WaterSMART: Water and Energy Efficiency Grants for FY2016 Funding Opportunity Announcement No. R16-FOA-DO-004
Funding Group I

City of Big Bear Lake

Department of Water & Power

12-inch Big Bear Boulevard Pipeline Replacement Project

Applicant Information: **City of Big Bear Lake**
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SECTION 1. EXECUTIVE SUMMARY

Date	January 20, 2016
Applicant	City of Big Bear Lake Department of Water and Power
City, County, State	Big Bear Lake, San Bernardino, California
Project Name	12-inch Big Bear Boulevard Pipeline Replacement Project
Project Length	2 years
Estimated Completion Date	December 31, 2017

The City of Big Bear Lake Department of Water and Power (the DWP, DWP, or the Department) is applying for funding by the United States Bureau of Reclamation's (USBR) WaterSMART: Water and Energy Efficiency Grants for FY 2016 Funding Opportunity Announcement No. R16-FOA-DO-004. The DWP is applying for $300,000 in federal funding assistance for Federal Funding Group I, to construct the 12-inch Big Bear Boulevard Replacement Pipeline Project (PIPELINE). Funds will be used to fund pipeline construction, engineering, and construction management costs. The purpose of the PIPELINE project is to increase water conservation and water use efficiency by eliminating leaks and by replacing a nearly seventy-year old, unlined riveted steel pipeline with a more efficient, smooth PVC pipeline. The project will provide benefits under the following tasks:

Task A – Water Conservation – The PIPELINE shall increase efficiency and reduce water loss for a sustainable potable water service through a reduction in minor and major leaks. This will help conserve a natural resource, water, and increase the stability of the utility and service reliability.

Task B – Energy-Water Nexus – Reduced water loss produces a linear reduction in energy use associated with source production, conveyance, and treatment of the water supply. A smoother, more efficient pipeline will also result in reduced pumping costs. Also, the PIPELINE is located on the busiest boulevard in the Big Bear Community. When there is a leak on this pipeline, road closures related to the repair of the existing pipeline result in significant impact to travel times which adds to the consumption of fossil fuels, an increase vehicle emissions, along with the economic impacts to the numerous businesses located on the boulevard.

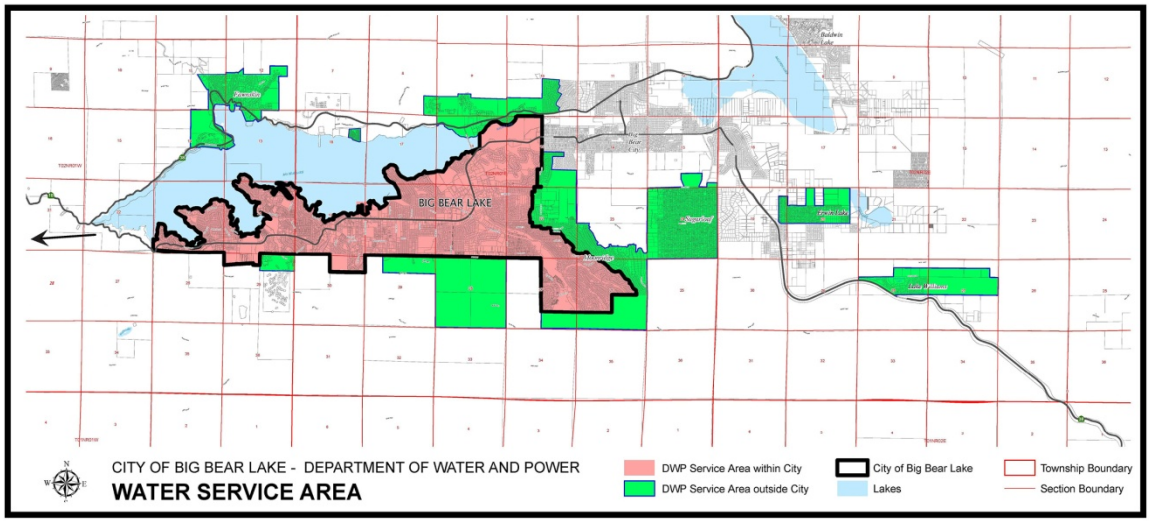
The Project is not located on a Federal facility.

SECTION 2. BACKGROUND DATA

2.1 Location

The DWP's water service area is located within Bear Valley, as depicted in Figure 1. These areas are located in the San Bernardino Mountains in San Bernardino County, California. The DWP's service area is located primarily along the south shore of Big Bear Lake. Fawnskin lies to the north of the lake, and the Sugarloaf-Erwin Lake and Lake William systems are located east of Big Bear Lake. In total, the DWP's service areas encompass approximately 13 square miles.

Figure 1 Water Service Area



2.2 Overview of Water Supply

The DWP produces potable water from groundwater wells. These wells produce water from the Bear Valley Groundwater Basin (DWR designation 8-9). The wells are a combination of horizontal wells (gravity) and vertical wells (pumped). The DWP does not use surface or imported water to meet its water demand. Importing water into the Bear Valley would be extremely costly and is not a viable option. The DWP's projected water supplies are summarized in Table No. 1. These quantities meet all state water conservation requirements. As shown, the average annual demand is under the safe yield of the basin within DWP's service area, which is 3,100 acre-feet per year.

Table No. 1 Current and Projected Demand

Supply Source	Annual Pumping (afy)					
	2010	2015	2020	2025	2030	2035
Groundwater/ Total	2,152	2,095	2,168	2,244	2,323	2,404

Note:

The calculations used for the demands are based on a 0.7% growth in demand each year, beginning in 2015.

Table No. 2 Summary of the Current and Future Water Use by Customer Class

Customer Class	2015		2020		2025	
	No. of accounts	Demand (afy)	No of Accounts	Demand (afy)	No. of accounts	Demand (afy)
Single-Family	14,682	1,374	15,203	1,422	15,742	1,472
Multi-family	-	-	-	-	-	-
Commercial	866	530	897	549	929	568
Industrial	-	-	-	-	-	-
Government	-	-	-	-	-	-
System Losses	-	191		197	-	204
Total	**15,548**	**2,095**	**16,100**	**2,168**	**16,671**	**2,244**

Table No. 2 Summary of the Current and Future Water Use by Customer Class (cont.)

Customer Class	2030		2035	
	No. of accounts	Demand (afy)	No. of accounts	Demand (afy)
Single-Family	16,301	1,524	16,880	1,577
Multi-family	-	-	-	-
Commercial	962	588	996	608
Industrial	-	-	-	-
Government	-	-	-	-
System Losses	-	211	-	219
Total	**17,263**	**2,323**	**17,876**	**2,404**

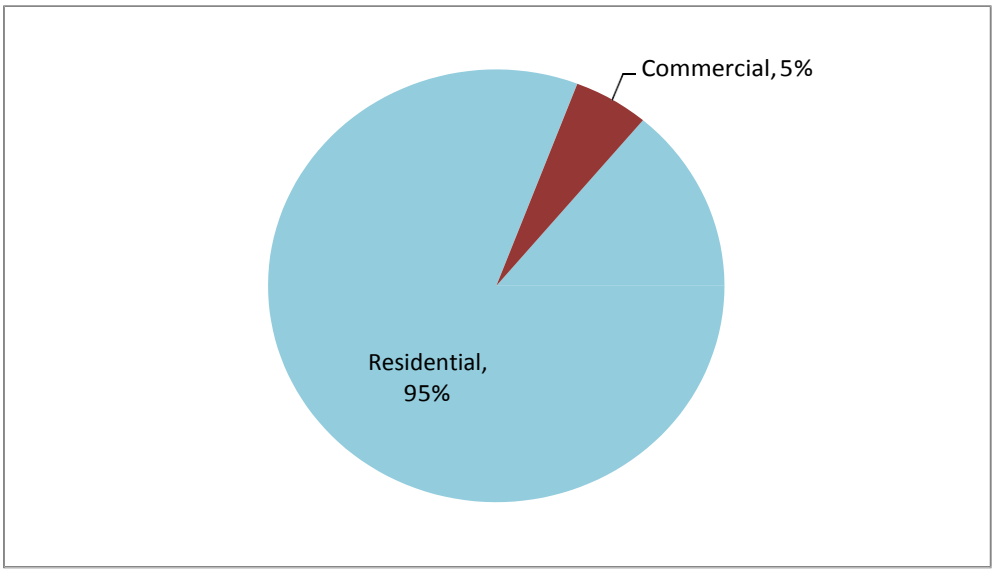
Note:

The calculations used for the demands are based on a 0.7% growth each year, beginning in 2015.

2.3 Current Water Uses

As of 2015, the DWP maintains 15,548 water meters, in which 14,682 are residential and 866 are commercial. Multi-family residential accounts are grouped in commercial accounts. Thus, about 94.4% percent of the accounts are residential (Figure 2).

Figure 2 Customer Account Breakdown



2.4 Water Delivery System Description

The DWP distributes their potable water supply through a distribution system consisting of five water systems with 15 separate pressure zones, 180 miles of pipeline, 33 vertical wells, 22 slant wells, 16 reservoirs, 12 booster stations, 41 pressure reducing valves, 26 chlorination stations, and 22 sample stations.

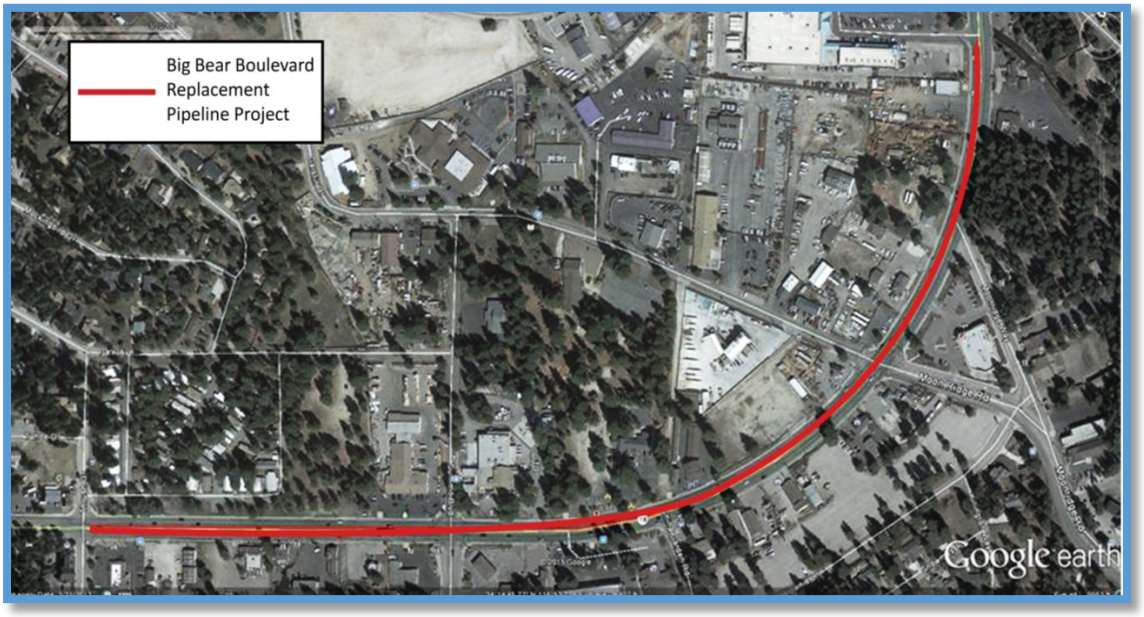
SECTION 3. TECHNICAL PROJECT DESCRIPTION

The proposed PIPELINE project is located within Big Bear Boulevard right-of-way. The existing 12-inch riveted, unlined steel pipeline was constructed in 1947 and is nearly seventy-years old. The 12-inch Big Bear Boulevard Transmission main is a key transmission facility within DWP's system and is located within Big Bear Boulevard right-of-way between Paine Road and Division Drive, nearly 21,000 linear feet. DWP began replacing the steel Big Bear Boulevard Pipeline in 1990, due to frequent leaks.

Almost 17,000 linear feet of the Big Bear Boulevard steel pipeline have been replaced. The proposed PIPELINE project is the remaining 4,000 linear feet of original steel pipeline. The last major leak occurred in January of 2015. The leak occurred during a weekday, so it only affected the morning and afternoon commuter traffic. If a major leak should occur during a busy holiday/snow weekend, then numerous businesses would be impacted and severe traffic delays would occur.

Big Bear Boulevard is a State Highway and Caltrans is scheduled to resurface Big Bear Boulevard, so DWP would prefer to complete the PIPELINE project prior to the State's paving project. Figure 3 shows the areas where the PIPELINE is proposed to be located.

Figure 3 Proposed PIPELINE Location



3.1 The Proposed Project

The PIPELINE project is currently under design. The PIPELINE project is located within Big Boulevard right-of-way, between Thrush Drive and Catalina Road, and is approximately 4,000 linear feet. There are thirty-nine businesses connected to this section of the Big Bear Boulevard Transmission Main and all the commercial water service lines will be replaced as part of the project. There are three commercial fire services and eight hydrants that will be replaced as well.

3.2 PIPELINE Benefits

The PIPELINE will reduce water loss associated with minor and major leaks. The PIPELINE will reduce operational costs related to reduced pumping and provide more efficient pumping due to a smoother pipeline material. The PIPELINE will reduce vehicle emissions related to increased travel times associated with traffic congestion caused by road detours that occur during major leak repairs of the existing steel pipeline. The PIPELINE will avoid potential major economic impacts to local businesses that occur during major leak repairs.

SECTION 4. EVALUATION CRITERIA

4.1 Evaluation Criterion A: Water Conservation

The DWP's long-term water conservation goal is to reduce per capita water use by 20% in accordance with California's Water Conservation Act of 2009 (SBx7-7). This project is one of several capital improvement projects that will contribute to the City's overall conservation plan. During fiscal year 2001/2002, the DWP produced 3,014 acre feet of water, which was approaching the estimated perennial yield of the DWP's service area of 3,100 AF/year. Importing water into the Bear Valley area is not economically feasible, so the DWP initiated an aggressive conservation program and capital improvement projects that replaced old, leaky water mains. These programs have been very successful and by fiscal year 2008/2009, the DWP had reduced its annual production to 2,345 acre feet, which was a 22% reduction from FY 2001/2002. The DWP has continued its conservation and water main replacement efforts and its water production for FY 2014/2015 was 2,192 acre feet, which is a 6.5% reduction from FY 2008/2009. In order to continue to reduce the DWP's customer's water use and meet its conservation goal to be in compliance with SBx7-7, DWP must continue to replace old, leaky water mains to reduce non-revenue water. The proposed PIPELINE will eliminate water loss associated with minor and major water transmission main leaks.

The proposed PIPELINE will conserve water and reduce the amount of water DWP pumps from the aquifers.

4.1.1 Subcriterion No. A.1: Quantifiable Water Savings

The existing 12-inch steel water main's most recent major leak occurred during January of 2015. It is estimated that the pipeline leaked at a rate of 200 gallons per for 24 hours or **144,000 gallons**.

Recently, a commercial water service connected to the existing 12-inch riveted steel water main developed a minor leak. This leak was detected by the recently installed AMI radio read meter. The AMI meter is measuring a continuous flow of 3.6 gallons per minute. This commercial service's depth is relatively shallow, when compared to the existing water main's depth, and no water surfaced as a result of this leak. The DWP assumes that there could be at least two minor leaks along the 4,000 linear feet of existing, 69-year old, 12-inch, riveted steel pipeline. DWP also assumes that each minor leak flows at an average rate of 5 gallons per

minute and similar to the recent commercial service leak, these leaks are not surfacing or otherwise being detected. Two minor leaks as described could result in a water loss of **5,256,000 gallons** per year. The total annual water loss during fiscal year 2014/2015 associated with major and minor leaks on this existing riveted steel pipeline is **5,400,000 gallons** or **17 acre-feet**.

4.1.2 Subcriterion No. A.2: Percentage of Total Supply

As calculated above Section 4.1.1, the Estimated Amount of Water Conserved associated with the PIPELINE is 17 AF/year. The DWP Average Annual Water Supply during the last five fiscal years is 2,228 AF/year. The estimated Percentage of Total Supply conserved is projected at **0.76%.**

4.2 Evaluation Criterion B: Energy-Water Nexus

4.2.1 Subcriterion No. B.1: Implementing Renewable Energy Projects Related to Water Management and Delivery

During fiscal year 2014/2015 the DWP installed solar panels on its office building. The solar panels provide about 74% of the office building and warehouse building power demand. The solar panels have reduced the DWP's power costs by nearly $30,000 per year. The DWP has five wells located at its Division Well Field Site. The DWP has developed a concept for an additional solar project to provide power for these five well pumping plants. The solar field will have approximately four times the number of panels that the recently constructed office solar field has and is expected to produce approximately 550,000 kilowatt hours per year at a total construction cost of $1,200,000.

During the DWP's July 2014 Board meeting the DWP's 5-year Capital Improvement Plan was approved. The Division Well Field Solar Project was not included in the Capital Improvement Plan because of funding constraints. Funding was allocated instead for the PIPELINE in the DWP 5-year Capital Improvement plan. If the PIPELINE is partially funded by a WaterSMART Grant, then revenues that are currently allocated to the PIPELINE can be reallocated to the Division Well Field Solar Project.

4.2.2 Subcriterion No. B.2: Increasing Energy Efficiency in Water Management

The DWP has forty-five well and booster pumping plants that distribute its water supply throughout the Bear Valley. As described in Section 4.1.2 above, the DWP estimates it will reduce its Average Annual Water Supply by 0.76% by constructing the PIPELINE. The DWP used 2,044,062 kilowatt hours of power during fiscal year 2014/2015. The reduced pumping resulting from the 0.76% water conserved will result in about **15,535 kilowatt hour per year** (2,044,062 kilowatt hours * 0.76%) reduction in DWP power usage.

The proposed PVC pipeline is smoother and more efficient than the existing riveted steel pipeline. On average, 1,965 gallons per minute (GPM) of water moves through the 12-inch Big Bear Boulevard pipeline, when the well pumping units fill the reservoirs each day. DWP typically pumps the well pumping units for twelve hours each day. The additional energy to pump 1,965 GPM through 4,000 linear feet of 12-inch riveted steel pipe vs. 12-inch PVC pipe is 24 kilowatts per hour. The additional energy used each day to pump water through the existing pipeline is 288 kilowatt hours per day (24 KWh X 12 hours per day). The additional energy used annually to pump water through the existing pipeline is **105,120 kilowatt hours per year**. The total reduction in power usage related to the PIPELINE is estimated at **120,655 kilowatt hours per year** (15,535 KWh + 105,120 KWh). This calculation includes energy for pumping and treating DWP's water supply. The PIPELINE will result in an estimated 2.5% reduction in power usage, see Table No. 3.

Table No. 3 Estimated Reduction in DWP Power Usage

Total Power used Annually to Pump Water (KWh)	**2,044,062**
Estimated Reduction in Power Usage (KWh)	120,655
Estimated Reduction in Power Usage (%)	5.9

To repair a major leak on the Big Bear Boulevard Pipeline traffic control and a traffic detour on Big Bear Boulevard is required. The commuter vehicle traffic is estimated at 1,350 vehicles per hour. The average major leak repair affects the morning and evening commute. The delay caused by the leak repair traffic detour is estimated at fifteen minutes per vehicle. The total additional time that vehicles are using fuel and emitting emissions due to a major leak is estimated at **675 vehicle hours**, see Table No. 4.

Table No. 4 Estimated Vehicle Hours Due to a Major Leak

Estimated Number of Affected Vehicles	**2,700**
Estimated Delay Caused by Traffic Detour (min./veh)	15
Total Additional Vehicle Time (min)	40,500
Total Additional Vehicle Time (Hr)	675

If a major leak should occur during a busy weekend, the impact to traffic on Big Bear Boulevard would be significantly greater in addition to the economic impacts to local business along this section of highway.

4.3 Evaluation Criterion C: Benefits to Endangered Species

The DWP pumps from the Erwin Subunit Basin on the east side of the Bear Valley. The US Forest Service determined that DWP's pumping, along with Big Bear City Community Services District's pumping within the subunit basin has affected the Unarmored Threespine Stickleback Fish (Stickleback) habitat. For years, the DWP has co-funded the pumping of water into the Stickleback pond to maintain their habitat. The reduced pumping resulting from the water conserved as a result of the PIPELINE will help maintain the Stickleback's habitat. The Stickleback is a federally protected endangered species.

4.4 Evaluation Criterion D: Water Marketing

If the DWP's Annual Water Supply continues to be less than the perennial yield of the aquifer within its service area and when the Bear Valley receives average rainfall, then eventually the 17 AF/year (see Section 4.1.2) of conserved water will find its way into Big Bear Lake via subsurface or stream flow. The Big Bear Lake is managed by the Big Bear Municipal Water District (MWD). MWD has some downstream water obligations to entities located in Redlands and San Bernardino. They accomplish meeting these downstream obligations through In-Lieu water transfers and direct releases from Big Bear Lake. So ultimately the 17 AF/year of conserved water will help provide water supply to an entity located outside of the DWP's service area.

4.5 Evaluation Criterion E: Other Contributions to Water Supply Sustainability

4.5.1 Subcriterion E.1: Addressing Adaptation Strategies in a WaterSMART Basin Study

- **Identify the specific WaterSMART Basin Study where this adaptation strategy was developed. Describe in detail the adaptation strategy that will be implemented through this WaterSMART Grant project and how the proposed WaterSMART Grant project would help implement the adaptation strategy.**

The Santa Ana Watershed Basin Study looks at the Santa Ana River Watershed (SARW), including the service area of Big Bear Lake near the headwaters of the Santa Ana River. The Santa Ana Watershed Project Authority (SAWPA) is a water resources planning agency tasked with protecting the water quality of the watershed. The specific adaptation strategy addressed by this proposal is to reduce demand, described as "Promote the State's 20x2020 Water Conservation Plan in the watershed." By reducing demand we help to address three vulnerabilities: water supply, water quality and the ecosystem.

The Basin Study states that, "In light of climate change, prolonged drought conditions, potential economic growth, and population projections, a strong concern exists to ensure an adequate water supply will be available to meet SARW's future water demands." Examples of proposed actions include: Urban Water Use Efficiency (decreasing per capita use), Improved Conveyance Systems (increased efficiency and the reduction of greenhouse gas emissions), Groundwater Management (reduce demand, increase local supplies, and reduce summertime pumping).

- **Describe how the adaptation strategy and proposed WaterSMART Grant project will address the imbalance between water supply and demand identified by the Basin Study.**

The Basin study states that "Conservation of existing water supplies is of utmost importance to a growing population in the SARW." By implementing the PIPELINE project and controlling water loss as well as waste, the grant project will help to achieve the adaptation strategy. By constructing the PIPELINE project, DWP will eliminate water waste related to the major and minor leaks that occur on this 69-year old riveted steel pipeline.

- **Identify the applicant's level of involvement in the Basin Study (e.g., cost-share partner, participating stakeholder, etc.).**

While the DWP does work with SAWPA on the Integrated Regional Water Management Plan it did not play a vital role in the Basin study.

- **Describe whether the project will result in further collaboration among Basin Study partners.**

By constructing the PIPELINE project the DWP is prepared to share the results of water and energy savings related to installing the new, more efficient pipeline with other SAWPA member agencies and contributors. We look forward to the opportunity to share our experience and would be honored to be a case study for other agencies within the watershed weighing the costs and benefits to implementing a pipeline main replacement program throughout their systems.

4.5.2 Subcriterion E.2: Expediting Future On-Farm Irrigation Improvements

This is not applicable to the project.

4.5.3 Subcriterion E.3: Other Water Supply Sustainability Benefits

- **Will the project make water available to alleviate water supply shortages resulting from drought?**

This project will reduce water loss, and therefore make water available in the event of future water supply shortages.

- **Explain in detail the existing or recent drought conditions in the project area. Describe the impacts that are occurring now or are expected to occur as a result of drought conditions.**

Twice annually the DWP holds a Technical Review Team (TRT) committee meeting to review and evaluate the status, condition, and availability of the DWP's Ground Water supplies and recommend and advise the Board concerning conservation and other significant resource

management constraints, including any possible declarations of a Water Shortage Emergency. The first meeting considers the state of the water supply prior to the summer high use period, and the second meeting is to evaluate impacts on supplies of the summer pumping period and compare annual well production to available Perennial Yield. The TRT was established in 2003 when, during that severe drought, the DWP's water production was approaching its perennial yield and the impacts were apparent in pumping operations.

- **Describe the severity and duration of drought conditions in the project area.**

The Bear Valley is in its fourth year of severe drought. The annual rainfall, measured at the Big Bear Dam, has been below average for the last four years. While Big Bear Lake is not a source of supply for the DWP, the lake level is indicative of drought conditions. As of January 4, 2016 the lake level was down 14.58' from full. Lake levels have been steadily dropping since May of 2011.

- **Describe how the water source that is the focus of this project (river, aquifer, or other source of supply) is impacted by drought.**

At the April 28, 2015 TRT Committee meeting the DWP discussed the fact that precipitation at the dam from July 1, 2014 through March 31, 2015 was 21.98 inches which equates to 68% of the 129-year annual precipitation average. However, as a result of keen conservation measures and community efforts, at the November 13, 2015 TRT meeting data from monitoring wells showed that basin management efforts have been effective and no particular sub-basins were in immediate danger of a water shortage.

- **Provide a detailed explanation of how the proposed WaterSMART Grant project will improve the reliability of water supplies during times of drought.**

The Big Bear City Community Services District (CSD), the other water purveyor in the Bear Valley) can also benefit from the PIPELINE project. Both agencies pump from the Erwin sub-basin. By eliminating water waste associated with the PIPELINE, DWP will reduce the amount of water it pumps from a common sub-basin.

Part of the DWP's water supply is from slant wells (horizontal wells) and the slant well production has declined or stopped completely during this drought. The water conserved from the PIPELINE project will help offset the decreased production of the DWP's slant wells. There is also wide spread support (see attached letters of support in Section 11) for this project that helps water sustainability in the Bear Valley. Part of the DWP's service area includes rural, economically disadvantaged communities.

- **Will the project make water available to address a specific concern? For example:**
    - **Will the project directly address a heightened competition for finite water supplies and over-allocation (e.g., population growth)?**

Yes, as described in the Santa Ana Basin Study report, the DWP groundwater basins, and all basins in the watershed, are potentially threatened by increases in temperature, decreases in precipitation, and increases in population coupled with demand for recreational activities.

- **Describe how the water source that is the focus of this project (river, aquifer, or other source of supply) is impacted by climate variation.**
  From the Santa Ana Basin Study- "Climate change is projected to affect many aspects of water resources management in the SARW" The following were listed as vulnerabilities:
  - Water Supply
    - Insufficient local water supply
    - Increased dependence on imported supply
    - Inability to meet water demand during droughts
    - Shortage in long-term operational water storage capacity

- **Will the project help to address an issue that could potentially result in an interruption to the water supply if unresolved?**
  No

- **Will the project make additional water available for Indian tribes?**
  No

- **Will the project make water available for rural or economically disadvantaged communities?**
  Yes, according to the Santa Ana Basin Study Summary Report, a large portion of the DWP's service area is a disadvantaged community. By reducing water waste (leaks), more water will be available for these communities.

- **Does the project promote and encourage collaboration among parties?**
  Yes, CSD can also benefit from the PIPELINE project. Both agencies pump from the Erwin sub-basin. By eliminating water waste associated with the PIPELINE, DWP will reduce the amount of water it pumps from a common sub-basin.

- **Is there widespread support for the project?**
  Yes, as evidenced by letters of support from our Assemblyman, Congressman, and a local agency (see Letters of Support).

- **What is the significance of the collaboration/support?**
  The DWP is at a critical point in its history. We have brought our system into the 21st century but now it is time for our agency to take a more active part in regional water management, with our neighbors at the CSD and as a stakeholder in the SAWPA region. By leading the charge for a pipeline replacement program we hope to be a test case in best management practices for a small water system.

- **Will the project help to prevent a water-related crisis or conflict?**
  No

- **Is there frequently tension or litigation over water in the basin?**
  No

- **Is the possibility of future water conservation improvements byother water users enhanced by completion of thisproject?**
  Yes, as mentioned before, further water conservation could be achieved by our neighboring CSD if they implement a pipeline replacement program.

- **Will the project increase awareness of water and/or energy conservation and efficiency efforts?**
  Yes

- **Will the project serve as an example of water and/or energy conservation and efficiency within a community?**
  Yes

- **Will the project increase the capability of future water conservation or energy efficiency efforts for use by others?**
  Yes

- **Does the project integrate water and energy components?**
  By reducing demand and reducing the amount of energy required to pump the water through this 4,000 linear foot section of DWP's transmission system, the DWP anticipates there will be a reduced demand for electricity used for pumping. By eliminating leaks for the foreseeable future, extended vehicle commuting times related to pipeline repair detours will be eliminated, leading to a reduction in greenhouse gas emissions.

4.6 Evaluation Criterion F: Implementation and Results

4.6.1 Subcriterion No. F.1: Project Planning

The DWP's Board of Commissioners adopted a Five-Year Capital Improvement Plan during the July 22, 2014 Board Meeting (staff report and minutes attached as Exhibit 1). The PIPELINE is one the projects within the approved Five-Year Capital Improvement Plan. The PIPELINE will allow DWP to operate its system more efficiently.

4.6.2 Subcriterion No. F.2: Readiness to Proceed

The DWP's Board of Commissioners adopted a Five-Year Capital Improvement Plan during the July 22, 2014 Board Meeting (staff report and minutes attached as Exhibit 1). The PIPELINE project is one the projects within the approved Five-Year Capital

Improvement Plan. The PIPELINE project will allow DWP to operate its system more efficiently. The project is currently in the design phase and upon entering into a financial assistance agreement with the Bureau of Reclamation, DWP will be ready to proceed with the project.

When the PIPELINE was included in DWP's Five-Year Capital Improvement Plan on July, 2014. The implementation of the PIPELINE is as follows:

1) Prepare a request for proposal for design and construction engineering services.
2) July 28, 2015, award a contract to a consultant for design and construction services.
3) Complete PIPELINE design and bidding documents by June 30, 2016.
4) Award PIPELINE construction contract to a pipeline contractor by February 28, 2017.
5) Complete pipeline construction by August 1, 2017, so the State's Big Bear Boulevard Paving Project can begin on schedule.

4.6.3 Subcriterion No. F.3: Performance Measures

The PIPELINE will assist the DWP's staff to reduce water loss and operate its water system more efficiently. Once the PIPELINE is operational for one year, the DWP will compare the non-revenue water quantity before and after project completion and estimate the water loss associated with the existing pipeline. The DWP will also compare pressure required to pump water to the reservoirs before and after the PIPELINE to determine how much energy is being saved related to the more efficient pipeline material. The PIPELINE will eliminate major leaks for thirty to forty years, which will eliminate corresponding traffic impacts and delays related to major leaks in this area.

4.6.4 Subcriterion No. F.4: Reasonableness of Costs

The State has mandated that the DWP reduce its water production by 16% by February 2016. We expect the State to continue its efforts to reduce water use throughout the State and therefore the DWP needs to implement a strategy to reduce production on a long-term basis. The DWP already has an extensive water conservation program that has been in place for over a decade and has reduced water production by 27.5% since 2002. Still the DWP must endeavor to reduce production another 16% or face steep fines from the State of California. Consumption per capita for the DWP's customers for the 12-months ending November 30, 2015 averaged only 55 gallons per day. The Department can and will continue in its efforts to reduce consumption, however, if the Department is to reach its targeted reduction the focus will have to be on identifying and replacing pipelines that are subject to leaking. The PIPELINE is an additional step towards replacing DWP's old, leaky steel water mains.

The useful life of a 12-inch PVC water main is estimated at 50-years. The PIPELINE will have a one year warranty after the project has been accepted, then DWP will maintain the new pipeline going forward.

The average cost per acre foot of water produced is $290. Over the 50-year life of the pipeline, the DWP would realize $246,500 in savings related to the reduction in production of 17 AF per year at today's cost.

Table No. 5 Cost of Project

Component	Total Project Cost
Engineering and Design Services	$ 113,500
Construction Management Services	53,900
Construction Costs	1,000,000
Total Outside Costs	1,167,400
DWP Labor	49,200
Total Project Costs	**$ 1,216,600**

The estimated internal labor cost to administer and provide construction observation over the three-year period is approximately $49,200. Internal labor consists of management oversight, inspections, negotiations regarding design changes, and a small portion of time for accounting services. Using internal labor to administer and provide construction observation for the PIPELINE project will not require any increase in staffing or labor costs to the DWP. This will be accomplished by re-prioritizing other maintenance projects.

4.7 Evaluation Criterion G: Additional Non-Federal Funding

The DWP is requesting $300,000 in federal funding to facilitate replacement of 4,000 of riveted steel distribution line that was built in 1947 and is located in a major thoroughfare. The DWP will be matching this federal funding first by using in-house labor funded through operating revenues of $49,200. Secondly, the DWP is applying for funding from the State of California revolving fund for Drinking Water. The remainder of project costs will be funded from capital improvement reserves. Non-federal funding will represent 75.3% of the total project costs.

4.8 Evaluation Criterion H: Connection to Reclamation Project Activities

This is not applicable to the project.

SECTION 5. PERFORMANCE MEASURES

5.1 Performance Measure

DWP is committed to excellence and improving the water use efficiency within the DWP service area. It is the goal of DWP to replace all old steel water mains as funding allows. DWP will evaluate the performance measures to evaluate the effectiveness of our pipeline replacement project. Some of these performance measures include:

1. Conducting a water loss audit periodically using the AWWA methodology, which includes:
2. Identifying and quantifying the number of line breaks on a monthly basis;
3. Estimating and quantifying the average gallons of water loss due to each line break incident;
4. Identifying and quantifying the number of leaks repaired each month;

DWP provides monthly data reports on water production and consumption, and determines nonrevenue water percentages. The most recent water loss audit was completed for fiscal year ending 2014/2015. The DWP has a clear baseline of historical water distribution and billing data to compare with current and future records once the PIPELINE has been placed into operation. The Department is very interested in monitoring and analyzing the performance measures for this project as it will help identify what changes and improvements needed to be made over the course of the steel pipeline replacement project. The Department has also begun to actively monitor and analyze energy efficiency throughout Department operations.

It is the goal of DWP to equip employees with the adequate tools and capability to not only monitor water production and consumption but determine also to analyze and evaluate solutions and follow-up actions for all factors that may contribute to water loss.

5.2 Performance Measure No. B: Projects with Quantifiable Energy Savings

5.2.1 Performance Measure No. B.2: Increasing Energy Efficiency in Water Management

The DWP has forty-five well and booster pumping plants that distribute its water supply throughout the Bear Valley. As described in Section 4.1.2 above, the DWP estimates it will reduce its Average Annual Water Supply by 0.76% once the PIPELINE is operational. The DWP used 2,044,062 kilowatt hours of power during fiscal year 2014/2015. The reduced power usage as described in section 4.2.2 above, will result in about 120,665 kilowatt hour per year reduction in DWP power usage. This calculation includes energy for pumping and treating DWP's water supply.

The DWP also estimates that 675 vehicle hour related to traffic detours caused by major leaks can be eliminated due to the PIPELINE project, see section 4.2.2.

SECTION 6. ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

To allow Reclamation to assess the probable environmental and cultural resources impacts and costs associated with each application, all applicants must respond to the following list of questions focusing on the NEPA, ESA, and NHPA requirements. DWP adopted a Notice of Exemption for the PIPELINE project (Exhibit 2).

1) ***Will the project impact the surrounding environment (e.g., soil dust, air, water [quality and quantity], and animal habitat)?***

   The minor impacts created during construction of the PIPELINE will be mitigated with best management practices.

2) ***Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?***

   No, it is not anticipated that any species would be affected by any activities associated with the proposed project.

3) ***Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "waters of the United States?" If so, please describe and estimate any impacts the project may have.***

   No, there are no wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "waters of the United States."

4) ***When was the water delivery system constructed?***

   The majority of DWP's water system was constructed during the 1940's, 50's, and 60's. City of Big Bear Lake acquired the water system from Southern California Water Company and has made over $65,000,000 in improvements since 1989.

5) ***Will the project result in any modifications of or effects to individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.***

   No, the project will not result in any modifications or effects to individual features of an irrigation system.

6) ***Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at***

your local Reclamation office or the State Historic Preservation Office can assist in answering this question.

No, there are no buildings, structures, or features in the project area listed or eligible for listing on the National Register of Historic Places.

7) ***Are there any known archaeological sites in the proposed project area?***

No, there are no known archaeological sites in the proposed project area.

8) ***Will the project have a disproportionately high and adverse effect on low income or minority populations?***

No, the project will not have a disproportionately high and adverse effect on low income or minority populations.

9) ***Will the project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?***

No, the project will not limit access to and ceremonial use of Indian sacred sites or result in other negative impacts on tribal lands.

10) ***Will the project contribute to the introduction, continued existence, or spread of noxious weeds or non-native species known to occur in the area?***

The project will not contribute to the introduction, continued existence, or spread of noxious weeds or nonnative species known to occur in the area.

SECTION 7. REQUIRED PERMITS OR APPROVALS

Permits to perform the geotechnical investigation and design survey were obtained from Caltrans on 8/11/2015. Caltrans construction permits will be obtained during the design. Final approval from the DWP Board of Commissioners is scheduled for February 2017.

7.1 NEPA - National Environmental Policy Act

The DWP does not anticipate any impacts on the environment and will fit within a Categorical Exclusion to NEPA. Any environmental impacts will be minimized during construction using best management practices.

7.2 NHPA - National Historic Preservation Act

There will be no impacts on historic sites as a result of this project.

7.3 ESA - Endangered Species Act

There is no critical habitat or endangered or threatened species that will be negatively affected by this project.

7.4 State Permits

State permits will be obtained from Caltrans during the design phase of the project. The Caltrans required Traffic Control Plans (TCP) and Storm Water Pollution Prevention Plan (SWPPP) will be prepared and submitted to Caltrans during design and provided to the contractor to implement during construction. This will allow the contractor to expedite the start of construction by not needing to submit the TCP and SWPPP and wait for Caltrans review once the contract is awarded.

7.5 Local Permits

There are no other local permits that will be required for the project.

SECTION 8. LETTERS OF SUPPORT

See attachments in Section 11

SECTION 9. OFFICIAL RESOLUTION

The DWP Board of Commissioners are scheduled to consider the Resolution during the January 26, 2016 Board meeting. Once approved, the Resolution will be forwarded to USBR.

SECTION 11. ATTACHMENTS

Exhibit 1. Capital Improvement Plan

ITEM 2.5

AGENDA REPORT

Service, Quality, Community

DATE:	July 22, 2014
TO:	Board of Commissioners
FROM:	Reginald A. Lamson, General Manager
PREPARED BY:	Danielle McGee, Administrative Manager Steve Wilson, Water Superintendent
RE:	**Proposed Five-Year Capital Improvement Plan (FY 14/15-FY18/19) and Meter Replacement Implementation Program**

Background:

During the June Board meeting, staff was directed to provide additional information for the proposed 5-Year Capital Improvement Plan. Staff was also directed to revise the Meter Replacement Implementation Program staff report. Staff has combined the Proposed Five-Year Capital Improvement Plan and the Meter Replacement Implementation reports.

Since 1989, the main focus of DWP's Capital Improvements has been on supply facilities and pipeline replacement. DWP has replaced several well pumping units and constructed new wells to improve the quantity and quality of our pumping facilities. By the fall of 2014, the pumping facilities within the Big Bear Lake / Moonridge System, Sugarloaf / Erwin Lake System, Fawnskin System and Lake William System will meet the Department of Public Health's requirement that the pumping capacity of a water system shall be capable of meeting the Maximum Day Demand; when the highest producing pumping unit is not in service. This fall, the Klamath Booster Pumping Plant and the Angels Camp Reservoir will be operational, which will increase our operational flexibility and efficiency.

During the third year of the proposed Capital Improvement Plan, the Sawmill Well Pumping Plant will be constructed. This plant will be designed to pump 350 GPM to the new Angels Camp Reservoir. This additional capacity can serve the Sugarloaf / Erwin Lake System or be efficiently transferred to the Big Bear Lake / Moonridge System via the new Klamath Booster. During the second year of the proposed Capital Improvement Plan, DWP staff will rehabilitate The Bear Mountain Slant Wells and put these gravity supply facilities back into service. The proposed Capital Improvement Plan provides funding for annual replacement of existing pumping units and the construction of a new well pumping plant every four years. Staff will continue to recommend projects that enhance gravity supply facilities and improve operational efficiency.

The storage capacities in three of the four water systems meet the operational, fire and emergency storage requirements. Only the storage capacity in the Lake William System is below the current standard (0.16 MG vs. 0.23 MG). The proposed Capital Improvement Plan provides

Page 81 of 139

funding for Reservoir Rehabilitation Projects. The recently constructed and proposed supply facilities adequately address DWP's supply needs over the next five years. Staff has reviewed the condition of our storage reservoirs and estimates that reservoir recoating and repiping can be deferred for three or four years.

DWP replaced 5.5 mile of pipelines during the summer of 2012. DWP staff replaced a half mile of pipeline in the Erwin Lake area over the last year and a half. DWP has also constructed 1.7 miles of new pipelines associated with the Arrastre Creek Well and Angels Camp Reservoir Projects. DWP has installed 7.7 miles of new pipeline since the summer of 2012.

DWP has 11 miles of undersized (4-inch diameter or smaller) steel pipelines and a half mile of 12-inch steel main within Big Bear Blvd. that was installed in 1947/1948. The 12-inch Big Bear Blvd. water main is the last section of this important water main that requires replacement. The proposed Capital Improvement Plan will schedule replacing this section of pipe during the fourth year of the plan. Within the proposed Capital Improvement Plan, DWP staff will replace a 1,000 LF of undersized steel pipeline and will focus on areas prone to freezing and on steel water mains located within back lot easement; relocating those mains to street rights-of way.

Ten years ago, DWP averaged 40 – 50 main leaks per year. Now, DWP averages about twenty main line leaks per year. Because DWP has recently installed 7.7 miles of new water mains and because water main leaks have dropped to twenty per year, staff is proposing to minimize pipeline replacement until FY 2021/22. Starting in FY 2021/22 and beyond, DWP will have nearly four million per year to dedicate towards capital improvement projects and we can replace the remaining steel and undersized water mains at an accelerated rate. If a large section of water main fails before FY 2021/22, DWP has a Capital Improvement Project Reserve to take care of emergency replacements.

DWP has 15,526 meters within its Big Bear Service Area. Some of the meters are over 70 years old. The typical warranty on a meter is 10 years on moving parts and 20 years on the meter body. DWP has completed random accuracy testing of the meters and found that 5 meters out of 60 tested passed the 98% accuracy standard. Two of the 60 meters tested were stuck. Revenue lost based on the inaccuracy of the 60 meters tested (not including the two stuck meters) is $137,000 per year, which is projected over the 15,503 active meters. Also during the meter testing program, staff calculated that there are potentially 540 meters stuck within our system. The potential revenue lost due to the stuck meters is estimated at $24,000 per year (see attached Meter Testing Program Staff Report). Because of the age and inaccuracy of DWP's meters, it would be prudent to implement a meter replacement program.

DWP has installed 1,525 Hersey radio read meters with Itron 200W radios between 2006 and 2010. These meters have generally performed well but there have been some issues related to the operation of these radios and meters. The primary concern with DWP's radio read meters is the batteries are not lasting ten years and the meters had questionable accuracy. Customer service from the vendor for the Hersey/Itron system has been inconsistent. Itron has developed a new 100W radio that has additional features and its batteries are supposed to last 20 years.

The current meter and radio that DWP is using are obsolete. DWP has conducted extensive testing on eleven different meters (five different manufacturers) and are considering either the Hersey 420 composite meter or the Sensus AccuStream composite meter. DWP has researched five different radio read systems and are considering either the Itron 100W system or the Sensus 520M MXU system. DWP staff estimates that they could complete a meter change out program

in six years. A manual read meter system would cost about $1.2 million and a radio read meter system would cost about $3.3 million.

Replacing the existing Meter System has the following advantages:

1) Additional usage revenue because the existing meters are under measuring.
2) All stuck meters would be replaced.
3) A reduction in DWP's unaccounted for water.
4) A favorable Internal Rate of Return on DWP's investment of 8.6% with a payback period of about 10 years.

Replacing the existing Meter System has the following disadvantages:

1) Cost of new meters.

The radio read system has the following advantages:

1) Two meter technicians could be reassigned to other water system maintenance duties.
2) Final/initial meter reads can be done from the office (1,280 reads/yr.).
3) Eliminates check reads related to human error and usual usage (850 reads/yr.).
4) Eliminates estimating water usage during winter months, which saves time in the billing and customer service departments.
5) Provides hourly water usage information, which reduces customer service time related to explaining a disputed bill.
6) Notifies the office of a possible leak, which reduces customer service and customer field service time associated with a flooded house. It reduces the amount of property damage to the home. It will also reduce the leak adjustments.
7) Eliminates check reads associated with leaks (460 reads/yr.).
8) Injuries that occur while reading meters will be eliminated.
9) Eliminates vehicle expense related to reading the meters.
10) DWP's conservation department will have real-time usage data to assist them in monitoring high water users.
11) Customers can check their current usage via our web page.
12) The radio read system can send the customer an email to notify them of unusual usage. The customer will setup this feature via our web page.
13) A favorable Internal Rate of Return on DWP's investment of 6.9% with a payback period of about 11 years.

Note: Savings related to items 4, 5, 6, 8, and 9, are difficult to quantify and were not calculated.

The radio read system has the following disadvantages:

1) The equipment is more expensive than manual read meters.
2) The batteries in the radio and in the meter register have a 20 year life. The radios and at least the meter registers will need to be replaced every 20 years.
3) Annual costs for equipment and software maintenance agreements.

Staff recommends implementing a Radio Read Meter Replacement Program. Staff also recommends installing the Sensus Radio Read System. Staff bases this recommendation on

MINUTES OF A REGULAR BOARD MEETING
CITY OF BIG BEAR LAKE
DEPARTMENT OF WATER AND POWER
BOARD OF COMMISSIONERS
JULY 22, 2014

OPEN SESSION
A Regular Meeting of the Board of Commissioners of the City of Big Bear Lake, Department of Water and Power was called to order at 9:00 a.m. by Chair Foulkes at 41972 Garstin Drive, Big Bear Lake, California.

BOARD MEMBERS PRESENT:
Steve Foulkes, Chair
Bill Giamarino, Vice Chair
Bob Tarras, Treasurer
Don Smith, Commissioner
Craig Hjorth, Commissioner

BOARD MEMBERS EXCUSED:
None

PLEDGE OF ALLEGIANCE
Bill Giamarino, Vice Chair

PUBLIC FORUM
No public comment was received during the Public Forum.

1. **CONSENT CALENDAR**

1.1 Approve Minutes of a Regular Board Meeting Dated June 24, 2014

1.4 Resolution No. DWP 2014-09, Adopting Modifications to Water Service Administrative Fees

1.5 Ratification of Well Pumping Unit Change Order for Division #6

1.6 Budget Adjustment – Emergency Repairs at Pontell Booster Station

1.7 Adopt a CEQA Categorical Exemption for Selling the Rimforest Surplus Lots

Motion made by Treasurer Tarras, seconded by Commissioner Smith, and carried 5-0 to approve Consent Calendar items 1.1, 1.4, 1.5, 1.6 and 1.7 as presented.

AYES: Foulkes, Giamarino, Tarras, Smith, Hjorth

ITEMS REMOVED FROM THE CONSENT CALENDAR

1.2 Authorize Purchase of Pickup Truck
Board discussed the size of the pickup truck with Management.

Motion made by Commissioner Smith, seconded by Treasurer Tarras, and carried 5-0 to approve Consent Calendar item 1.2 as presented.

AYES: Foulkes, Giamarino, Tarras, Smith, Hjorth

1.3 Resolution No. DWP 2014-08, Amending Policy #2011-01, Benefits and Working Conditions for Unrepresented Employees
Board discussed the proposed policy amendments with Management. Board directed staff to modify the health insurance section to specify employee premium pick-up scenario, and bring back for the Board's consideration. Board directed staff to review certification payment benefit at the end of 2016. Board requested staff check with legal counsel regarding discussed changes to retirement benefits.

2. DISCUSSION/ACTION ITEMS

2.1 Check Register 06/01/14 – 06/30/14

Board reviewed and discussed the check register for June 2014 with Management.

Motion made by Vice-Chair Giamarino, seconded by Treasurer Tarras, and carried 5-0 to authenticate the Check Register for June 2014 as presented.

AYES: Foulkes, Giamarino, Tarras, Smith, Hjorth

2.2 Revision to Leak Adjustment Credits

Board discussed the modification of leak adjustment factors with Administrative Manager McGee.

Motion made by Commissioner Smith, seconded by Commissioner Hjorth, and carried 5-0 to modify the leak adjustment factors to $0.72/CCF for the marginal cost of water, and $115 per incident for the service fee.

AYES: Foulkes, Giamarino, Tarras, Smith, Hjorth

2.3 DWP Office Building Solar Project

Board discussed the proposed solar project with General Manager Lamson.

Motion made by Treasurer Tarras, seconded by Vice-Chair Giamarino, and carried 5-0 to authorize staff to proceed with the proposed office-building solar project for a not to exceed amount of $350,000.

AYES: Foulkes, Giamarino, Tarras, Smith, Hjorth

2.4 Authorize Purchase of Backhoe

Board discussed the proposed backhoe purchase with Management.

Motion made by Vice-Chair Giamarino, seconded by Commissioner Smith, and carried 5-0 to authorize the purchase of a Backhoe from RDO Equipment Co. in the amount of $88,489, after trade-in of 1990 Case Backhoe.

AYES: Foulkes, Giamarino, Tarras, Smith, Hjorth

2.5 Tentative Five-Year Capital Improvement Plan (FY 14/15 – FY 18/19) and Meter Replacement Implementation Program

Board discussed the proposed five-year Capital Improvement Plan (CIP) with Management. General Manager Lamson provided the Board with a summary of the proposed CIP, including a detailed explanation of the proposed Meter Replacement Program.

Motion made by Vice-Chair Giamarino, seconded by Commissioner Smith, and carried 5-0 to approve the proposed five-year Capital Improvement Plan, including the Meter Replacement Program; and associated budget adjustment as presented.

AYES: Foulkes, Giamarino, Tarras, Smith, Hjorth

2.6 Resolution No. DWP 2014-10, Requesting that the City Council Consider Annexation of Parcels Outside the City Limits
Board discussed the resolution with Management.

Motion made by Commissioner Smith, seconded by Vice-Chair Giamarino, and carried 5-0 to approve Resolution No. DWP 2014-10, Requesting that the City Council Consider an Application to Annex Parcels Outside the City Limits Owned by the City of Big Bear Lake, DWP.

AYES: Foulkes, Giamarino, Tarras, Smith, Hjorth

2.7 New Pension Accounting Requirements
Board discussed the new pension accounting requirements with Administrative Manager McGee.

Motion made by Vice-Chair Giamarino, seconded by Commissioner Hjorth, and carried 5-0 to adopt the initial measurement date for compliance with GASB 68 as June 30, 2014.

AYES: Foulkes, Giamarino, Tarras, Smith, Hjorth

2.8 Award Installation of Telemetry Equipment at Arrastre Creek Well and Klamath Booster Station
Board discussed the installation of telemetry equipment with General Manager Lamson.

Motion made by Treasurer Tarras, seconded by Commissioner Smith, and carried 5-0 to award the proposed telemetry contract to Byrd Industrial Electronics in the amount of $33,821.87; and budget internally for a 10 percent contingency for a total amount of $37,200; and approve associated budget adjustment as presented.

AYES: Foulkes, Giamarino, Tarras, Smith, Hjorth

2.9 Award Emergency Repair at Lassen #4 Well
Board discussed the emergency repairs at Lassen #4 Well with Management.

Motion made by Vice-Chair Giamarino, seconded by Commissioner Smith, and carried 5-0 to approve the proposed emergency repairs at Lassen #4 Well; and award the contract to Romans Construction Co. in the amount of $14,800; and budget internally for a 10 percent contingency for a total amount of $16,280; and approve associated budget adjustment as presented.

AYES: Foulkes, Giamarino, Tarras, Smith, Hjorth

2.10 Management Reports
Board discussed Management Reports. Board directed staff to issue a public release regarding the State's Water Conservation Regulation that goes into effect August 1, 2014. Board directed staff to develop and propose a new water conservation incentive plan for the Board's consideration. Board requested staff discontinue reporting Rimforest production levels.

2.11 Board Member Reports
Commissioner Smith discussed a terrorist awareness training class he attended and recommends for DWP staff. Chair Foulkes informed the Board that he is running for the Bear Valley Unified School District Board. If elected, Chair Foulkes intends to resign from the DWP Board after the December 2014 meeting.

At 11.35 a.m. Chair Foulkes moved to recess without objection.

At 11:41 a.m. Chair Foulkes reconvened the meeting.

3. CLOSED SESSION
At 11:41 a.m. the Board went into closed session.

3.1 Closed Session Pursuant to Section 54956.95
Liability Claim
Claimant: Dominique Kreger
Agency Claimed Against: City of Big Bear Lake, Department of Water and Power

3.2 Closed Session Pursuant to Section 54956.95
Liability Claim
Claimant: David Delbridge
Agency Claimed Against: City of Big Bear Lake, Department of Water and Power

OPEN SESSION
At 12:09 p.m. the Board came out of closed session. No reportable action was taken.

ADJOURNMENT
No additional business came before the Board. At 12:09 p.m. Chair Foulkes adjourned the meeting.

Diego Chavez, Secretary
DWP Board of Commissioners

Approved at meeting dated:

Exhibit 2. Notice of Exemption

2015118091

DATE FILED & POSTED
Posted On: 11/6/15 ITEM 1.3
Removed On: 12/18/15
Receipt No: 36-2015-699

NOTICE OF EXEMPTION
BIG BEAR LAKE DEPARTMENT OF WATER AND POWER

To: San Bernardino County
Clerk of the Board
385 North Arrowhead Avenue
San Bernardino, CA 92415

From: City of Big Bear Lake
Department of Water and Power
41972 Garstin Drive
Big Bear Lake, CA 92315

Project Title: City of Big Bear Lake Department of Water and Power (BBDWP): Big Bear Boulevard Replacement Pipeline Project

Project Location: The proposed pipeline alignment is located in the City of Big Bear Lake along Big Bear Boulevard, between the intersection of the Boulevard and Rathbun Creek channel and the Boulevard and northeast corner of Thrush Drive.

Project Location - City: City of Big Bear Lake

Project Location - County: San Bernardino

Description of Nature, Purpose, and Beneficiaries of the Project: The purpose of the proposed project is to replace an existing water distribution pipeline with a new 12" pipeline. This will ensure adequate water supply to the users along this alignment, including adequate fire flow.

Name of Public Agency Approving Project: Big Bear Lake Department of Water and Power

Name of Person or Agency Carrying Out Project: Big Bear Lake Department of Water and Power

Exempt Status: (Check One)

___ Ministerial (Sections 21080(b)(1); 15268)
___ Declared Emergency (Sections 21080(b)(3); 15269(a))
___ Emergency Project (Sections 21080(b)(4); 15269(b)(c))
___ Categorical Exemption (Sections 21084; 15301(a)
_✓_ Statutory Exemption (Section 15282 (k))

Reasons why project is exempt: The State CEQA Guidelines provide a series of Statutory Exemptions for actions that have been deemed by the State Legislature not to be subject to the California Environmental Quality Act (CEQA), i.e. not a project under the Statute. The proposed action is the installation of an approximate 4,400 feet of replacement pipeline (12" in diameter) that would allow continued delivery of adequate water supply along the length of this new pipeline. Statutory Exemption 15282 states: *(k) The installation of new pipeline or maintenance, repair, restoration, removal, or demolition of the existing pipeline as set forth in Section 21080.21 of the Public Resources Code, as long as the project does not exceed one mile in length.* The proposed action has been determined to fall within the scope of Statutory Exemption 15282(k). Therefore, this proposed action is not a "project" subject to CEQA or the State CEQA Guidelines.

Lead Agency
Contact Person: Reggie Lamson **Telephone:** (909) 866-5050

Signature: [signature] **Title:** General Manager **Date:** 10-27-15

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STATE CLEARING HOUSE

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Exhibit 3. Letters of Support

PAUL COOK
8TH DISTRICT, CALIFORNIA

1222 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-5861

Congress of the United States
House of Representatives
Washington, DC 20515–0508

January 13, 2016

The Honorable Estevan López
Commissioner, Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

RE: Support Letter for Big Bear Boulevard Pipeline Replacement Project

Dear Mr. López:

It is my pleasure to write this letter in support of the City of Big Bear Lake Department of Water (BBLDWP) Big Bear Boulevard Pipeline Replacement Project (Pipeline Project). If approved, BBLDWP intends to use WaterSMART 2016 grant funding to replace an existing pipeline along Big Bear Boulevard. This main is located within one of the busiest highways in the rural mountain community of Big Bear Lake, California, a four-season resort town that can attract in excess of 100,000 people on holiday weekends. The Pipeline Project will replace 4,000 linear feet of an aged, leak-prone section of 12-inch diameter riveted steel main that was installed in 1947 with new PVC or Ductile Iron Pipe. The purpose of replacing the main is to provide reliable water service and fire protection to the numerous businesses in the community while also reducing water loss due to aging infrastructure.

WaterSMART 2016 funds will be used to construct the replacement main and tie over 39 existing commercial services and three fire services. The section slated for replacement lies along a portion of State Highway 18 that is home to many businesses and government buildings, including the San Bernardino County Sheriff's Department. In my opinion, BBLDWP has displayed considerable foresight and due diligence with regard to planning, as evidenced by the many meetings they've organized with multiple public agencies so as to minimize the disruption of traffic and destruction of the roadway. It appears that the Big Bear Boulevard Pipeline Replacement Project is necessary and ready to proceed.

The Pipeline Project is expected to reduce water usage, cost, and time, as the existing main has reached the end of its useful life and begun to leak more frequently, requiring additional staff time and funds while causing disruptions to traffic and commerce. While customers of the BBLDWP have reduced their water consumption by over 25% in the last decade, water loss as a result of main line leaks often accounts for a major portion of water consumption. To justify and bolster the community's efforts and in an effort to reach state-mandated conservation goals, the BBLDWP is taking a proactive approach to conserve water before it ever reaches the customer.

I fully support the efforts of the BBLDWP as they seek external funding for the Pipeline Project. If you would like to discuss this matter further, please contact my Apple Valley office at (760) 247-1815.

Sincerely,

Col. Paul Cook (Ret.)
Congressman, 8th District of California

PRINTED ON RECYCLED PAPER

STATE CAPITOL
P.O. BOX 942849
SACRAMENTO, CA 94249-0033
(916) 319-2033
FAX (916) 319-2133

DISTRICT OFFICE
15900 SMOKE TREE STREET, SUITE 125
HESPERIA, CA 92345
(760) 244-5277
FAX (760) 244-5447

Assembly
California Legislature

JAY OBERNOLTE
ASSEMBLYMAN, THIRTY-THIRD DISTRICT

COMMITTEES
VICE CHAIR: ARTS, ENTERTAINMENT, SPORTS, TOURISM, AND INTERNET MEDIA
UTILITIES AND COMMERCE
RULES (ALTERNATE)

SUBCOMMITTEES
BUDGET SUBCOMMITTEE NO. 3 ON RESOURCES AND TRANSPORTATION

JOINT COMMITTEES
JOINT COMMITTEE ON ARTS
JOINT LEGISLATIVE BUDGET

Estevan López
Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

RE: WaterSmart 2016: Big Bear Boulevard Pipeline Replacement Project

Dear Mr. López,

I am writing to express my support for the City of Big Bear Lake, Department of Water (BBLDWP) Big Bear Boulevard Pipeline Replacement Project (Pipeline Project). The Big Bear Boulevard main is located within one of the busiest highways in the remote mountain community of Big Bear Lake, a four-season resort town that can attract in excess of 100,000 people on holiday weekends. The Pipeline Project will replace 4,000 linear feet of an aged, leak-prone section of 12-inch diameter riveted steel main that was installed in 1947 with new PVC or Ductile Iron Pipe. The purpose of replacing the main is to provide reliable water service and fire protection to the numerous businesses along the highway while reducing water loss due to increasingly aging infrastructure.

Funds will be used to construct the replacement main and tie over 39 existing commercial services and 3 fire services. The section slated for replacement lies along a portion of State Highway 18 that is home to several important businesses for the small community including two pharmacies, the San Bernardino County Sheriff's Department, several restaurants, a home improvement store, two churches and two propane gas providers. The BBLDWP has already shown forethought and leadership as they coordinated meetings across agencies that do construction along the boulevard to see how agencies can schedule projects to coincide, minimizing the disruption of traffic and destruction of the roadway. The Big Bear Boulevard Pipeline Replacement Project is necessary and ready to proceed.

The Pipeline Project is expected to save water, money and time as the existing main has reached the end of its useful life and begun to leak more frequently, requiring additional staff time and funds while causing disruptions to traffic and business. While customers of the BBLDWP have reduced their water consumption by over 25% in the last decade, water loss as a result of main line leaks can account for a major portion of water production. To justify and bolster the community's efforts and in an effort to reach state-mandated conservation rates, the BBLDWP is taking a proactive approach to conserve water before it ever reaches the customer.

I fully support the efforts of the BBLDWP as they seek external funding for the Pipeline Project.

Sincerely,

Assemblyman Jay Obernolte
33rd Assembly District
State Capitol Office: Room 4116
Sacramento, CA 94249

CAPITOL OFFICE
STATE CAPITOL
ROOM 3056
SACRAMENTO, CA 95814
TEL (916) 651-4023
FAX (916) 651-4923

DISTRICT OFFICE
10350 COMMERCE CENTER DRIVE
SUITE A-220
RANCHO CUCAMONGA, CA 91730
TEL (909) 919-7731
FAX (909) 919-7739

California State Senate

MIKE MORRELL
SENATOR, TWENTY-THIRD DISTRICT

COMMITTEES
HEALTH
VICE CHAIR
BUDGET
BANKING & FINANCE
SUBCOMMITTEE
BUDGET SUBCOMMITTEE #3,
HEALTH & HUMAN SERVICES

Estevan López
Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

RE: WaterSmart 2016: Big Bear Boulevard Pipeline Replacement Project

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It is my pleasure to write this letter in support of the City of Big Bear Lake, Department of Water (BBLDWP) Big Bear Boulevard Pipeline Replacement Project (Pipeline Project). The Big Bear Boulevard main is located within one of the busiest highways in the remote mountain community of Big Bear Lake, a four-season resort town that can attract in excess of 100,000 people on holiday weekends. The Pipeline Project will replace 4,000 linear feet of an aged, leak-prone section of 12-inch diameter riveted steel main that was installed in 1947 with new PVC or Ductile Iron Pipe. The purpose of replacing the main is to provide reliable water service and fire protection to the numerous businesses along the highway while reducing water loss due to increasingly aging infrastructure.

Funds will be used to construct the replacement main and tie over 39 existing commercial services and 3 fire services. The section slated for replacement lies along a portion of State Highway 18 that is home to several important businesses for the small community including two pharmacies, the San Bernardino County Sheriff's Department, several restaurants, a home improvement store, two churches and two propane gas providers.

The Pipeline Project is expected to save water, money and time as the existing main has reached the end of its useful life and begun to leak more frequently, requiring additional staff time and funds while causing disruptions to traffic and business. While customers of the BBLDWP have reduced their water consumption by over 25 percent in the last decade, water loss as a result of main line leaks can account for a major portion of water production. To justify and bolster the community's efforts and in an effort to reach state-mandated conservation rates, the BBLDWP is taking a proactive approach to conserve water before it ever reaches the customer.

I fully support the efforts of the BBLDWP as they seek external funding for the Pipeline Project.

Sincerely,

Mike Morrell

Senator Mike Morrell
California's 23rd District
State Capitol, Room 3056
Sacramento, CA 95814

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Big Bear City Community Services District

P.O. BOX 558 • 139 EAST BIG BEAR BLVD • BIG BEAR CITY • CALIFORNIA • 92314
PHONE (909) 585-2565 • FAX (909) 585-0025 • WWW.BBCCSD.ORG

January 19, 2016

Estevan López
Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

RE: WaterSmart 2016: Big Bear Boulevard Pipeline Replacement Project

Dear Mr. López,

It is my pleasure to write this letter in support of the City of Big Bear Lake, Department of Water (BBLDWP) Big Bear Boulevard Pipeline Replacement Project (Pipeline Project). The Big Bear Boulevard main is located within one of the busiest highways in the remote mountain community of Big Bear Lake, a four-season resort town that can attract in excess of 100,000 people on holiday weekends. The Pipeline Project will replace 4,000 linear feet of an aged, leak-prone section of 12-inch diameter riveted steel main that was installed in 1947 with new PVC or Ductile Iron Pipe. The purpose of replacing the main is to provide reliable water service and fire protection to the numerous businesses along the highway while reducing water loss due to increasingly aging infrastructure.

Funds will be used to construct the replacement main and tie over 39 existing commercial services and 3 fire services. The section slated for replacement lies along a portion of State Highway 18 that is home to several important businesses for the small community including two pharmacies, the San Bernardino County Sheriff's Department, several restaurants, a home improvement store, two churches and two propane gas providers. The BBLDWP has already shown forethought and leadership as they coordinated meetings across agencies that do construction along the boulevard to see how agencies can schedule projects to coincide, minimizing the disruption of traffic and destruction of the roadway. The Big Bear Boulevard Pipeline Replacement Project is necessary and ready to proceed.

The Pipeline Project is expected to save water, money and time as the existing main has reached the end of its useful life and begun to leak more frequently, requiring additional staff time and funds while causing disruptions to traffic and business. While customers of the BBLDWP have reduced their water consumption by over 25% in the last decade, water loss as a result of main line leaks can account for a major portion of water production. To justify and bolster the community's efforts and in an effort to reach state-mandated conservation rates, the BBLDWP is taking a proactive approach to conserve water before it ever reaches the customer.

I fully support the efforts of the BBLDWP as they seek external funding for the Pipeline Project.

Sincerely,

Scott Heule
General Manager

ATTACHMENTS FORM

Instructions: On this form, you will attach the various files that make up your grant application. Please consult with the appropriate Agency Guidelines for more information about each needed file. Please remember that any files you attach must be in the document format and named as specified in the Guidelines.

Important: Please attach your files in the proper sequence. See the appropriate Agency Guidelines for details.

1) Please attach Attachment 1	BBLDWP_WATERSMART_PIPELINE_GR	Add Attachment	Delete Attachment	View Attachment
2) Please attach Attachment 2		Add Attachment	Delete Attachment	View Attachment
3) Please attach Attachment 3		Add Attachment	Delete Attachment	View Attachment
4) Please attach Attachment 4		Add Attachment	Delete Attachment	View Attachment
5) Please attach Attachment 5		Add Attachment	Delete Attachment	View Attachment
6) Please attach Attachment 6		Add Attachment	Delete Attachment	View Attachment
7) Please attach Attachment 7		Add Attachment	Delete Attachment	View Attachment
8) Please attach Attachment 8		Add Attachment	Delete Attachment	View Attachment
9) Please attach Attachment 9		Add Attachment	Delete Attachment	View Attachment
10) Please attach Attachment 10		Add Attachment	Delete Attachment	View Attachment
11) Please attach Attachment 11		Add Attachment	Delete Attachment	View Attachment
12) Please attach Attachment 12		Add Attachment	Delete Attachment	View Attachment
13) Please attach Attachment 13		Add Attachment	Delete Attachment	View Attachment
14) Please attach Attachment 14		Add Attachment	Delete Attachment	View Attachment
15) Please attach Attachment 15		Add Attachment	Delete Attachment	View Attachment