## PUBLIC WORKS BENCHMARKS

<table>
<thead>
<tr>
<th>Benchmark Item</th>
<th>DECEMBER</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Totals for the Month</td>
<td>Fiscal* Year-to-Date Totals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>2017</td>
<td>3-Year Average</td>
</tr>
<tr>
<td>Water Flow (acre-feet)</td>
<td>177</td>
<td>179</td>
<td>174</td>
</tr>
<tr>
<td>Wastewater Flow (million gallons)</td>
<td>32</td>
<td>27</td>
<td>29</td>
</tr>
<tr>
<td>Fleet Work Orders, PM &amp; CM, % of Total Time</td>
<td>55%</td>
<td>49%</td>
<td>53%</td>
</tr>
<tr>
<td>Buildings Work Orders Completed (each)</td>
<td>107</td>
<td>102</td>
<td>108</td>
</tr>
<tr>
<td>Customer Service Requests (each)</td>
<td>57</td>
<td>57</td>
<td>61</td>
</tr>
<tr>
<td>Backflow Testing (each)</td>
<td>81</td>
<td>47</td>
<td>76</td>
</tr>
<tr>
<td>Plan Checking (each)</td>
<td>20</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Trash Complaints (actual call-outs)</td>
<td>15</td>
<td>23</td>
<td>15</td>
</tr>
</tbody>
</table>

*Fiscal Year is July 1 to June 30.
MEMORANDUM

TO:       Steve 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 December, 2017

DATE:     January 15, 2018

________________________________________

DIRECTOR HIGHLIGHTS

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

The trash violation statistics are presented in the following table. A total of 148 locking wildlife resistant garbage carts have been issued under the Zero Tolerance Policy and Ordinance 1 procedures. There are currently 956 bear boxes installed in the service area.

<table>
<thead>
<tr>
<th>July 1 to June 30</th>
<th>Fines Paid</th>
<th>Credits Issued</th>
<th>Net of Fines</th>
<th>Total Complaints</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-15</td>
<td>$46,258</td>
<td>$17,323</td>
<td>$28,935</td>
<td>200</td>
</tr>
<tr>
<td>2015-16</td>
<td>$18,997</td>
<td>$12,834</td>
<td>$6,163</td>
<td>162</td>
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<tr>
<td>2016-17</td>
<td>$12,294</td>
<td>$4,198</td>
<td>$8,096</td>
<td>254</td>
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<tr>
<td>2017-18</td>
<td>$10,048</td>
<td>$1,765</td>
<td>$8,283</td>
<td>297</td>
</tr>
<tr>
<td>2005-17</td>
<td>$216,966</td>
<td>$75,243</td>
<td>$141,723</td>
<td>1930</td>
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</tbody>
</table>

The Solid Waste complaint process has been updated so that reports of trash violations can be directly submitted through Talk2IVGID over a mobile device or to a dedicated email account. We have eliminated the cumbersome voicemail process.

The one-year Solid Waste Franchise performance report has been completed and has been submitted to Waste Management and it is anticipated that this report will be posted to the website by the end of January.

WASTE NOT HIGHLIGHTS
2017 was the

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

Staff completed the first IVGID Public Works Sustainability Report at the end of the month. The report is under review by the PW Director and will be published in January 2018. The report features a sustainability metrics evaluation system, and also documents Public Works program milestones. Energy, water and waste records are being input into an EPA Energy Star data tracking and analytics portal in order to build a databank.

Staff was heavily engaged in the data compilation and editing for the 2017 TWSA Annual Report. This report was published online at www.TahoeH2O.org and mailed to regulators on November 30, 2017. It is a critical function of the water system operation, used 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.

The Aquatic Invasive Bottom Barrier Challenge was met. The Tahoe Fund raised $26,000 to match the TWSA commitment of $26,000. The total project raised $52,000 to purchase additional inventory of bottom barriers to assist in controlling aquatic invasive species.

**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 58.4 MG, and processed wastewater was 27.16 MG; 7,500 gallons of septage was received at the WRRF site. 103.8 tons of biosolids were hauled to the Bentley facility for composting. We received 57,900 gallons of wastewater 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)**

The Lab team has been working diligently to sample and monitor the plant processes, including our distribution system silica dose and reservoir chlorine samples. The wetlands enhancement facility monthly rounds were completed with no issues.

The WRRF increased on-line tankage in the second half of the month, switching from 2 to 3 basins and from 1 to 2 clarifiers. Projects consisted of: Repairing the #2 water on the solids handling 3” line; troubleshooting and fixed the DWSP #1 in the solids handling building; repair of the tripped micro screen switch; investigated the 6 basins 4” drain line
with the pipeline team for future cleaning; and met with Waters Co. staff to review cleaning of the plant waste pit and grease pit.

The Kaeser Blower Company has completed the install and start up tests for the aeration system, which is now being tested for operation.

**Burnt Cedar Water Disinfection Plant (BCWDP)**
The BCWDP facility met all treatment and monitoring requirements for the month. Projects consisted of miscellaneous calibrations, installation of a secondary chlorine injection pump to help eliminate plant shutdowns, two extra alarms were installed to the PLC program for High CL2 or turbidity coverage, and extended time delays were added to the OCS 1 plant shutdowns or startups to avoid further 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.

**Sewer Pump Stations**
Staff worked with Pipeline and UMS staff to replace the mag hydroxide line at the BCWDP site and replaced a blown fuse on the 1 pump at SPS 7.

**Water Distribution**
In addition to the normal workload, staff performed 9 line location requests and completed 1 service line freeze for a contractor. Staff also worked with the UMS person performing reservoir tank corrections from the Washoe County Health Department sanitary survey list. One team member worked on scanning as-built files to street files while on light duty.

Scheduled work consisted of completing commercial meter testing and completion of annual PRV rebuilds.

**Wastewater Collection**
The team repaired 1 damaged sewer main pipe. WRRF site work consisted of: Assisting the UMS person with a leak repair on the #2 water line; fabrication of the bar screen and rake; replacement of the mag hydroxide line at the Burnt Cedar site; worked with the UMS person and Badger rep on wetlands mag meter issues; assisted on the completion of current repairs to the export line; replaced the worn-out Vactor tubes; and 47 hours of snow removal at District venues.

Staff completed 1,250 feet of hydro-flushing of sewer mains and 1,500 feet of CCTV work.

**Utility Maintenance Specialist**
Projects completed for December consisted of corrections to the water system
generated from the Washoe County Health sanitary survey, installation of chlorine
dosing lines at 3 of our water reservoirs, and work with Clear Creek staff to correct the
master meter repairs and errors.

Waste water projects included: Working with teams on valve exercising and flushing of
drain pipes; adjusting cell flows and levels and installation of two new blinds; culvert
extension to the hot water flow crossing; repaired the road damage and a wash out to the
100 year cell; cleared the vegetation on the effluent easement from Hwy 395 to the
Carson River crossing; new blower start up at the WRRF site and training with CWEA on
low voltage/ Arc flash awareness.

Projects that are waiting on parts, for contractor scheduling etc. consist of: Wetlands mag
meter replacement; separating building domestic water at the WRRF site; ordering and
installation of a new air compressor for SPS 16; complete IP 3 backflow device-meter and
PRV assemblies; complete easement and vegetation clearing agreements and permitting
with the USFS.

Continued on the repair and replacement of the ARVs on the export line, utilizing the
Pipeline team along with in-town sewer main ARVs, and final planning and verifying for
the upcoming internal piping and various fittings inside SPS 10.

Other projects in progress consist of SPS 12 interior work; SPS 1 leaking valve issue
(which will possibly require a bypass set up); installation of the fuel tank day tank, and
piping replacement. A complete list of all projects is available on request.

**Asset Management**

12 Buildings, 1 Pipeline and 18 Plant Preventative Maintenance work orders were
generated. 92 Buildings, 14 Pipeline and 8 Plant Corrective / Unscheduled / Special
project work orders were also generated.

GIS efforts consisted of water/sewer edits for inspection/construction projects or field work
was completed, 3 meter locations were corrected and 2 asset cleanups or construction
changes were made for Pipeline/Compliance/Engineering.

Prepared and reviewed five cost reports for various department charges. 15 monthly work
orders were prepared for Public Works staff. Ongoing monitoring of Department work
order/service requests for entry and accuracy, monitoring of the Treatment Plant team’s
weekly inspections for accuracy or corrections, and monitoring pending fixes or changes
with new issues in the Nexgen software program.

Worked with Buildings regarding future measurements, reviewing status on preventative
maintenance work orders, and generating sample reports for venue dates and ranges.
The 311 Service Portal project is temporarily on hold, awaiting Nexgen software enhancements; implementation is anticipated for January.

New work orders were set up for the Pipeline team’s snow removal, and finalizing the Pipeline month end requirements for Nexgen data count extractions.

Other significant projects consisted of initial planning of the transition of Compliance tracking processes and incorporating these into Nexgen’s backflow program module. Staff continues to work with IT on issues regarding map use and data along with its publishing, which involves the ESRI software owner and Nexgen.

Miscellaneous / Training / Safety
Our CDL driver continues to haul biosolids for the WWRF site, green waste for Parks and Golf, equipment drop off or returns for all PW departments, the tree chipping program hauling to various sites for reuse and picking up materials for the Pipeline team.

Pipeline activities consisted of attending the District monthly safety meeting, holding a monthly safety meeting, inspections of the eye wash stations and extinguishers and completed the annual confined space rescue training. They also completed a full tour off all snow removal sites for upcoming snow removal. One team member completed full day training on low voltage/Arc flash awareness.

Plant team members attended the electrical class on low voltage/Arc flash with CWEA and sent out the multi-gas detector for repairs and testing.

The Plant team interview committed worked on reviews and candidate list for upcoming Electrical/Instrumentation position replacement and have scheduled interviews for the near future.

All bulk chemical deliveries were received by the plant team, which consisted of LOX tank filling at the BCWDP site.

Call-outs (After Hours)
The plant team responded to 19 alarms or call-outs. They consisted of security alarms, chlorine levels, pump station and power issues, turbidity, D.O. at WRRF site, tank levels, plugged sewer pumps, UV reactor/UV and OCS shutdowns and SCADA issues. The pipeline team responded to 3 overtime call-outs. A complete list is on file.

ENGINEERING HIGHLIGHTS
The Engineering Division is working on several CIP projects currently under construction or in the bidding phase, including:
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. Major structural work for the building is complete including all masonry, structural steel, roofing systems, and interior concrete slabs. Work currently focuses on installation of exterior doors and completion of mechanical, electrical, plumbing systems within the building. 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>$1,632,823.24</td>
<td>$509,793.78</td>
</tr>
</tbody>
</table>

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. All major components for the project have been delivered and the contractor has mobilized and begun work on-site. Work currently focuses on wet-well cleaning and rehab and electrical and equipment demolition in the dry-well. Substantial completion of the project is anticipated by April 13, 2017. Payment was made in December for materials stored to date.

- K. G. Walters 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>$685,000</td>
<td>$18,486.53</td>
<td>$703,486.53</td>
<td>$33,434.75</td>
<td>$670,051.78</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>
<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>$49,874.00</td>
<td>$44,111.14</td>
<td>$93,985.14</td>
<td>$81,297.80</td>
<td>$12,687.34</td>
</tr>
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</table>

Additional contracts issued in November and December:

<table>
<thead>
<tr>
<th>Date</th>
<th>Vendor</th>
<th>Project CIP &amp; Name</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/17/17</td>
<td>PR Design</td>
<td>3141LI1201; Champ Course Maintenance Building Drainage</td>
<td>$25,100</td>
</tr>
<tr>
<td>11/28/17</td>
<td>PR Design</td>
<td>4378LI1604; Bike Park Phase II, Engineering Services</td>
<td>$18,315</td>
</tr>
<tr>
<td>11/6/17</td>
<td>Nat'l Coating &amp; Lining Co.</td>
<td>2599SS1203; Sewer Manhole Rehabilitation Project</td>
<td>$49,292</td>
</tr>
<tr>
<td>11/3/17</td>
<td>WQTS</td>
<td>CEQA Review, TWSA</td>
<td>$20,000</td>
</tr>
<tr>
<td>12/15/17</td>
<td>Lloyd Consulting Group</td>
<td>4378BD1801; Incline Ballfield Renovation</td>
<td>$58,400</td>
</tr>
<tr>
<td>12/15/17</td>
<td>CH2M</td>
<td>2599DI1104; SPS 8 Construction Services</td>
<td>$20,000</td>
</tr>
</tbody>
</table>

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, 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:** Removed and reconfigured copy room shelving, and installed new emergency lights in both second floor bathrooms.

**Public Works:** Replaced heating circulation pump on wash bay boiler, repaired malfunctioning Fleet heater, inspected all roll up doors in Fleet Maintenance, and scheduled the replacement of two lift motors.

**Treatment Plant:** Installed a new transformer for 120/208 panel at the Ozone Plant, and inspected and repaired the Reznor heater at Pine Cone Circle.

**Chateau:** Re-piped the drain in HVAC #8 to allow access to filter. Traced out gas line for fireplace to insure ignitor functions correctly, and started fire closure magnetic door stops CIP per the Fire Marshall’s inspection requirements.

**Aspen Grove:** Mounted new bathroom mirrors, repaired sheetrock where needed, repainted surfaces, and installed new soap dispenser and paper towel dispenser. Ice machine overflowed, drain frozen, cleaned up thawed out the lines and installed heat tape.

**Golf:** Caulked potential roof leak areas, winterized the chemical room, and replaced lighting ballasts with non-ballasts throughout the Champ Golf Maintenance Building.

**Ski:** Installed new GFI receptacle for outside BBQ at the Main Lodge. Installed relay for suppression system receptacle under F&B hood, per the Fire Marshall’s inspection, and completed cleaning of all hood fans. Built and installed safety deposit box for Child Ski Center. Installed new speaker in Ticket area. Completed door and lock repairs in the Skier Services lobby area, and completed backflow testing at all Ski venues.

**Parks:** Winterized the Village Green bathrooms.

**Recreation Center:** Installed conduit, wiring and timer at the south side receptacle for Christmas lights. Discovered a fault in the pool’s UV sensor and run time on chlorine injector, which the team repaired and monitored. Adjusted the pool computer to correct temperature (unit was off), repaired and monitored. Re-coated and resealed the front walkway, and started fire closure magnetic door stops CIP per the Fire Marshall’s inspection requirements.

**Tennis Center:** Winterized the Tennis Center, including boarding up windows and doors.

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

**Beaches:** Filled both pools, increased heat to prepare for divers performing leak testing. Inspected ramp and tightened ramp safety walls after wave action for the month.
FLEET HIGHLIGHTS
Sweetwater shop: All shop activities are running smoothly at this time and the mechanics are keeping up with preventive maintenance schedule and repairs. Fleet staff has provided operator safety training for all Diamond Peak shuttle bus and tram drivers.

Ski shop: All shop activities are running smooth and mechanics are keeping up with workload. All winter operations equipment has been put into service and performing well.

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 57 delinquent accounts for shut-off; 27 online account customers were also notified of posting by email.
- No accounts were shut off for nonpayment. There are currently no accounts shut off for a delinquent balance.
- 1,048 accounts received E-statements through online account access.
- Potential leak notifications were indicated for 274 accounts on their monthly statement. 40 online account access customers were also notified of their leak by email.
- 15 changes in ownership were processed on utility accounts.
- Staff processed $388.14 in credits related to water leaks.
- Staff continues contract administration work for our various CIP projects, including those contained within Engineering’s report, above.