# PUBLIC WORKS BENCHMARKS

<table>
<thead>
<tr>
<th>Benchmark Item</th>
<th>SEPTEMBER</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Totals for the Month</td>
<td>Fiscal* YTD Totals</td>
<td>2016</td>
<td>2017</td>
<td>3-Year Average</td>
<td>2016</td>
</tr>
<tr>
<td>Water Flow (acre-feet)</td>
<td>393</td>
<td>336</td>
<td>366</td>
<td>1,367</td>
<td>1,286</td>
<td>1,297</td>
</tr>
<tr>
<td>Wastewater Flow (million gallons)</td>
<td>29</td>
<td>27</td>
<td>28</td>
<td>99</td>
<td>97</td>
<td>99</td>
</tr>
<tr>
<td>Fleet Work Orders, PM &amp; CM, % of Total Time</td>
<td>67%</td>
<td>56%</td>
<td>62%</td>
<td>60%</td>
<td>57%</td>
<td>60%</td>
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<tr>
<td>Buildings Work Orders Completed (each)</td>
<td>125</td>
<td>92</td>
<td>111</td>
<td>412</td>
<td>280</td>
<td>360</td>
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<tr>
<td>Customer Service Requests (each)</td>
<td>136</td>
<td>145</td>
<td>136</td>
<td>411</td>
<td>460</td>
<td>444</td>
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<tr>
<td>Backflow Testing (each)</td>
<td>162</td>
<td>153</td>
<td>159</td>
<td>695</td>
<td>838</td>
<td>731</td>
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<tr>
<td>Plan Checking (each)</td>
<td>36</td>
<td>35</td>
<td>33</td>
<td>90</td>
<td>101</td>
<td>103</td>
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<tr>
<td>Trash Complaints (actual call-outs)</td>
<td>14</td>
<td>46</td>
<td>23</td>
<td>51</td>
<td>183</td>
<td>94</td>
</tr>
</tbody>
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*Fiscal year is July 1 through 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 September, 2017

DATE:      October 13, 2017

DIRECTOR HIGHLIGHTS

Staff has been making preparations at the water resource recovery facility (WRRF) for the effluent export pipeline repairs. Beginning October 16, 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.

The District has spent additional maintenance and repair time at the Wetlands Effluent Disposal Facility this summer because of the heavy winter that stressed the 35-year old facility. Repair work has included strengthening levees, replacing weir box control gates, draining and inspecting wetland cells and performing surveys to confirm capacity for effluent.

The TRPA construction dig-season is nearing its October 15 end date, which actually means demands for District water and sewer inspections increase dramatically. This year has been very active with on-going large residential projects and many new homes being built. Construction has definitely returned to pre-recession levels in complexity and scope.

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

2017 is the
- 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.

On September 13, Staff worked with Wastewater Treatment Operators to conduct a Wastewater Treatment Plant tour for a special group of water advocates from Chile, providing them with an in-depth tour and ideas for treating water and wastewater in their community.

On September 16, the Great Sierra River (& Beach) Clean Up was hosted by IVGID Waste Not for trash collection along the North/East Shore of Lake Tahoe. Over 30 volunteers helped clean approximately 195 pounds of waste from about 8 miles of shoreline. The Sierra Nevada Conservancy coordinates the regional event.

Staff Member Joseph Hill visited the Cason Middle School 8th Grade Science Classes on September 22 to teach approximately 90 students about the importance of protecting our water quality and water chemistry, in addition to introducing them to careers in Public Works and the water/wastewater utility districts.

TWSA outreach included water station use/limited distribution of water pouches:
- Sample the Sierra – 2,000 attendees
- Lost Sierra Hoe-Down – 600 attendees

Staff has been working with Tahoe RCD and the Tahoe Fund on the matching grant offer for purchasing bottom barriers, authorized by TWSA Board. The joint fundraising project for bottom barrier mats was launched in June 2017 as a Tahoe Fund Project. http://www.tahoefund.org/our-projects/active-projects. Aquatic Invasive Bottom Barrier Challenge; Partner: Tahoe Resource Conservation District, Tahoe Water Suppliers Association. Total Project Cost: $52,500. Tahoe Fund Goal: $26,250.

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 109.55 MG and processed wastewater was 27.32 MG; 19,000 gallons of septage was received at the WRRF site and 108 tons of biosolids were hauled to the Bentley facility for composting. We received 166,496 Gallons of wastewater 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 with one clarifier for most of the month, with temporary use of the South clarifier. Staff worked to keep the plant in operational mode parameters. Staff replaced the CL17 chlorine monitor to an improved CLT-10 unit. The electrical team completed the power hook-up for the new electric emergency pump for the upcoming export line work. The team members also provided a plant tour with our Waste Not staff for a guest from Chile.

The Lab team has been working closely to sample and monitor the plant process along with monitoring our distribution system silica dosing and reservoir tank chlorine samples. 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 continued with trouble shooting the ozone destruct unit issues.

**Water Pump Stations/Tanks**

Staff completed bi-weekly sampling of all water reservoirs for chlorine residual, and the monthly sodium silica sampling was completed in the distribution system. Reservoir 5-3 B was cleaned and disinfected and is back in service with 5-3 A. The Sanitary Survey was completed with Washoe County Health Department.

Staff wired the new meter at WPS 2-2 and worked with our communications contractor to trouble shoot and fix communication issues to WPS 4-2/5-1 and WPS 3-1.
Other projects consisted of trouble shooting issues with WPS 6-1 and topping off the water pump station emergency generator fuel tanks.

Vibration testing was completed and the contractor will be sending a complete report next week.

**Sewer Pump Stations**

Staff started on grease removal of the pump station wet wells and are looking into replacement of the sump pump.

**Water Distribution**

In addition to the normal workloads staff performed 89 line locations, 1 water main line repair, 2 fire hydrant repairs, performed 3 service line freezes for contractors, continued on commercial and FSA meter testing, the annual rebuilds of the master PRV’s, annual hydro-flushing, final reads for the Billing Office, and installation of the new mag meter for WPS 2-2.

Other projects consisted of assisting the UMS person on several smaller projects and assisted the Engineering division with PW yard projects, and 2 non-pay turn offs for the Billing Office.

**Wastewater Collection**

The team continued on the annual hydro-flushing program, main line easement manhole inspections, the BMP vault cleaning, grease removal and hauling from SPS 1, full replacement on SPS 14A internal plumbing and piping and surveyed and identified manhole interiors for upcoming CIP rehabilitation projects. Staff also repaired a damaged sewer main.

Staff completed 6,760 feet of hydro-flushing of sewer mains.

**Utility Maintenance Specialist**

Projects completed in September included SPS 14 A interior rehabilitation, installation of WPS 2-2 mag meter, final assembly of the sewer bypass piping for the export line project, abandonment of the restroom and grinder pump assembly at Washoe I, located and exposed the missing ARV on the export line, attended the Ducks Unlimited meeting, a meeting to discuss proposed FEMA work at the wetlands facility and shot elevations in the effluent cells for information gathering.
Other work consisted of assisting Pipeline with shut downs and repair of a water main, assisted in looking for an air and water line leak at the WRRF site, attended the new backhoe training and coordinated the next manhole lining inspection investigation for our CIP projects.

Projects that are waiting on parts, for contractor scheduling or approval to proceed consist of WPS 4-1 meter install, replacement of backflow device, meter and PRV equipment for the golf course, obtaining permits from the USFS for easement access and clearing, lowering the effluent line at Hwy 395 and Plymouth Drive for NDOT, replacement of ARVs on the export line and on sewer pump lines located in the District.

There are currently 4 more projects that are in progress, in review or waiting on funding from other organizations. Lists of projects are available on request

**Asset Management**

21 Buildings, 4 Pipeline and 20 Plant Preventative Maintenance work orders were generated. 73 Buildings, 8 Pipeline and 14 Plant project work orders were also generated.

GIS projects primarily consisted of creating map packages for Engineering which can be used to compare and track edits for construction projects, water and sewer edits for crew projects or field work. 4 meter and address change forms were reviewed and updated and staff is continuing to monitor Billmaster and GIS data links.

31 meter location corrections were submitted as part of the map cleanup project and 6 construction changes that came from the pipeline, engineering and compliance teams.

Staff worked with the plant team to review data entry and corrections. Worked with the plant team on Nexgen for generating new PM’s and Work Orders. Worked with the Buildings team and Accounting on realigning assets for tracking costs but made a decision to leave it as is for now. Completed Pipeline month end requirements with the additional data counts from Nexgen. Reviewed department cost reports prior to distribution and prepared additional labor and work order reports for PW staff.

Other projects consisted of ongoing monitoring of all PW work orders, service requests, making corrections or modifications while providing guidance and training to the staff

**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, inspections of the eye wash stations and extinguishers, training on the new backhoe and one member attended the Tri-State Conference in Las Vegas.

Plant sent one team member to the Tri-State Conference in Las Vegas.

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

**Call outs (After Hours)**

The plant team responded to 12 alarms or call outs. The pipeline team responded to 4 callouts. A complete list of callouts 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:

- **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>
<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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<td>$2,134,219.62</td>
<td>$748,283.17</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>
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<tr>
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<td>$685,000</td>
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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>
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</thead>
<tbody>
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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:

<table>
<thead>
<tr>
<th>Original Contract Amount</th>
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<th>Total Payments for Work Completed to Date</th>
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- **Incline Village Bike Park Project** – Phase I of this project will construct a beginner pump track, beginner and intermediate flow trails, installation of District-supplied ramps, temporary and permanent BMPs, and drainage. The project was awarded to Sierra Trail Works of Reno, Nevada. Work is underway with several tons of project-specific sand delivered to the site. Substantial completion is scheduled for October 15, 2017.

Sierra Trail Works Contract Status:

<table>
<thead>
<tr>
<th>Original Contract Amount</th>
<th>Change Orders to Date</th>
<th>Current Total Contract Amount</th>
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<td>$49,874.00</td>
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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.

**BUILDINGS HIGHLIGHTS**

**Administration:** Investigated and repaired malfunctioning HVAC compressor IT server room.

**Public Works:** Restored steam cleaner function in wash bay; ran conduit for 6 circuits on parking lot wall; sealed roof vents in fan and outer joint of HHW trailer.

**Treatment Plant:** Repaired beach fence adjacent to Burnt Cedar Ozone Facility.
Chateau: Replaced trap in ceiling of snack bar, leaking due to grease build-up; installed additional power to community room for food event; repaired burglar alarm contactors on 1st floor women's bathroom doors. Snaked kitchen sink drains at F&B.

Aspen Grove: Cleaned windows throughout facility; installed new coffee maker.

Golf: Started re-roof project on Champ Golf Course Restrooms; repaired toilets at #6 tee. Investigated and repaired ice machine and fire-caulked ceiling in Mountain Course cart barn.

Ski: Repaired more winter damage at Snowflake, including replacing toilets and bathroom sinks, and damaged ductwork under building.

Parks: Investigated and repaired astral light control for Parks buildings and in parking lot; hung bear warning signs on all Parks garbage and recycle containers.

Recreation Center: Changed hot water heater recirculating pump and scheduled service and repairs for intermittent hot water temperature: performed boiler calibration maintenance on tanks and valve; recoated/resealed gym floor.

Tennis Center: Repaired hot water valve on bathroom sinks.

Incline Beach F&B: Prepped and winterized venue for seasonal closure.

Burnt Cedar Beach F&B: Prepped and winterized venue for seasonal closure.

Beaches: Made repairs to boat ramp and buoys at Ski Beach; re-fired boiler 2 and monitored for correct running operation.

BUSINESS OFFICE HIGHLIGHTS

- Staff posted 59 delinquent accounts for shut-off; 26 online account customers were also notified of posting by email.
- 1 account was shut off for nonpayment. There is currently 1 account shut off with a delinquent balance.
- There were no liens recorded and 1 release of lien recorded.
- 1,003 accounts received E-statements through online account access.
- Potential leak notifications were indicated for 375 accounts on their monthly statement. 73 online account access customers were also notified of their leak by email.
- 24 changes in ownership were processed on utility accounts.
- Staff processed $729.94 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.