## PUBLIC WORKS BENCHMARKS

<table>
<thead>
<tr>
<th>Benchmark Item</th>
<th>AUGUST</th>
<th></th>
<th></th>
<th>AUGUST</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Totals for the Month</td>
<td>2016</td>
<td>2017</td>
<td>3-Year Average</td>
<td>2016</td>
<td>2017</td>
</tr>
<tr>
<td>Water Flow (acre-feet)</td>
<td></td>
<td>472</td>
<td>450</td>
<td>455</td>
<td>974</td>
<td>950</td>
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<tr>
<td>Wastewater Flow (million gallons)</td>
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<td>33</td>
<td>33</td>
<td>33</td>
<td>70</td>
<td>69</td>
</tr>
<tr>
<td>Fleet Work Orders, PM &amp; CM, % of Total Time</td>
<td></td>
<td>64%</td>
<td>60%</td>
<td>65%</td>
<td>56%</td>
<td>57%</td>
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<tr>
<td>Buildings Work Orders Completed (each)</td>
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<td>149</td>
<td>96</td>
<td>122</td>
<td>287</td>
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<td>Customer Service Requests (each)</td>
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<td>180</td>
<td>162</td>
<td>275</td>
<td>315</td>
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<td>Backflow Testing (each)</td>
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<td>249</td>
<td>355</td>
<td>281</td>
<td>533</td>
<td>685</td>
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<td>Plan Checking (each)</td>
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<td>34</td>
<td>37</td>
<td>39</td>
<td>54</td>
<td>66</td>
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<tr>
<td>Trash Complaints (actual call-outs)</td>
<td></td>
<td>15</td>
<td>118</td>
<td>50</td>
<td>37</td>
<td>137</td>
</tr>
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*Fiscal Year = July 1 – June 30
MEMORANDUM

TO: Steven J. Pinkerton
    General Manager

THROUGH: Joe Pomroy, P.E.
    Director of Public Works

FROM: Ronnie Rector
    Public Works Contracts Administrator

SUBJECT: Public Works Department’s Monthly Status Report for August, 2017

DATE: September 15, 2017

DIRECTOR HIGHLIGHTS

The end of August, when compared to the beginning of the month, brings a dramatic change in water use as the grass stops growing and irrigation demands drop. Daily water use drops from 5.5 million gallons per day to 3.8 million gallons per day, a 30% reduction. In the month of September, we will still see some higher water and sewer flows on the weekends, but by October 1, sewer flows will reach their low point for the year.

Staff has been making preparations at the water resource recovery facility (WRRF) for the effluent export pipeline repairs. The export line will be shut multiple times for up to 24 hours straight as the Contractor replaces critically failing sections of pipe. During this time, no wastewater effluent can be pumped out of the basin. This means one million gallons of treated effluent needs to be stored on site and then quickly pumped out during the off-day to get ready for the next shut down.

Work at the WRRF involves new 480-volt connections for bypass pumping operations, piping and tank modifications to move the 1 million gallons of effluent to off-line concrete storage tanks, and operational testing of systems to make sure all staff is trained and fully knowledgeable of shut-down procedures.

We will also have limited WRRF operation on the shut-down day because of the need to minimize effluent production. The WRRF will shift to 5 days a week by 24-hour operation to meet all required operational activities and to remain in compliance will all State permits.
Garbage Can Enclosure (Bear Box) Rebate Program: Since July 1, 2014, 483 applications for rebates have been received with 375 successful installations to date. Rebate is $150 for all new applications.

**WASTE NOT HIGHLIGHTS**

- **25th Anniversary of the Waste Not Programs**
- **15th Anniversary of the Tahoe Water Suppliers Association**

Staff submitted extensive public comment on the Tahoe Keys West Lagoon Integrated Control Methods Test; Notice of Intent for the General NPDES Permit for Residual Aquatic Pesticide Discharges from Algae and Aquatic Weed Control Applications for the Tahoe Keys Property Owners Association. Water Quality Order No. 2013-0002-DWQ General Permit No. CAG990005, a copy of which is included in the Sept. 14, 2017 TWSA Board Packet.

TWSA outreach included water station use/limited distribution of water pouches:
- **DRINK TAHOE TAP® NIGHT** at the Concerts at Commons Beach on August 13; 700 attendees – 350 booth interactions/water pouches.
- The Tahoe Summit – August 22; 600 attendees - 350 booth interactions/water pouches.
- **USTA National Husband/Wife Tennis Tournament** – 100 water pouches.


Staff continues to research Public Works sustainability metrics evaluation system. The framework for an IVGID Sustainability Annual Report is in development. Energy, water and waste records are being input into an EPA Energy Star data tracking and analytics portal.

**UTILITIES HIGHLIGHTS**

Monthly compliance reports were submitted for the water and wastewater systems to the state and local agencies with no permit violations. The Laboratory team
completed all required monthly testing and submittals. Water production was 146.7 MG and processed wastewater was 32.8 MG. 28,000 gallons of septage was received at the WRRF site. 150 tons of biosolids were hauled to the Bentley facility for composting. We received 344,992 gallons of waste water from State Parks sites. All of the monthly reports were submitted for review and approval.

**Water Resource Recovery Facility (WRRF)**

The facility ran on two aeration basins in plug flow and two clarifiers for most of the month. Staff provided a plant survey and renewal of the Waste Management biosolids and grit permitting with WC Health Dept.

Other projects included installation of mixer in the North #2 basin, moving the DO probes to North #3 basin, drained and cleaned the south clarifier, replaced both sump pumps in the mechanical building, diverted the RAS gas vent line into the plant wasting pit and performed a mock bypass test from the clarifier while using the newly installed suction/discharge piping to the South #3 basin.

Our contractor has started on installation of the new blower equipment for the WAS storage and headwork’s aeration feed system. Another contractor has begun work on the perimeter wall around the aeration basins for slop stabilization and wider access areas.

The UMS person worked with the Pipeline team in modifying and installing two new aeration valves on the aeration lines in North and South #1 basins and built and installed the new suction / discharge piping into the South #3 basin.

The wetlands enhancement facility monthly rounds were completed with no issues.

**Burnt Cedar Water Disinfection Plant (BCWDP)**

The BCWDP facility met all treatment and monitoring requirements for the month. Staff worked on trouble shooting and correcting the ozone destruct unit.

**Water Pump Stations / Tanks**

Staff completed bi-weekly sampling of all water reservoirs for chlorine residual. All pump station mechanical PM’S were completed, oil changes and services were performed at the WPS locations for this month. Staff started on installation of the upgraded solar panels and controller to WPS 3A-1.
Working with the UMS person the contractor installed new flow meters at WPS 6C-1 and 8B-1, with follow-up from our electricians to rewire the units. Contractors also removed, repaired and re-installed the #2 pump for WPS 4-2. The electricians installed the meter transponder at WPS 2-2 and are waiting on the installation of the new meter.

Vibration testing was completed by the contractor working with one plant team member and will be providing a full report.

**Sewer Pump Stations**

SPS#16 was run and back draining was tested for the upcoming export line replacement project.

**Water Distribution**

In addition to the normal workloads staff performed 113 line locations, 3 watermain line repairs, 2 fire hydrant repairs, continued on commercial and FSA meter testing and the annual rebuilds of the master PRV’s.

Staff completed 4 non-pay turn offs for the Billing Office.

**Wastewater Collection**

The team continued on the annual hydro flushing program, completed the SEZ manhole inspections, continued on the BMP summer drain cleaning. Assisted on the PW yard projects, installed 2 new ARV’s on the export line in Jacks Valley, assisted the UMS person with multiple projects. Staff assisted with and completed inspection and air testing 22 manholes in one of the estate subdivisions.

WRRF and Wetlands projects consisted of barrier shield installations at the wetlands facility, repairing the Schneider Creek effluent meter, installing 2 new air valves in the aeration basins, building and installing discharge piping into the south aeration basin and assisted with the clarifier coring project and set up.

Staff completed 1,960 feet of hydro flushing and 375 feet of CCTV work

**Utility Maintenance Specialist**

Projects completed for August at the WRRF site consisted of grate catchers for the clarifier channels, installation of two valves on two aeration basin lines, coring of a 15” hole in the South clarifier launders wall along with a 2½” hole in the control room wall
and fabricated and installed hangars and piping into the South 3 aeration basin for effluent directional flows.

WPS projects consisted of installing a high pressure clamp on 5-1 pump line, reinstalled a rebuilt pump and motor on 4-2, and installed new mag meters in 6C-1 and 8B-1.

Wetland facility work consisted of trenching and pouring 400 feet of containment trenching between cells 5A &5B and 320 of barrier sheet piles west of cell 2A.

Export line work on the Carson Valley side involved replacing two more antiquated ARV’s and repair of 220 feet of pipe washed out from rain damage this winter. Repaired Schneider meter and reprogrammed the transponder.

Projects currently in progress are SPS 14B internal component replacements, SPS 10 suction line replacement, lowering the effluent line at Hwy 395 and Plymouth Drive, replacement of the ARV’S on export line, and replacement of the sewer force main ARV’S in the District.

There are currently 6 more projects being worked on, waiting on parts, contractors, proposals, scheduling, funding etc. A lists of projects is available on request.

**Asset Management**

15 Buildings, 1 Pipeline and 36 Plant Preventative Maintenance work orders were generated. 87 Buildings, 10 Pipeline and 11 Plant project work orders were also generated.

GIS projects primarily consisted of aerial downloads of parcels from Washoe County, maps updated and technical support from ESRI dealing with images through ArcGIS server. Modified the map package for installation into the CCTV vehicle. Finalized asset links to Nexgen for Incline Creek Estates. There were 9 meter address changes and updates, 15 meter location corrections as part of the cleanup project and 3 asset changes from Pipeline and Compliance staff.

Building Department projects included setting up meetings and reviewing 311 Service Portal, preparing the meeting discussion and documented plans for data setup, followed by testing and training. Working on setting up assets to meet all tracking needs and requirements.

Other projects include ongoing monitoring of all work orders and service requests, making corrections or modifications while providing guidance and staff training.
Miscellaneous / Training / Safety

Our CDL driver continues to haul biosolids for the WWRF site, green waste for Parks and Golf, and equipment drop off or returns for all PW departments.

Pipeline activities consisted of the monthly safety meeting, inspected all fire extinguisher and eye wash stations and participated in the annual District safety week functions.

Plant and Pipeline teams completed the annual Fire Marshall inspection with minimal corrections to be made. Both teams participated in the District Safety Week.

All bulk chemical deliveries were received by the plant team which consisted of LOX, Mag Hydroxide, Captor, Chlorine and Sodium Silicate.

Call-outs (After Hours)

The plant team responded to 9 alarms or call-outs. The pipeline team responded to 3 call-outs. A complete list is on file.

ENGINEERING HIGHLIGHTS

The Department is working on several CIP projects currently under construction or in the bidding phase, including:

Projects currently under construction include:

- **2017 Watermain Replacement Project** – This project replaced approximately 3,000 lf of old watermains with new 8” PVC or Class 350 DIP watermains, and upgraded related appurtenances within the Mill Creek neighborhood, along Sawmill, Selby and Pine Cone Roads. All work is complete and Contractor has been paid in full.
  
  Gerhardt and Berry Contract Status:

<table>
<thead>
<tr>
<th>Original Contract Amount</th>
<th>Change Orders to Date</th>
<th>Current Total Contract Amount</th>
<th>Total Payments for Work Completed to Date</th>
<th>Current Balance to Completion (including retainage)</th>
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- **Public Works Equipment Storage Building** – This project is to construct a new 7,600 square foot vehicle storage building at the Public Works facility on
Sweetwater. The project was awarded to Geney/Gassiot of Reno, Nevada, and construction began in early June, with earthwork, site utilities, and relocation of the District’s fuel island. Substantial completion is anticipated for June 3, 2018, with final completion on June 30, 2018.

Geney/Gassiot Contract Status:

<table>
<thead>
<tr>
<th>Original Contract Amount</th>
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<th>Total Payments for Work Completed to Date</th>
<th>Current Balance to Completion (including retainage)</th>
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<tbody>
<tr>
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<td>$2,134,219.62</td>
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- **Sewer Pump Station 8 Improvements Project** – This project consists of upgrades and rehabilitation of existing facilities at Sewer Pump Station #8, including process and mechanical equipment, pumps, motors, piping and electrical systems. The project was awarded to K. G. Walters Construction of Santa Rosa, California. Work is scheduled to begin after Labor Day, with substantial completion by December 4, 2017.

K. G. Walters Contract Status:

<table>
<thead>
<tr>
<th>Original Contract Amount</th>
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<th>Total Payments for Work Completed to Date</th>
<th>Current Balance to Completion (including retainage)</th>
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<tbody>
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- **Diamond Peak Emergency Culvert Repair Project** – This project will remove and replace 24” to 30” culvert pipe and furnish and install eight drop inlets at the Diamond Peak Ski Area. The project was awarded to Burdick Excavating of Carson City, Nevada. Work is scheduled to begin after the Labor Day weekend, with substantial completion by October 15, 2017.
Burdick Excavating Contract Status:

<table>
<thead>
<tr>
<th>Original Contract Amount</th>
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<th>Current Total Contract Amount</th>
<th>Total Payments for Work Completed to Date</th>
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<tr>
<td>$328,328</td>
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- **WRRF Access and Decant Improvements Project** – This project will construct a new decant facility for the District’s Vactor trucks, a new modular gravity retaining wall replacing an existing failed timber wall, and a widened access road to the back half of the Water Resources Recovery Facility. The project was awarded to Burdick Excavating of Carson City, Nevada. Work is underway and currently focused on excavation for and placement of the pre-cast concrete retaining wall system. Substantial completion is scheduled for November 1, 2017.

Burdick Excavating Contract Status:

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<th>Original Contract Amount</th>
<th>Change Orders to Date</th>
<th>Current Total Contract Amount</th>
<th>Total Payments for Work Completed to Date</th>
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Additionally, the Engineering Department is overseeing a number of other projects in the bidding, planning and design phase, including the Incline Beach House project, office space remodel at the Public Works facilities, the second phase of the Effluent Export Pipeline Replacement Project, as well as a number of other improvements at the WRRF, the Burnt Cedar Water Disinfection Plant, and District water and sewer pumping stations.

**FLEET HIGHLIGHTS**

Fleet has received and put into service several pieces of equipment as part of the 2017/18 CIP, including a Caterpillar 420f2 to be operated by the Public Works Department, a Caterpillar C9 portable generator and mobile pump used for emergency sewer pumping by Public Works, and a Toro Greens and Tee Aerator operated by Golf.
Department Highlights:

Sweetwater shop: All shop activities are running smooth at this time and the mechanics are keeping up with preventive maintenance schedule and repairs.

Ski shop: All shop activities are running smooth and mechanics are preparing to start the summer services and overhauls of the equipment in preparation for next season.

Golf shop: All of the golf operation vehicles and equipment are fully repaired, serviced and ready for use. The golf shop operation is running smooth at this time and the mechanics have changed to early start time to have equipment checked and adjusted before start of operations.

BUILDINGS HIGHLIGHTS

- **Administration**
  Completed work on Accounting office remodel, patched holes and touched up paint. Inspected and repaired malfunctioning HVAC compressor

- **Public Works**
  Added batteries for main entry gate backup
  Replaced and installed emergency lights in warehouse

- **Treatment Plant**
  Fire system maintenance check

- **Chateau**
  Cleaned all F&B floors
  Repaired leaking line on dishwasher in catering kitchen
  Unplugged floor sink dish pit Grill Kitchen
  Inspected and fixed Grill HVAC on roof
  Inspected and fixed electric charging stations
  Installed chains around CO2 cylinders and propane tanks at Chateau

- **Aspen Grove**
  Cleaned carpets following interior painting
  Installed computer fan in IT cabinet

- **Golf**
  Winter Damage - replaced two broken windows at Champ Maintenance
  Replaced ice/water unit next to Chateau snack bar
  Repaired damage to the lid in the men's bathroom on Hole 13

- **Ski**
  Winter damage Snowflake - removed deck boards and plain down for proper fit
Winter damage Snowflake - Added back water device to separate bathroom drains from kitchen drains.
Winter damage Fleet Maintenance - Installed drinking fountain, bottle filler, eyewash, mixing valve.

• Parks
  Repaired Parks Building roll up door damaged by vehicle
  Installed new light fixtures for entrance signs East and West Park

• Recreation Center
  Installed new CO2 solenoid in pool mechanical room
  Repaired CO2 system; multiple leaks from tank in pool mechanical room

• Tennis Center
  Replaced batteries on alarms

• Incline Beach F&B
  Installed grease shield between fryer and stove grill per code

• Burnt Cedar Beach F&B
  Installed grease shield between fryer and stove grill per code

• Beaches
  Replaced toilet in women’s bathroom at Incline Beach
  Repaired flagpole at Incline Beach entry kiosk
  Boat ramp repair and buoy replacement

BUSINESS OFFICE HIGHLIGHTS

• Staff posted 52 delinquent accounts for shut-off; 25 online account customers were also notified of posting by email.

• 2 accounts were shut-off for nonpayment. There is currently 1 account shut-off with a delinquent balance.

• There was 1 lien recorded and no releases of liens recorded.

• 997 accounts received E-statements through online account access.

• Potential leak notifications were indicated for 411 accounts on their monthly statement. 89 online account access customers were also notified of their leak by email.

• 37 changes in ownership were processed on utility accounts.

• Staff processed $1,067.51 in credits related to water leaks.
• Staff is working on contract administration of our various CIP projects, including those contained within Engineering’s report, above.