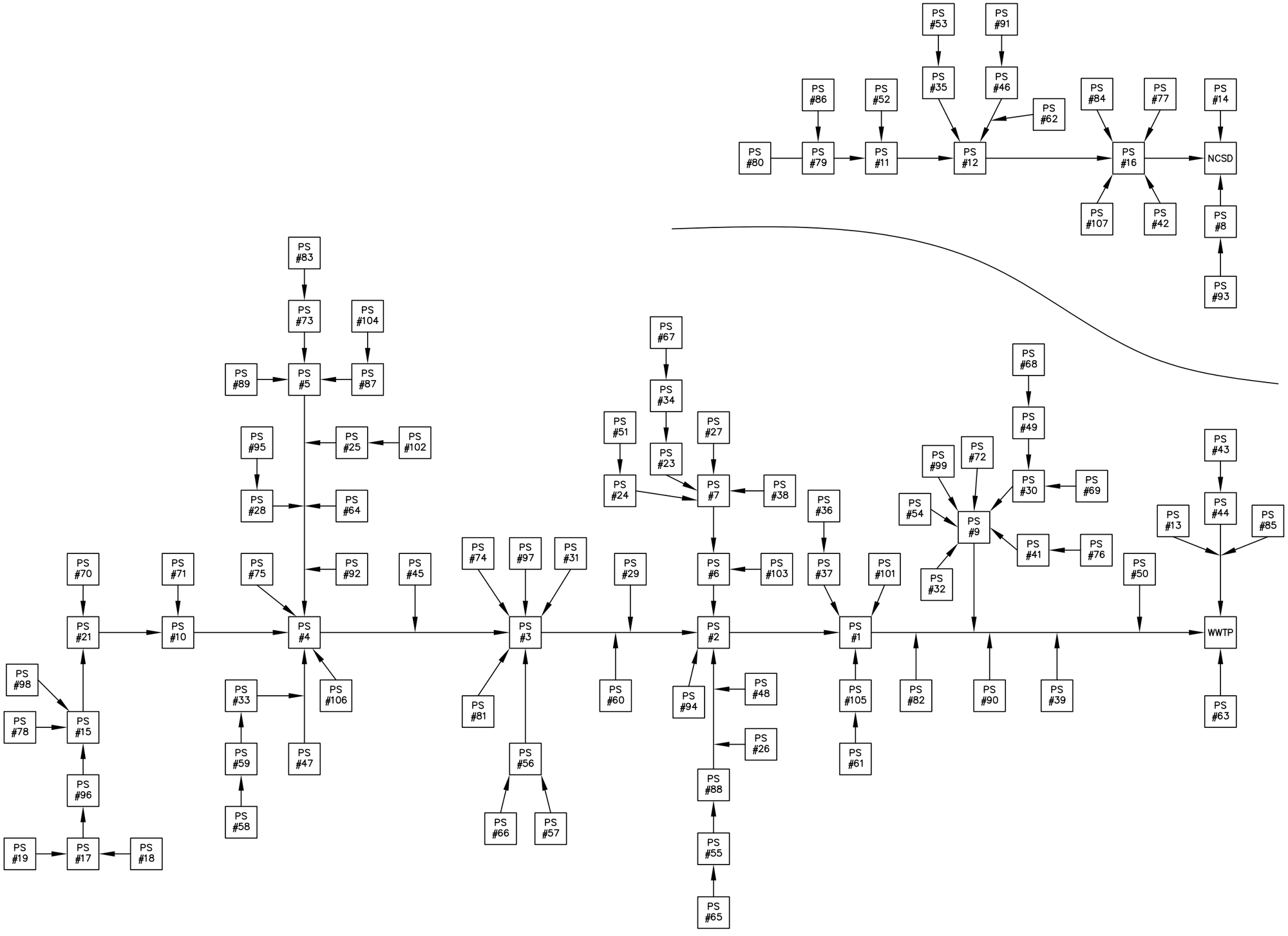
Peak Gravity Flow Into the Station = Gravity Flow to Pump Station * Peaking Factor of 2.5

Recommended Design @ 30% Run Time = Pump Station Average Flow / 0.30

Recommended Station Capacity = Peak Gravity Flow into the Station + Max F.M. Flow to Station

Available Station Capacity = Pump Station Current Capacity or Actual Upgraded Station Capacity if shown * 0.30 - Pump Station Average Flow

FLOWCHARTS



DORCHESTER COUNTY WATER & SEWER DEPARTMENT

WASTEWATER SYSTEM CAPACITY ANALYSIS

LEGEND

PUMP STATION NAME OR NUMBER

EXISTING FLOW PATH

FIGURE # 1
EXISTING SYSTEM FLOW CHART

BP Barber
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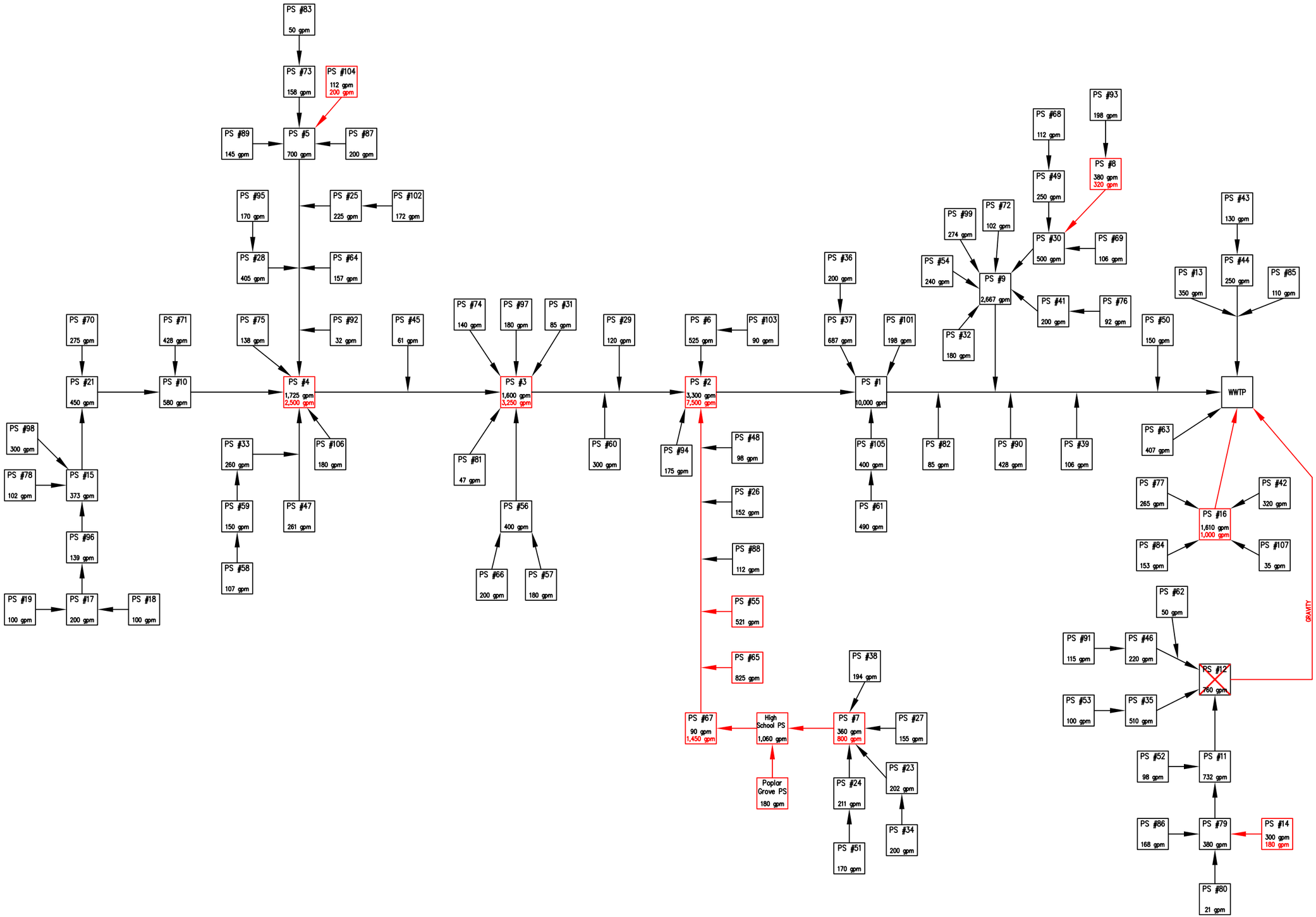
COLUMBIA • GREENVILLE • CHARLESTON
FLORENCE • CHARLOTTE • SAVANNAH

DORCHESTER COUNTY WATER & SEWER DEPARTMENT

DORCHESTER COUNTY - 1897 — 100 YEARS

WASTEWATER SYSTEM CAPACITY ANALYSIS



LEGEND

PUMP STATION NAME OR NUMBER
EXISTING CAPACITY
PROPOSED CAPACITY

EXISTING FLOW PATH

PROPOSED FLOW PATH

*RED INDICATES CURRENTLY PLANNED IMPROVEMENTS.

FIGURE # 3
CURRENT PLANNED SYSTEM IMPROVEMENTS

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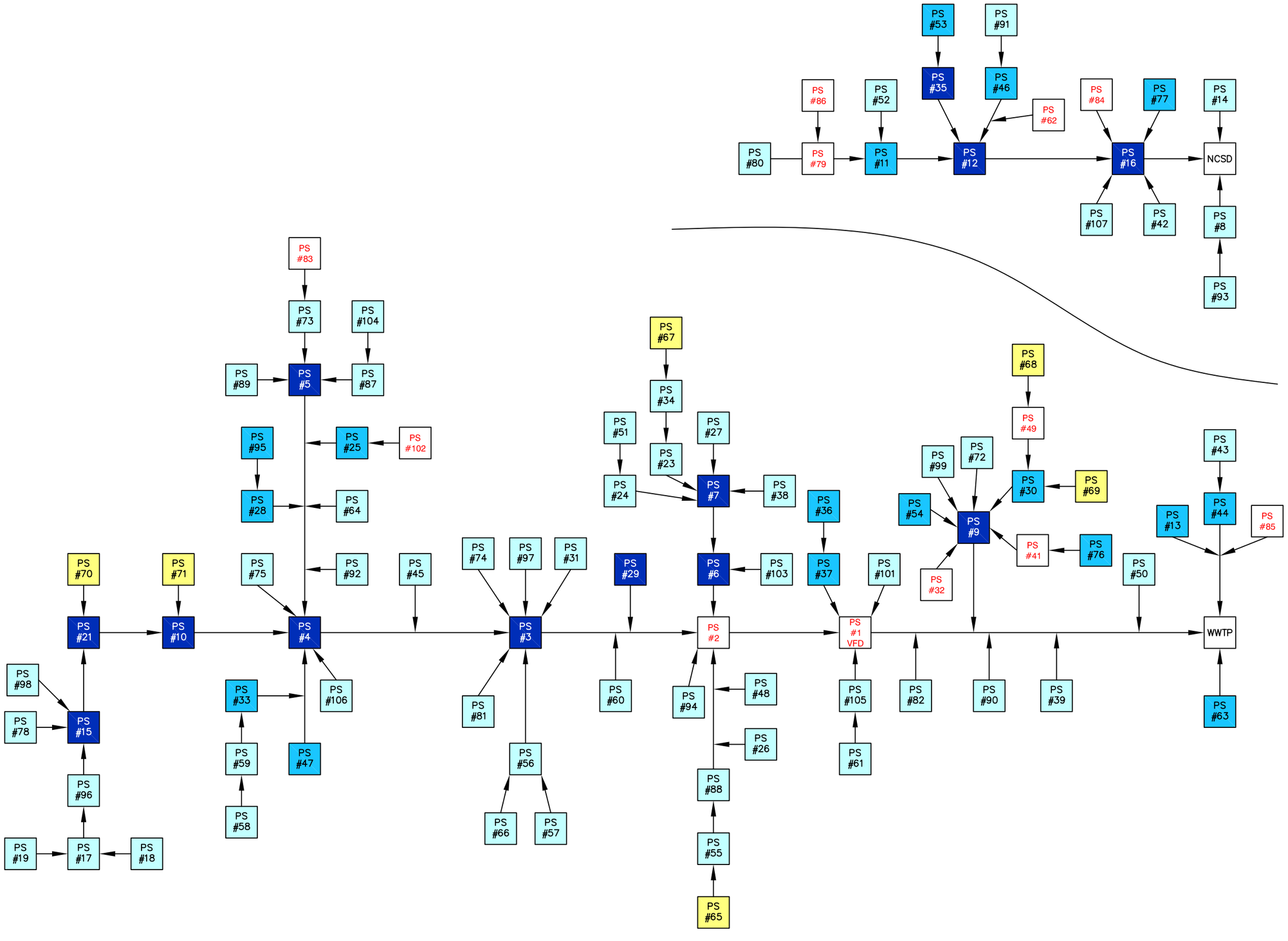
FLORENCE • CHARLOTTE • SAVANNAH



DORCHESTER COUNTY WATER & SEWER DEPARTMENT

DORCHESTER COUNTY - 1897 100 YEARS

WASTEWATER SYSTEM CAPACITY ANALYSIS

LEGEND

- MINIMAL I&I
- MODERATE I&I
- HEAVY I&I
- CONTINUE TO MONITOR
- NO FLOW AT PUMP STATION

FIGURE # 6
SEWER SYSTEM I&I FLOW CHART

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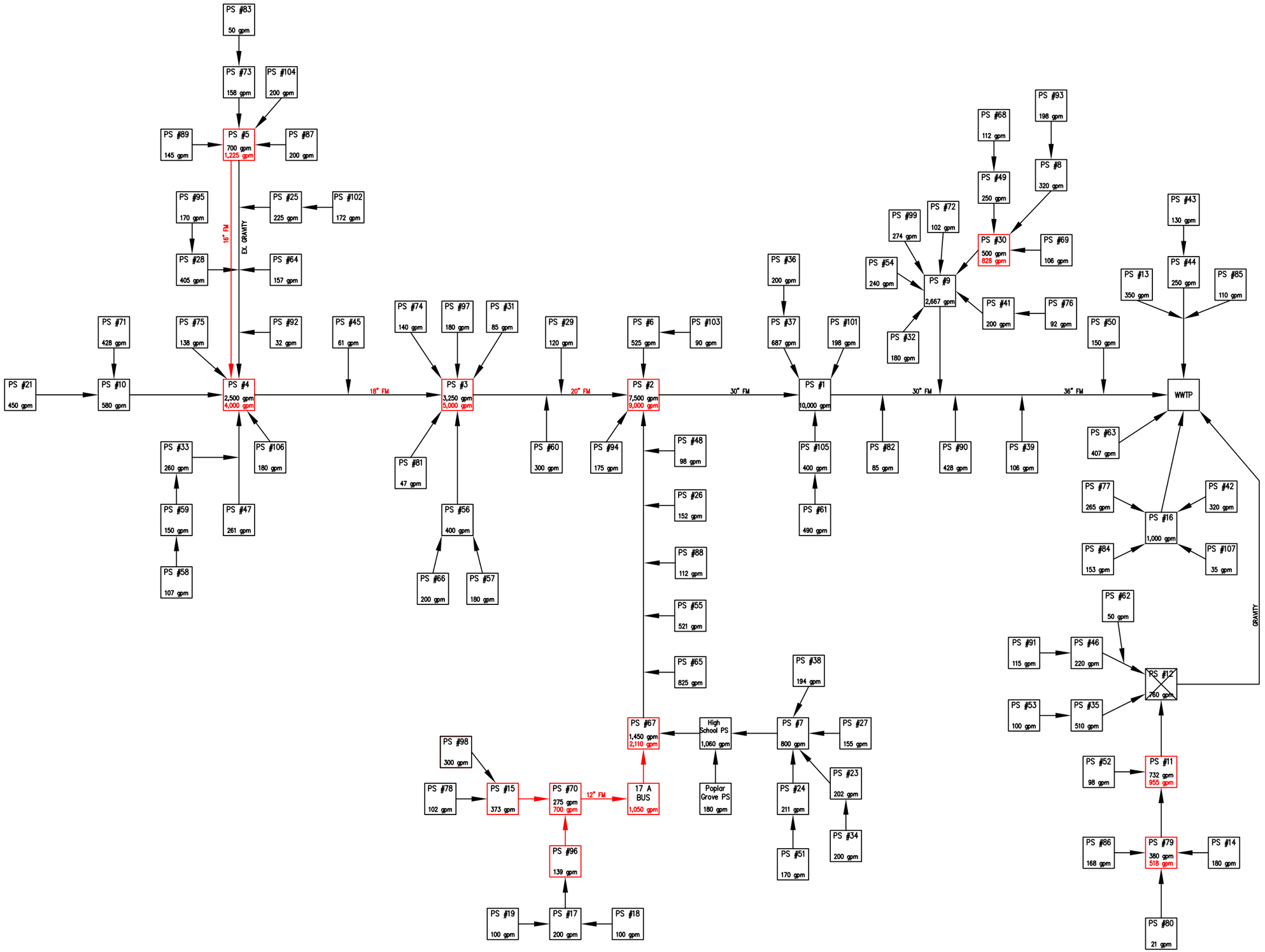
FLORENCE • CHARLOTTE • SAVANNAH



DORCHESTER COUNTY WATER & SEWER DEPARTMENT

WASTEWATER SYSTEM CAPACITY ANALYSIS

LEGEND

PUMP STATION NAME OR NUMBER

EXISTING CAPACITY
PROPOSED CAPACITY

EXISTING FLOW PATH

PROPOSED FLOW PATH

*RED INDICATES MASTER PLAN PHASE I IMPROVEMENTS.

FIGURE # 7 PRELIMINARY MASTER PLAN - PHASE I FLOW CHART

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Engineering • Experience • Excellence
COLUMBIA • GREENVILLE • CHARLESTON
FLORENCE • CHARLOTTE • SAVANNAH

MAPS

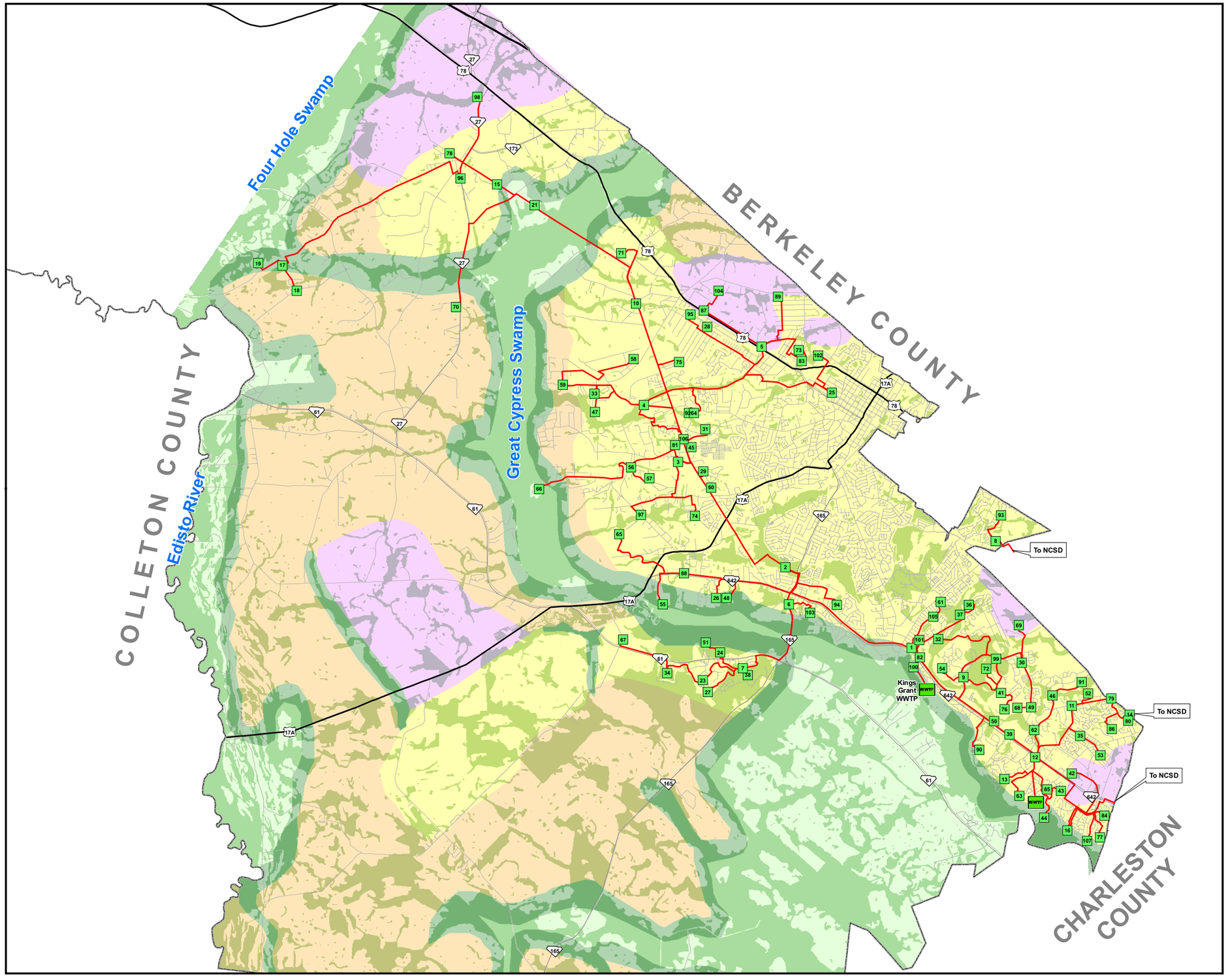

FIGURE 2
Dorchester County
Existing Pump Stations and Force Mains

Legend

- WWTP — WWTP
- Pump Station
- Force Mains/Gravity Sewer

Landuse

Growth Areas

- Constrained
- Employment
- Managed
- Restricted - Conservation
- Restricted - Rural

N

South Carolina State Plane, NAD 83
Zone 3900, International Feet

1 inch = 2 miles

0 2 4 Miles

File: G:Misc_Projects\06119_Dorchester\Dorchester\Maps\Existing.mxd
Date: August 13, 2008
Author: VLC

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FIGURE 4
Dorchester County
Current
Planned Improvements

Legend

- WWTP — WWTP
- N — New Pump Station
- Pump Station
- Existing Force Mains/Gravity Sewer
- New Force Mains

Landuse

Growth Areas

- Constrained
- Employment
- Managed
- Restricted - Conservation
- Restricted - Rural

South Carolina State Plane, NAD 83
Zone 3900, International Feet

1 inch = 2 miles

0 2 4 Miles

File: G:Misc_Projects\06119_Dorchester\Dorchester\Maps\Overlay1.mxd
Date: August 14, 2008
Author: VLC

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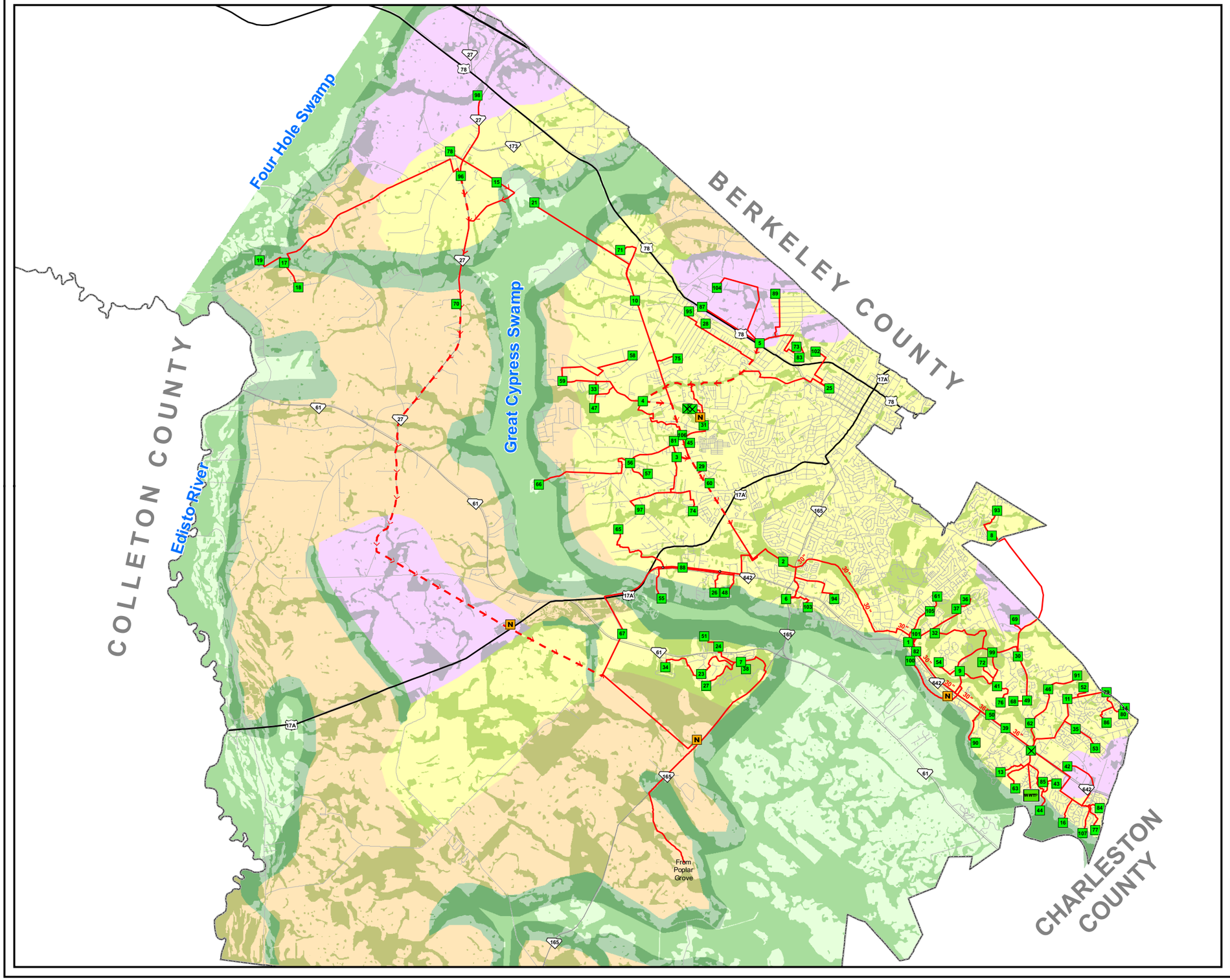

FIGURE 8
Master Plan
Phase 1
Dorchester County

Legend

- WWTP — WWTP
- N — New Pump Station
- Pump Station
- Existing Force Mains/Gravity Sewer
- New Force Mains

Landuse

Growth Areas

- Constrained
- Employment
- Managed
- Restricted - Conservation
- Restricted - Rural

South Carolina State Plane, NAD 83
Zone 3900, International Feet

1 inch = 2 miles

0 2 4 Miles

File: G:Misc_Projects\06119_Dorchester\Dorchester\Maps\Overlay_2.mxd
Date: August 14, 2008
Author: VLC

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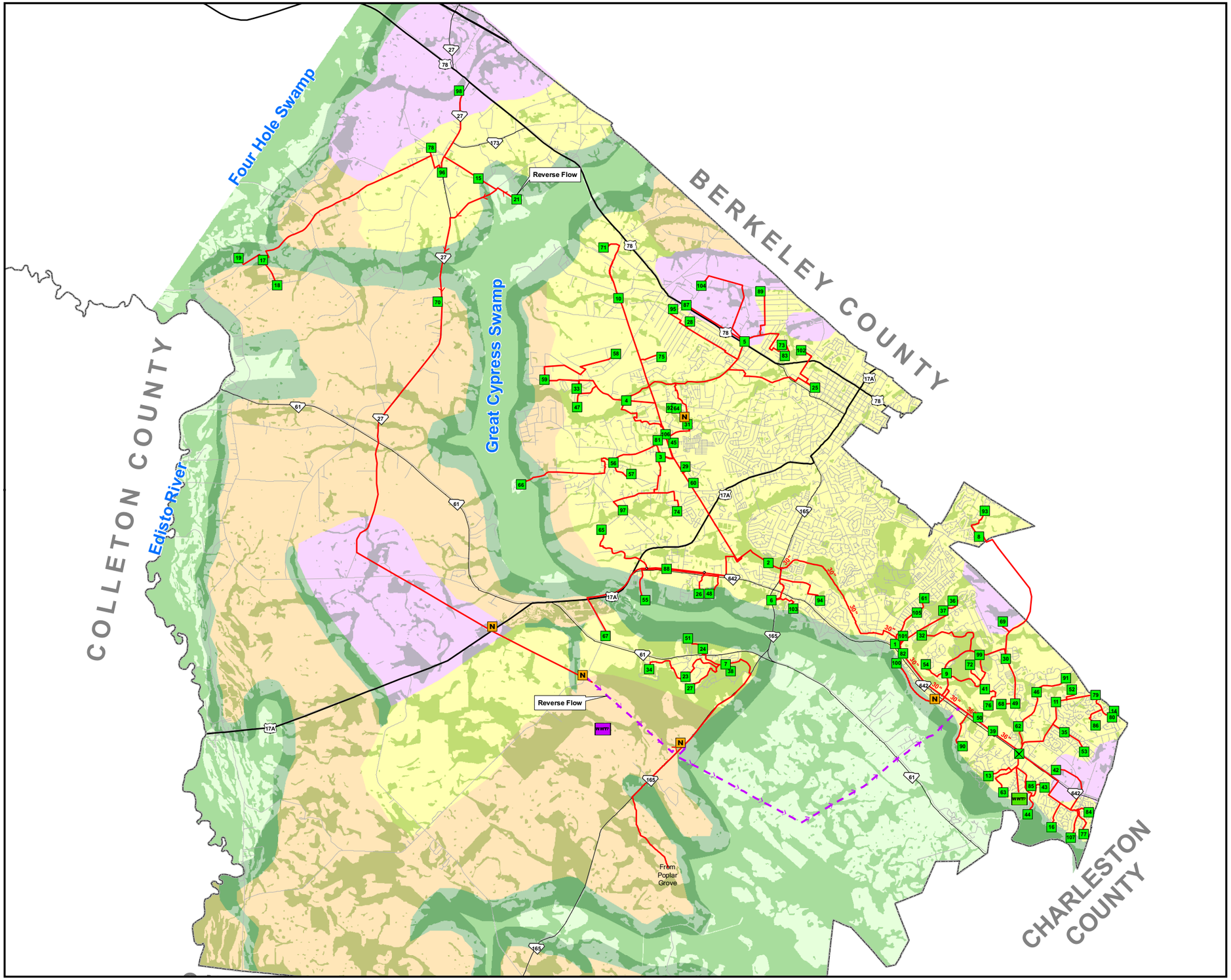
FIGURE 9
Master Plan
Phase 2
Dorchester County



Legend

- WWTP — WWTP
- WWTP — Alternative WWTP
- N — New Pump Station
- Pump Station
- Existing Force Mains
- Force Main Route Alternative

Landuse

Growth Areas

- Constrained
- Employment
- Managed
- Resticted - Conservation
- Restricted - Rural

South Carolina State Plane, NAD 83
Zone 3900, International Feet

1 inch = 2 miles

0 2 4 Miles

File: G:Misc_Projects\06119_Dorchester\Dorchester\Maps\Overlay_3.mxd
Date: August 14, 2008
Author: VLC

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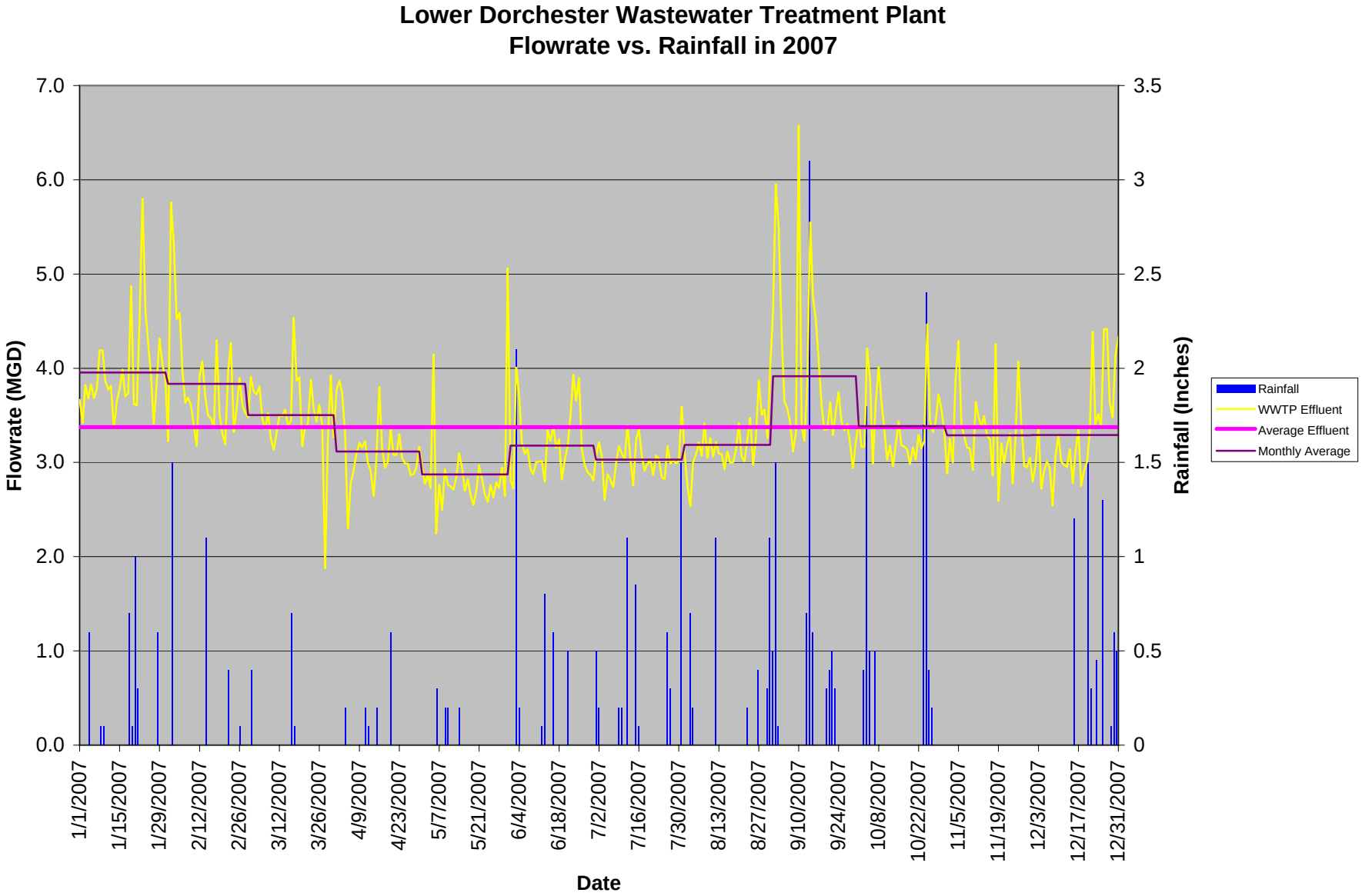
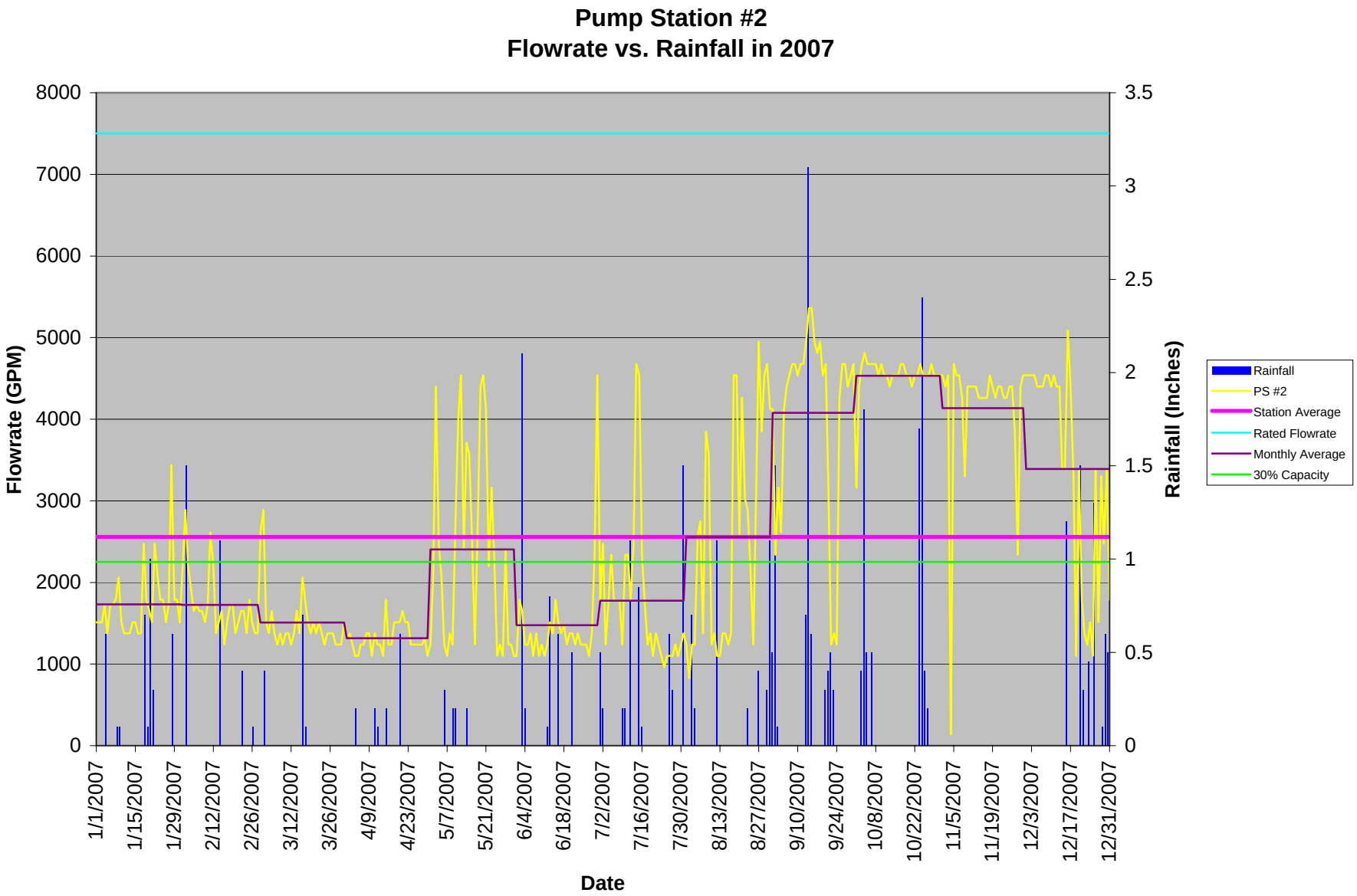
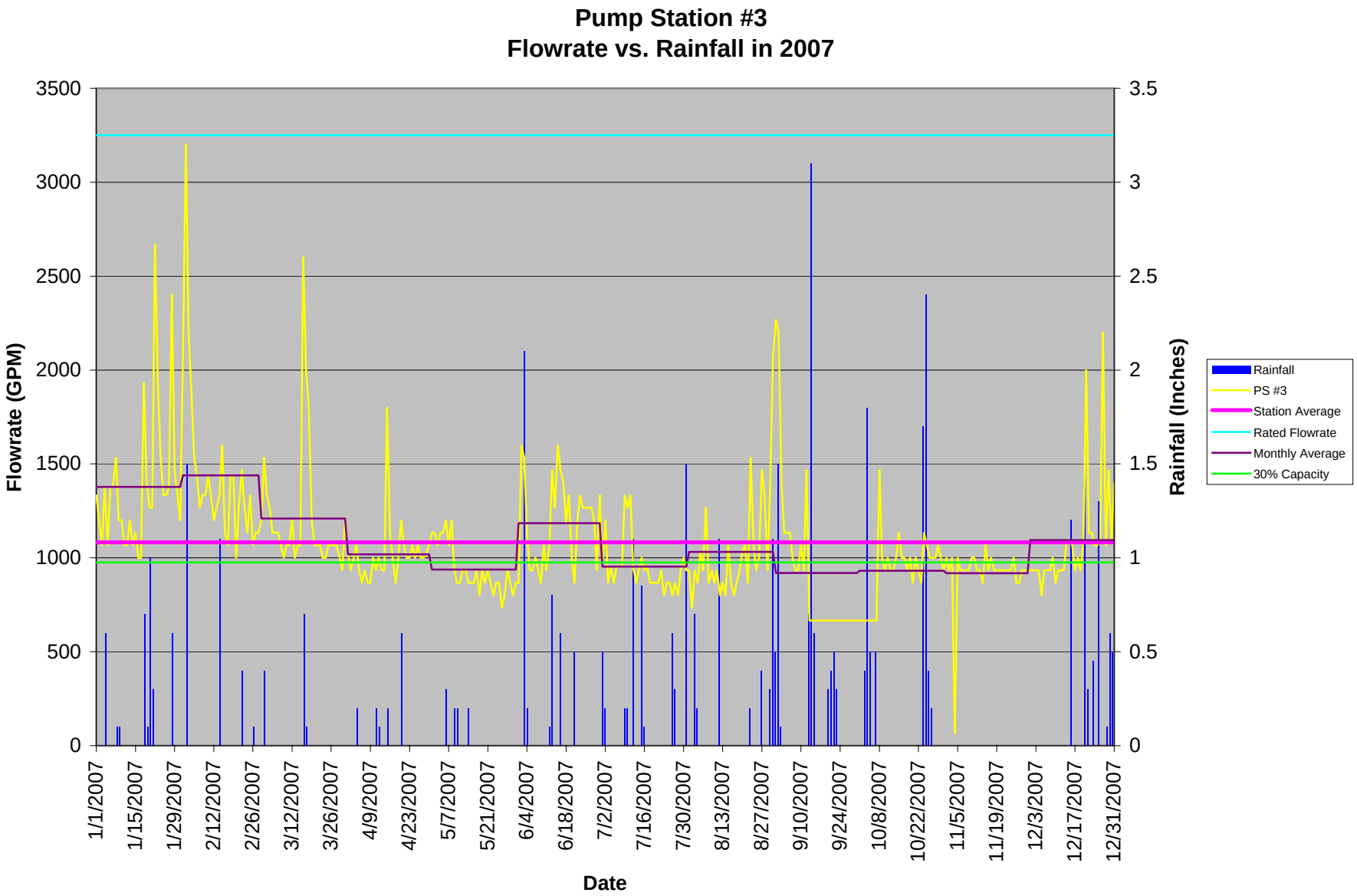
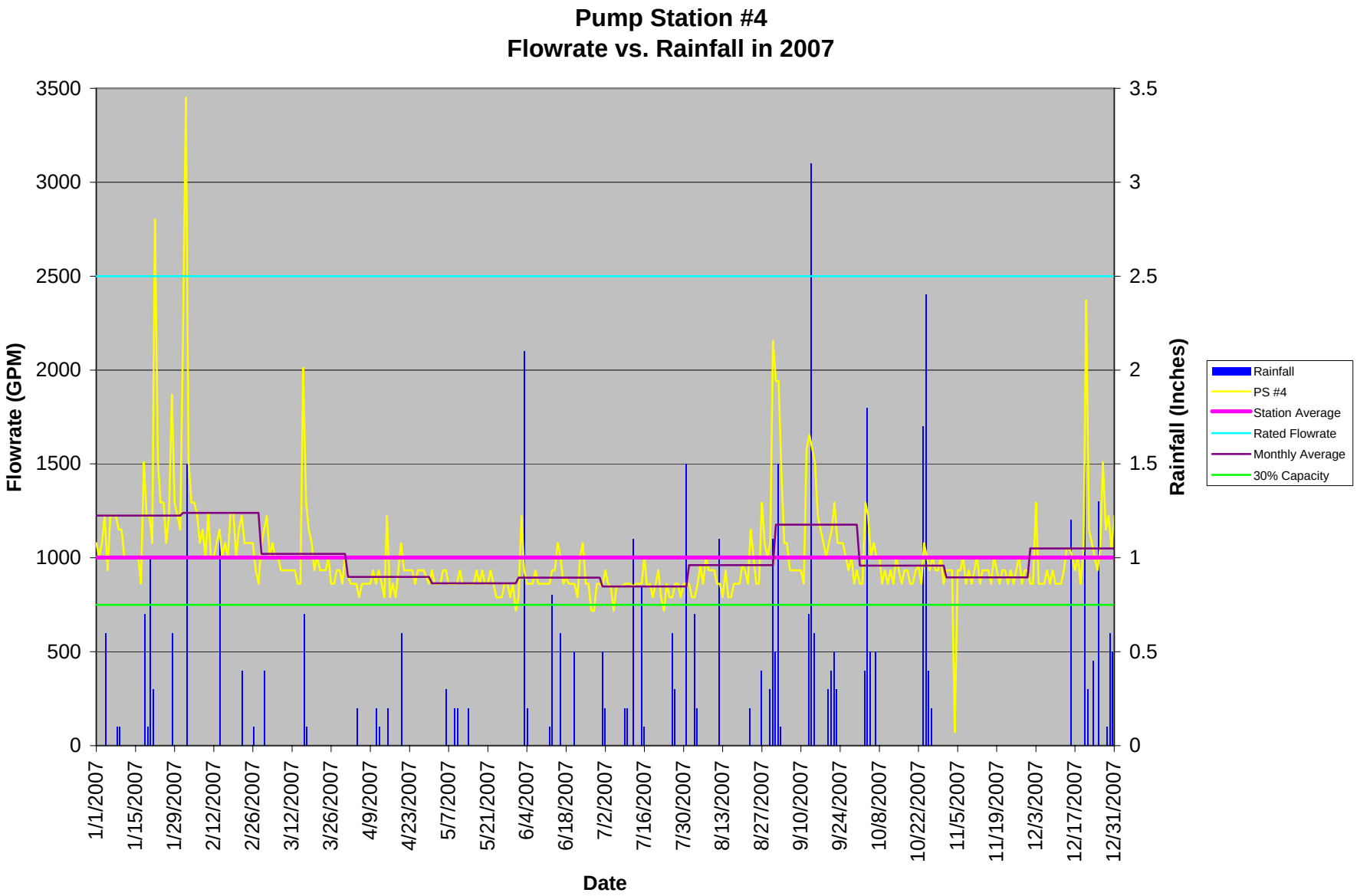
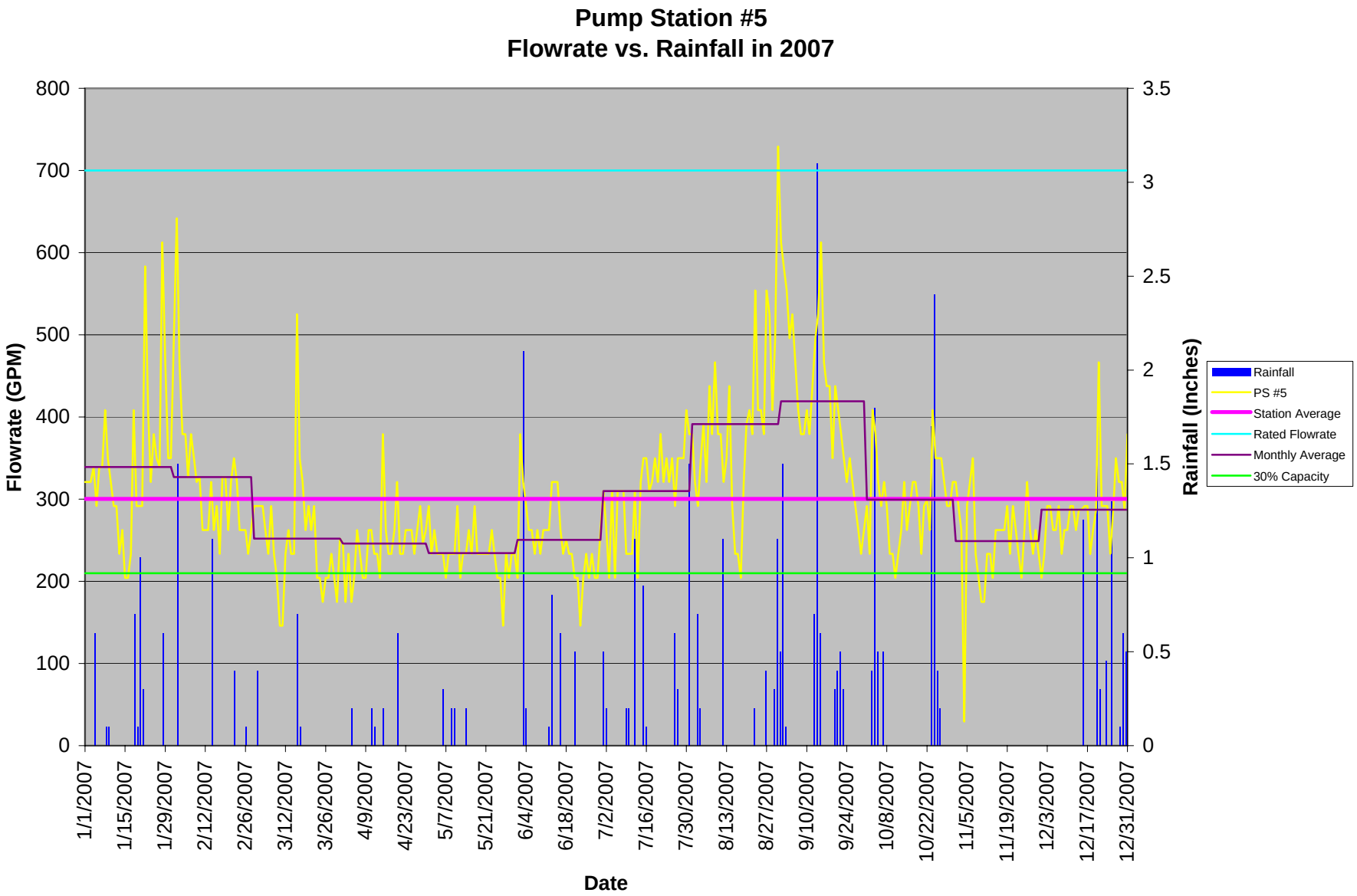
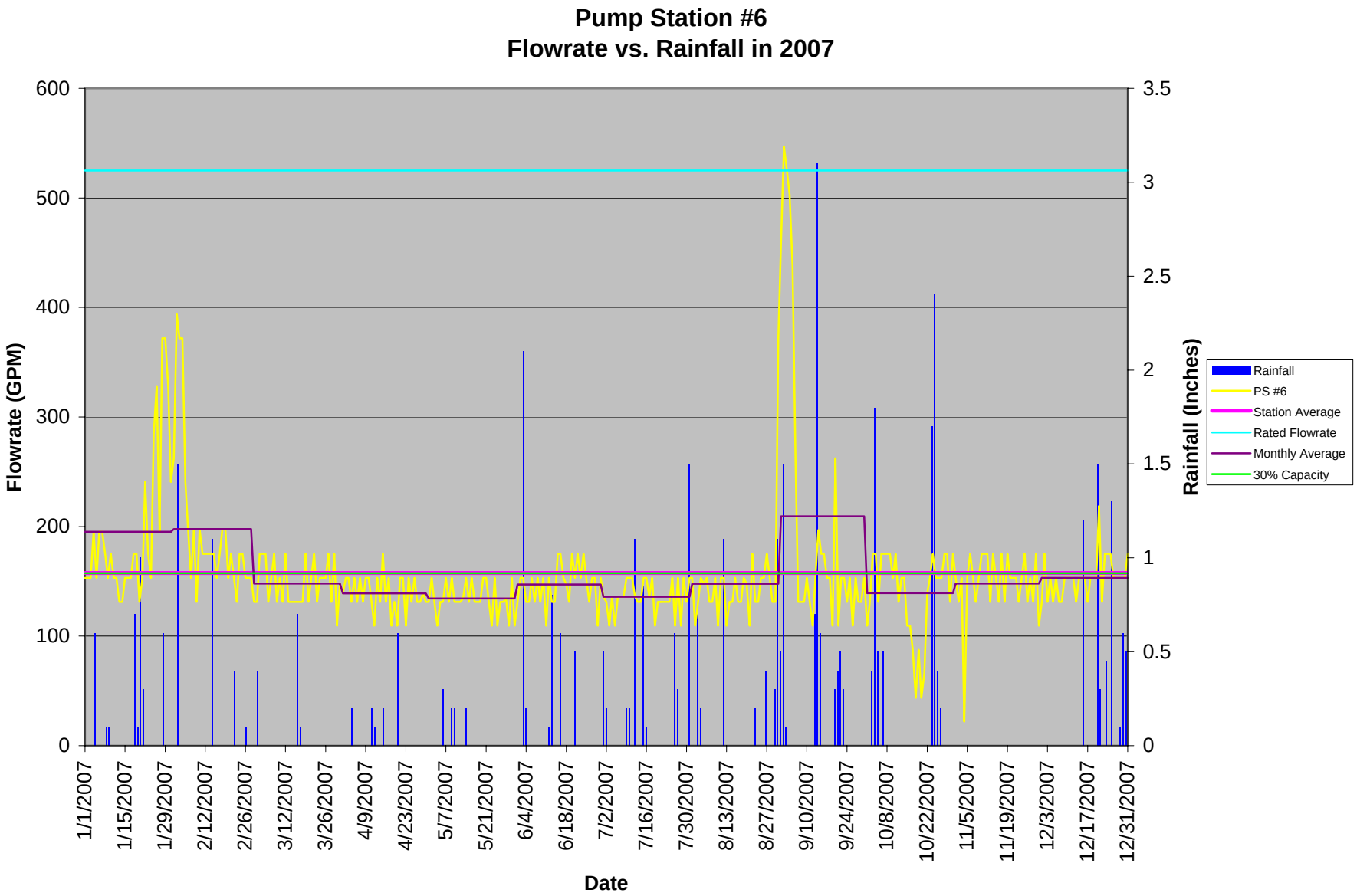

Lower Dorchester Wastewater Treatment Plant
Flowrate vs. Rainfall in 2007
Flowrate (MGD)
Rainfall (Inches)
Date
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
WWTP Effluent
Average Effluent
Monthly Average


Pump Station #2
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
8000
7000
6000
5000
4000
3000
2000
1000
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #2
Station Average
Rated Flowrate
Monthly Average
30% Capacity

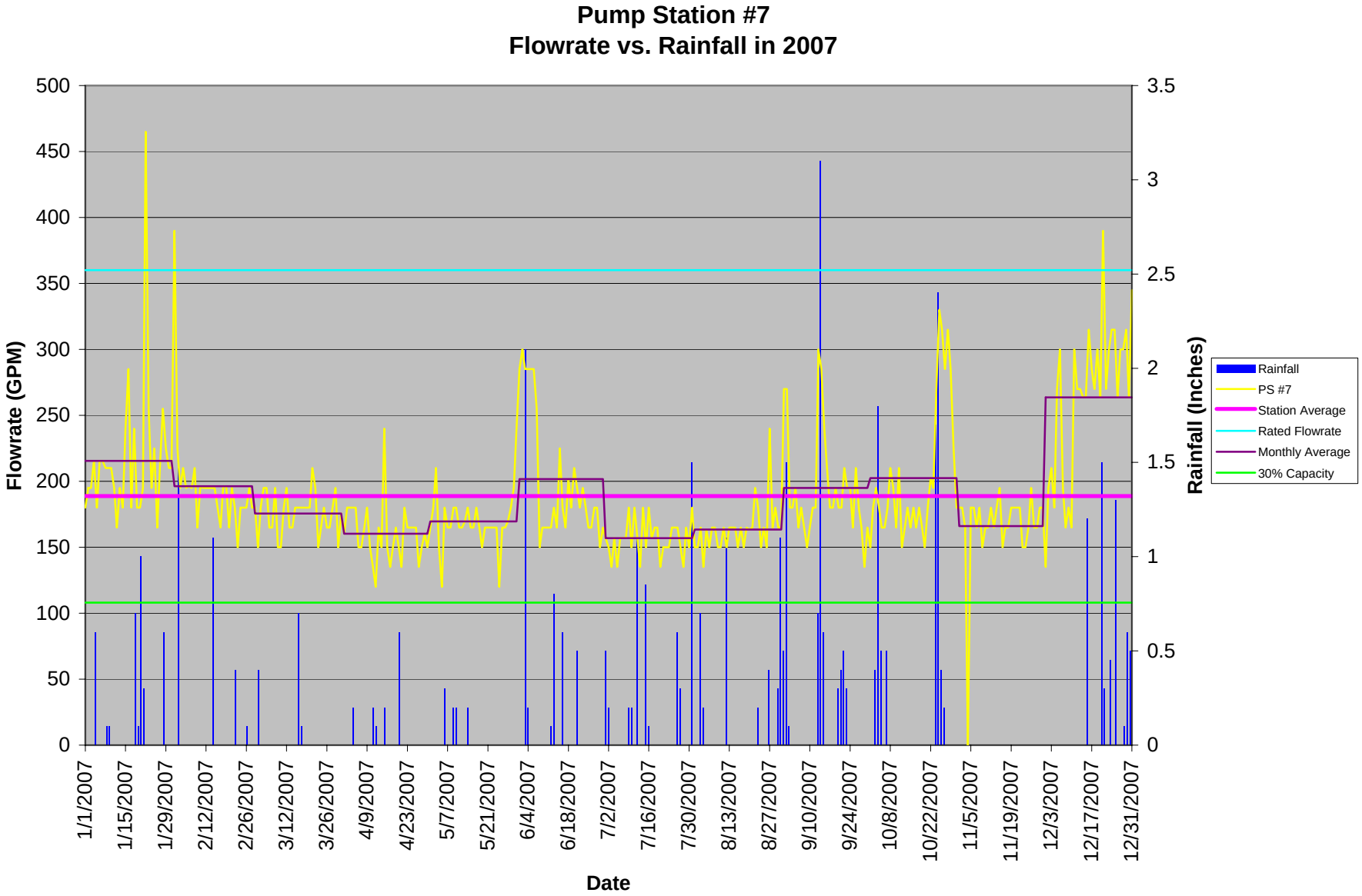

Pump Station #3
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
3500
3000
2500
2000
1500
1000
500
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #3
Station Average
Rated Flowrate
Monthly Average
30% Capacity

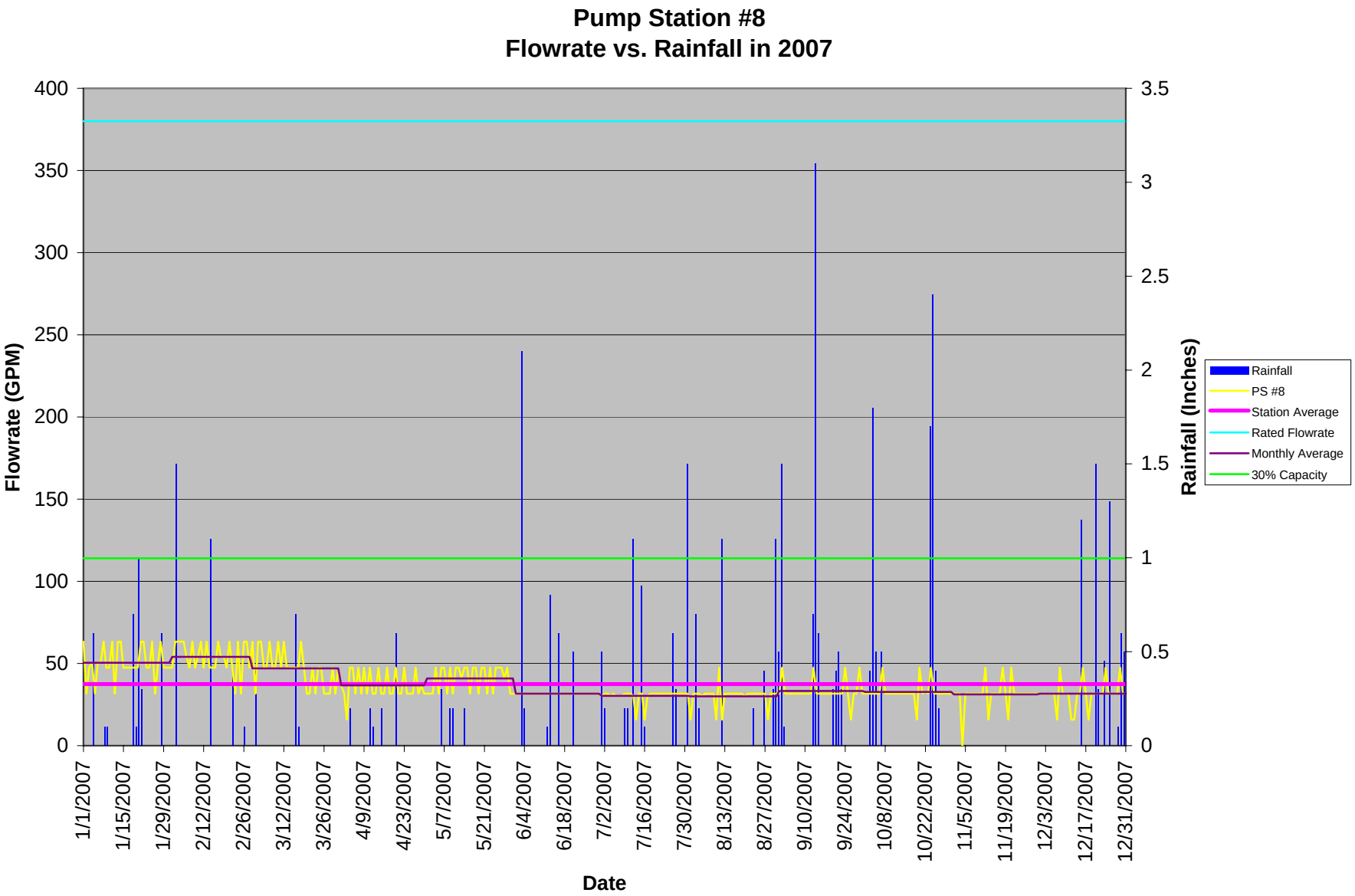

Pump Station #4
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
3500
3000
2500
2000
1500
1000
500
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #4
Station Average
Rated Flowrate
Monthly Average
30% Capacity

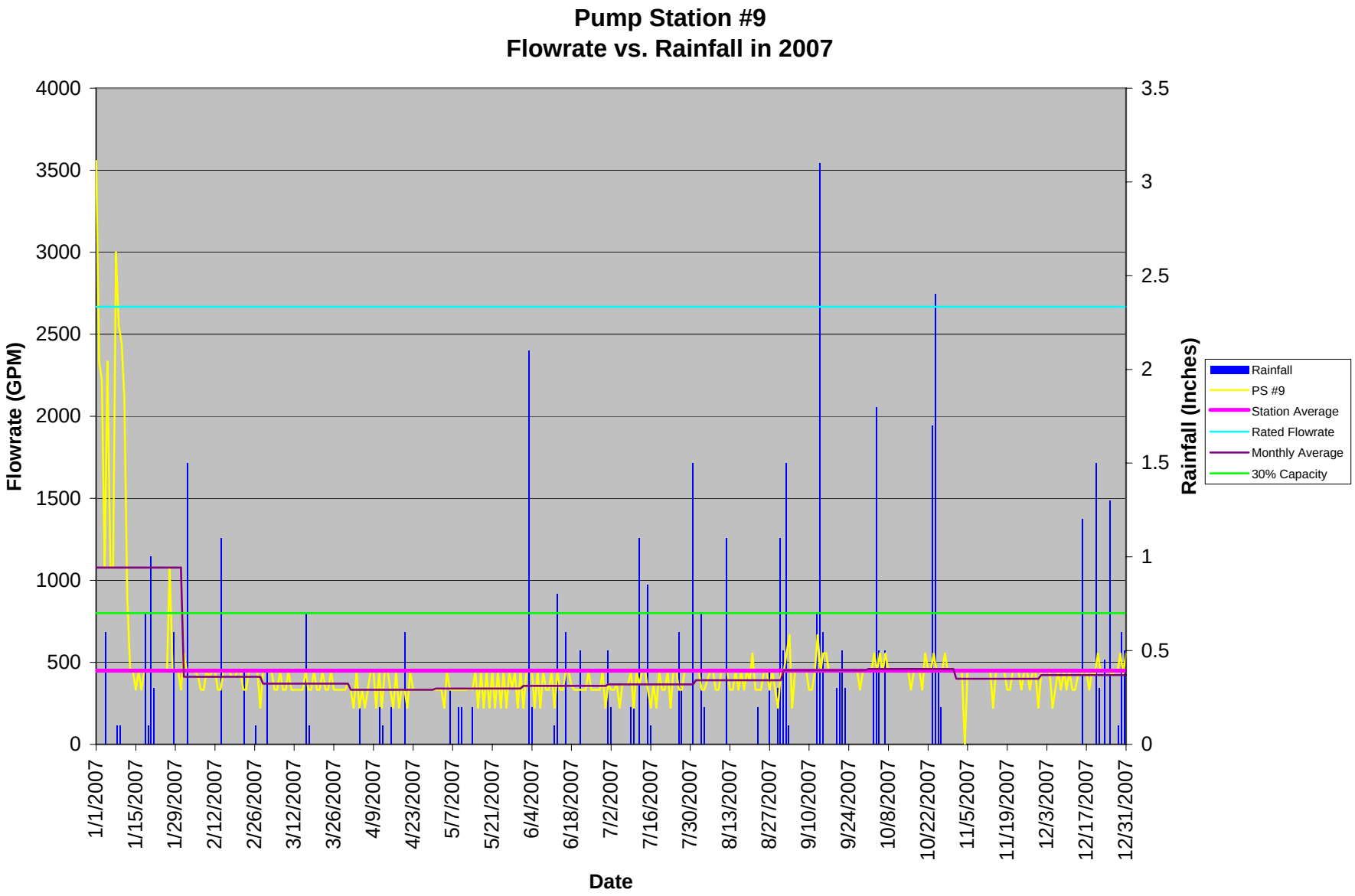

Pump Station #5
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
800
700
600
500
400
300
200
100
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #5
Station Average
Rated Flowrate
Monthly Average
30% Capacity

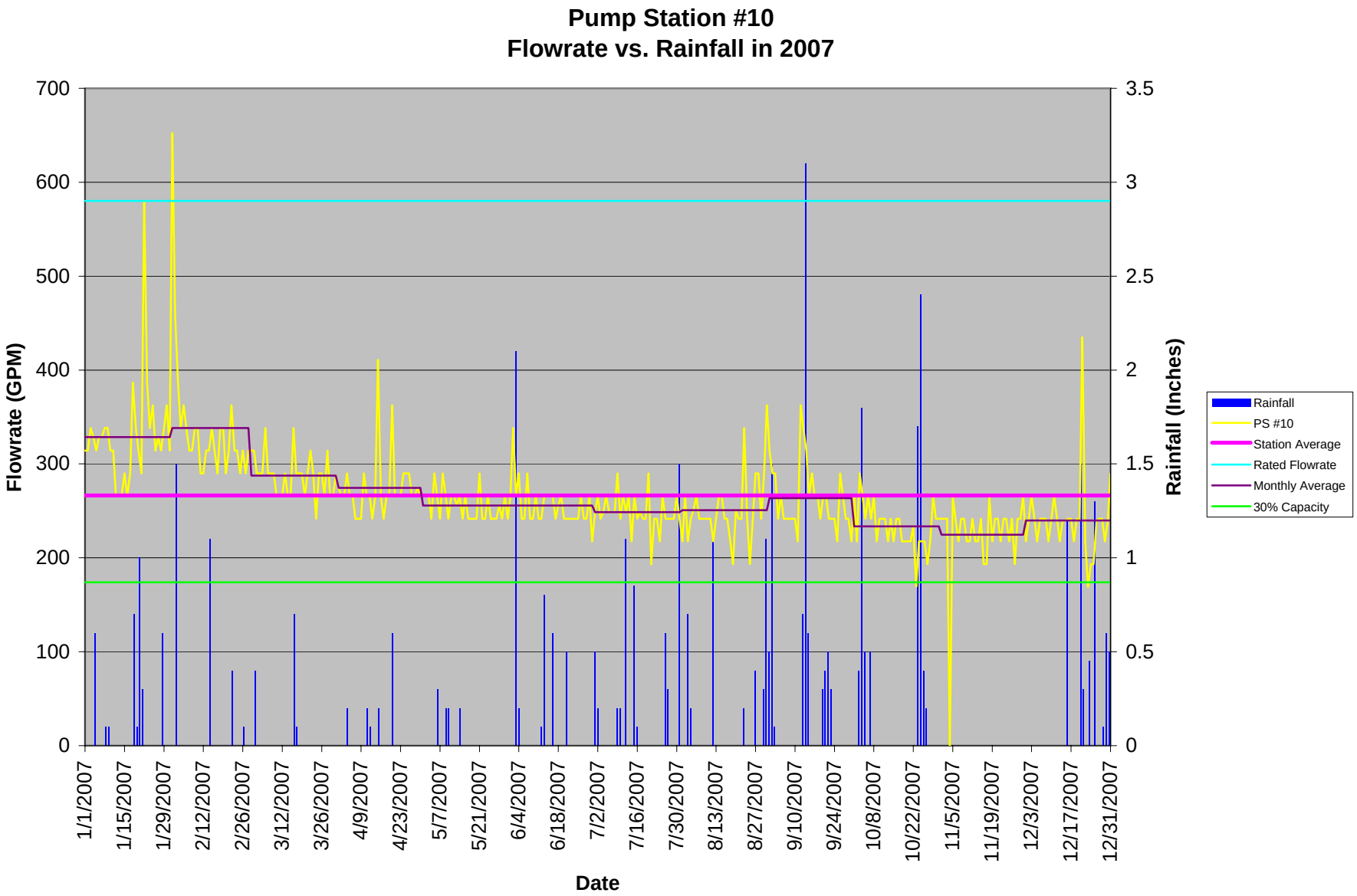


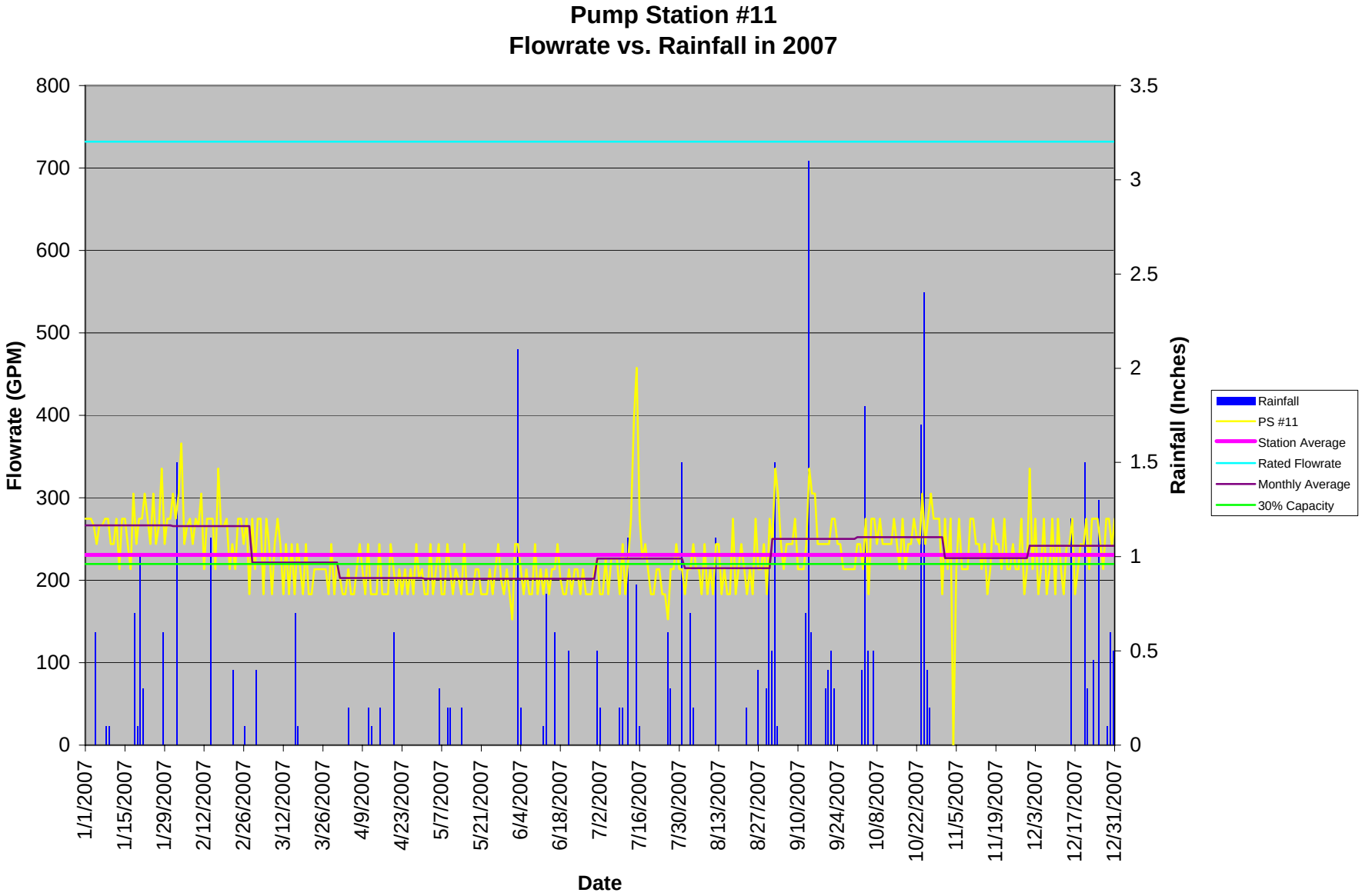
**Inflow and Infiltration problem should go away once Pump Station #7 is diverted to the new High School Pump Station.*

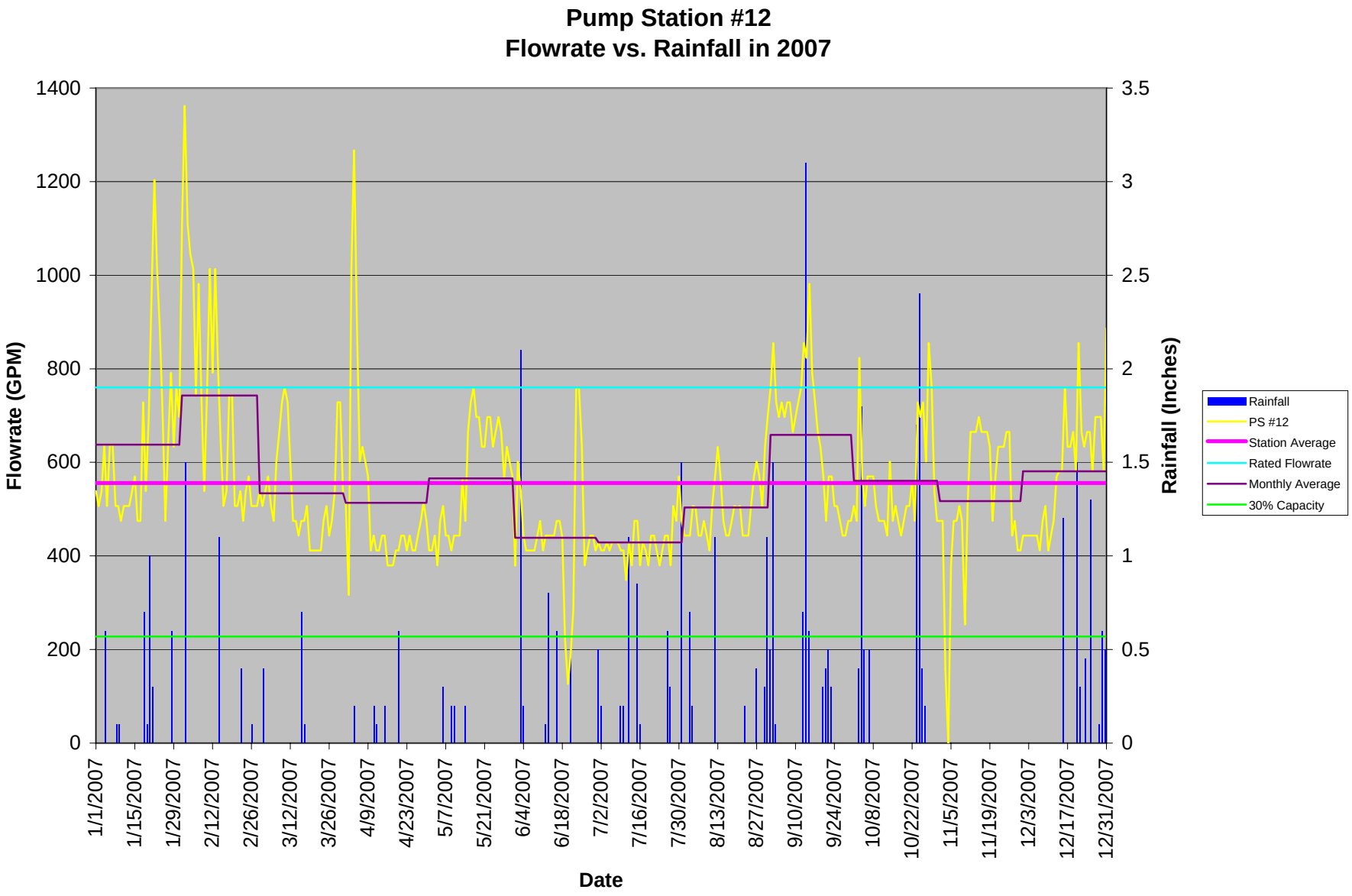

Pump Station #7
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
500
450
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #7
Station Average
Rated Flowrate
Monthly Average
30% Capacity

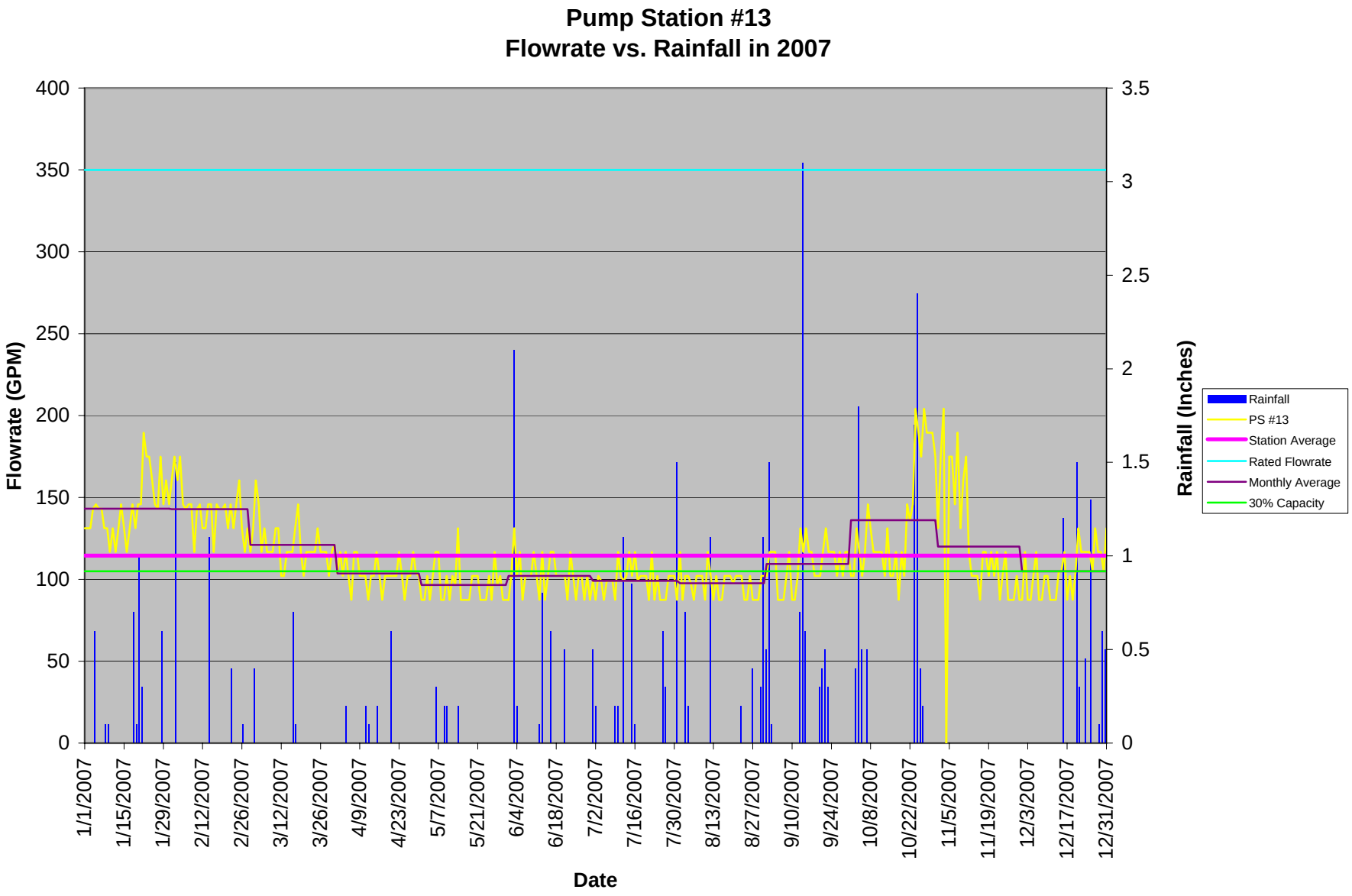

Pump Station #8
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #8
Station Average
Rated Flowrate
Monthly Average
30% Capacity

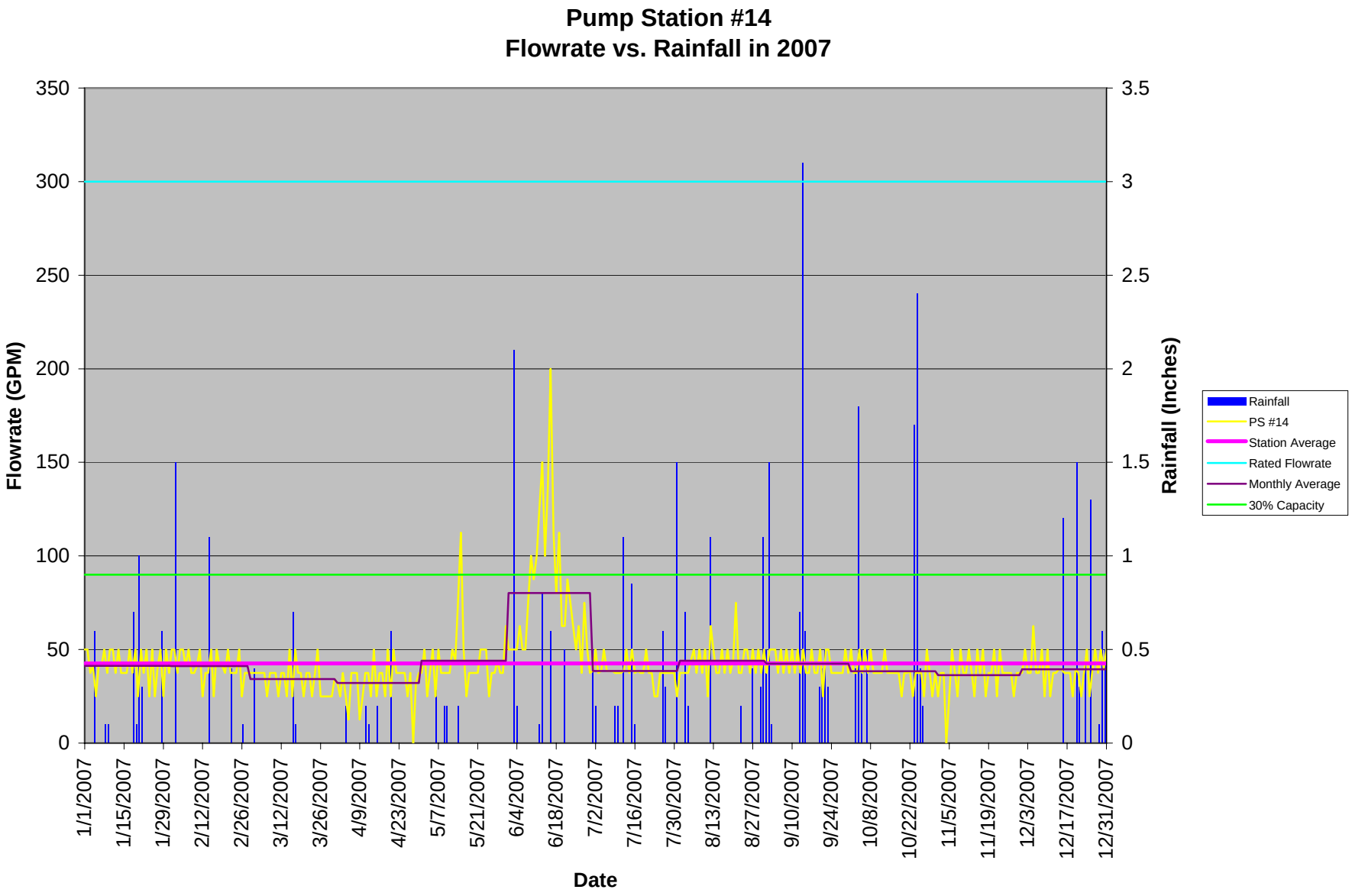

Pump Station #9
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
4000
3500
3000
2500
2000
1500
1000
500
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #9
Station Average
Rated Flowrate
Monthly Average
30% Capacity

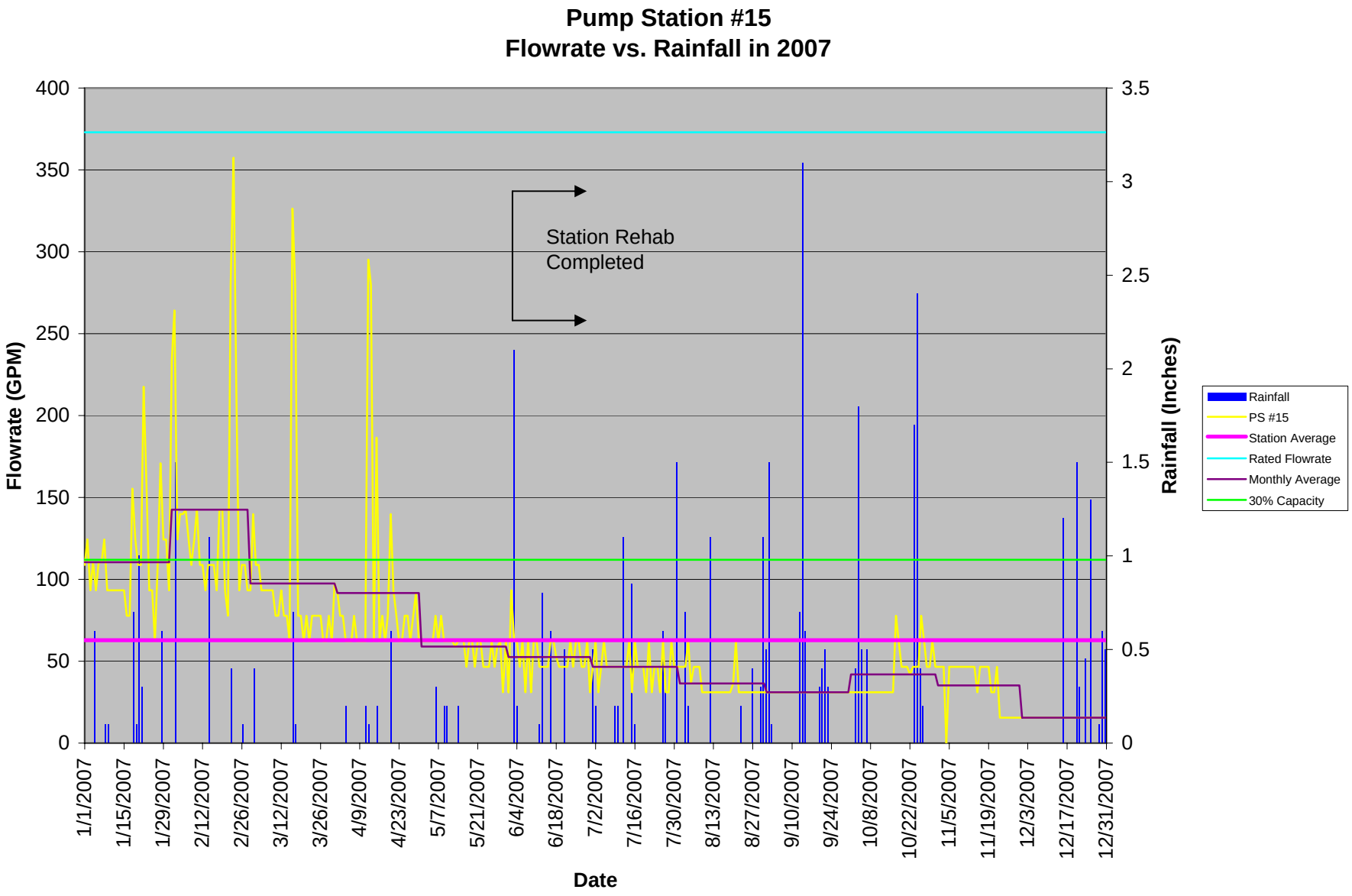

Pump Station #10
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
700
600
500
400
300
200
100
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #10
Station Average
Rated Flowrate
Monthly Average
30% Capacity

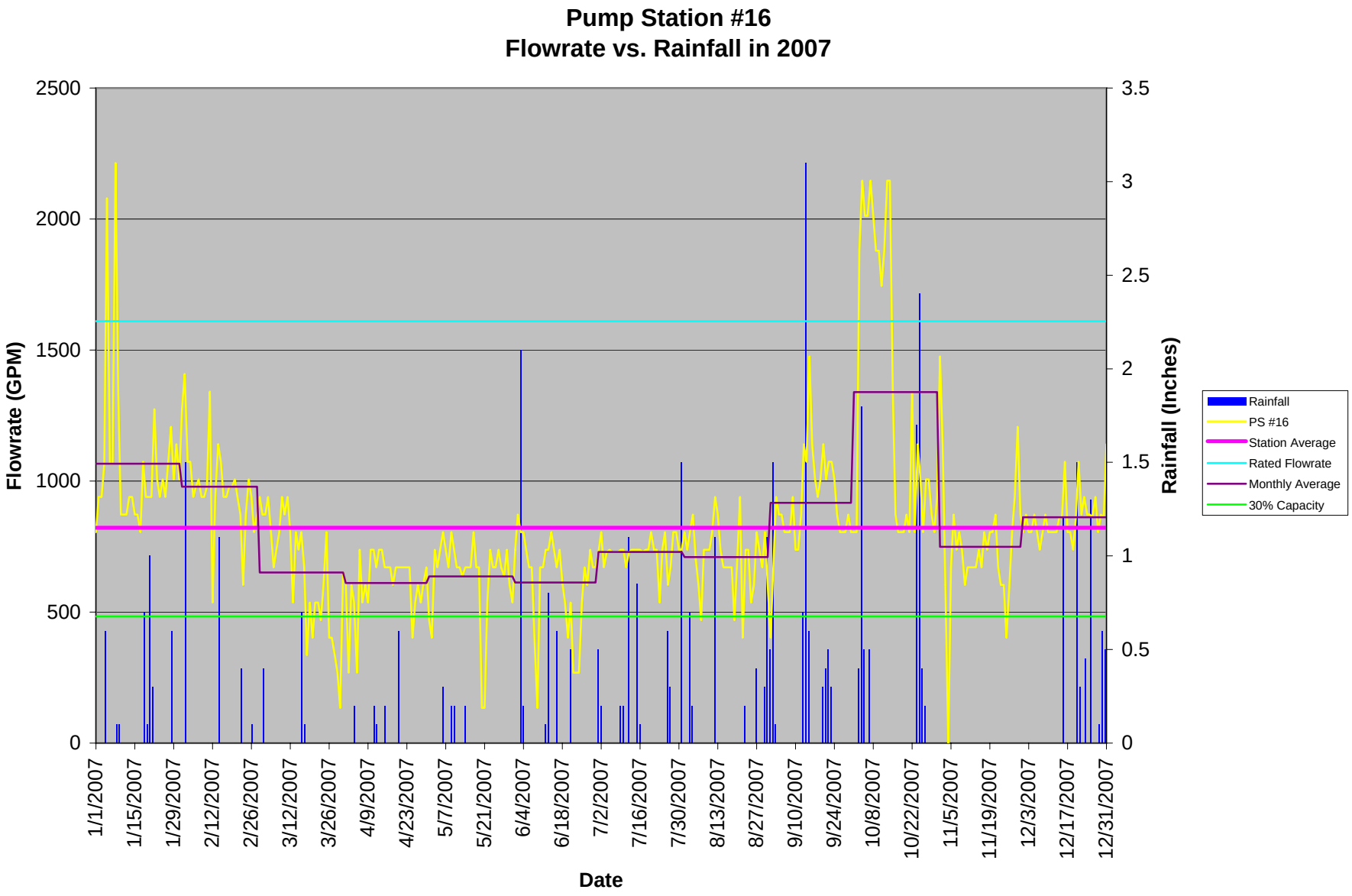

Pump Station #11
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
800
700
600
500
400
300
200
100
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #11
Station Average
Rated Flowrate
Monthly Average
30% Capacity


Pump Station #12
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
0
200
400
600
800
1000
1200
1400
0
0.5
1
1.5
2
2.5
3
3.5
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #12
Station Average
Rated Flowrate
Monthly Average
30% Capacity

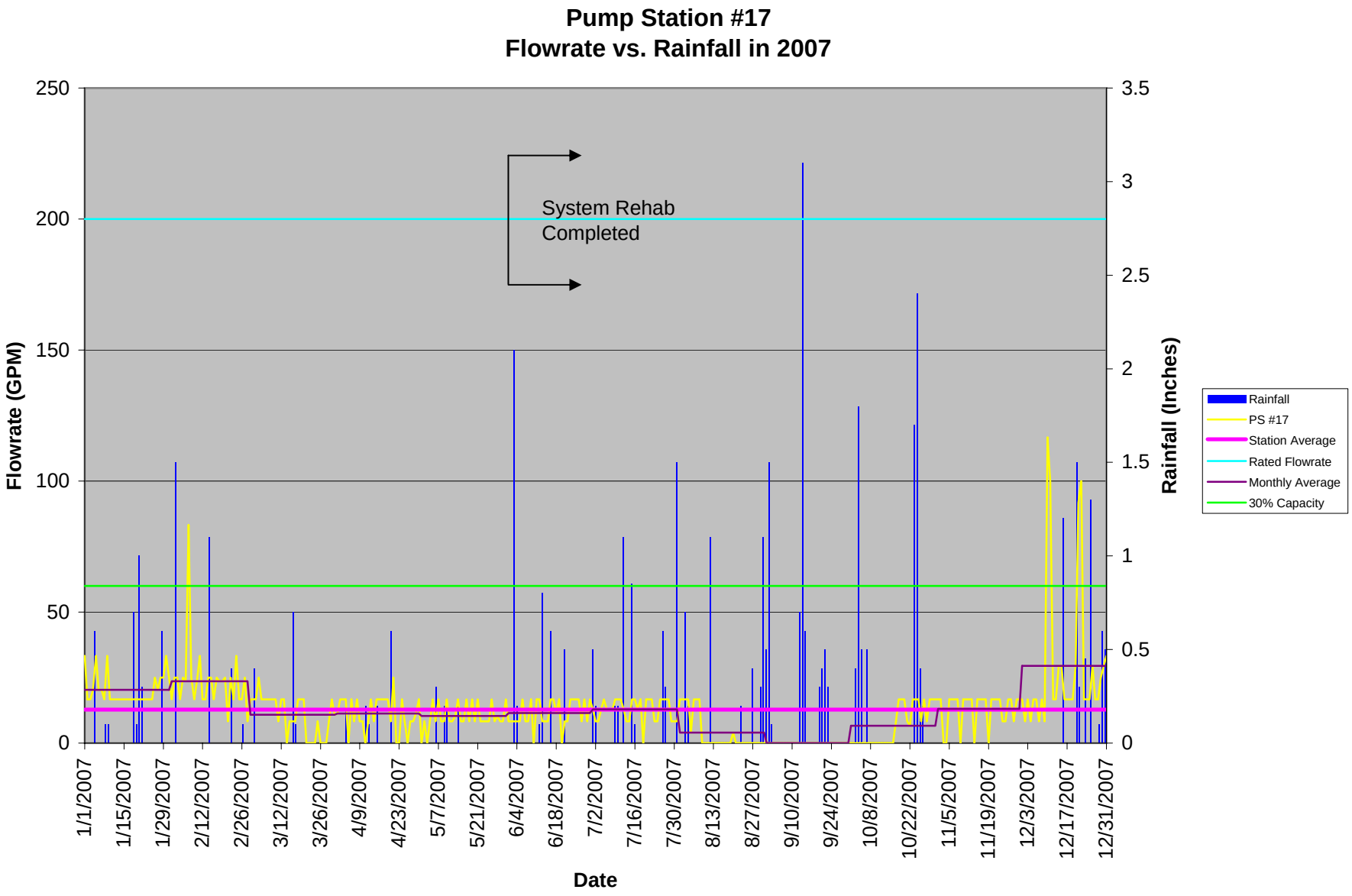

Pump Station #13
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #13
Station Average
Rated Flowrate
Monthly Average
30% Capacity

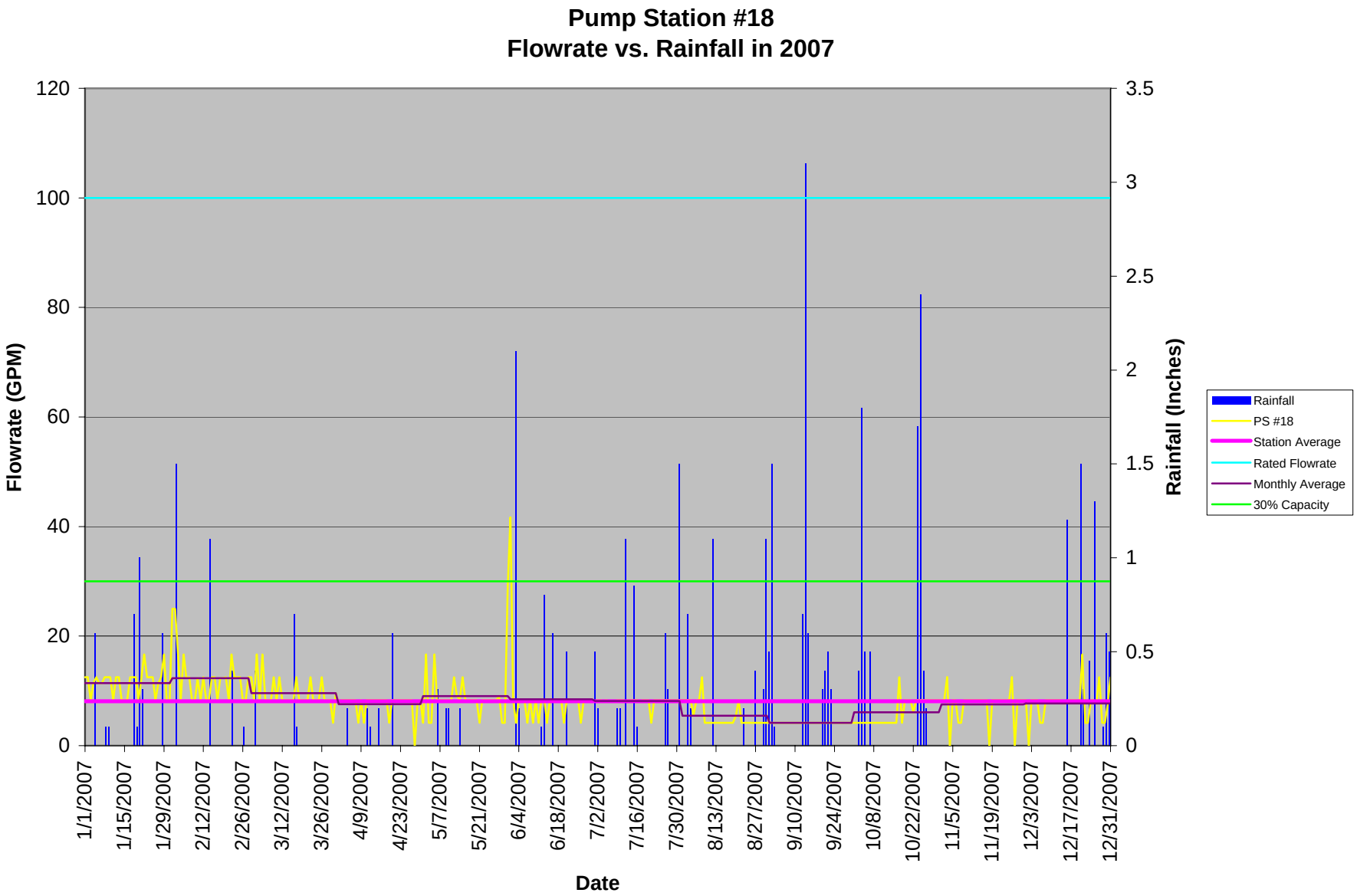

Pump Station #14
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #14
Station Average
Rated Flowrate
Monthly Average
30% Capacity

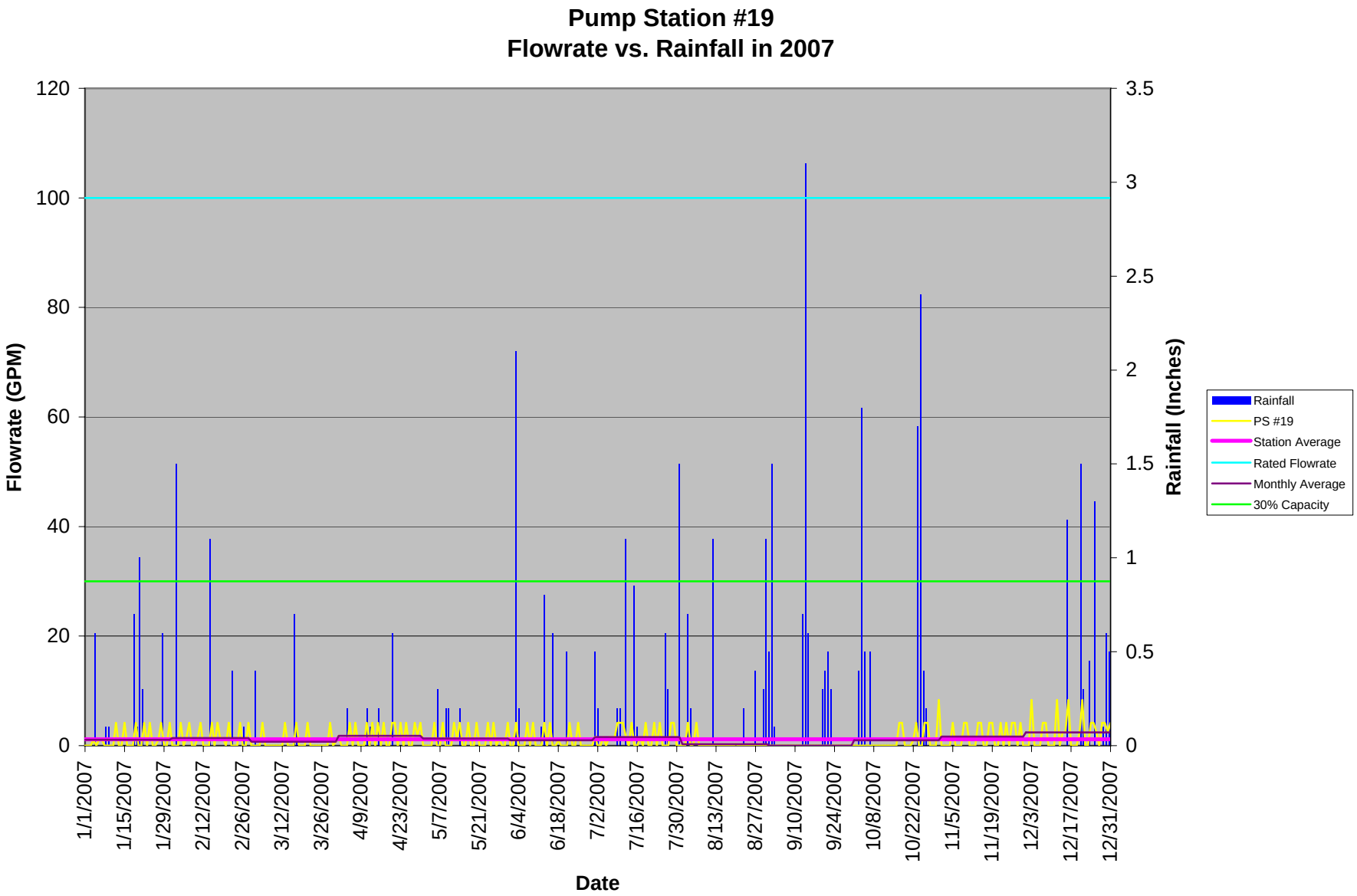

Pump Station #15
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
Station Rehab Completed
Rainfall
PS #15
Station Average
Rated Flowrate
Monthly Average
30% Capacity
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007

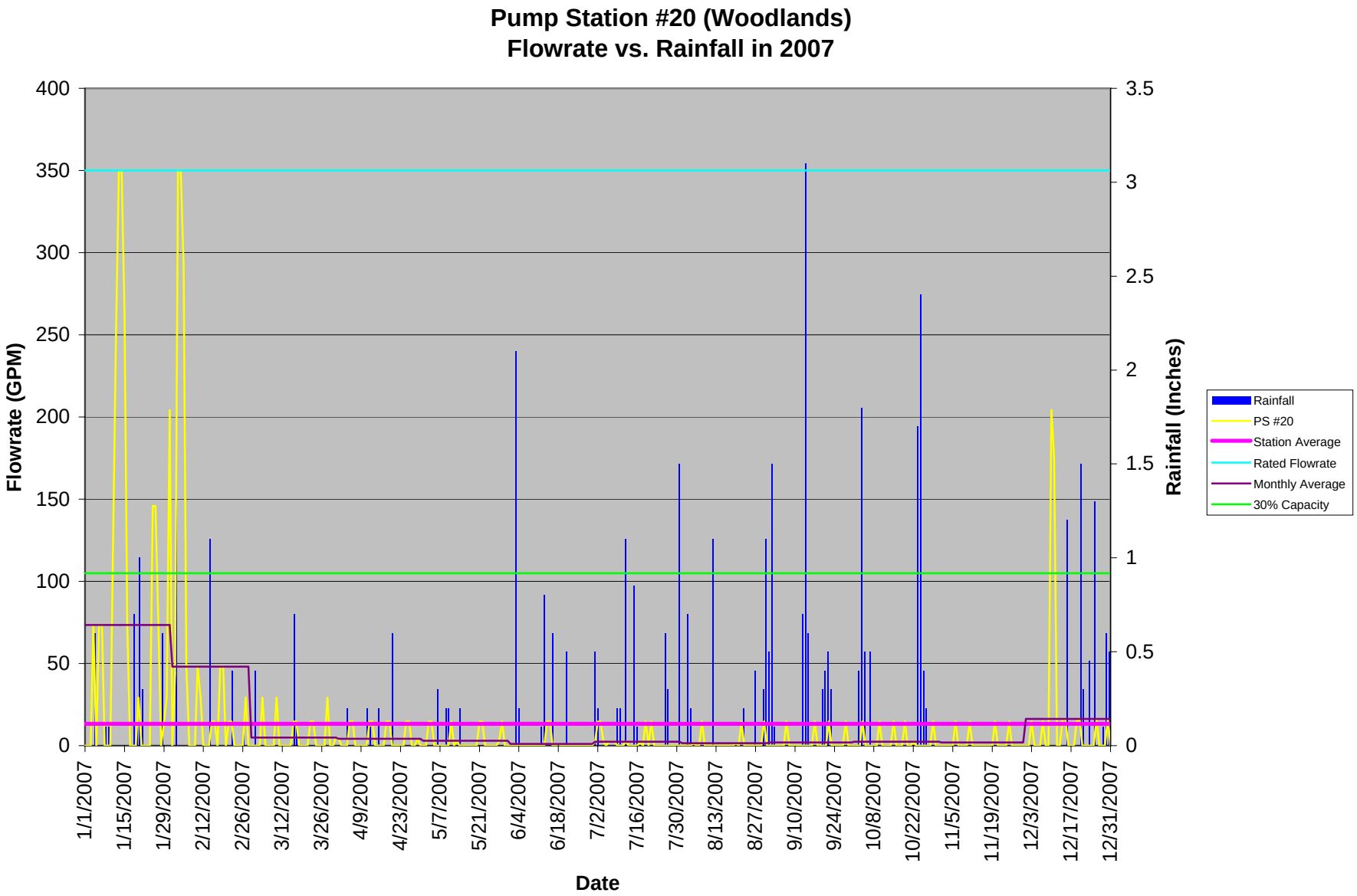


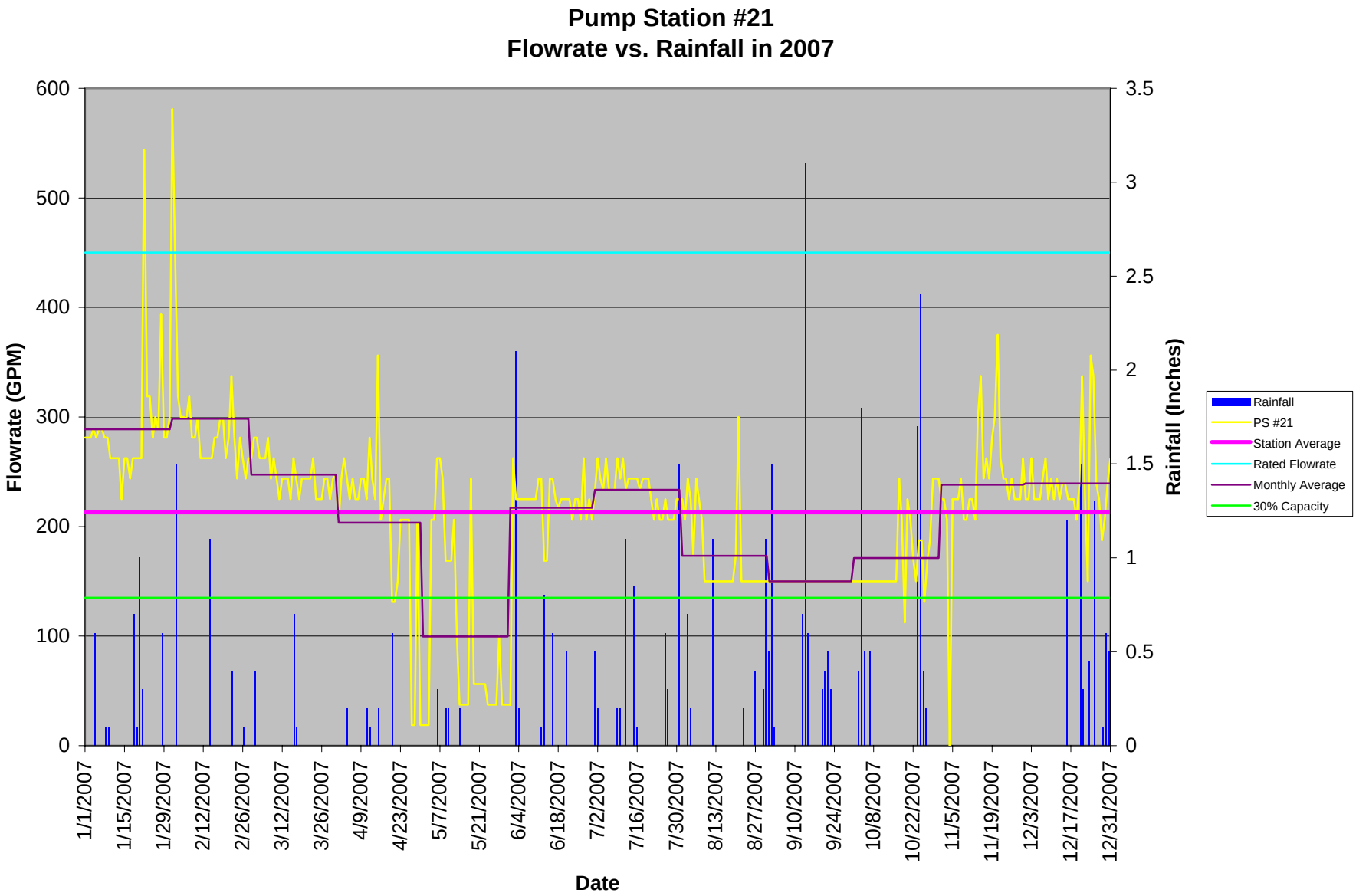
**I I problem should go away once Pump Station #12 is diverted to flow by gravity to the WWTP.

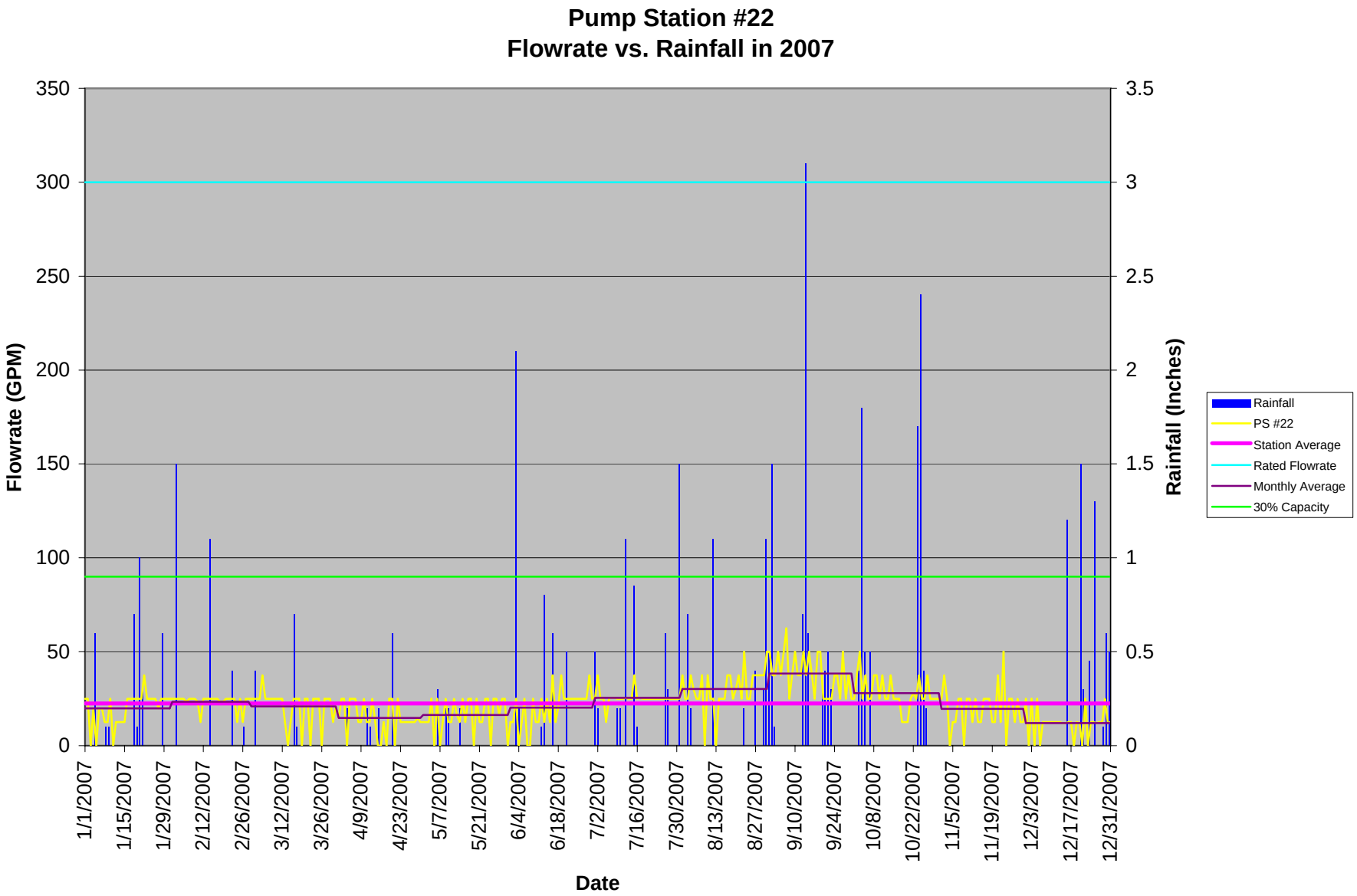

Pump Station #17
Flowrate vs. Rainfall in 2007
System Rehab
Completed
Flowrate (GPM)
Rainfall (Inches)
Date
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #17
Station Average
Rated Flowrate
Monthly Average
30% Capacity

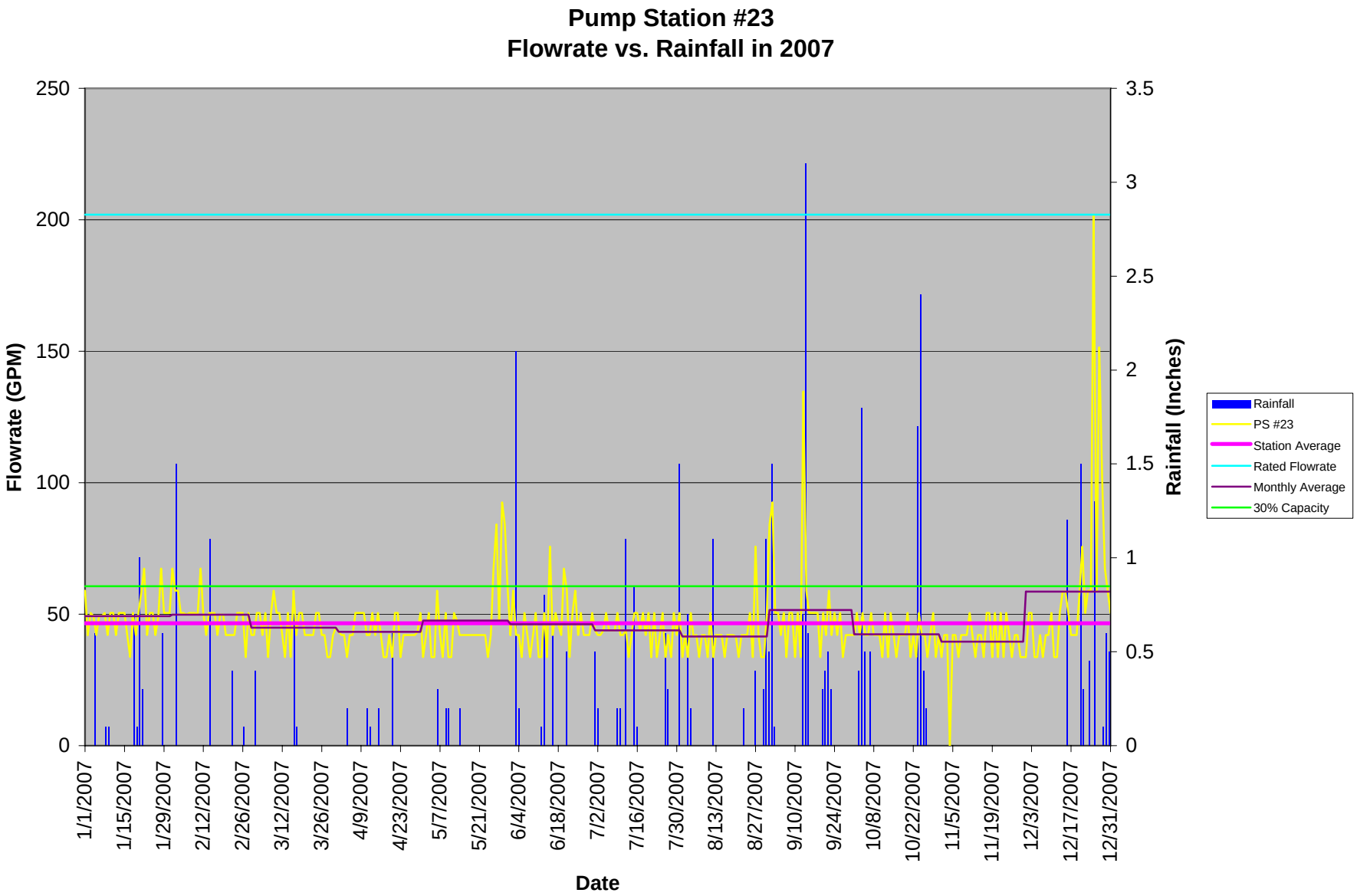

Pump Station #18
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #18
Station Average
Rated Flowrate
Monthly Average
30% Capacity

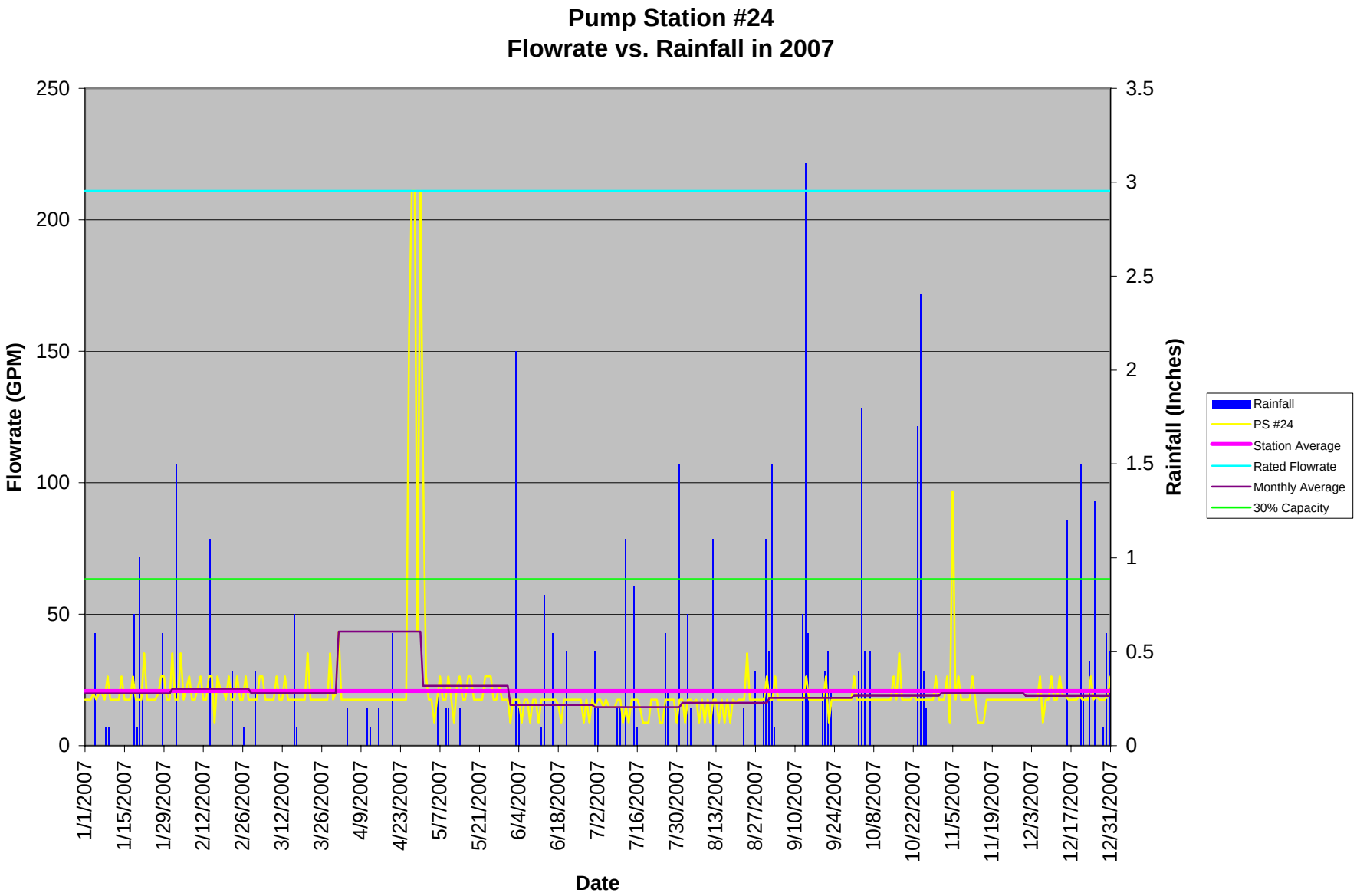

Pump Station #19
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #19
Station Average
Rated Flowrate
Monthly Average
30% Capacity

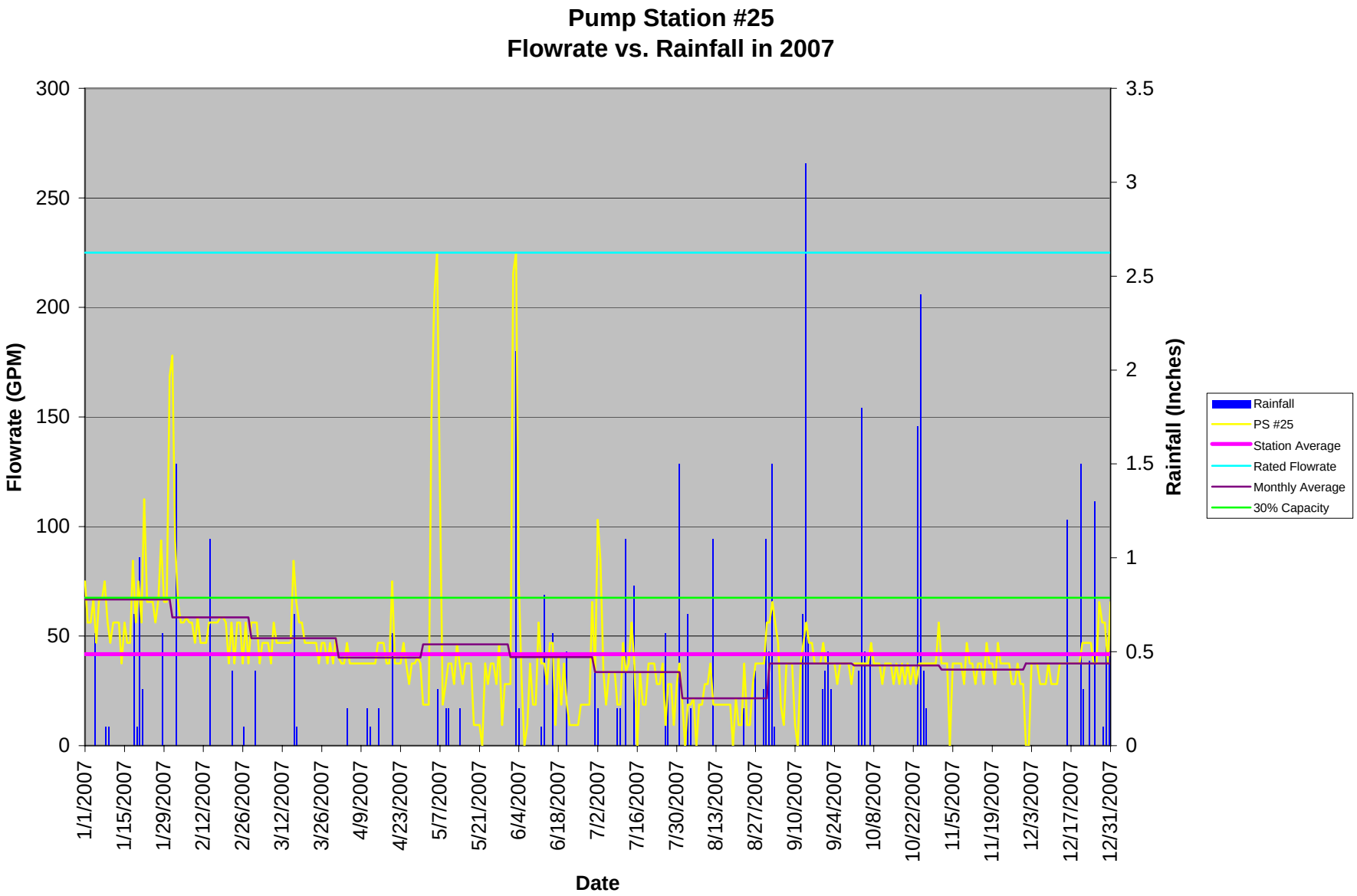

Pump Station #20 (Woodlands)
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #20
Station Average
Rated Flowrate
Monthly Average
30% Capacity

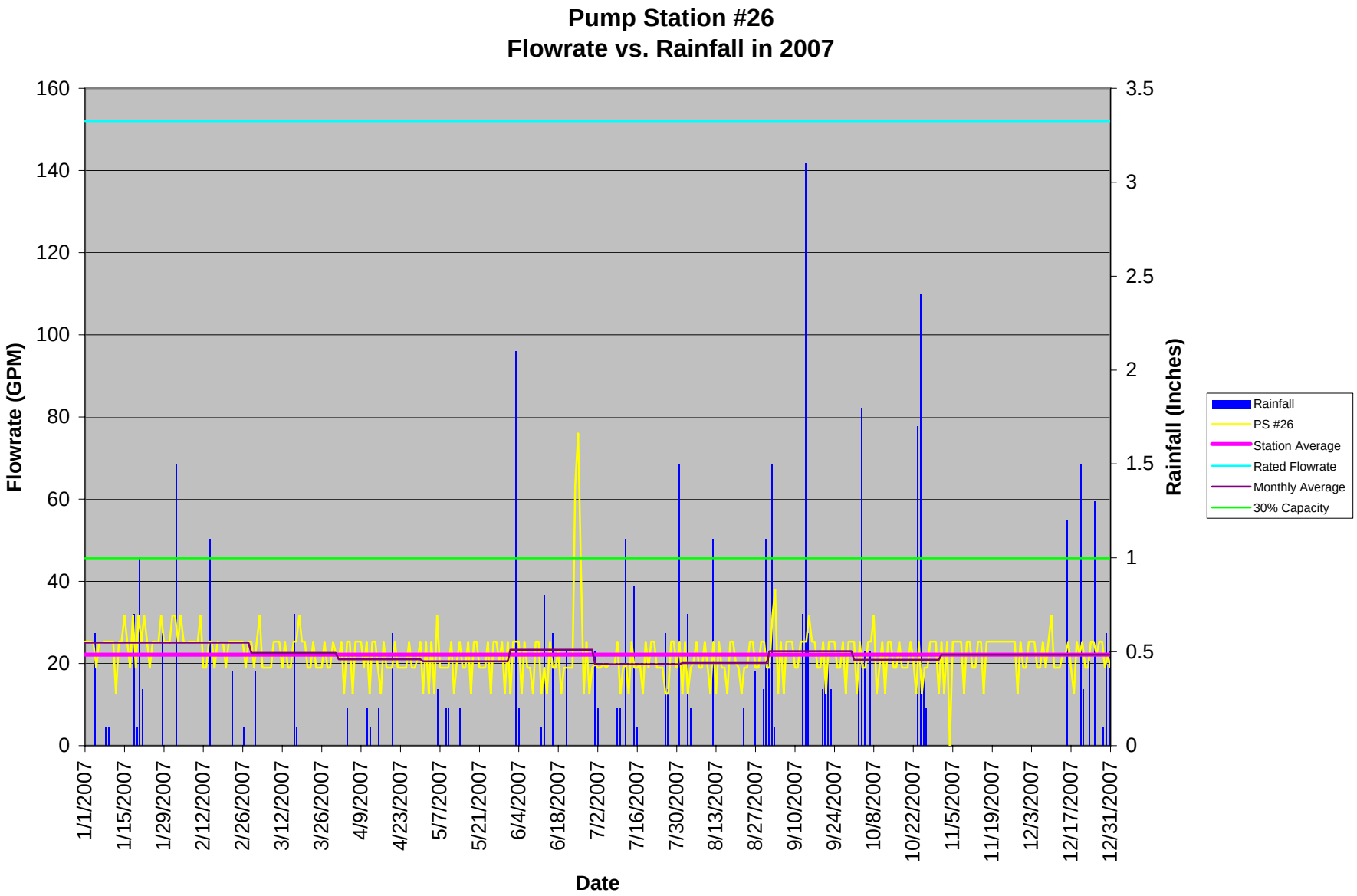

Pump Station #21
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
600
500
400
300
200
100
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #21
Station Average
Rated Flowrate
Monthly Average
30% Capacity

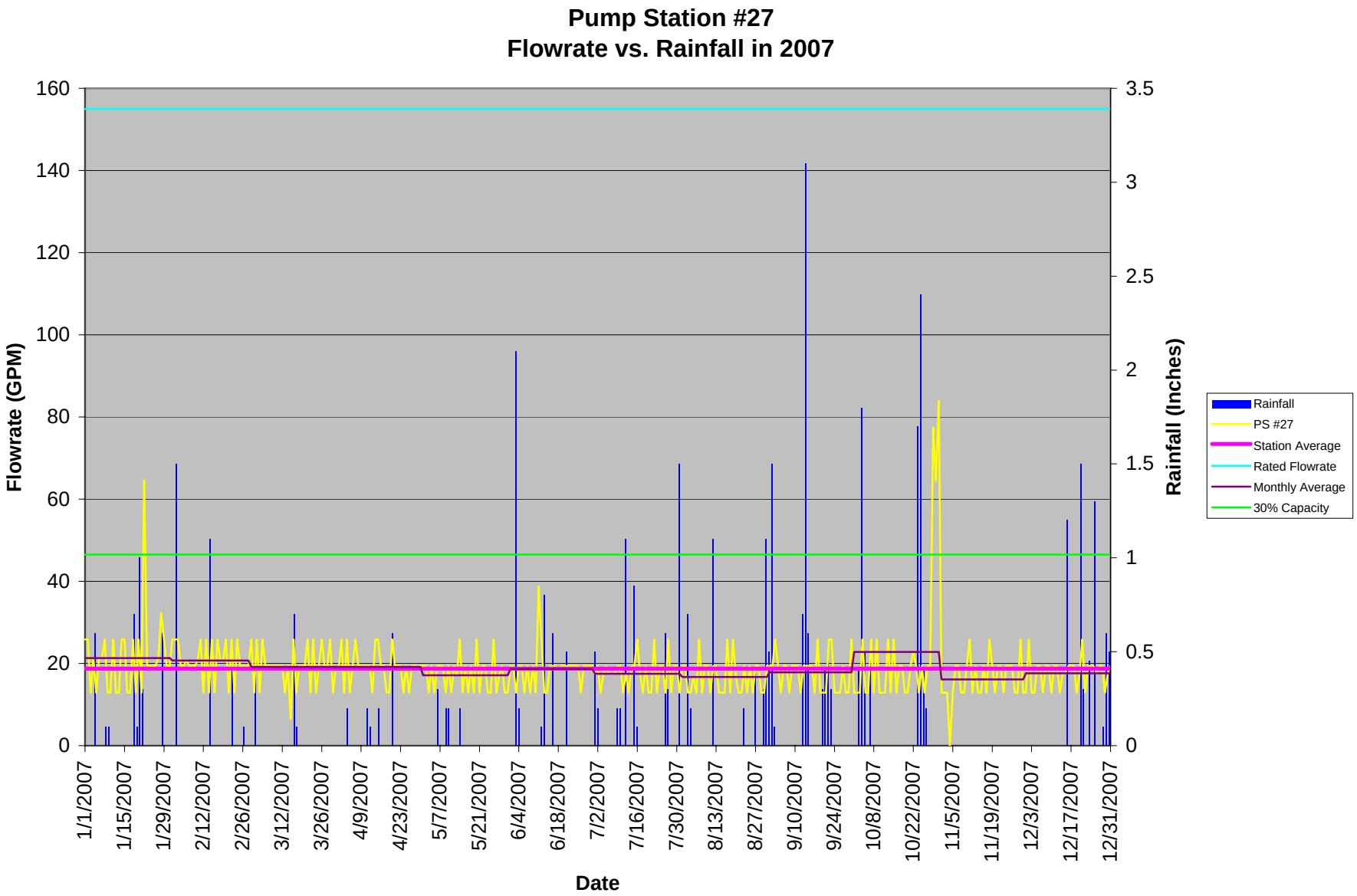

Pump Station #22
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #22
Station Average
Rated Flowrate
Monthly Average
30% Capacity

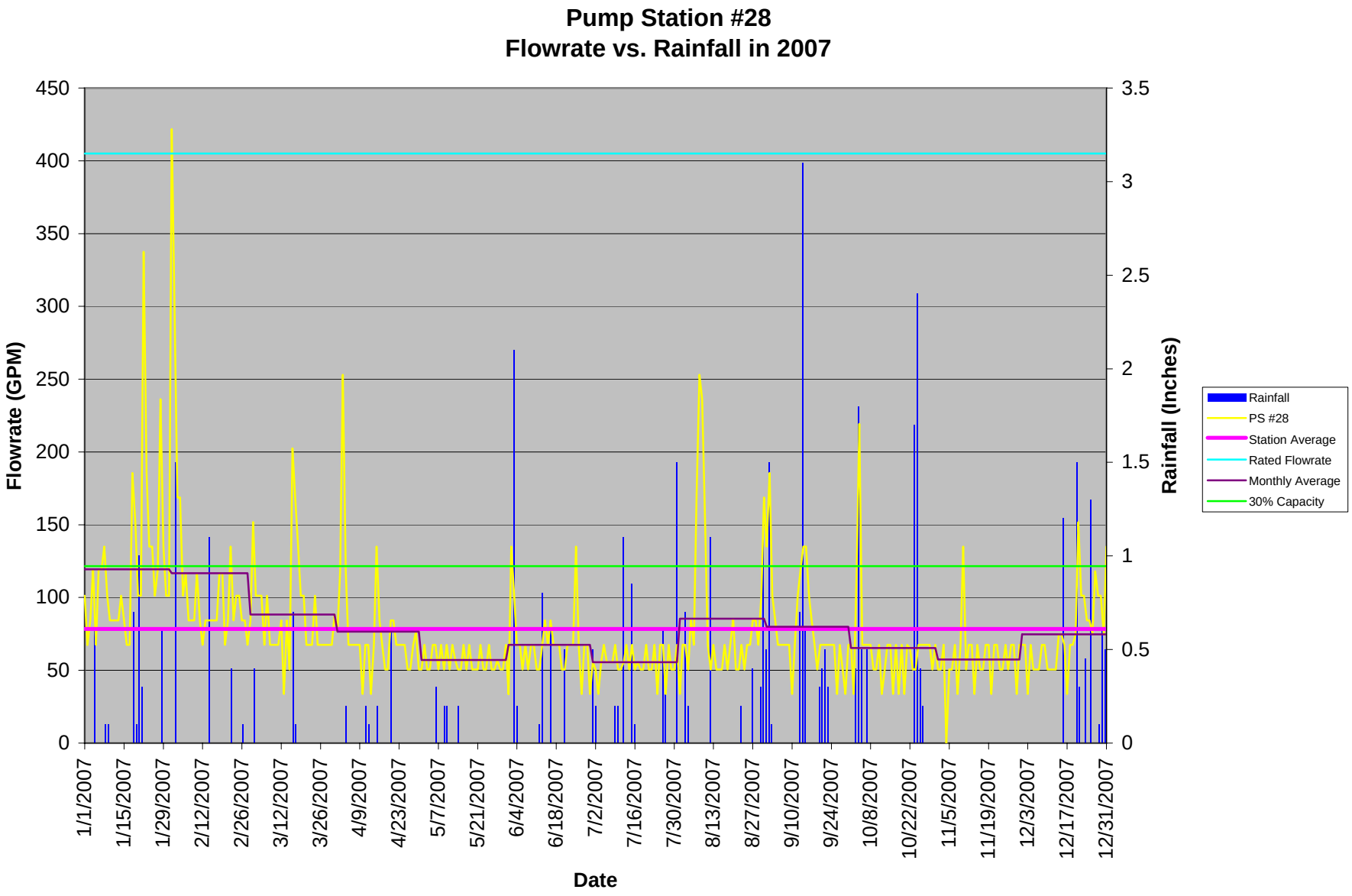

Pump Station #23
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #23
Station Average
Rated Flowrate
Monthly Average
30% Capacity

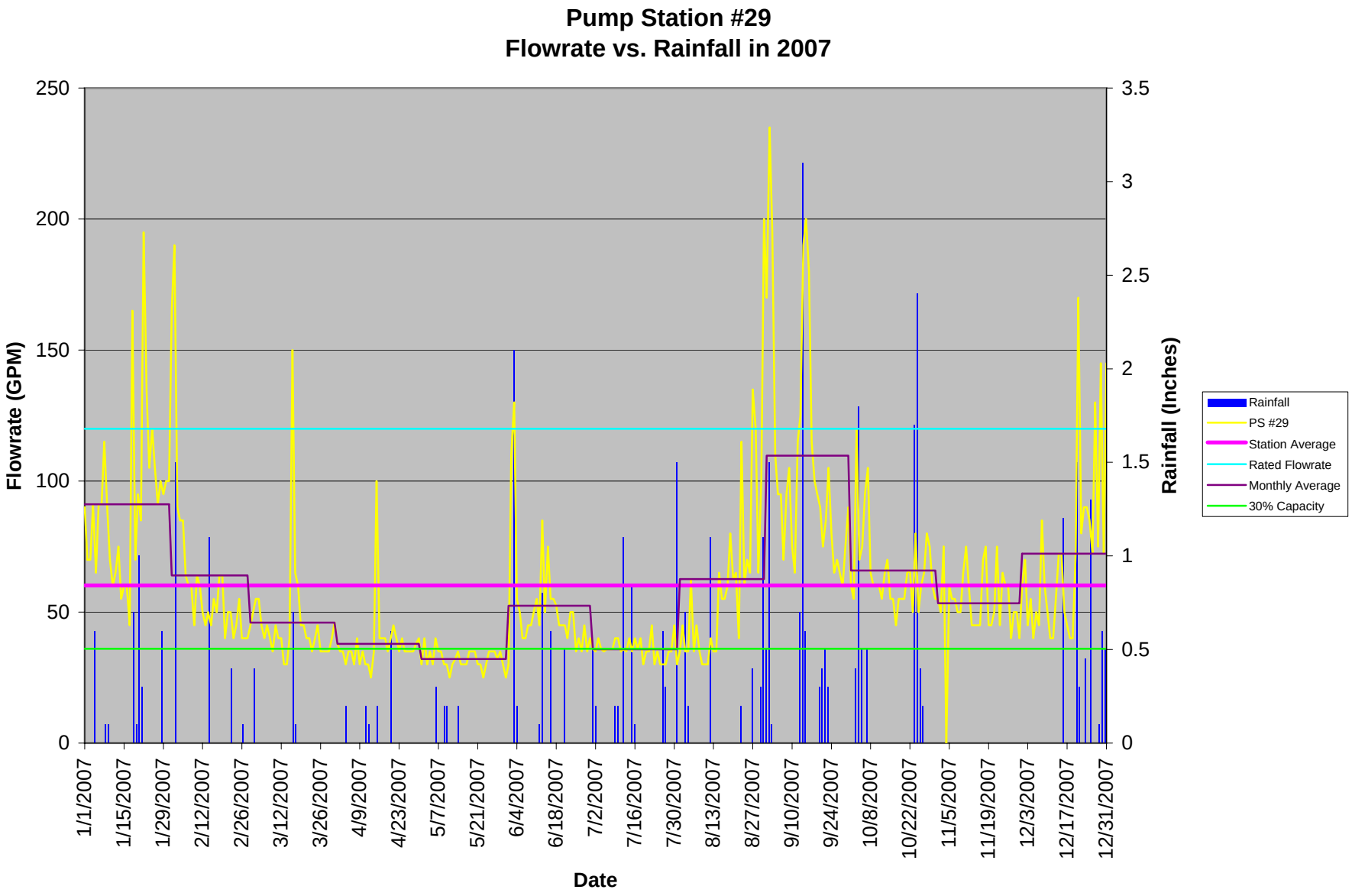

Pump Station #24
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #24
Station Average
Rated Flowrate
Monthly Average
30% Capacity

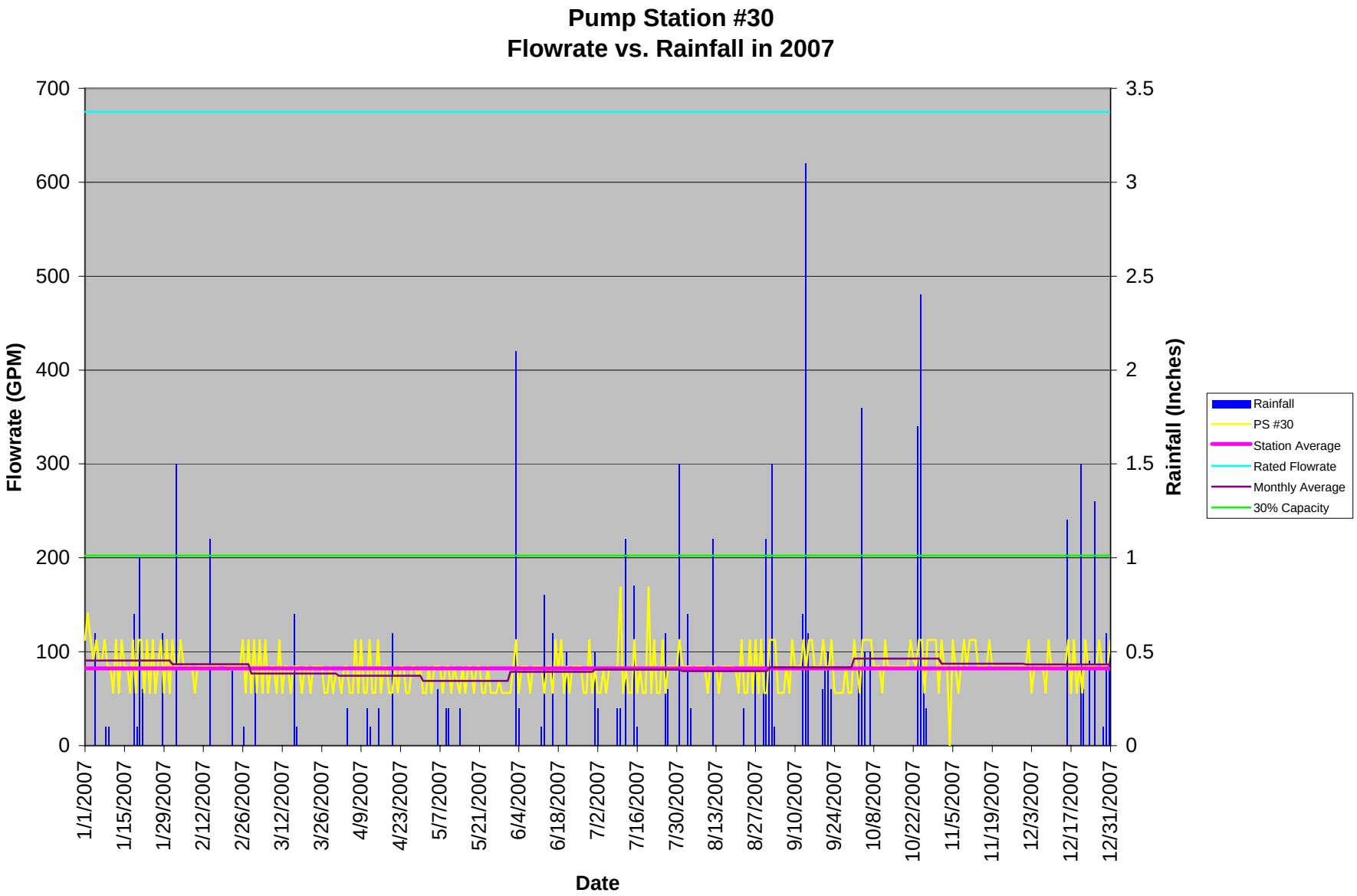

Pump Station #25
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #25
Station Average
Rated Flowrate
Monthly Average
30% Capacity

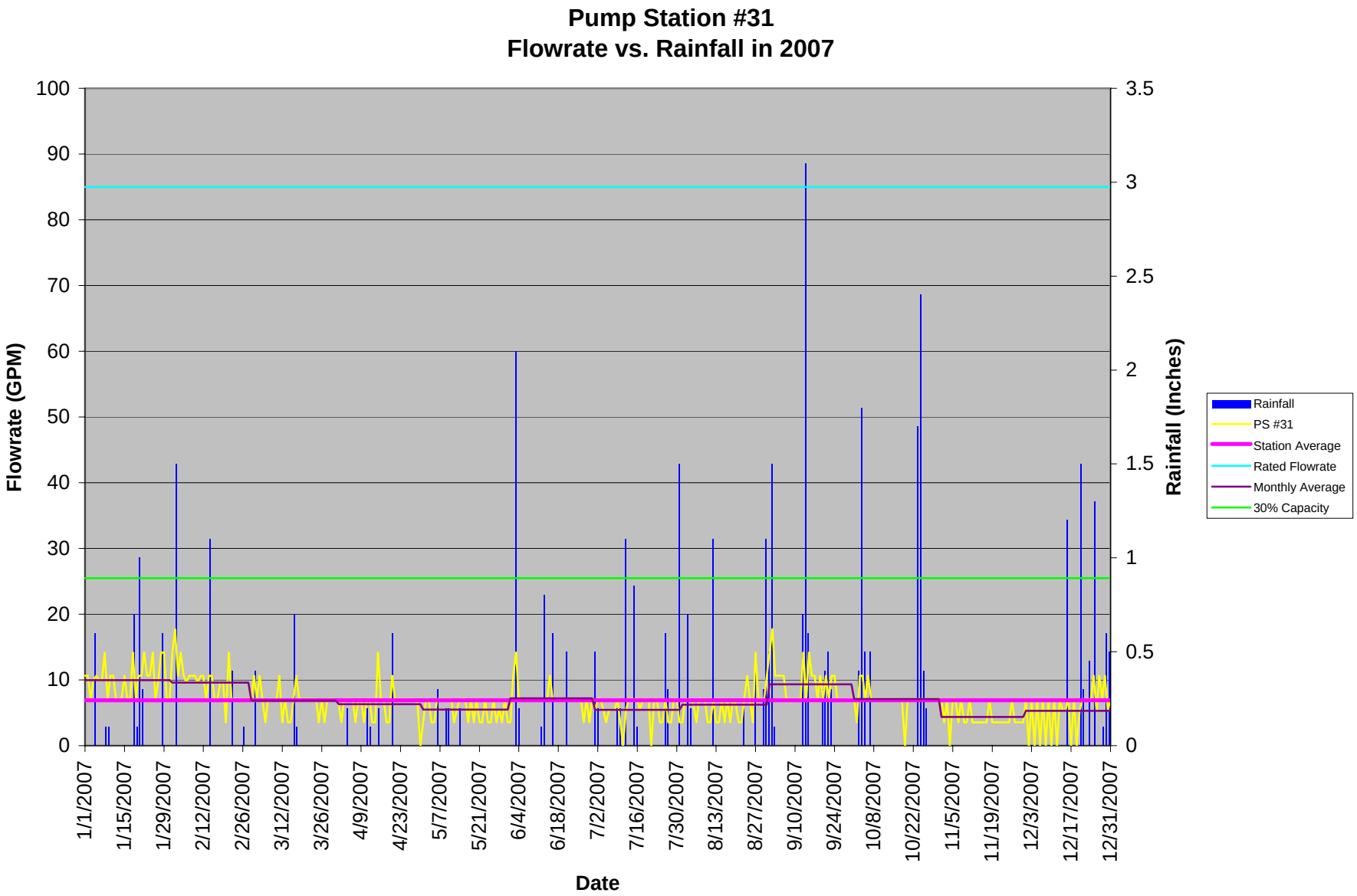

Pump Station #26
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #26
Station Average
Rated Flowrate
Monthly Average
30% Capacity

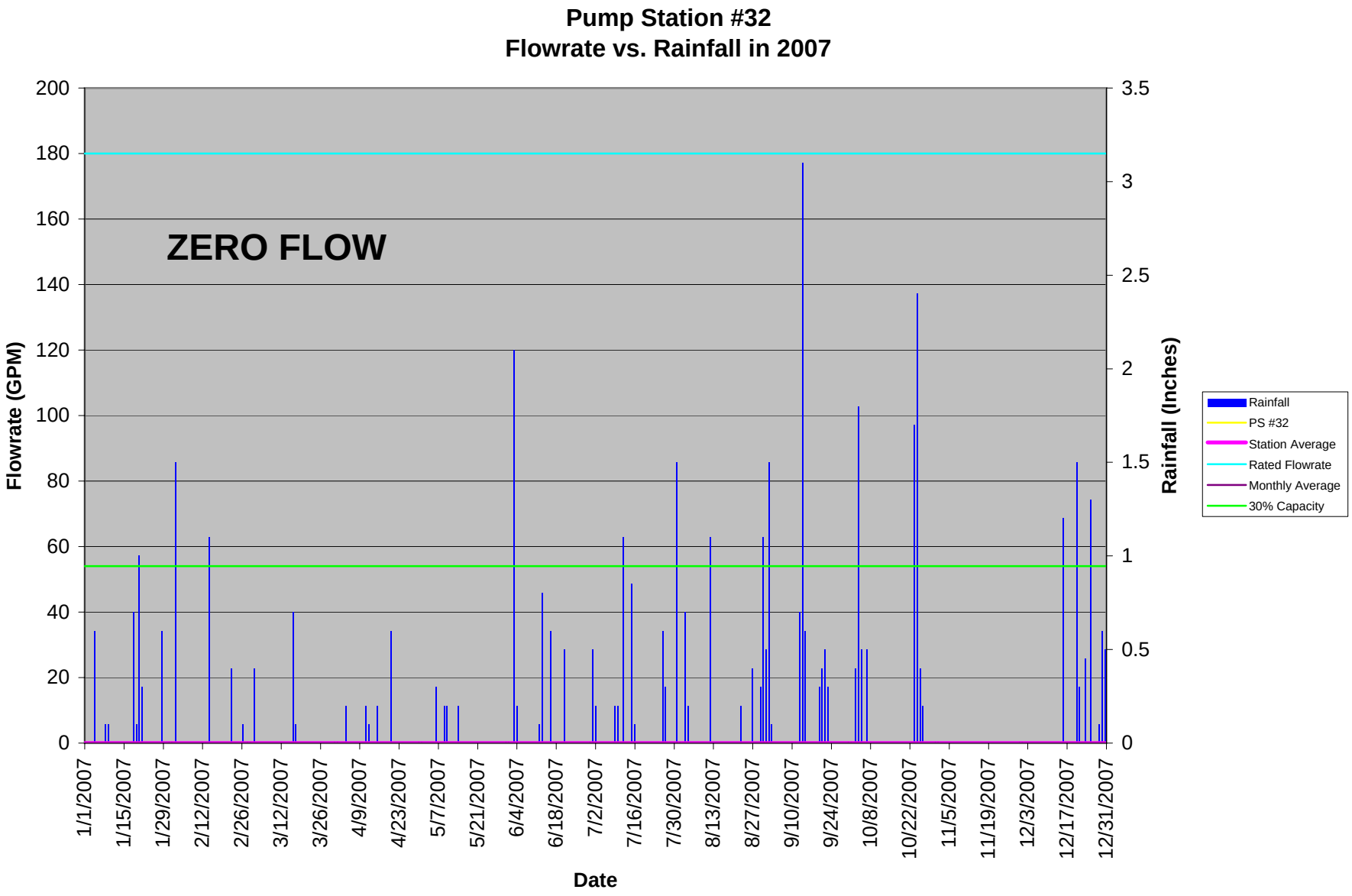

Pump Station #27
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #27
Station Average
Rated Flowrate
Monthly Average
30% Capacity

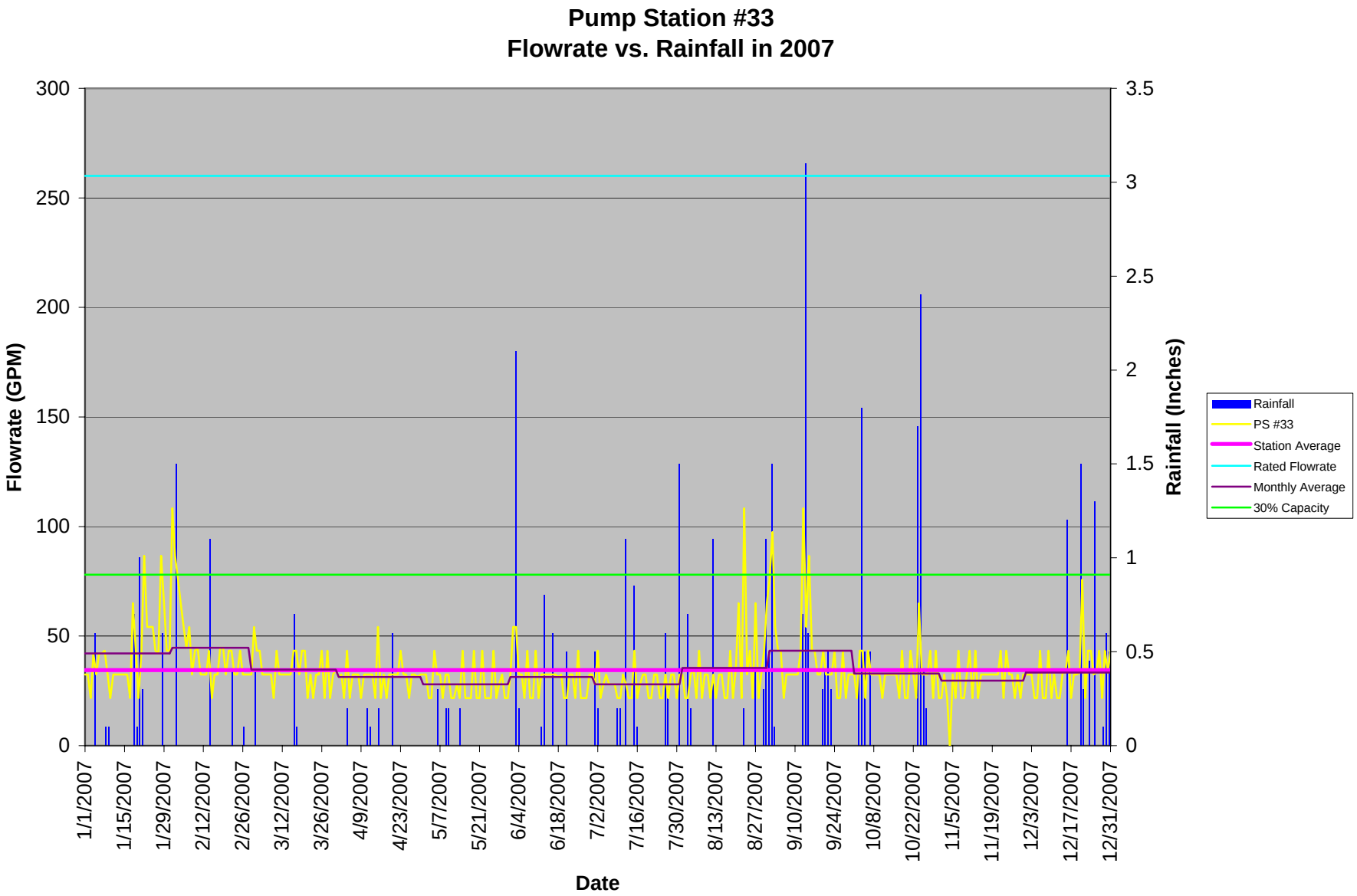

Pump Station #28
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
450
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #28
Station Average
Rated Flowrate
Monthly Average
30% Capacity

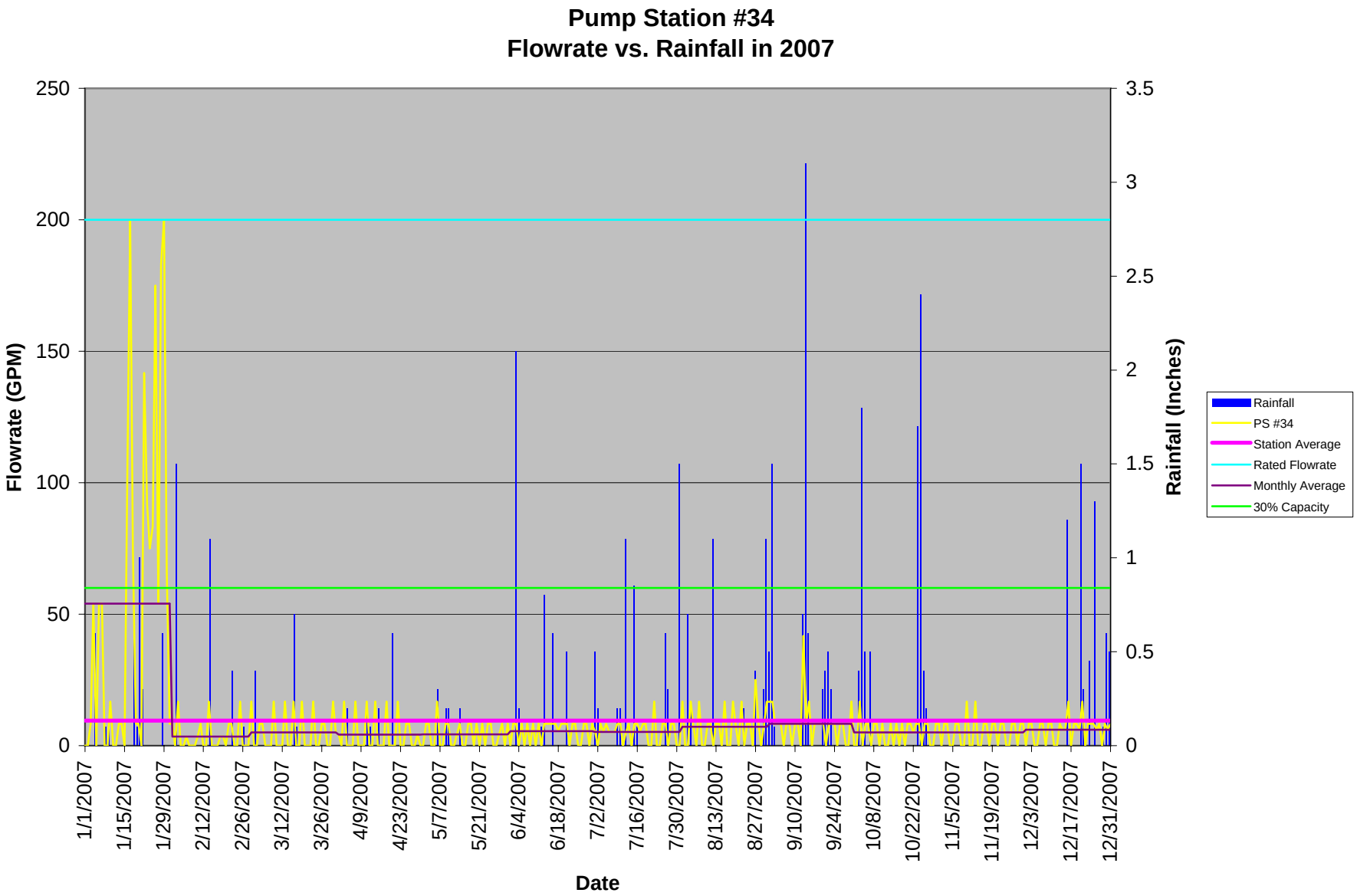

Pump Station #29
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #29
Station Average
Rated Flowrate
Monthly Average
30% Capacity

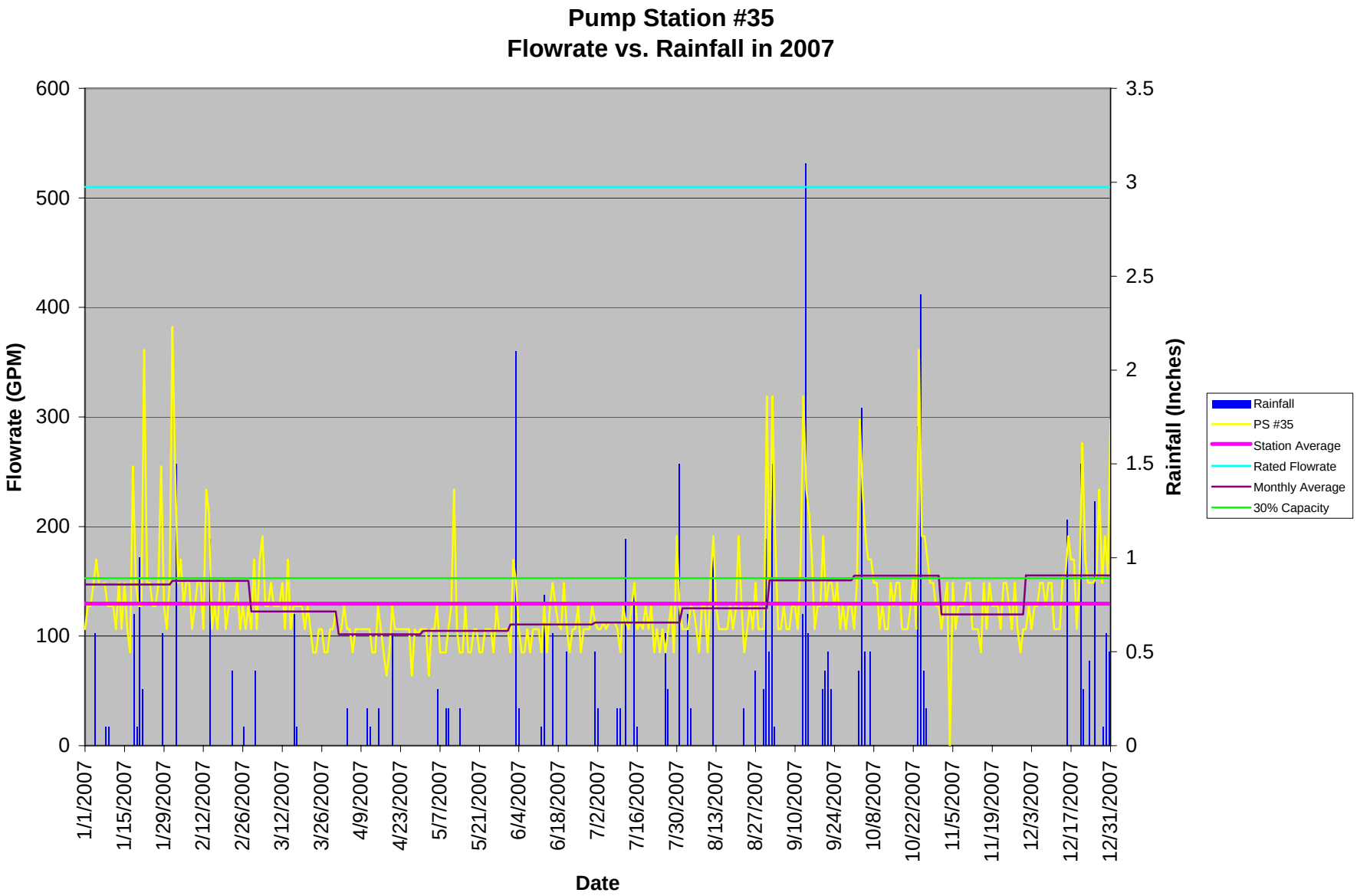

Pump Station #30
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
700
600
500
400
300
200
100
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #30
Station Average
Rated Flowrate
Monthly Average
30% Capacity

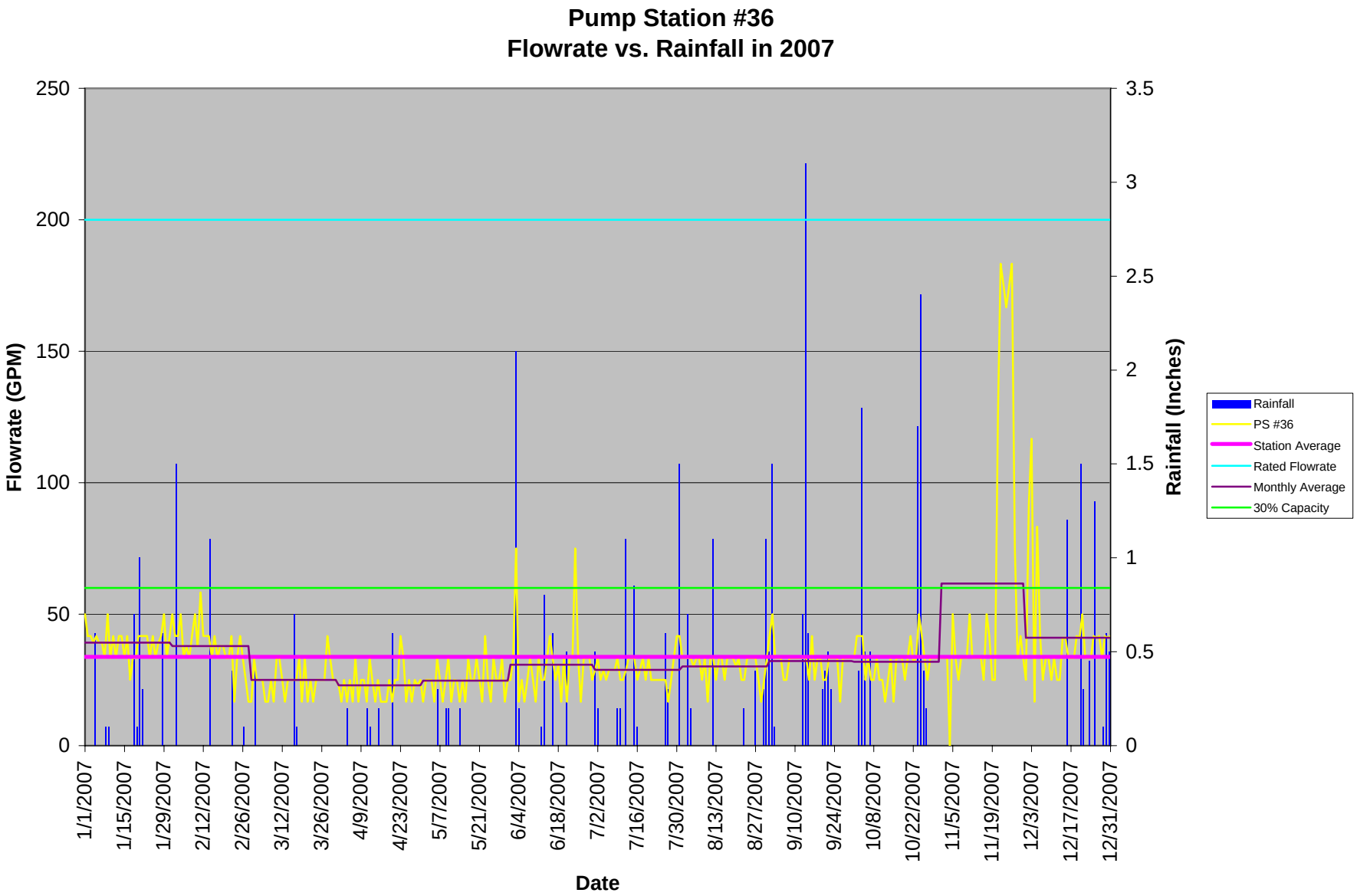

Pump Station #31
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
100
90
80
70
60
50
40
30
20
10
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #31
Station Average
Rated Flowrate
Monthly Average
30% Capacity

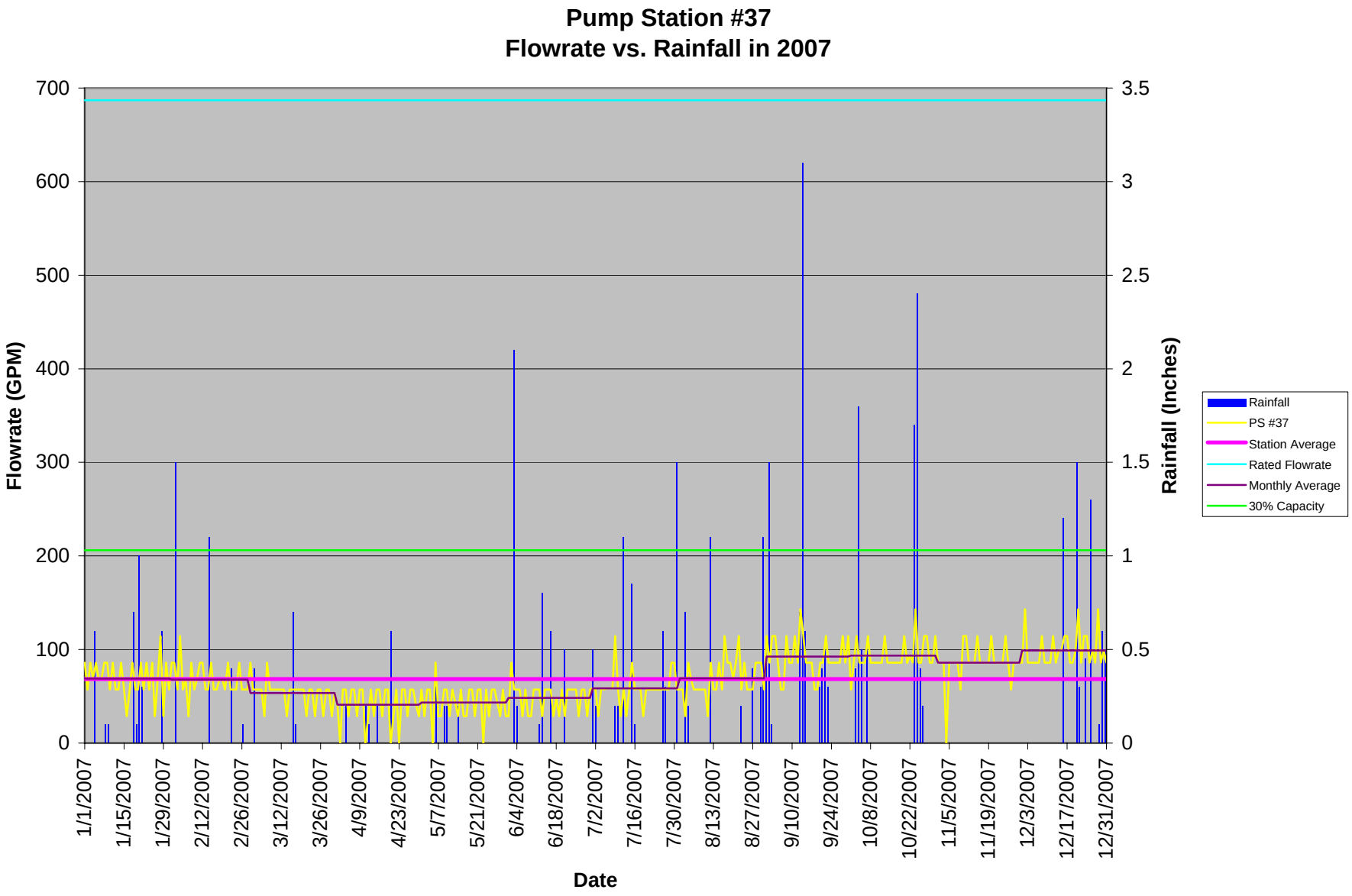

Pump Station #32
Flowrate vs. Rainfall in 2007
ZERO FLOW
Flowrate (GPM)
Rainfall (Inches)
Date
200
180
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #32
Station Average
Rated Flowrate
Monthly Average
30% Capacity

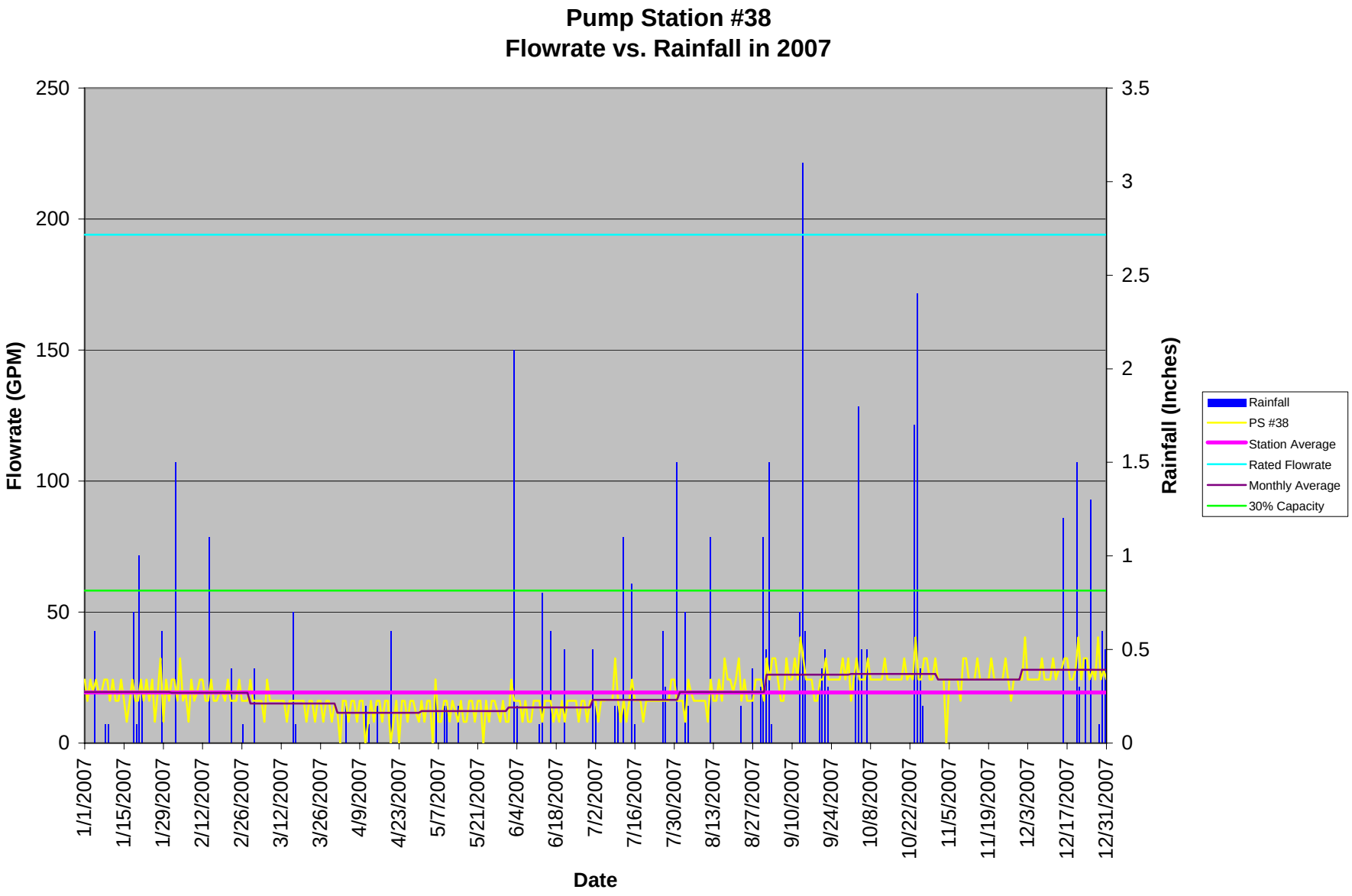

Pump Station #33
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #33
Station Average
Rated Flowrate
Monthly Average
30% Capacity

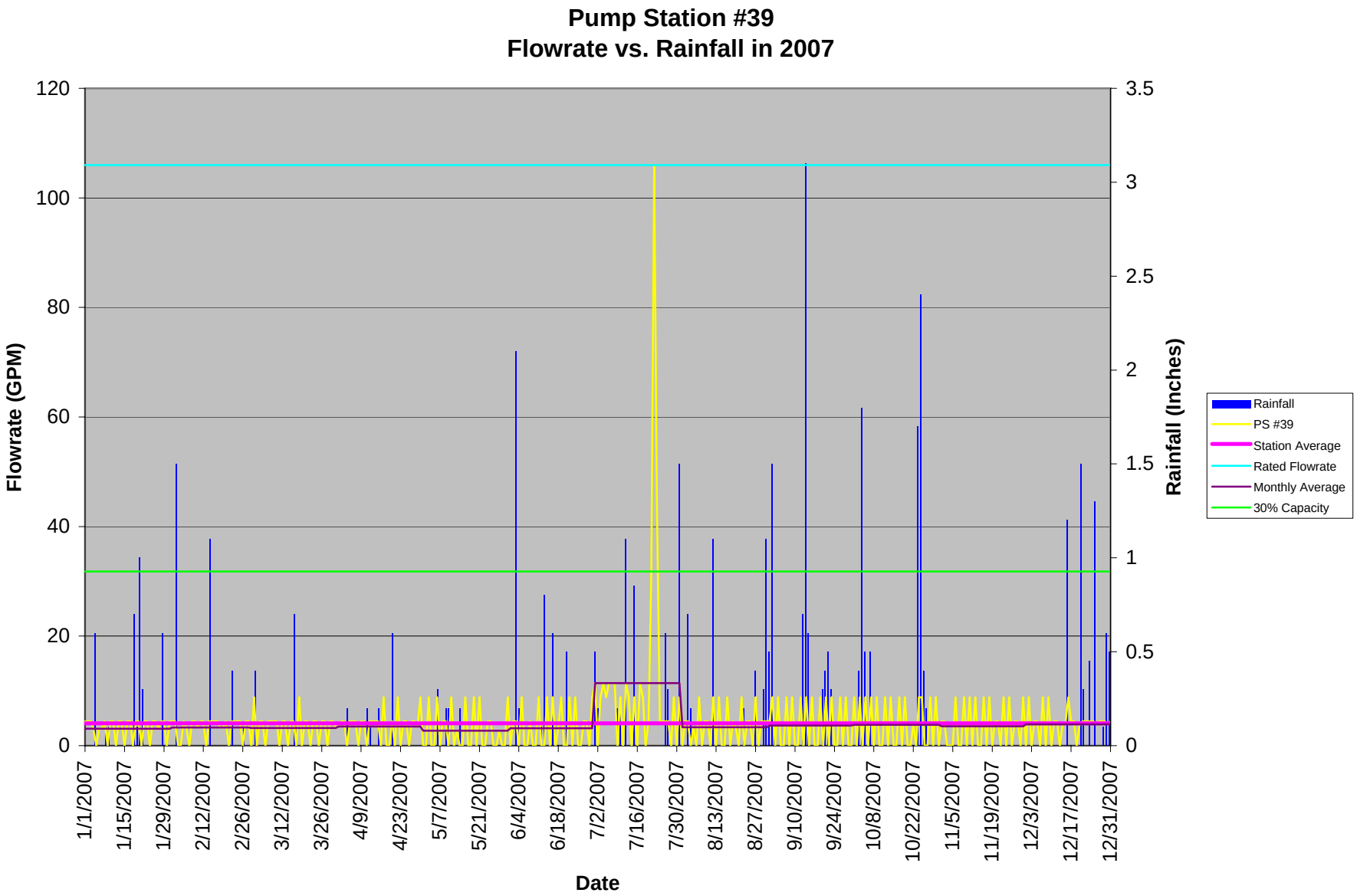

Pump Station #34
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #34
Station Average
Rated Flowrate
Monthly Average
30% Capacity

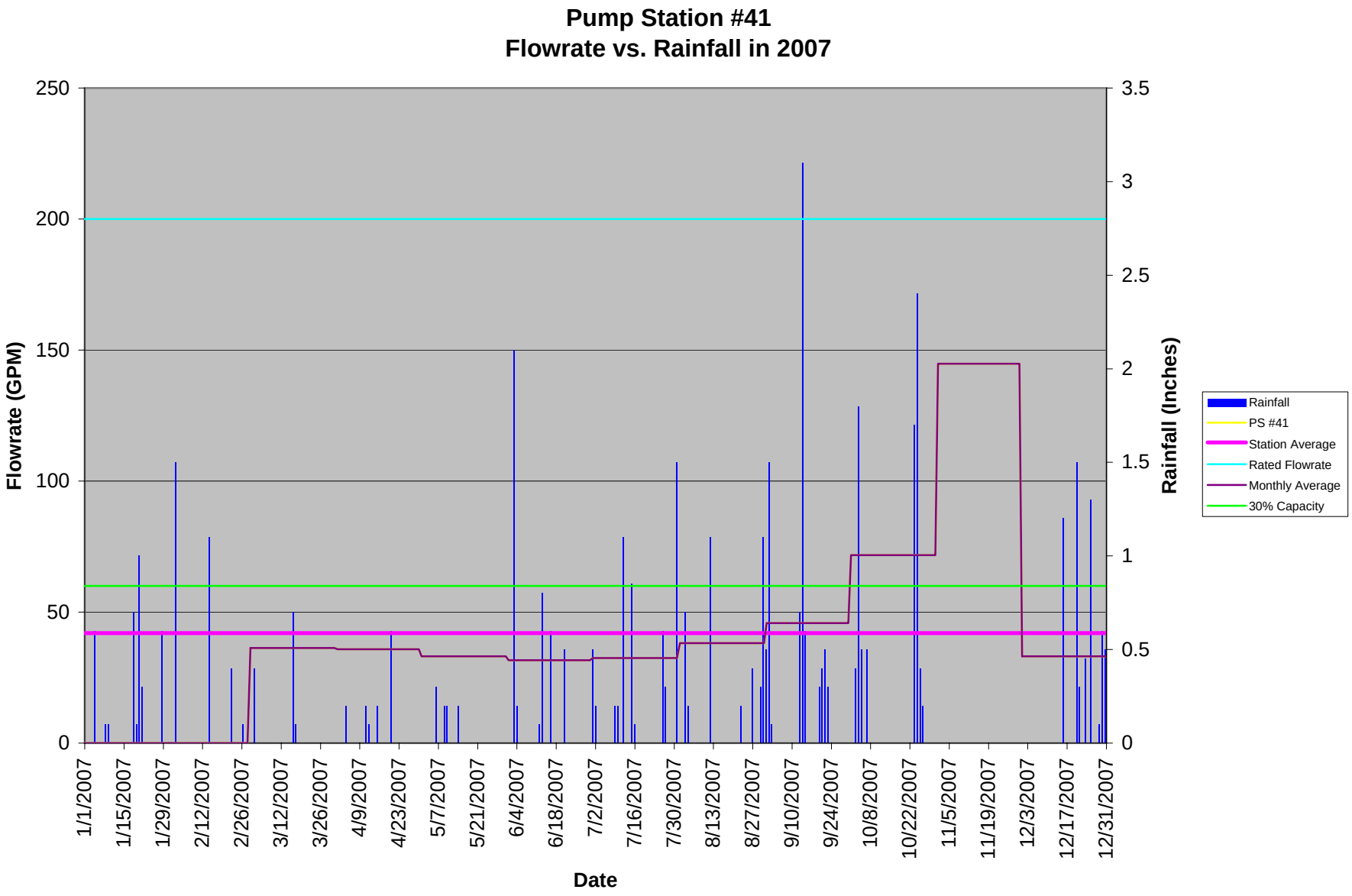

Pump Station #35
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
600
500
400
300
200
100
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #35
Station Average
Rated Flowrate
Monthly Average
30% Capacity

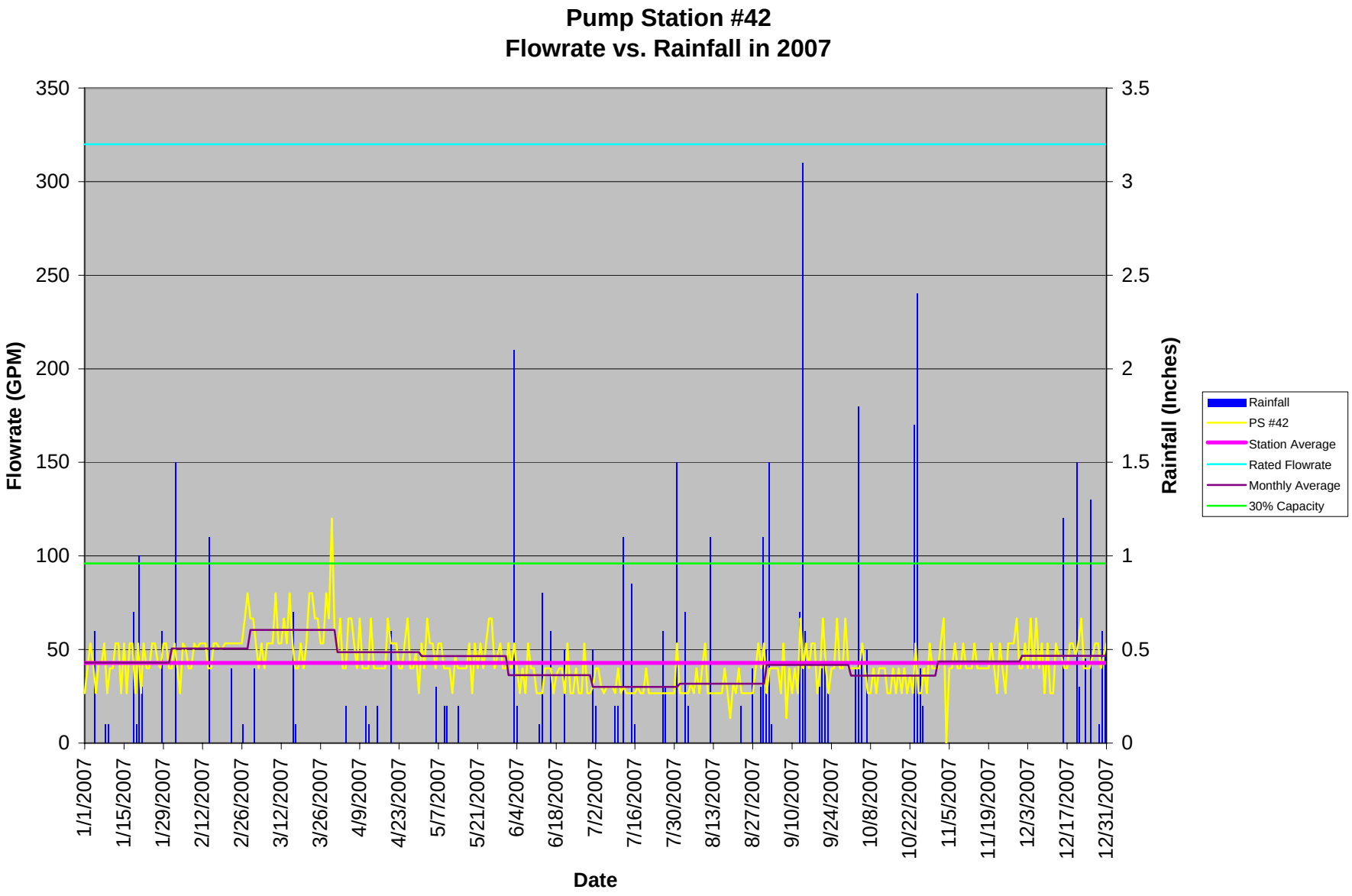

Pump Station #36
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #36
Station Average
Rated Flowrate
Monthly Average
30% Capacity

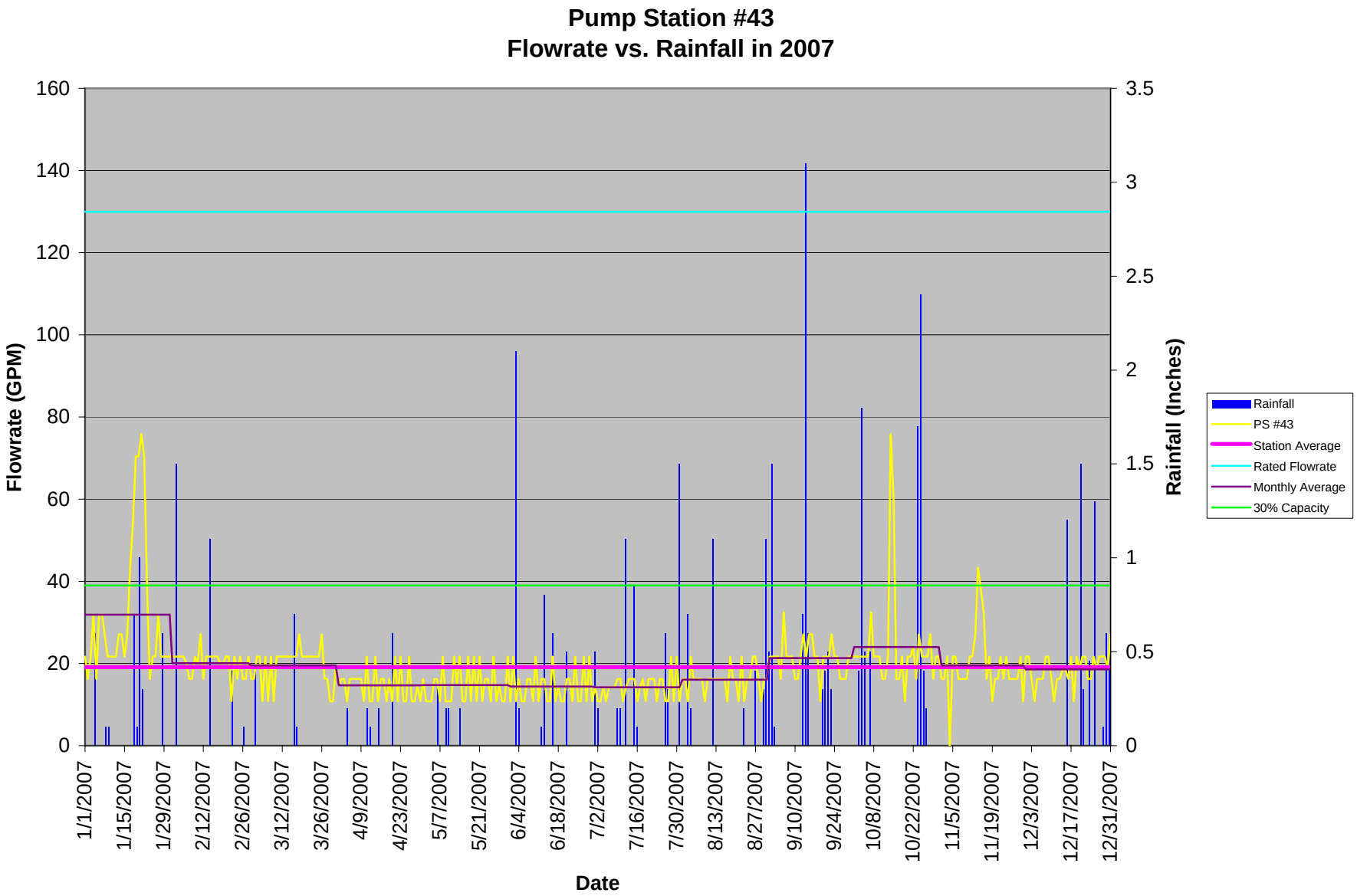

Pump Station #37
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
700
600
500
400
300
200
100
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #37
Station Average
Rated Flowrate
Monthly Average
30% Capacity

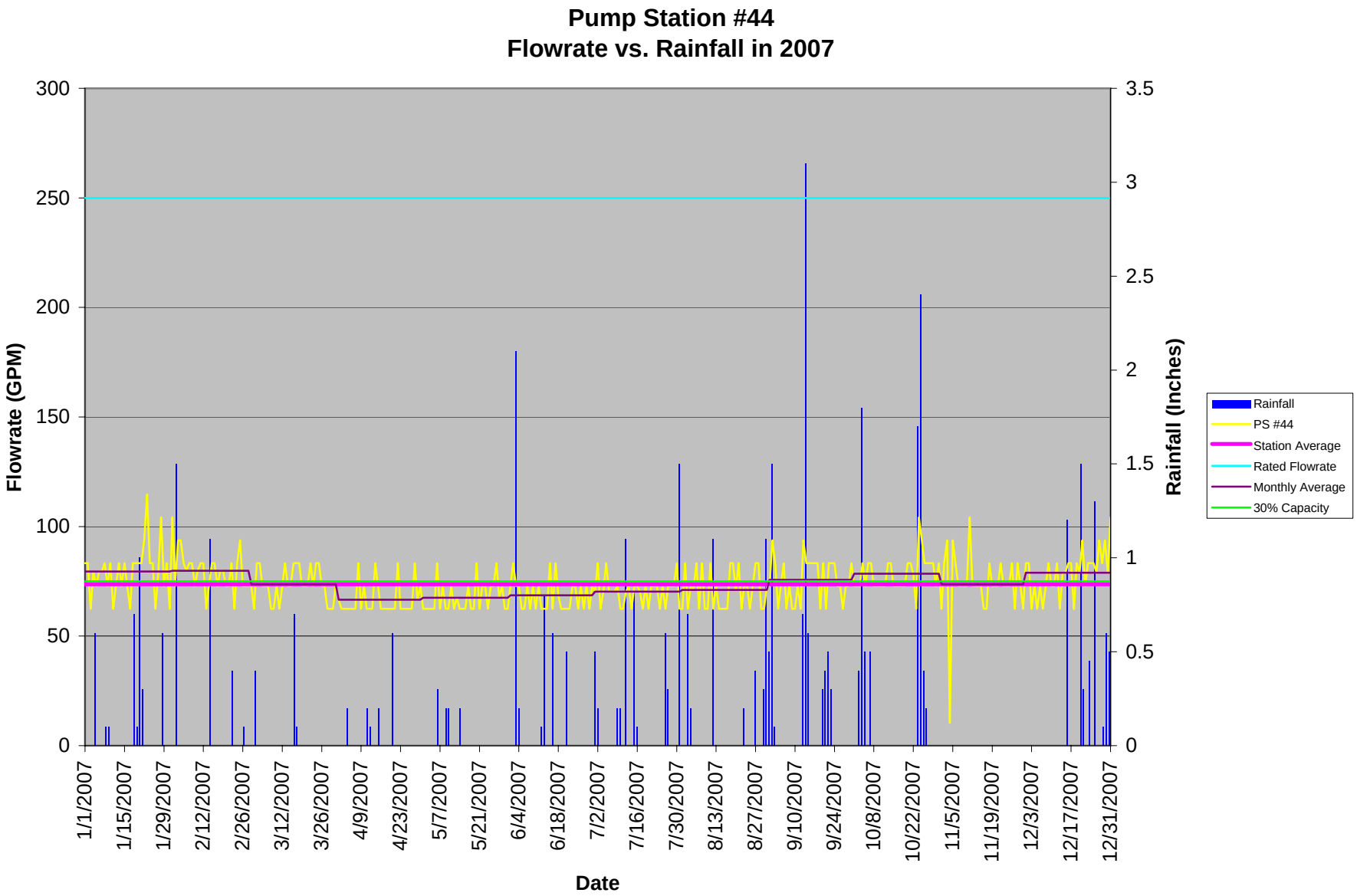

Pump Station #38
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #38
Station Average
Rated Flowrate
Monthly Average
30% Capacity

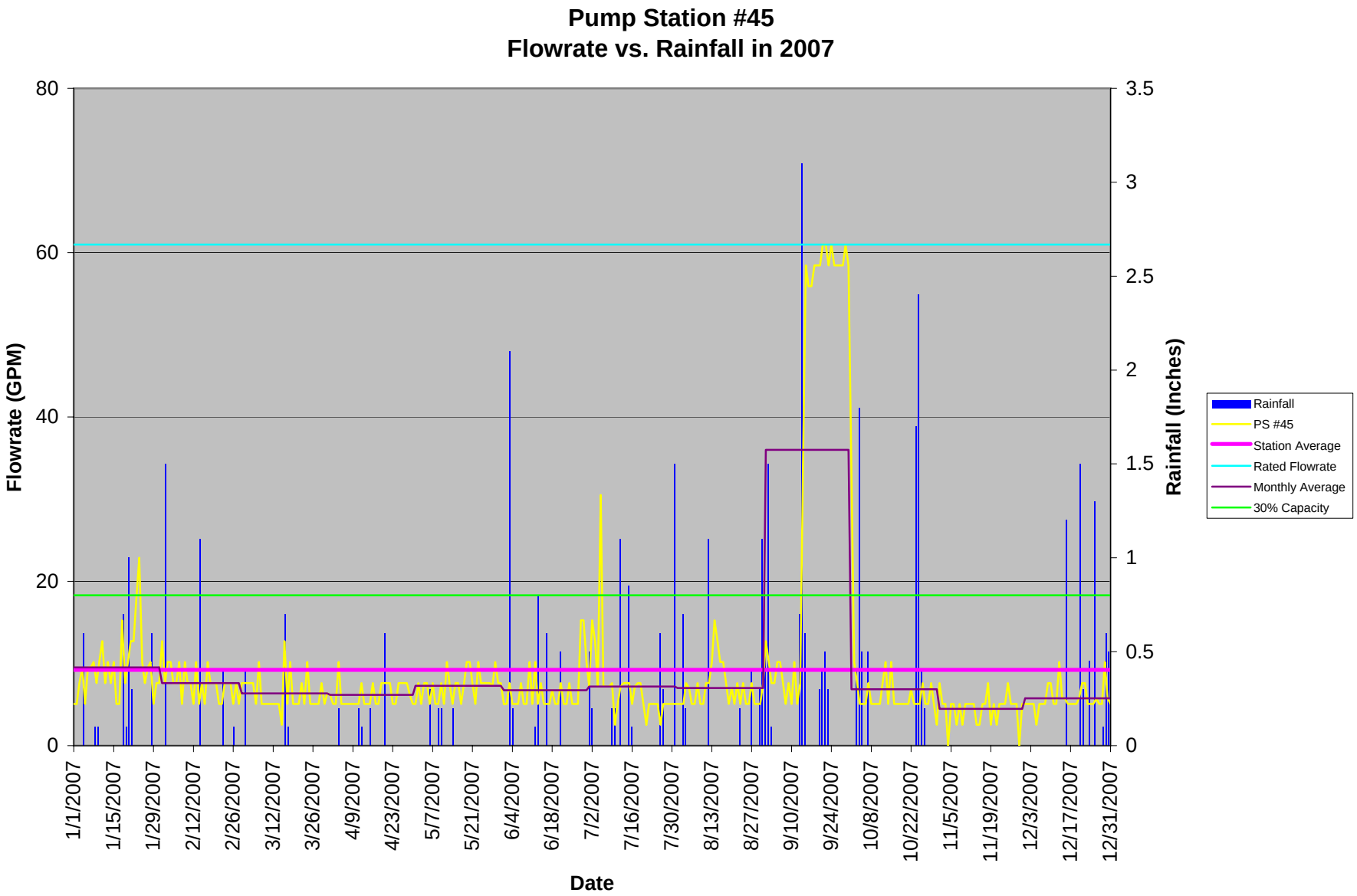

Pump Station #39
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #39
Station Average
Rated Flowrate
Monthly Average
30% Capacity


Pump Station #41
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #41
Station Average
Rated Flowrate
Monthly Average
30% Capacity

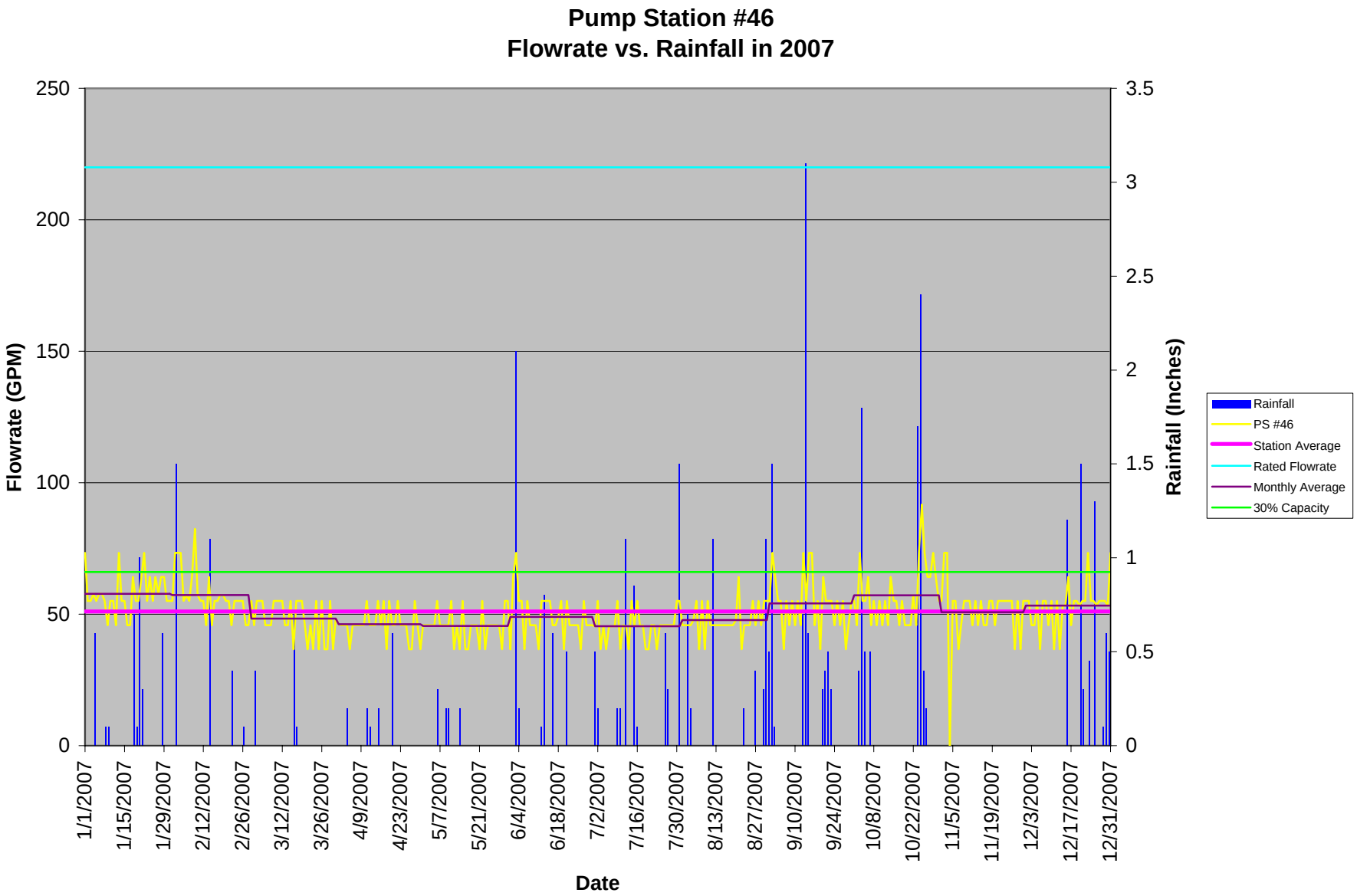

Pump Station #42
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #42
Station Average
Rated Flowrate
Monthly Average
30% Capacity

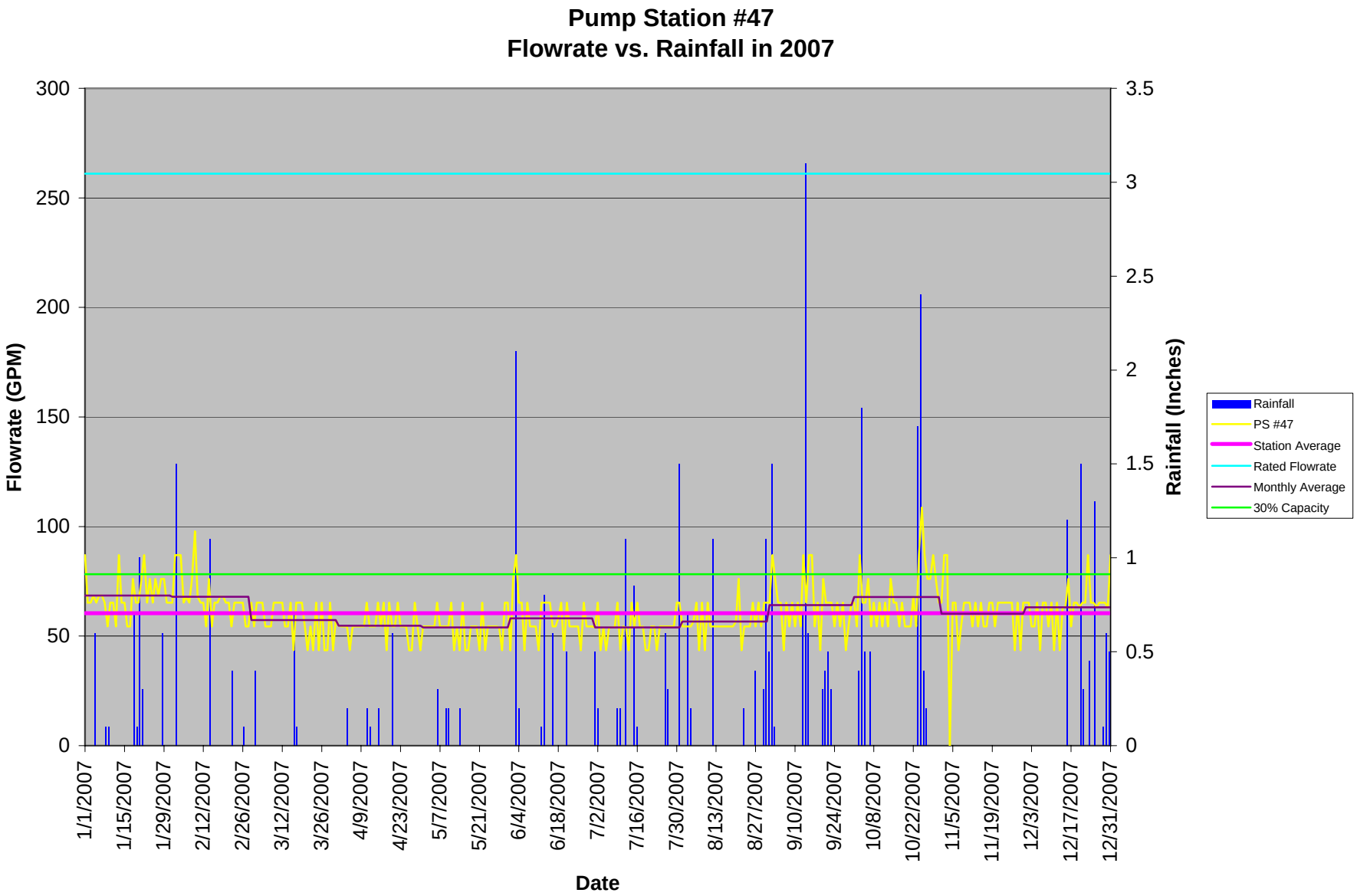

Pump Station #43
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #43
Station Average
Rated Flowrate
Monthly Average
30% Capacity

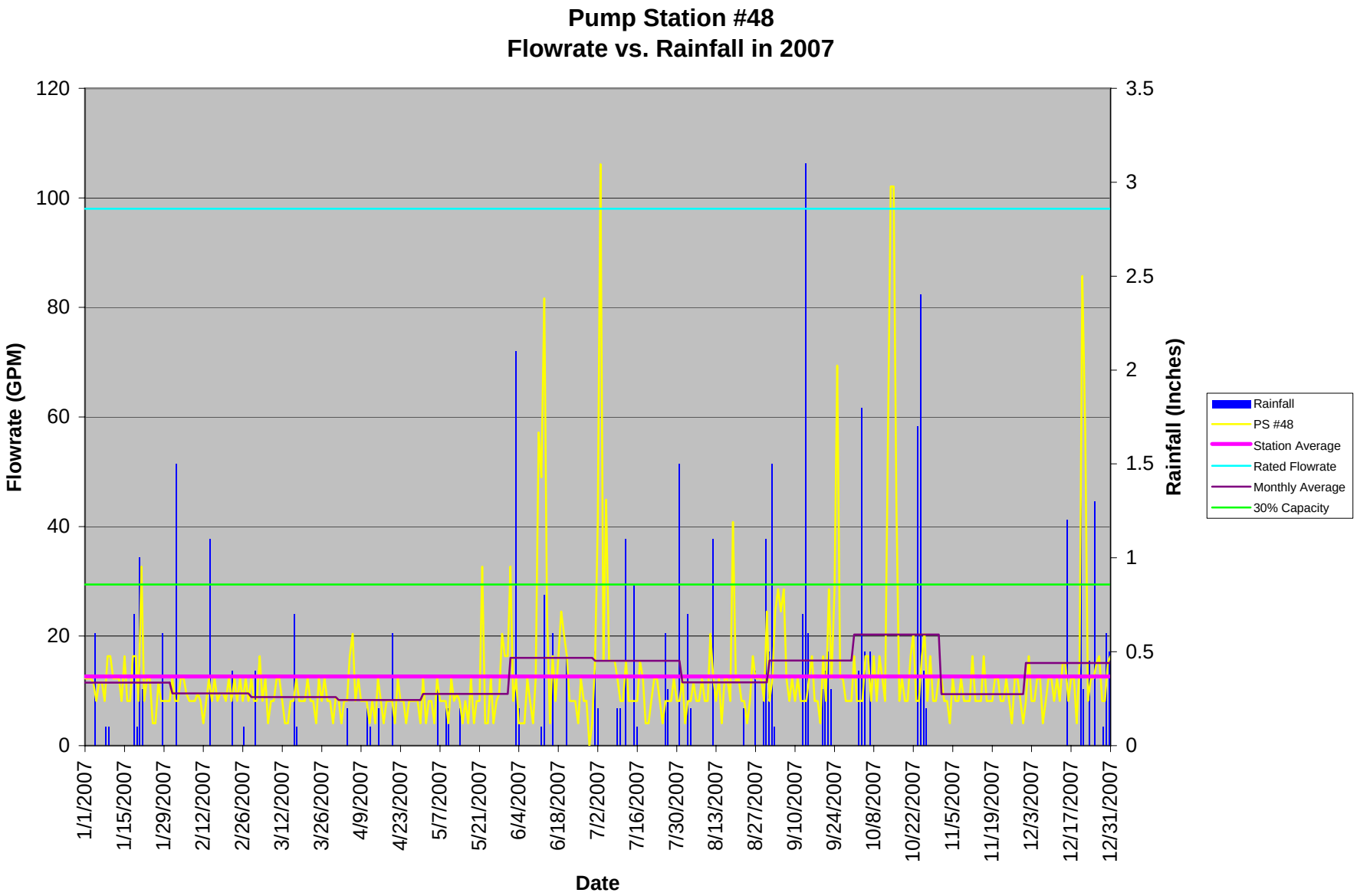

Pump Station #44
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #44
Station Average
Rated Flowrate
Monthly Average
30% Capacity



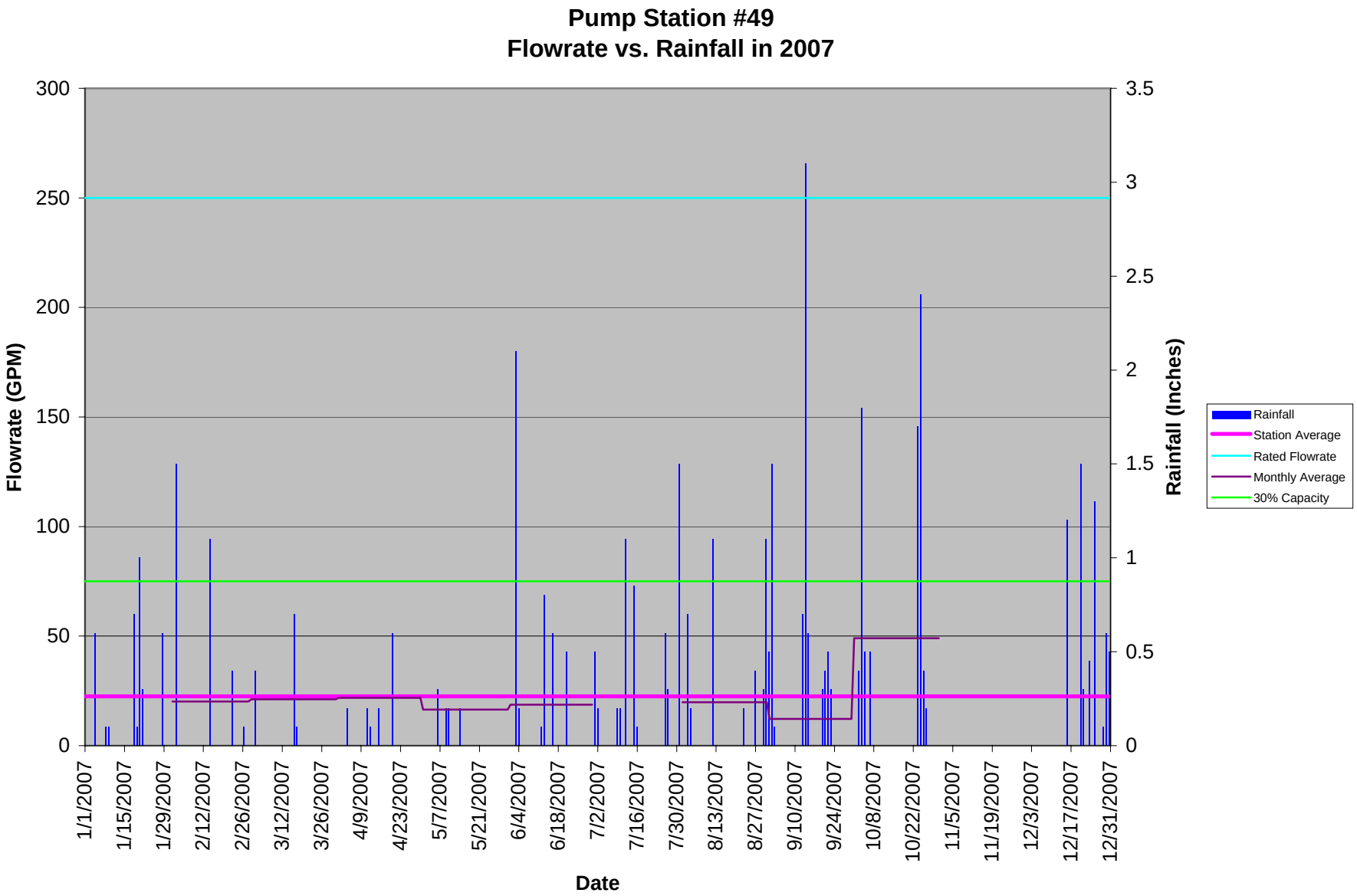
** Pump station feeds into a 4" FM. Should the rated flow be 80 gpm?

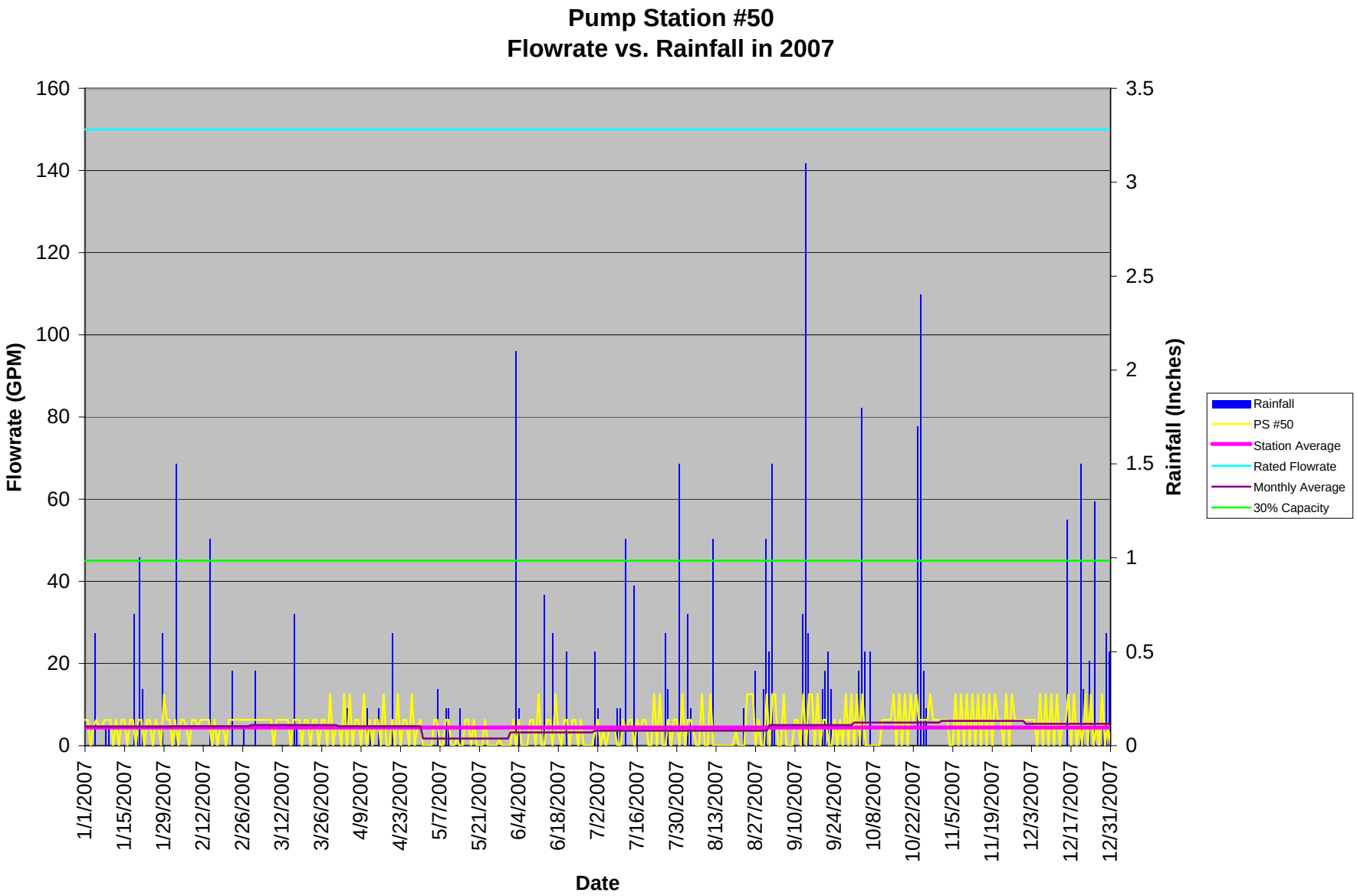

Pump Station #46
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #46
Station Average
Rated Flowrate
Monthly Average
30% Capacity

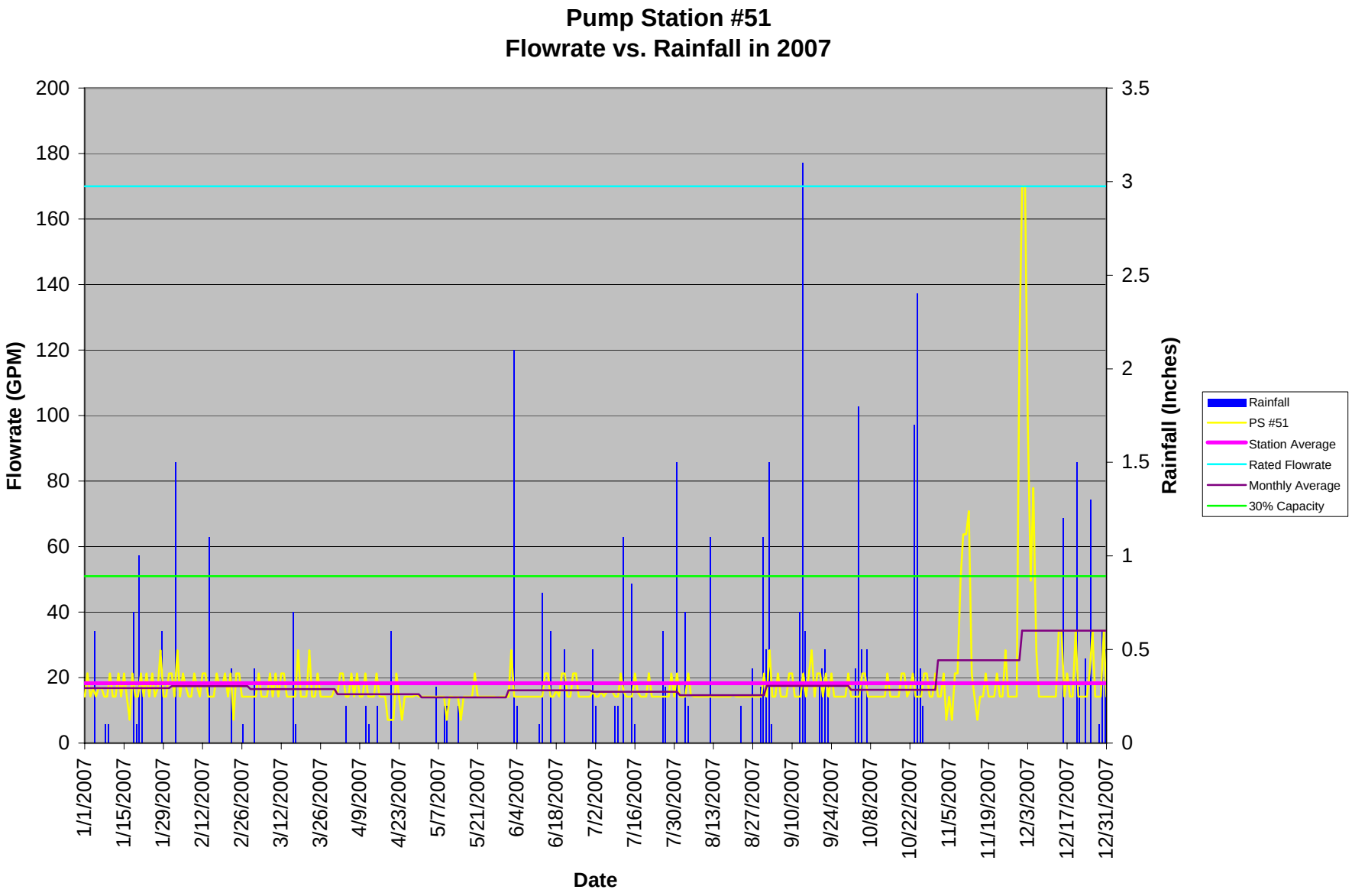

Pump Station #47
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #47
Station Average
Rated Flowrate
Monthly Average
30% Capacity

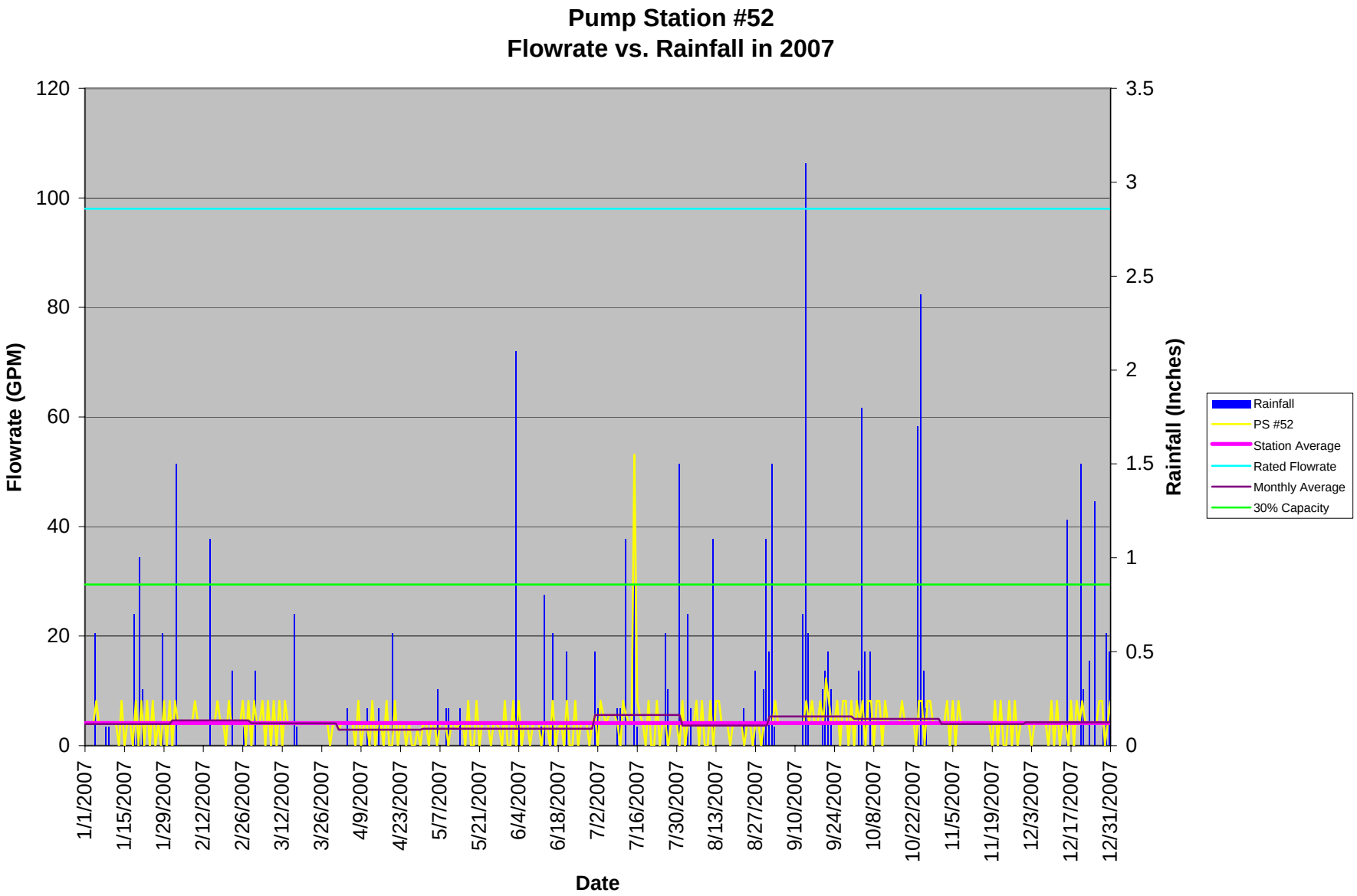


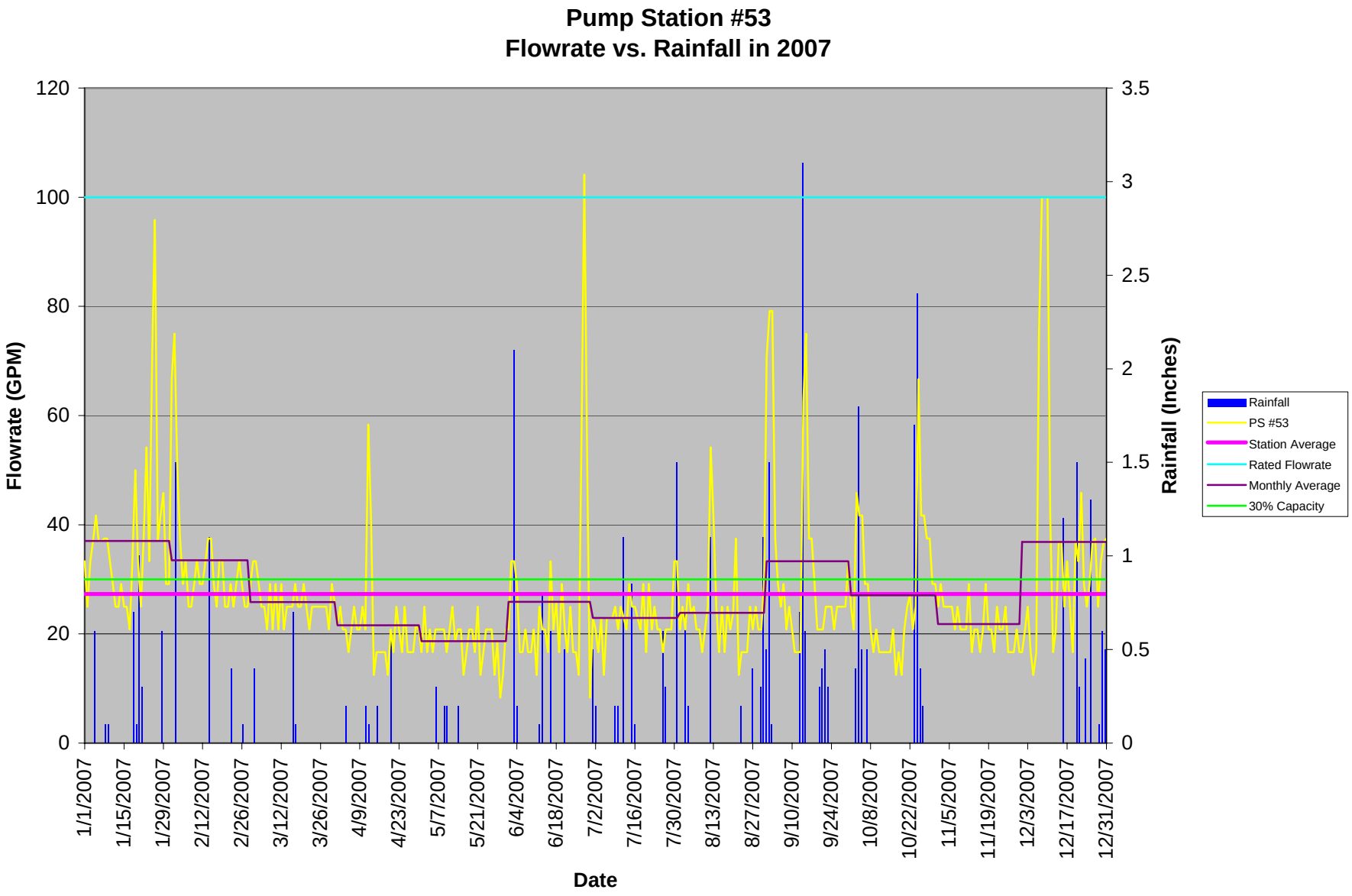
** Continued monitoring for I I is recommended.

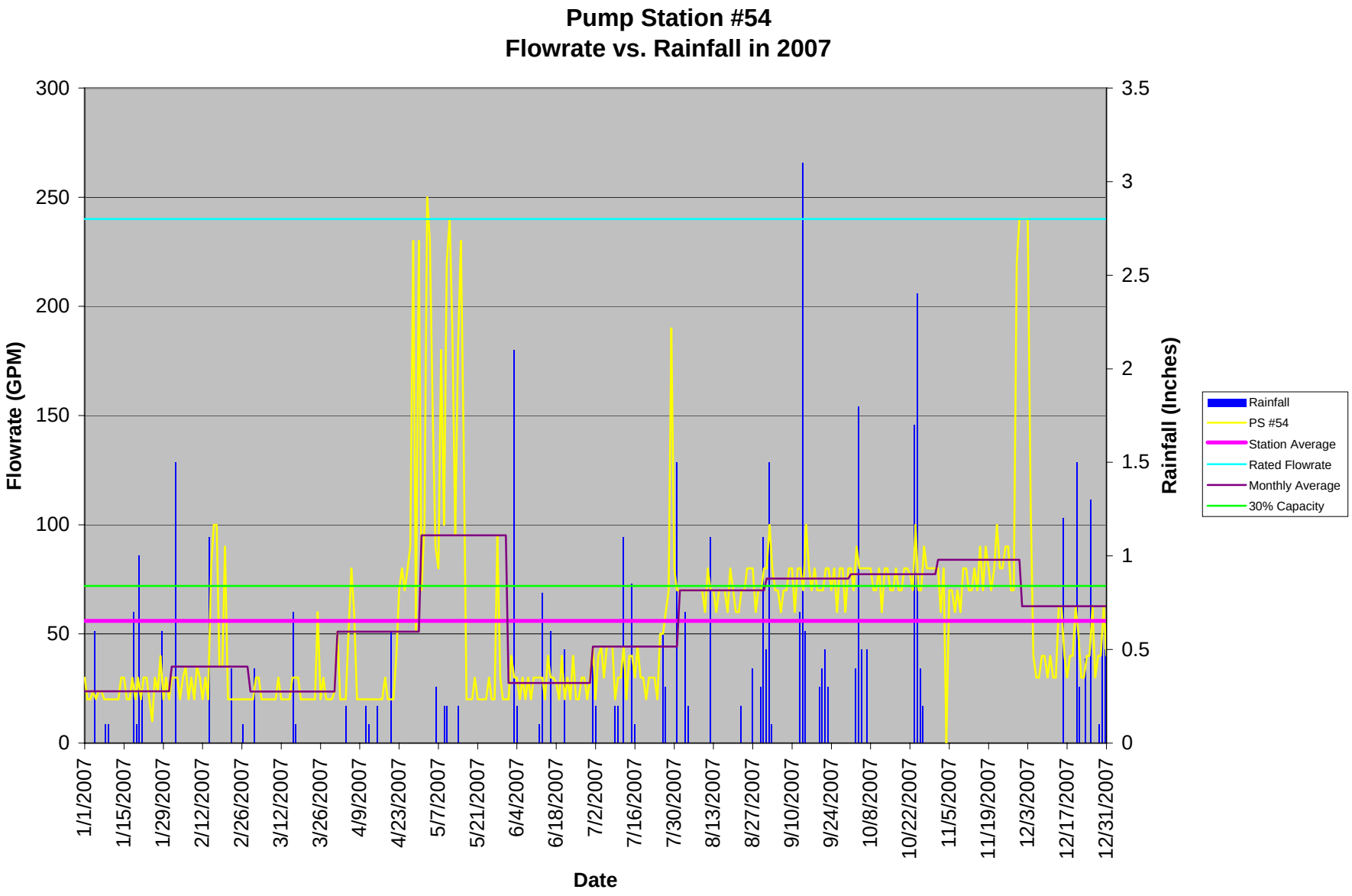

Pump Station #49
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

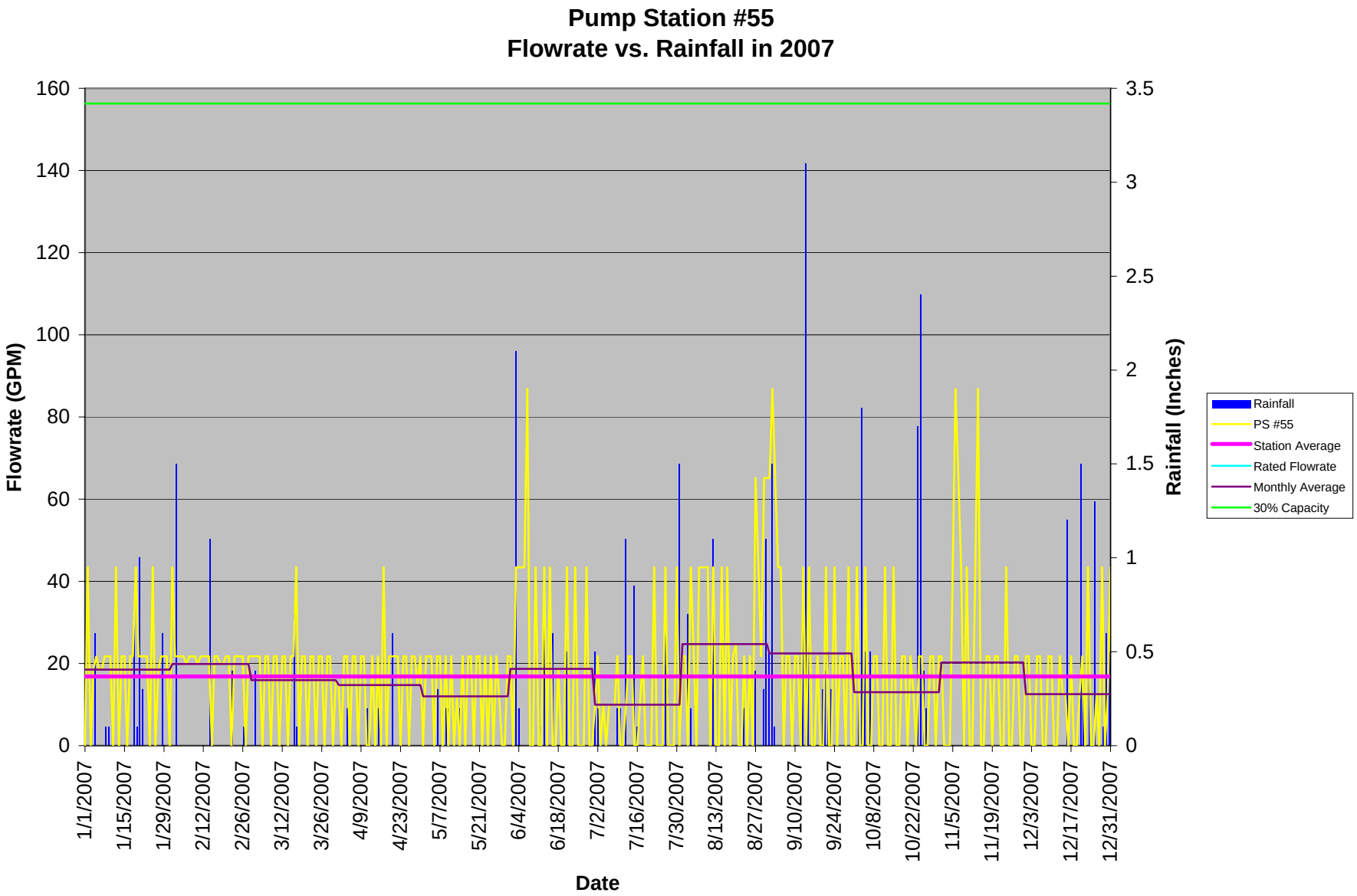

Pump Station #50
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #50
Station Average
Rated Flowrate
Monthly Average
30% Capacity

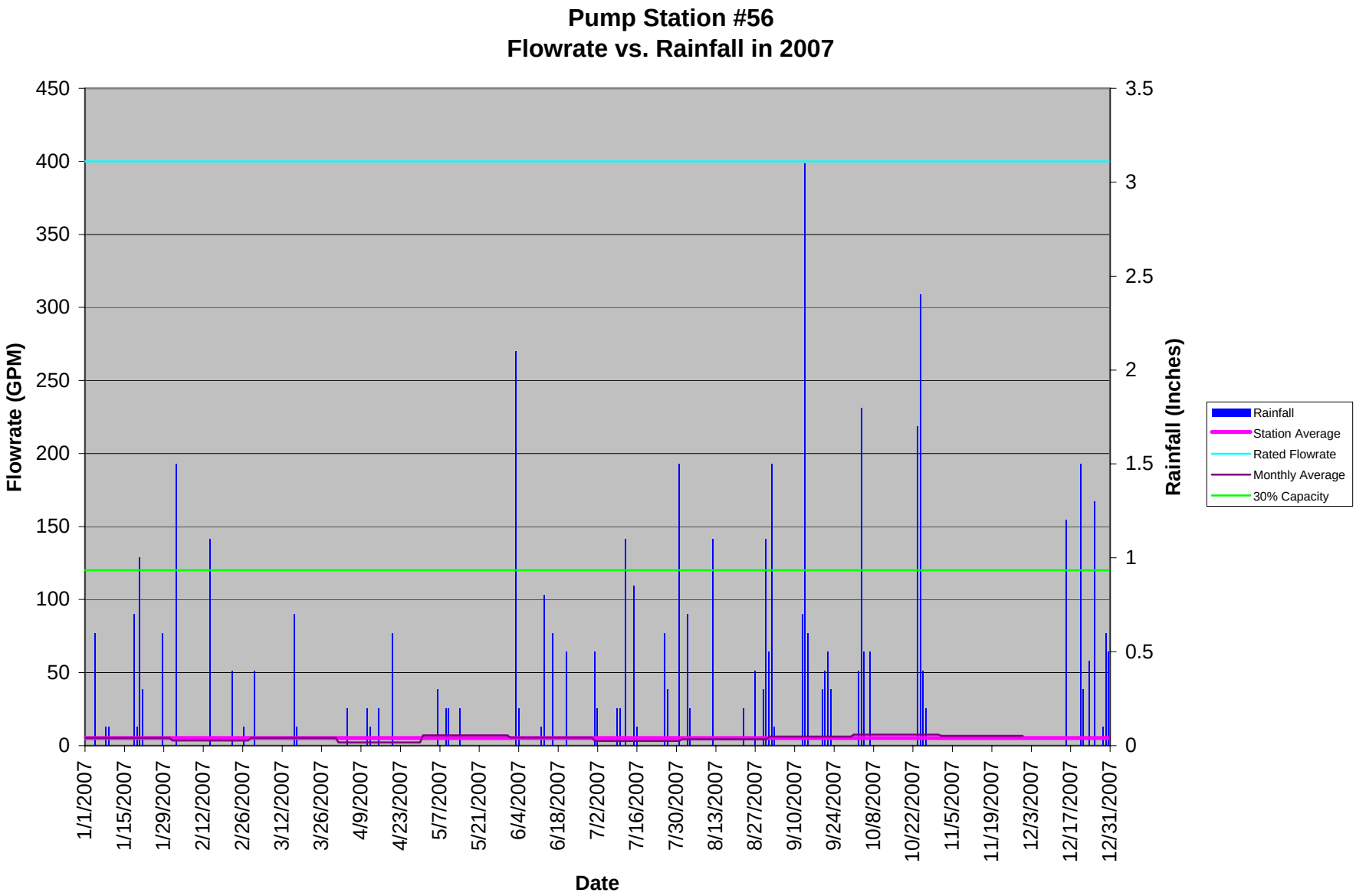

Pump Station #51
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
200
180
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #51
Station Average
Rated Flowrate
Monthly Average
30% Capacity

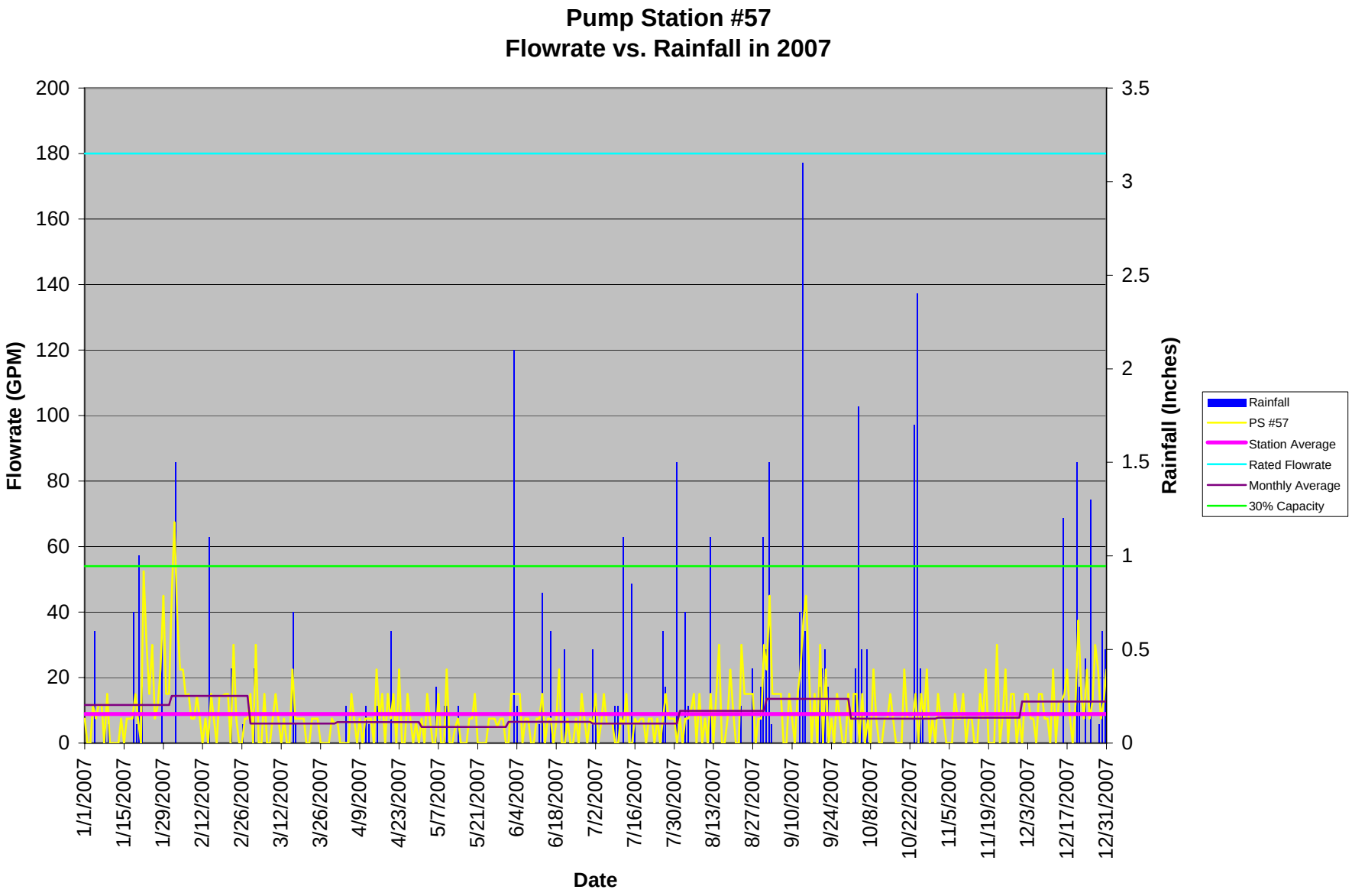

Pump Station #52
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #52
Station Average
Rated Flowrate
Monthly Average
30% Capacity

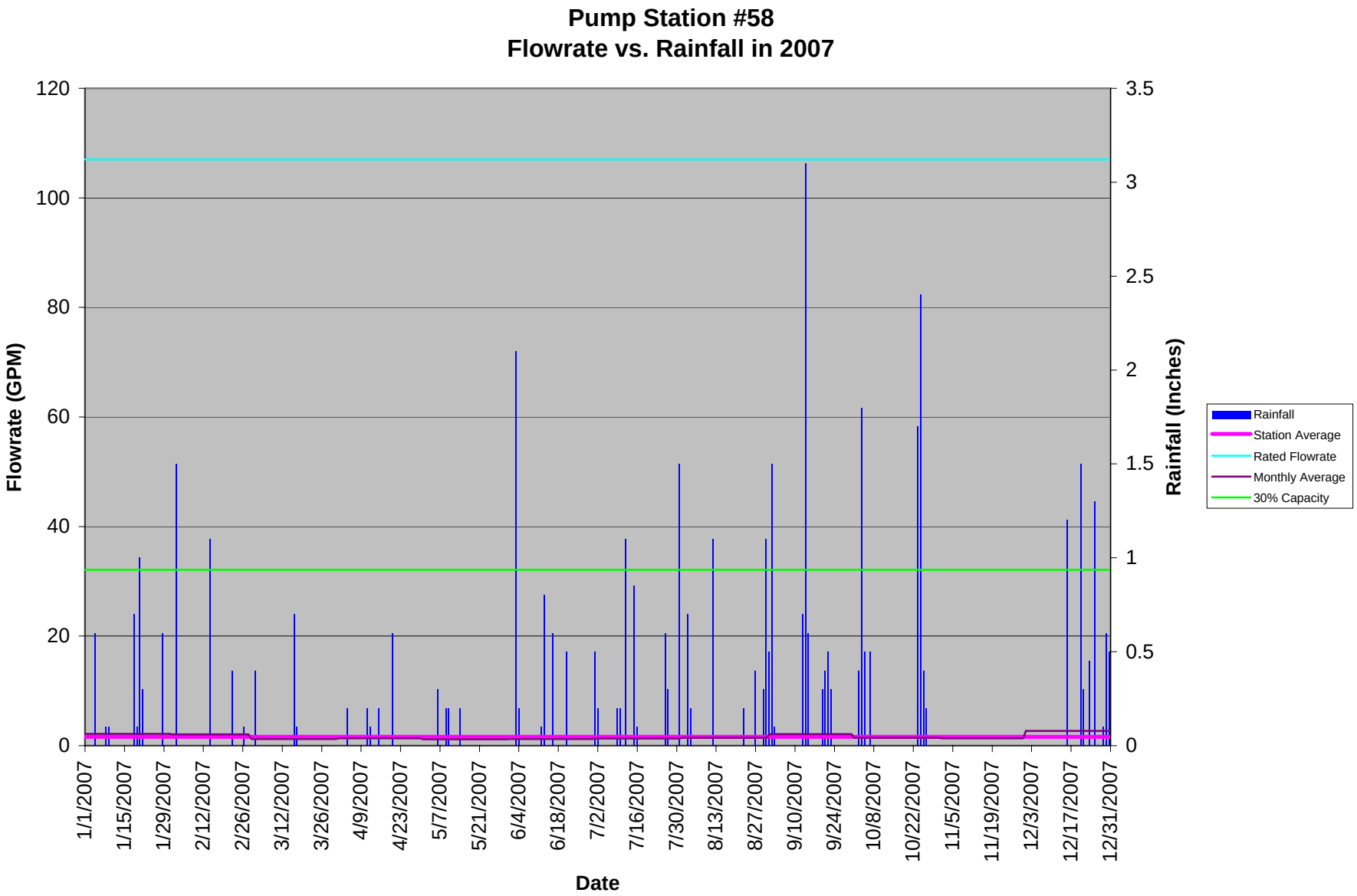

Pump Station #53
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #53
Station Average
Rated Flowrate
Monthly Average
30% Capacity

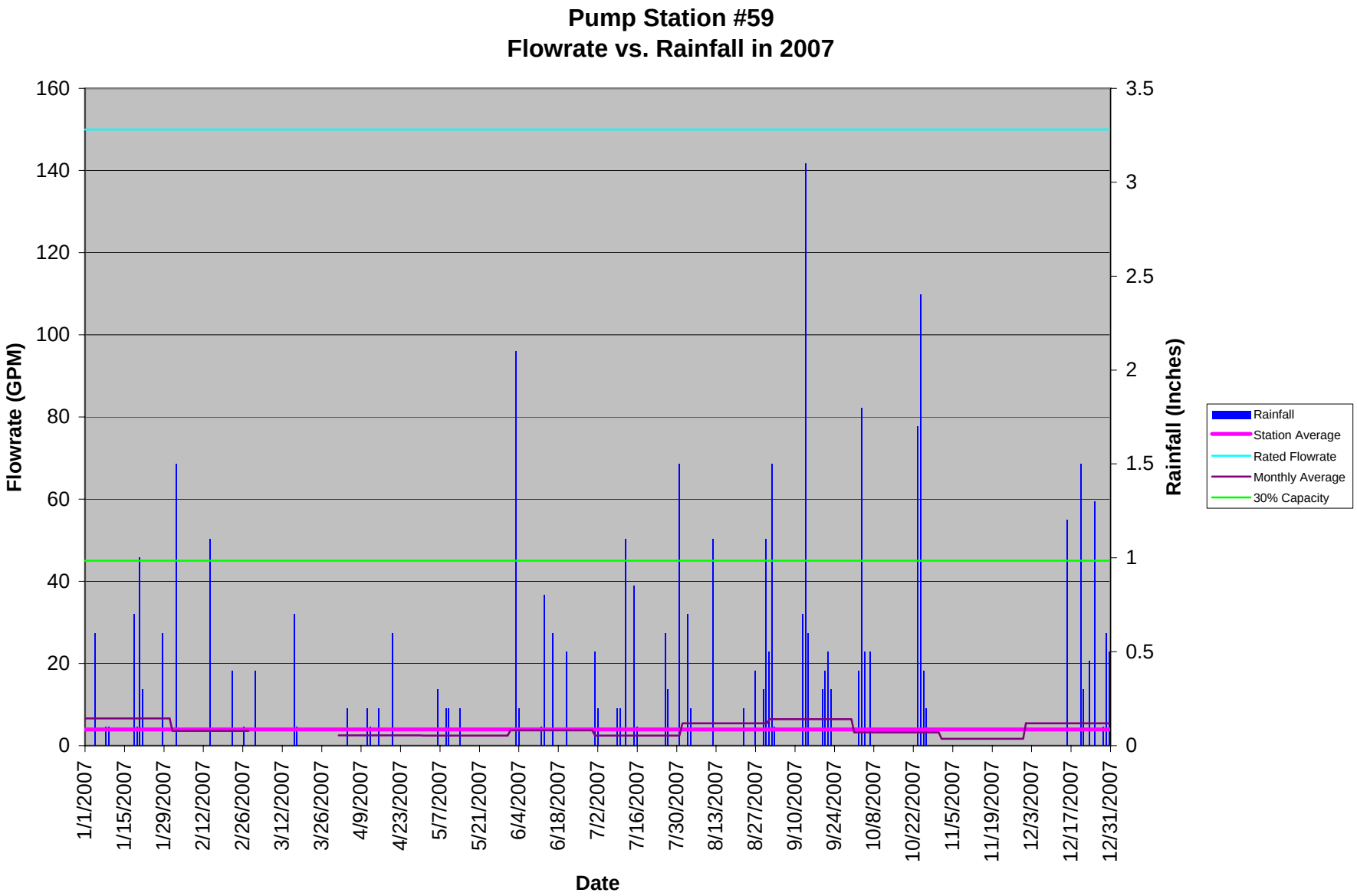

Pump Station #54
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #54
Station Average
Rated Flowrate
Monthly Average
30% Capacity

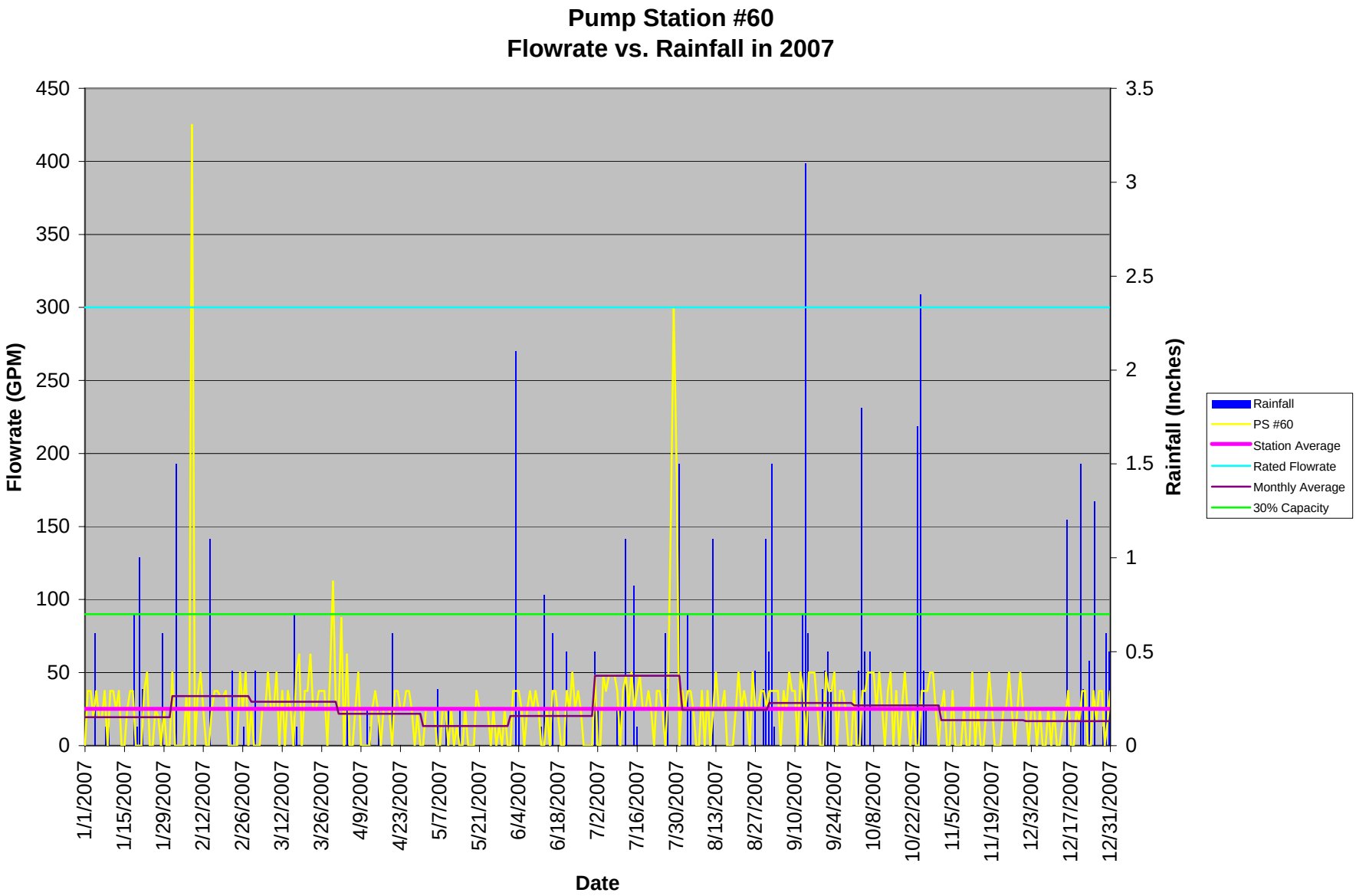

Pump Station #55
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #55
Station Average
Rated Flowrate
Monthly Average
30% Capacity

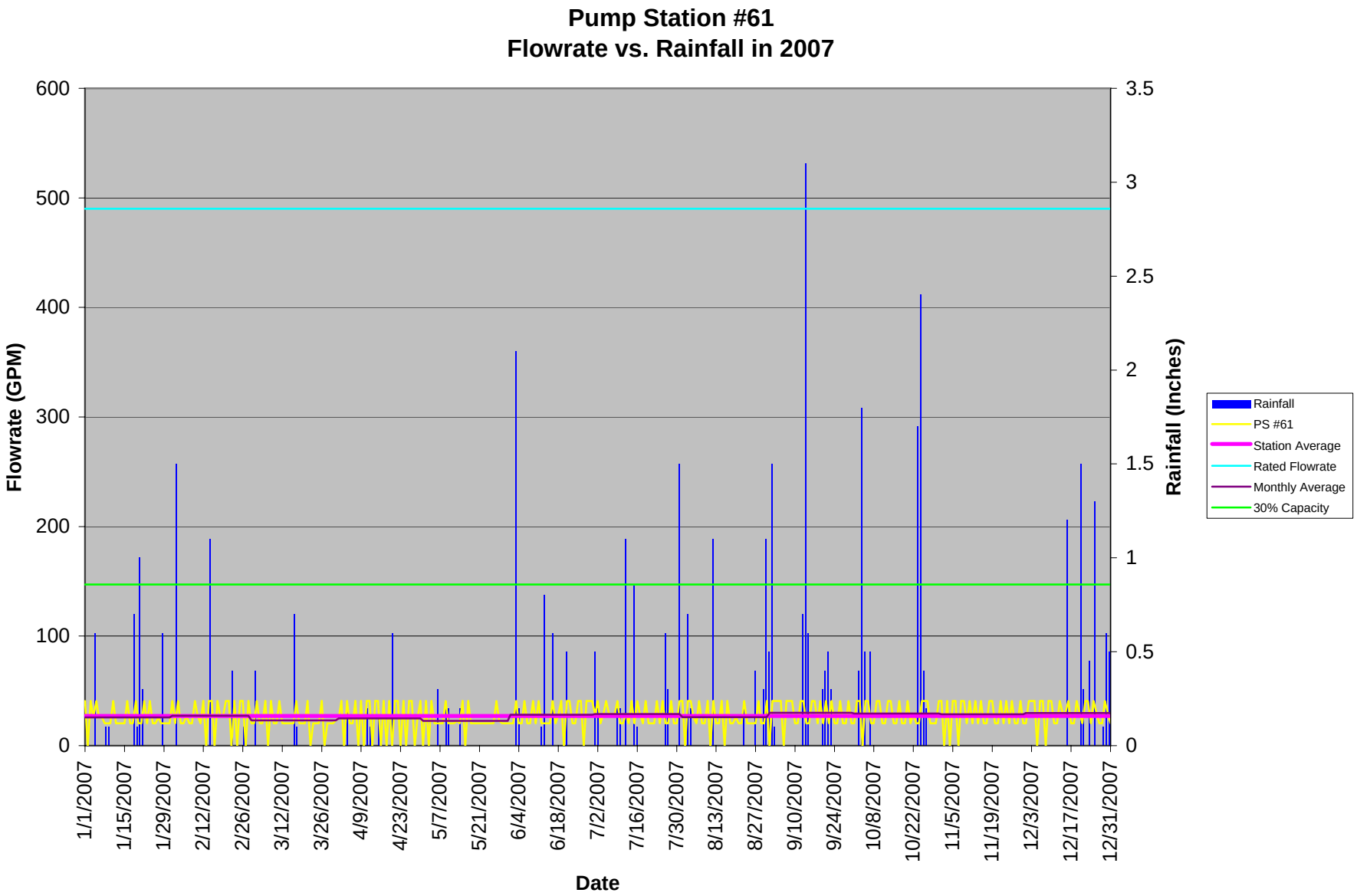

Pump Station #56
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
450
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

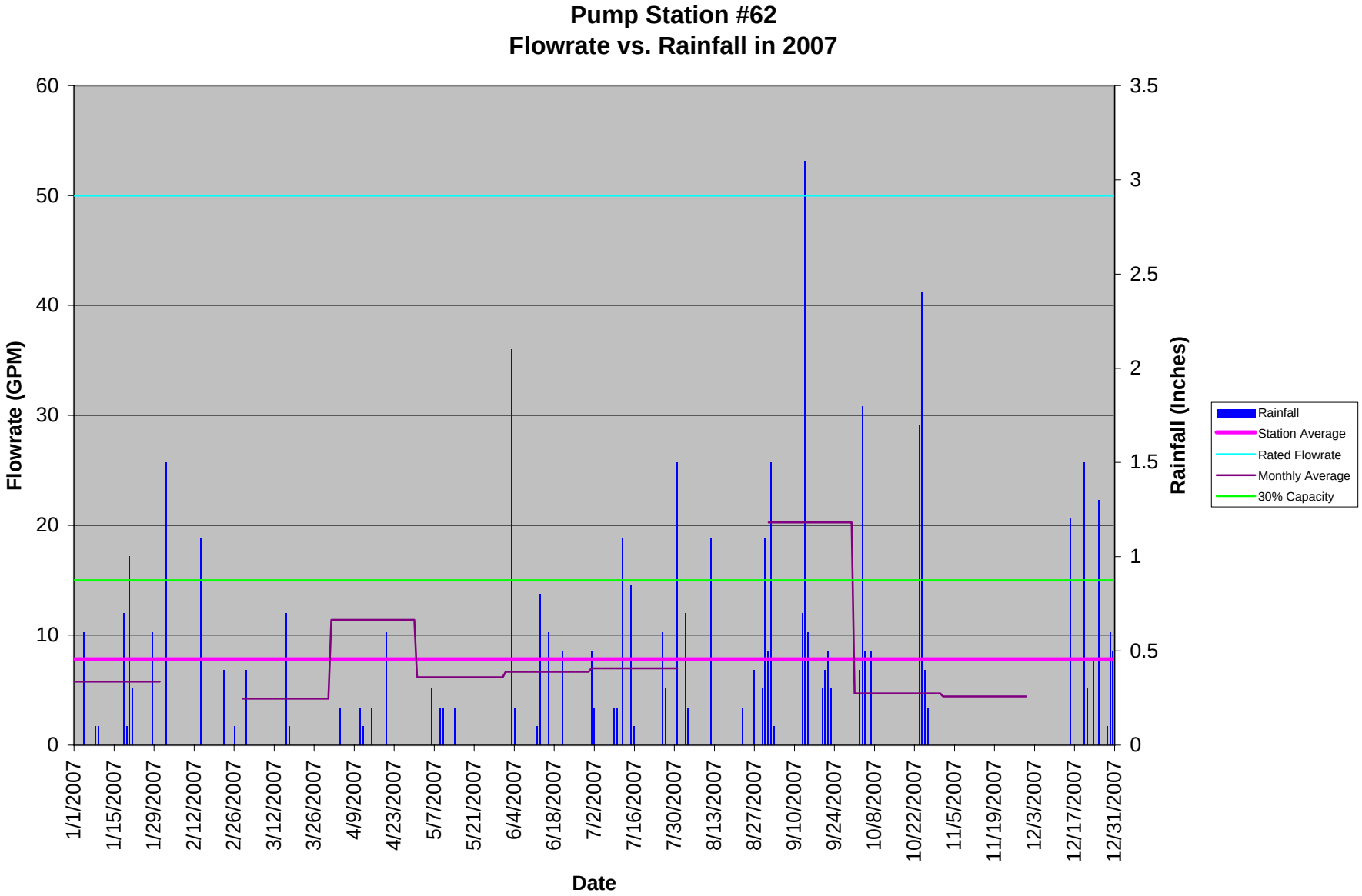

Pump Station #57
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
200
180
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #57
Station Average
Rated Flowrate
Monthly Average
30% Capacity

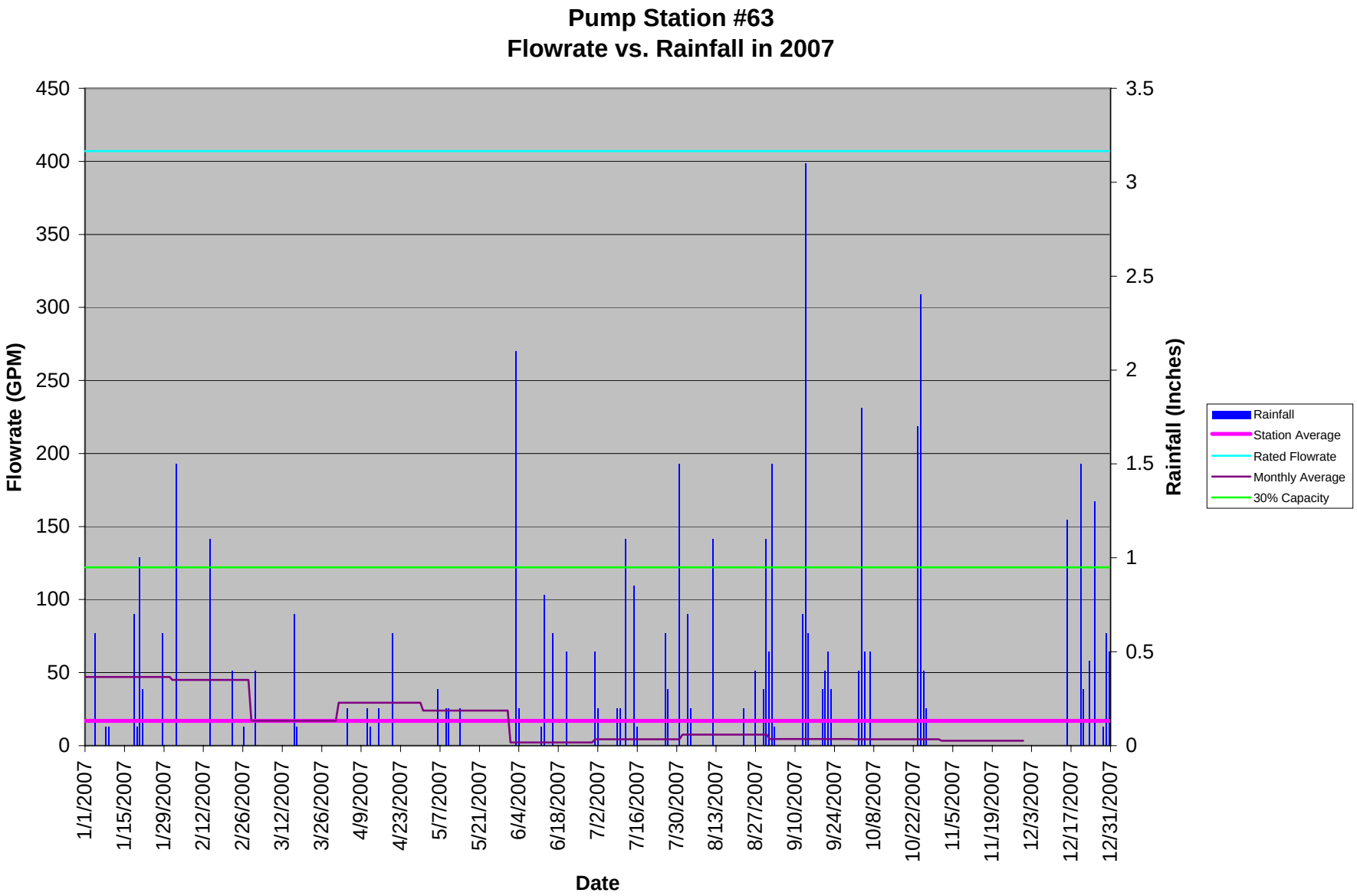

Pump Station #58
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

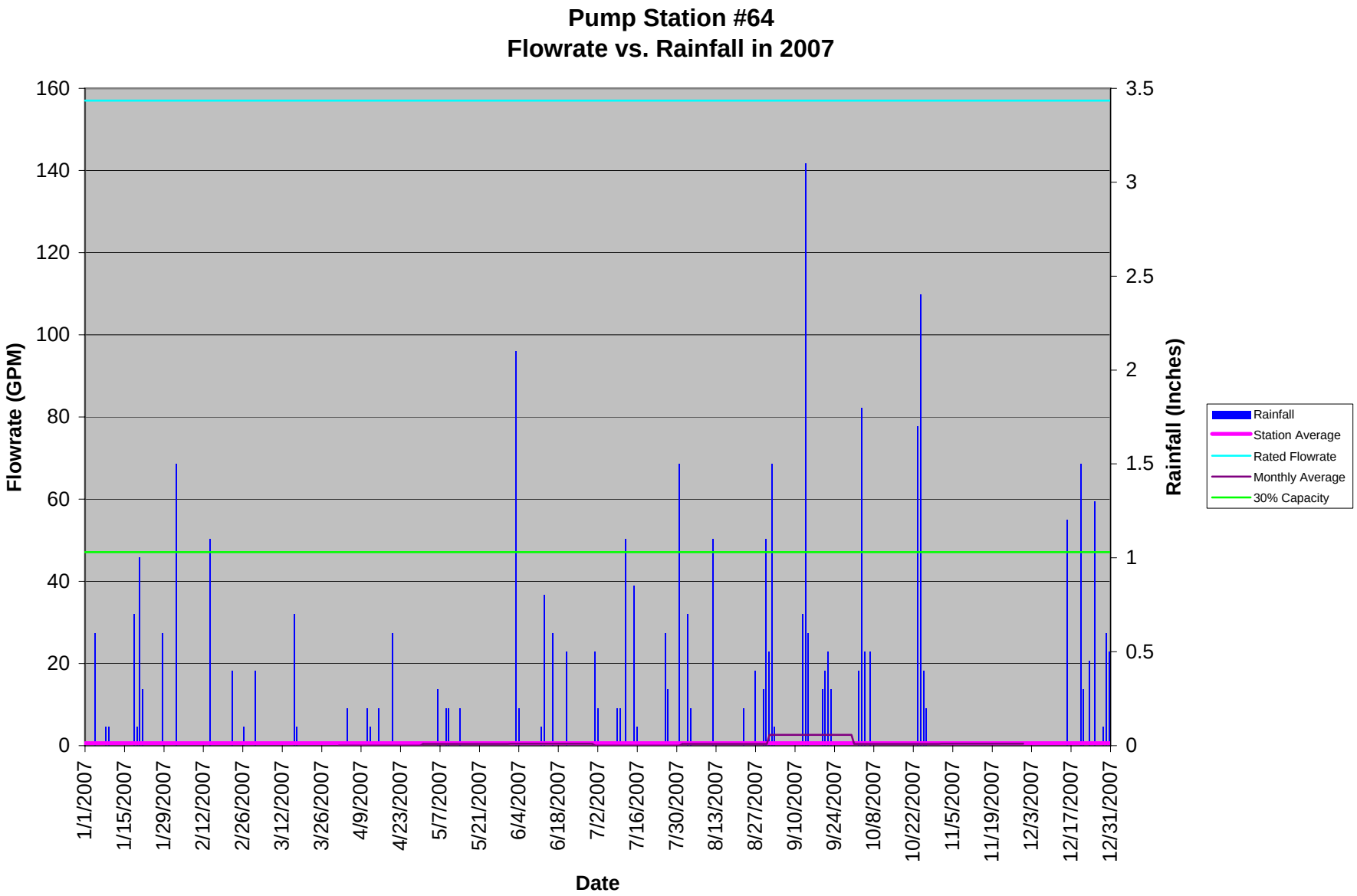

Pump Station #59
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

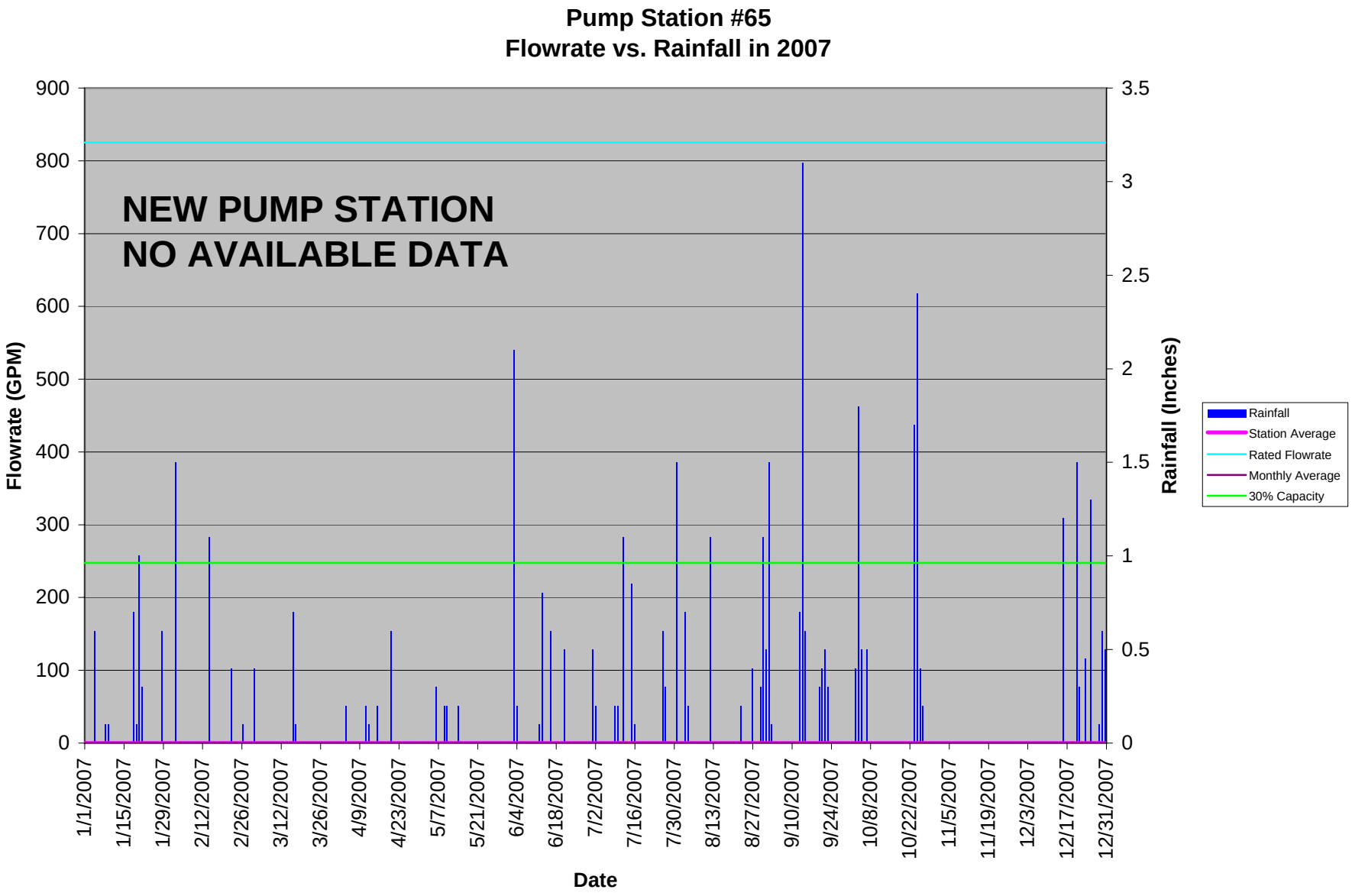

Pump Station #60
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
450
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #60
Station Average
Rated Flowrate
Monthly Average
30% Capacity

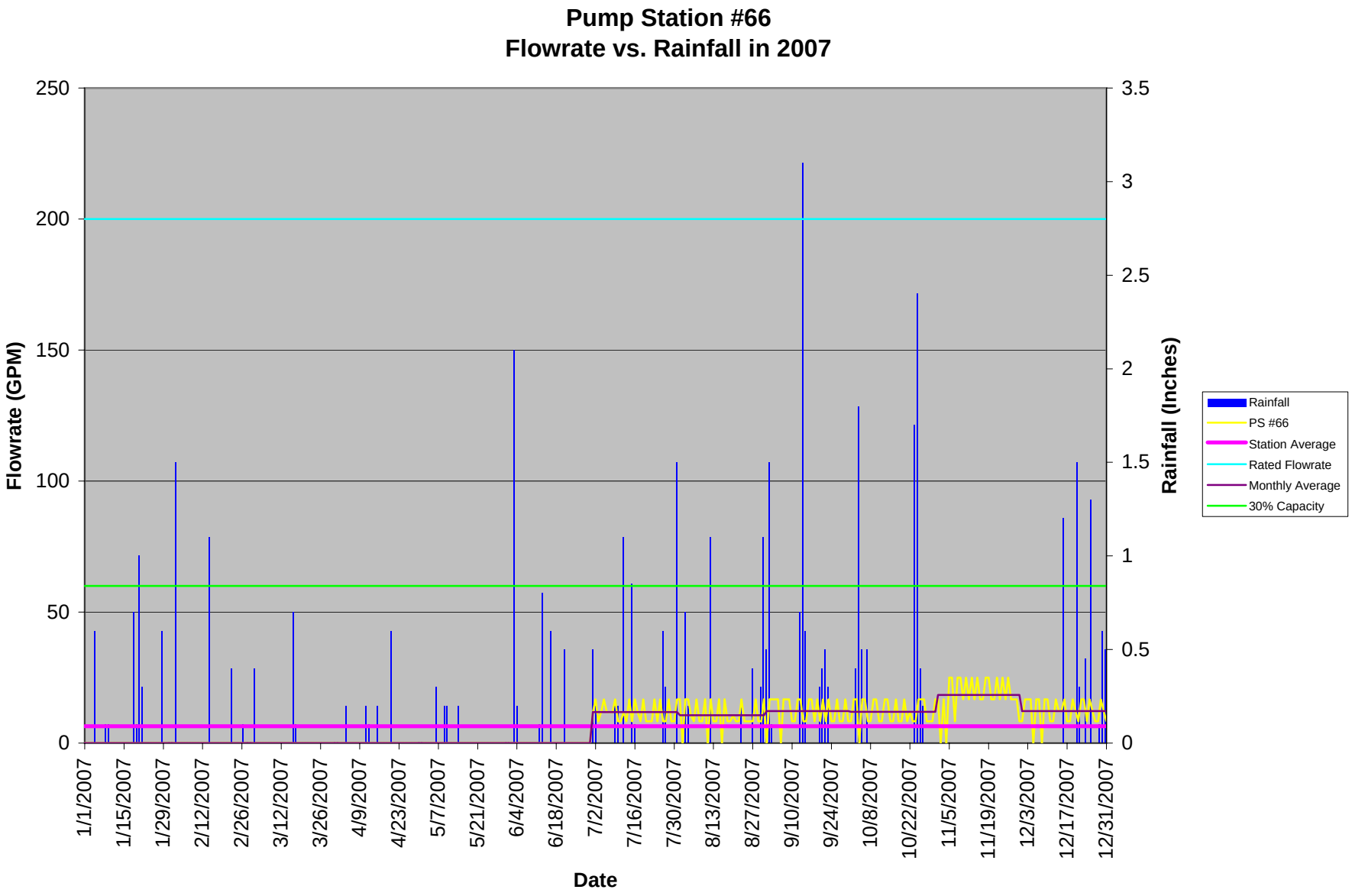

Pump Station #61
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
600
500
400
300
200
100
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #61
Station Average
Rated Flowrate
Monthly Average
30% Capacity

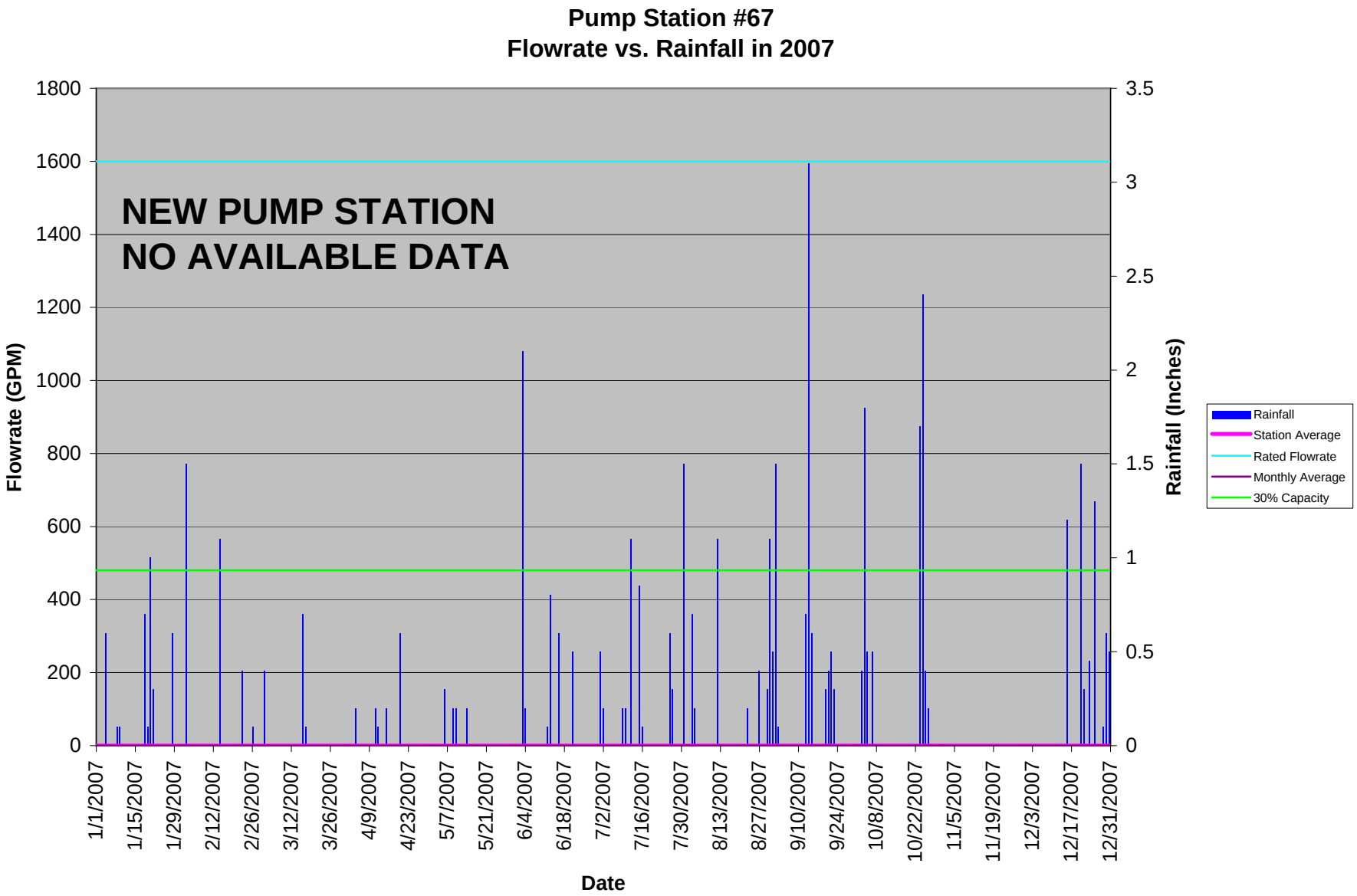

Pump Station #62
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
60
50
40
30
20
10
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

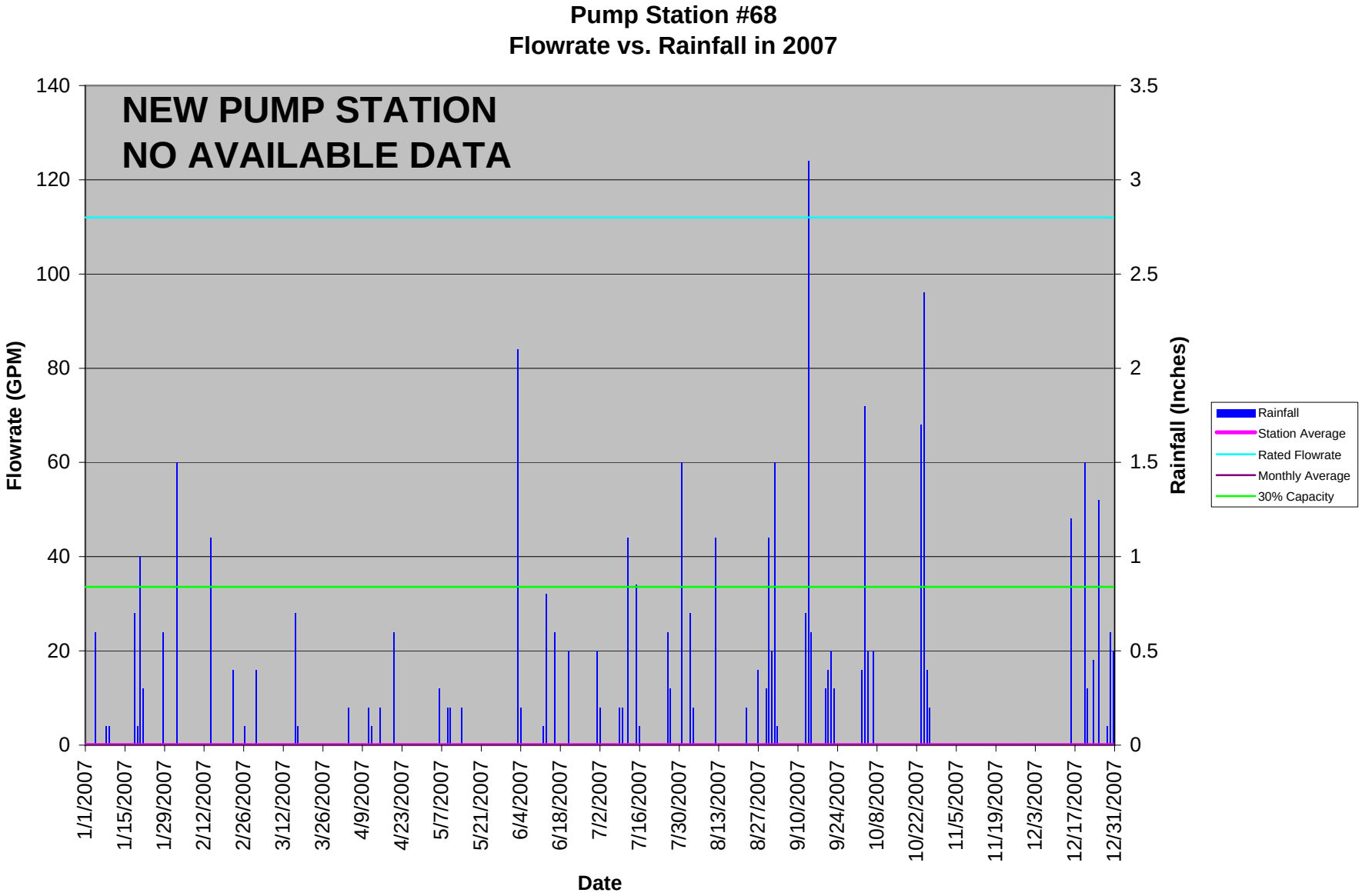

Pump Station #63
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
450
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

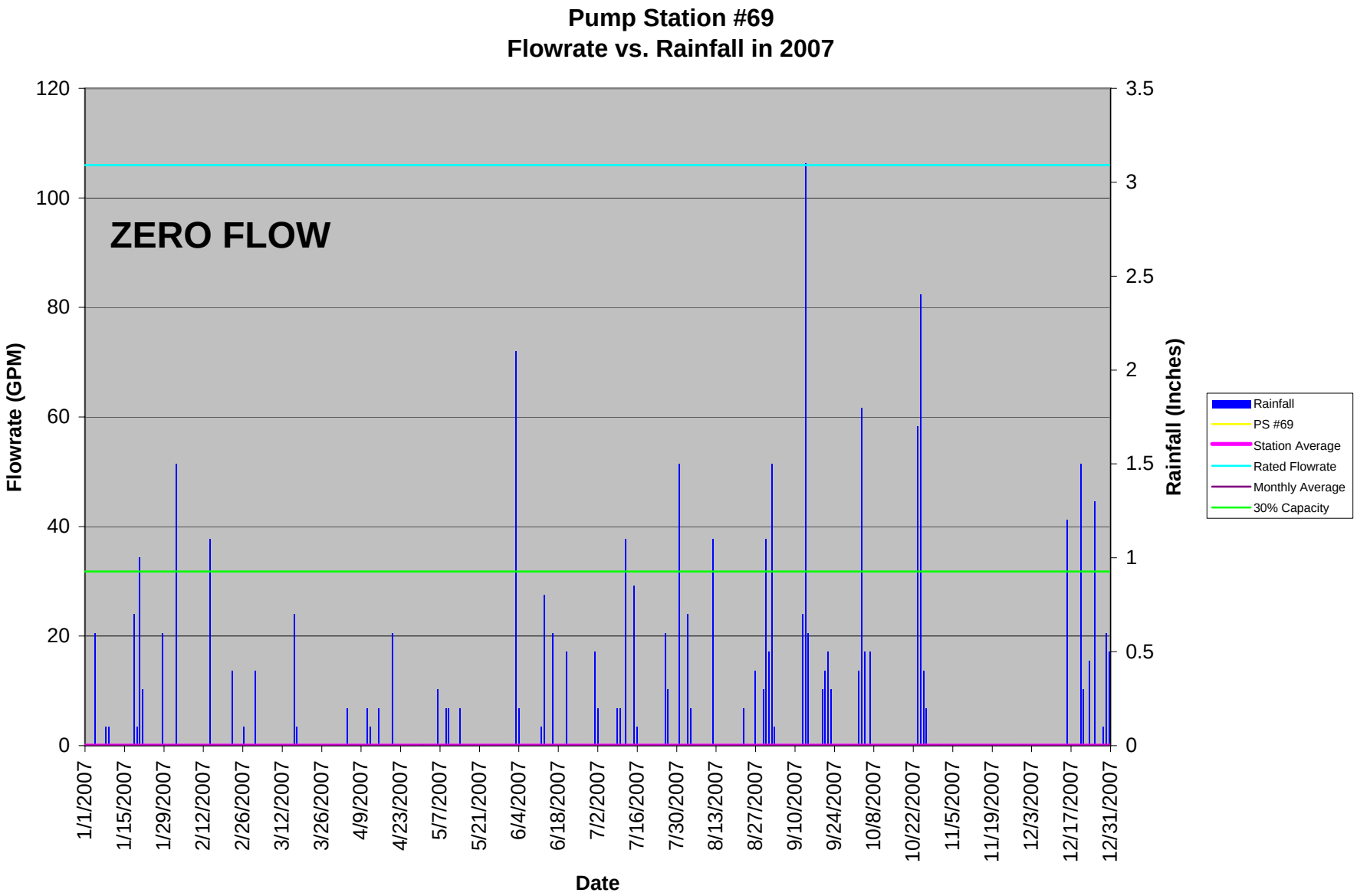

Pump Station #64
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

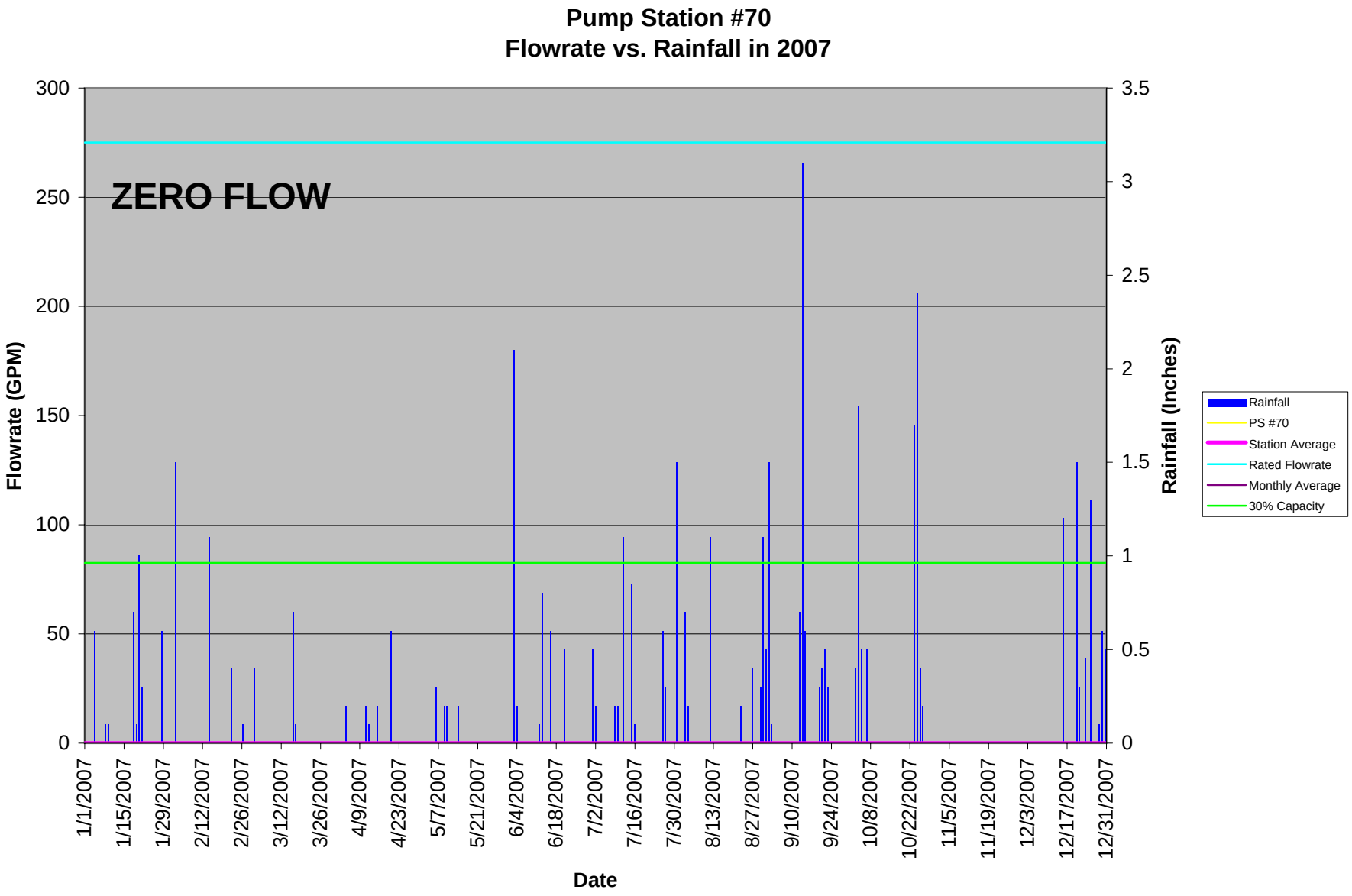

Pump Station #65
Flowrate vs. Rainfall in 2007
NEW PUMP STATION
NO AVAILABLE DATA
Flowrate (GPM)
Rainfall (Inches)
Date
900
800
700
600
500
400
300
200
100
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

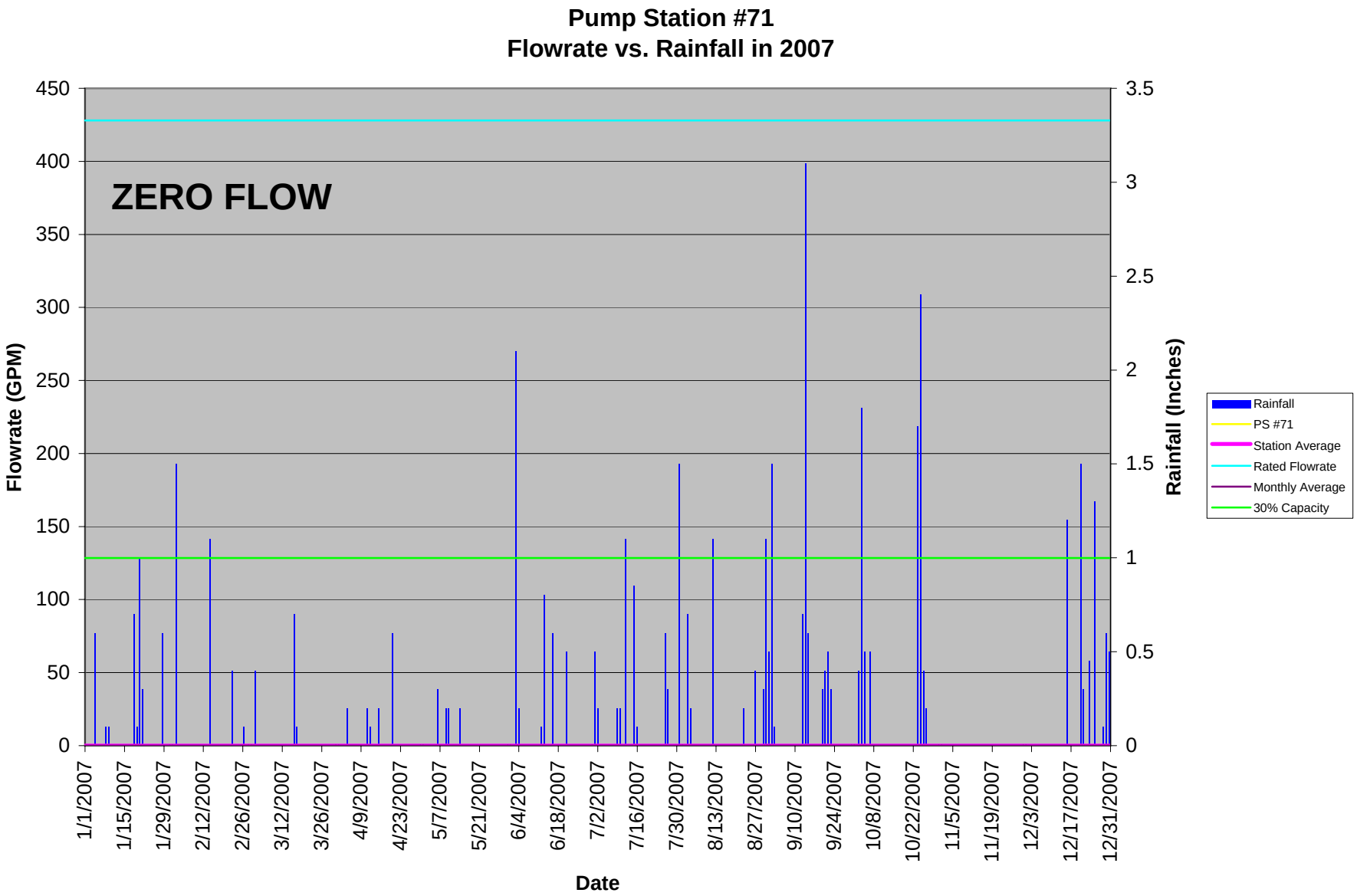

Pump Station #66
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #66
Station Average
Rated Flowrate
Monthly Average
30% Capacity

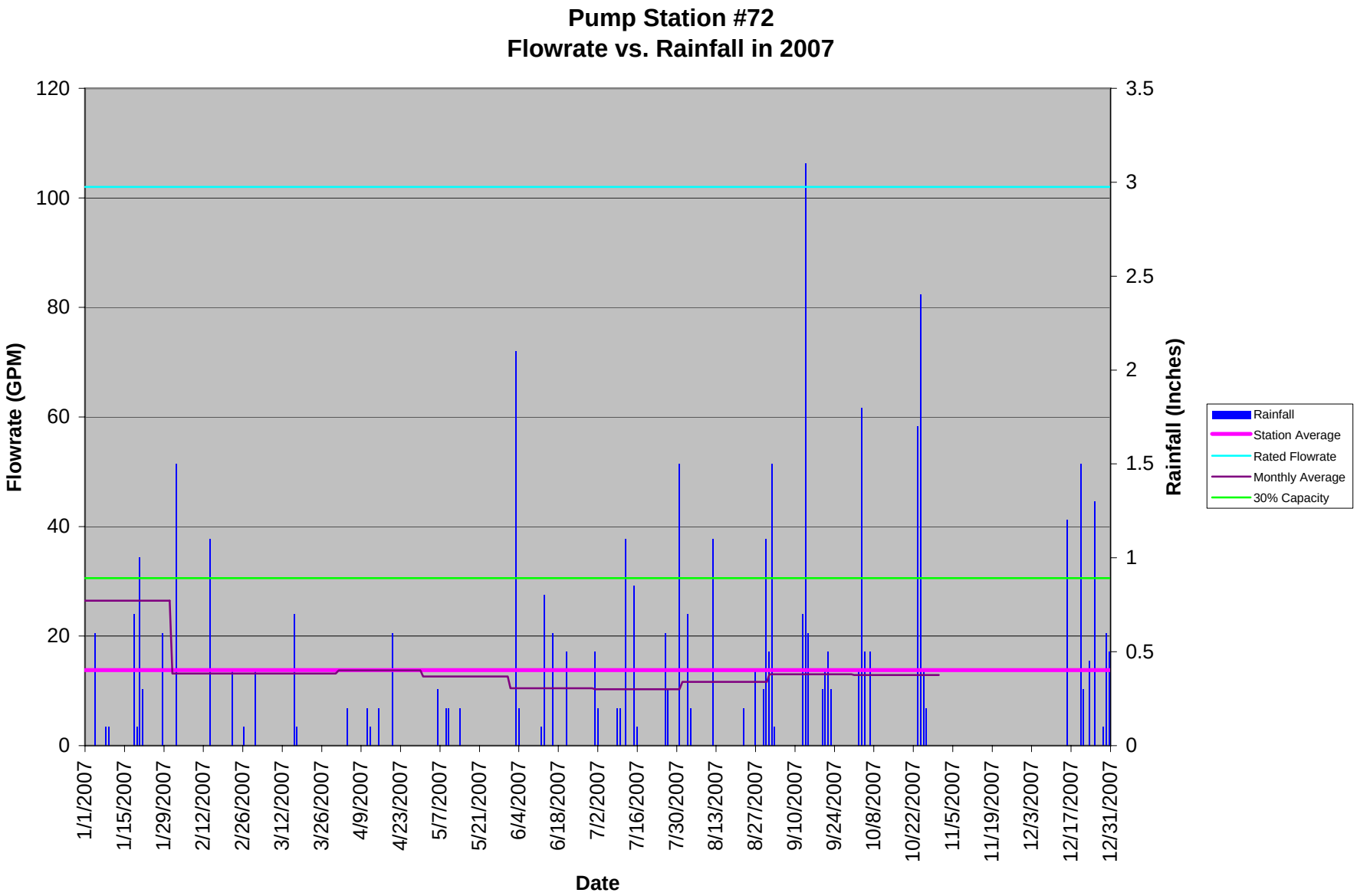

Pump Station #67
Flowrate vs. Rainfall in 2007
NEW PUMP STATION
NO AVAILABLE DATA
Flowrate (GPM)
Rainfall (Inches)
Date
1800
1600
1400
1200
1000
800
600
400
200
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity


Pump Station #68
Flowrate vs. Rainfall in 2007
NEW PUMP STATION
NO AVAILABLE DATA
Flowrate (GPM)
Rainfall (Inches)
Date
0
20
40
60
80
100
120
140
0
0.5
1
1.5
2
2.5
3
3.5
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

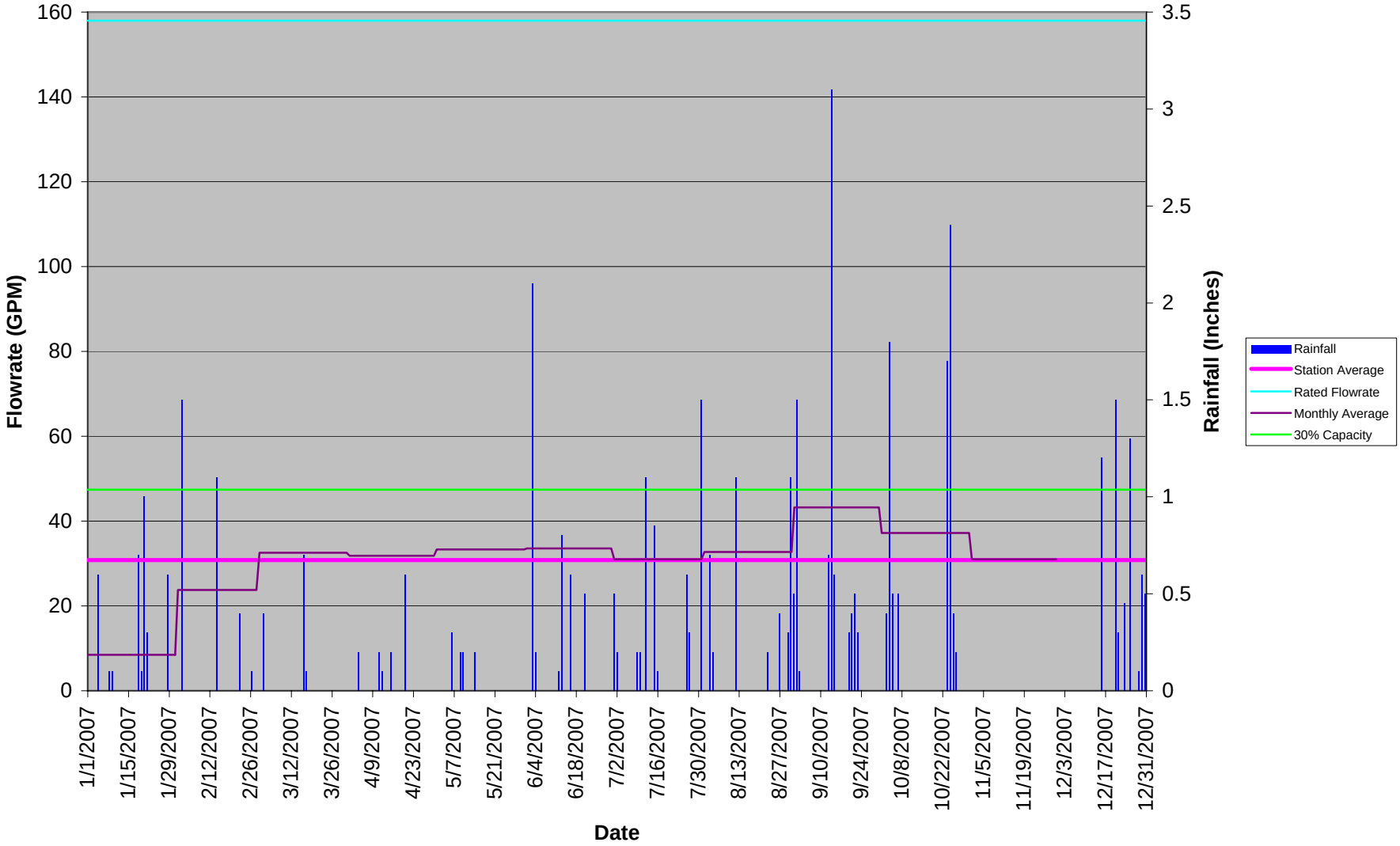

Pump Station #69
Flowrate vs. Rainfall in 2007
ZERO FLOW
Flowrate (GPM)
Rainfall (Inches)
Date
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #69
Station Average
Rated Flowrate
Monthly Average
30% Capacity

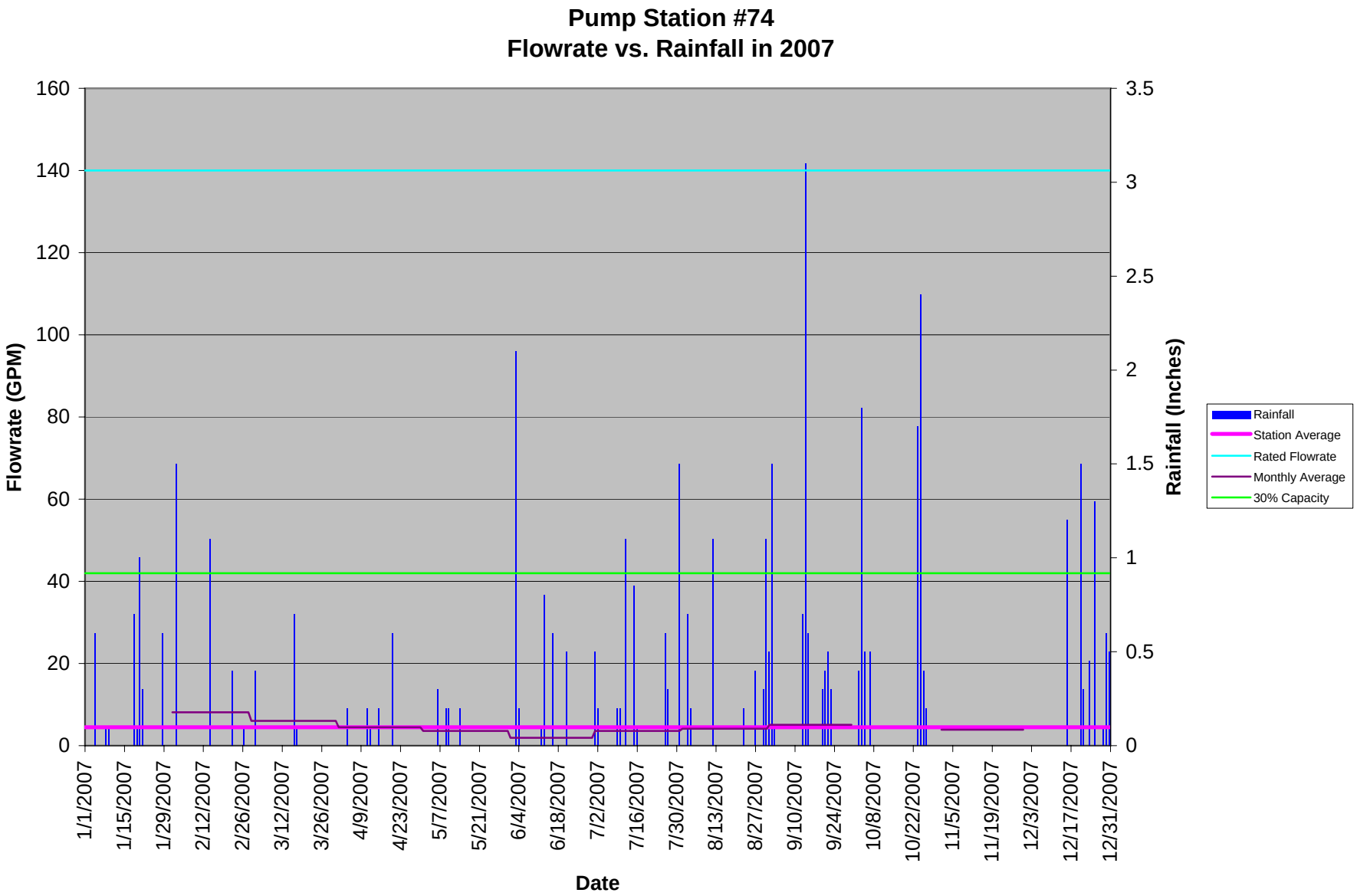

Pump Station #70
Flowrate vs. Rainfall in 2007
ZERO FLOW
Flowrate (GPM)
Rainfall (Inches)
Date
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #70
Station Average
Rated Flowrate
Monthly Average
30% Capacity

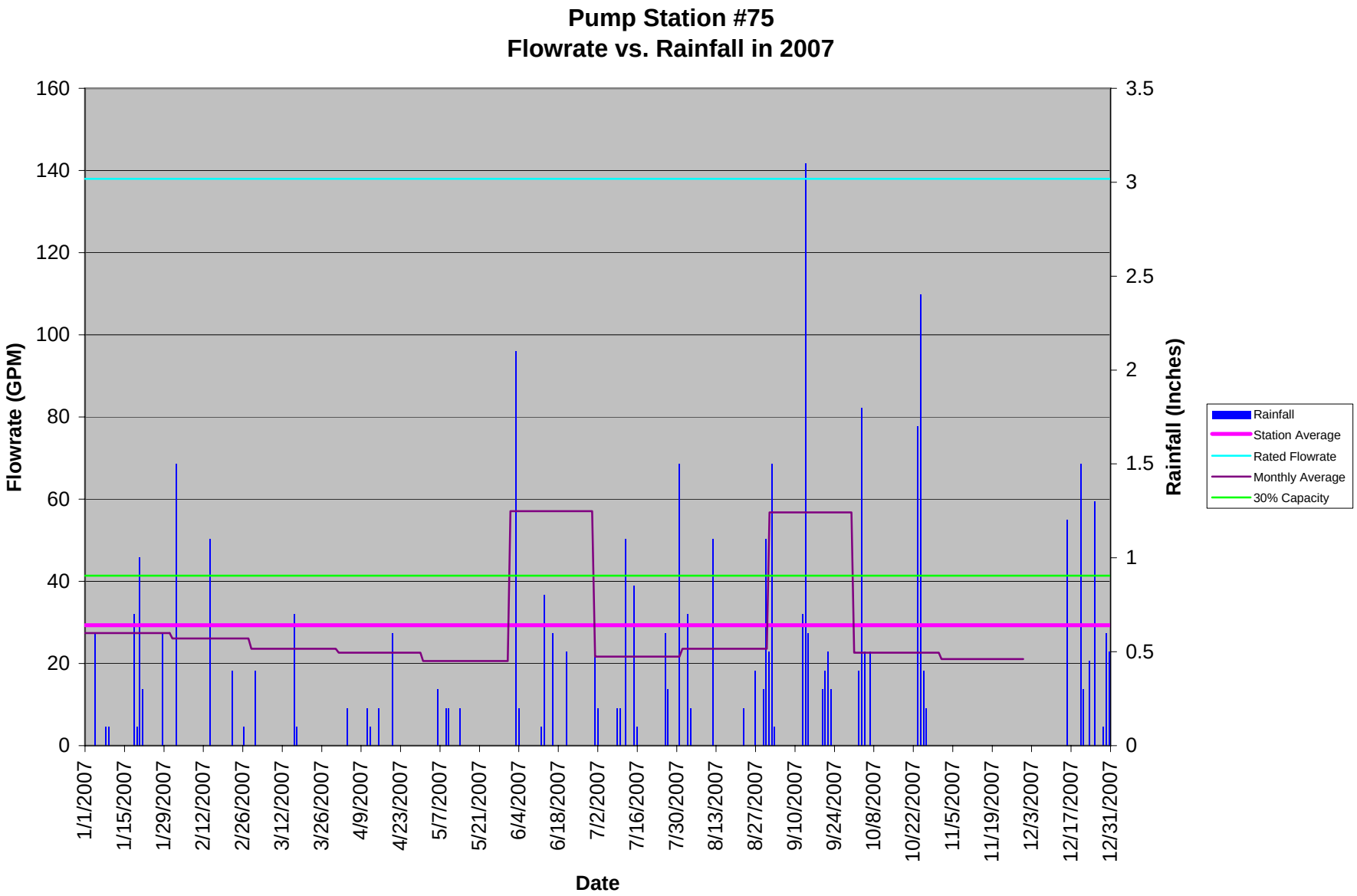

Pump Station #71
Flowrate vs. Rainfall in 2007
ZERO FLOW
Flowrate (GPM)
Rainfall (Inches)
Date
450
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
PS #71
Station Average
Rated Flowrate
Monthly Average
30% Capacity

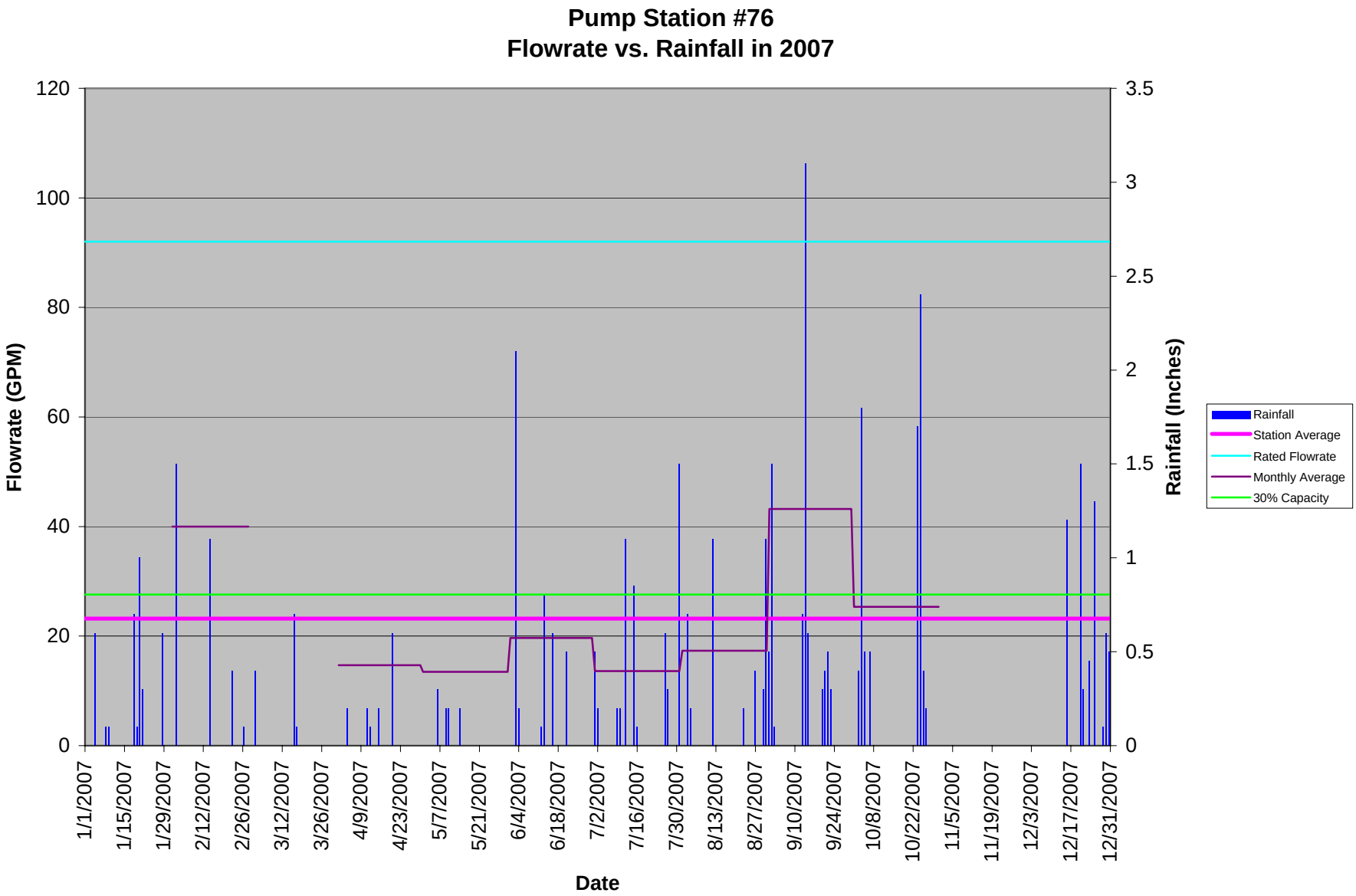

Pump Station #72
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

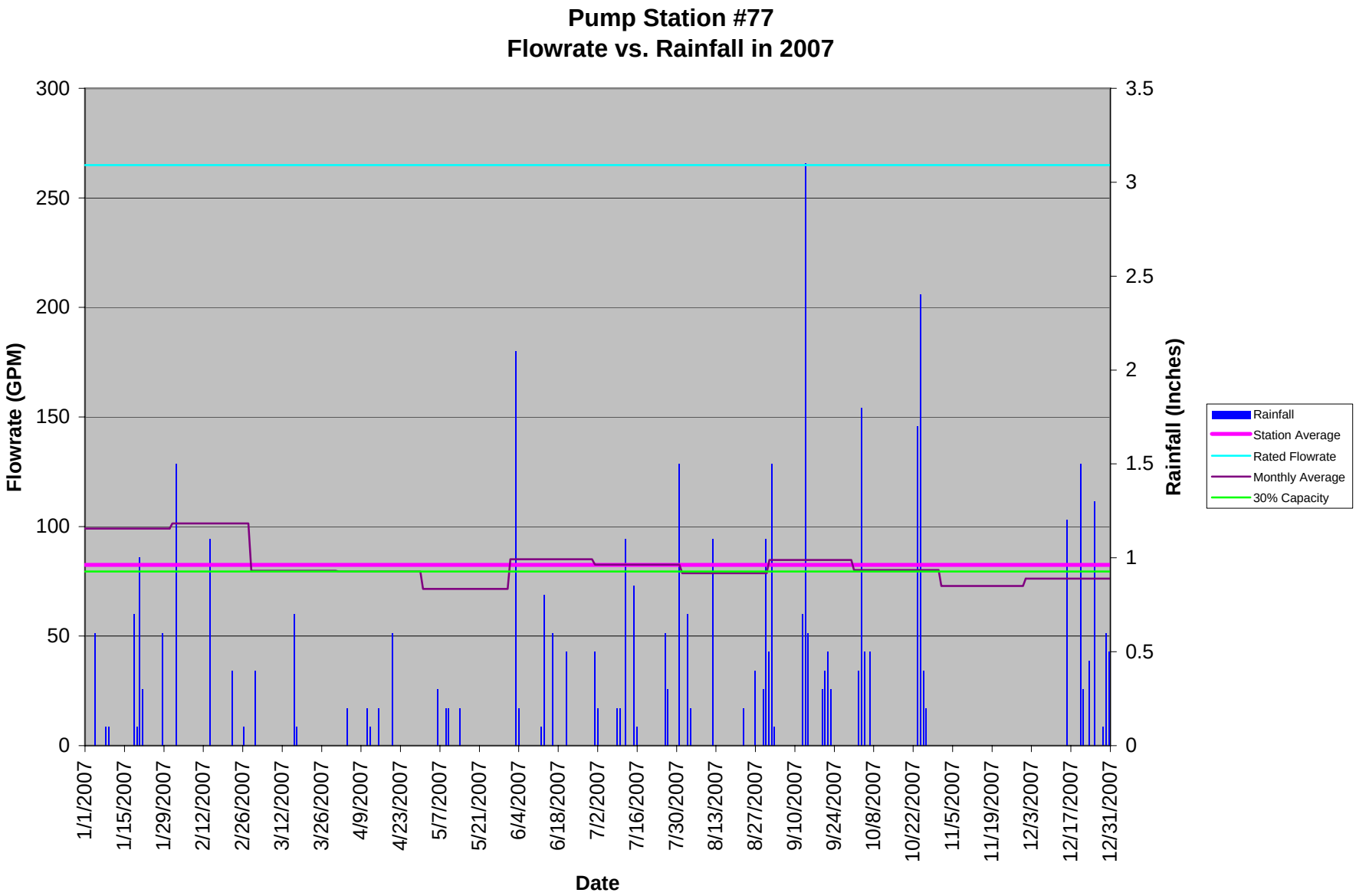
Pump Station #73
Flowrate vs. Rainfall in 2007

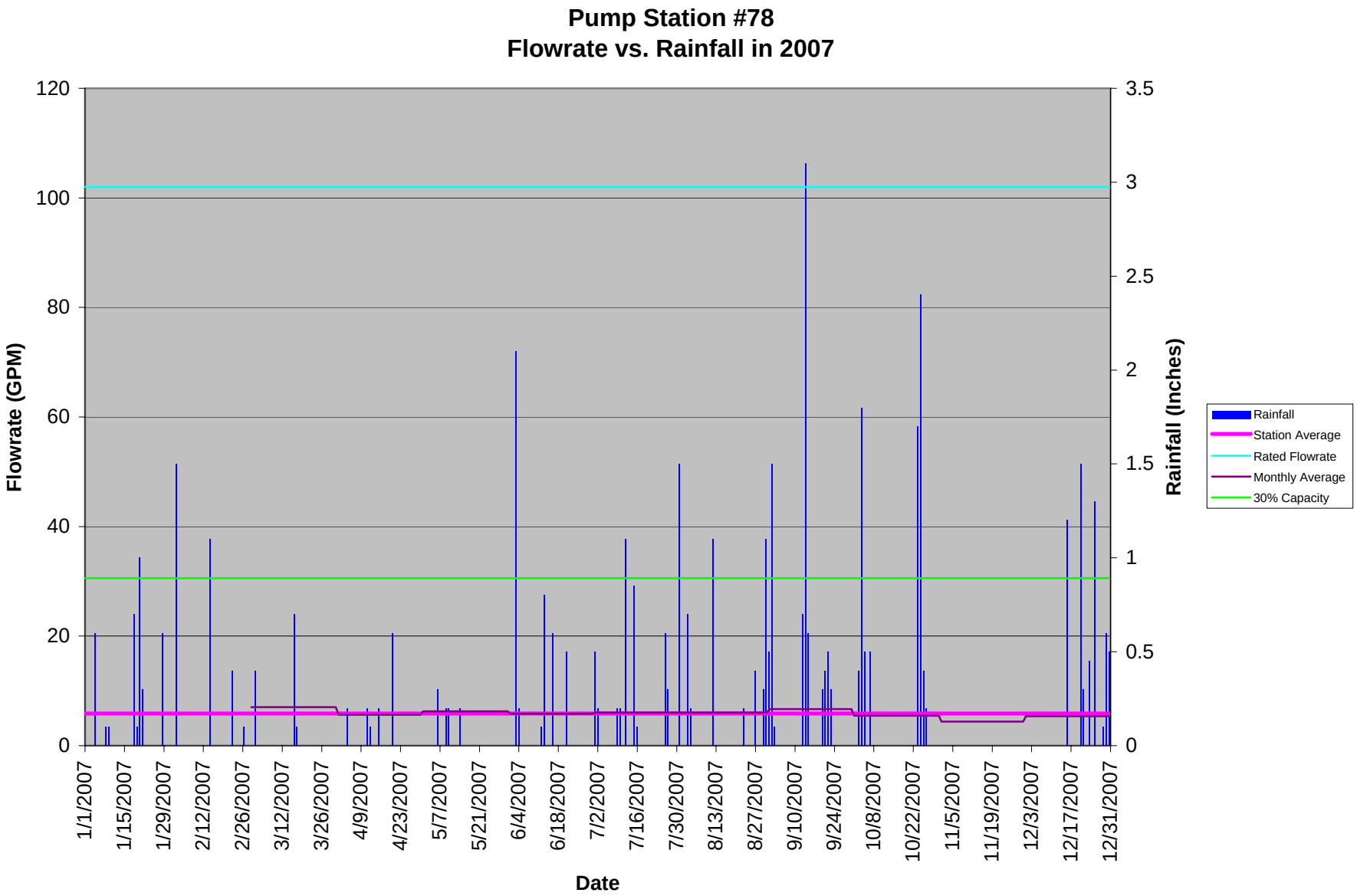


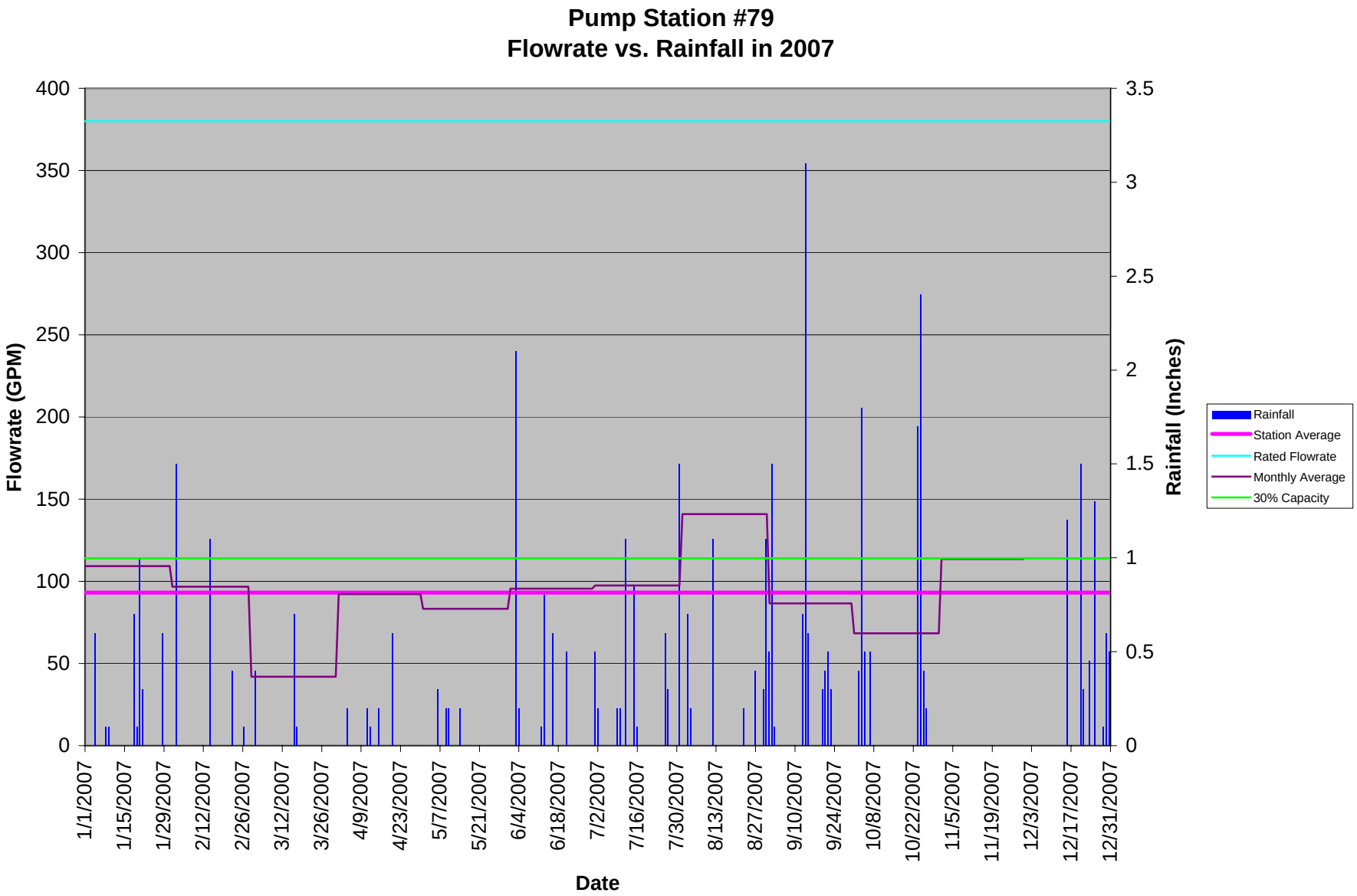

Pump Station #74
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

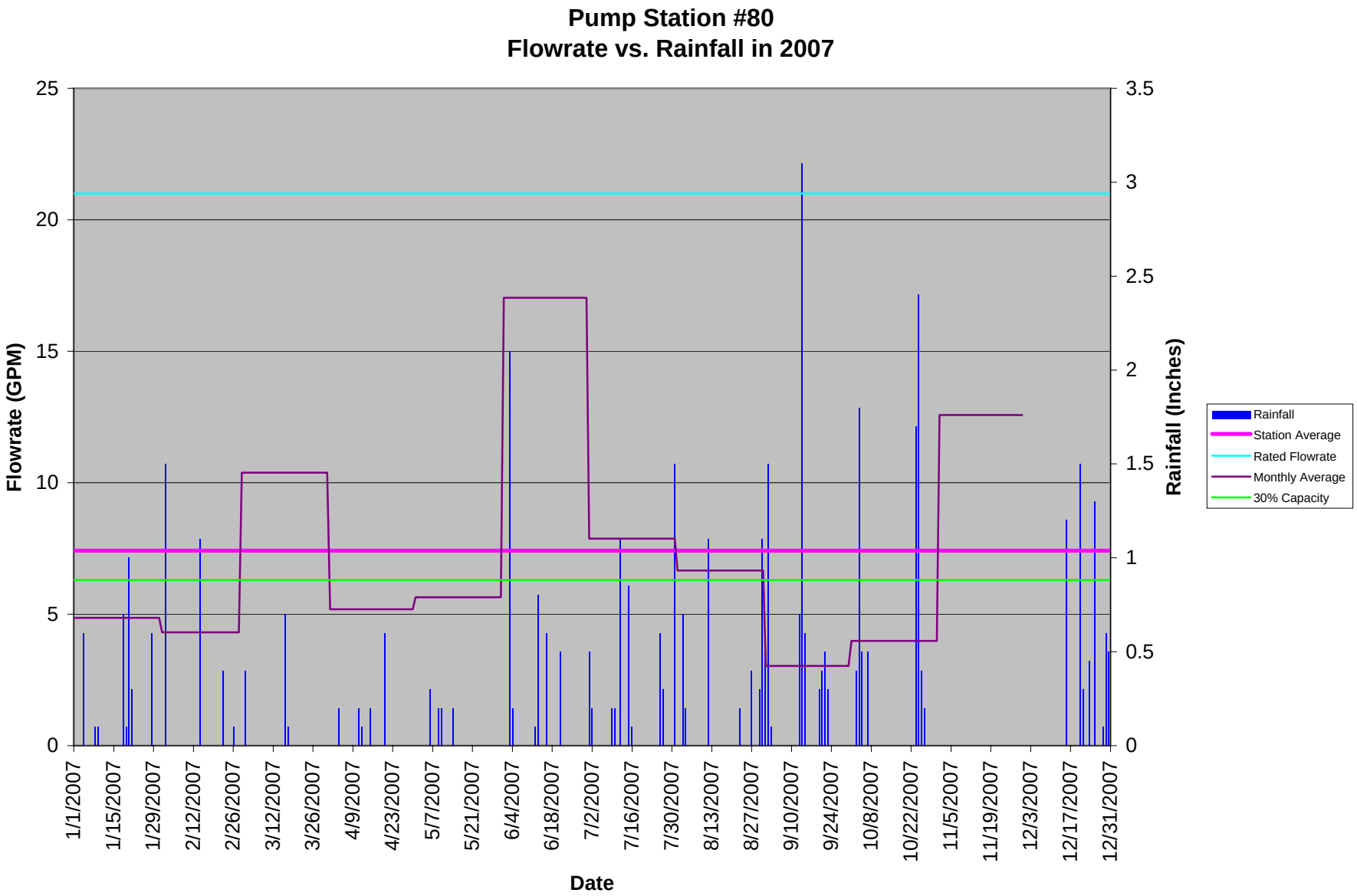

Pump Station #75
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

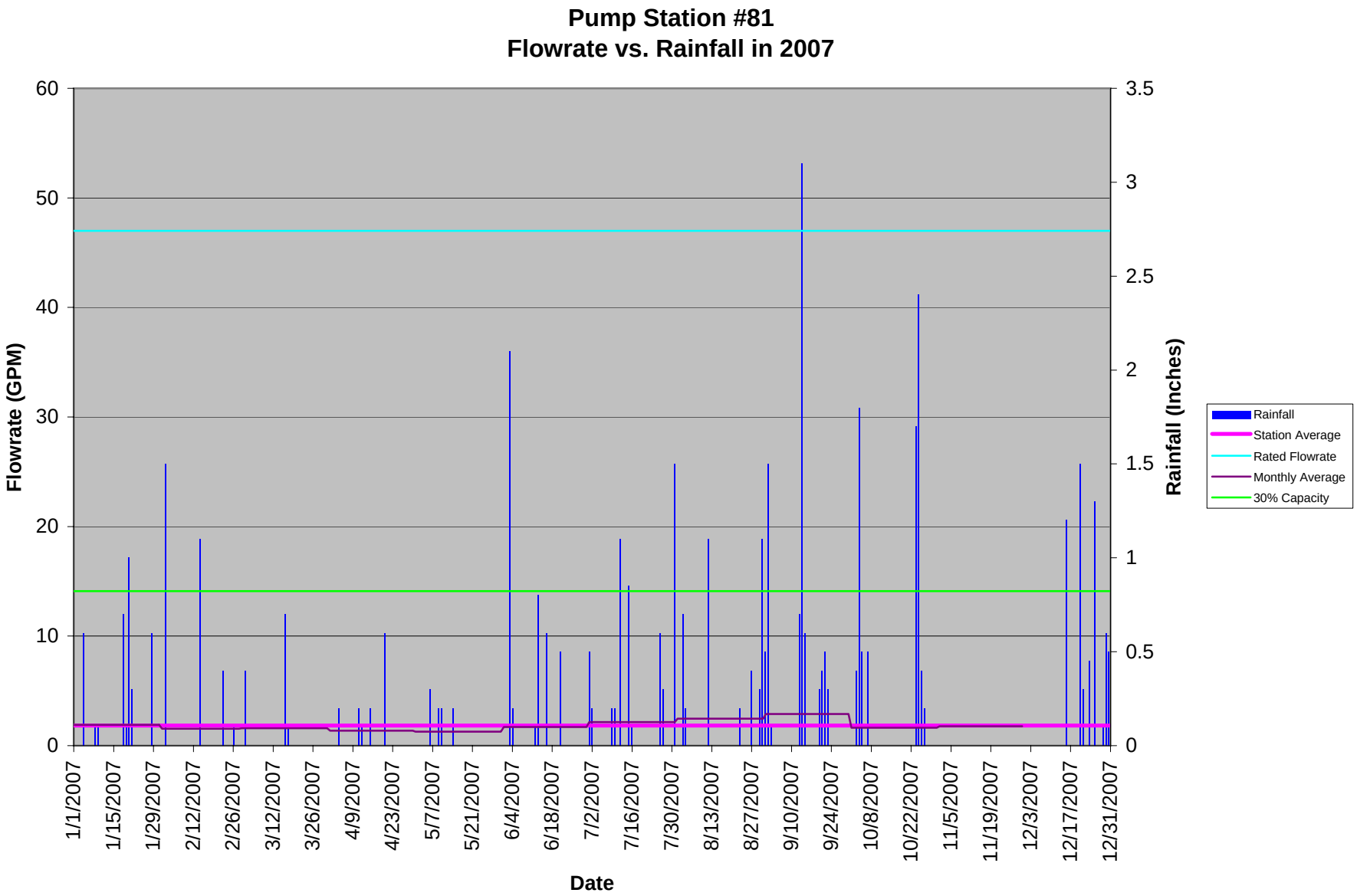

Pump Station #76
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

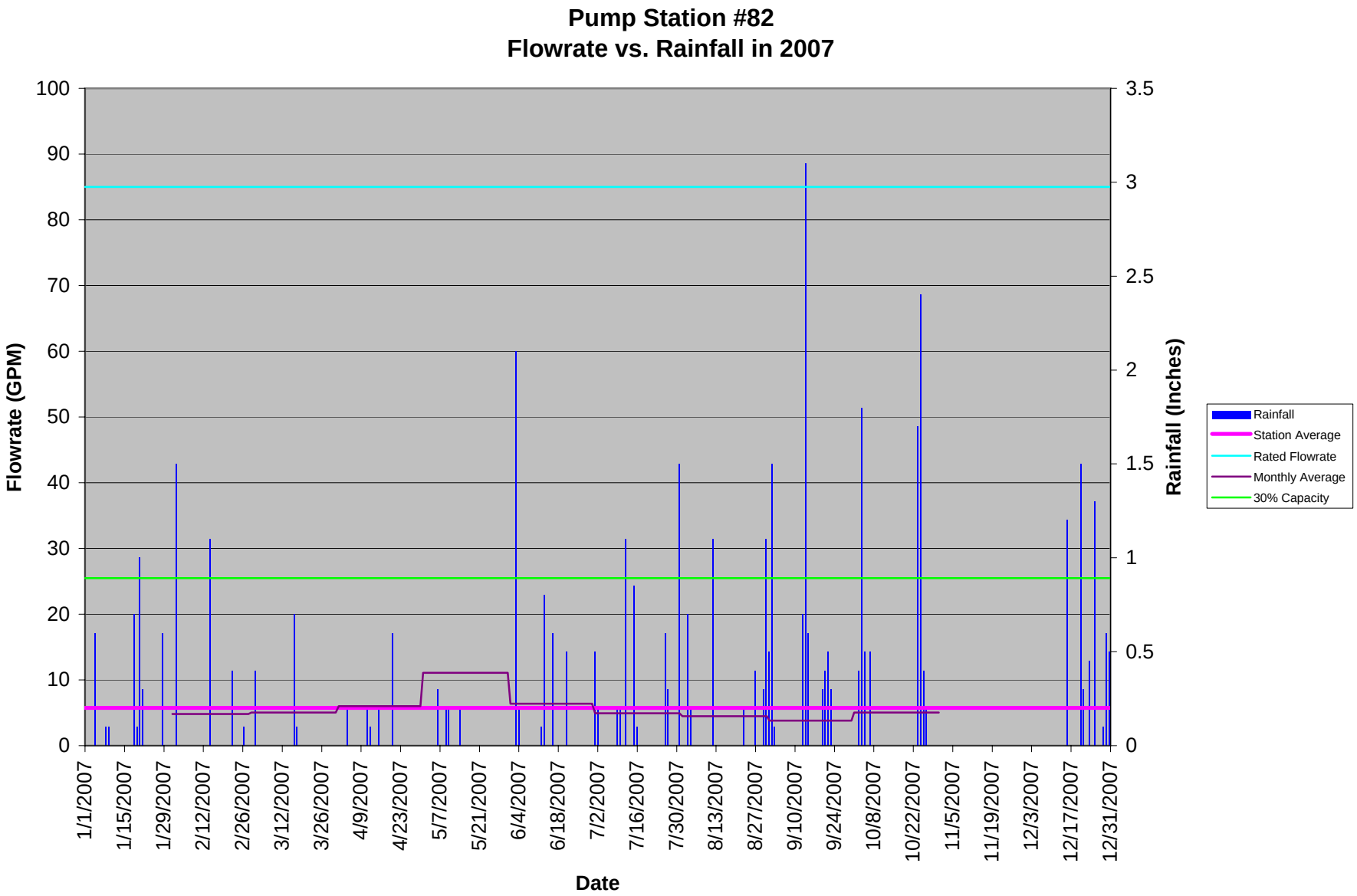

Pump Station #77
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

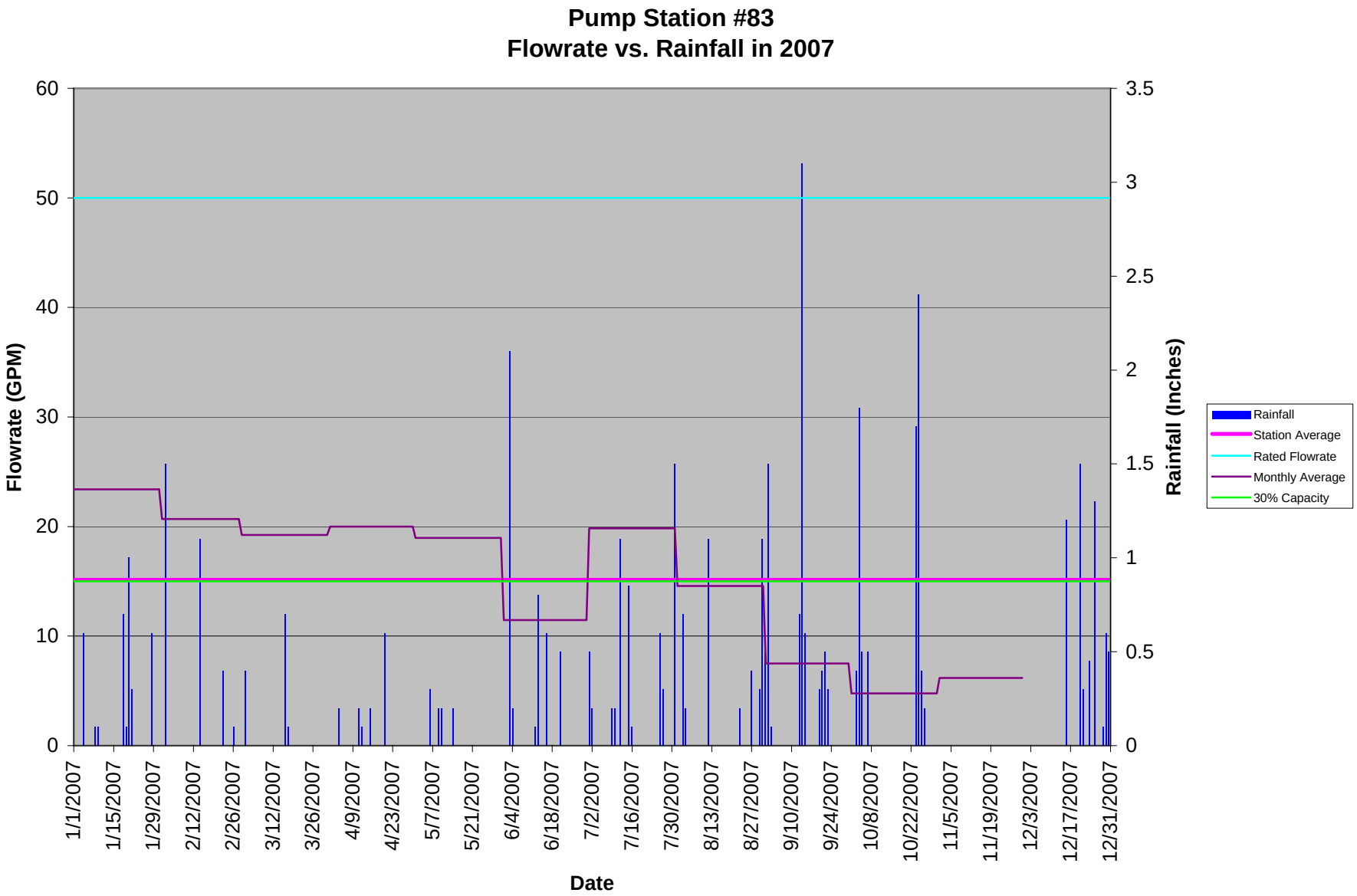

Pump Station #78
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

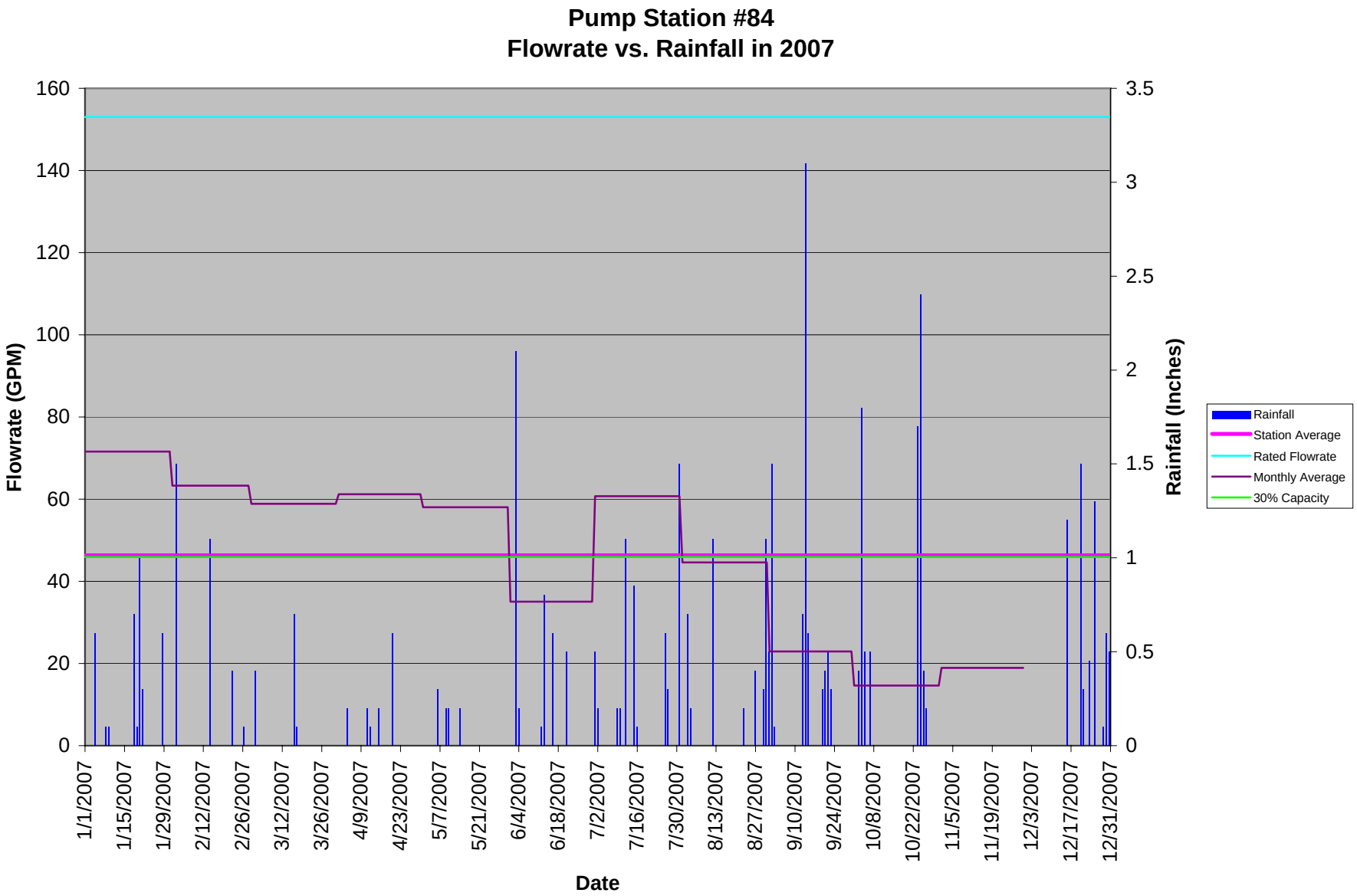

Pump Station #79
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

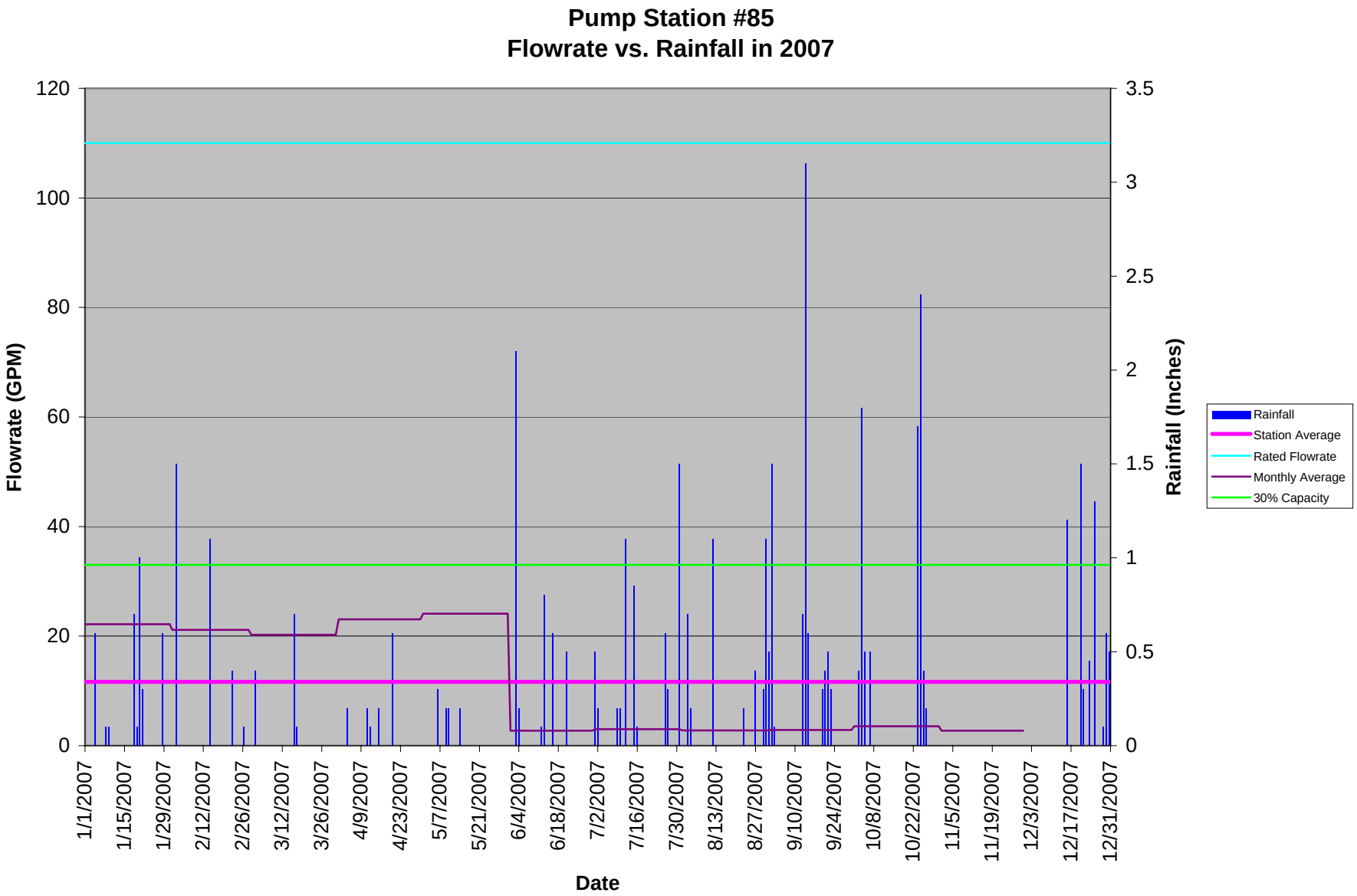

Pump Station #80
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
25
20
15
10
5
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

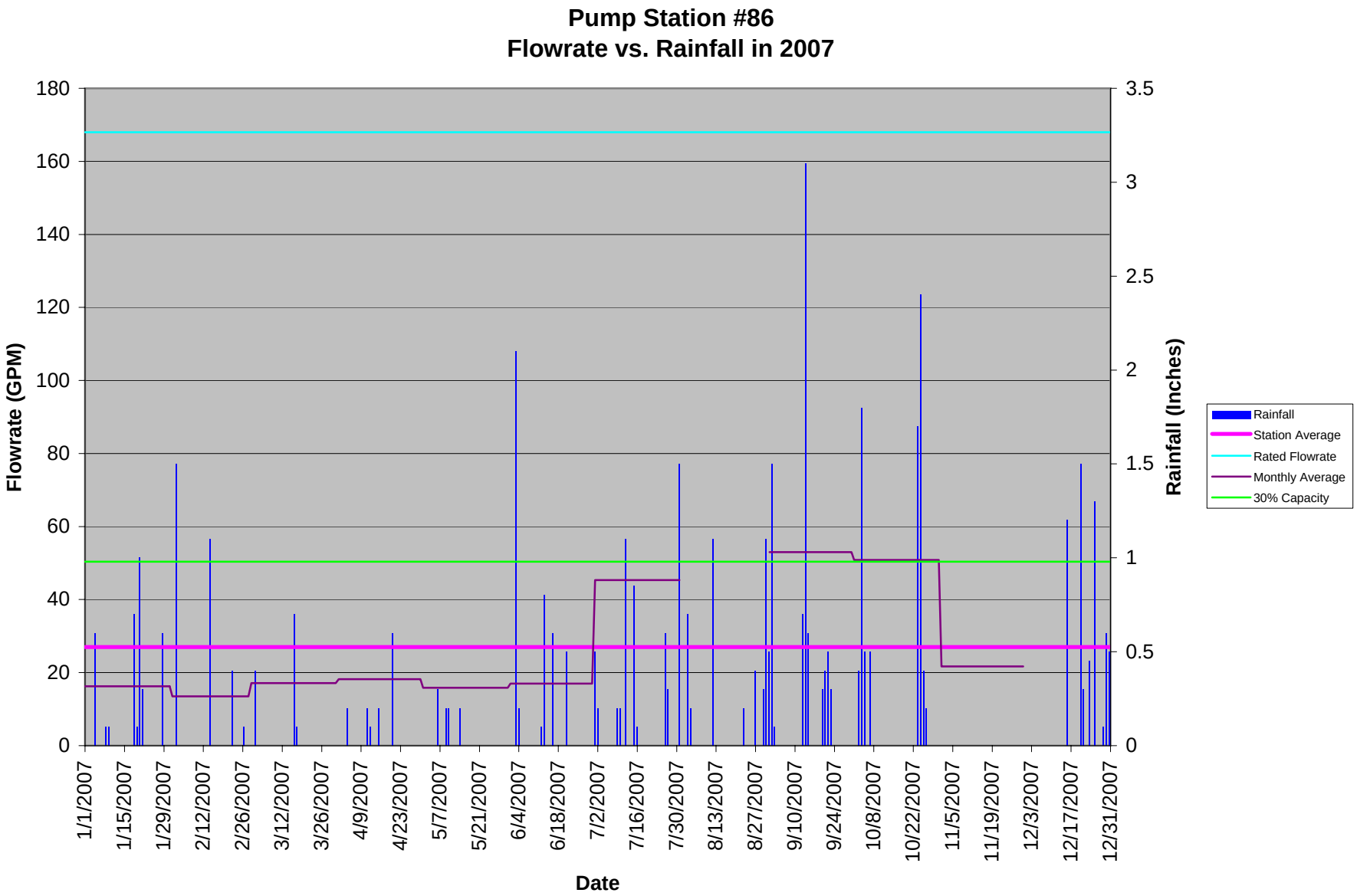

Pump Station #81
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
60
50
40
30
20
10
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

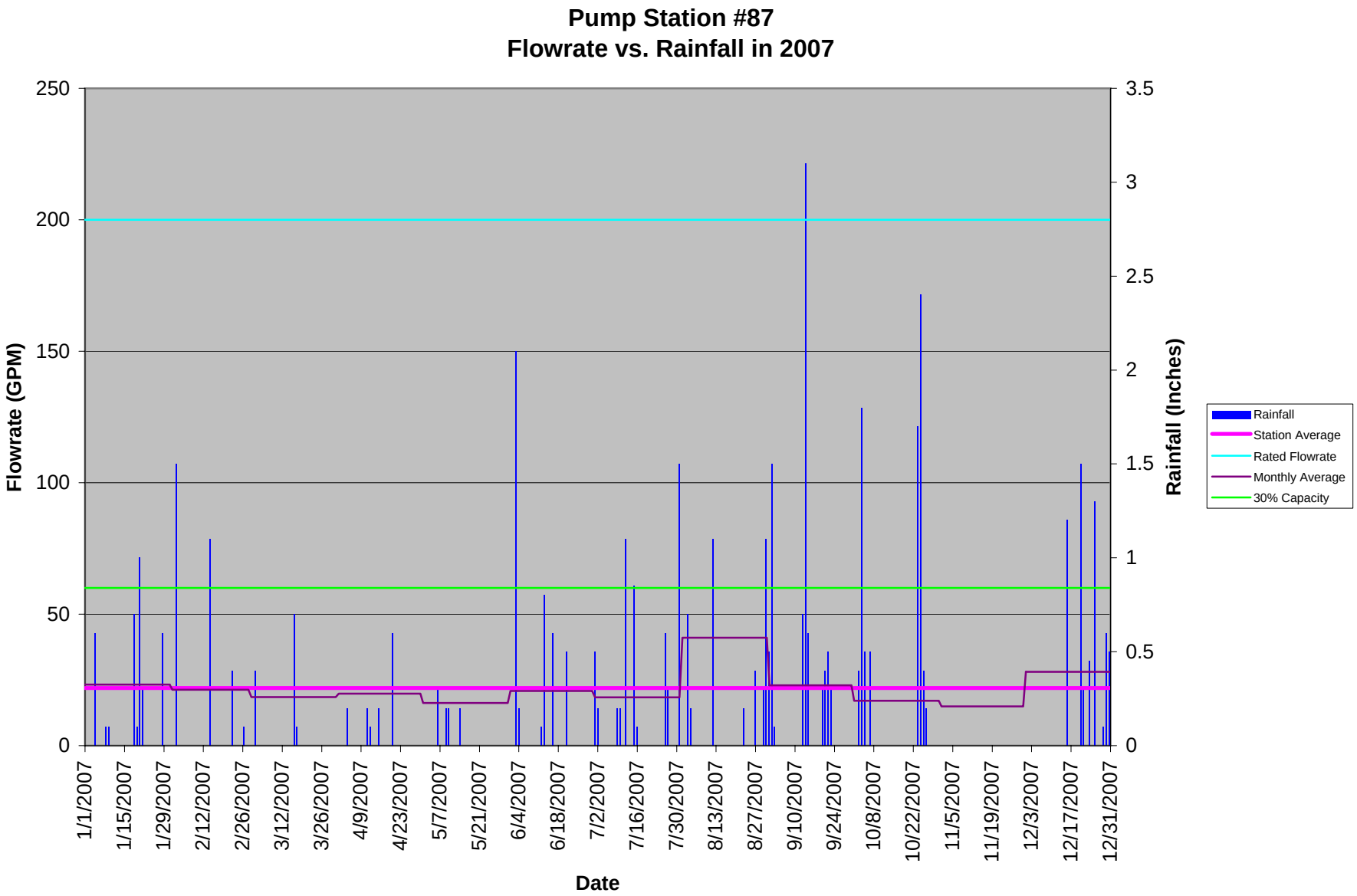

Pump Station #82
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
100
90
80
70
60
50
40
30
20
10
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

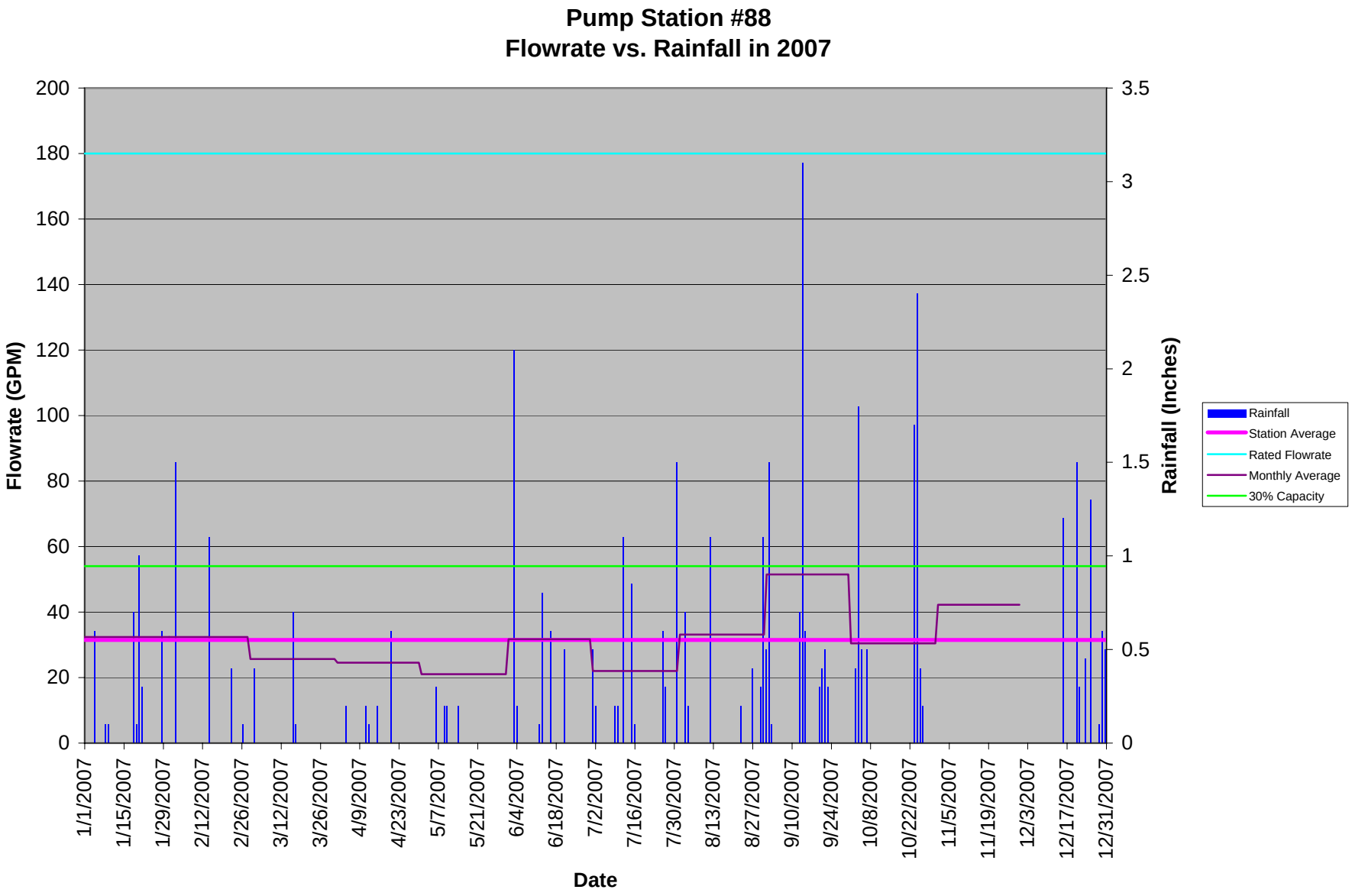

Pump Station #83
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
60
50
40
30
20
10
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

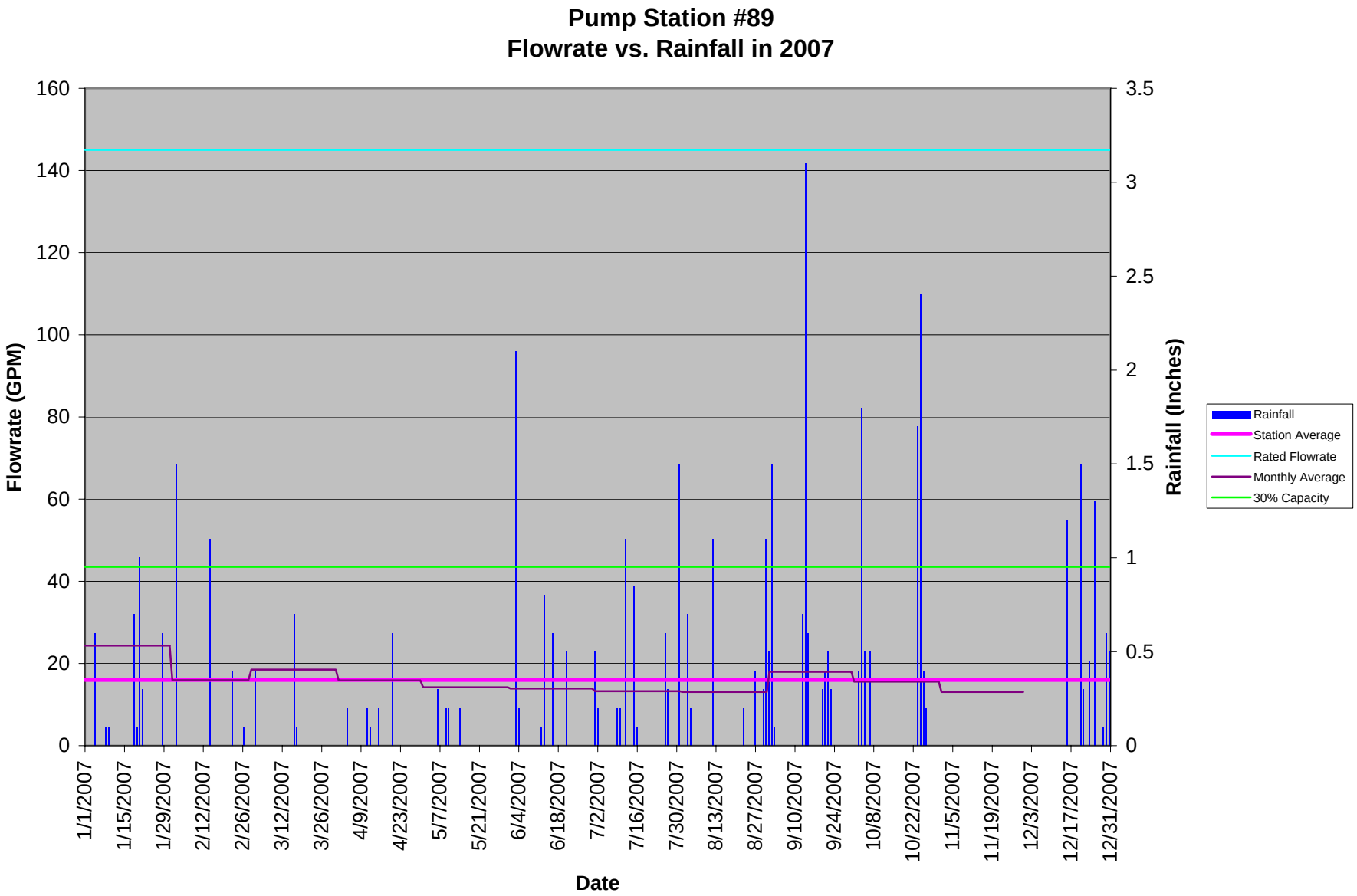

Pump Station #84
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

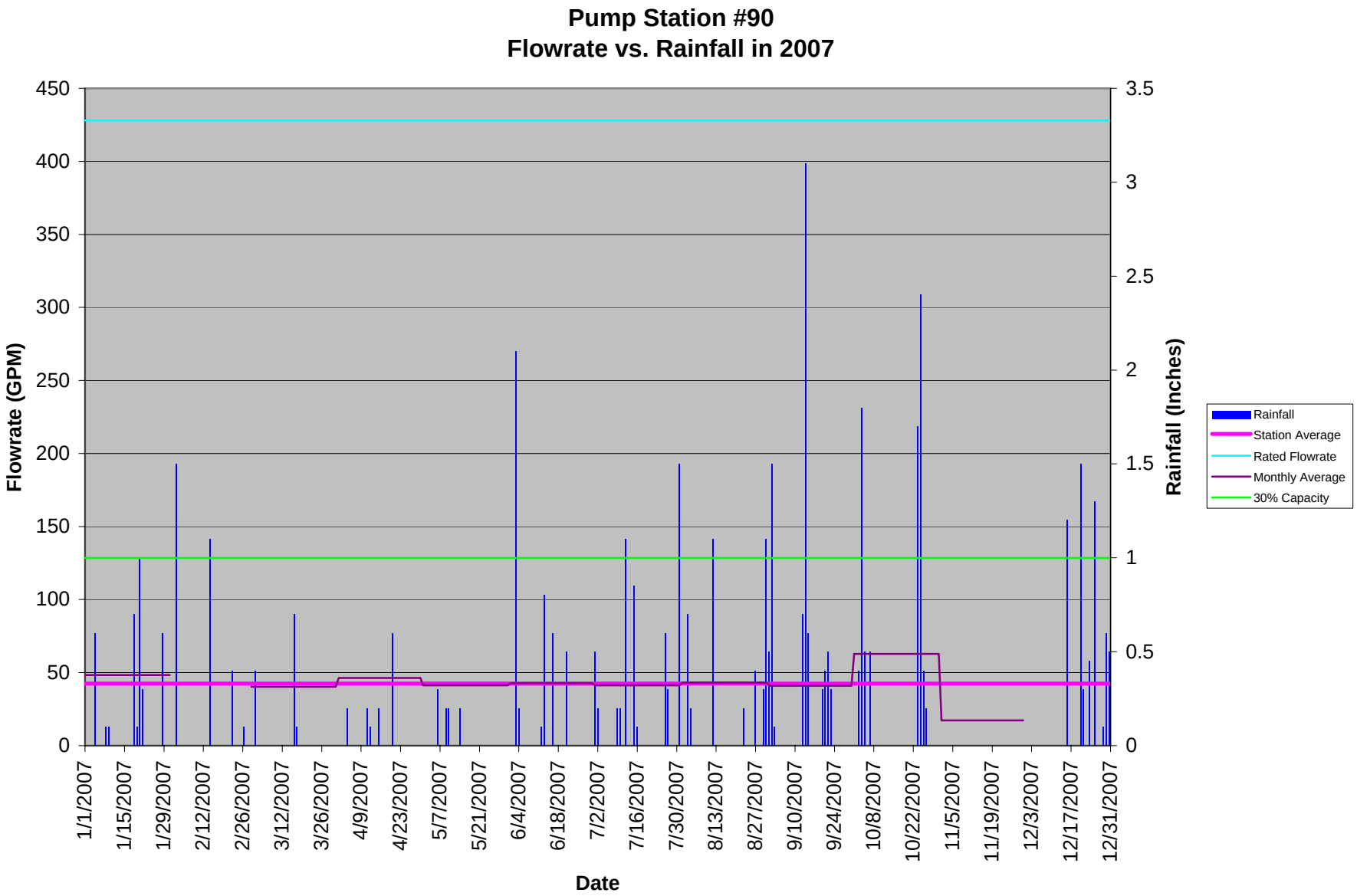

Pump Station #85
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

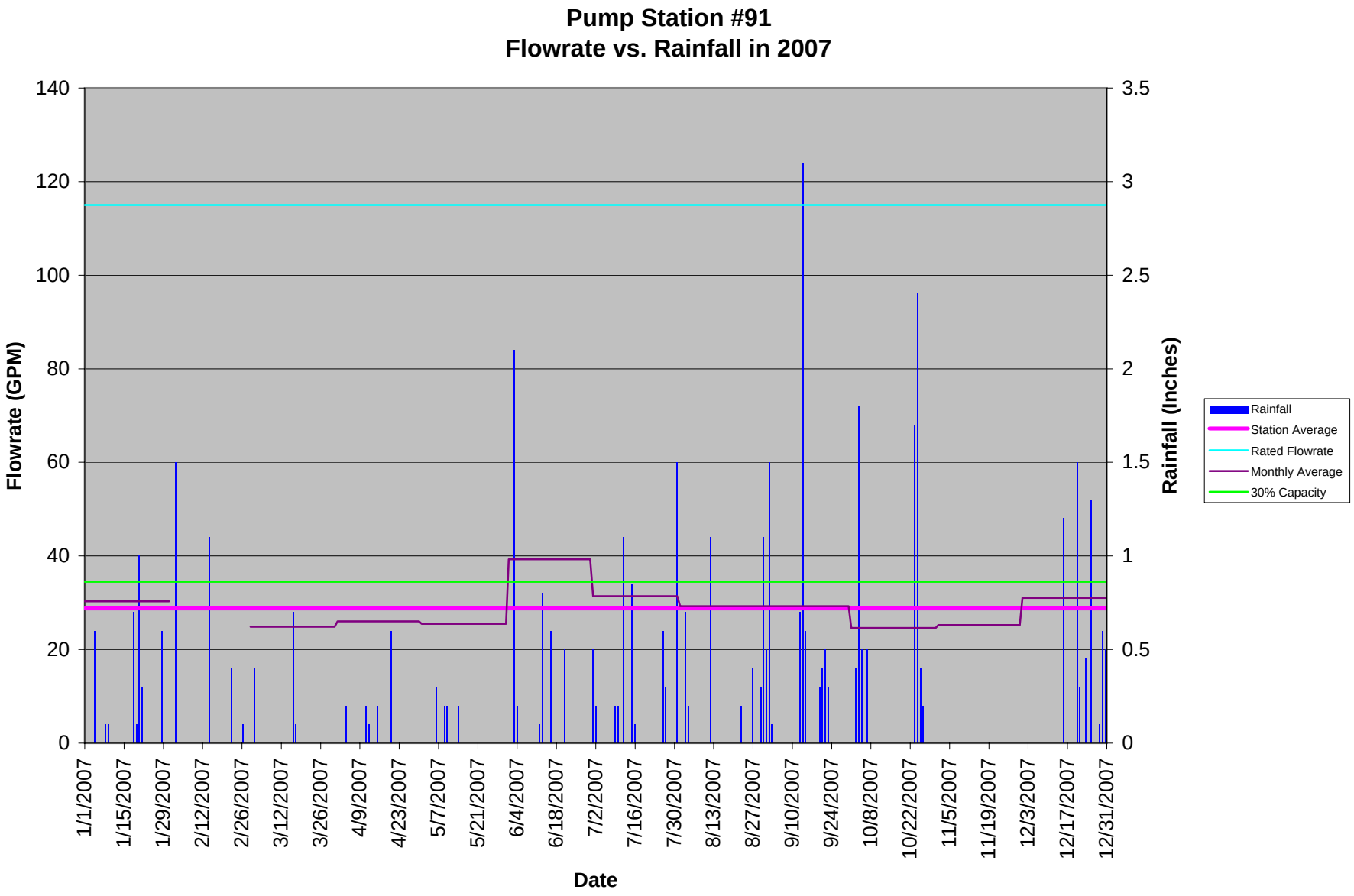

Pump Station #86
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
180
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

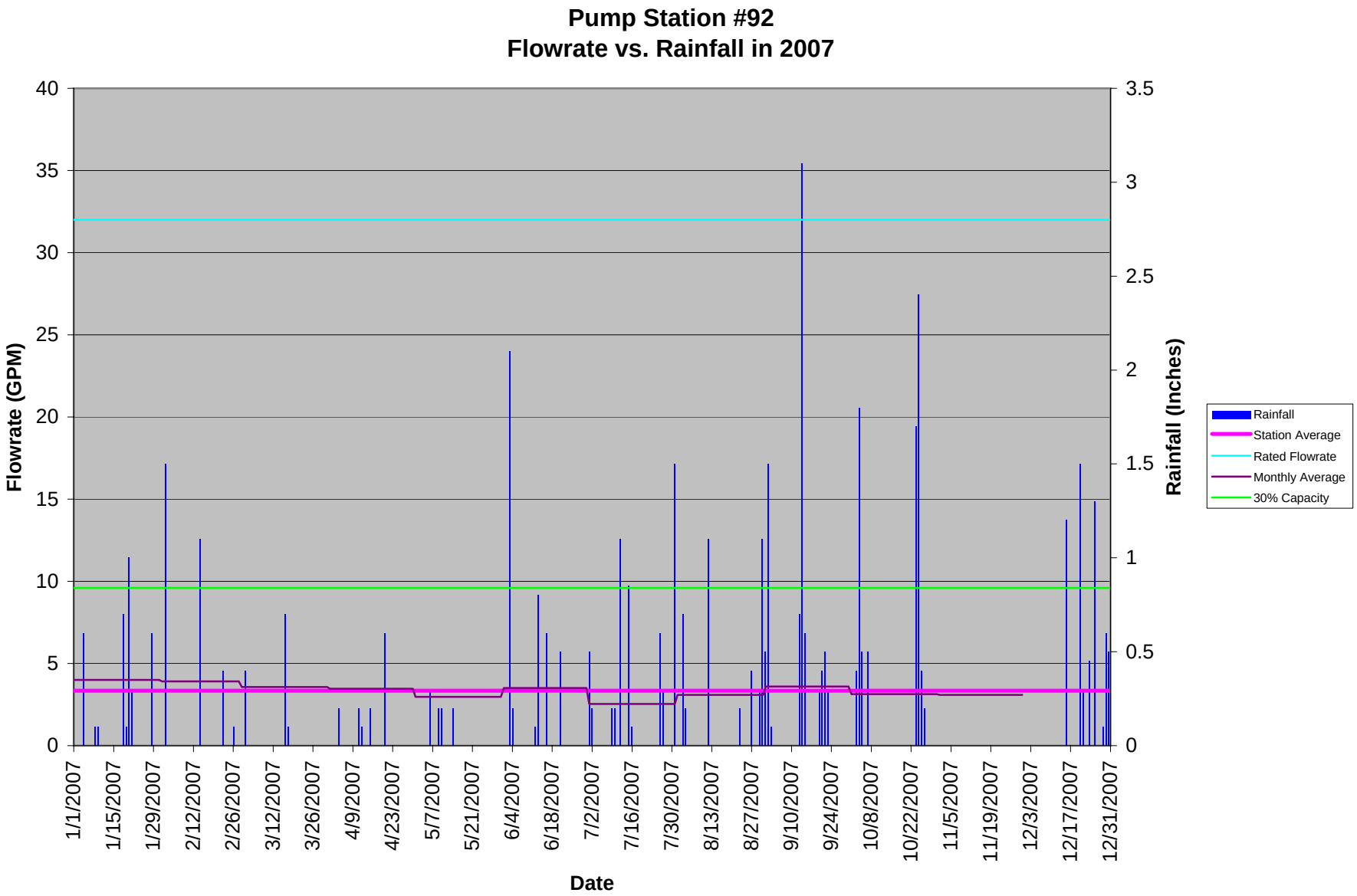

Pump Station #87
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

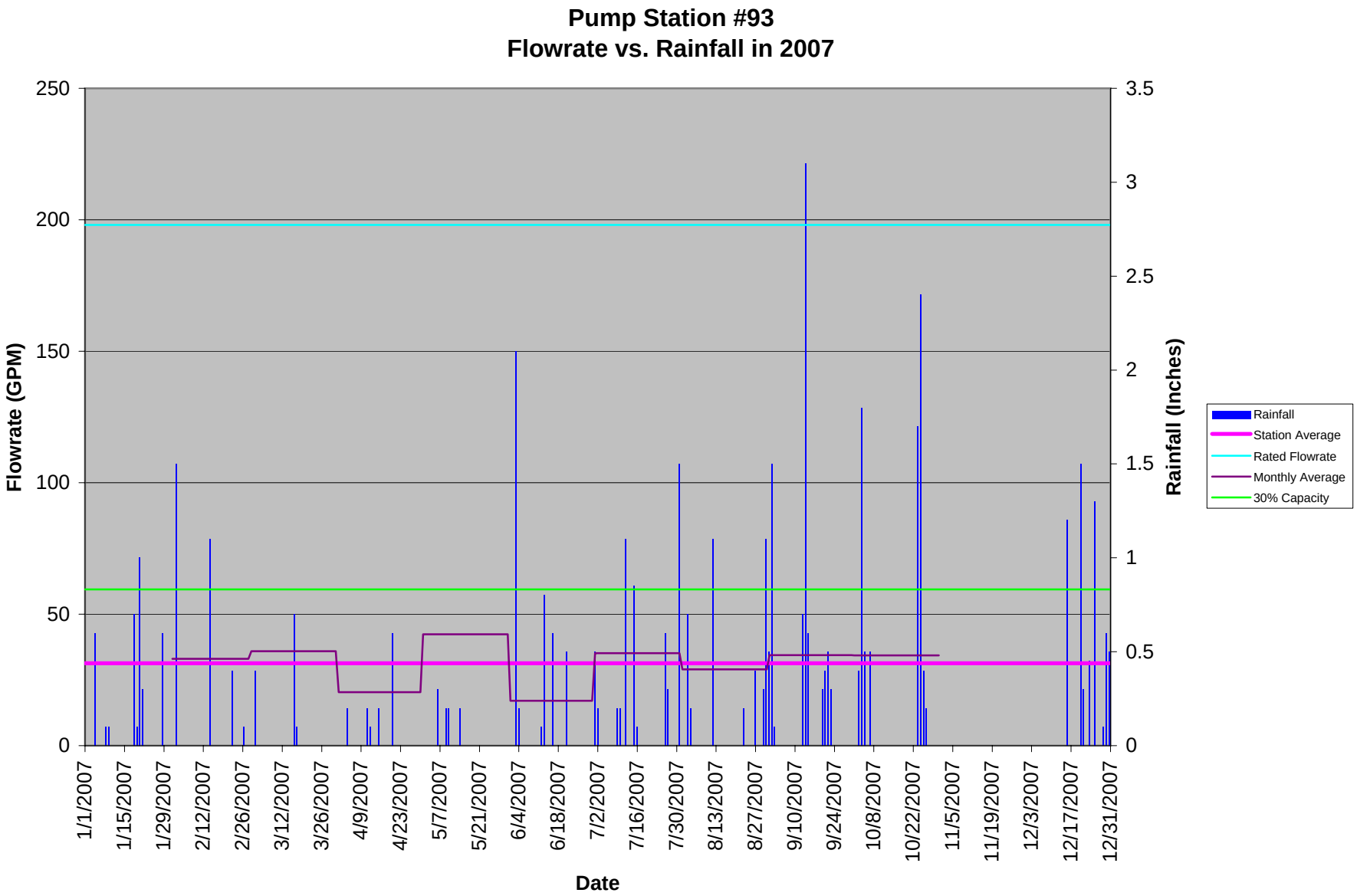

Pump Station #88
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
200
180
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

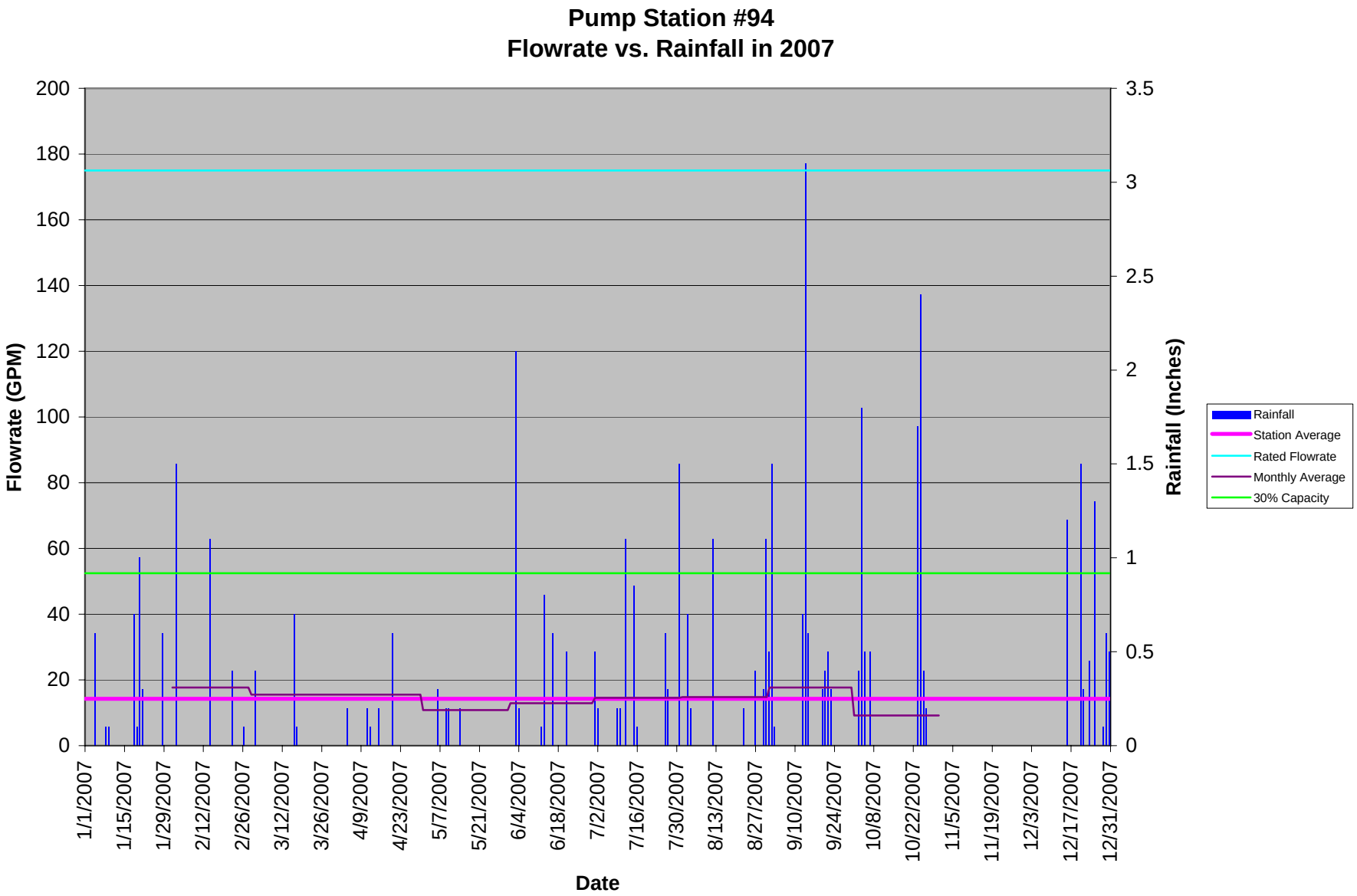

Pump Station #89
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

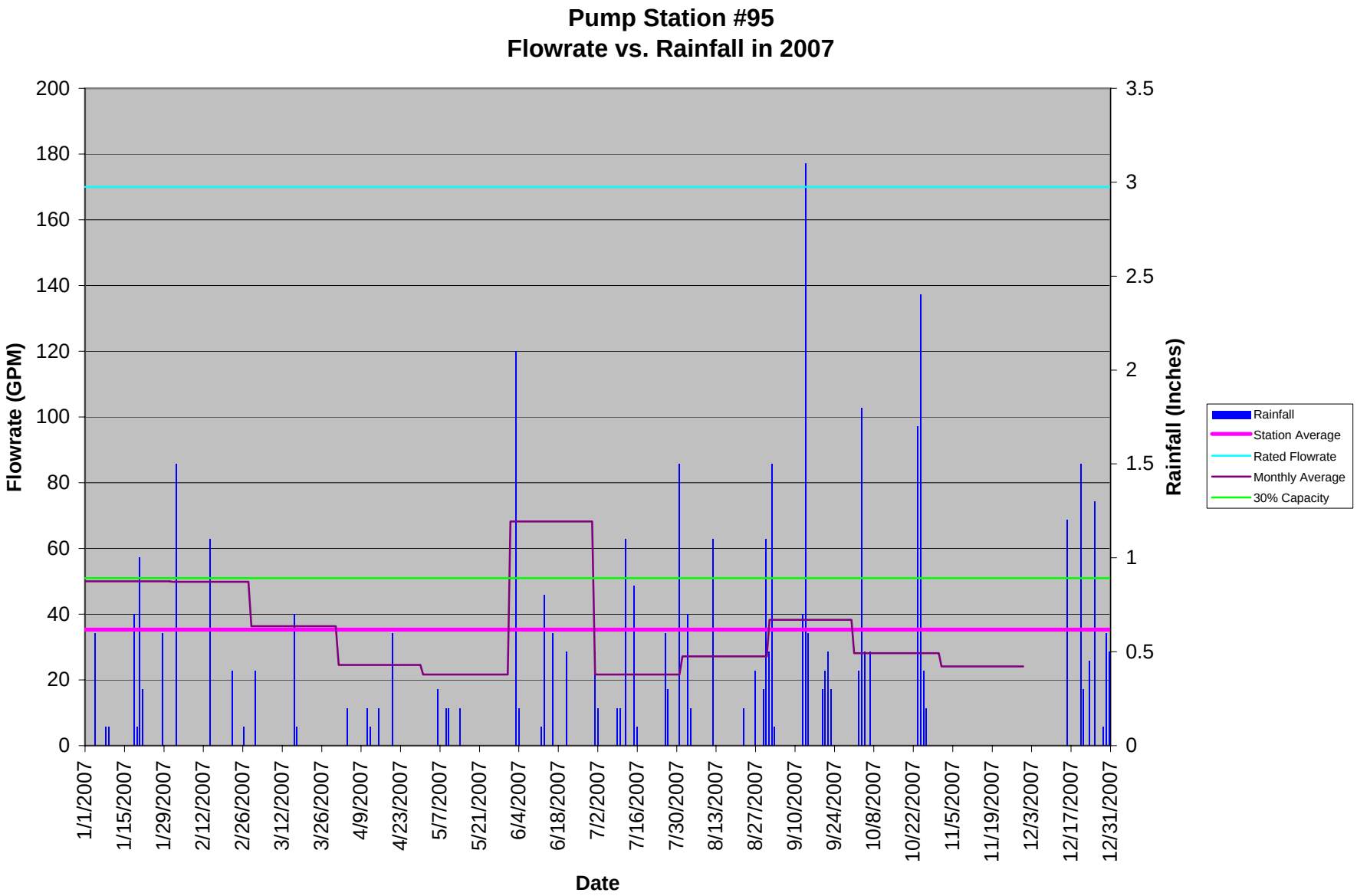

Pump Station #90
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
450
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

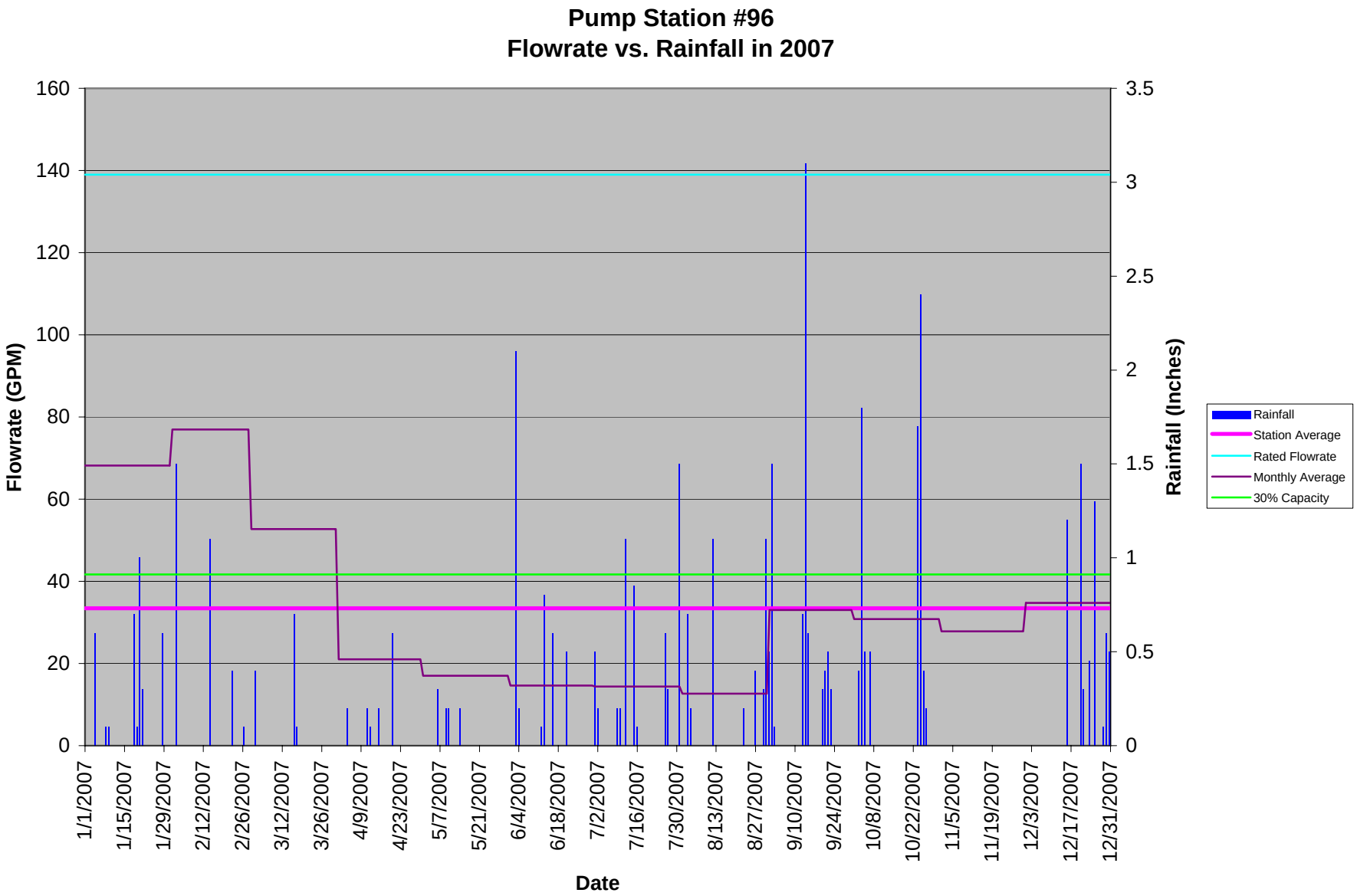

Pump Station #91
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

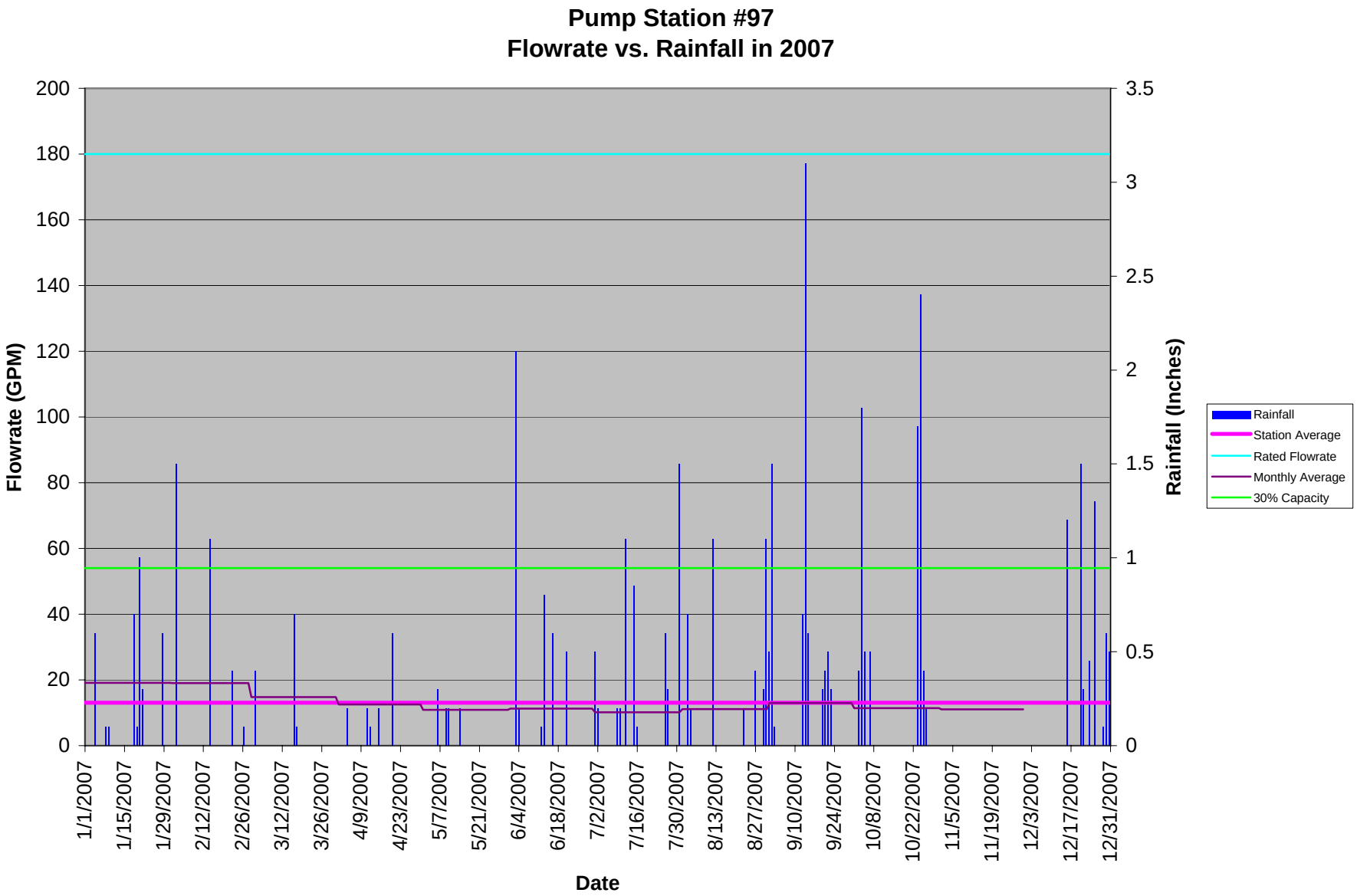

Pump Station #92
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
0
5
10
15
20
25
30
35
40
0
0.5
1
1.5
2
2.5
3
3.5
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

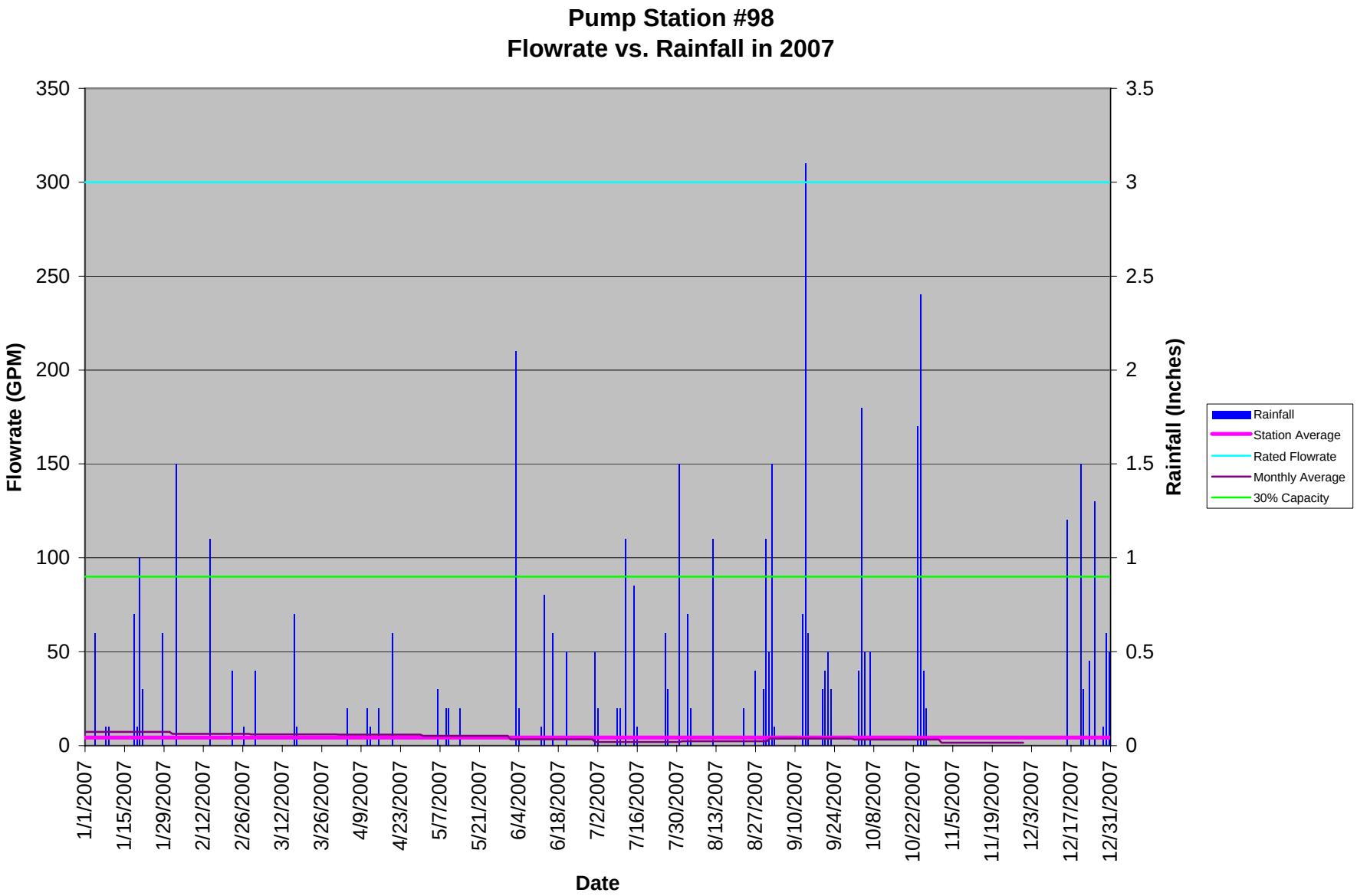

Pump Station #93
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

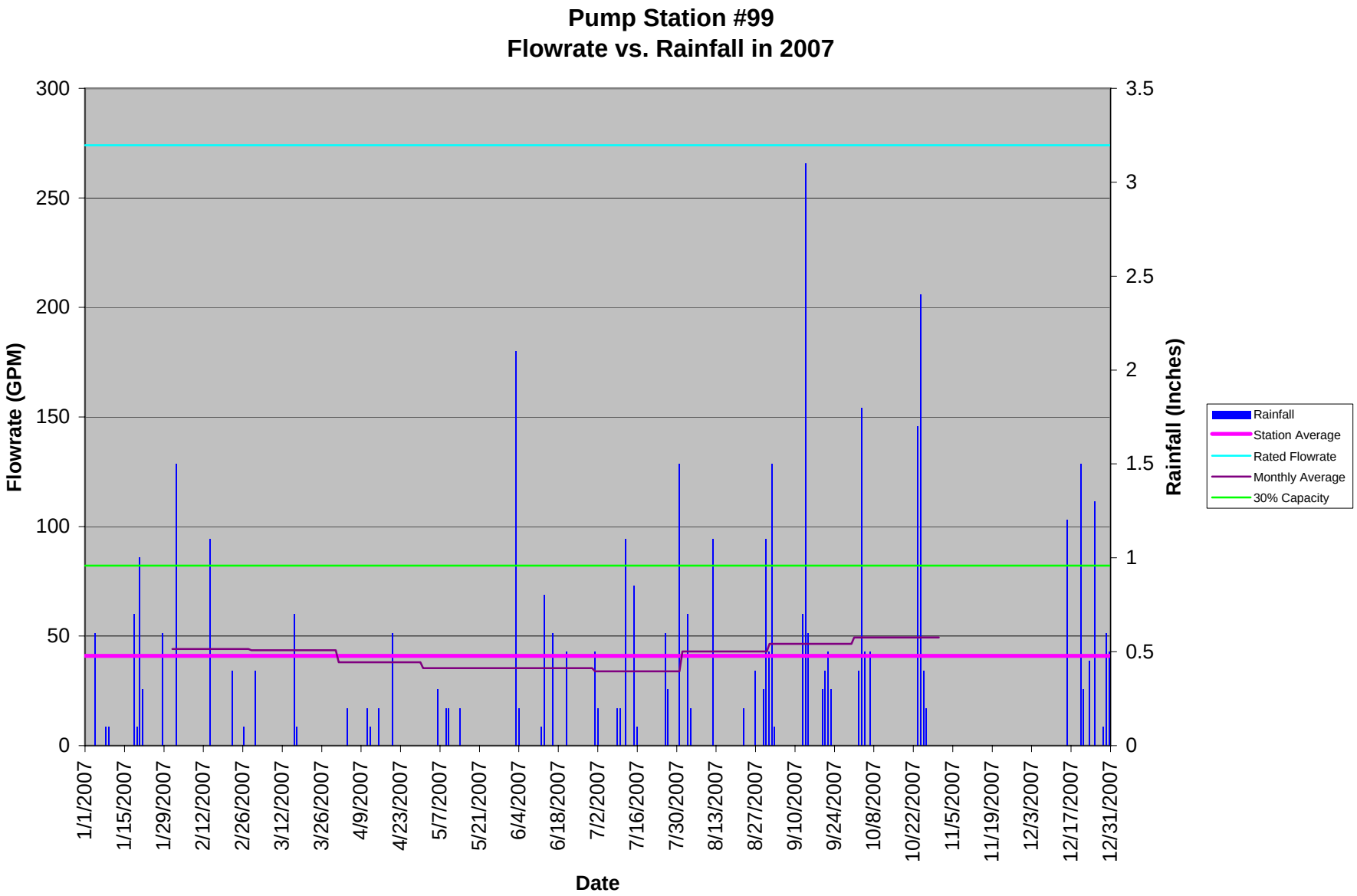

Pump Station #94
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
200
180
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

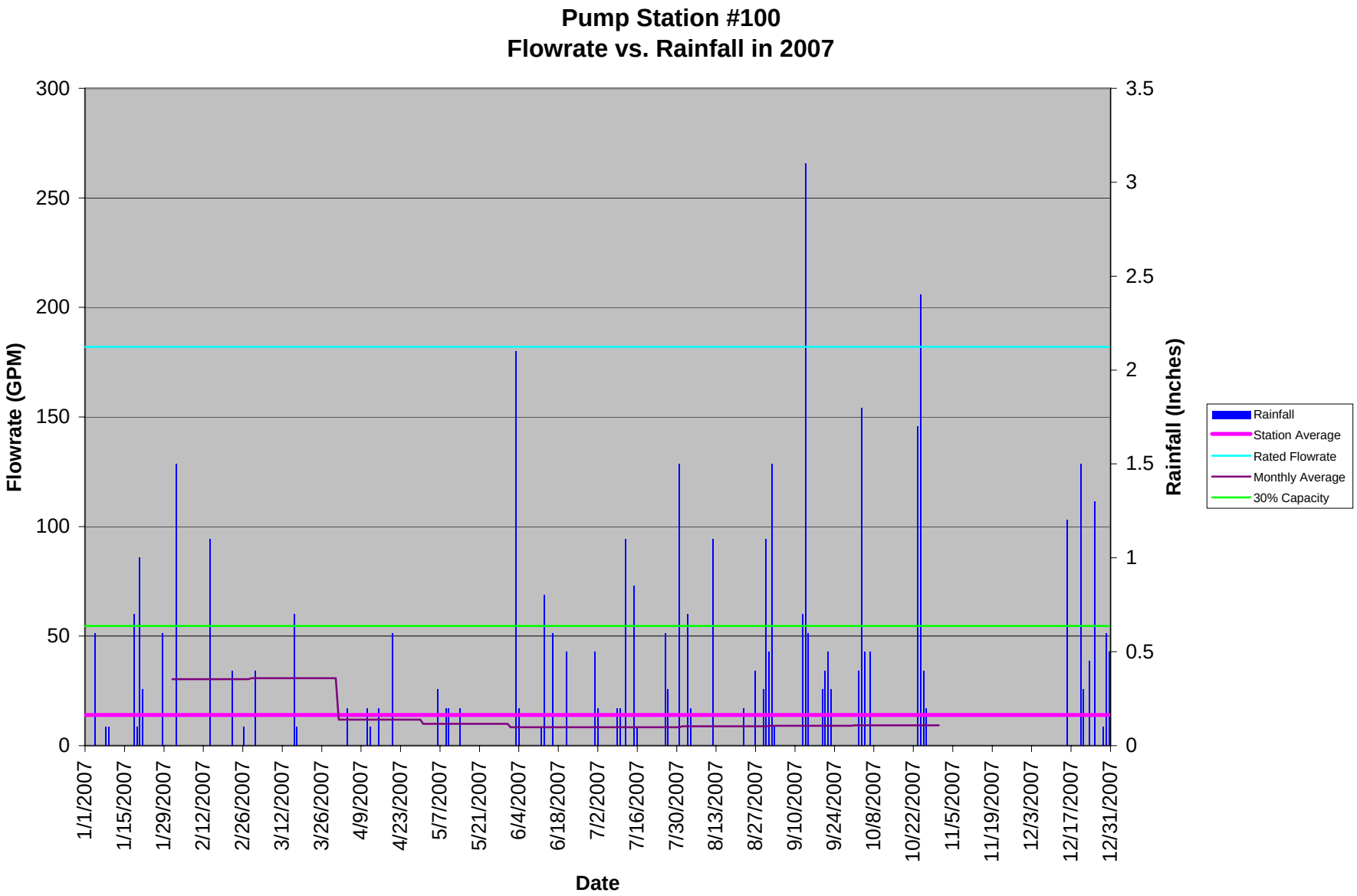

Pump Station #95
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
200
180
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

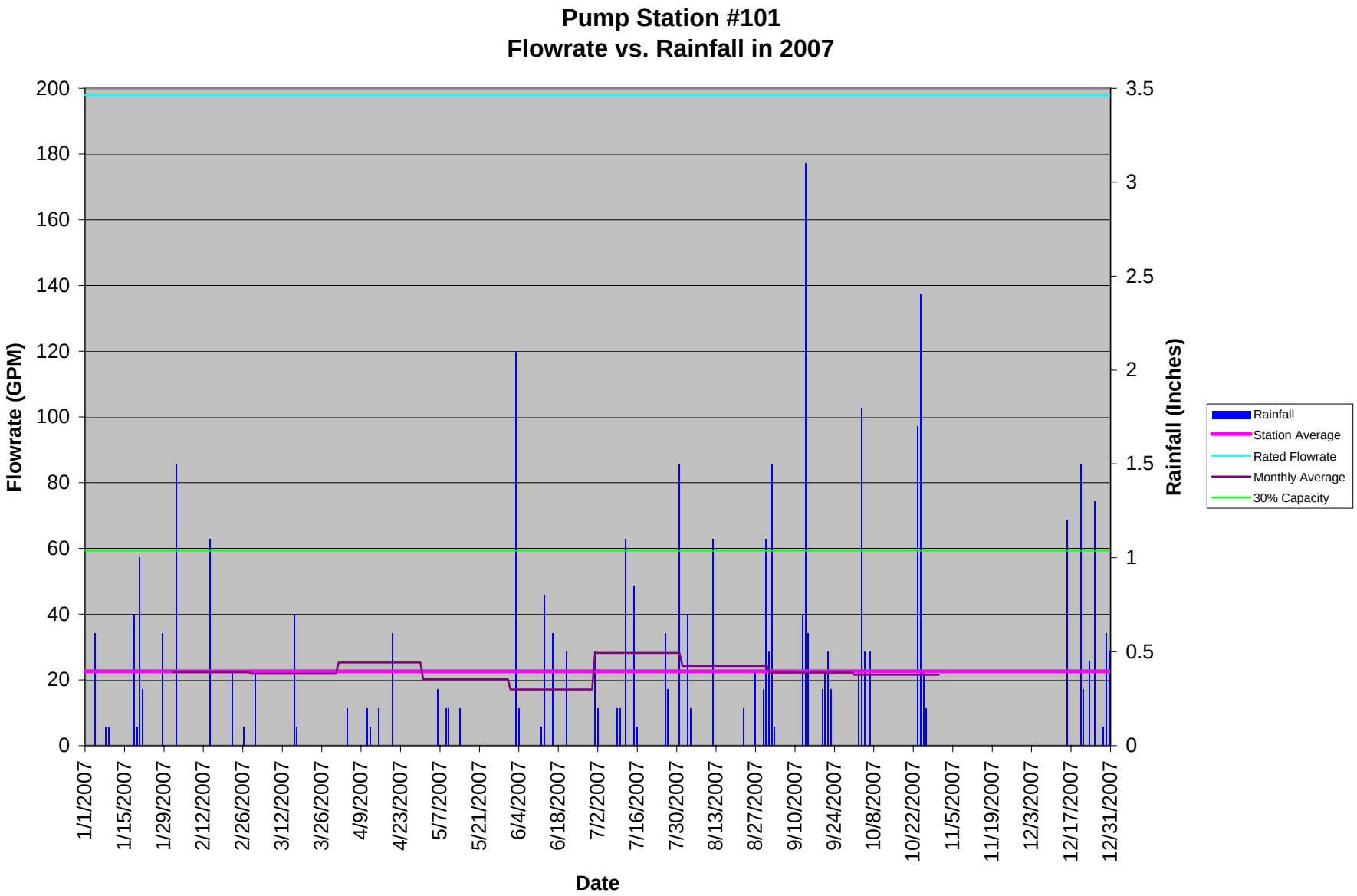

Pump Station #96
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

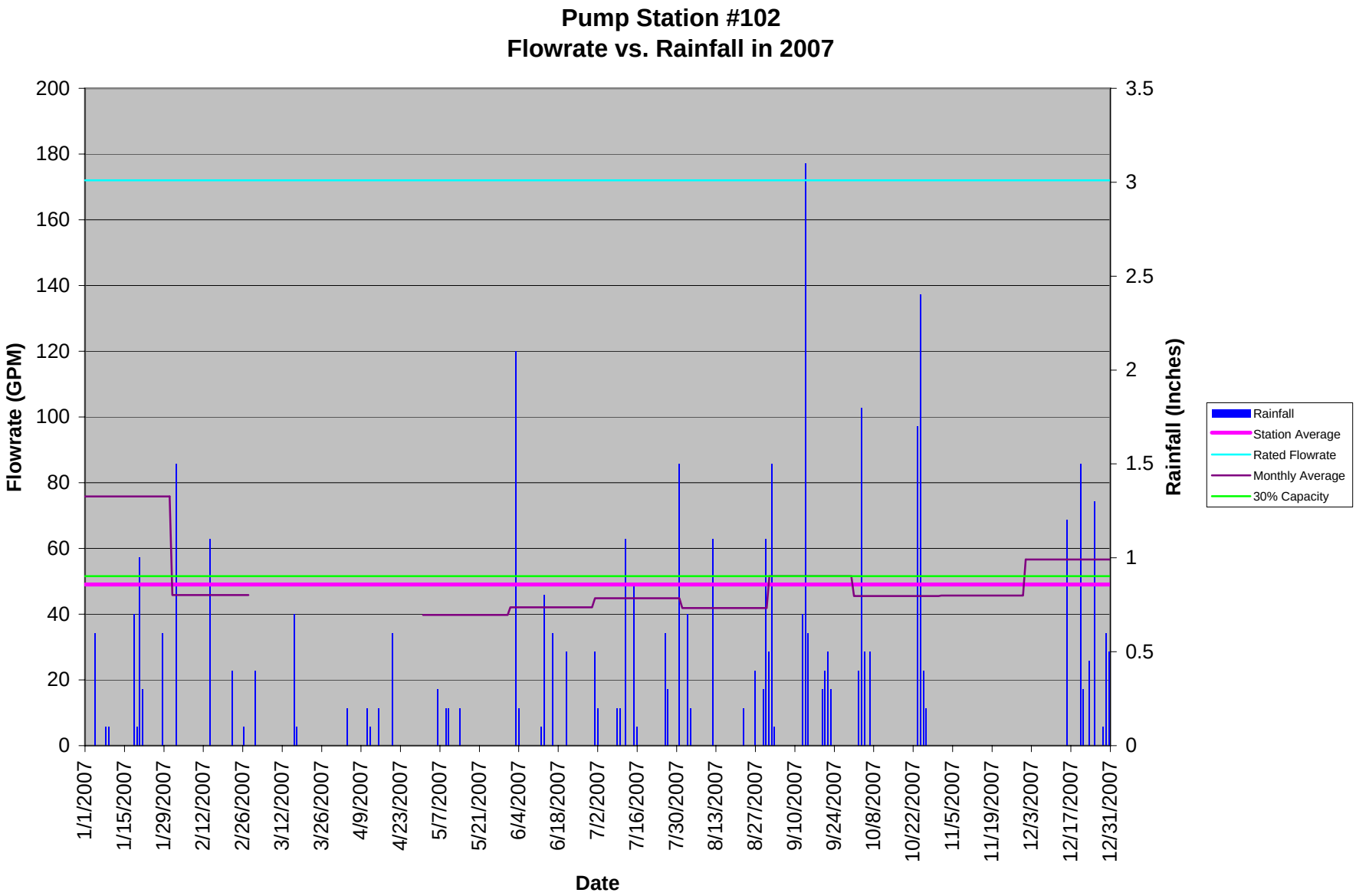

Pump Station #97
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
200
180
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

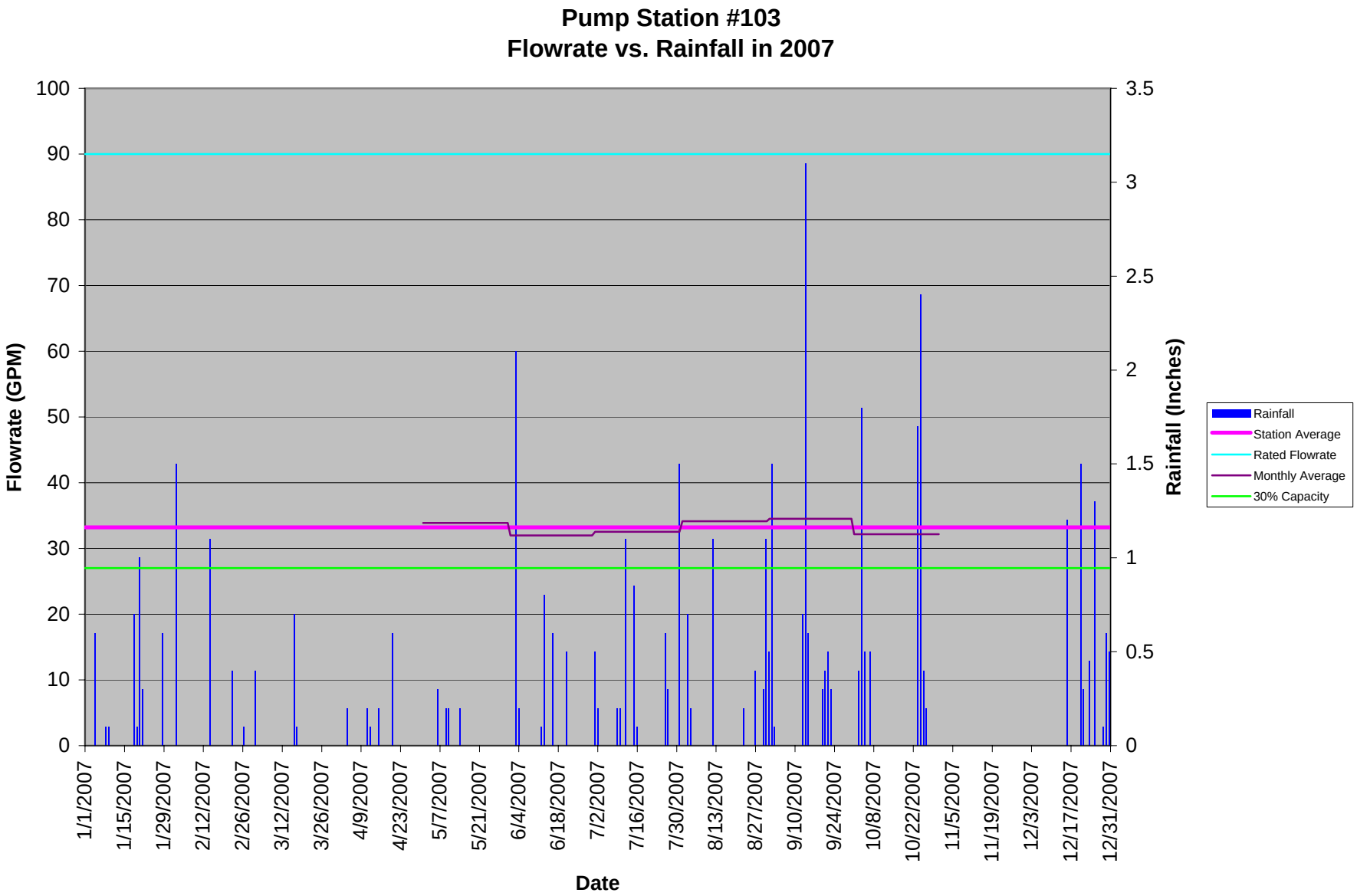

Pump Station #98
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

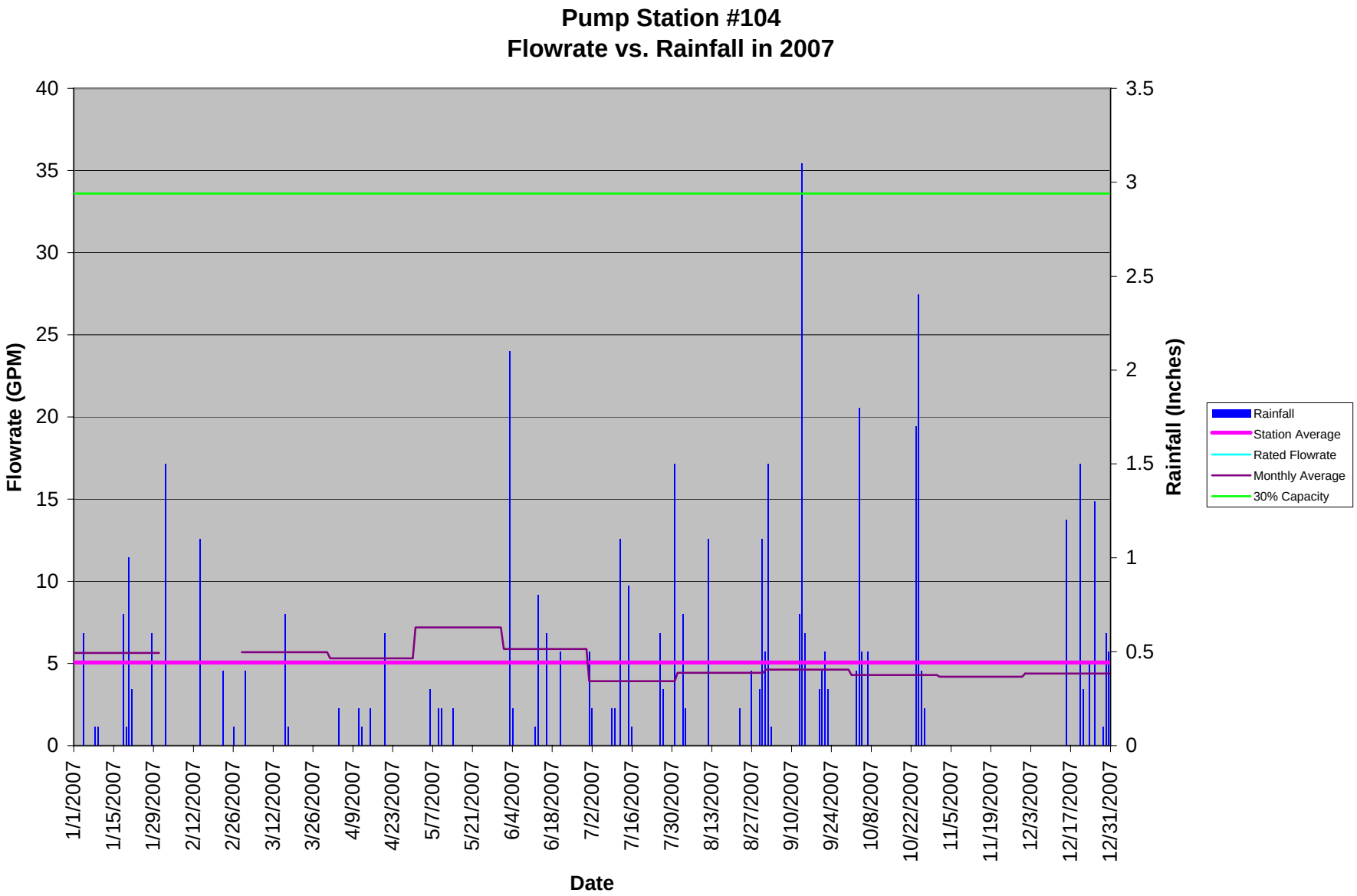

Pump Station #99
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

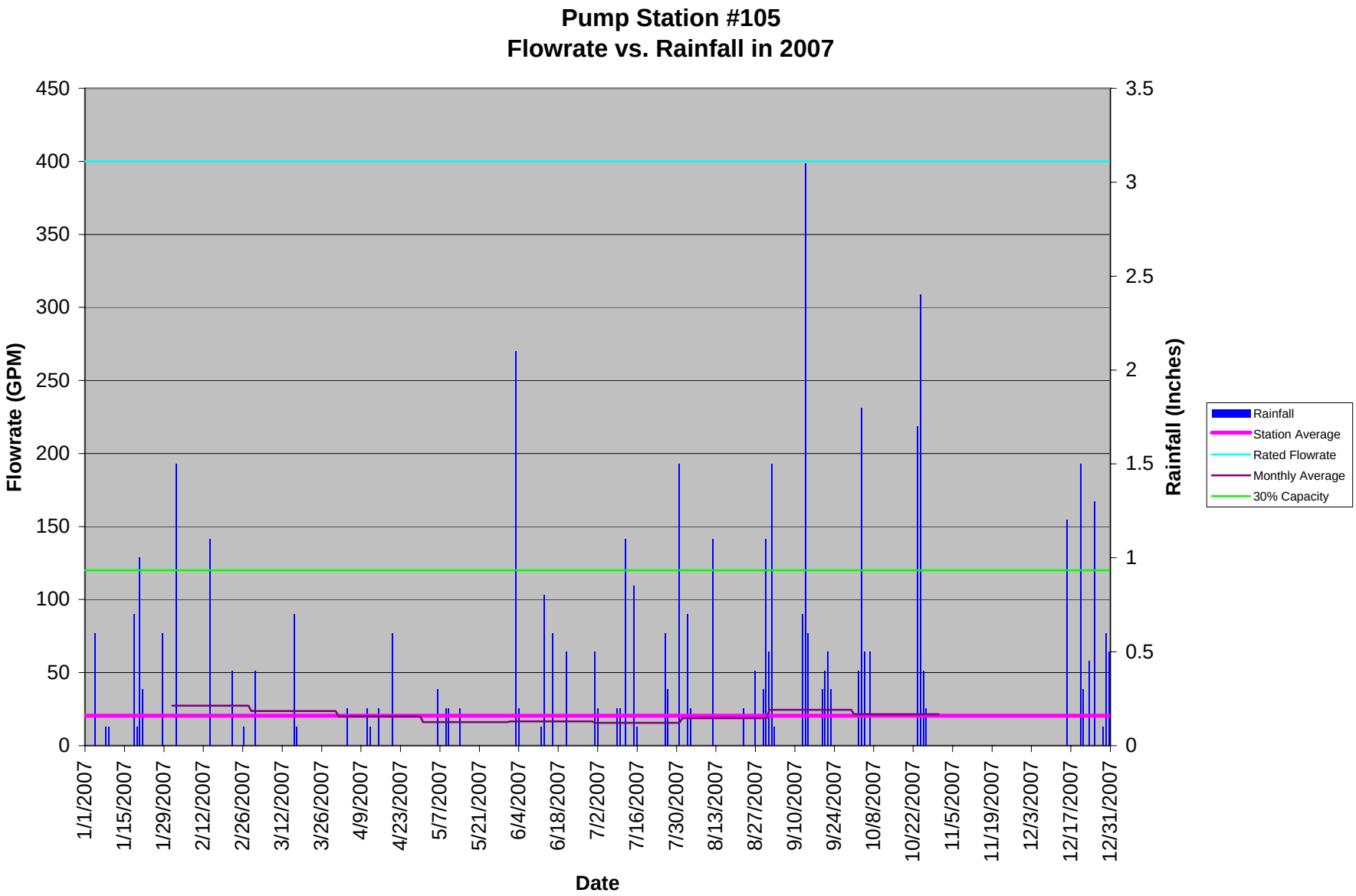

Pump Station #100
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

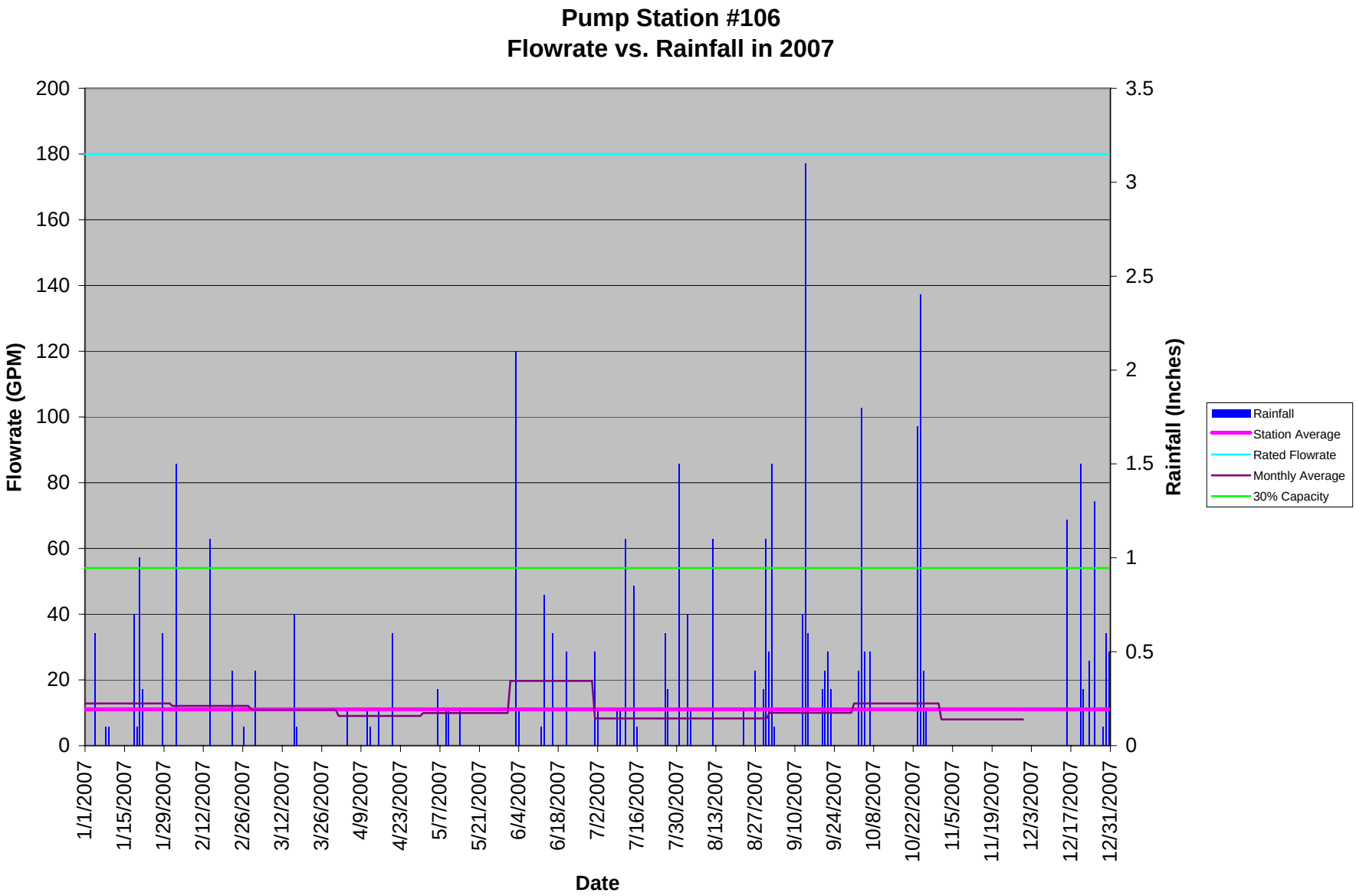

Pump Station #101
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
200
180
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

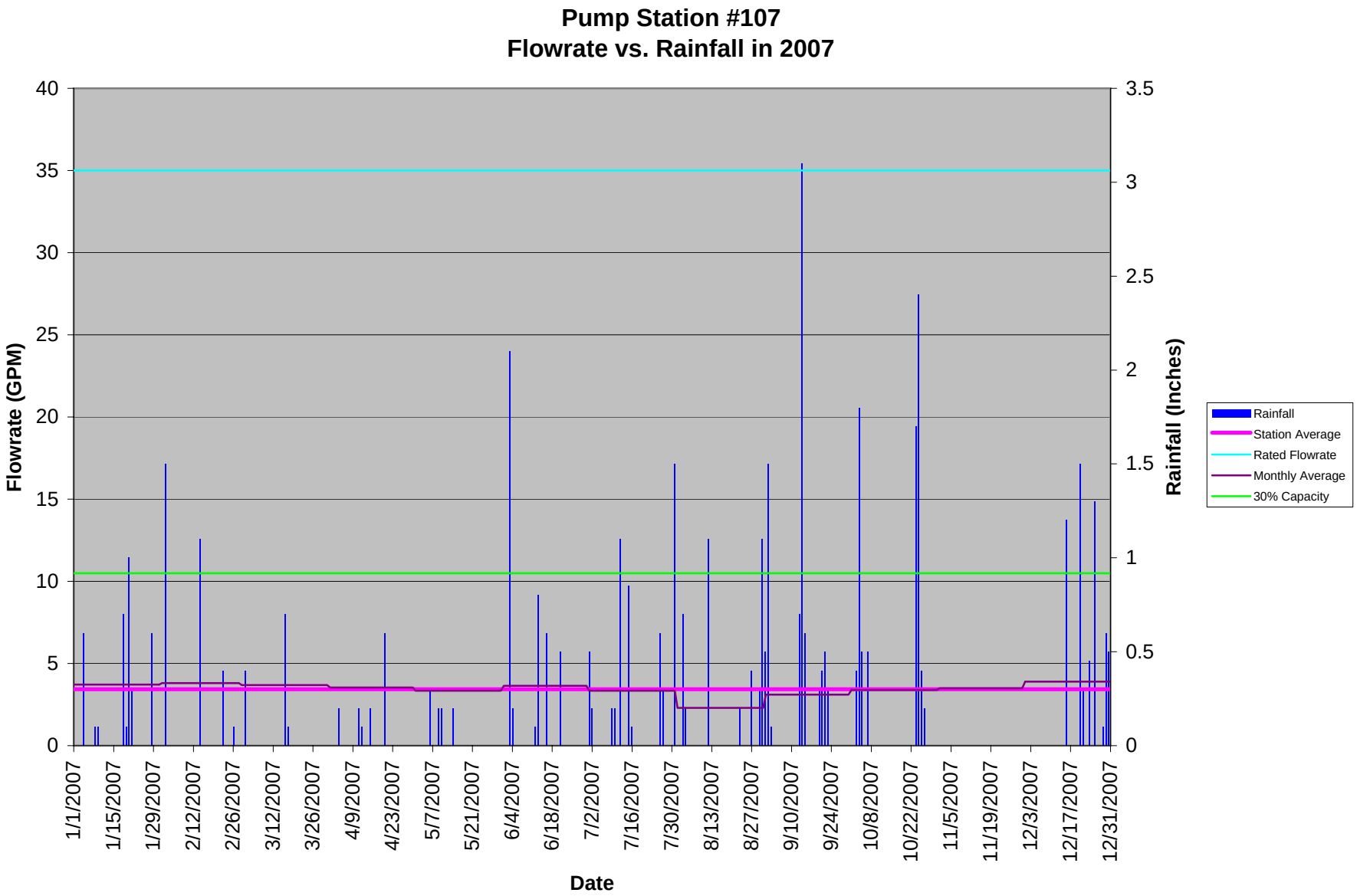

Pump Station #102
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
200
180
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity


Pump Station #103
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
100
90
80
70
60
50
40
30
20
10
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

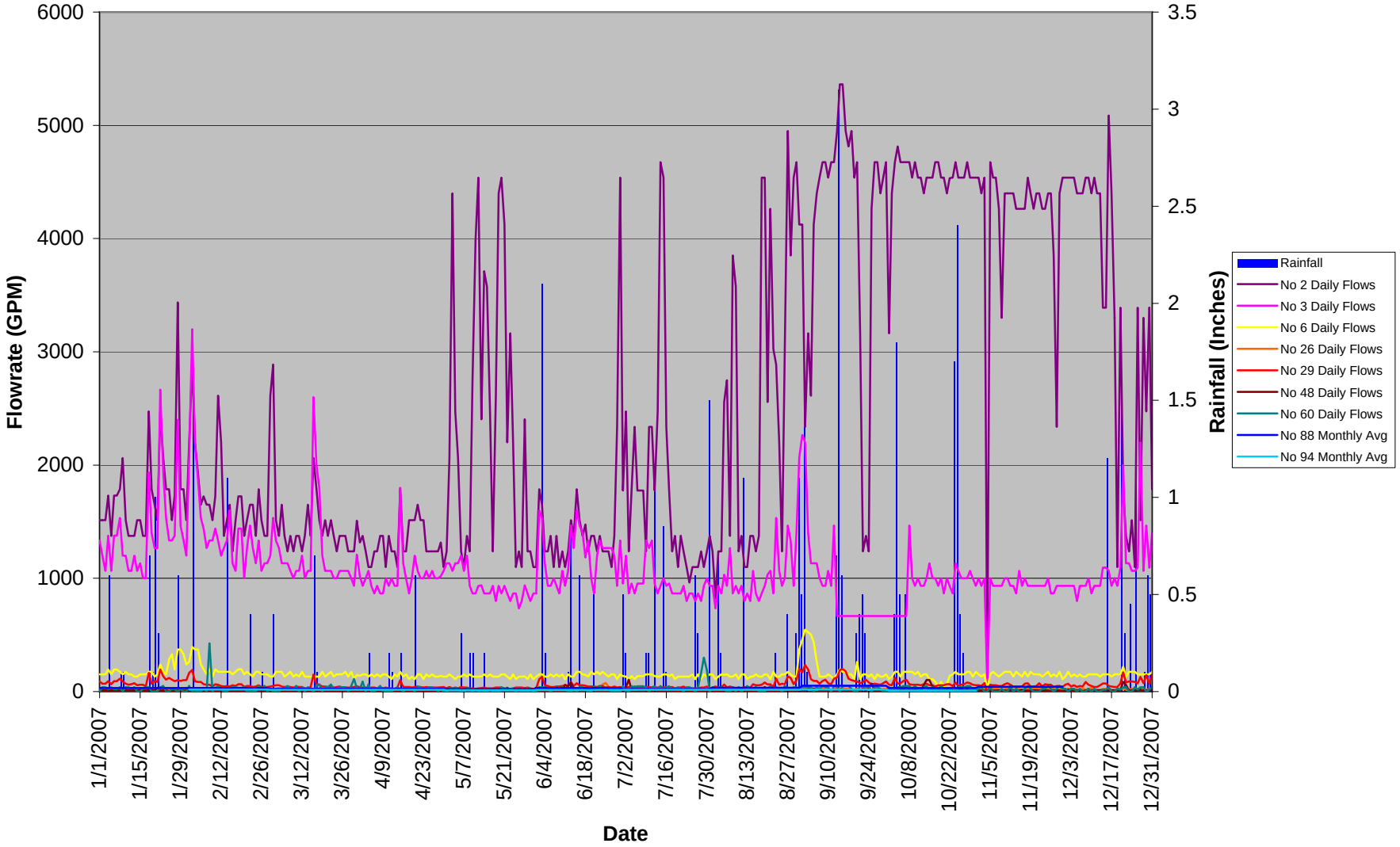

Pump Station #104
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
0
5
10
15
20
25
30
35
40
0
0.5
1
1.5
2
2.5
3
3.5
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

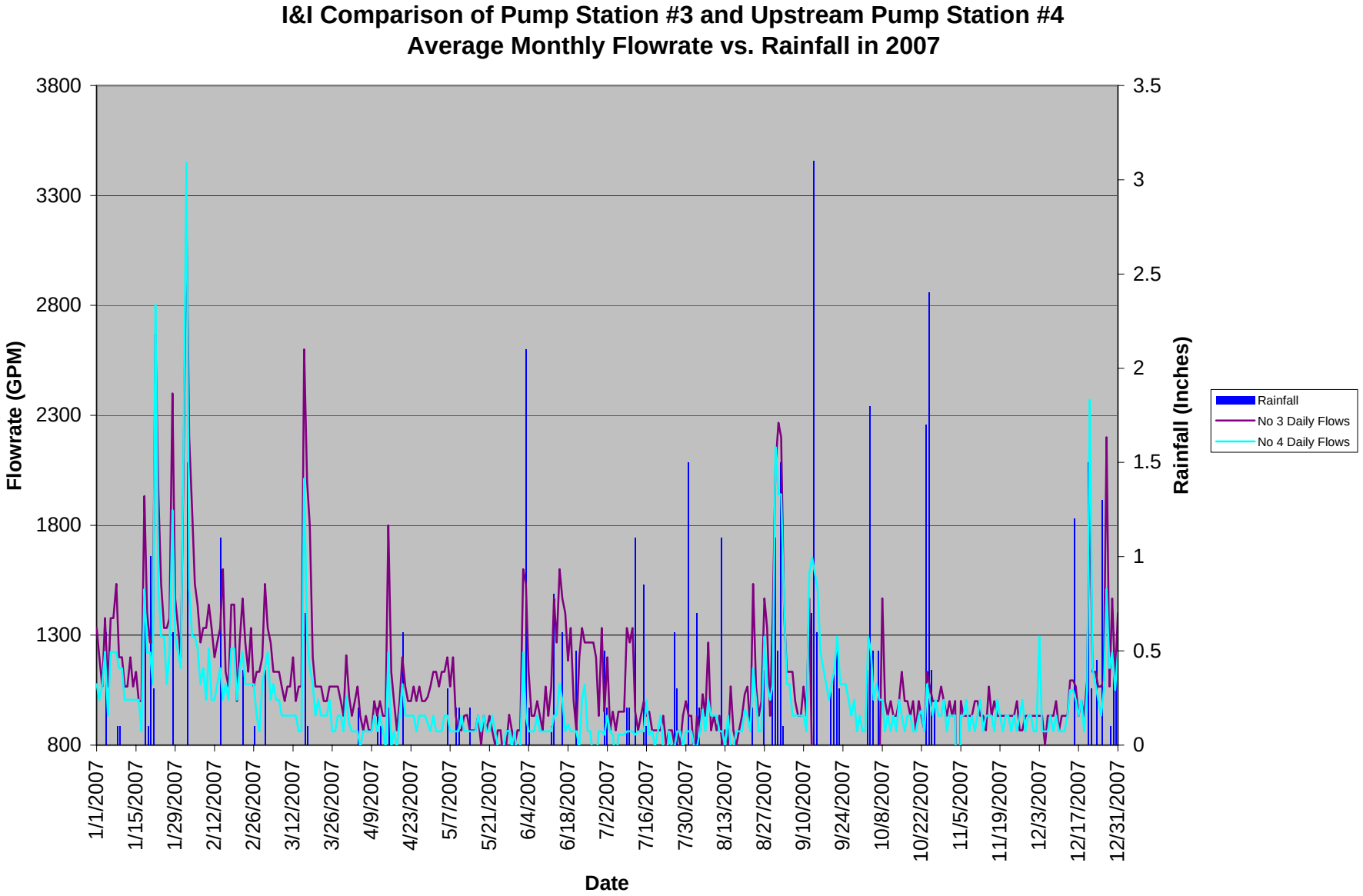

Pump Station #105
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
450
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity


Pump Station #106
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
200
180
160
140
120
100
80
60
40
20
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

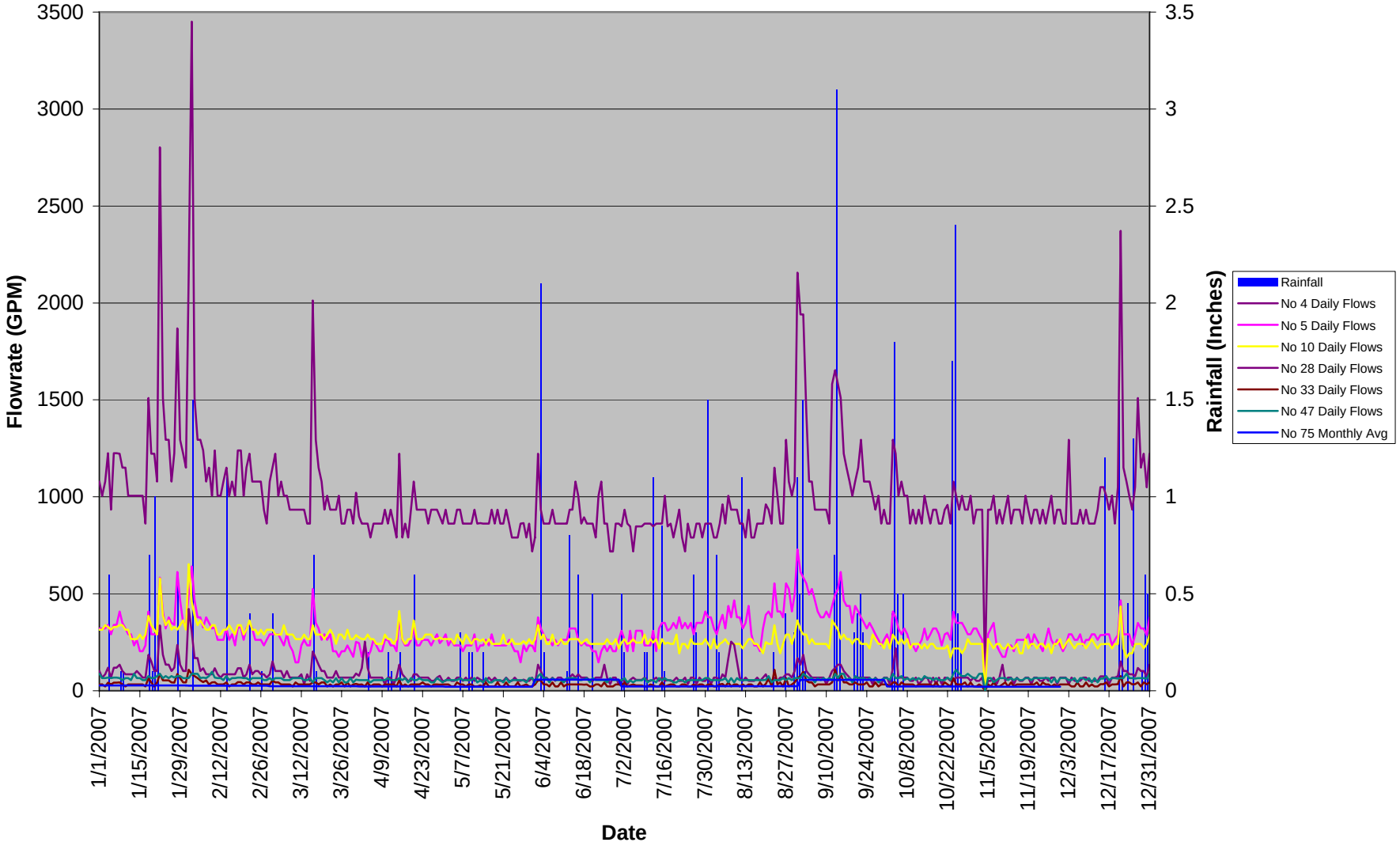

Pump Station #107
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
0
5
10
15
20
25
30
35
40
0
0.5
1
1.5
2
2.5
3
3.5
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
Station Average
Rated Flowrate
Monthly Average
30% Capacity

I&I Comparison of Pump Station #2 and Upstream Pump Stations
Flowrate vs. Rainfall in 2007

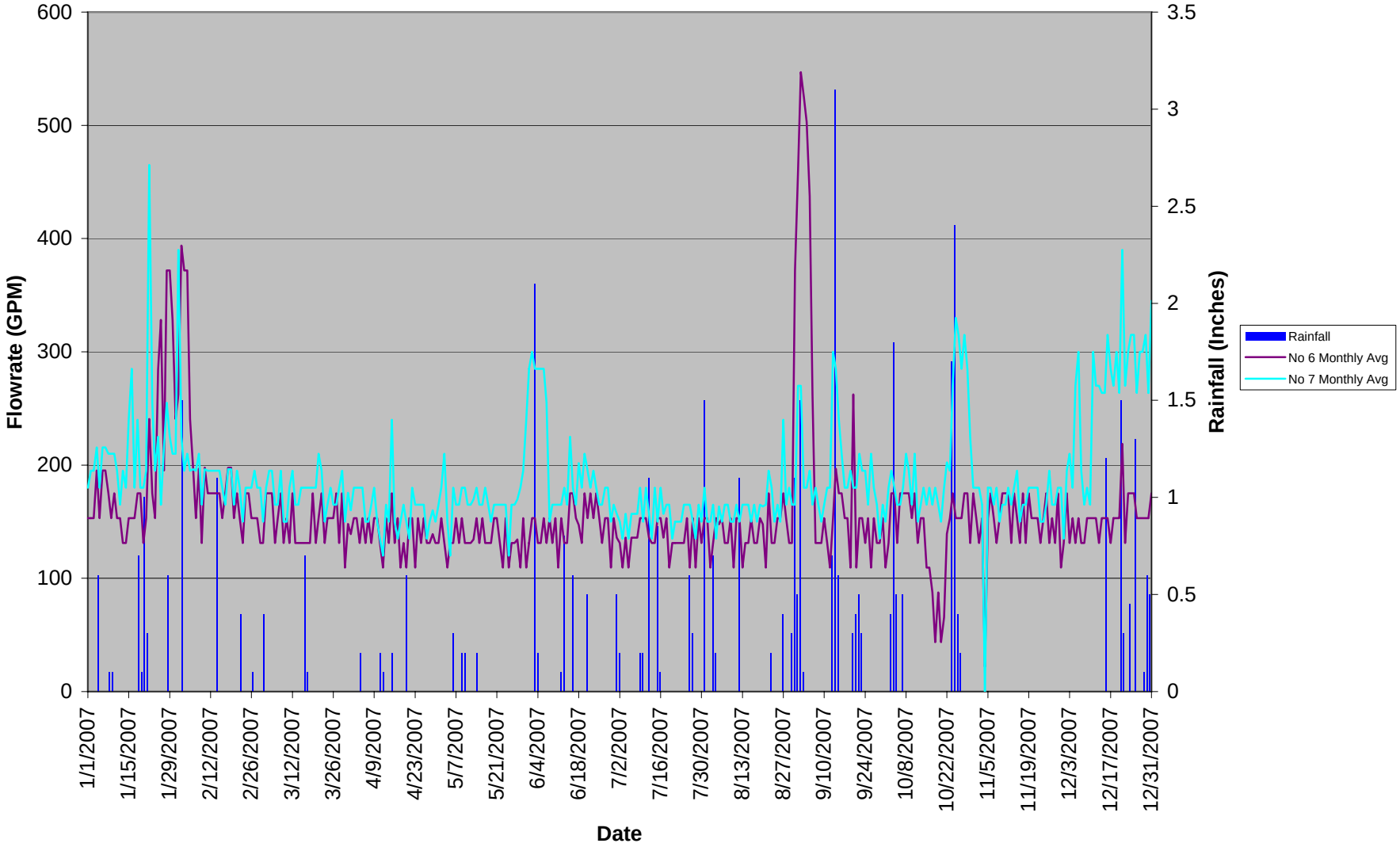


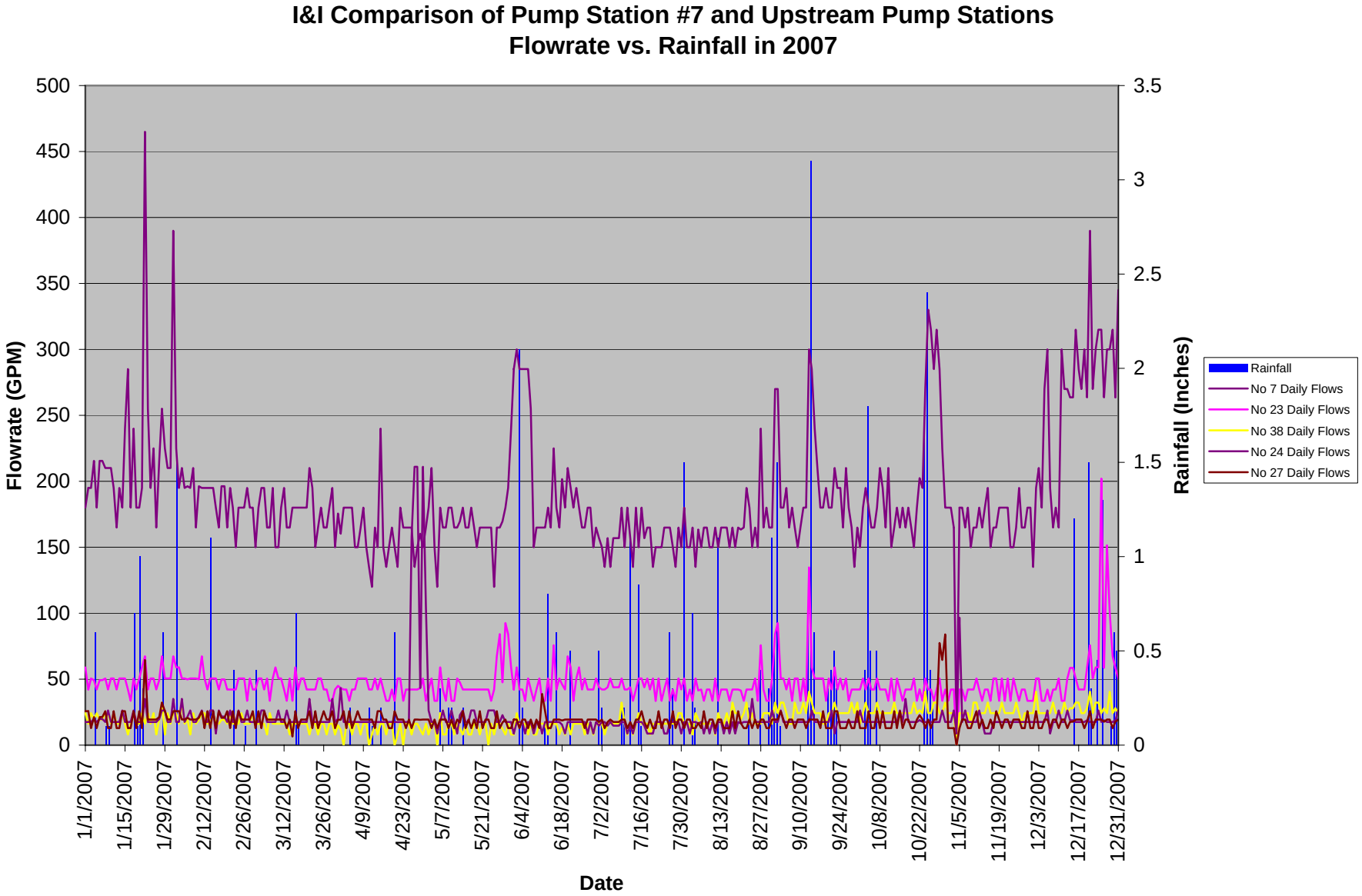

I&I Comparison of Pump Station #3 and Upstream Pump Station #4
Average Monthly Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
3800
3300
2800
2300
1800
1300
800
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
No 3 Daily Flows
No 4 Daily Flows

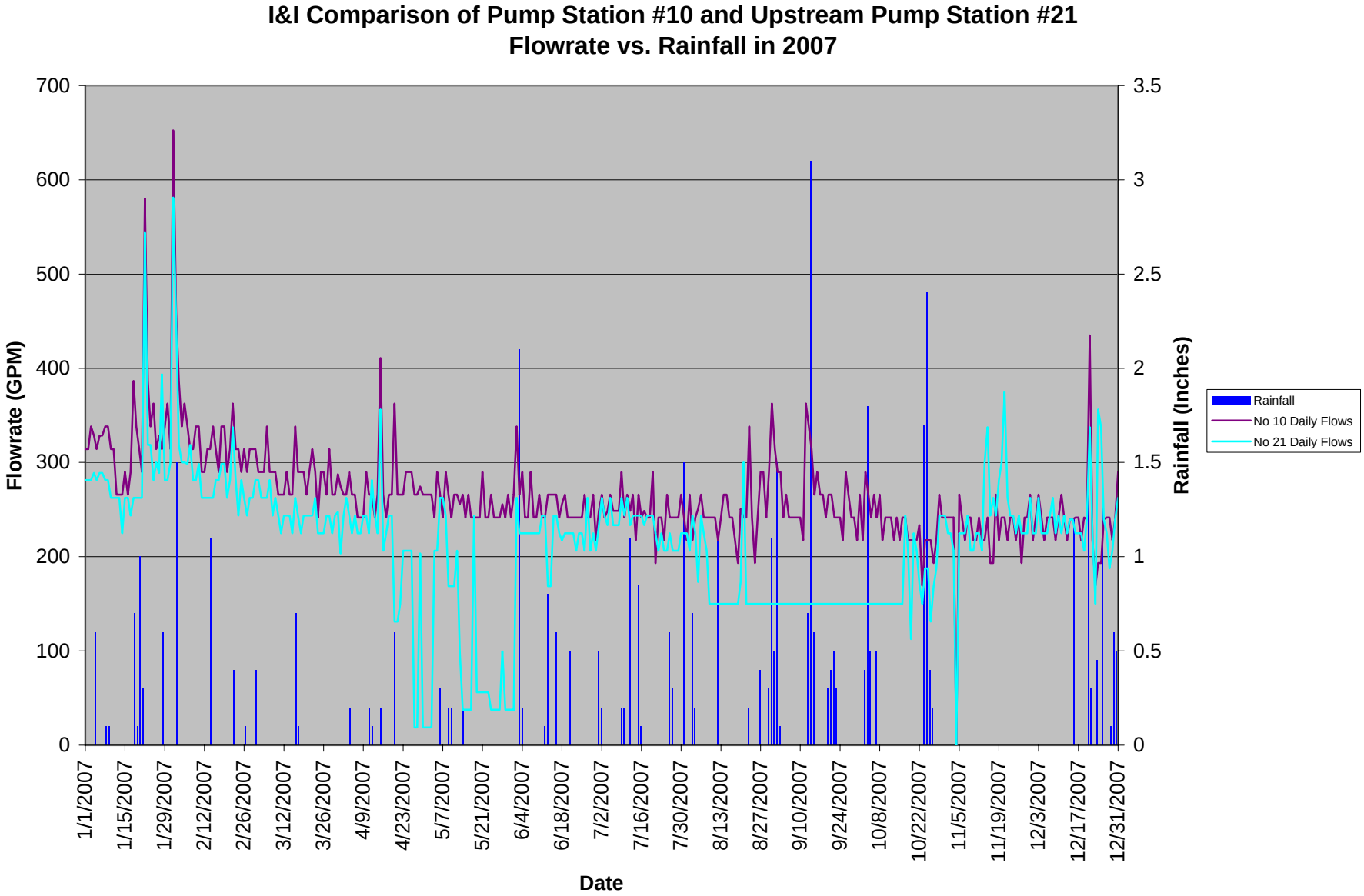
I&I Comparison of Pump Station #4 and Upstream Pump Stations
Flowrate vs. Rainfall in 2007

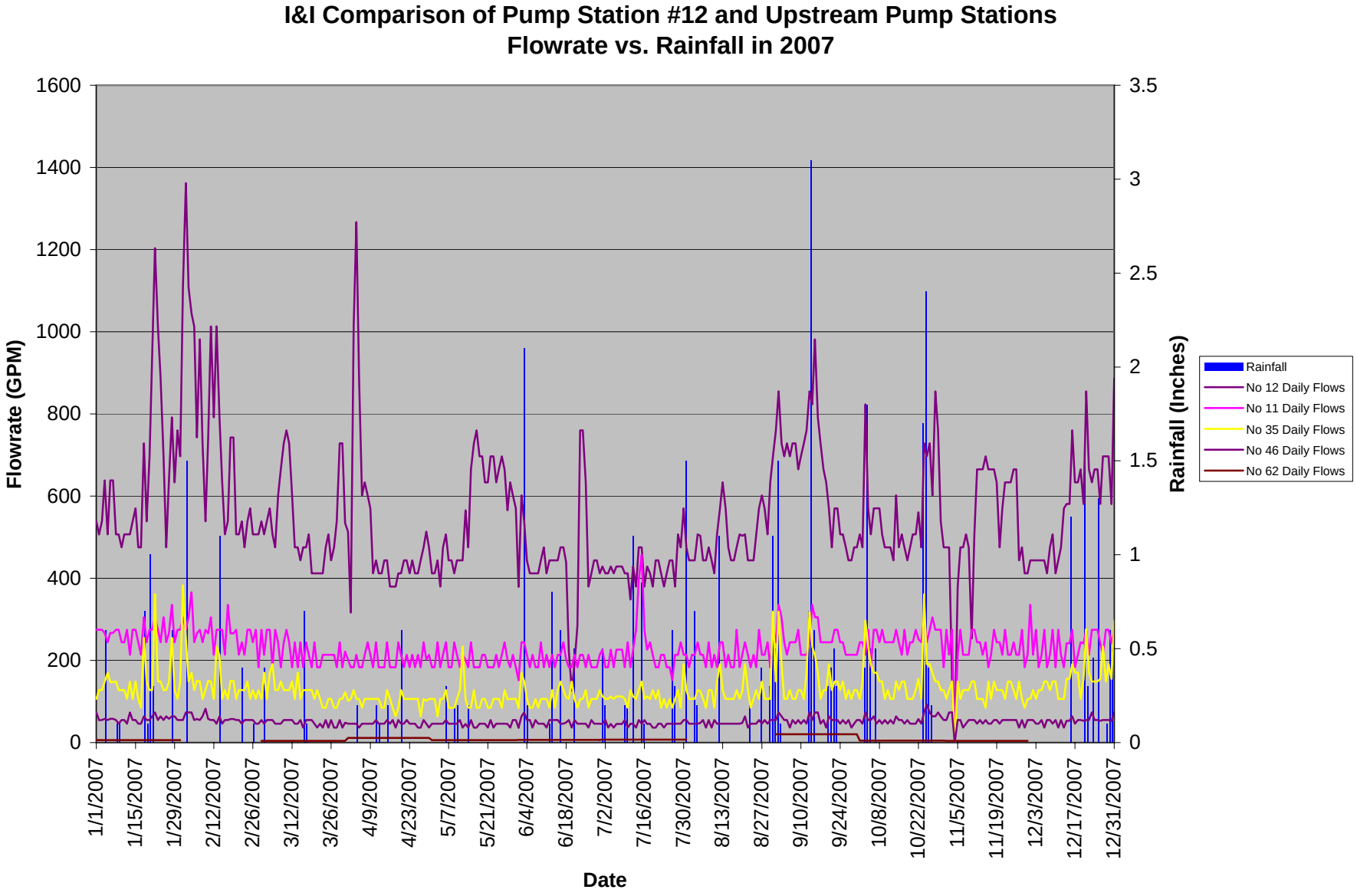


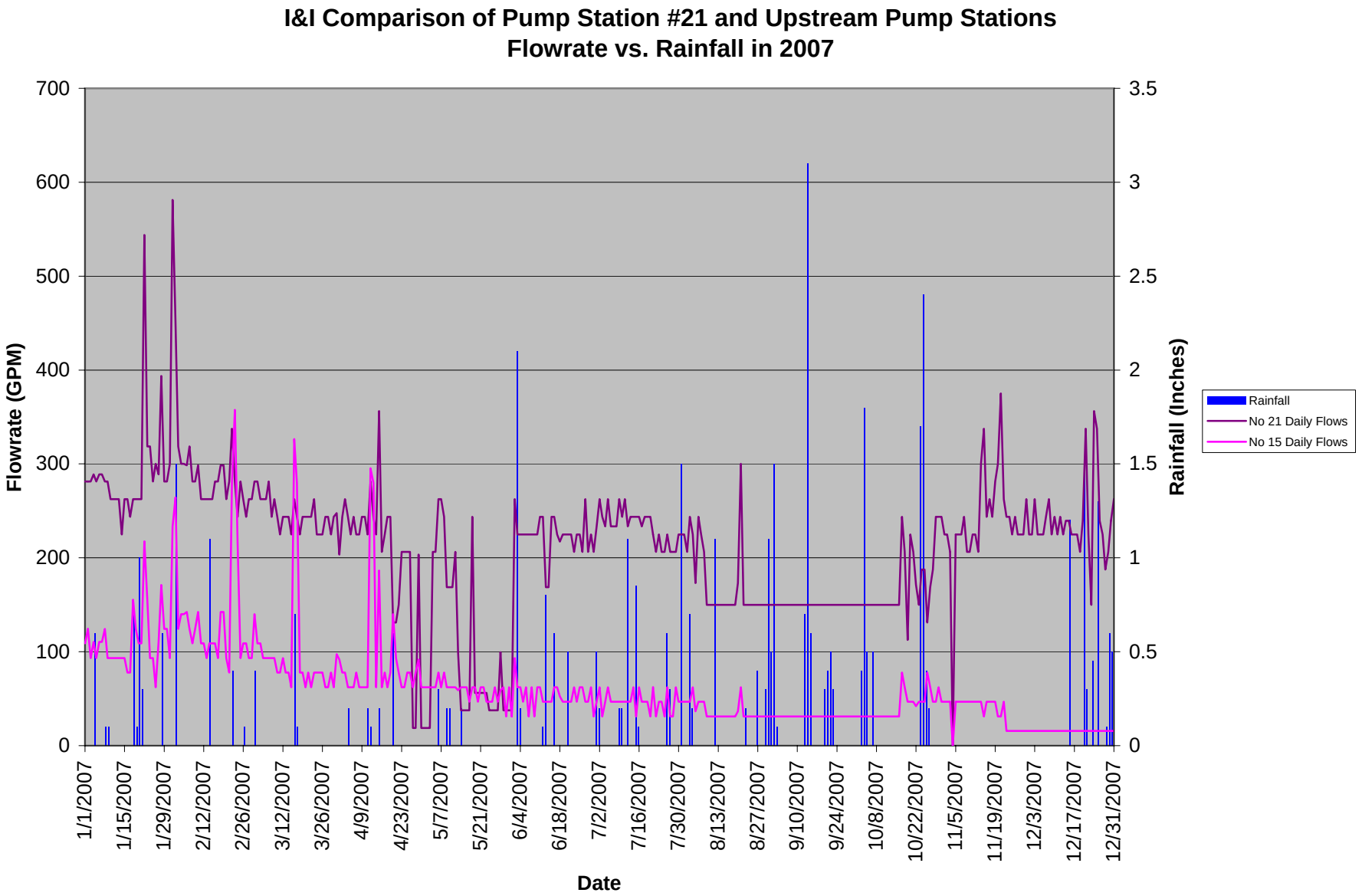
I&I Comparison of Pump Station #6 and Upstream Pump Station #7
Flowrate vs. Rainfall in 2007

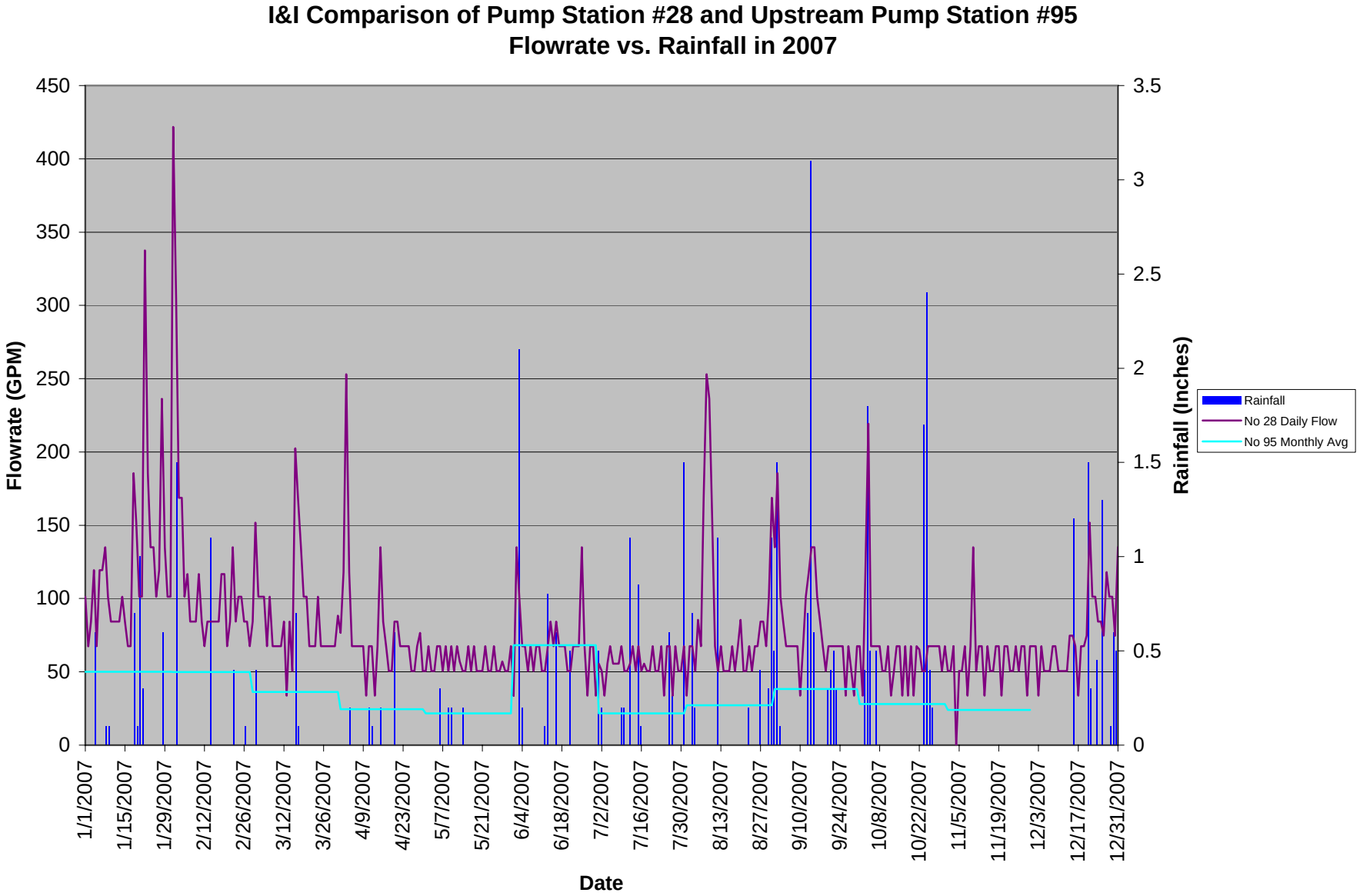


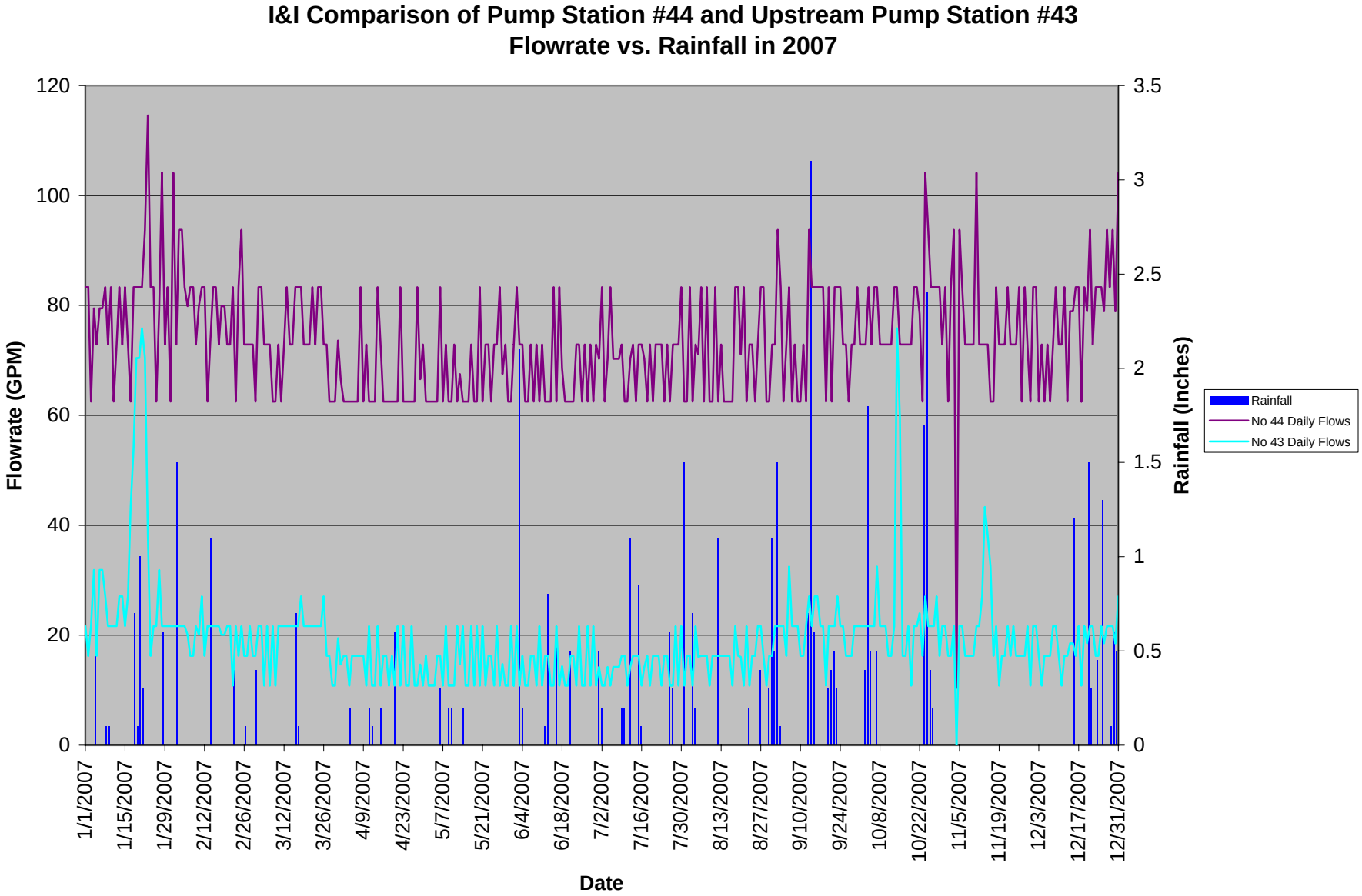

I&I Comparison of Pump Station #7 and Upstream Pump Stations
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
500
450
400
350
300
250
200
150
100
50
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
No 7 Daily Flows
No 23 Daily Flows
No 38 Daily Flows
No 24 Daily Flows
No 27 Daily Flows

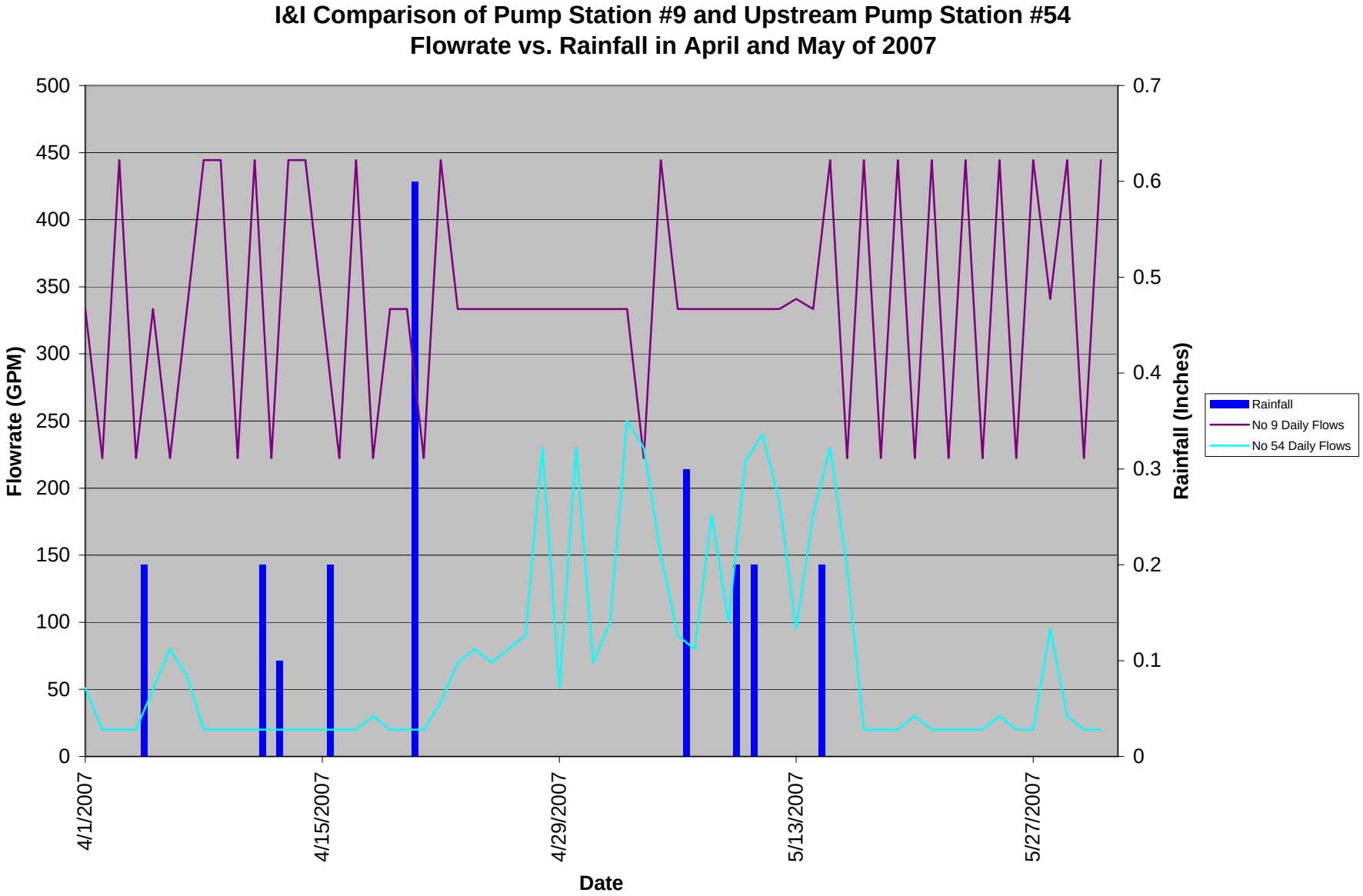

I&I Comparison of Pump Station #10 and Upstream Pump Station #21
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
Rainfall
No 10 Daily Flows
No 21 Daily Flows
700
600
500
400
300
200
100
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007


I&I Comparison of Pump Station #12 and Upstream Pump Stations
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
1600
1400
1200
1000
800
600
400
200
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007
Rainfall
No 12 Daily Flows
No 11 Daily Flows
No 35 Daily Flows
No 46 Daily Flows
No 62 Daily Flows


I&I Comparison of Pump Station #21 and Upstream Pump Stations
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
Rainfall
No 21 Daily Flows
No 15 Daily Flows
700
600
500
400
300
200
100
0
3.5
3
2.5
2
1.5
1
0.5
0
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007


I&I Comparison of Pump Station #28 and Upstream Pump Station #95
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
Rainfall
No 28 Daily Flow
No 95 Monthly Avg
0
50
100
150
200
250
300
350
400
450
0
0.5
1
1.5
2
2.5
3
3.5
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007


I&I Comparison of Pump Station #44 and Upstream Pump Station #43
Flowrate vs. Rainfall in 2007
Flowrate (GPM)
Rainfall (Inches)
Date
Rainfall
No 44 Daily Flows
No 43 Daily Flows
0
20
40
60
80
100
120
0
0.5
1
1.5
2
2.5
3
3.5
1/1/2007
1/15/2007
1/29/2007
2/12/2007
2/26/2007
3/12/2007
3/26/2007
4/9/2007
4/23/2007
5/7/2007
5/21/2007
6/4/2007
6/18/2007
7/2/2007
7/16/2007
7/30/2007
8/13/2007
8/27/2007
9/10/2007
9/24/2007
10/8/2007
10/22/2007
11/5/2007
11/19/2007
12/3/2007
12/17/2007
12/31/2007


I&I Comparison of Pump Station #9 and Upstream Pump Station #54
Flowrate vs. Rainfall in April and May of 2007
Flowrate (GPM)
Rainfall (Inches)
Date
500
450
400
350
300
250
200
150
100
50
0
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
4/1/2007
4/15/2007
4/29/2007
5/13/2007
5/27/2007
Rainfall
No 9 Daily Flows
No 54 Daily Flows

PUMP STATION LIST

PUMP STATION LIST

1 Dorchester Rd. at Eagle Creek
2 Bacons Bridge Rd. at Crestwood
3 Cone Lane @ Knightsville Elementary
4 Butternut Rd. & Rumphs Hill, Sweetbriar
5 Hwy. 78 next to Scout Boats
6 Bacons Bridge Rd. at Ashley Forest
7 Sprucewood
8 Southern Palms @ rear of mini-storage
9 Wescott @ 4901Wescott Blvd (prior to clubhouse)
10 Old Orangeburg Rd.@ Ashley Hill S/D
11 Windsor Hill @ end of Bent Creek Dr
12 Dorchester Road @ Health & Racquet
13 Whitehall @ 8608 Larural Grove Lane
14 Pepperidge at Hunters Ridge Rd.
15 Ridgeville @ S. Railroad Ave (Clayhill Side)
16 Archdale @ 8181 Sherbrooke Ln.
17 Tribal Council @ Natchez Kusso & Eagle
18 Tribal Council @ Eagle & Indigo
19 Tribal Council @ Ridge Road (S-18-19)
20 Woodlands High School
21 Francis Leiber Prison
22 Wilco @ US 178
23 Legend Oaks @ Out of Bounds Dr
24 Beech Hill Elementary School
25 Brownsville @ W. Luke St
26 Walnut Farms @ Rolling Meadows Dr
27 Legend Oaks (Pointe of Oaks Drive)
28 Pinehill Acres on Schoonover Dr.
29 Sunburst Lakes Moon Dancer Lane
30 The Farm at Wescott
31 The Village on Central
32 The Woodlands at Wescott
33 Brookwood
34 Legend Oaks Back Nine
35 Dorchester Manor @ Dorcherster Manor Blvd
36 Eagle Run at 300 Chemistry Rd.
37 Eagle Run at 239 Old Fort Rd.
38 Legend Oaks Phase 5
39 Villas at Charleston Park
40 Summerville Airport @ FBO Hangar
41 Wescott @ Ayscough Rd
42 Festival Centre @ 5101 Ashley Phosphate
43 Marsh Hall @ Hainsworth Dr
44 Appian Landing III @ end of Longridge Rd
45 Hershey Park
46 Coosaw Creek @ #1 tee on Club Course Dr
47 Reminisce Subdivision
48 The Bluffs on the Ashley
49 Patriots Parkway
50 Walden at Dorchester
51 Legend Oaks @ Marsh Side Dr.
52 Indigo Palms
53 Stratton Capers at Tanglewood Dr.
54 Pebble Creek
55 River Birch
56 Myers Mill Regional
57 Myers Mill II
58 Greenwood Ranches
59 Summerset Acres
60 O'Malley Commercial Park
61 Grand Oaks
62 Coosaw Creek at Lincoln Blvd.
63 Taylor Plantation
64 Braeland
65 The Ponds Regional
66 Twin Lakes
67 Victoria Pointe
68 The Preserve at Charleston Park
69 McKewn Plantation
70 Bridlewood Farms
71 Drakesborough
72 Wescott @ Franconia Drive
73 Scotts Mill @ 209 Wateford Lane
74 Oakridge @ 209 Turtle Point Rd
75 Southern Magonlia @ Dubose Middle
76 Wescott @ Markley's Grove Blvd
77 Botany Bay @ end of Nightingale Manor
78 Ridgeville @ S. Railroad Ave (Dukes side)
79 Windsor Hill Blvd @ 8130 Landsbury Ct
80 Pepperidge on Millstone Dr.
81 Sweats MHP @ 1630 Central Ave
82 Wal-Mart @ Dorchester Road
83 Hwy. 78 at SCPA
84 Archdale Landing @ Blueridge Trail
85 Marsh Side @ Park Forest Parkway
86 Windsor Hill @ 7551 Cedars Pkwy
87 Hwy. 78 at Pepsi-Cola Plant
88 Highwoods @ Dorchester Memorial Cemetery
89 Clemson Terrace @ Short Street
90 Cedar Grove @ Dorchester Road
91 Coosaw Creek II @ 4193 Club Course Dr
92 Butternut Ridge
93 Summerhaven off Lincolnville Rd.
94 Calomet Valley @ 139 Aleene Dr
95 Pinehill Acres on Swanson Dr.
96 Ridgeville @ 8 - Ball
97 2045 Central Ave near Whipporwill
98 Ridgeville @ Key West Boats
99 Wescott @ 5050 Wescott Blvd (beyond clubhouse)
100 Kings Grant On Shaftsbury Lane
101 Plantation Ridge on Hummingbird Lane
102 Summervillage MHP @ Short Street
103 White Church Place on Pryors Ln.
104 Thorpe Road @ Tri-County Ind Park
105 Tranquil Acres @ end of Monroe Road
106 Countryside Mobile Home Park
107 Bakers Landing @ River Oak Lane