

**Phase I Irrigation Plan**  
**February 2013**  
**Quarterly Status Report**



# Table of Contents

---

1. Quarterly Status Report.....	3
2. Goals and Objectives .....	4
3. Benchmark Data.....	7
3.1. Monthly Water Usage Compared to Average Monthly Rainfall .....	7
3.2. Water Quality Testing.....	8
3.3. Water Pressure .....	17
4. Exhibits .....	18
4.1. Water Sample Interpretations.....	18
4.2. Active Well Locations and Water Sample Locations .....	18



# Quarterly Status Report

---

## 1. Quarterly Status Report

### Summary of Recent Successes

- Town Center Owners' Association (TCOA)

As reported in November, staff expressed concern regarding irrigation water for TCOA traveling through Phase I with no meter(s) to accurately read the amount of water 1) reaching TCOA and 2) used for irrigation purposes. TCOA billing had previously been "carved out" of the Phase I BRU billing based on acreage. Therefore, any overuse would be subsidized by Phase I customers. On January 22<sup>nd</sup>, BRU reported that TCOA has been isolated and that irrigation water for this area is no longer passing through Phase I.

- Water Management District Variance

The Districts' application to Southwest Florida Water Management District for irrigation schedule variance was submitted on January 19, 2013. If approved, the variance will grant the Districts the ability to water up to three times per week should the smart technology (sensors) indicate the need. Also, should the Districts be approved for this schedule, a considerable amount of education and information distribution will take place to notify residents of this change in technology and approved schedule for common areas.

- Landscape Master Plans

The Kimley-Horn and Associates, Inc. (KHA) draft master landscape plan for each of the Districts is on the February agendas for review. Considerable analysis has occurred over the last 3 months on this project and the result will be presented by KHA and the Operations Department.

- Educational Workshops

Community Association Services (CAS) is working with IFAS regarding a presentation on Florida Friendly Landscaping. Although targeting Homeowners' Associations Board members with regard to HOA policies and palettes, anyone interested in learning about this subject will be welcome. Workshop will take place in March or April.



# Goals and Objectives

## 2. Goals and Objectives

The following is a matrix of tasks (objectives) for Phase I of the Irrigation Initiative Plan. These tasks have been identified as the “low hanging fruit” that can be completed in a relatively short period of time and with a limited budget. In addition, most items can be completed solely with staff time and resources.

Included on the chart of tasks is a column indicating the priority of the task, whether or not the task will require funding, who the task is to be performed or managed by, general comments, and a report of any progress that has already been made on the task to date.

TASK #	TASK	PRIORITY	\$	ASSIGNED	COMMENTS	PROGRESS	COMPLETED
1	Summary of Phase IV Report	1		Operations		<ul style="list-style-type: none"> <li>•On Sept Agenda</li> <li>•Completed</li> </ul>	✓
2	Atkins (Facilitator) Report of August 1 <sup>st</sup> Meeting	1		Atkins		<ul style="list-style-type: none"> <li>•8/19/12 - Received from Atkins; staff reviewing.</li> <li>•Completed</li> </ul>	✓
3	Present Phase I Plan to Boards	1		Team		<ul style="list-style-type: none"> <li>•Scheduled for November Bd Mtgs</li> </ul>	✓
4	TCOA Mainline Metering	1		BRU/Ops		<ul style="list-style-type: none"> <li>•11/8/12 - BRU exploring alternatives to take TCOA out of the loop so that their irrigation water does not pass through LWR Phase I.</li> <li>•1/22/13 - BRU reported that irrigation water no longer passing through Phase I. TCOA isolated.</li> </ul>	✓
5	Consumption Education	1		Eva/Jessica	<ul style="list-style-type: none"> <li>•Conservation page on site</li> <li>•Swag from County Ext and SWFMD</li> <li>•U of F links; educational materials</li> <li>•Grant Opportunities</li> </ul>		
6	Establish Allocation Methodology for a Unified System	1		Steve			
7	Residential SWFMD Soil Moisture Program	1		Community Association Services	<ul style="list-style-type: none"> <li>•Meet w/Bob Simons</li> <li>•Understand cost impact to residents</li> <li>•BRU cost contribution</li> </ul>	<ul style="list-style-type: none"> <li>•8/28/12 - Meeting request sent</li> <li>•9/10/12 - Met w/Bob - CAS to work with Mizner neighborhood</li> <li>•10/2/12 - Bob met w/Mizner reps</li> <li>•10/9/12 - SMR reviewing waiver</li> <li>•10/15/12 - Waivers distributed to residents</li> <li>•11/8/12 - Waivers in to BRU. Install scheduled for week of 11/12.</li> <li>•12/5/12 - Install delayed until week of 12/10.</li> <li>•12/10/12 - Meeting with BRU,</li> </ul>	



						Vendor, Neighborhood, County, CAS. •12/18/12 - Question arose regarding number of sensors required for program. •1/22/13 - Bob waiting on confirmation regarding sensors for one location. The rest are installed including meters.	
8	Rebate Program – Soil Moisture Sensors	1		Community Association Services and BRU	CAS to work with BRU; applications distributed through Town Hall.	•1/22/13 - Added GB East to program. •1/23/13 - CAS working on application process with BRU. Distribution probably in March.	
9	Irrigation Controller Upgrades & Moisture Sensors / Weather Stations in Common Areas	1	\$	Operations	•Ongoing •\$64,710 Budgeted for FY2013 •Target date of 9/30/14 for all upgrades	•8/29/12 - Ryan to present landscape architect/beautification plans at Sept. Board meetings •10/10/12 - Ryan to discuss common area watering at Oct CEVA meeting. •10/18/12 - Beautification plan approved. •1/12/13 - Draft landscape master plan to be presented at Feb meetings.	
10	Convert from Rotor to Spray Heads where needed	1	\$	Operations	•Ongoing •Prioritize areas based on pedestrian traffic, turf variety, budget	•Ryan to make presentation at Oct CEVA Board meeting on irrigation. •10/18/12 - Beautification plan approved. •1/23/13 - Draft landscape master plan to be presented at Feb meetings.	
11	WMD Variance for smart technology upgrades.	1	\$	Operations	•Combine with educational information/communication on variance; what residents will see, how it works, etc. •Paperwork previously filled out for specific vendor. Ops to re-fill information and turn in. •Will allow for three times per week watering if smart sensor indicates.	•11/27/12 - Contact w/WMD to advise on application revision. •12/5/12 - Coordinating with vendors and WMD to meet at Sarasota office. •12/11/12 - Met with WMD. Will apply for hybrid variance (3 days per week). Should take a month or longer to process application. •1/9/13 - Waiting on info from WMD for application. •1/19/13 - Application submitted.	
12	Stakeholder Relationship Building	1		Everyone	•Ongoing		
13	GIS Analysis of irrigable area	2		BRU	•BRU conducting GIS analysis of Phase I; Staff to confirm billing accuracy	•9/10/12 - Bob Simons reported BRU working on analysis •11/8/12 - Priority for BRU. Within 3 mos.	
14	Semi-annual public meetings and educational workshops	2		Eva	•Planned for March & September	•Present plan to December CEVA Landscape Meeting •1/23/13 - Presentation to HOA Boards on Florida Friendly planned for March.	
15	Irrigation Project Page on website	2		Eva	•January 2013	•11/8/12 - BRU will provide information for webpage.	
16	Water Quality Testing and Analysis (Post Reclaimed)	2	\$	Ops and Contractors	•Quarterly Testing	•1/23/13 - Results reported in Feb status report.	
17	Florida Friendly Landscape Conversion	2	\$	Operations (Common)  CAS (Residential)	•Work with landscape architect on beautification plan •CAS to work on updating landscape palette and encourage FF residential landscaping	•8/29/12 - Gary to contact IFAS for possible workshop to HOA's •10/18/12 - All districts approved plan •2/6/13 - Draft plan will be presented at Feb meetings.	
18	Installation of Pressure Monitoring Devices	2	\$	BRU/Ops		•9/10/12 - Met w/BRU. They are purchasing an additional 6 for a total of 10. Will also utilize ours if necessary. BRU offered software to take readings if necessary. •11/8/12 - Installation in progress.	



						•1/12/13 – Operations purchasing 4 more devices to be used on mainlines.	
19	Analysis of current meters – identify where/if more are needed	3	\$	Atkins/BRU	<ul style="list-style-type: none"> <li>•Golf courses, Lake Uihlein, etc.</li> <li>•Value of moveable strap-on meters</li> <li>•Professional services have not been budget for FY13</li> <li>•Plan for FY14 expenditure</li> </ul>		
20	New Hydraulic Model	3		Atkins		<ul style="list-style-type: none"> <li>•9/10/12 - Received files from LPA &amp; Atkins testing</li> <li>•10/3/12 - Files OK released final LPA 21payment</li> <li>•10/10/12 - Will run model after reclaimed sources and model is needed</li> </ul>	
21	Twice per week watering for residential properties	3		BRU	•Ask BRU what it will take. What can we do?	•11/8/12 - Conservation, conservation, conservation. Smart technology.	
22	D6 Participation	3		Operations	•Connected to our system through mainline	•11/7/12 - Irrigation systems conveyed to D6 from Developer/HOA	
23	Add staff in FY14	3	\$	Steve	<ul style="list-style-type: none"> <li>•Develop job description and justification</li> <li>•Utility Mgt Experience</li> </ul>		
24	Monitor BRU Water Use Permit	3		Operations	•Suggested by Atkins during strategic workshop	<ul style="list-style-type: none"> <li>•9/12/12 - Requested copy from BRU</li> <li>•11/8/12 - Requested again</li> <li>•2/7/13 - Received copy of report. Staff reviewing.</li> </ul>	
25	Develop Annual Operations and Maintenance Plan	3		Operations	•Suggested by Atkins during strategic workshop		



# Benchmark Data

## 3. Benchmark Data

### 3.1. Monthly Water Usage Compared to Average Monthly Rainfall

Objective - Reduce irrigation water use through education and smart technology for irrigation controllers.

Measurement - Monthly water use vs. monthly rainfall. Monthly water use is provided in *average million gallons per day (AMGD)*. The AMGD was calculated by taking the total water use for the month and divided by the number of days. Rainfall is provided in *inches per month*.

Method - Compare monthly water use as provided by BRU for residential and common areas to the average monthly rainfall amounts tracked by LWR IDA staff. Review anticipated correlations in rainfall to irrigation use, and water savings over time.

Importance- Reducing water use has been identified as the key factor for BRU supporting twice a week watering. This information can be utilized to demonstrate strong water conservation efforts. It is important to note that tracking water savings in common areas resulting from the implementation of smart irrigation technology is not possible because residential and common areas are not metered separately. Global reductions in water use will however be tracked.

**Monthly Water Usage Compared to Average Monthly Rainfall**



### 3.2. Water Quality Testing

Objective - To receive irrigation water from Braden River Utilities (BRU) that falls within the recommended ranges from the Institute of Food and Agricultural Sciences, University of Florida, for maintaining healthy landscape.

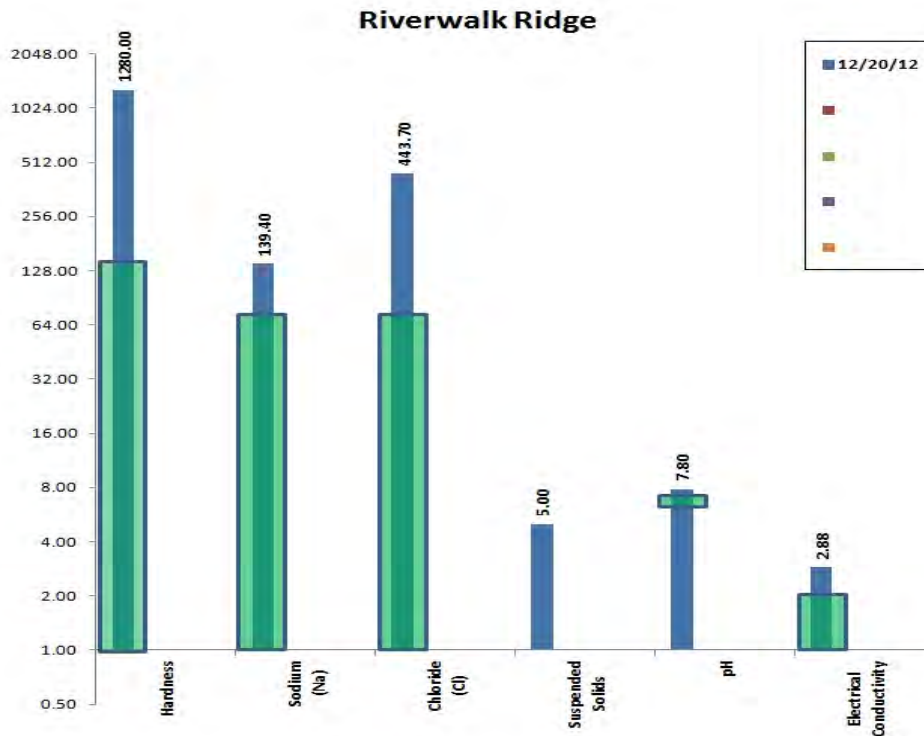
Measurement - Parameters have been set forth by the University of Florida. A key sheet has been provided in the Exhibit section of this report to assist in understanding the water analysis in practical terms.

Method - Water samples are collected in each District on a quarterly basis. Samples are taken from distribution point, i.e. sprinkler head. A map has been provided in the Exhibit section of this report highlighting the locations from which the samples were taken.

Importance - Water quality measurements are especially important with the recent introduction of reclaimed water. Improvements are expected with reclaimed water in overall water quality, with reductions salinity, chlorides, and suspended solids. Reclaimed water may have elevated levels of nitrogen and phosphorous which should be monitored and necessary adjustments should be made to the nutrient inputs we disperse onto the landscape, i.e. fertilizers.

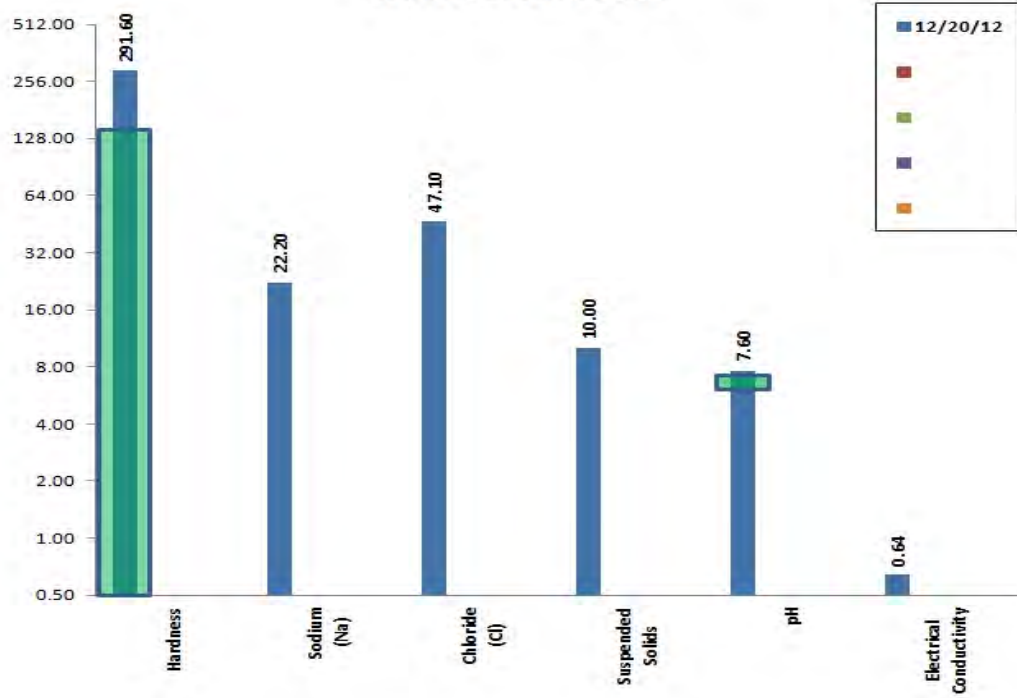
For each test category, the optimum/acceptable level range has been indicated in green where measurements fell outside of this range. See Exhibit section for further information regarding these levels.

#### District 1

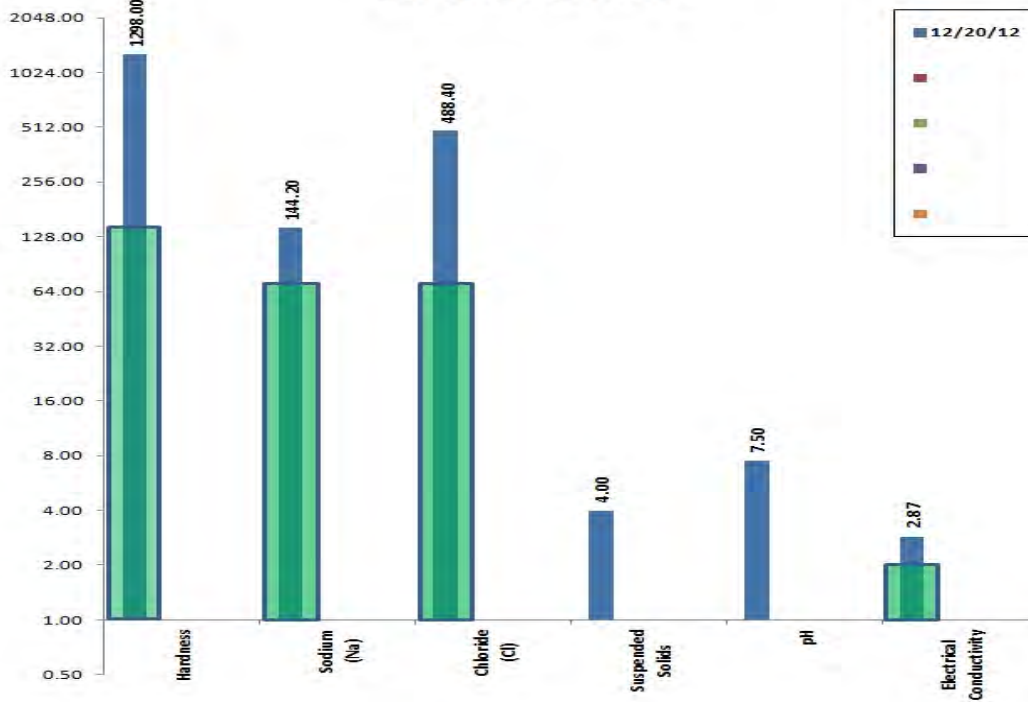


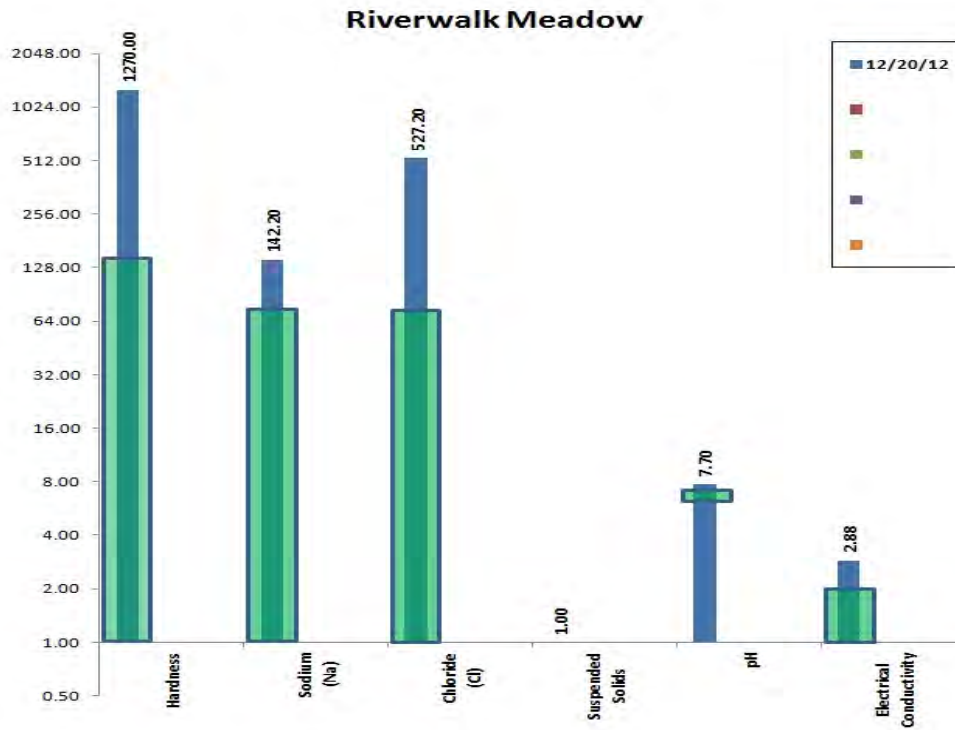


### White Clover Park

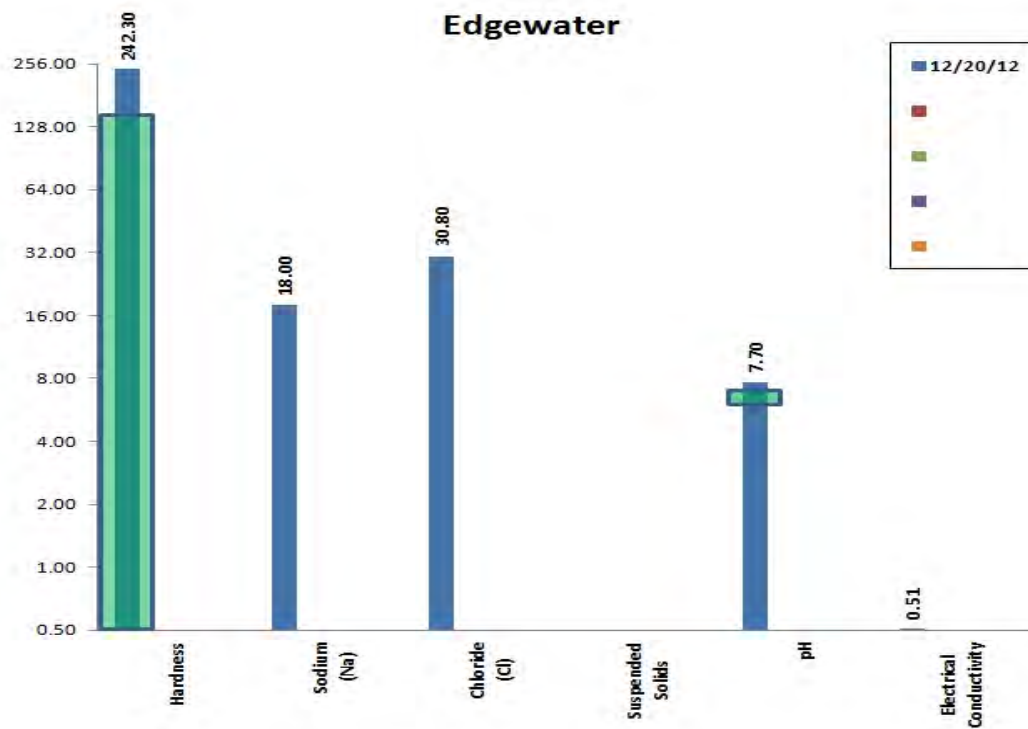


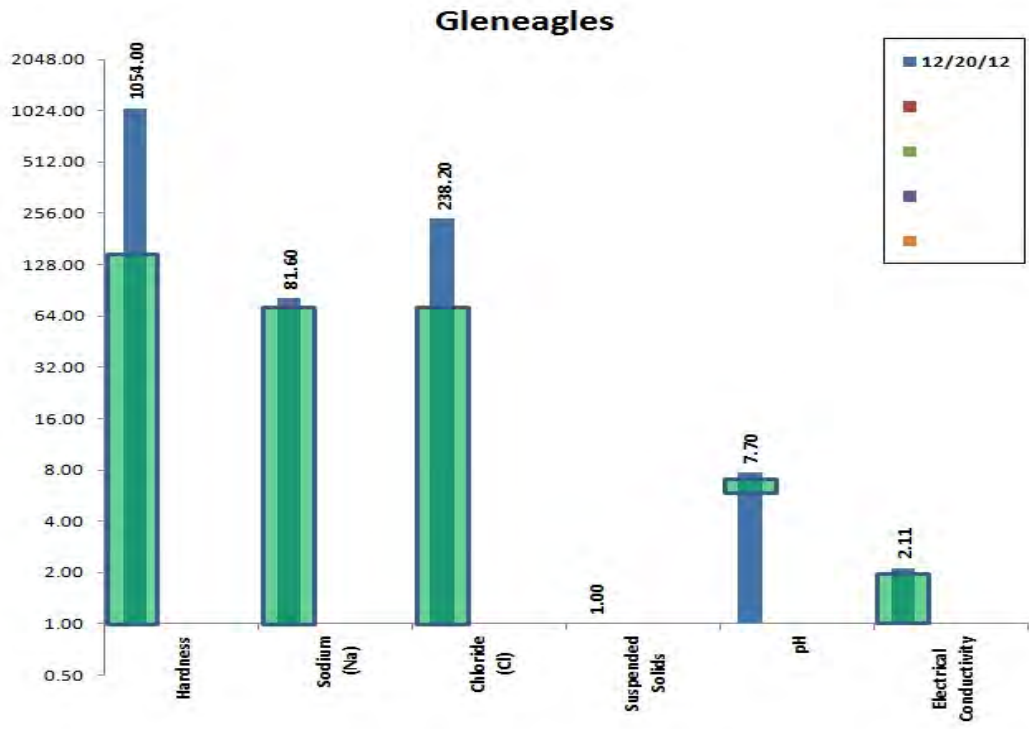
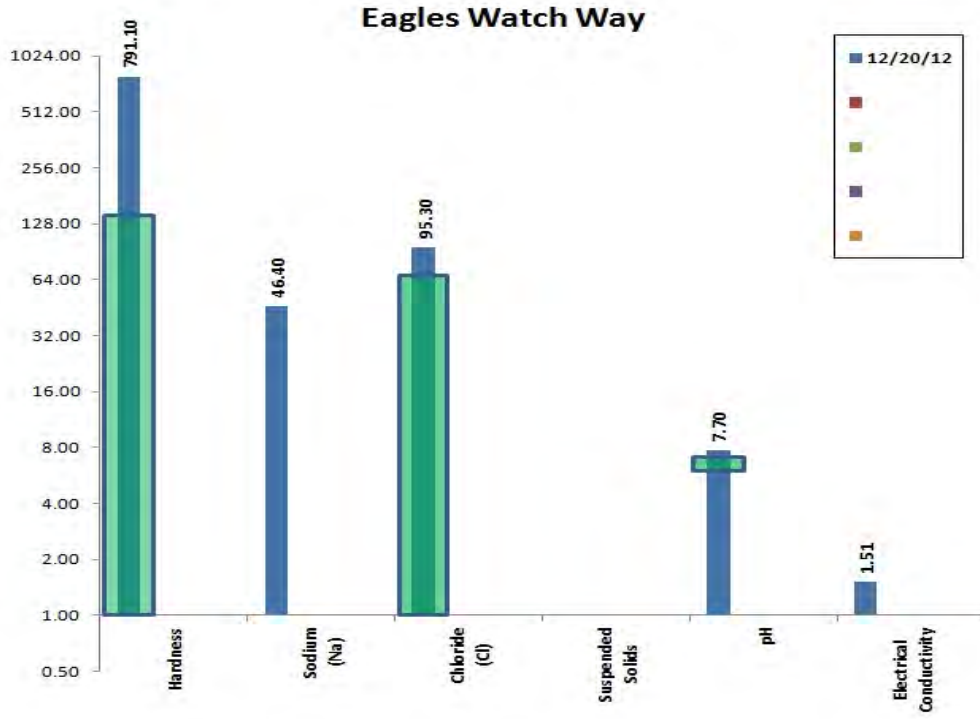
### Summerfield Park

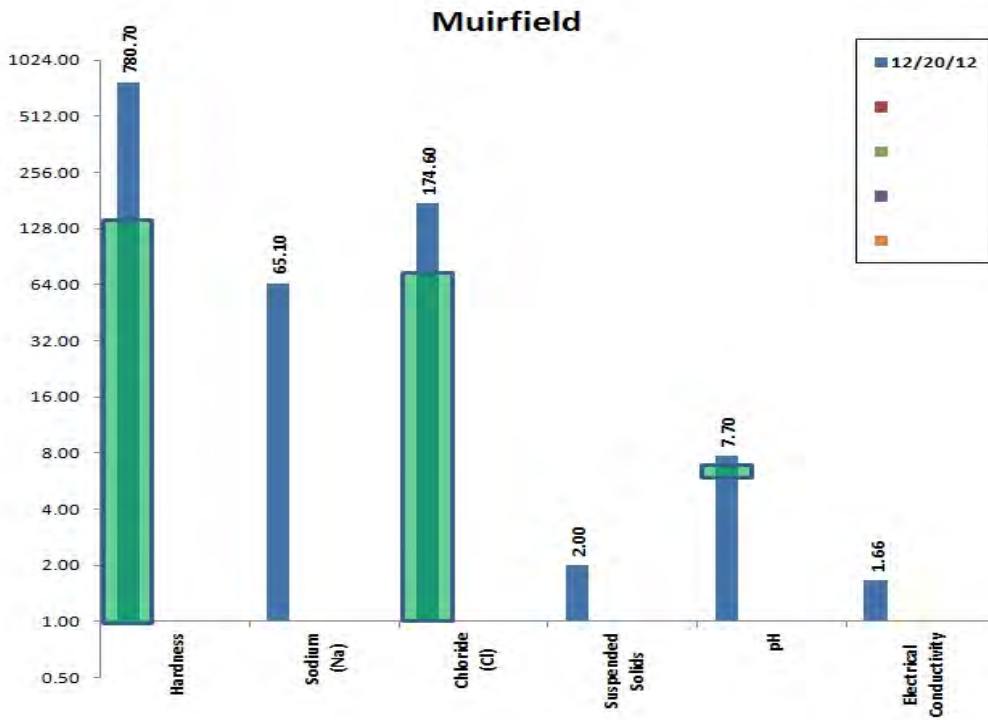




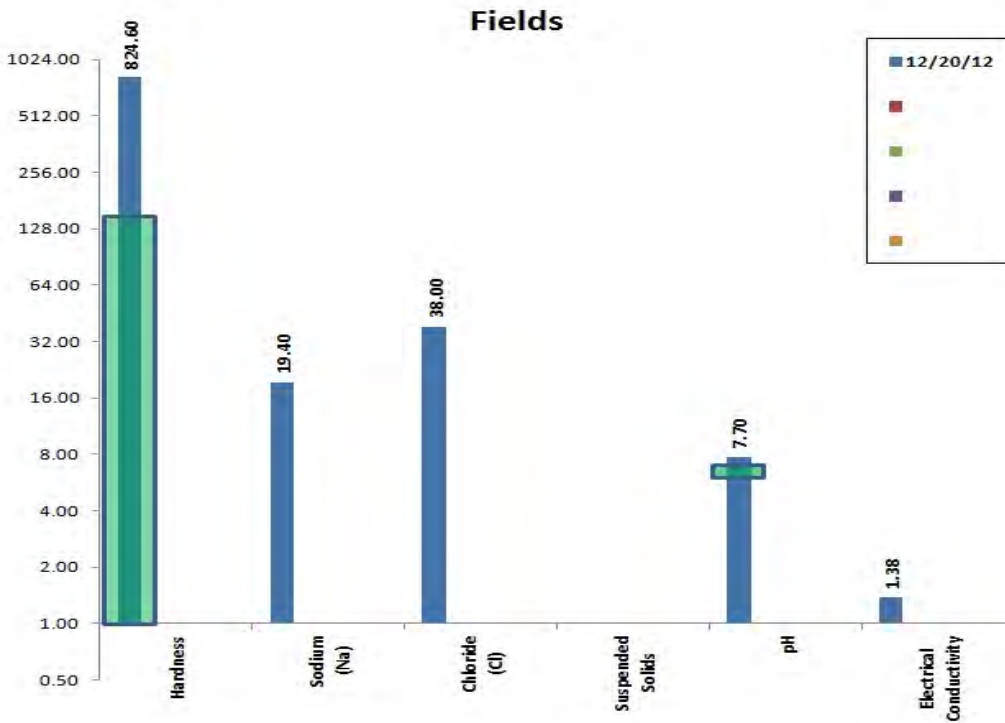
## District 2

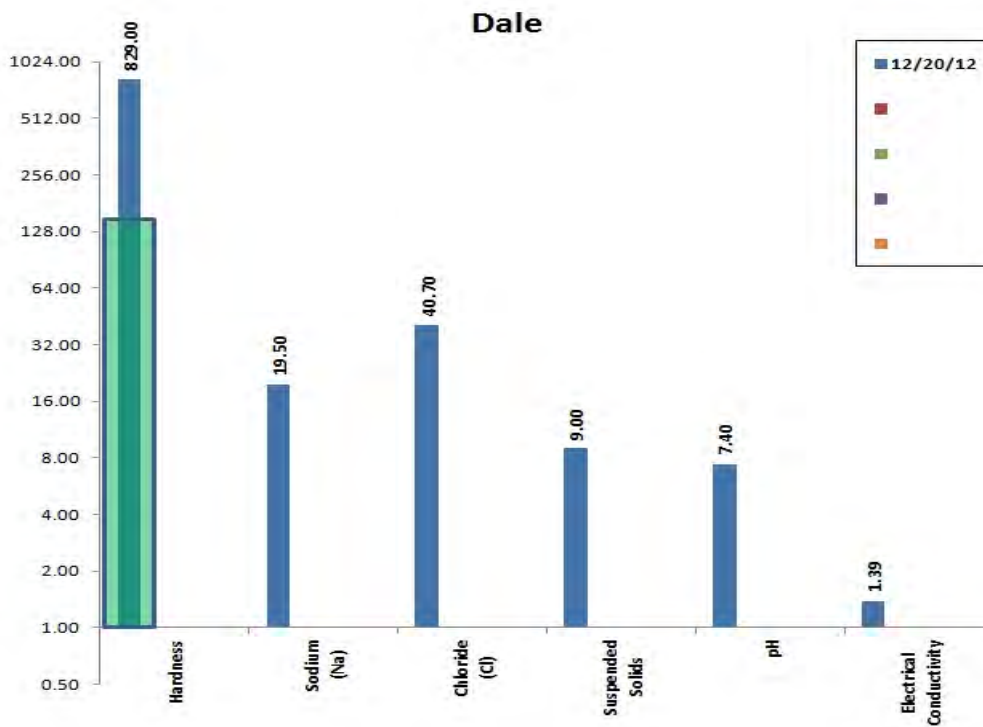
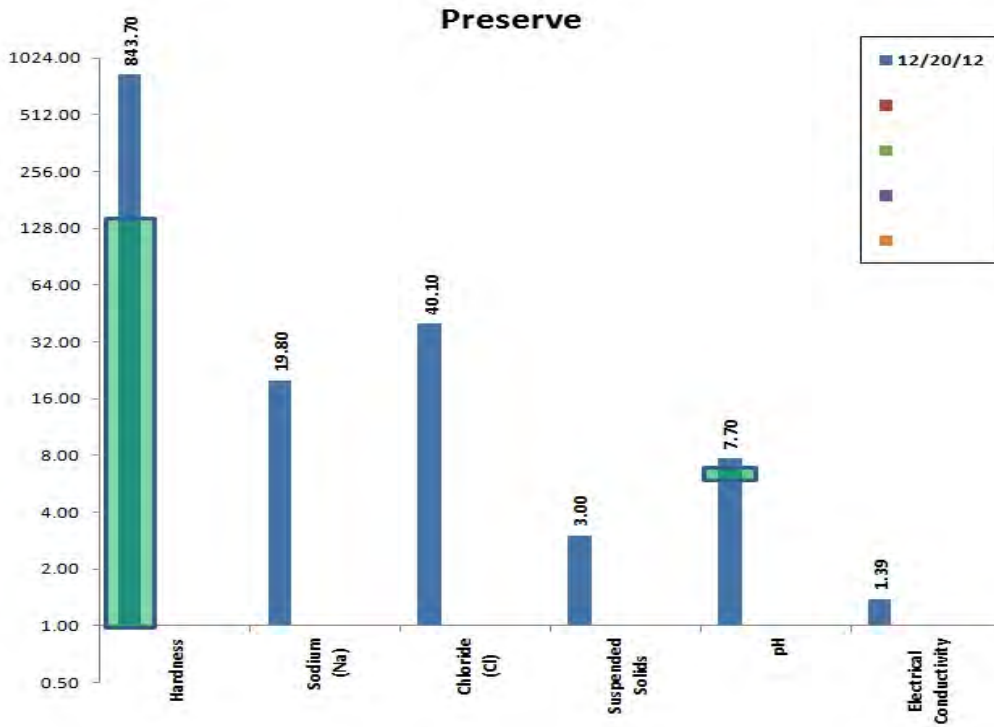


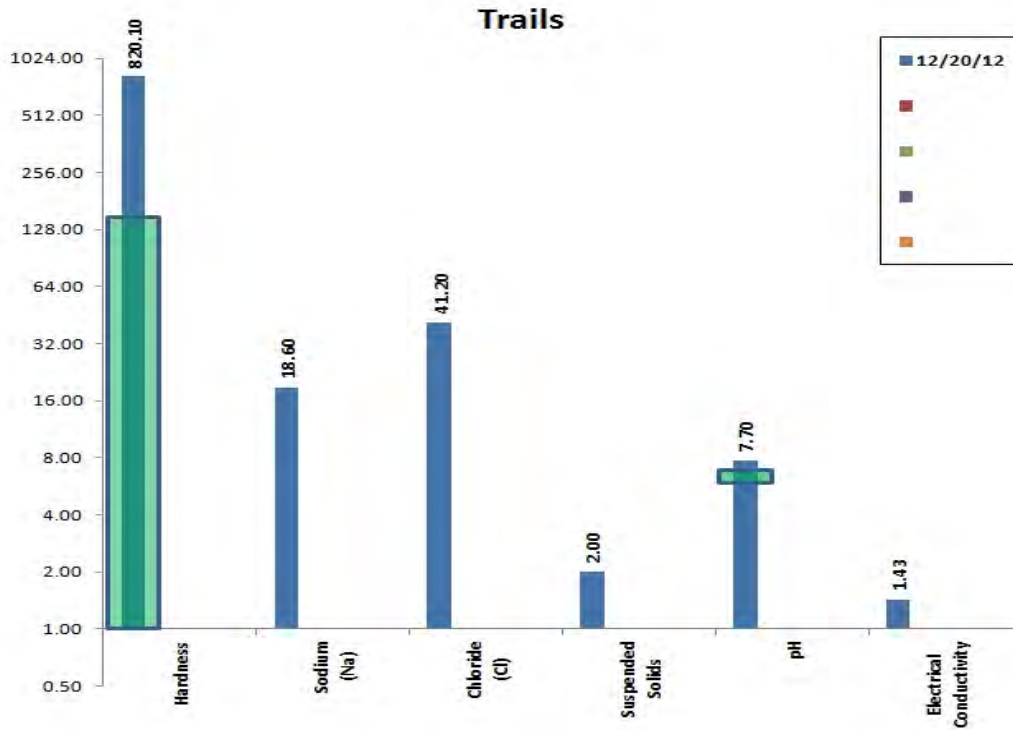




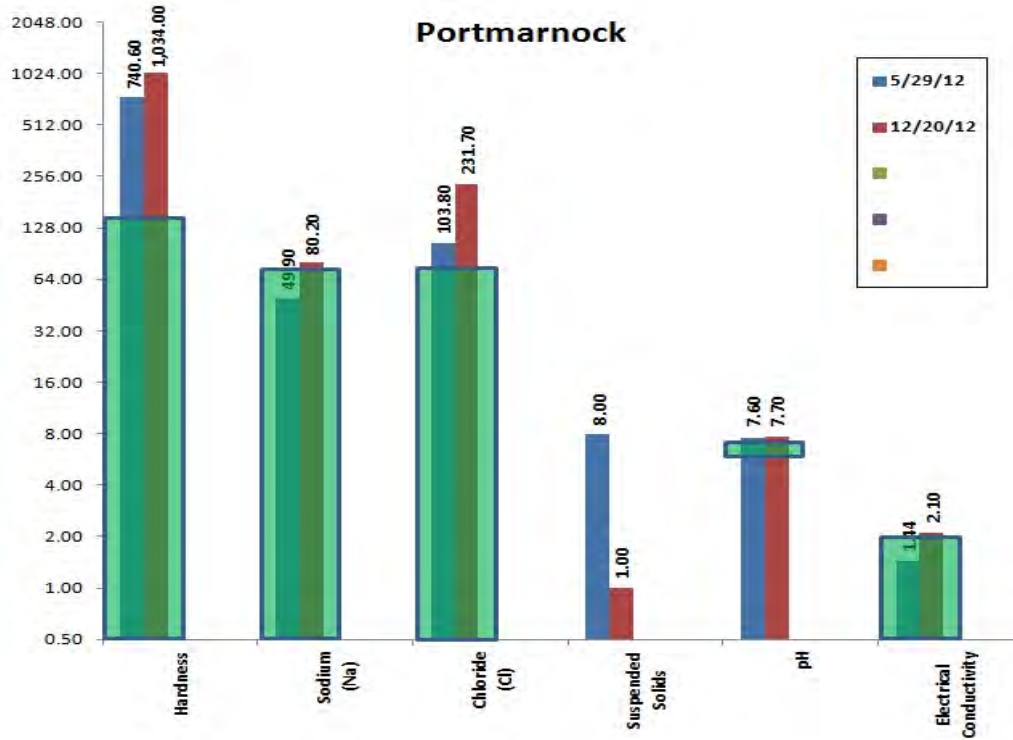
### District 4

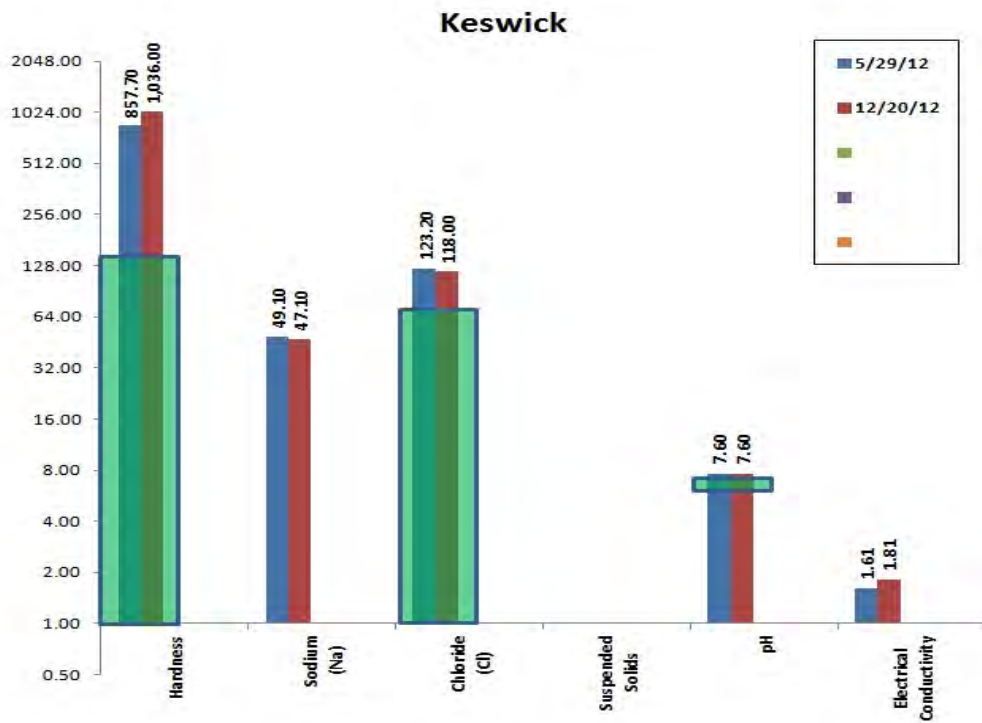
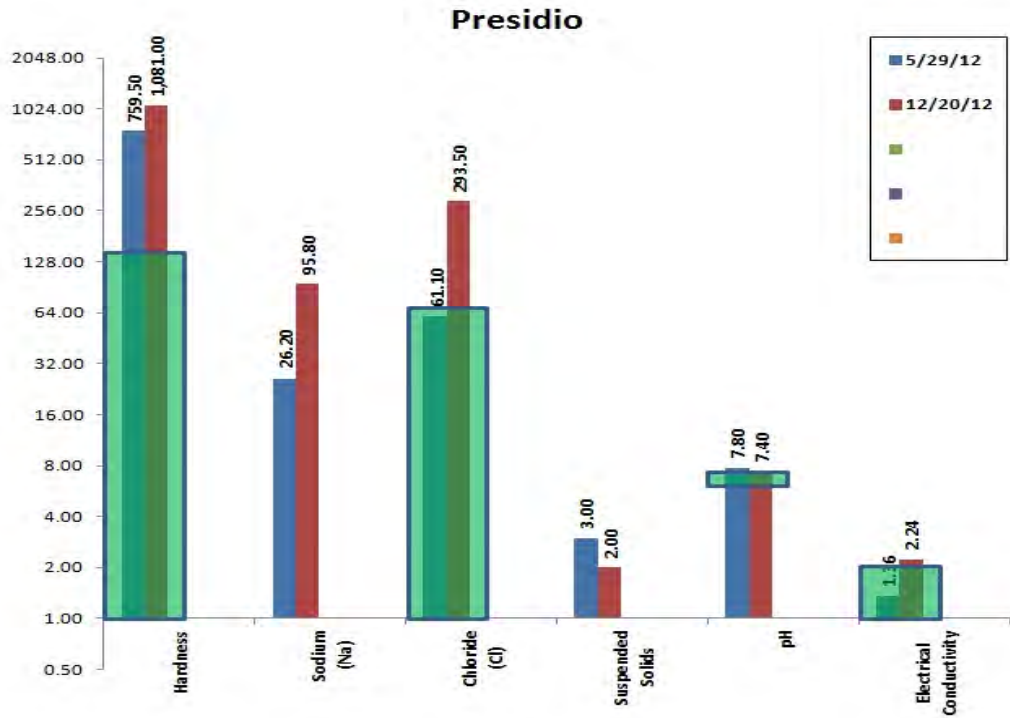




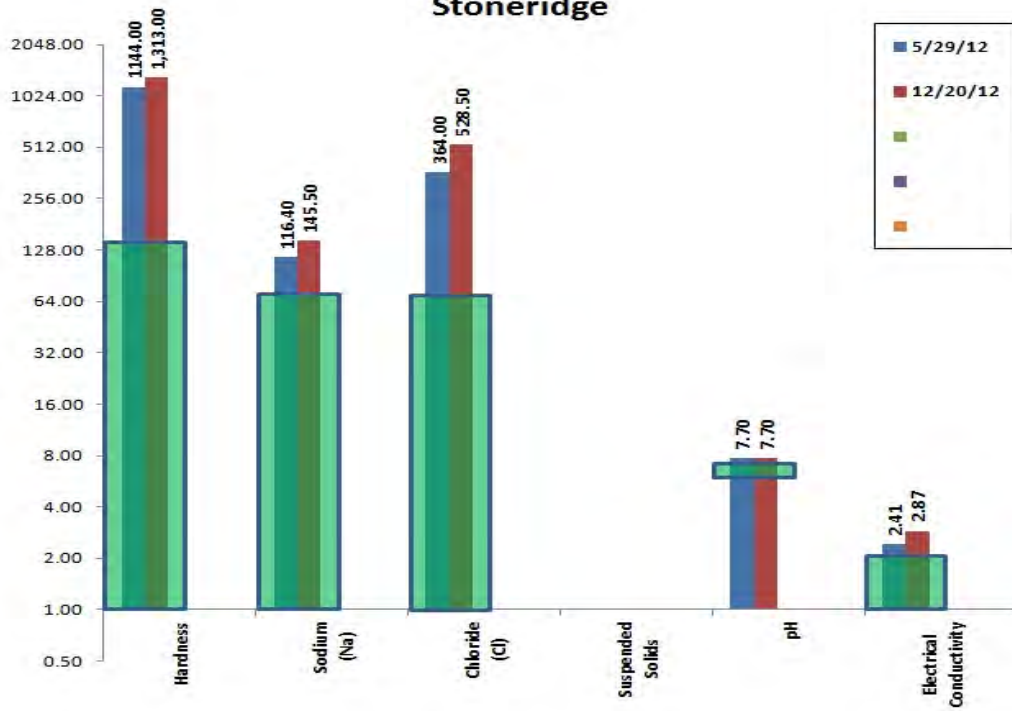


### District 5





## Stoneridge





### 3.3. Water Pressure

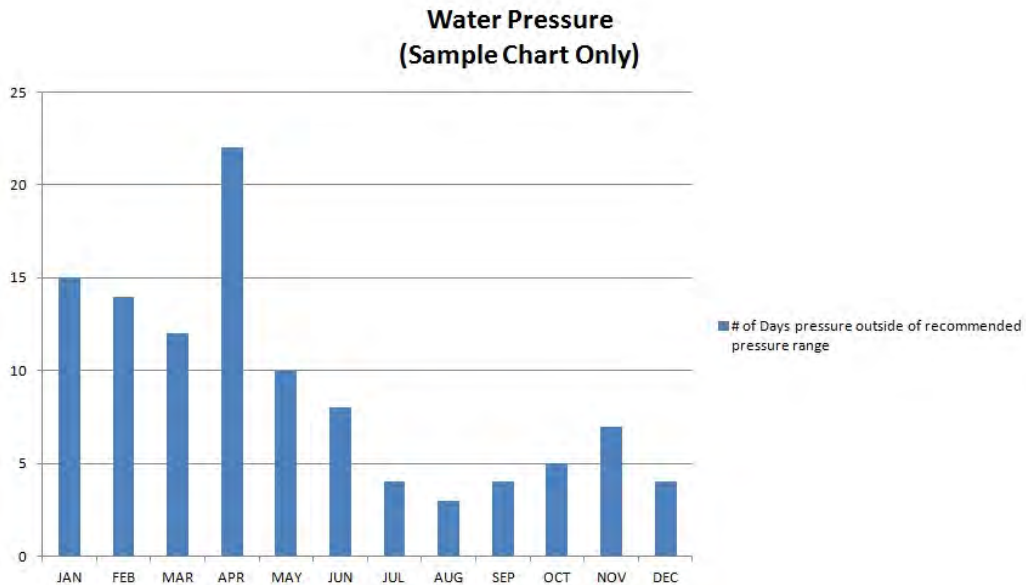
**Objective-** To receive adequate irrigation pressure from BRU to the end users sprinklers that meets the average manufacturer’s specifications for recommended pressure range (30 to 50 psi).

**Measurement -** Electronic pressure readings. Data will reflect the number of times per month that the pressure falls outside of the recommended pressure range.

**Method -** Electronic pressure monitoring devices will be placed on the mainline within each District. Two locations will be selected per District. Currently, there are four devices that have been used at residential locations when pressure problems have been reported by individual owners. However, these four, in addition to the four that are currently on order, will be placed at mainline locations for consistent pressure measurements within each District and will be reported each quarter.

**Importance -** Adequate pressure is required for proper irrigation distribution. Data collected will be shared with BRU.

\* Example graph provided, measurements were not ready in time for this report.



# Exhibits

---

- 4. Exhibits
  - 4.1. Water Sample Interpretations
  - 4.2. Active Well Locations and Water Sample Locations





**ACTIVE PUMPS/WELLS-**

- W26 Greenbrook 'Preserve'
- W48 Herons Nest Park
- L51 Edgewater 'Pointe'
- W54 Country Club Clubhouse
- L57 Kent Lake
- W60 Country Club East 'Players Dr.'
- W65 Braden River Park
- W66 Greenbrook 'Banks'
- W67 The Lake Club
- W70 Pope Road

**INACTIVE PUMPS/WELLS-**

- W22 Summerfield 'Green'
- W23 Summerfield 'Strand'
- W24 Greenbrook 'Run'
- W35 C.C. Brier Creek
- W61 University Parkway

**WATER SAMPLE LOCATIONS -**

- CDD1-1 Riverwalk 'Ridge'
- CDD1-2 White Clover Park
- CDD1-3 Summerfield 'Park'
- CDD1-4 Riverwalk 'Meadow'
- CDD2-1 Edgewater Round-a-bout
- CDD2-2 Eagles Watch Way
- CDD2-3 C.C. Glen Eagles
- CDD2-4 C.C. Muirfield
- CDD4-1 Greenbrook 'Fields'
- CDD4-2 Greenbrook 'Preserve'
- CDD4-3 Greenbrook 'Dale'
- CDD4-4 Greenbrook 'Trails'
- CDD5-1 C.C. Portmarnock
- CDD5-2 C.C. Presidio
- CDD5-3 C.C. Keswick
- CDD5-4 C.C. Stoneridge

