I. CALL TO ORDER

II. MINUTES APPROVAL

1. Public Works Commission - Regular Meeting - Nov 6, 2019 4:00 PM

III. PWC AGENDA REQUESTS

1. Lander Street Water Renewal Facility Improvements Update
   Presenter: Jim Pardy
   Estimated Time: 30 Min
   ACTION REQUESTED: Information Only

2. Budget 101 and FY 2021 Budget
   Presenter: Heather Buchanan
   Estimated Time: 60 Min
   ACTION REQUESTED: Information Only

IV. DIRECTOR’S REPORTS

1. Billing and Collection Status
   Presenter: Steve Burgos
   ACTION REQUESTED: Information Only

2. Education Program Update
   Presenter: Steve Burgos
   ACTION REQUESTED: Information Only

3. General Fund Capital Projects
   Presenter: Steve Burgos
   ACTION REQUESTED: Information Only
4. **Geothermal and Irrigation Projects**  
   Presenter: Steve Burgos  
   ACTION REQUESTED: Information Only

5. **Water Renewal Fund Capital Projects**  
   Presenter: Steve Burgos  
   ACTION REQUESTED: Information Only

6. **Water Quality Regulatory Report**  
   Presenter: Steve Burgos  
   ACTION REQUESTED: Information Only

7. **Materials Management Program**  
   Presenter: Steve Burgos  
   ACTION REQUESTED: Information Only

8. **Stormwater Regulatory Program**  
   Presenter: Steve Burgos  
   ACTION REQUESTED: Information Only

9. **Sustainability Air Quality Program**  
   Presenter: Steve Burgos  
   ACTION REQUESTED: Information Only

V. **ADJOURNMENT**
I. Call to Order

PRESENT: Crowley, Quick, Gravatt, Hilton, Robbins, Thorne, Reading, Nink
ABSENT:

II. Minutes Approval

1. Public Works Commission - Regular Meeting - Aug 7, 2019 4:00 PM

Commissioner Reading moved to approve minutes from the August 7, 2019 meeting. Commissioner Gravatt seconded, and the motion carried unanimously.

RESULT: ACCEPTED [UNANIMOUS]
MOVER: Don Reading
SECONDER: Crispin Gravatt, Commissioner
AYES: Crowley, Quick, Gravatt, Hilton, Robbins, Thorne, Reading, Nink

III. Agenda Items

1. Election of Public Works Commission Chair

Commissioner Thorne nominated Commissioner Crowley. Commissioner Quick seconded, and the motion carried unanimously.

RESULT: APPROVED [UNANIMOUS]
MOVER: Judy Thorne
SECONDER: Renee Quick, Commissioner
AYES: Crowley, Quick, Gravatt, Hilton, Robbins, Thorne, Reading, Nink

2. Election of Public Works Commission Vice-Chair

Commission Chair Crowley called for nominations for the Public Works Commission Vice-Chair. Commissioner Reading nominated Commissioner Quick. Commissioner Robbins seconded, and the motion carried unanimously.
RESULT: APPROVED [UNANIMOUS]
MOVER: Don Reading
SECONDER: Thomas Robbins, Student Commissioner
AYES: Crowley, Quick, Gravatt, Hilton, Robbins, Thorne, Reading, Nink

3. Stormwater Management Design Manual and Guidance Updates

Steven Hubble, Stormwater Program Coordinator, updated the commission on proposed revisions and updates to the Stormwater Management Design Manual, the Operation and Maintenance of Stormwater Systems Resource Guide and the Stormwater Pollution Prevention Controls and Practices Resource Guide. The updates include clerical and housekeeping updates, updates to design details, streamlined content and an aesthetic update to the documents.

- Commissioner Thorne asked if part of the process is a review by the users. Mr. Hubble answered since these updates were more of a housekeeping or required nature, users weren’t consulted at this time.

- Commissioner Quick commended the job done in updating and refreshing the information.

- Commissioner Gravatt asked how often the city updates its websites and how the websites and the documents associated with the links are kept current. Mr. Hubble answered that keeping the information current is a challenge and we are trying to direct users to a landing page that doesn’t change frequently. Mr. Burgos added the city’s website has been updated to provide information at a high level instead of directing users to documents that change frequently. Colin Hickman, Public Works Communication Manager, added that the city is working to keep the information on its website fresh and relevant.

- Commissioner Robbins asked if any of the changes made to the stormwater documents relaxed any of the city’s stormwater management standards. Mr. Hubble answered that the changes do not relax any of the stormwater management standards.

- Commissioner Quick asked how the information is being communicated to residential users. Mr. Hubble explained that we work with our co-permittees under the Partners for Clean Water brand to communicate stormwater standards to the community and there is an annual media campaign that highlights an aspect of stormwater management. In addition to the three documents you have seen today, Partners for Clean Water has produced a fourth document that is focused on issues within the residential setting.

- Commissioner Robbins commented that he participated in the Boise WaterShed water quality sampling event this fall.
• Commissioner Gravatt added he would appreciate assistance identifying partners to get information about the Idaho State Science Standards and the related work Public Works is doing into schools and other outlets and Commissioner Quick thanked Commissioner Gravatt for continuing to involve schools.

• Commissioner Thorne asked what help Commissioner Gravatt is looking for specifically. Commissioner Gravatt answered he would like educational practitioners who can help identify activities that demonstrate environmental concepts that align with state science standards.

• Commissioner Quick asked how stormwater facilities fit into the stormwater standards. Mr. Hubble explained management of stormwater facilities depends on their location and ownership. The city maintains facilities on city owned property. In commercial and industrial areas, the facility is maintained by the owner. In residential subdivision responsibility is often shared between the owners and ACHD if there are public streets in the subdivision. The city does maintain some drainage ways in the foothills that were designed for flood control and mud flow prevention.


RESULT: APPROVED [UNANIMOUS]
MOVER: Crispin Gravatt, Commissioner
SECONDER: Renee Quick, Commissioner
AYES: Crowley, Quick, Gravatt, Hilton, Robbins, Thorne, Reading, Nink

4. Facilities Program Division Update

Rob Bousfield, Municipal Facility Program Manager Sr., presented an update on key work activities with a focus on development of a municipal building facilities plan to address staff and support space needs into the future. Mr. Bousfield asked for discussion and input from the commissioners on potential options and considerations for space planning.

• Commissioner Crowley asked why the location of the new Police Microdistrict was chosen. Mr. Bousfield answered the selected location is close to the downtown core without being impacted by downtown traffic, it provides good access to the greenbelt, supports the police bicycle patrol unit, and it’s close to some high call areas such as Rhodes Park.

• Commissioner Quick asked if there are plans for a downtown walk-in police
station in the future. Mr. Bousfield doesn’t know of any plans for a walk-in location currently. The Microdistrict has been designed to allow expansion to meet future needs.

- Steve Burgos, Public Works Director, asked what our estimate of square footage needs in 20 years is relative to City Hall’s size. Mr. Bousfield answered we anticipate we’ll need another 70,000 square feet in 20 years. That is a little more than two additional floors at City Hall.

- Commissioner Thorne commented that Idaho State University is implementing an interdisciplinary team concept to encourage collaboration between students and healthcare disciplines. Mr. Bousfield would be interested in learning more about the process.

- Commissioner Gravatt added that Chobani’s model of work allows employees to cycle through different departments. Mr. Burgos commented that the city has considered a similar program.

- Commissioner Nink has seen a similar program at the Department of Defense and Bureau of Reclamation. Commissioner Gravatt and Commissioner Nink both emphasized the importance of having a proponent of the program in a leadership role and questioned the feasibility of the approach in a government setting.

- Commissioner Quick commented that bringing different departments together helps foster understanding between disparate groups. She also asked how artificial intelligence and robots might impact our future space and personnel needs. Mr. Bousfield explained that our IT and HR departments have begun to explore how technology will impact how we work in the future. Mr. Burgos added Public Works is beginning to discuss how data sets and predictive analytics might be used in the future to do our jobs better.

- Commissioner Hilton added that efficiencies gained in technology typically don’t reduce the headcount because staff is needed to support the technologies. She also commented that work from home programs can be successful. Mr. Burgos asked if Idaho Power is considering a work from home policy. Commissioner Hilton replied that Idaho Power is considering work from home or telecommuting possibilities.

- Commissioner Gravatt asked where the largest growth in space needs are going to be in the next 20 years. Mr. Bousfield explained the biggest shortfall will be at City Hall. Mr. Burgos added most of the departments at City Hall are internal service departments that support the organization. Commissioner Gravatt asked if that is where most of the growth is expected. Mr. Bousfield replied that the departments at City Hall are anticipated to have the highest rate of growth.

- Commissioner Robbins suggested Six Sigma as a resource. He asked if the city
has considered inter-agency partnerships to solve space issues. He suggested caution on the notion of telecommuting to work as it requires constant communication and checks and balances in place to be successful.

- Commissioner Nink asked if we have refined down to a single model of growth for the departments and is there an oversight team in place. Mr. Bousfield answered we have taken input from the departments and applied different growth rates. Our internal services department team has reviewed the growth projections and is serving as an oversight team.

- Commissioner Gravatt offered to share information on an inter-institution model that BSU is looking into. Mr. Burgos introduced Caitlyn Swanson, a student from BSU participating in the Work U internship program.

- Commissioner Robbins commented it’s important that whatever decisions are made and what direction is taken, Public Works model the behavior we expect from the rest of the city.

- Commissioner Thorne commented that shared space has been successful in her experience, including non-gender specific restrooms.

RESULT: DISCUSSED

5. Plastics Challenge

Colin Hickman, Public Works Communications Manager, updated the commission on the July Plastics Challenge and the results of the waste reduction survey.

- Commissioner Robbins commented that on a recent trip he encountered a grocery store where plastic bags were not available. He asked if the city is considering ways to encourage retailers to stop using plastic bags. Mr. Burgos explained the state legislature has prohibited cities from banning plastic bags and we are exploring other ways to encourage businesses not to provide plastic bags.

- Commissioner Quick added part of the success of California’s ban of plastics bags was the voluntary participation from grocery stores. She continues to see products on grocery store shelves labeled as compostable and recyclable that aren’t.

- Commissioner Gravatt thinks a campaign to illustrate the measures citizens are already doing to reuse and recycle should be a consideration. Mr. Hickman explained the city is exploring ways to encourage citizens to participate in any way they can and to illustrate the ways they are already successful.

- Commissioner Hilton expressed her thanks for the plastics challenge. She
explained that the challenge engaged her teenage son in reduce and reuse behavior.

- Commissioner Quick commented we need to be informing the public on the successes of the program and educating them on ways to reduce and reuse. Mr. Hickman agreed and explained part of the business waste reduction challenge was to recognize businesses that have adopted reduce and reuse options.

- Commissioner Gravatt asked if we have considered asking the artistic community for artwork to reflect reduce and reuse. Mr. Hickman answered we have been in discussion with the Arts and History Department about the Public Works art plan. Mr. Burgos explained the Public Works art plan is focused on bringing representative art out to the community instead of in one location such as the Boise WaterShed.

- Commissioner Thorne suggested Freak Alley as an example of a successful art installation.

- Commissioner Robbins asked what approach can be used to win over citizens who might be against reduce and reuse. Mr. Hickman acknowledged that we will need to use different approaches to reach different segments of the community.

- Commissioner Crowley asked what is considered the most important aspect of plastics that we should be focusing on, straws, plastic bags etc. Peter McCullough, Materials Management Program Manager, answered food containers represent the largest percentage of plastic and could possibly be the priority. Commissioner Crowley also inquired if incentivizing users to reduce plastic consumption is an option. Mr. McCullough answered ways to incentivize are being discussed.

RESULT: DISCUSSED

IV. Director’s Reports

1. Billing Collection Status

RESULT: DISCUSSED

2. Education Programs

RESULT: DISCUSSED

3. General Fund Capital Projects
RESULT: DISCUSSED

4. Geothermal Irrigation Projects
RESULT: DISCUSSED

5. Water Renewal Fund Capital Projects
RESULT: DISCUSSED

6. Water Renewal Regulatory
RESULT: DISCUSSED

7. Materials Management Program
RESULT: DISCUSSED

8. Stormwater Regulatory Program
RESULT: DISCUSSED

9. Sustainability Air Quality Program
RESULT: DISCUSSED

V. Adjournment

1. Director’s Announcements
   - Mr. Burgos advised the commission we have received a grant from the Volkswagen settlement monies that has allowed Republic Services to purchase five electric trash trucks in 2020/21 which will result in Boise having the largest electric trash fleet in the country.
   - Mr. Burgos explained we are starting to see Public Works objectives and city goals overlap in ways that are impacting our decision making. As result, he shared that we decided to make the Microdistrict 100% electric to leverage the eventual transition to 100% Clean Electricity goal by 2035.
   - As part of the Mayor’s Boise Kind initiative we have convened a workshop with other utilities to address affordability issues. He added we have started discussions with Suez, Idaho Power and Intermountain Gas to find ways to help citizens experiencing hardships.

2. Motion to Adjourn 6:12 PM
Commissioner Quick moved to adjourn the meeting. Commissioner Gravatt seconded, and the motion carried. The meeting adjourned at 6:12 p.m.
TO:    Public Works Commission  
FROM:  Jim Pardy  
DATE:  December 13, 2019  
RE:    Lander Street Water Renewal Facility (WRF) Improvements Update

ISSUE

Provide an update and receive feedback on the Phase 1 - Lander Street Water Renewal Facility (WRF) Improvements, focused on Guaranteed Maximum Price (GMP) Contract Amendment No. 6 which includes the construction of the new Headworks and UV Disinfection Facilities.

BACKGROUND

In May 2017, Council awarded a Construction Manager and General Contractor (CM/GC) agreement for preconstruction and construction services to McAlvain Construction Inc. for Phase 1 – Lander Street WRF Improvements. These improvements include site work and replacement of the Headworks and UV Facilities both of which have reached the end of their useful life.

Due to the complexity and magnitude of the upgrades, work was planned to be completed using multiple GMP amendments over a three-year period.

To date, preconstruction services and five (5) GMP amendment packages have been contracted, as follows:

<table>
<thead>
<tr>
<th>Preconstruction Services</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>GMP No. 1: Safety Improvements</td>
<td>May 2017</td>
<td>$1,572,212</td>
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<tr>
<td>GMP No. 2: Headworks Equipment</td>
<td>August 2018</td>
<td>$222,340</td>
</tr>
<tr>
<td>GMP No. 3: General Conditions</td>
<td>January 2019</td>
<td>$602,723</td>
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<td>(partial FY19)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GMP No. 4: Early Civil Work</td>
<td>June 2019</td>
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<tr>
<td>GMP No. 5: General Conditions</td>
<td>May 2019</td>
<td>$4,492,729</td>
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<tr>
<td>(partial FY20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Approved to Date</td>
<td>October 2019</td>
<td>$1,225,540</td>
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</table>

GMP No. 6 will include the construction and construction management costs associated with the Headworks and UV Disinfection Facilities. Water Renewal staff are evaluating the bids that will make up GMP No. 6. We will present these projected costs.
and a progress update on Phase 1 – Lander Street WRF Improvements. Our goal is to solicit PWC feedback prior to this information being presented to Council for approval.

OPTIONS AND RECOMMENDATION

Information only

SUGGESTED MOTION

None required
MEMO

TO: Public Works Commission
FROM: Heather Buchanan, Support Systems Sr. Manager
DATE: December 18, 2019
RE: FY 2021 Budget Background

BUDGET OVERVIEW

We are beginning the process of developing the budget for fiscal year (FY) 2021. This memo provides an overview and background of the budget development process.

Public Works Accounting (Budgeting) Structure

Public Works is divided into five divisions — Facilities Program Management, Operations, Environmental, Engineering, and Administration. Each of these divisions may support and budget for activities within one or more of five funds — General, Water Renewal, Geothermal, Solid Waste, and Municipal Irrigation. The General Fund is a tax supported fund; the other funds are rate supported and also referred to as enterprise funds.

Budgeting Activities

Capital Improvement Projects (CIP): The first step in the budgeting process is to identify needs for major construction projects. These include activities such as street light installations, sewer line rehabilitation projects, and water renewal facility upgrades or expansions. Funding sources are identified that may include grants, tax funds, or enterprise funds. Associated operation and maintenance expenses are also noted. If a CIP is approved, so is the appropriation for the additional operation and maintenance expense or revenue.

Phases of a capital project may be distributed over several years. This scenario sometimes occurs when the project engineering is to be completed in one year and the construction in the next. The anticipated annual spending amounts are included in the cash flow models and budget in the year they are expected.

The capital costs are presented in present value dollars and escalated by inflationary guidelines to represent the future values included in the cash flow models.
**Equipment:** The next budget that is prepared is the equipment budget. Each division identifies its needs, ranging from copiers to backhoes. These requests are then grouped together by fund.

**Operations and Maintenance (O&M):** The last budget section developed is the Operations and Maintenance budget. Each division submits an O&M budget identifying detailed expenses such as office supplies, professional services, utility services, and vehicle maintenance. In addition, revenue sources are identified. These sources may include grants, plan review fees, project manager fees, fees and charges from the rate base, and other miscellaneous sources.

There are several O&M expense budget amounts supplied by other departments, including risk and worker’s compensation insurance and indirect costs (overhead costs for items such as Mayor and Council, Human Resources, Legal, and so forth). We also budget for “cross-charges,” which allow one fund to reimburse another fund for services provided. For example, Utility Maintenance staff are Water Renewal Fund employees, but they often do geothermal system repairs. As a result, the Geothermal Fund reimburses the Water Renewal Fund for services rendered. This type of fund-to-fund exchange requires that revenues and expense budgets are appropriately established.

Coupled with the O&M budget is the Personnel budget. This part of the budget is based on the cost for each full-time equivalent employee (FTE) that has been approved for the department. The cost for each FTE includes appropriate salary and benefit amounts which are totaled together to generate the overall personnel budget. Small amounts for overtime, bonuses, and temporary salaries are also included. Even though budgeted dollars may be available, a permanent employee may not be hired unless there is an associated FTE position available. If additional FTEs are required beyond the approved department number, then a request must be made during the budget process.

**Rates:** When all projected revenues and expenses are finalized, staff prepares rate analyses for the Water Renewal and Materials Management funds. Even though rate increases are adopted through a separate public hearing process, the proposed rates are reviewed in parallel with the budget process.

**City Budget Process Outside Public Works**

**Annual Budget:** The City utilizes an annual budget process with the fiscal year beginning October 1 and ending September 30. Budgets are developed each spring for the following fiscal year. Cash flow and other projection models are utilized to ensure that proposed budgets do not create financial hardships in future years.

**General Fund Priorities:** Many of the City’s budgeting activities are focused on the General Fund because there are so many different needs competing for the same pool of money. The dollars that pay for a fire fighter could also fund a parks planner or a sustainability initiative. All are important and highly visible needs within the City. The
challenge is to figure out which has the highest priority. To help with the prioritization and funding allocation process, the City has started implementing a priority-based budgeting (PBB) model. With this model, all programs and services provided by the City are grouped into four tiers representing priority levels. Currently, services in the lower tiers are being evaluated for efficiency and opportunities for cost savings or re-allocation of funding to higher tier programs. The PBB model is in its infancy, but over time the tool will help to ensure the City can demonstrate that funding is allocated based on the priority tiers.

Implementing the Budget: Once the overall City budget is adopted, departments have discretion as to how the budgets are expended, except for moving budget from one fund to another. Beyond this restriction, however, department O&M and equipment budgets are controlled at a “bottom line” level. In other words, budget control is not applied at a line item level. CIPs are controlled at the project level.

Interim Budget Changes (IBCs): Periodically budget adjustments, called interim budget changes (IBCs), are considered by the Mayor and City Council. IBCs may occur in instances when one CIP is completed under budget and there is a desire to move the savings into another CIP that has grown in scope or costs are coming in higher than expected. Another example is when an unanticipated grant becomes available to the City if a local match can be identified. There are many other examples, but these highlight when the Mayor and Council may want to adjust the originally approved budget.

City Council Quarterly Report: City Council receives quarterly updates on the status of the budget. If additional monies are identified, for instance from developer fees, they are often appropriated during this quarterly process based on Mayor and Council priorities.

SUGGESTED MOTION

Information only
TO: Public Works Commission
FROM: Heather Buchanan, PW Support Systems Sr. Manager
Roxanna McNew, Utilities Customer Service Manager
DATE: December 18, 2019
RE: Billing and Collection Status

FISCAL YEAR END

Utility Billing
For the final quarter of FY 2019 (July, August, and September), the utility team handled 15,220 inbound calls for billing, moves and general customer service questions. In addition, the team processed 6,820 emails, 568 walk-in customers, and 4,137 move-in/move-outs.

During this quarter, the team experienced three customer service representative vacancies. The positions have since been filled, but the vacancies put pressure on service levels. The summer months are the busiest time of the year for the team due to the annual water updates and levels of move-in/move-outs.

Collections
The collection rate averaged 87% for the final quarter of FY 2019. This average was 15% higher than the average for the same period in FY 2018. Fiscal year end collection results were $456,800 greater than the total amount collected for past due accounts in FY 2018.

In FY 2019, rates for the water renewal fund increased 9% and residential rates in the solid waste fund increased 12%. Because the monthly utility bill amounts increased, we would also expect the outstanding accounts receivable balance to increase. However, due to the focus on collections, the FY 2019 year-end accounts receivable balance for water renewal and solid waste reduced by 1.7% and 2.6%, respectively.
MAJOR PROJECTS, INITIATIVES, CURRENT ISSUES


ATTENDANCE

<table>
<thead>
<tr>
<th>2019 Month</th>
<th>Lessons &amp; Tours Attendance</th>
<th>General Visitors</th>
<th>On-site events attendance</th>
<th>Outreach events attendance</th>
<th>Outreach lessons attendance</th>
<th>Monthly TOTALS</th>
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<tbody>
<tr>
<td>Sept</td>
<td>327</td>
<td>138</td>
<td>214</td>
<td>1505</td>
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<td>Oct</td>
<td>716</td>
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<td>221</td>
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<td>86</td>
<td>321</td>
<td>424</td>
<td>150</td>
<td>2,045</td>
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<tr>
<td>TOTALS</td>
<td>2,107</td>
<td>343</td>
<td>876</td>
<td>2,150</td>
<td>320</td>
<td>5,796</td>
</tr>
</tbody>
</table>

On-site total 3,326 Off-site total 2,470

Attendance Summary

As 2019 comes to an end, we report numbers served for the entire calendar year. Please find as an attachment the Boise WaterShed annual report. This was another record year, with 27,891 people reached through on-site and off-site programs. In November, the cumulative total number of people reached since 2008 was 257,661 people.

The three-month period from September - November was consistently busy with field trips and outreach events. Four Boise WaterShed staff and two interns served more than 5,796 people with on-site and off-site programs and events. There were 343 general walk-in visitors, which is a slight increase over this time period last year. November has unusually high lesson and tour attendance due to the West Ada 2nd grade partnership. This year we worked with the district to spread out the visits and begin in the fall to allow for more available field trip days for other schools in the spring.
Fall on-site events saw average visitation. WaterShed Weekend attendance averaged 118 visitors. Thanksgiving break drop-in program attendance saw a slight decrease over last year with 119 people. One home school day event was held for 42 students. Other notable on-site events include: Christopher Swain’s Don’t Rush to Flush event and Leadership Boise tours.

43% of people reached this period were through off-site events and lessons. Outreach events consisted of two Christopher Swain Source to Snake events for high school students, five Conservation Day events serving more than 1,225 5th grade students, the annual Watershed Watch event, and three school STEM nights.

**Significant Projects September - November 2019**

**River Campus**
During this time period, artist Michael Anderson completed and installed six heron nest sculptures. The nests are adhered to the columns of the shade structure on the back plaza. They speak to the connectedness of water, and specifically, the Boise River, to the health of our local bird colonies.

The River Campus public art was inspected by the Department of Arts and History staff, and one artwork underwent maintenance. The Headwaters sculpture was cleaned by artist Matt Grover to remove mineral deposits caused by hard water stains.

Two large interpretive signs were completed and installed: Our Drinking Water and Water Renewal. Both signs had been in the exhibit hall prior to the remodel in 2017 and were updated and weather-proofed to be installed on the back plaza. They serve as excellent visuals for the start and finish of water renewal tours.

**Exhibit Hall**
Progress was made on the development of the Geothermal content kiosk by City IT and Community Engagement staff during this time period. The kiosk will complete the geothermal exhibit, which includes the 3-D painting, photo booth, historic timeline and pipe display. Additionally, scoping meetings for future partnerships with exhibit designers, including augmented and virtual reality developers, were held.

**Education Programs and Events**

**School Programs:**
The Boise WaterShed was a key educational partner on the Christopher Swain events. This fall, Idaho Business for the Outdoors sponsored Christopher Swain to swim the entire 150 miles of the Boise River: Source to Snake. After swimming the Boise River, he joined high school students at events held at parks along the Boise River. Students from Idaho City, Mountain Home, Boise, Caldwell, Eagle and Parma participated in water education stations led by Boise WaterShed and IBO partners. One event, titled ‘Don’t Rush to Flush’ was held at the Boise WaterShed for 90 5th grade students from Boise and Caldwell. Additionally, the Boise WaterShed sponsored a Water Action on the Source to Snake app.

The Boise WaterShed participated in five Conservation Days events this September. The annual events are coordinated by the Ada Soil and Water Conservation District with a goal of raising awareness about water, soil and wildlife conservation. More than 1,225
fifth graders from Boise, Kuna and West Ada School Districts were reached at Glen Edward’s farm and BUGS to learn about our water resources and how to protect the Boise River.

Citizen Science:
Watershed Watch, the one-day citizen scientist event that engages citizens in monitoring Boise River water quality, was a huge success. Now in its 12th year, Watershed Watch had an excellent turn-out of 136 volunteers and 25 trainers. Volunteers consisted of families, adults, scout groups, middle and high school groups and CWI students. On October 5th, fourteen sites from Barber Park to the Snake River confluence were monitored for physical, chemical and biological parameters. This year laboratory analysis expanded to include Total Nitrogen. The full data report is available on our web site: https://bee.cityofboise.org/visit/boise-watershed/watershed-watch/

Adults:
The Boise WaterShed continues to offer monthly Adult Programming with our Friday Night eARTHworks classes. The classes are gaining a consistent following. We continue to explore new and interesting topics for the adult audience and hope to increase the class offerings in the future.

Teacher Workshops:
Project WET workshops continue to be offered to Pre-K – High School educators. A Focus on Literature workshop took place November 8th & 9th in partnership with Project WILD and Project Learning Tree. Additionally, staff member Cindy Busche, attended the annual Project WET conference in October, which had a focus on new climate change lessons.

Through a statewide partnership, staff member Augie Gabrielli had an opportunity to learn firsthand about climate change communication from NASA scientists. The competitive program, called NASA Earth to Sky (ETS), trained educators from around the country on how to use NASA resources and implement them in their own states. The Idaho team, consisting of members from U of I, Idaho Dept. of Parks and Recreation, and a Coeur d’Alene high school teacher, are now tasked with implementing a teacher workshop to train formal and informal teachers in the region how to communicate climate change science to students. The workshop is planned for August 2020.

Staff:
Staffing was augmented this fall semester through a partnership with the BSU Work U program. One intern was recruited and worked ten hours per week at the Boise WaterShed to assist with the Watershed Watch event, a new pollinator garden, and teaching.

Marketing
Significant marketing efforts were made this period through social media and earned media. FaceBook ads were created and reached new audiences in our targeted area, increasing our FaceBook likes to 1,587 Likes. Boise WaterShed events were featured on Community Calendars.
Below are links to media that feature the Boise WaterShed's Watershed Watch event:

**Channel 6 KIVI BOISE**

**Channel 7**
TO: Public Works Commission  
FROM: Rob Bousfield  
DATE: December 18, 2019  
RE: General Fund Capital Projects

MAJOR PROJECTS, Initiatives, Current Issues

Main Library Expansion/Arts & History Center
In November citizens passed an initiative requiring a vote on projects such as this before expenditures, including staff time, can be made. This project is on hold until policy direction is received from Mayor and Council.

Fire Bond Projects
Public Works is managing construction of five projects. The first two fire stations (FS 4 and FS 8) were completed in 2017 and the Fire Training Facility was completed in 2018. Construction of the next fire station (FS 9) was completed in October and the ribbon cutting was held on October 24. The final fire station (FS 5) is planned for 2021 and staff are evaluating remodel vs. rebuild options for that station.

Police Micro-District Station
Public Works has been supporting Police with acquisition and design of a new small district station in the downtown. The location will be the site of the Lucky Dog Tavern on West Fairview Avenue across the street from the Red Lion Boise Downtowner. Design was completed in October, permitting is underway and bids were opened on December 11. The engineer’s estimate was $2.1 million. Despite receiving seven bids ranging from $2.3 to $2.8 million, results were still higher than estimated. Pending budget resolution, construction is anticipated to begin in January and be completed by the end of summer.

Facility Upgrades
- Staff is advancing an effort to develop a strategic plan for office and support space needs across the organization. As presented in the November meeting, the needs assessment phase has been completed and staff is currently developing solution strategies and the approach to evaluating them. Staff anticipates seeking further input from the Commission as this effort progresses. This effort will be completed in 2020 and ensure that shorter-term projects meet a longer-term vision.
- Construction of the remodel of the Public Works area on fourth floor is nearing completion scheduled for early 2020. Remodel of the second floor was planned
for 2020 though that timing is being evaluated and may be paused pending the outcome of the larger strategic plan. Facility staff are also managing several other smaller remodel projects at City Hall.

- Staff has been working with consultants to review the appropriate type and sizing of several HVAC components at City Hall, and the first elements will be installed in 2020. The City Hall emergency generator replacement will occur in January. Numerous smaller repair and maintenance projects are also underway.
TO: Public Works Commission
FROM: Jon Gunnerson, P.E.
DATE: December 10, 2019
RE: Geothermal and Irrigation Systems – Directors Report

GEOTHERMAL

Water Year 2019 Summary

In Water Year 2019 (October 1 – September 30), the City of Boise was authorized to pump 325 million gallons (MG) of geothermal water. Actual production volumes approached 264 MG, and approximately 262 MG were injected back into the geothermal aquifer.

The geothermal aquifer is in good condition, with maximum water elevations similar to previous years and temperatures remaining steady at 177°F. A graph of the geothermal aquifer levels is shown below. Due to the aquifer’s good health, the City has been authorized to increase pumping limits to 355 MG for water year 2020.
In FY 2019, the geothermal system saw an above average number of unplanned repairs. There were a total of 25 unplanned repairs, 10 resulting from corrosion, 5 resulting from AC pipe failures, and 10 from other related causes. However, even with the higher than average number of unplanned repairs, the geothermal system had an overall reliability of 97.7%.

To proactively address future issues like those experienced in FY19, the geothermal fund completed some significant projects and initiatives in the past year.

**Projects**

- **Fort and Robbins Pipeline Replacement**
  - Replaced 900 linear feet (LF) of large diameter supply and collection mainlines
  - Replaced / relocated critical system isolation valves
  - First significant system replacement completed to date
  - Coordinated with ACHD/St. Luke’s prior to the round-about construction
- **Union Block Extension / Service line relocations**
  - Relocated and replaced main and service lines to Union Block, Idaho Building, and Fidelity Buildings
- **Forest River service line replacements (x2)**
  - Replacement of aging steel service lines to Golden Eagle and Blue Heron Buildings
- **Replaced Injection Well Pressure Sustaining Valve (PSV)**
  - Upgraded PSV with digital valve
  - Results have greatly minimized collection pressure fluctuations
- Replaced Variable Frequency Drives (VFDs)
  o Upgraded all well houses with improved Yaskawa VFDs
  o Provides better control of production and injection motor speeds
- Franklin Street Pipeline Replacement
  o Replaced 300 LF of supply and collection mainlines
  o Replaced critical system isolation valves, customer service lines, crossover, air-vacs and vault
- Vault & Valve improvements
  o Replaced 10 critical system isolation valves
  o Restrained 14 unsupported isolation valves
  o Replaced 9 air-vac valves

Asset Management
- Vault and Valve Inspections
  o Created and implemented new inspection forms and procedures
  o Inspections tracked in asset management program called “Infor”
  o Condition based asset management, priority based on risk
    ▪ Risk Profile Score (RPS) = likelihood of failure (LOF) x consequence of failure (COF)
- Pipeline RPS
  o In process of developing similar RPS program for pipelines
  o Anticipated completion in FY 2020
- Cost of Service Study / Strategic Plan
  o Better identification of operational and capital needs
  o Optimize rate structure and identify other funding opportunities
  o Anticipated completion in FY 2020

Technical Advancements
- Thermoelectrics
  o Research into and pilot of thermoelectric materials for power generation
  o Successful collaboration with BSU senior design teams
  o Continued research into FY 2020
- AC Pipe Testing
  o Analysis of AC pipe condition
  o Determine remaining useful life of AC pipe to better plan for replacement
  o Preliminary results indicate carbonation is a high contributor to AC pipe failures, likely initiated by nearby metal corrosion and system leaks.
- Billing Database
  o Development of database for geothermal meter readings and well logs
  o Coordination with IT Department

Public Education
- Boise Watershed – Geothermal Exhibit
  o Completion of geothermal painting, timeline and kiosk content
  o Interactive kiosk will be implemented in FY 2020, coordinating with IT Department
Geothermal Commitments

Anticipated near term connections include:

- Historic Carnegie Library (815 Washington Street) – multiple uses under consideration
- USGS Building 4 – Currently working with design team with consideration of using heat pumps for cooling.
- NEW Caddis Development (Broad and 3rd/LIV District) – Firm Commitment provided June 2019 for 3.0MG of collection water for sidewalk snowmelt.
- NEW Broad and 4th Development (LIV District) – Domestic water and sidewalk snowmelt
- Grove Hotel – Owners express desire to connect for building heat, water heating and sidewalk snowmelt.

PRESSURE IRRIGATION

City-owned pressure irrigation systems are shut down for the non-irrigation season. All systems have been winterized and will be commissioned again in April.

Staff is in process of annexing and connecting a residence into the Municipal Irrigation District. This property is surrounded on 3 sides by the existing BMID system, and a connection will benefit both the property and the overall system.
TO: Public Works Commission  
FROM: Robyn Mattison, Rich Wiebe, and Michael Comeskey  
DATE: January 8, 2020  
RE: Water Renewal Fund Capital Projects

**MAJOR PROJECTS, INITIATIVES, CURRENT ISSUES**

**Water Renewal Engineering: Major Projects Status**

**Water Renewal Utility Plan**

Water Renewal Services is creating a long-term strategic plan to ensure the utility is adapted to changing demands in the future. This plan, called the Water Renewal Utility Plan, will establish the investment roadmap for Water Renewal Services over the next 20 years. The plan will describe the people, policies, projects, and pricing needed to achieve the desired outcomes identified through the planning process. The plan will also meet the minimum facility planning requirements as outlined in the state wastewater rules.

Current planning work includes:

- The cost of service study reached a major milestone in the last quarter. The financial model and technical analysis are mostly complete and prepared for financial policy development in 2020. The financial policy decisions will be coordinated with the presentation of the Utility Plan portfolio.

- Meetings with our implementation partners (i.e. sewer districts, other utilities, unique industrial users) are underway. These meetings are focused on presenting the Utility Plan process with information specific to their concerns.

- The planning teams are supporting a joint project with Eagle Sewer District to evaluate potential alternatives to the District’s current discharge configuration. The teams were able to eliminate one of the critical discharge scenarios, allowing Eagle Sewer District to proceed with their planned capital investments. Future evaluation will be conducted as the cost of service study matures and more precise rate analysis is possible.

- The Utility Plan work schedule for 2020 is being drafted. Anticipated activities include: stakeholder meetings with ratepayers, significantly impacted customers, Public Works Commission, and City Council; financial policy setting and plan
adoption; writing of the final technical documents and facility-specific plans; initial change management for implementation phase of the Utility Plan. Additional details will be shared with the Commission as the plan is completed.

West Boise Water Renewal Facility (WBWRF) Capacity Improvements: Anaerobic Digestion and Dewatering

The project focus areas are biofilter expansion to meet current needs, reviewing the sludge dewatering system and investigating limitations in anaerobic digestion capacity. The additional biofilter cell and thickened primary sludge pumping improvements are complete. In addition, rehabilitation of the two belt filter presses is complete, and they are in full operation.

The project is now focused on optimization of Digesters 1 and 2 to improve capacity so that the City will have the ability to empty, clean and inspect the largest digester, Digester 3. Modifications to the existing sludge heating system, which includes a new heat exchanger and circulation pumps, are complete and the new equipment is being used to heat and mix the sludge in Digesters 1 and 2. A new boiler has been installed and an old boiler has been removed. The mixing, heating and sludge pumping modifications for Digesters 1 and 2 have improved digester performance and are providing more effective use of the digestion capacity of these existing structures. Construction of a sludge drying bed was completed in June 2019 and has been used successfully by the operations staff to empty and clean Digester 3.

A serious failure of the coating in Digester 3 has been discovered and staff is working to address this so that the digester can be placed back into service as quickly as possible. The successful improvements in Digesters 1 and 2 are allowing Digester 3 to be empty longer than planned in order to address this unforeseen coating issue. A contract has been approved by city council for coating work for Digester 3. Notice to proceed will be issued in January.

Lander Street Water Renewal Facility (LSWRF) Plant-Wide Improvements

The Lander Street (LS) Program includes projects to meet future Total Phosphorus (TP) limits and to replace aging infrastructure. A Preliminary Engineering Report (PER) has been approved by Idaho Department of Environmental Quality (IDEQ) for preliminary treatment, tertiary treatment, ultraviolet (UV) disinfection, and associated site civil improvements.

Construction of the early civil package began in July 2019 and is nearly complete. This work included a new facility entrance driveway off Veterans Memorial Parkway and a new greenbelt access path around the west side of the pond from Lander Street to the greenbelt. A new public restroom facility will also be installed as part of this package.

Detailed design is complete for the Headworks (preliminary treatment) and UV disinfection facilities. Construction of the new headworks and UV facilities will begin early 2020.
The program team has completed a project definition report for secondary clarifier capacity improvements. After construction of the headworks and UV facility, the secondary clarifiers are the next limiting capacity process.

The program team has also begun work on a project definition report for primary clarifier improvements to address condition and capacity. Primary and secondary clarifier improvements and tertiary treatment will be part of the next phase of improvements at Lander Street WRF.

**WBWRF Tertiary Treatment**

A Tertiary Treatment Evaluation Report has been prepared which used a business case evaluation (BCE) approach to evaluate alternatives to meet future NPDES permit limits for Total Phosphorus at the WBWRF. The report identified the recommended project as split-flow tertiary membrane filtration (TMF). Carollo Engineers has been selected as the design consultant. A membrane pilot study was completed in June. Results from the study will be utilized to develop a BCE to validate the initial technology selection for tertiary treatment for the WBWRF. The BCE work is on-going.

**Secondary Treatment Enhancement Project**

The goal of the Secondary Treatment Enhancement Project (STEP) is to improve and add reliability to both WRFs ability to remove phosphorus in the secondary treatment process. A project at WBWRF to install baffle walls in the south aeration basins is complete.

The next project that has been kicked off is chemical addition at WBWRF. This project will help trim the phosphorus coming into the plant reducing the load and aiding biological phosphorus removal. The chemical addition project has been issued a notice to proceed and site work has begun. The current schedule has this project being completed in May 2020.

The STEP project at LSWRF will be incorporated into the next phase of improvements at the facility.

**Combined Heat and Power (CHP) or Renewable Natural Gas (RNG) and Food Waste Receiving**

This project anticipates constructing facilities to collect food waste and brown grease for methane production. The methane gas produced will either be used by generators to create electricity or will be cleaned for direct use. A CIP budget for this project has not been authorized due to cash flow constraints in the Water Renewal Fund.
Sewer Design: Collection System Projects Status

Large Diameter Pipe Rehabilitation Program

We are in the design phase of our 2020 HP Line Rehab. This project is planned for summer 2020 Construction. It will rehab approximately 1500 LF of 30" and 2300 LF of 42" sewer. It includes several challenging issues such as sewer in back yards, a highway crossing, and steep sewer. The project will showcase multiple rehab methods including cured in place plastic liner (CIPP), sliplining, and open cut replacement. Coordination with property owners is ongoing.

Small Diameter Sewer Pipe Rehabilitation/Replacement Program

- FY 2020 – 35 Segments is set to bid in early January

Miscellaneous Projects

- Gowen Field Rehab – Improvements at Gowen Field have accelerated some rehab projects onsite. These segments are some of the oldest sewer lines in our system. Engineering coordinated with the base to combine and realign sewer lines out from under buildings. Phase 1 is complete. Phase 2 is slated for FY 2020.
- Harris Ranch Lift Station Upgrade – Lift station improvements are planned to increase capacity to prepare for ongoing growth in the area. This project has been bid and is set for FY 2020 construction.
This memo summarizes major water quality regulatory items for the City of Boise.

**NATIONAL OR IDAHO POLLUTANT DISCHARGE ELIMINATION SYSTEM (IPDES) PERMITS**

**Water Renewal Facilities**

City staff met with the Idaho Department of Environmental Quality (IDEQ) throughout 2019 with the objective of working toward the issuance of the new IPDES permits. The IDEQ meetings will provide a common understanding of the structure and content of the draft permits so the City can move forward with facility design and construction. The City submitted updated IPDES permit applications in October 2019 and we anticipate draft permits for City review in early 2020.

**Geothermal Program**

City staff submitted a revised IPDES permit application for the Geothermal System in July 2019 and received a completeness determination in August. We are continuing to work with IDEQ toward permit reissuance.

**RECYCLED WATER REUSE PERMIT**

The Recycled Water Reuse permit application submission has, temporarily, been put on hold. The City is organizing a citizen Reuse Focus Group. The focus group will provide an opportunity for a citizen stakeholder group to assist and provide feedback to the City of Boise in examining the future of reuse in Boise.

**IDEQ RULEMAKING AND ASSOCIATED ACTIVITIES**

**Idaho Pollution Discharge Elimination System Permits**

The IDEQ has issued one, new, IPDES permit in 2019 to the City of Shoshone. Additional permits for the City of Cascade and City of Montpelier are in draft form. City staff commented on boilerplate language in the first permit and are happy to report that this language has been revised in the City of Montpelier draft permit.
Negotiated Rulemaking

**Arsenic:** No new information. City staff will be tracking this issue.

**Ammonia:** No new information. The City is collecting data to prepare for the 2020 meetings.

NATIONAL REGULATORY ITEMS OF INTEREST

**Lead and Copper Rule**

EPA’s proposed new Lead and Copper Rule was published on November 13 in the Federal Register, initiating a 60-day public comment period that will close January 13, 2020.

Although this proposal was intended to address important drinking water issues, it has the potential to significantly impact clean water utilities due to its encouraged use of orthophosphate as a corrosion control technology measure. The City is already implementing costly water renewal facility upgrades to address more stringent effluent limits for phosphorus; additional phosphorus from our drinking water source would add additional cost for excess nutrient removal from upstream phosphorus inputs.

**EPA Trading Memo**

In February 2019, EPA has issued a new memorandum regarding the use of trading under the Clean Water Act. The memo was released as part of a series of steps that EPA is taking to promote control of nutrient loadings – although the trading memo is not limited to nutrients. Both the trading memo and a list of the nutrient-related actions are here: [https://www.epa.gov/nutrient-policy-data/water-quality-trading-memos](https://www.epa.gov/nutrient-policy-data/water-quality-trading-memos). In the trading memo, EPA lays out these basic principles:

1. States, tribes, and stakeholders should consider implementing water quality trading and other market-based programs on a watershed scale.
2. The EPA encourages the use of adaptive management strategies for implementing market-based programs.
3. Water quality credits and offsets may be banked for future use.
4. The EPA encourages simplicity and flexibility in implementing baseline concepts.
5. A single project may generate credits for multiple markets.
6. Financing opportunities exist to assist with deployment of nonpoint land-use practices.
The trading memo notes that some of these principles are different than the concepts laid out in the last guidance that EPA issued on trading in 2003.

The City supports changes proposed in the new memorandum. City staff worked with the Lower Boise Watershed Council to update a nutrient trading program within the Boise River watershed but found the original guidelines were rigid or inflexible. As a result, work on the trading program was discontinued. Changes identified by the EPA in the Notice would help make trading more workable.

PFAS Rulemaking - Update

The U.S. House of Representatives passed PFAS legislation in July, as part of the annual National Defense Authorization (NDAA) bill, that has potential serious consequences for public clean water utilities. While the water sector were previously successful in working with the U.S. Senate to ensure similar PFAS legislation was ultimately not included in passage of their version of the NDAA, the House Leadership moved several pieces of PFAS legislation to include as amendments at the last minute to provide House Democrats political incentive for passage of the NDAA (H.R. 2500).

The City sent a letter to our Idaho senators to express our concern over the Dingell amendment and requested a "No" vote on the Pappas and Dingell Amendments or that the Dingell amendment be either excluded from the NDAA or changed to exempt wastewater and drinking water utilities from CERCLA regulation.

A final version of the 2020 National Defense Authorization Act (NDAA) directs the Defense Department to discontinue the use of firefighting foam containing PFAS by 2024 (with exceptions). The legislation does not include the broad regulations for PFAS that were included in previous versions of the Act. There are many other PFAS legislation pieces that continue to focus on the science of PFAS that the City supports.

LEGISLATION TRACKING

Hawaii Wildlife Fund v. County of Maui

The U.S. Supreme Court held oral arguments on November 6 in the most important Clean Water Act litigation to reach the High Court in over a decade. The central legal question at issue is whether the transmittal of pollutants via groundwater can trigger Clean Water Act (CWA) liability.

The case, Hawaii Wildlife Fund v. County of Maui, focuses on whether the Maui County Department of Environmental Protection must have a CWA discharge permit for its underground injection wells that dispose of highly treated wastewater. Two lower federal courts have agreed with environmental activist plaintiffs in the case that such permits are necessary. If the Supreme Court agrees with this interpretation, which is not supported by the text of the CWA, it could lead to a dramatic increase of the CWA permitting program and have significant impacts on public clean water utilities.
Waste Reduction Survey and Plastics Challenge

As the international recycling markets continue to shift and commodity prices fluctuate, it has become increasingly clear that recycling should not be the only means to address waste in our community. This July, Boise announced a Plastic Challenge, encouraging residents to spend their month reducing the amount of single-use plastic that they consume. We have surveyed residents about how the challenge worked for them and also more broadly about waste reduction topics. There were nearly 3,100 respondents with a relatively even distribution across age and zip code throughout the city. Data from the survey has been reviewed and some key findings are provided below.

KEY FINDINGS

- 93% of respondents think about reducing waste often or every day
- 79% of respondents are supportive/somewhat supportive of lowering smaller carts rates to incentivize waste reduction
- While 61% of respondents are supportive of changing trash collection to every other week and recycling to every week, there were a significant number of respondents who were strongly against the change
- When grocery shopping, 76% of respondents try to balance waste reduction with other priorities. 10% indicate it is their top priority.
- 74% of respondents are likely to shop at a business that is reducing waste over a business that is not

Curb It Pros

Curb It Pros has created a new model of engagement with Boise residents. The program leverages our most passionate recyclers, composters, and low-waste advocates to educate their communities about Curb It programs. The program is almost finished with its final year. So far, volunteers have met with nearly 2,100 people in
our community to talk about Curb It programs. These interactions have taken place at community events like the Farmer’s Market, Hyde Park Street Fair, and neighborhood block parties. More formal presentations to schools, workplaces, book clubs, and Toastmaster’s groups have also been conducted. The Pros have collectively spent over 170 hours over the past 9 months conducting this outreach and have taken on event requests that would normally require staff time. They have also taken a tour at Western Recycling, the Ada County Landfill, the City of Boise’s Twenty Mile South Compost Facility and attended deep-dive presentations about plastic recycling, household hazardous waste, compost, and will be attending a tour of the Boise Co-op to learn how a local grocer is working to reduce waste.

This spring, our current Curb It Pros will be transitioned into Pro Alumni as we bring on a new group of volunteers. This will allow our current volunteers to stay involved and continue to share our messaging, while also educating more of our passionate community members about Curb It programming.

**Leaf Season**

Leaf collection season in the City of Trees is winding down. Last year we asked residents to limit paper bags placed at the curb to 10 per week in order to provide better service to all customers. This procedure was utilized again this year and proved to be very successful resulting in much fewer calls and complaints regarding missed collection. Because leaf collection is available all year long, all leaves placed at the curb in paper bags will be collected thereby eliminating the issue of customers running out of time to rake leaves.

Leaf season generally results in the highest inflow of materials to the compost facility and did so again this year. The success of the program has resulted in the facility being at capacity during certain times of the year such as leaf season. The compost facility was designed to be expanded and discussions on expansion to accommodate these peaks and city-wide growth have started internally. Options for expansion will be developed in the coming months.

**Compost Program**

The Joplin Road compost give-back location near the Boise WaterShed is open and holds up to 300 cubic yards of finished compost. The addition of this second site has increased the equity of access to compost for residents living on the west side of Boise. Since opening in May, it has received over 600 cubic yards of compost for distribution to residents. The give-back site at the Idaho Botanical Gardens has received over 2,200 cubic yards of compost this year. Both of these sites are self-serve and each participating resident can now collect up to two cubic yards per year, up from a limit of one cubic yard in 2018.
A seasonal pilot program for a neighborhood giveback program has been opened for its second season. The giveback program is providing the opportunity for neighborhood associations and community groups to apply for delivery of larger (25-30 cubic yards) amounts of compost to a neighborhood location. The city delivered to over a dozen communities around Boise in 2019, with several preparing for a second year of participation in spring 2020.

A single wholesale contract for 15,000 cubic yards was finalized with Timber Creek Recycling in October. The contract will automatically renew for up to three years. Establishing a single outlet for our excess finished compost will enable the City to spend more time planning for the future of the compost program.

Monthly Twenty Mile South Compost Facility inspections have been ongoing for almost two years and have provided City staff better insight into the daily operations, challenges, and improved communications between the City and Republic Services. To date, the city has collected over 73,000 tons of compostable material, and over 4,700 cubic yards have been given back to residents. The composting program has helped to reduce residential waste taken to the landfill by 26% since 2016 as shown in the graph below (2019 data represents January through October only).

### Energy Bags

The Hefty® EnergyBag™ program continues to be popular with Boise residents. This program is designed to recover hard to recycle plastics and reuse them to produce synthetic diesel fuel. Since EnergyBag collection started in early May 2018, over 465 tons...
of plastics have been collected and are averaging about 30 tons per month. The City continues to share outreach materials with customers that dive into the details of what plastics go where. Renewlogy has signed a contract to accept material from Boise area markets after completing the upgrades to their Salt Lake Facility with completion expected in of March 2020.

Rather than deliver individual rolls of bags to each address, this year the city mailed a voucher for a free roll of bags to all residential recycling customers in June. Vouchers were sent to all residential customers and are valid until the end of the calendar year. Customer calls were minimal compared to last year and comments regarding the voucher have been positive. This approach has allowed all residents who wish to participate in the program that ability, while not spending unnecessary funds on residents who choose not to participate. Total vouchers redeemed through 8/31/19 were approximately 9,000 with a final number available in early 2020.

**Boise Schools Pilot – EnergyBags**

The Materials Management team has been working on a collaborative effort to bring the Hefty EnergyBag Program to Boise area schools. Four pilot schools are currently testing the EnergyBag Program in classrooms throughout their campuses and have reported great success. The pilot schools include Longfellow Elementary School, South Junior High School, Borah High School, and Sage International School. Each EnergyBag location in the schools is monitored by a volunteer staff of faculty member to decrease contamination and educate their students on what goes in and what stays out. Many faculty and staff members who are participating have reported that the EnergyBag Program is a natural complement to their already existing recycling programs and is a great catalyst for discussing the importance of reducing our dependence on the many single-use plastic items that are collected in the EnergyBags with their students. As with many of the Curb It Programs, limiting contamination in the EnergyBags is a high priority and we are working with the schools to learn how to keep contamination at a reasonable level in this setting.

In January 2020, we will be meeting with the Boise School District Custodial Supervisory team and their Sustainability Coordinator to ensure the EnergyBags are properly managed once full. With the feedback we are gathering from the pilot schools we will be able to design a well-informed and robust set of resources and educational materials to allow any school in the Boise area to successfully participate in the EnergyBag Program while keeping contamination to a minimum.

**New Development and Construction Reviews**

Residential and commercial development applications and reviews have continued at a very high volume through the fall and are expected to continue at a high volume for the coming months. Staff has completed revisions to the plan review policy so that
requirements are clearer to all parties. Many higher density projects are being proposed and the time required to review these projects continues to increase. Staff continues to work with downtown businesses on ways to make solid waste service in alleyways more customer friendly. Plastic containers have been deployed to help reduce noise during collection and the response from customers has been positive so far. We will observe the longevity of the containers to see if they can hold up to continued use.

**Household Hazardous Waste Program**

The Household Hazardous Waste (HHW) program continues to run smoothly and a public education campaign was completed this year. With many new residents in the county, there is a need to inform and refresh the public on the free collection program for hazardous wastes. This program not only reduces waste to the landfill but keeps our water resources safe by properly disposing of wastes not permitted in the landfill. New signs have been purchased for mobile collection sites to help with safety concerns regarding customers exiting their cars.
TO: Public Works Commission  
FROM: Steve Hubble, Stormwater Program Coordinator  
DATE: December 17, 2019  
RE: Stormwater Program Report

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) STORMWATER DISCHARGE PERMIT COMPLIANCE

Private Stormwater Facility Inspection Program

The MS4 Permit requires the development of an inspection program for certain private stormwater management facilities. Staff has developed a prioritization matrix to determine our inspection workload and identified “high priority” locations which will require annual inspections.

Staff completed the annual inspections for 2019 during October and November. Staff is preparing to communicate the results of the inspections to the property owners. Many of the facilities were found to be in acceptable condition, however a limited number of the facilities will require routine maintenance on a portion or all of the system. For facilities requiring maintenance, the property owner will be required to complete the maintenance and notify the City so a follow up inspection can be completed.

Annual Report and Stormwater Management Program Plan (SWMP) Updates

The MS4 Permit requires that an Annual Report be developed each year and submitted to the United States Environmental Protection Agency (EPA). The City will complete and submit our report to the Ada County Highway District (ACHD) in early January. ACHD will compile the Annual Reports for all six co-permittees and submit them to EPA no later than January 30, 2020.

The MS4 Permit also requires that the City develop a Stormwater Management Program Plan (SWMP). The SWMP serves as the City’s work plan to implement Permit requirements. The Permit requires that the SWMP is updated annually and posted to the Partners for Clean Water website for public comment. The SWMP update and comment period is anticipated during February 2020.
Public Education and Outreach

The MS4 Permit requires the development and implementation of public education activities on stormwater and water quality for city residents and businesses. The City is the lead agency for public education and outreach on behalf of our co-permittees. As one part of our education and outreach program, Public Works and Community Engagement staff implements an annual media campaign. The 2019 campaign was active this summer and focused on reducing potential water quality impacts from pet waste.

The 2019 campaign included print advertising, radio sponsorships and advertising, billboards and online advertising. The image below is one example of the advertising materials being used for the campaign.

![PET WASTE POLLUTES THE BOISE RIVER](image)

To support the media campaign with in-person events, staff attended See Spot Walk sponsored by the Idaho Humane Society on October 5, 2019. The event, where thousands of people attend along with their dogs, was a great opportunity to provide our new Partners for Clean Water branded pet waste bags to members of our community. This action, in combination with the media campaign, reminds dog owners of the importance of cleaning up after their pets.

MS4 PERMIT RE-APPLICATION

The MS4 Permit, issued to the City and its five co-permittees, expired on January 30, 2018. On behalf of the co-permittees, the Ada County Highway District (ACHD), submitted a re-application for permit renewal on July 28, 2017. EPA received the re-application and informed the co-permittees of application completeness and administrative continuance of the existing permit on October 11, 2017.

Recent discussions with EPA indicate that a draft of the new permit is likely to be developed in the summer of 2020. Following review of the draft, the City and our co-permittees will provide relevant comments to EPA. Following the resolution of permittee and public comments, the permit will become effective.
TO: Public Works Commission  
FROM: Beth Baird and Jami Goldman  
DATE: December 11, 2019  
RE: Air Quality, Energy, and Sustainability Program Reports

AER QUALITY

• Be Idle Free Boise signs have been installed around town over the last eight years. Many are located at short term parking and loading zone spaces downtown as well as in parking areas near local businesses, churches, and schools. Our original supply of signs was depleted last year. To accommodate continuing requests additional Be Idle Free Boise signs have been purchased and are available to the public.

ENERGY USE

Boise’s Energy Future

• The Boise’s Energy Future plan and associated goals were approved and adopted by the City Council in April 2019. A copy of the final plan is available at: https://www.cityofboise.org/departments/public-works/boises-energy-future/

• Subsequent to the Council approval, staff has commenced initial implementation activities during the first quarter of FY20 with a focus on sharing the availability of existing utility energy efficiency programs with residents and businesses.

• A Request for Proposals (RFP) was issued to retain a selection of on-call consulting firms to support energy future implementation activities as well as other future tasks related to sustainability and climate issues. City Council approved the list of on-call firms selected. Firms are available for use by City staff for related projects as needed.

Energy Efficiency

Idaho Power staff presented to City employees at a series of five Lunch and Learn seminars during October 2019. The seminars included tips for employees to use energy more efficiently at work and at home. The seminars were very popular with a total of 151 employees who attended. On-going energy efficiency tips for employees will be shared on the Boise Home site.
Vehicle Alternative Fuels
- Federal Highway Administration (FHWA) is designating alternative fuel and electric vehicle charging corridors along national interstates and some US and state highways. This is a planning effort that promotes “build out” of alternative fueling locations along this national road network. Infrastructure grants for designated corridors could be made available in the future. Public Works staff will be assisting Idaho Transportation Department in compiling this year’s corridor submission to FHWA.

SUSTAINABILITY PROGRAM

Climate Action Plan
- In October 2019, City Council approved on-call consulting firms to support sustainability, climate, and energy needs for the City. Over the month of December, the consulting firms chosen for sustainability and climate issues presented more in-depth presentations with the internal energy team on their expertise and prior work. In addition, a project proposal for a Climate Action Plan is being completed that can assist the consulting firm in confirming the direction and content requests for a municipal and community-wide Climate Action Plan which could include a specific goal for reduction of greenhouse gas (GHG) emissions.

Earth Day 2020
- The City of Boise will host a 50th anniversary Earth Day Celebration event. The event will highlight and focus on the materials management waste reduction program. This event will be part of a nation-wide 50th celebration of Earth Day. We are taking this opportunity to focus on a local issue and share community-wide messaging on waste reduction. This event will bring together community members, businesses, universities, non-profits, education facilities, and across all departments at the City as exhibitors demonstrating how they are working towards the goals of reduce and reuse. In addition, we will have interactive exhibits, voices of the earth, music, food, drinks, and fun. This event is scheduled for Earth Day, April 22nd from 4-8 p.m. at JUMP. Our internal team is working hard behind the scenes to create a meaningful event for the City and the community. More information will be presented in the next report.

Urban Sustainability Directors Network- Communications Conference
- City of Boise will be hosting a communications conference for the Urban Sustainability Directors Network (USDN) May of 2020. This is an excellent opportunity for our communications and sustainability team to participate with leading experts in the field on how best to communicate the challenges and opportunities related to climate change. In addition, we can showcase some of the amazing innovative work being done in Boise. We are excited to share our city with this group and create meaningful opportunities to enhance our communication around key environmental issues.