## PUBLIC WORKS BENCHMARKS

<table>
<thead>
<tr>
<th>Benchmark Item</th>
<th>NOVEMBER</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Totals for the Month</td>
<td>Fiscal*Year-to-Date Totals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>2017</td>
<td>3-Year Average</td>
<td>2016</td>
<td>2017</td>
<td>3-Year Average</td>
</tr>
<tr>
<td>Water Flow (acre-feet)</td>
<td>126</td>
<td>119</td>
<td>141</td>
<td>1,671</td>
<td>1,614</td>
<td>1,644</td>
</tr>
<tr>
<td>Wastewater Flow (million gallons)</td>
<td>25</td>
<td>25</td>
<td>23</td>
<td>149</td>
<td>146</td>
<td>146</td>
</tr>
<tr>
<td>Fleet Work Orders, PM &amp; CM, % of Total Time</td>
<td>55%</td>
<td>45%</td>
<td>52%</td>
<td>59%</td>
<td>54%</td>
<td>59%</td>
</tr>
<tr>
<td>Buildings Work Orders Completed (each)</td>
<td>118</td>
<td>104</td>
<td>122</td>
<td>629</td>
<td>497</td>
<td>594</td>
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<tr>
<td>Customer Service Requests (each)</td>
<td>58</td>
<td>55</td>
<td>59</td>
<td>575</td>
<td>610</td>
<td>610</td>
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<tr>
<td>Backflow Testing (each)</td>
<td>63</td>
<td>76</td>
<td>65</td>
<td>851</td>
<td>1,053</td>
<td>915</td>
</tr>
<tr>
<td>Plan Checking (each)</td>
<td>18</td>
<td>19</td>
<td>16</td>
<td>121</td>
<td>155</td>
<td>145</td>
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<tr>
<td>Trash Complaints (actual call-outs)</td>
<td>40</td>
<td>31</td>
<td>26</td>
<td>116</td>
<td>274</td>
<td>150</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 November, 2017

DATE: December 15, 2017

DIRECTOR HIGHLIGHTS

Water production has leveled out at 1.0 to 1.5 million gallons per day (mgd) for the month of November, with intermittent higher use during times of snowmaking that increase daily production to 2.5 mgd.

The Director has been part of the development of a new coalition called the Tahoe Water for Fire Suppression Partnership. This Partnership will be working with the Regional Fire Districts to submit water system projects for improving fire suppression in the Tahoe Basin to the USFS in order to obtain funding through the Lake Tahoe Restoration Act. The Partnership has developed ranking and prioritization criteria and applied it to all submitted water projects, and created a list that will be reviewed with the Fire Districts in December. The final top five projects will be submitted by March 2018 to the USFS.

WASTE NOT HIGHLIGHTS

2017 is the

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

Staff was heavily engaged in data compilation and editing for the 2017 TWSA Annual Report, which is now published online at www.TahoeH2O.org and mailed to regulators on November 30, 2017. This report is a critical function of the water system operation to maintain our water treatment filtration avoidance certification from the
EPA and State of Nevada. The construction of a new filter plant has been estimated at $20 million dollars.

Staff is currently reviewing the updated Tahoe Keys Property Owner Association’s (TKPOA) “Application for Exemption to Apply Aquatic Herbicides Test Project.” This application was originally submitted to the Lahontan Regional Water Quality Control Board in January 2017, and was updated in July.

Staff attended the TKPOA/AIS working group on November 15. Staff facilitated a TWSA AIS subcommittee meeting on November 30 to review recent developments in the TKPOA process.

Staff has been working with Tahoe RCD and the Tahoe Fund on a 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.

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 38.6 MG and processed Wastewater was 24.7 MG. 5,000 gallons of septage was received at the WRRF site. 111.4 tons of biosolids were hauled to the Bentley facility for composting. We received 55,523 gallons of waste water from State Parks sites. All of the monthly reports were submitted for review and approval. All monthly DMR’s were reported with no violations.

Water Resource Recovery Facility (WRRF)

Repairs to the export line continued, utilizing the plant basins and clarifiers for storage, and shifting the effluent as line replacements were completed. The team worked different shifts in order to accommodate the project throughout the month. This work created many plant process changes, to keep us in compliance with State requirements. The project also required steady communication between departments, contractors and other agencies to bring it to a successful closure for this year.

Monthly rounds at the wetlands enhancement facility were completed with no issues, and staff completed the new probe installation on the CL10 analyzer.

Our Lab team has been working closely to sample and monitor plant processes, our distribution system silica dose and reservoir tank chlorine samples. They have also been
performing field sampling at various sites to test for silica and chlorine residuals, looking for a possible system leak.

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

The BCWDP facility met all treatment and monitoring requirements for the month. Some troubleshooting was performed to find options to maintain more consistent chlorine dosing for the water system. Our contractor, REO, is preparing for the installation of a new Cla-Valve replacement on one of the pumps. The UMS, Pipeline and Plant teams worked together with the Contractor to complete a total cleaning of the main contact chamber piping.

**Water Pump Stations / Tanks**

Staff completed bi-weekly sampling of all water reservoirs for chlorine residual, and monthly sodium silica sampling was completed in the distribution system. Staff reviewed needed repairs to be performed per the Sanitary Survey, worked with the UMS person on verifying outfall drain from R2-2, and replaced the micro-switch on the Crystal Bay smart valve. Staff worked with Reed Electric on our biannual pump vibration testing on all District pump station motors.

**Sewer Pump Stations**

Staff identified and ordered a new pillow block bearing for the ventilation fan at SPS 1, and are working on repairs to the high-pressure compressor at SPS 16.

**Water Distribution**

In addition to the normal workloads, staff performed 13 line locations, 4 water main line repairs, 1 fire hydrant repair, and 1 service line freeze for an outside contractor. Scheduled work consisted of continuing commercial meter testing, the hydro-flushing program, annual PRV rebuilds, completion of the fall BMP cleaning list, and some miscellaneous CCTV work.

**Wastewater Collection**

The team installed 2 new ARV's, including all plumbing and vault materials, assisted the UMS person with several projects, assisted with the export line repair project, and performed non-pay postings in the Meter Technician’s absence. The crew also completed preparation and chaining of all snow removal equipment and has already supplied snow removal service to most District venues. Staff started on the sanitary survey list of
corrections, which were mainly to reservoir tank vents, and completed 10,550 feet of hydro-flushing of sewer mains and 400 feet of CCTV work.

The relocation of the master meter for Schneider Ranch was completed and staff is now able to obtain water use reads at the Clear Creek meter site, saving travel time into the ranch.

**Utility Maintenance Specialist**

Projects completed for November included assisting with the export line repair project shutdowns and inspections, working with the Pipeline team on replacing 2 ARV's and related materials on the export line, performing stand-by on Highway 395 and Plymouth Drive while NDOT excavated over our export line and assisting the Pipeline team with cleaning culverts at the Wetlands Facility to enhance effluent and hot water flows.

Other projects included assisting the Pipeline crew in moving the Schneider Ranch meter up to the easement and near the Clear Creek Golf Course meter, working on corrections from the WC Health Department list, bracing and securing the generator fuel tank line at WPS 5-2, and troubleshooting the master meter at our Wetlands Facility, which requires replacement of the mother-board.

Staff procured and worked with the contractor during the cleaning of the BCWDP contact chamber, and facilitated the roof and snow jack repairs at WPS 4-2 / 5-1 and 4-1.

Projects that are waiting on parts, for contractor scheduling or approval to proceed consist of IP3 backflow- meter and PRV assemblies, USFS easement verification and permits for the export line ARV work, continued investigation and planning for the emergency bypass project at SPS 10 and replacement of the ARVs on all sewer force mains in the District.

There are currently 3 more projects that are in progress, in review or waiting on funding from other organizations. A complete list of Lists of projects are available on request.

**Asset Management**

There were 18 PM work orders generated for Buildings, 4 for Pipeline and 61 for the Plant crew; 84 Buildings, 17 Pipeline and 9 Plant Corrective / Unscheduled / Special project work orders were also generated.

GIS efforts consisted of water/sewer edits for inspection/construction projects or field work completed, 7 meter locations were corrected and 9 asset cleanups or construction changes were made for the Pipeline, Compliance and Engineering teams.
Major projects consisted of ongoing monitoring of department work orders/service request entries for accuracy, monitoring Plant pump stations, weekly inspections and corrections as needed, monitoring Nexgen changes with the new software releases, looking into future requirements of the 311 Portal implementation for Buildings’ tracking and venue requests along with Buildings’ scheduled and unscheduled support of District venue work order types.

Other items planned are a Nexgen meeting to review the current Backflow Program, its identifying requirements, and transition to their module; setting up Pipeline snow removal work orders; finalizing Pipeline month-end requirement data counts from Nexgen. Staff worked with IT on Nexgen’s mobile app, developed for field management of work orders and service requests, along with inspections requirements; this work will be followed up with initial testing for ease and accuracy.

Staff also prepared 4 cost reports prior to distribution to venue leads and Accounting, mainly dealing with CIP, drains, snow removal, Department charges and construction. Approximately 15 monthly work orders, service requests, and labor reports were prepared for PW staff.

**Miscellaneous / Training / Safety**

Staff completed the bi-annual Confined Space Rescue Training. 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 attending the District monthly safety meeting, holding a Department safety meeting, and inspections of District eye wash stations and extinguishers. All bulk chemical deliveries were received by the plant team, including LOX at the BCWDP site.

**Callouts (After Hours)**

The Plant team responded to 17 alarms or callouts. These consisted of effluent tank levels, low chlorine at the BCWDP, ragged pumps, low suction pressures, high/low tank levels, pump power faults and phasing issues, along with multiple power outages requiring monitoring and system checks. Most outages occurred in the Crystal Bay area. The Pipeline team responded to 10 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 will 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; Work currently focuses on placement of structural steel and roof decking. 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>
</tr>
</thead>
<tbody>
<tr>
<td>$2,026,997</td>
<td>$115,620.02</td>
<td>$2,142,617.02</td>
<td>$1,439,719.98</td>
<td>$727,018.11</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. Fabrication and delivery of the Motor Control Centers encountered a delay with work now scheduled to begin after the New Year, with substantial completion by April 13, 2018.

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>
</tr>
</thead>
<tbody>
<tr>
<td>$685,000</td>
<td>0</td>
<td>$685,000</td>
<td>0</td>
<td>$685,000</td>
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</table>

• **Diamond Peak Emergency Culvert Repair Project** – This project replaced 24” to 30” culvert pipe and installed eight drop inlets at the Diamond Peak Ski Area. The project was awarded to Burdick Excavating of Carson City, Nevada. Work is complete and retainage will be released shortly.
**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>
<th>Current Balance to Completion (including retainage)</th>
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<tbody>
<tr>
<td>$328,328</td>
<td>$84,145</td>
<td>$443,925</td>
<td>432,826.87</td>
<td>$11,098.13</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. This project is complete and retainage will be released shortly.

**Burdick Excavating Contract Status:**

<table>
<thead>
<tr>
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<th>Current Balance to Completion (including retainage)</th>
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<tbody>
<tr>
<td>$417,555</td>
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<td>$445,991.98</td>
<td>$10,438.88</td>
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- **Incline Village Bike Park Project** – Phase I of this project included 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 substantially complete. Additional advance line jumps will be installed in the spring.

**Sierra Trail Works Contract Status:**

<table>
<thead>
<tr>
<th>Original Contract Amount</th>
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<td>$49,874.00</td>
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<td>$93,985.14</td>
<td>$81,297.80</td>
<td>$27,042.92</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 Diamond Peak CMP Culvert Rehabilitation Project, Incline Beach House project, office space remodels 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:** Installed wiring for emergency lights in both top floor bathrooms.

**Public Works:** Installed wire and GFI receptacles to tractor block heaters on east wash bay wall. Inspected and repaired Pipeline storage lighting. Inspected and adjusted lighting control clocks.

**Treatment Plant:** Inspected and repaired fire riser system, replaced faulty gauges.

**Chateau:** Inspected and repaired fire riser system, replaced faulty gauges. Inspected and repaired roof ice melt. Removed graffiti found in second floor bathroom following IVGID Board of Trustees meeting.

**Aspen Grove:** Re-lit water heater. Replaced and upgraded mechanical thermostat with a digital device.

**Golf:** Inspected and repaired fire riser system, replaced faulty gauges in the Champ Cart Barn. Repaired leak in the kitchen drain line under the building at Mountain Golf Pro Shop.

**Ski:** Jetted clogged drains going to grease trap at F&B. Inspected and repaired fire riser system, replaced faulty gauges in main lodge. Repaired rental shop locks and crash bar. Installed power box and data box for POS kiosk. Painted and installed new door at Skier Services’ employee entrance. Added glycol to Loft Bar snowmelt system.

**Parks:** Installed new wood on bike park jumps and re-covered with dirt. Inspected and repaired fire riser system, replaced faulty gauges in the Parks Building.

**Recreation Center:** Cleaned gutters and checked building for leaks. Repaired the locks at the pool and group fitness room, per Fire Marshall Inspection requirements.

**Tennis Center:** Installed new oil-based heater in bathroom mechanical room.

**Incline Beach and Burnt Cedar Beach F&B:** Performed alarm testing preventive maintenance.

**Beaches:** Performed leak testing at Burnt Cedar pool. Removed speed bumps at all beaches for winter. The large pool pump lost prime due to low water level and debris...
in pool; removed skimmers and cleared main pump basket, filled pool to correct level, bled off air, restarted and monitored the pump for proper working condition.

**FLEET 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 in near completion of the summer services and overhauls of the equipment in preparation for upcoming season.

**Golf shop:** With the closing of both golf operations mechanics are now in the process of winter maintenance and overhauls of the equipment in preparation for the 2018 season.

**BUSINESS OFFICE HIGHLIGHTS**

- Staff posted 60 delinquent accounts for shut-off; 29 online account customers were also notified of posting by email.
- No accounts were shut-off for nonpayment. There are currently no accounts shut-off with a delinquent balance.
- There were no liens recorded and 1 release of lien recorded.
- 1,028 accounts received E-statements through online account access.
- Potential leak notifications were indicated for 278 accounts on their monthly statement. 44 online account access customers were also notified of their leak by email.
- 29 changes in ownership were processed on utility accounts.
- Staff is working on contract administration of our various CIP projects, including those contained within Engineering’s report, above.