

This is to follow-up on our conversation regarding language in the last para of 01010. The following should be added as reference material if they leave notes related to hydrograph in that paragraph.

Regards,  
Neha

**From:** Qi, Chen

**Sent:** Thursday, May 10, 2018 8:54 AM

**To:** Pandya, Neha <[npandya@sfwmd.gov](mailto:npandya@sfwmd.gov)>; Otero, Jose <[jotero@sfwmd.gov](mailto:jotero@sfwmd.gov)>

**Cc:** Alexander, Matthew <[malexand@sfwmd.gov](mailto:malexand@sfwmd.gov)>; Otero, Jose <[jotero@sfwmd.gov](mailto:jotero@sfwmd.gov)>; Water Managers <[watermanagers@sfwmd.gov](mailto:watermanagers@sfwmd.gov)>

**Subject:** RE: G420 and G420S

Neha,

Per your request, I have completed the cyclic analysis of G420/G420S stage and flow data.

For G-420 flow, the maximum instantaneous discharge is 727.7 cfs with HW at 4.67 feet NGVD29 and TW at 1.42 feet NGVD29; the minimum instantaneous flow 0 cfs and the average 4.2 cfs.;

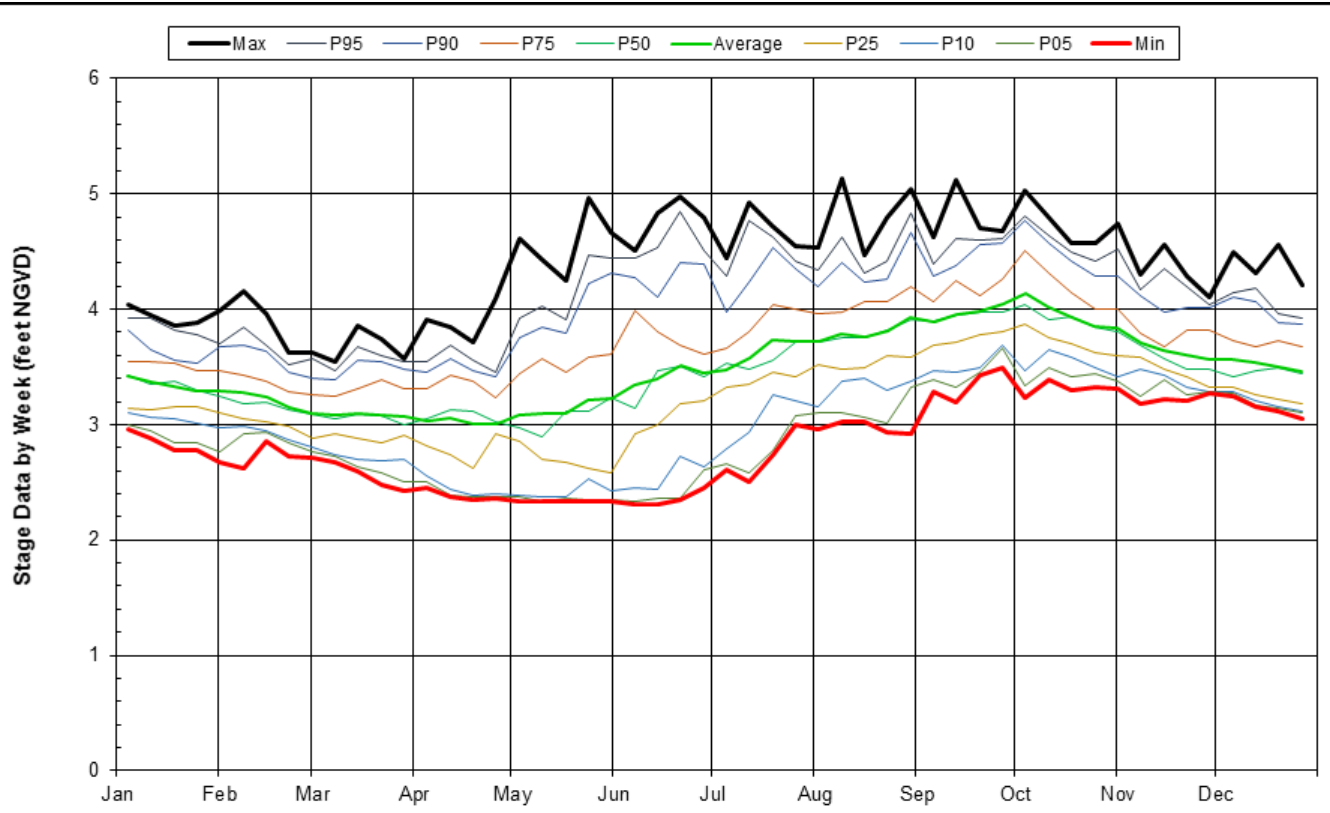
For G-420 HW, the maximum instantaneous stage is 6.30 feet NGVD29 and the minimum instantaneous stage 1.93 feet NGVD29;

For G-420 TW, the maximum instantaneous stage is 8.47 feet NGVD29 and the minimum instantaneous stage 1.51 feet NGVD29.

For G-420S flow, the maximum instantaneous discharge is 86.7 cfs with HW at 5.05 feet NGVD29 and TW at 4.38 feet NGVD29; the minimum instantaneous flow 0 cfs and the average 2.6 cfs.;

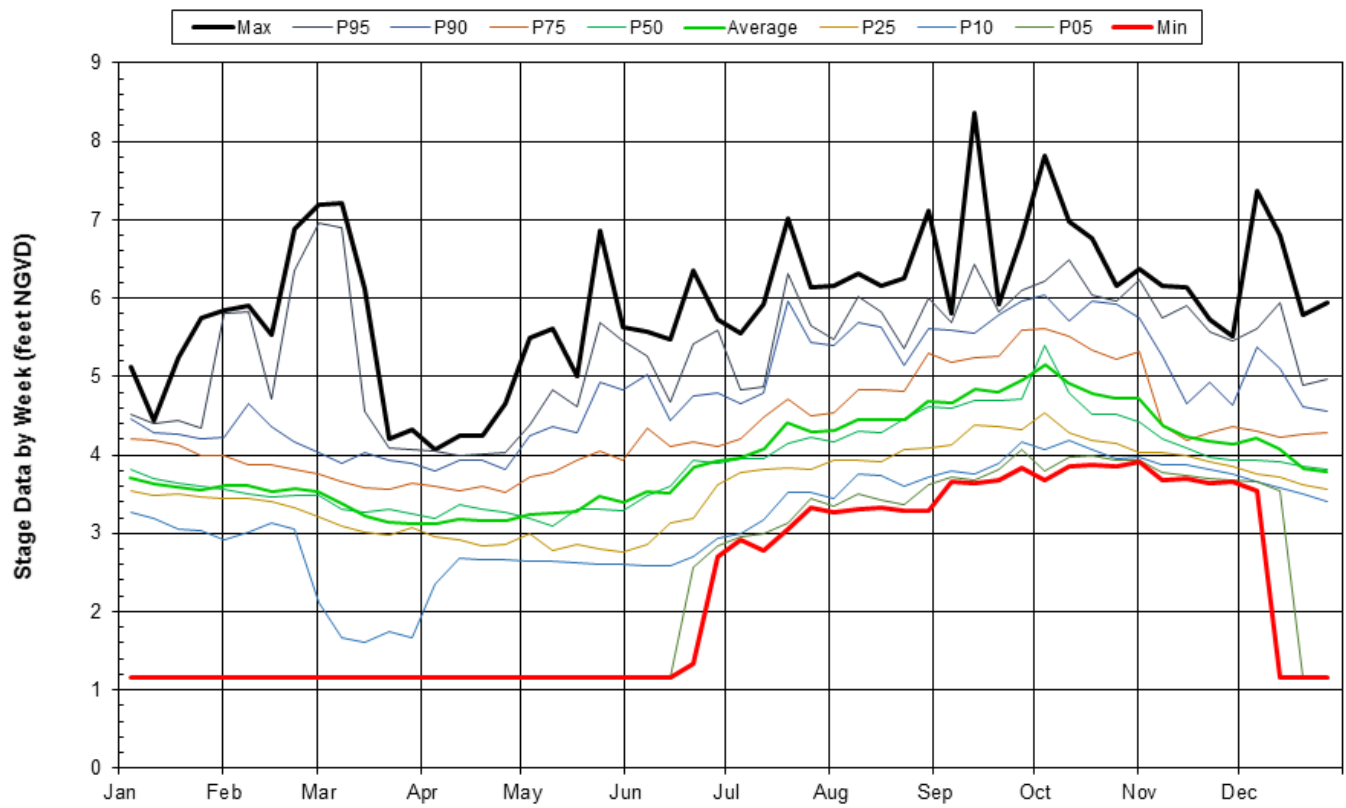
For G-420S HW, the maximum instantaneous stage is 6.57 feet NGVD29 and the minimum instantaneous stage 2.15 feet NGVD29;

For G-420S TW, there is no TW stage recorder. Since both G-420 and G-420S pump to the same C-4 emergency detention basin, G-420 TW is used, with the maximum instantaneous stage at 8.47 feet NGVD29 and the minimum instantaneous stage at 1.51 feet NGVD29.



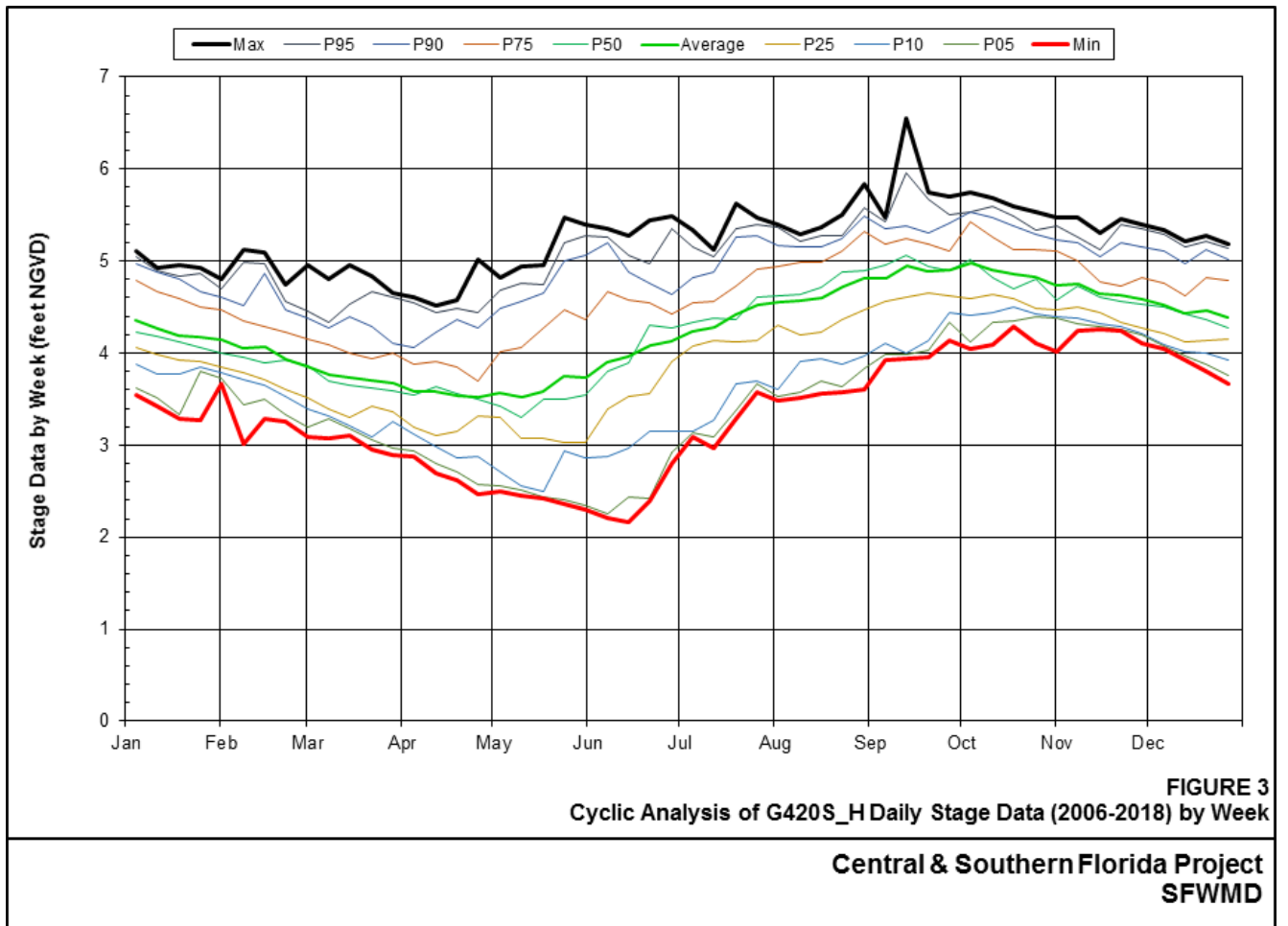
**FIGURE 1**  
**Cyclic Analysis of G420\_H Daily Stage Data (2004-2018) by Week**

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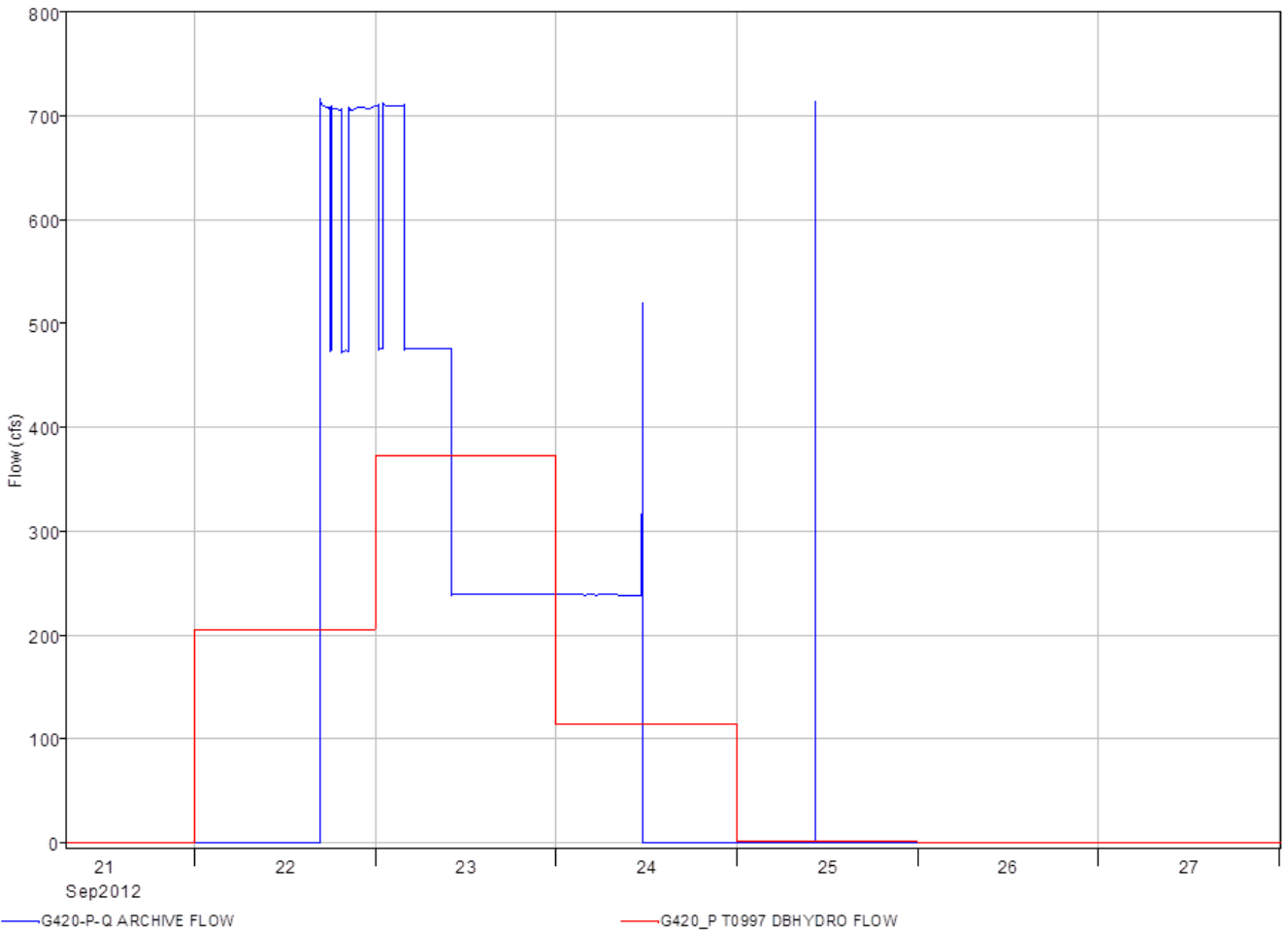


**FIGURE 2**  
Cyclic Analysis of G420\_T Daily Stage Data (2004-2018) by Week

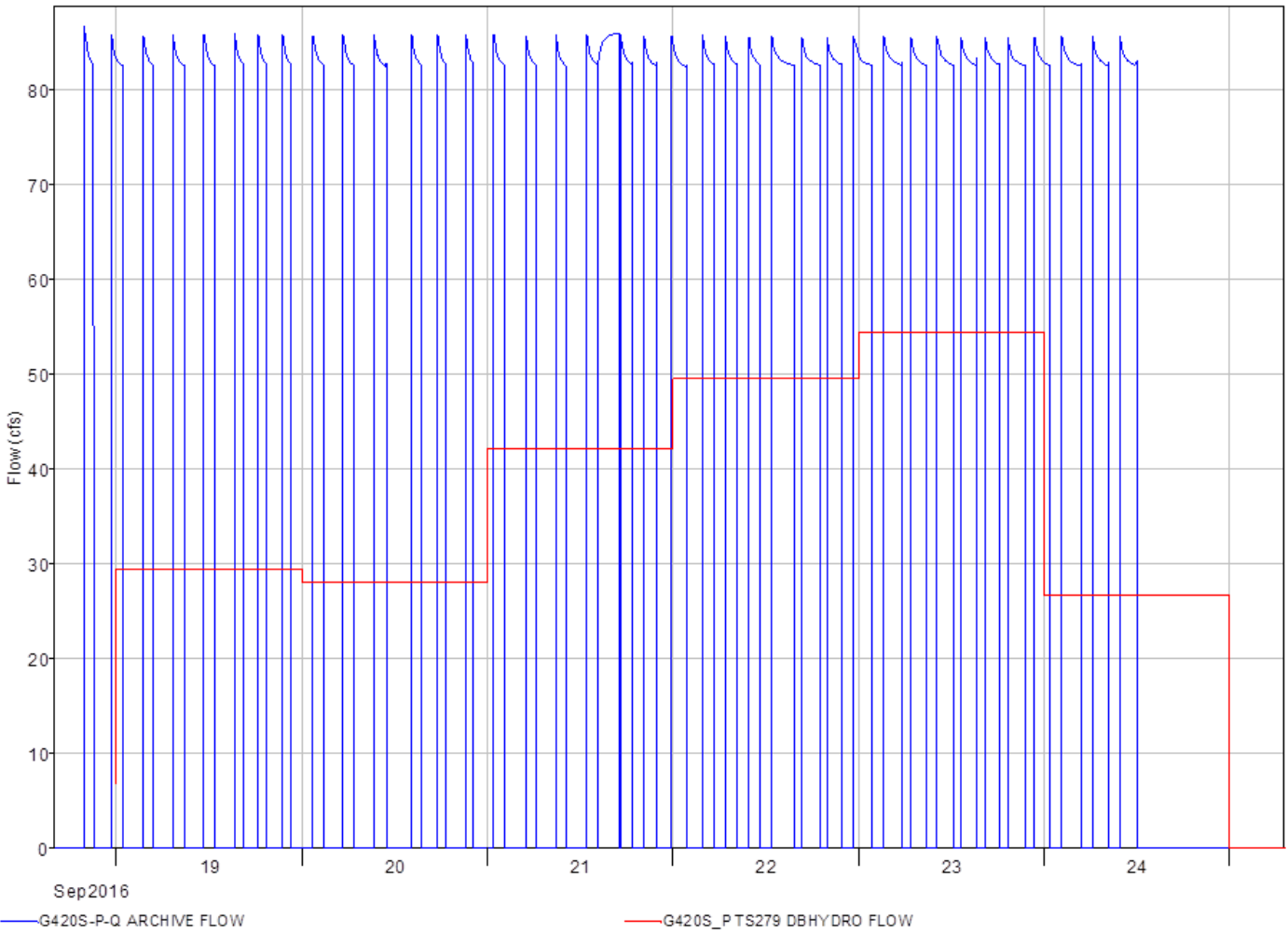
**Central & Southern Florida Project**  
**SFWMD**



Representative period of flow, daily versus instantaneous flow at G420. Example shows that there is significant difference between daily and instantaneous discharges.



**Representative period of flow, daily versus instantaneous flow at G420S. Example shows that there is significant difference between daily and instantaneous discharges.**



If you have any question or comments, please let me know.

Thanks,

*Chen Qi* P.E.

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**From:** Pandya, Neha  
**Sent:** Friday, May 04, 2018 12:33 PM  
**To:** Otero, Jose <[jotero@sfwmd.gov](mailto:jotero@sfwmd.gov)>

**Cc:** Alexander, Matthew <[malexand@sfwmd.gov](mailto:malexand@sfwmd.gov)>; Qi, Chen <[cqi@sfwmd.gov](mailto:cqi@sfwmd.gov)>  
**Subject:** G420 and G420S

Hi Jose,

Can we get the following information for G420/G420S structures.

1. Data points: Instantaneous flow and stage data (min, max and average)
2. Charts 1 and 2: Percentiles and hydrographs based on daily average flow for the Period of Record (TBD by Jose's group).
3. Chart 3: Variation in flow (frequency TBD by Jose's group)
4. Is it possible to provide the following?
  - Record high/actual max flow
  - Corresponding HW-TW stages

Regards,  
Neha

***Neha Pandya, P.E.***  
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