

# ***BELLA VISTA WATER DISTRICT DROUGHT CONTINGENCY PLANNING***

**SHASTA COUNTY, CA**



**Application Submitted to the United States Bureau of Reclamation for a  
Watersmart: Drought Contingency Planning Grant  
Funding Opportunity No. BOR-DO-17-F009**

**Submitted by**

**Bella Vista Water District  
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**TABLE OF CONTENTS**

**1 . EXECUTIVE SUMMARY ..... 1**  
(A) GENERAL PROJECT INFORMATION .....1  
(B) PROJECT SUMMARY .....1  
(C) PROJECT DURATION AND ESTIMATED COMPLETION DATE.....1  
(D) RECLAMATION NEXUS .....1  
**2 . BACKGROUND DATA ..... 2**  
(A) GEOGRAPHIC LOCATION.....2  
(B) WATER SUPPLY .....2  
(C) WATER DELIVERY SYSTEM .....2  
(D) WATER DEMANDS .....2  
(E) PAST WORKING RELATIONSHIPS WITH RECLAMATION .....3  
**3 . TECHNICAL PROJECT DESCRIPTION ..... 4**  
(A) PROJECT WORKPLAN.....4  
(B) PROJECT SCHEDULE.....8  
**4 . EVALUATION CRITERIA..... 8**  
(A) EVALUATION CRITERION A: NEED FOR A DROUGHT CONTINGENCY PLAN OR PLAN UPDATE .....8  
(B) EVALUATION CRITERION B: INCLUSION OF STAKEHOLDERS .....13  
(C) EVALUATION CRITERION C: PROJECT IMPLEMENTATION .....15  
(D) EVALUATION CRITERION D: NEXUS TO RECLAMATION .....17  
**5 . EXISTING DROUGHT CONTINGENCY PLAN ..... 17**  
**6 . LETTERS OF SUPPORT ..... 18**  
**7 . REQUIRED PERMITS OR APPROVALS ..... 18**  
**8 . OFFICIAL RESOLUTION ..... 18**  
**9 . PROJECT BUDGET ..... 18**

**LIST OF TABLES**

Table 1 - 2017 Funding Request Summary ..... 1  
Table 2 - Single Dry Year Projected Supply and Demand Comparison ..... 10  
Table 3 - Drought Contingency Planning Stakeholders ..... 13  
Table 4 - Stages of Water Shortage Contingency Plan ..... 18  
Table 5 - Funding Sources ..... 19  
Table 6 - Budget Proposal ..... 20

**LIST OF FIGURES**

Figure 1 – District Vicinity Map..... 3  
Figure 2 - BVWD Historical CVP Allocation ..... 9  
Figure 3 - Drought Conditions in Bella Vista Water District (2012-2016)..... 12

**APPENDICES**

A – PROJECT SCHEDULE ..... 21  
B – COST ESTIMATE ..... 23  
C – DISTRICT FINANCIAL STATEMENTS ..... 25  
D – LOCAL ENDANGERED AND PROTECTED SPECIES ..... 33  
E – LETTERS OF SUPPORT..... 40  
F – BELLA VISTA WATER DISTRICT WATER SHORTAGE CONTINGENCY PLAN ..... 51  
G – DISTRICT RESOLUTION..... 65

## TECHNICAL PROPOSAL

### 1 . Executive Summary

#### (A) General Project Information

**Proposal Name:** Bella Vista Water District Drought Contingency Planning

**Date:** February 10, 2017

**Applicant Name:** Bella Vista Water District

**City, County and State:** Redding, Shasta County, California

#### (B) Project Summary

The Bella Vista Water District (BVWD) provides urban and agricultural water to a 34,360-acre area in Shasta County, California. The District proposes to develop a Drought Contingency Plan that will build on a 2015 Water Shortage Contingency Plan update and 2015 Urban Water Management Plan. BVWD has significant water supply issues during droughts, primarily related to uncertainty in their USBR surface water supply. The District lacks sufficient diversity in water supplies. A recent multi-year drought has resulted in unprecedented surface water cutbacks requiring extreme water conservation measures. These conditions have mobilized District staff to develop a long-term Drought Contingency Plan. The District will solicit input from a wide range of local stakeholders to identify important vulnerabilities and potential solutions. The Plan will include, but not be limited to, the six required drought elements: 1) Drought Monitoring; 2) Vulnerability Assessment; 3) Mitigation Actions; 4) Response Actions; 5) Operational and Administrative Framework; and 6) Plan Update Process. Potential actions to improve water reliability include improved water conservation programs, further groundwater development, water transfer agreements, and installation of smart meters. Numerous other projects and programs would be evaluated as part of the study. The total project cost is estimated at \$173,160 with a requested grant of \$86,580. The project is estimated to be completed within thirteen months of the anticipated contract award, or by October 2018.

**Table 1 - 2017 Funding Request Summary**

Funding Source	Funding Amount
<b>Non-Federal Entities</b>	
Bella Vista Water District	\$86,580
<b>Non-Federal Subtotal:</b>	\$86,580
<b>Reclamation Funding:</b>	\$86,580
<b>TOTAL PROJECT FUNDING</b>	\$173,160

#### (C) Project Duration and Estimated Completion Date

Work on the project is expected to begin in July 2017, after the Notice of Awards. It is assumed that contracts are signed in September 2017. It is estimated that all work will be completed by the end of October 2018, eleven months prior to the anticipated contract deadline.

#### (D) Reclamation Nexus

BVWD has a contract with Reclamation for water from the Cow Creek Unit of the Trinity Division of the Central Valley Project (CVP). The District's primary water supply comes from their CVP contract (Contract No. 14-06-200-851A-LTR1). Reclamation owns the Wintu Pump Station, Surge Tank, four (4) MG Main Tank, Regulating Station, and main aqueduct and laterals constructed as the Cow Creek Unit.

## 2 . Background Data

Bella Vista Water District (District or BVWD) was formed on June 4, 1957 to provide agricultural and domestic water to the area northeast of the City of Redding. BVWD is a California Water District pursuant to the California Water Code, operating under the governance of an elected Board of Directors. The District supplies agricultural, municipal, commercial, and public/institutional water, and owns and operates the water treatment, storage, and portions of the distribution system.

### (A) Geographic Location

The Bella Vista Water District is located in western Shasta County (County). Approximately one-fifth of the District is located within the north eastern portion of the City of Redding and over half of the District's customer accounts are within the city limits of the City of Redding. The District encompasses approximately 34,360 acres (54 square miles). Refer to **Figures 1** for a vicinity map of the District.

### (B) Water Supply

The District's water supply is a combination of a long-term contract with the United States Bureau of Reclamation (USBR), groundwater, and a long-term transfer agreement with the Anderson-Cottonwood Irrigation District (ACID). The District also occasionally enters into short-term water transfer agreements.

The District depends mostly on surface water from the Sacramento River. The Shasta Dam, on the Sacramento River near Redding, California, serves to control floodwaters and store surplus winter runoff for irrigation in the Sacramento and San Joaquin Valleys. In 2005, the District entered into a long-term (25-year) renewal contract with the USBR (Contract No. 14-06-200-851A-LTR1) that authorizes the District to divert up to 24,578 AF from the Sacramento River supply via the Central Valley Project (CVP). The CVP supply is subject to shortage due to climate and environmental regulations. Annual rainfall varies considerably from year to year and averages about 34 inches, of which approximately 80% occurs from November through April. This results in a prolonged dry season and heavy reliance on irrigation and imported water to meet demands.

### (C) Water Delivery System

The District's water system consists of five tanks, ten pumping plants, the main treatment plant, five wells, and over 200 miles of pipeline from 4-inch to 54-inch in diameter. All of the water is pumped for delivery. Surface water is pumped from the Sacramento River at the Wintu Pumping Plant, which is outside of the District boundary. From the Wintu Pumping Plant water is sent to a surge tank and then to a Water Treatment Plant (WTP). All water delivered by BVWD to its customers is treated to the same standards, regardless of whether the water is used for domestic or agricultural purposes.

### (D) Water Demands

Bella Vista Water District is a retail agency, providing water directly to customers. In 2015 they served 6,115 active residential, rural, commercial, institutional/public, and agricultural customers. The District serves water to agricultural and aquaculture customers used for growing strawberries, grapes, fruit and nut trees, alfalfa, pasture, vegetables, and fish farms. The average annual water use from 1995 to 2015 was 14,252 AF. Water production in 2015 was just 6,913 AF due to: 1) a multi-year drought; 2) significant cuts in the District's CVP supplies; 3) state-mandated water use restrictions; and 4) a strong water conservation program. Water demands are typically split among the following categories: Commercial (4%), Residential (20%), Rural (16%), Institutional (7%), Agriculture (40%), Aquaculture (5%), and Losses (7%).

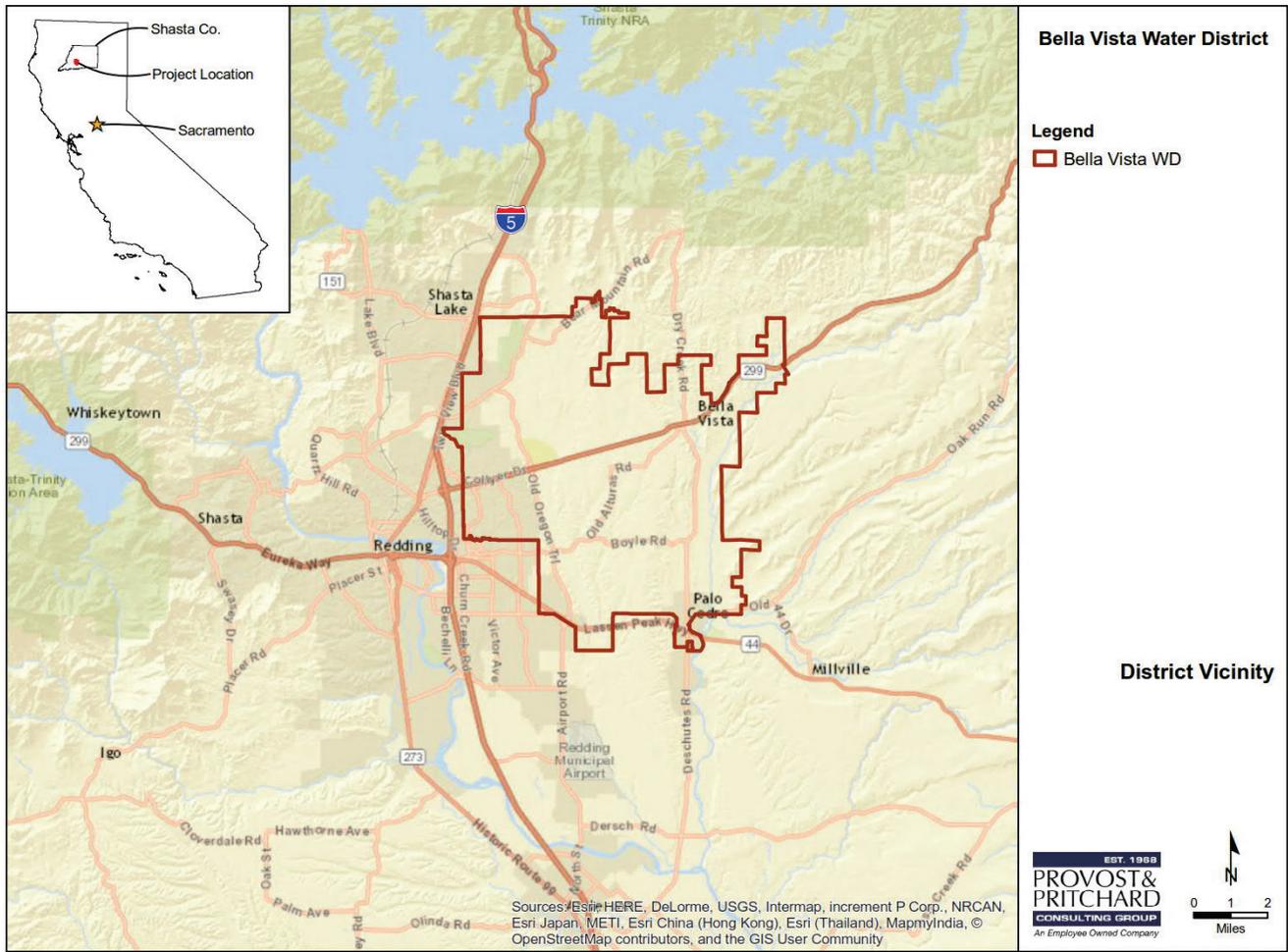


Figure 1 – District Vicinity Map

**(E) Past Working Relationships with Reclamation**

Water Meter Technology. In 2011, the District was the recipient of a Water Use Efficiency Grant award of \$70,986 from the USBR for implementation of new water metering technology and a number of water use efficiency program elements that will benefit District customers (Agreement No. R11A20125). The project was completed on time and on budget.

Recycled Pump Station. In 2010, the District was the recipient of a \$300,000 WaterSMART Water and Energy Efficiency Grant from the USBR for the Recycle Pump Station Project at the Water Treatment Plant to pump, filter, and reuse 100% of the filter backwash and rinse water. Construction and operational integration of the Recycle Pump Station are now complete.

System Optimization Review Study. In 2012, the District was awarded a System Optimization Review grant from the USBR for \$46,547 (Agreement No. R11AP20127). The purpose of the study was to evaluate methods to reduce energy demands, perform a water balance, and evaluate water transfer opportunities. The study was completed on time and on budget.

Renewable Energy, Advanced Metering Infrastructure and Water Conservation Improvements. In 2015, the District was awarded \$999,938 for a grant entitled Renewable Energy, Advanced Metering Infrastructure and Water Conservation Improvements (Agreement No. R15AP000100). The project includes installation of solar power and AMI infrastructure, replacement of 80 existing large meters with more accurate compound or magnetic flow meters, and other water conservation improvements. The project is currently on-going.

### **3 . Technical Project Description**

#### **(A) Project Workplan**

The Drought Contingency Plan (DCP) will be developed according to the following Workplan. The tasks listed below are identical to those shown in the project budget and schedule. The project includes development of a new DCP; however, the District currently has documented Response Actions used during times of water shortage that will be updated.

#### **TASK 1 – PROJECT ADMINISTRATION**

Task 1.1 – Project Management. This task includes overall project management and coordination, contract management, consultant management and attending meetings with USBR.

Task 1.2 – Progress Reports / Pay Requests. This task includes preparation of pay requests, Interim Program Performance Reports and a Final Program Performance Report.

Current Percent Complete: No work has been completed on this task.

Deliverables: Interim and Final Program Performance Reports, pay requests, meeting minutes

#### **TASK 2 – PUBLIC OUTREACH**

##### Task 2.1 – Form Drought Task Force.

A Drought Task Force (Task Force) will be developed that includes a diverse group of stakeholders. Refer to Section 4(B) – Inclusion of Stakeholders for more information on the anticipated makeup of the Task Force. The District believes that the Task Force is important for identifying district issues and new ideas, and critiquing existing policies. Potential Task Force volunteers will be contacted directly by District staff to acquire a commitment to participate. If they do not participate in the Task Force, they will be encouraged to provide input on the DCP through other public outreach efforts.

##### Task 2.2 – Drought Task Force Workshops.

Two Workshops will be held with Task Force members. The first will be in the beginning of the project to explain the project, review past drought impacts, identify roles and responsibilities, solicit input on the proposed elements of the DCP, and determine needs for future Task Force progress meetings. The second workshop will include a presentation on the Draft DCP, and provide an opportunity for detailed discussions and comments on the Draft DCP.

##### Task 2.3 – Prepare and Distribute Public Outreach Literature.

This task will include the following actions:

1. Initial preparation of a ‘Communication and Outreach Plan’ that provides details on the outreach methods listed below.
2. Placement of flyers in the District office about the USBR grant and DCP
3. Preparation of a press release on the DCP
4. Preparation of two District newsletter articles on the DCP
5. Posting information about the grant award and DCP on the District website
6. Preparation of a list of Frequently Asked Questions (FAQ) to inform the public about drought conditions in the District
7. Announcement of the DCP progress at regular Board Meetings, which are open to the public. Information about the DCP will also be provided on Board meeting agendas and minutes, which are available on the District website.

##### Task 2.4 – Solicit Input on Draft Drought Contingency Plan.

Input on the DCP will be solicited as follows:

1. Draft chapters will be emailed to Task Force members for review and comment
2. The full Draft DCP will be sent to the Task Force and discussed at a special Workshop
3. Posting the Draft DCP on the District website for public review and comments
4. Posting the Final DCP on the District website for public awareness and education

Current Percent Complete: Some potential Task Force members have been contacted. Work on this task is estimated to be 5% complete.

Deliverables: Meeting agenda, meeting minutes, Drought Task Force Workshop materials, press release, Frequently Asked Questions, two newsletter articles, project flyer.

### **TASK 3 – DROUGHT MONITORING PLAN**

This task includes developing a process for collecting, analyzing and disseminating drought related data. The data will be used to help predict the likelihood of an upcoming drought.

Task 3.1 - Research/Catalogue Drought Information Sources. Drought information sources will be identified and catalogued for future use. Specific sources could include, but not be limited to: USBR allocations, various drought indices, CVP and SWP Annual Drought Contingency Plans, California Cooperative Snow Survey, Sacramento River Index, other river indexes, groundwater levels, reservoir levels, US Drought Monitor website, precipitation and soil moisture.

Task 3.2 - Prioritize Data Sources. Data sources will be prioritized based on their effectiveness in monitoring and predicting droughts. Data sources that overlap will also be identified to prevent redundant tracking. Recommendations will be provided on which data source to regularly monitor.

Task 3.3 - Identify Drought Triggers. Using readily available historic data, potential triggers will be identified that indicate an upcoming drought (i.e. % of precipitation by a certain month). If possible, specific triggers will be identified that indicate the onset of different drought stages.

Task 3.4 - Document Collection/Dissemination Process. A process will be documented for collecting, organizing, filing and disseminating drought monitoring data to BVWD staff, BVWD Board of Directors, and the general public.

Current Percent Complete: The District created a Water Shortage Contingency Spreadsheet in 2016 that predicts available water for the District. It is only based on water source parameters, but could be updated with a more comprehensive set of data. This task is currently estimated to be about 20% complete. No cost share will be claimed for past efforts.

Deliverables: Catalogue of Drought Monitoring Resources; Draft/Final Drought Monitoring Plan

### **TASK 4 – VULNERABILITY ASSESSMENT**

The purpose of this section is to answer the basic question: “How will drought affect Bella Vista Water District?” This will be accomplished by looking at the resources that are vulnerable to drought, and estimating the frequency, magnitude and severity of droughts. This assessment will drive the development of potential mitigation and response actions.

Task 4.1 - Identify/Prioritize Vulnerable Resources. Vulnerable resources will be identified. Some vulnerabilities could include wildfire, damage to the local economy, not meeting urban demands, not meeting basic health and safety water demands, impacts to commercial and industrial customers, insufficient water for agriculture and aquaculture, risks to livestock, spread of invasive species (e.g.

Starthistle) from land fallowing, and others to be identified as part of the study. Resources will be prioritized so efforts can focus on protecting the most important and vulnerable.

Task 4.2 - Review Existing Vulnerability/Climate Change Studies. A literature review will be performed to collect information on potential impacts from climate change. This effort will follow the guidelines in *Appendix B – Guidance for Incorporating Climate Change Information into Drought Contingency Plans* found in *Drought Response Program Framework: WaterSMART Program* (USBR, 2016). Question (ix) under Section 4A of this application includes a list of climate change studies that, as a minimum, will be reviewed. In addition, existing studies on the long-term reliability of the CVP and Sacramento River will be collected and reviewed.

Task 4.3 - Assess Resource Risk at Different Drought Stages. The risks and vulnerabilities will be assessed according to different Stages in the District’s Water Shortage Contingency Plan. This will help to identify threshold values that could result in significant impacts.

Task 4.4 - Quantify Economic Impact of Droughts. The economic impacts of drought will be estimated for various resources. Some economic impacts could include land fallowing, wildfires, loss of commercial business, need to buy supplemental water at higher costs, and others identified during the study. The estimated economic impacts will be used to justify costs for new response and mitigation measures.

Current Percent Complete: No work has been performed on this task.

Deliverables: Draft and Final chapter on Vulnerability Assessment

## **TASK 5 – MITIGATION ACTIONS**

The purpose of this task is to answer the question “How do we protect ourselves from the next drought?” This will include identifying, evaluating and prioritizing mitigation actions. Mitigation actions refer to actions taken in advance of a drought that reduces potential drought related impacts.

Task 5.1 - Assess Existing Mitigation Measures. Existing mitigation programs, policies, operational criteria, and projects will be identified, catalogued, and their current capacity for mitigating risk will be documented.

Task 5.2 - Establish Mitigation Goal. A mitigation goal in Acre-feet/year of new water yield will be established, based on past and estimated future water shortages.

Task 5.3 - Identify Potential Mitigation Projects. Potential mitigation projects will be identified through a collaborative effort with District staff, consultants and the Drought Task Force. Possible mitigation measures could include: water transfers, water exchanges, intra-basin groundwater substitution transfers, aquifer storage recovery, pipeline leakage reduction, surface storage, groundwater storage, public engagement and education, urban and agricultural water conservation, recycled water, Advanced Metering Infrastructure (smart meters), and installation of new wells.

Task 5.4 - Prioritize Mitigation Projects. The potential mitigation projects will be prioritized based on an initial assessment of technical feasibility, costs, potential benefits, potential water yield and third party impacts.

Task 5.5 - Conceptual Evaluation of Priority Projects. The high priority mitigation projects will be further analyzed through conceptual studies. This effort will include project layouts, detailed project

descriptions, cost estimates, estimate of project yield, and a general discussion of project feasibility.

Current Percent Complete: The BVWD has put some effort into identifying possible mitigation actions, including some preliminary studies on groundwater development and aquifer recharge, but few details have been established. This effort is considered 10% complete.

Deliverables: Draft and final chapter on Mitigation Actions

## **TASK 6 – RESPONSE ACTIONS**

Response actions refer to actions that can be quickly implemented in a drought to reduce demands. This task will include reviewing and updating the District’s existing response actions.

Task 6.1 - Review Adequacy of Existing Response Plans. The Districts Response Actions are already documented in their Water Shortage Contingency Plan (see Section 5 – Existing Drought Contingency Plan, and **Appendix F**). The Plan was recently updated in 2015. The District will review the Plan and assess its success during recent droughts.

Task 6.2 - Solicit Input from Water Users. Comments will be solicited from the District’s customers and the Drought Task Force on the adequacy of the existing Water Shortage Contingency Plan. Customers will be contacted through the District’s website and newsletter, and are expected to provide valuable input since they were directly affected by the Response Actions. The Drought Task Force will be asked to review and discuss the Plan at a Drought Planning Workshop.

Task 6.3 - Revise Existing Response Actions. The Water Shortage Contingency Plan will be revised based on relevant comments from customers, District staff and Drought Task Force.

Task 6.4 - Develop Process for Implementing Response Actions. A formal process for implementing the response actions will be developed that includes roles, responsibilities, communication protocols, and a monitoring plan.

Current Percent Complete: The District has a Water Shortage Contingency Plan that was last updated in 2015, but will be reviewed and revised if appropriate. As a result, this task is considered to currently be 70% complete.

Deliverables: Revised Water Shortage Contingency Plan, Draft/Final chapter on Response Actions

## **TASK 7 – OPERATIONAL AND ADMINISTRATIVE FRAMEWORK**

The organizational structure used to respond to a drought will be documented, reviewed, and updated if appropriate.

Task 7.1 - Identify Roles and Responsibilities. Roles and responsibilities will be defined for BVWD related to monitoring droughts, decision making, public outreach, implementing actions, and monitoring the effectiveness of measures.

Task 7.2 - Develop Drought Response Procedures. This subtask includes identifying specific procedures and protocols for initiating, announcing and implementing response actions. Topics addressed will include timing, communication methods, public notification, and triggers for implementing response actions.

Task 7.3 - Identify Drought Response Resources. Drought response resources not identified in Task 3 – Drought Monitoring Plan will be collected and catalogued. These will include District literature, public guidebooks and manuals on drought management, and staff/consultants that can help in

droughts.

Current Percent Complete: No work has been performed on this task.

Deliverables: Draft and final chapter on Operational and Administrative Framework

#### **TASK 8 – PLAN UPDATE PROCESS**

The task will include developing a process for monitoring, evaluating and updating the DCP.

Task 8.1 - Develop Process for Monitoring Plan Effectiveness. A plan will be developed for monitoring and evaluating the effectiveness of the DCP. The monitoring plan will address all six elements of the DCP, and consider topics such as evaluation frequency, evaluation protocols, and criteria for measuring success.

Task 8.2 - Develop Criteria for Periodic Updates. Criteria will be developed for periodic updates to the DCP. This will include identifying triggers for updates, such as after a large drought, permanent change in water supplies, or change in District policies. A process will also be developed for incorporating future updates into other District planning documents, such as a USBR Water Management Plan or Urban Water Management Plan.

Current Percent Complete: No work has been performed on this task

Deliverables: Plan Update Process Chapter for the Drought Contingency Plan (Draft and Final)

#### **TASK 9 – DROUGHT CONTINGENCY PLANNING REPORT**

This task includes preparing a Draft and Final DCP. The reports will include all of the relevant information developed as part of the project.

Task 9.1 – Draft Report. Draft Chapters will be sent to the Task Force Members as they are completed for initial comments. The Full Draft Report will also be given to the Drought Task Force for comments, followed by a 30-day public review period. A Final Draft will be sent to USBR for review.

Task 9.2 – Final Report. The Final DCP will be prepared after comments from USBR are incorporated.

Current Percent Complete: No work has been performed on this task

Deliverables: Draft Drought Contingency Plan, Final Drought Contingency Plan

#### **(B) Project Schedule**

Work on the project is expected to begin in July 2017, immediately after the Notice of Awards. It is assumed that contracts are signed in September 2017. It is estimated that all work will be completed by the end of October 2018, eleven months prior to the anticipated contractual deadline of September 2019. This provides a comfortable buffer in case unforeseen circumstances delay the project. **Appendix A** includes a Gantt chart showing a detailed schedule. The tasks in the schedule match those in the workplan and project budget. District staff have already reserved time to work on the project and identified potential consultants to assist with the work.

#### **4 . Evaluation Criteria**

##### **(A) Evaluation Criterion A: Need for a Drought Contingency Plan or Plan Update**

The Bella Vista Water District is predominantly reliant upon Central Valley Project (CVP) water. In normal years CVP water provides about 80% of their water supply. However, their CVP supply is subject to significant uncertainty and shortages due to dry hydrologic conditions, compounded by

operational and regulatory constraints both directly and indirectly related to the Endangered Species Act. Much of the previously available yield from the CVP is no longer available to Water Service Contractors as a result of regulatory actions and court rulings that mandate reservoir reoperation and water releases for environmental purposes. This reallocation of water supply over the last couple of decades, with no added storage to offset these impacts, means the District is likely to experience shortages more frequently. The recent multi-year drought in California has illustrated that the District’s water supply is inadequate and additional response actions and mitigation measures are needed.

(i) *What are the risks to water supplies within the applicable geographic area that will be addressed in the plan or plan update, and how severe are those risks?*

The District’s CVP water supply from Reclamation is their primary water source. The CVP allocation varies for both urban and agricultural water (see Figure 2). Water supplies have been cutback to as low as 0% for agriculture and 25% for urban in droughts. Since 1990, the water supply has also seen a sharp reduction in annual reliability due to environmental regulations, which exacerbates the impacts from droughts.

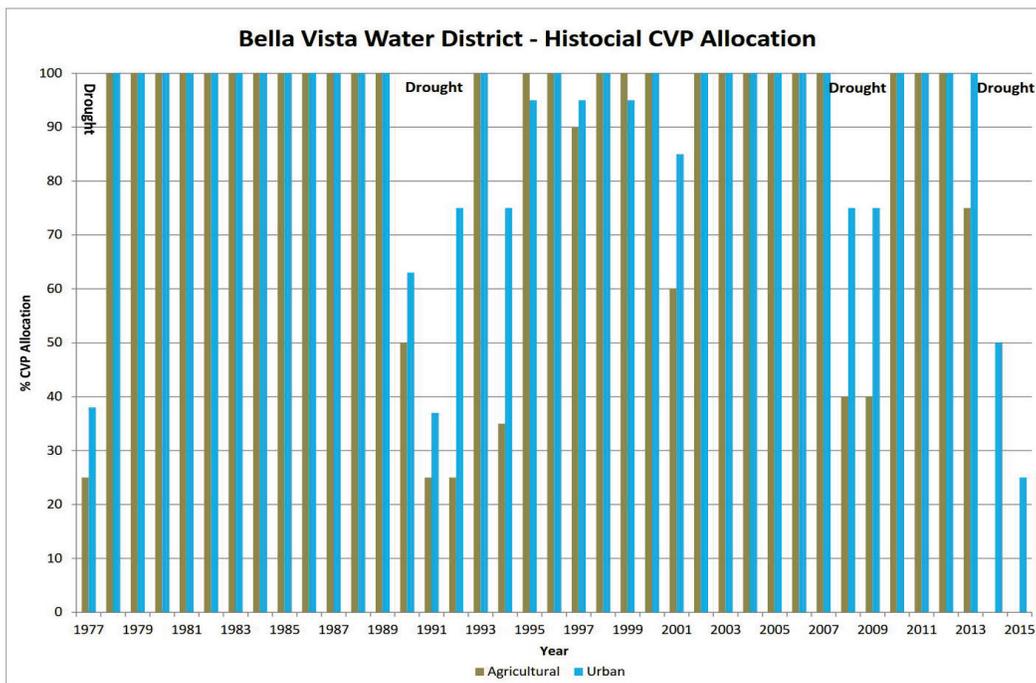


Figure 2 - BVWD Historical CVP Allocation

The District’s CVP contract states that USBR will use all reasonable means to guard against water shortages. However, the contract also states that no liability shall accrue against the United States if shortages occur due to drought or other causes, which are beyond the control of the United States.

The District’s CVP contract also states that water can be carried over in Lake Shasta from year to year with USBR approval. However, due to complex operating procedures, USBR has not allowed BVWD to carry over any water. Without a long-term storage option, the District is more susceptible to droughts.

The District also has a long-term transfer agreement with the ACID for 1,536 AFY of CVP water, but contract terms state that this transfer can be reduced by 25% in critically dry years, so it is also less

reliable in droughts.

Table 2 shows estimated water supplies and demands in BVWD from 2020 to 2040 for single-dry year conditions (source: BVWD Urban Water Management Plan, December 2016). The water demands are based on a 20% reduction in per capita demands mandated by the state of California, and therefore already represent efficient water use. The table shows that water shortages will be severe in droughts, with about 40% of the water demands unmet.

**Table 2 - Single Dry Year Projected Supply and Demand Comparison**

Water Use	Water Use (AFY)				
	2020	2025	2030	2035	2040
Supply Totals	10,122	10,246	11,185	11,320	12,271
Demand Totals	16,363	17,113	17,897	18,718	19,575
Difference	-6,241	-6,867	-6,712	-7,398	-7,304

Source: Provost & Pritchard Consulting Group, BVWD Urban Water Management Plan, December 2016

The ‘Difference’ in the table above shows how much water needs to be made up through response actions and mitigation actions.

*(ii) Describe the existing or potential drought risks to specific sectors in the planning area*

Water supply from the District’s contract with USBR is subject to extreme cutbacks during drought years. Agricultural water cutbacks are typically more severe than urban water cutbacks. In fact, agricultural allotments were reduced to zero percent in 2014 and 2015. As a result, agriculture faces a greater share of the burden during droughts. Water cuts can result in the need to purchase higher cost supplemental water, land fallowing, the need to lease pasture or rangeland, or purchase hay.

Urban water users also face serious risks in droughts. In the past, USBR generally guaranteed that basic Public Health and Safety (PHS) needs would be met. These are estimated to be 55 gallons/person/day and reflect minimum water needed for culinary, washing and sanitation purposes. The 2015 update to USBR’s M&I Water Shortage Policy does not guarantee delivery of CVP water to meet PHS needs. Rather, the unmet PHS needs identified would be a target that Reclamation would try to meet. Reclamation expects water service contractors to meet PHS demands using other sources. This is the highest concern BVWD has concerning water shortages since they have very limited water sources to meet PHS demands in dry years.

*(iii) Does the community have another water source available to them if their water service is interrupted?*

If the District’s surface water supply is interrupted they rely on groundwater, short-term water transfers, and a transfer agreement with Anderson-Cottonwood Irrigation District. All of these options, however, have limited capacity and are often insufficient to meet water demands.

Groundwater. The District has five wells that can produce a total of 2,800 to 4,000 AF/year. However, the wells can only be utilized about 50 to 75 percent of the time due to operational constraints. Pumping and treating the well water is 1.5 to 2 times more expensive than CVP water. Overall, the wells could potentially meet up to 28% of water demands in a typical year. It is believed that the District’s groundwater supply is underutilized, and additional groundwater development will be pursued in the DCP.

Water Transfers. The District has participated in short-term water transfers to make up for water shortages. However, these supplies are limited, especially in dry years, and cannot be relied on. Furthermore, BVWD is just downstream of Shasta Dam, while most other CVP water users are further downstream on the Sacramento River. As a result, transfers with downstream water agencies are not typically approved, since the instream benefit is lost if BVWD diverts the water upstream of the transfer partner.

Anderson Cottonwood Irrigation District Supply. The District has a long-term transfer agreement with the Anderson Cottonwood Irrigation District (ACID) for 1,536 AFY of CVP water. However, this water transfer is also subject to a 25% reduction in dry years.

*(iv) Whether there are environmental concerns, such as existing or potential impacts to endangered, threatened or candidate species.*

Droughts can have negative impacts on the environment through habitat loss from wildfire, tree mortality, and spread of non-native invasive weeds. **Appendix D** includes a list of 39 endangered and protected species in the District boundaries that could benefit from the project.

*(v) Whether there are local economic losses associated with drought conditions?*

Drought conditions have had several economic impacts including: 1) Agricultural land fallowing; 2) Losses or higher costs to commercial, industrial and industrial customers; and 3) Higher District costs to provide alternate water supplies. These economic losses will be evaluated and quantified under Task 5 - Vulnerability Assessment.

*(vi) Whether there are other drought-related risks not identified above?*

Wildfires are a significant risk in the area during droughts. In 1999 and 2004 large wildfires occurred in the nearby Jones Valley and over 100 homes were destroyed. With adequate water, urban and agricultural lands can be frequently watered and reduce the threat of fire.

Conflict among other agencies along the Sacramento River and in the local groundwater basin have been a concern for many years, and are likely to increase with climate change, Shasta Reservoir reoperation for endangered species, and future droughts.

*(vii) Will the proposed plan or plan update address a geographic area that is currently suffering from drought or which has recently suffered from drought?*

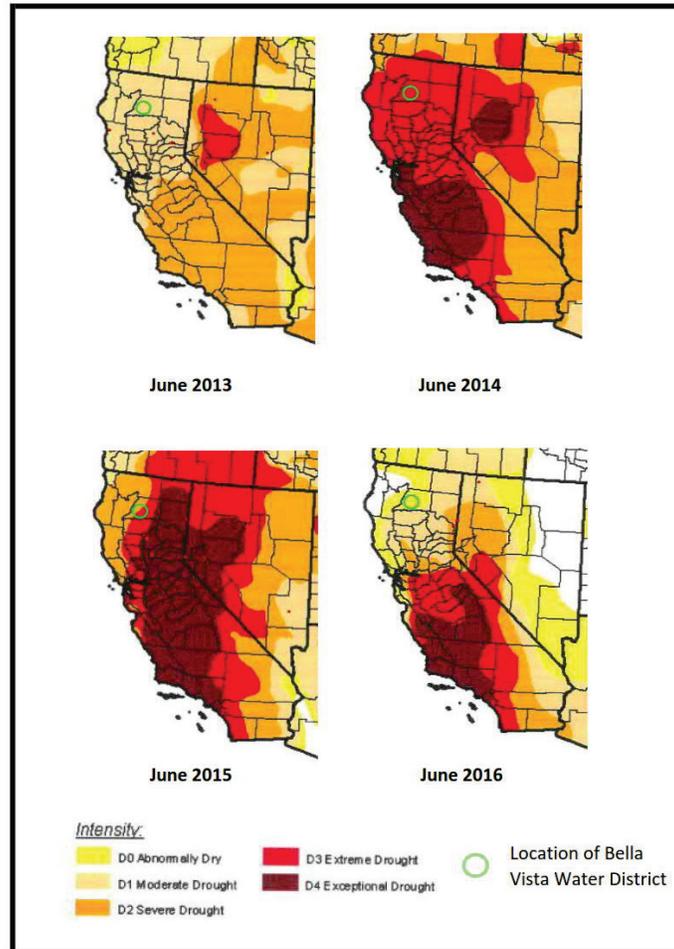
The proposed plan will address the Bella Vista Water District, which experienced a severe drought from 2013 to 2016. For more information see response to the question below.

*(viii) Please describe existing or recent drought conditions, including when and how long the area has experienced drought conditions.*

The District, and much of the State of California, faced a severe drought from 2012 to 2016. The impacts included unprecedented reductions in CVP surface water deliveries, State mandated water conservation measures, and an extensive water conservation effort in BVWD. As the drought spread into multiple years the situation became more perilous (see **Figure 3**).

The following actions were taken in response to the drought:

1. In 2015, USBR reduced the District water supply to zero for agricultural use and to only 25 percent of historical use for all other purposes, the most severe reduction in the history of the District and of the Central Valley Project.
2. The BVWD Board of Directors declared a Water Shortage Emergency in February 2015.



Source: United States Drought Monitor (<http://droughtmonitor.unl.edu/>)

**Figure 3 - Drought Conditions in Bella Vista Water District (2012-2016)**

3. In March 2015, the Board of Directors adopted a new Water Shortage Contingency Plan
4. On January 17, 2015, California's Governor issued a Drought State of Emergency.
5. On April 1, 2015, facing a fourth consecutive dry year, California's Governor issued an executive order mandating an overall 25 percent statewide reduction in water use. In order to meet the statewide goal the District was required to meet a 38% reduction in water production.

(ix) Describe any projected increases to the frequency, severity, or duration of drought in the geographic area resulting from climate change.

Several climate change studies predict an increase in the severity and frequency of local droughts. These include:

- West Yost Associates, *North Sacramento Valley Integrated Regional Water Management Plan*, March 2014
- USBR, *West-Wide Climate Risk Assessment, Sacramento and San Joaquin Basins Climate Impact Assessment*, September 2014
- US Global Change Research Program, *Climate Change Impacts in the United States*, 2016 (relevant chapters on Water Resources, Southwest and Our Changing Climate)

As part of the DCP, BVWD will evaluate these and other studies, especially those addressing local climate change along the Sacramento River, to gather more specific information.

- x. *Please explain how this Project relates to other planning efforts ongoing or recently completed in the planning area.*

The proposed project will build upon two recent water planning efforts including the District’s Urban Water Management Plan (completed in 2016), and USBR Water Management Plan (expected to be completed in early 2017).

Urban Water Management Plan. The District adopted an Urban Water Management Plan (UWMP) in December 2016 ([https://wuedata.water.ca.gov/,\\_plans.asp](https://wuedata.water.ca.gov/,_plans.asp)). The plan included sections on water reliability, demand management measures and water shortage contingency planning. The UWMP also included a comparison of water supplies in single-dry and multiple dry years for 2015 through 2040.

USBR Water Management Plan. The District is currently updating their USBR Water Management Plan with completion expected in early 2017. The DCP will complement and build upon the information in the WMP. The WMP includes useful information for drought planning including updated information on operations, best management practices, cropping, water supplies, water demands, and a water budget.

**(B) Evaluation Criterion B: Inclusion of Stakeholders**

- (i) *Identify stakeholders in the planning area who have committed to be involved in the planning process.*

**Table 3** is a summary of stakeholders that have been contacted, prepared a letter of support, expressed a desire to participate, and expressed verbal interest in the study.

**Table 3 - Drought Contingency Planning Stakeholders**

Category	Contacted	Letter of Support	Wish to Participate	Expressed Verbal Interest
<b>Water Agencies</b>				
Shasta County	X	X		
Tehama Co. Resource Cons. Dist.	X			
USBR				
<b>Other Organizations</b>				
Local Schools and Colleges	X	X	X	
Local Farm Bureau	X			X
<b>Individuals</b>				
BVWD Board Member	X		X	
Local urban landowner	X	X		
Local agricultural landowner	X	X	X	X
Local commercial landowner	X	X	X	
<b>Other</b>				
District Manager			X	
District Engineer			X	
Consulting Engineer			X	
Local Developer	X	X	X	
State/Federal Politicians	X	X		

*(ii) Describe their commitment.*

The organizations and individuals listed above will participate in the Task Force or provide input and comments on the DCP. No organizations other than BVWD are expected to provide in-kind services or funding. More information is provided below.

**Drought Task Force Members.** Task Force Members will attend two workshops, one in the beginning and one near the end of the project. They will assist with developing an overall strategic plan for addressing droughts in BVWD. This will include providing comments on existing drought policies, offering new ideas, assisting with public outreach literature, and commenting on the Draft DCP. Individual DCP chapters will be sent to Task Force Members as they are completed for comments, so they will be involved throughout the project.

**Other Stakeholders.** Other stakeholders will be educated through a variety of outreach methods (see question vi below). They will be given the opportunity to comment on existing drought programs and provide input on the Draft DCP. The Board of Directors will be actively involved in selected a diverse Task Force.

*(iii) Do these stakeholders represent diverse interests?*

The stakeholders represent the diverse interests found in and around the water district including municipal, rural, agricultural, business, political, institutional, private landowners, and several levels of government.

*(iv) Be sure to include the specific interest that each stakeholder has in the Drought Contingency Plan.*

Specific interests for some stakeholders are provided in their letters of support (**Appendix E**). The specific interests vary by the stakeholder and include the following:

**Water Agencies:** Health of regional water supplies, groundwater basin water levels, opportunities for water transfers and exchanges

**Other Organizations:** Local and regional economy, preservation of local culture and lifestyle

**Individuals:** Local economy, land fallowing, invasive species, job losses, local business stability

**Politicians:** Maintaining stability and economic prosperity in their jurisdiction

**BVWD:** Maintaining a reliable water supply to meet the District's long-term goal of no significant water cutbacks in dry years

*(v) Describe stakeholders in the planning area who have expressed their support.*

The letters of support in **Appendix E** illustrate interest from 10 different stakeholders, representing politicians, local water agencies, local landowners, local businesses and local organizations. The District Manager, District Engineer and Consulting Engineers will also serve on the Task Force.

*(vi) Describe efforts that you will undertake to ensure participation by a diverse array of stakeholders*

Stakeholders that have not already committed to being involved with the project will be directly contacted by BVWD staff about serving on the Drought Task Force. Several other outreach methods are intended to reach the general public and a broader audience. These include the following:

1. Placement of flyers in the District office about the USBR grant and DCP
2. Preparation of a press release
3. Preparation of two District newsletter articles on the DCP
4. Posting information about the grant award and DCP on the District website
5. Preparation of a list of Frequently Asked Questions (FAQ) to inform the public about drought conditions in the District

6. Posting the Draft DCP on the District website for public review and comments
7. Announcing the DCP progress at regular Board Meetings, which are open to the public, and will be documented in agendas/minutes available on the District website.

**(c) Evaluation Criterion C: Project Implementation**

- (i) *Describe how each of the six required elements of a Drought Contingency Plan, as applicable, will be addressed within the two-year timeframe.*

All six drought planning elements will be addressed in the DCP. Refer to the Scope of Work in Section 3A for a detailed description of tasks, deliverables and the current status of each task.

**ELEMENT 1 - DROUGHT MONITORING PLAN.** Drought information sources will be identified, catalogued and prioritized for future use. The data will be used to help predict the likelihood of upcoming droughts. Sources could include river flows, lake levels, precipitation, drought indexes, and many others. A process will be developed to share the information with BVWD staff and the general public.

**ELEMENT 2 - VULNERABILITY ASSESSMENT.** Resources that are vulnerable to droughts will be identified and prioritized. Existing studies on CVP water vulnerability and climate change will also be reviewed. The level of risk at different stages of drought will be identified. Lastly, the economic impacts to the vulnerable resources will be quantified. This assessment will drive the development of potential mitigation and response actions.

**ELEMENT 3 - MITIGATION ACTIONS.** This task will include identifying, evaluating and prioritizing mitigation actions. Existing mitigation actions will be assessed, including their current capacity for mitigating drought. A mitigation goal in acre-feet/year of new water yield will be established, based on past and estimated future water shortages. A variety of new mitigation actions will be identified, prioritized and evaluated at a conceptual level.

**ELEMENT 4 - RESPONSE ACTIONS.** The District's existing Water Shortage Contingency Plan will be reviewed and updated based on its effectiveness in past droughts, as well as comments from the Drought Task Force and the general public. A detailed process for implementing response actions will also be documented.

**ELEMENT 5 - OPERATIONAL AND ADMINISTRATIVE FRAMEWORK.** The organizational structure used to respond to a drought will be documented, reviewed, and updated. This will include identifying roles and responsibilities, procedures for initiating, announcing and implementing response actions, and collecting and cataloguing drought response resources.

**ELEMENT 6 - PLAN UPDATE PROCESS.** A process will be developed for updating the DCP. This will include identifying triggers for updates (i.e. large drought, change in policies), as well as criteria for monitoring the effectiveness of the DCP's six elements.

All of these tasks will be performed through a collaborative effort involving a Drought Task Force and the general public. The Task Force will include local landowners, government officials, and non-governmental organizations. They will help brainstorm ideas, develop partnerships with the BVWD staff to exchange information, and provide comments on the Draft DCP. BVWD will also seek consultation with State and Federal agencies on drought issues. Outreach will be performed to the general public through newsletter articles, press releases, flyers, websites, and educational literature.

(ii) *Please include an estimated project schedule that shows the stages and duration of the proposed work including major tasks, milestones, and dates.*

Work on the project is expected to begin in June 2017, immediately after the Notice of Awards. It is assumed that contracts are signed in September 2017. It is estimated that all work will be completed by October 2018, eleven months prior to the anticipated contractual deadline of September 2019, which provides a comfortable buffer in case of unforeseen delays. **Appendix A** includes a Gantt chart showing a detailed schedule.

(iii) *Describe the availability and quality of existing data and models applicable to the proposed plan or plan update.*

The District completed and adopted an Urban Water Management Plan in December 2016 ([https://wuedata.water.ca.gov/uwmp\\_plans.asp](https://wuedata.water.ca.gov/uwmp_plans.asp)). The plan included sections on water reliability, demand management measures and water shortage contingency planning. The Urban Water Management Plan also included a comparison of water supplies and demands in normal, single-dry and multiple dry years for 2015 through 2040.

Several climate change studies have data on potential impacts to droughts including: *Sacramento and San Joaquin Basins Climate Impact Assessment* (USBR, September 2014) and *Climate Change Impacts in the United States* (US Global Change Research Program, 2016). Other climate change studies will be researched and summarized in the DCP.

Numerous drought planning resources will also be used to develop the DCP including:

- A Methodology for Drought Planning (National Drought Mitigation Center, 1999)
- Drought Response Action Plan (Western Governor's Association, 1999)
- Handbook of Drought Indicators and Indices (World Meteorological Organization, 2016)
- National Drought Mitigation Center website (<http://drought.unl.edu/>)
- National Integrated Drought Information System (<https://www.drought.gov/drought/>)
- Urban Drought Guidebook (California Department of Water Resources, 2008)

(iv) *Identify staff with appropriate technical expertise and describe their qualifications.*

David Coxey – District Manager: David Coxey was appointed as the General Manager/Secretary-Treasurer for BVWD in 2005. As the General Manager, he is responsible for directing the activities of the District, developing and fulfilling organizational goals and objectives consistent with the District's mission, vision, culture and values. David presently serves on the Association of California Water Agencies Board of Directors as the Region 2 vice chair and serves on the Federal Affairs and Water Quality Committees. David is also a Director for the Central Valley Project Water Association. Prior to joining BVWD, he was the General Manager of the San Luis Water District. Mr. Coxey has over 24-years of professional water management experience. He earned a BS in Plant and Soil Science with a minor in Agricultural Engineering from Cal Polytechnic University, Pomona, and graduated cum laude.

Don Groundwater – District Engineer: Don Groundwater has been the District Engineer for the BVWD since 1990. As the District Engineer, he manages the Engineering Department and is responsible for the planning, design, and construction of capital improvement and infrastructure maintenance projects. He is also responsible for the preparation of the District's Water Management Plans and Water Master Plan. Don has been the project manager for three WaterSMART grant projects and one Water Conservation Field Services Program grant from Reclamation. Mr. Groundwater is a Registered Civil Engineer and has over 42-years of experience in the water/wastewater fields. He

earned a BS in Civil Engineering and a MS in Environmental Engineering from Stanford University.

Consultants: The project team will also include a team of qualified consultants with experience in water resources, hydrogeology, drought planning, and knowledge of the local water resources. The project consultant will be selected by BVWD staff after the grant award.

**(D) Evaluation Criterion D: Nexus to Reclamation**

*(i) Is there a Reclamation project, facility, or activity within the planning area?*

Yes, the United States Bureau of Reclamation (USBR) owns the Wintu Pump Station, Surge Tank, four (4) MG Main Tank, Regulating Station, and main aqueduct and laterals constructed as the Cow Creek Unit of the Trinity River Division of the CVP, which serves BVWD.

*(ii) Is the planning area in the same basin as a Reclamation project, facility, or activity?*

The project is located in the Sacramento Valley, which includes many different facilities and units of the CVP.

*(iii) In what way will the proposed Project benefit a basin where a Reclamation project, facility, or activity is located?*

The project will help to improve water reliability for BVWD, who is a Reclamation water contractor. BVWD has seen the reliability of their USBR water supply decline and leave the District susceptible to water shortages in dry years.

*(iv) Does the proposed Project support implementation of a relevant Department of the Interior initiative?*

The project is consistent with USBR's *Sacramento and San Joaquin Basins Climate Change Assessment (September 2014)*, which covers the project area, and has a similar purpose of assessing vulnerabilities to water supplies from climate change. The project is also consistent with Reclamation's goal to support their customers, stakeholders, and partners in building resiliency to drought and climate change.

**5. Existing Drought Contingency Plan**

BVWD has an active Water Shortage Contingency Plan (WSCP) that is provided in **Appendix F**. The purpose of the WSCP is to equitably distribute the available water to the District's customers and to ensure an adequate supply for human consumption, sanitation and fire protection.

The WSCP addresses the Response Action requirements for a DCP. None of the six other elements are included in the WSCP. BVWD believes that the WSCP worked well during the recent drought from 2012 - 2016. However, as part of the Drought Contingency Planning, BVWD will perform a thorough review of their WSCP, and solicit comments from the Drought Task Force and general public. The WSCP will then be modified accordingly.

The District originally developed a WSCP in 1992, and has updated it numerous times, including most recently in 2015. To manage a water supply shortfall, five demand reduction stages have been defined. The total demand reduction goal for each stage increases from less than 15 percent to 70 percent or more of normal demand from Stage 1 to Stage 5. The stages are summarized in **Table 4**.

Many of the stage measures are communicated to District customers by way of billing inserts, newspaper advertising, on the District's webpage ([www.bvwd.org](http://www.bvwd.org)), and by verbal communication as District staff and personnel interact with the consumers.

**Table 4 - Stages of Water Shortage Contingency Plan**

Stage	Percent Supply Reduction	Water Supply Condition
1	Up to 15%	Normal Water Supply (85% to 100% of Normal)
2	15-30%	Moderate Water Shortage (70% to 85% of Normal)
3	30-50%	Severe Water Shortage (50% to 70% of Normal)
4	50-70%	Extreme Water Shortage (30% to 50% of Normal)
5	70% or more	Critical Water Shortage (less than 30% of Normal)

**6. Letters of Support**

Stakeholder letters of support for the project can be found in **Appendix E**. Several stakeholders groups provided letters including state and federal politicians that represent the area, local water agencies, local landowners, and other organizations. Letters were received from the following:

- California State Senator Ted Gaines
- California State Assemblyman Brian Dahle
- US Congressman Doug Lamalfa
- Shasta County Water Agency
- City of Shasta Lake
- Jordan Taylor – local landowner/developer
- Lassen Canyon Nursery – local business and agricultural landowner
- John Tiedeman – local agricultural landowner
- Shasta College
- Shasta Hills Estates (homeowner’s association)

**7. Required Permits or Approvals**

No permits or approvals will be required to complete the DCP. The DCP will be a planning document and exempt from the California Environmental Quality Act and National Environmental Policy Act. Appropriate environmental studies and compliance will be performed as projects described in the DCP are implemented.

**8. Official Resolution**

**Appendix G** includes a draft resolution authorizing the preparation of this application and funding for the District’s cost share. Due to the fixed schedule for Board meetings, the District did not have time to adopt the resolution prior to the application deadline. The resolution will be adopted at the District’s next Board meeting, and a copy will be forwarded to USBR immediately thereafter. The Board of Directors is comprised of local landowners, so the resolution will represent support for the project from local citizens.

**9. Project Budget**

**Funding Plan and Letters of Commitment**

- (i) *How you will make your contribution to the cost share requirement, such as monetary and/or in-kind contributions and source funds contributed by the applicant (e.g., reserve account, tax revenue, and/or assessments).*

The District will make their cost share contribution from in-kind services and existing reserves. The

project budget in **Appendix F** shows that District in-kind services have a value of \$29,300. The remaining cost share will come from reserves. **Appendix C** includes an Audited Financial Statement from 2016, showing that the District has Cash and Cash Equivalents of \$6,910,630.

*(ii) Describe any costs incurred before the anticipated project start date that you seek to include as project costs.*

The District plans to start work on the DCP in July 2017, after the Notice of Awards. Work completed before the contract is awarded (anticipated for September 2017) will include a portion of the effort to complete the Drought Monitoring Plan.

- a. *The project expenditure and amount:*  
 Estimated costs incurred before the grant award are \$11,000.
- b. *Whether the expenditure is or will be in the form of in-kind services or donations:*  
 These costs will be in the form of consultant and in-kind cost share.
- c. *The date of cost incurrence:*  
 These costs will be incurred from July 2017 to August 2017.
- d. *How the expenditure benefits the project:*  
 The expenditures will be for tasks included in the Scope of Work, and consistent with Reclamation’s Drought Planning Elements.

*(iii) Provide the identity and amount of funding to be provided by funding partners, as well as the required letters of commitment.*

The proposed project will not have any funding partners.

*(iv) Describe any funding requested or received from other Federal partners. - No other funding was requested or has been received for the project.*

*(v) Describe any pending funding requests that have not yet been approved, and explain how the project will be affected if such funding is denied.*

There are no pending funding requests for the project.

**Budget Proposal**

**Table 5 - Funding Sources**

Funding Sources	Percent of Total Project Cost	Total Cost by Source
Recipient Funding	50%	\$86,580
Reclamation Funding	50%	\$86,580
Other Federal Funding	None	0
Totals	100%	\$173,160

**Budget Narrative**

**Salaries and Wages** – District staff will participate in the project and claim some cost share. Their hours and hourly rates are shown in **Appendix B**. The rates for BVWD staff were prepared based upon the guidelines for preparing indirect cost rate proposals in the May 2014, U.S. Department of Labor publication titled “*A Guide for Indirect Cost Rate Determination.*” The rates are broken out into salaries and fringe benefits, explained below.

**BELLA VISTA WATER DISTRICT**  
**DROUGHT CONTINGENCY PLANNING**  
**GRANT APPLICATION**

**APPENDIX A**  
**PROJECT SCHEDULE**

**BELLA VISTA WATER DISTRICT  
DROUGHT CONTINGENCY PLANNING  
Project Schedule**

		2017						2018												
		Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
<b>1</b>	<b>Project Administration</b>																			
1.1	Project Management			▲																
1.2	Progress Reports/Pay Requests																			
<b>2</b>	<b>Public Outreach</b>																			
2.1	Form Drought Task Force																			
2.2	Drought Task Force Workshops																			
2.4	Prepare and Distribute Public Outreach Literature																			
2.3	Solicit Input on Draft Drought Contingency Plan																			
<b>3</b>	<b>Drought Monitoring Plan</b>																			
3.1	Research/Catalogue Drought Information Sources																			
3.2	Prioritize Data Sources																			
3.3	Identify Drought Triggers																			
3.4	Document Collection/Dissemination Process																			
<b>4</b>	<b>Vulnerability Assessment</b>																			
4.1	Identify/Prioritize Vulnerable Resources																			
4.2	Review Existing Vulnerability/Climate Change Studies																			
4.3	Assess Resource Risk at Different Drought Stages																			
4.4	Quantify Economic Impact of Droughts																			
<b>5</b>	<b>Mitigation Actions</b>																			
5.1	Assess Existing Mitigation Measures																			
5.2	Establish Mitigation Goal																			
5.3	Identify Potential Mitigation Projects																			
5.4	Prioritize Mitigation Projects																			
5.5	Conceptual Evaluation of Priority Projects																			
<b>6</b>	<b>Response Action Planning</b>																			
6.1	Review Adequacy of Existing Response Plans																			
6.2	Solicit Input from Water Users																			
6.3	Revise Existing Response Actions																			
6.4	Develop Process for Implementing Response Actions																			
<b>7</b>	<b>Operational and Administrative Framework</b>																			
7.1	Identify Roles and Responsibilities																			
7.2	Develop Drought Response Procedures																			
7.3	Identify Drought Response Resources																			
<b>8</b>	<b>Plan Update Process</b>																			
8.1	Develop Process for Monitoring Plan Effectiveness																			
8.2	Develop Criteria for Periodic Updates																			
<b>9</b>	<b>Reports</b>																			
9.1	Draft Report																			
9.2	Final Report																			

▲ Assumed Contract Start Date

**BELLA VISTA WATER DISTRICT**  
**DROUGHT CONTINGENCY PLANNING**  
**GRANT APPLICATION**

**APPENDIX B**  
**COST ESTIMATE**

**BELLA VISTA WATER DISTRICT**  
**DROUGHT CONTINGENCY PLANNING**  
**GRANT APPLICATION**

**APPENDIX C**  
**DISTRICT FINANCIAL STATEMENTS**

BELLA VISTA WATER DISTRICT  
AUDITED FINANCIAL STATEMENTS  
AND SUPPLEMENTAL INFORMATION  
JUNE 30, 2016

## TABLE OF CONTENTS

INDEPENDENT AUDITORS' REPORT.....	1-3
MANAGEMENT'S DISCUSSION AND ANALYSIS.....	4-8
FINANCIAL STATEMENTS:	
Statement of Net Position as of June 30, 2016.....	9
Statement of Revenues, Expenses, and Changes in Net Position for the Year Ended June 30, 2016.....	10-11
Statement of Cash Flows for the Year Ended June 30, 2016.....	12
Notes to Financial Statements.....	13-40
REQUIRED SUPPLEMENTAL INFORMATION:	
Schedule of the Proportionate Share of the Net Position Liability - CalPERS.....	S-1
Schedule of Contributions - CalPERS.....	S-2
Schedule of Funding Progress for Other Postemployment Benefits.....	S-3
Notes to Required Supplemental Information.....	S-4
OTHER SUPPLEMENTAL INFORMATION:	
Independent Auditors' Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i> and <i>The State Controller's Minimum Audit Requirements for California Special Districts</i> .....	S-5 - S-6



**D. H. SCOTT & COMPANY**  
CERTIFIED PUBLIC ACCOUNTANTS  
A LIMITED LIABILITY PARTNERSHIP

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Christina Freilich, CPA  
Christine M. Rojas, CPA  
Ron Massey, CPA  
Dennis Weibling, CPA

**INDEPENDENT AUDITORS' REPORT**

To the Board of Directors  
Bella Vista Water District  
Redding, California

**Report on the Financial Statements**

We have audited the accompanying financial statements of the business-type activities of Bella Vista Water District (the District) as of and for the year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

**Management's Responsibility for the Financial Statements**

The District's management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America as well as the accounting systems prescribed by the State Controller's Office and state regulations governing special districts; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

**Auditors' Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Governmental Auditing Standards*, issued by the Comptroller General of the United States, and the State Controller's *Minimum Audit Requirements and Reporting Guidelines for California Special Districts*. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the District's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the business-type activities of the District, as of June 30, 2016, and the changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America, as well as the accounting systems prescribed by the State Controller's Office and state regulations governing special districts.

### **Other Matters**

#### *Required Supplemental Information*

Accounting principles generally accepted in the United States of American require that the management's discussion and analysis and the required supplemental information listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operations, economic, or historical context. We have applied certain limited procedures to the required supplemental information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### **Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated September 19, 2016, on our consideration of the District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the District's internal control over financial reporting and compliance.

*N.A. Scott & Company LLP*

Redding, California  
September 19, 2016

## FINANCIAL STATEMENTS

## ASSETS AND DEFERRED OUTFLOWS

Current assets:	
Cash and cash equivalents	\$ 6,910,630 
Cash in Shasta County Treasury	45,366
Accounts receivable, net	443,233
1915 Act Special Assessment Bonds receivable - current	4,000
Inventories	61,506
Deposits and prepaid expenses	<u>151,789</u>
Total current assets	<u>7,616,524</u>
Restricted assets:	
Cash and cash equivalents:	
Department of Interior note reserve	75,602
Capital improvement funds	1,358,290
Water treatment plant improvement funds	803,182
Palo Cedro special projects	174,026
1996 Redemption Fund	<u>41,634</u>
Total restricted assets	<u>2,452,734</u>
Capital assets:	
Nondepreciable land and construction in progress	252,527
Depreciable capital assets, net	<u>25,939,262</u>
Total capital assets	<u>26,191,789</u>
Other assets:	
1915 Act Special Assessment Bonds receivable - long-term portion	<u>143,663</u>
Total other assets	<u>143,663</u>
Total assets	<u>36,404,710</u>
Deferred outflows of resources:	
Deferred outflows from pension	<u>118,527</u>
Total deferred outflows	<u>118,527</u>

**BELLA VISTA WATER DISTRICT**

**DROUGHT CONTINGENCY PLANNING**  
**GRANT APPLICATION**

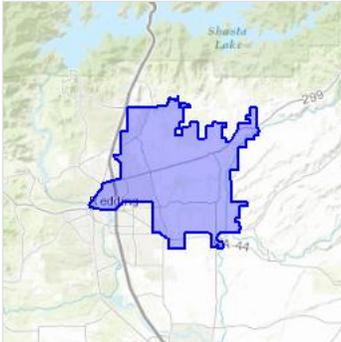
**APPENDIX D**

**LOCAL ENDANGERED AND**  
**PROTECTED SPECIES**

# IPaC resource list

## Location

Shasta County, California



## Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

Federal Building  
2800 Cottage Way, Room W-2605  
Sacramento, CA 95825-1846

## Endangered species

**This resource list is for informational purposes only and should not be used for planning or analyzing project level impacts.**

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to “request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action” for any project that is conducted, permitted, funded, or licensed by any Federal agency.

**A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Review section in IPaC or from the local field office directly.**

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by creating a project and making a request from the Regulatory Review section.

Listed species<sup>1</sup> are managed by the [Endangered Species Program](#) of the U.S. Fish and Wildlife Service.

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.

The following species are potentially affected by activities in this location:

## Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="http://ecos.fws.gov/ecp/species/2891">http://ecos.fws.gov/ecp/species/2891</a>	Threatened

## Birds

NAME	STATUS
Northern Spotted Owl <i>Strix occidentalis caurina</i> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="http://ecos.fws.gov/ecp/species/1123">http://ecos.fws.gov/ecp/species/1123</a>	Threatened

## Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="http://ecos.fws.gov/ecp/species/8246">http://ecos.fws.gov/ecp/species/8246</a>	Endangered
Shasta Crayfish <i>Pacifastacus fortis</i> No <b>critical habitat</b> has been designated for this species. <a href="http://ecos.fws.gov/ecp/species/8284">http://ecos.fws.gov/ecp/species/8284</a>	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="http://ecos.fws.gov/ecp/species/498">http://ecos.fws.gov/ecp/species/498</a>	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="http://ecos.fws.gov/ecp/species/2246">http://ecos.fws.gov/ecp/species/2246</a>	Endangered

## Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="http://ecos.fws.gov/ecp/species/321">http://ecos.fws.gov/ecp/species/321</a>	Threatened
Steelhead <i>Oncorhynchus (=Salmo) mykiss</i> There is a <b>final critical habitat</b> designated for this species. Your location overlaps the designated critical habitat. <a href="http://ecos.fws.gov/ecp/species/1007">http://ecos.fws.gov/ecp/species/1007</a>	Threatened

## Flowering Plants

NAME	STATUS
Slender Orcutt Grass <i>Orcuttia tenuis</i> There is a <b>final critical habitat</b> designated for this species. Your location overlaps the designated critical habitat. <a href="http://ecos.fws.gov/ecp/species/1063">http://ecos.fws.gov/ecp/species/1063</a>	Threatened

## Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. <a href="http://ecos.fws.gov/ecp/species/7850">http://ecos.fws.gov/ecp/species/7850</a>	Threatened

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Chinook Salmon <i>Oncorhynchus</i> (=Salmo) tshawytscha <a href="http://ecos.fws.gov/ecp/species/8091#crithab">http://ecos.fws.gov/ecp/species/8091#crithab</a>	Final designated
Chinook Salmon <i>Oncorhynchus</i> (=Salmo) tshawytscha <a href="http://ecos.fws.gov/ecp/species/8091#crithab">http://ecos.fws.gov/ecp/species/8091#crithab</a>	Final designated
Slender Orcutt Grass <i>Orcuttia tenuis</i> <a href="http://ecos.fws.gov/ecp/species/1063#crithab">http://ecos.fws.gov/ecp/species/1063#crithab</a>	Final designated
Steelhead <i>Oncorhynchus</i> (=Salmo) mykiss <a href="http://ecos.fws.gov/ecp/species/1007#crithab">http://ecos.fws.gov/ecp/species/1007#crithab</a>	Final designated
Steelhead <i>Oncorhynchus</i> (=Salmo) mykiss <a href="http://ecos.fws.gov/ecp/species/1007#crithab">http://ecos.fws.gov/ecp/species/1007#crithab</a>	Final designated
Steelhead <i>Oncorhynchus</i> (=Salmo) mykiss <a href="http://ecos.fws.gov/ecp/species/1007#crithab">http://ecos.fws.gov/ecp/species/1007#crithab</a>	Final designated
Steelhead <i>Oncorhynchus</i> (=Salmo) mykiss <a href="http://ecos.fws.gov/ecp/species/1007#crithab">http://ecos.fws.gov/ecp/species/1007#crithab</a>	Final designated
Steelhead <i>Oncorhynchus</i> (=Salmo) mykiss <a href="http://ecos.fws.gov/ecp/species/1007#crithab">http://ecos.fws.gov/ecp/species/1007#crithab</a>	Final designated

## Migratory birds

Birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service<sup>3</sup>. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data <http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The migratory birds species listed below are species of particular conservation concern (e.g. [Birds of Conservation Concern](#)) that may be potentially affected by activities in this location, not a list of every bird species you may find in this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the [AKN Histogram Tools](#) and [Other Bird Data Resources](#).

NAME	SEASON(S)
Bald Eagle <i>Haliaeetus leucocephalus</i> <a href="http://ecos.fws.gov/ecp/species/1626">http://ecos.fws.gov/ecp/species/1626</a>	Year-round
Black Swift <i>Cypseloides niger</i> <a href="http://ecos.fws.gov/ecp/species/8878">http://ecos.fws.gov/ecp/species/8878</a>	Breeding

Burrowing Owl <i>Athene cunicularia</i> <a href="http://ecos.fws.gov/ecp/species/9737">http://ecos.fws.gov/ecp/species/9737</a>	Year-round
California Spotted Owl <i>Strix occidentalis occidentalis</i> <a href="http://ecos.fws.gov/ecp/species/7266">http://ecos.fws.gov/ecp/species/7266</a>	Year-round
Calliope Hummingbird <i>Stellula calliope</i> <a href="http://ecos.fws.gov/ecp/species/9526">http://ecos.fws.gov/ecp/species/9526</a>	Breeding
Flammulated Owl <i>Otus flammeolus</i> <a href="http://ecos.fws.gov/ecp/species/7728">http://ecos.fws.gov/ecp/species/7728</a>	Breeding
Fox Sparrow <i>Passerella iliaca</i>	Breeding
Lewis's Woodpecker <i>Melanerpes lewis</i> <a href="http://ecos.fws.gov/ecp/species/9408">http://ecos.fws.gov/ecp/species/9408</a>	Wintering
Loggerhead Shrike <i>Lanius ludovicianus</i> <a href="http://ecos.fws.gov/ecp/species/8833">http://ecos.fws.gov/ecp/species/8833</a>	Year-round
Nuttall's Woodpecker <i>Picoides nuttallii</i> <a href="http://ecos.fws.gov/ecp/species/9410">http://ecos.fws.gov/ecp/species/9410</a>	Year-round
Oak Titmouse <i>Baeolophus inornatus</i> <a href="http://ecos.fws.gov/ecp/species/9656">http://ecos.fws.gov/ecp/species/9656</a>	Year-round
Olive-sided Flycatcher <i>Contopus cooperi</i> <a href="http://ecos.fws.gov/ecp/species/3914">http://ecos.fws.gov/ecp/species/3914</a>	Breeding
Peregrine Falcon <i>Falco peregrinus</i> <a href="http://ecos.fws.gov/ecp/species/8831">http://ecos.fws.gov/ecp/species/8831</a>	Year-round
Rufous-crowned Sparrow <i>Aimophila ruficeps</i> <a href="http://ecos.fws.gov/ecp/species/9718">http://ecos.fws.gov/ecp/species/9718</a>	Year-round
Sage Thrasher <i>Oreoscoptes montanus</i> <a href="http://ecos.fws.gov/ecp/species/9433">http://ecos.fws.gov/ecp/species/9433</a>	Breeding
Short-eared Owl <i>Asio flammeus</i> <a href="http://ecos.fws.gov/ecp/species/9295">http://ecos.fws.gov/ecp/species/9295</a>	Year-round
Swainson's Hawk <i>Buteo swainsoni</i> <a href="http://ecos.fws.gov/ecp/species/1098">http://ecos.fws.gov/ecp/species/1098</a>	Breeding
Western Grebe <i>Aechmophorus occidentalis</i> <a href="http://ecos.fws.gov/ecp/species/6743">http://ecos.fws.gov/ecp/species/6743</a>	Wintering
Williamson's Sapsucker <i>Sphyrapicus thyroideus</i> <a href="http://ecos.fws.gov/ecp/species/8832">http://ecos.fws.gov/ecp/species/8832</a>	Year-round
Willow Flycatcher <i>Empidonax traillii</i> <a href="http://ecos.fws.gov/ecp/species/3482">http://ecos.fws.gov/ecp/species/3482</a>	Breeding
Yellow-billed Magpie <i>Pica nuttalli</i> <a href="http://ecos.fws.gov/ecp/species/9726">http://ecos.fws.gov/ecp/species/9726</a>	Year-round

What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

#### Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory

bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

#### Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAA/NCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAA/NCCOS models: the models were developed as part of the NOAA/NCCOS project: [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#). The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the [Northeast Ocean Data Portal](#), which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?

#### Landbirds:

The [Avian Knowledge Network \(AKN\)](#) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest, survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the [Migratory Bird Programs AKN Histogram Tools](#) webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

#### Atlantic Seabirds:

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA/NCCOS [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project](#) webpage.

## Facilities

### Wildlife refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGES AT THIS LOCATION.

## Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

## Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

**BELLA VISTA WATER DISTRICT**  
**DROUGHT CONTINGENCY PLANNING**  
**GRANT APPLICATION**

**APPENDIX E**  
**LETTERS OF SUPPORT**

# California State Senate

**SENATOR  
TED GAINES**  
FIRST SENATE DISTRICT



COMMITTEES  
ENVIRONMENTAL QUALITY  
VICE CHAIR  
INSURANCE  
VICE CHAIR  
GOVERNMENTAL  
ORGANIZATION  
LEGISLATIVE ETHICS  
TRANSPORTATION AND  
HOUSING

February 7, 2017

Don Groundwater, P.E.  
District Engineer  
Bella Vista Water District  
11368 East Stillwater Way  
Redding, CA 96003

Subject: Letter of Support for Drought Contingency Planning Grant  
Bella Vista Water District

Dear Mr. Groundwater:

Thank you for informing me of Bella Vista Water District's intent to file a grant application with the United States Bureau of Reclamation (USBR) to prepare a Drought Contingency Plan. Although our area is currently awash in water, we all know that will not last forever. I am therefore pleased to express my support for the project.

The Bella Vista Water District plays an important role in providing water for urban and agricultural uses. Recent droughts have had a negative impact on the area and the District had few options to mitigate the situation. I concur that additional planning and investigations will be helpful in identifying practical solutions for future droughts.

I strongly endorse this project and I am hopeful that USBR will fund the grant application.

Sincerely,

A handwritten signature in black ink, appearing to read "Ted Gaines".

**TED GAINES**  
Senator, First District



February 8, 2017

Don Groundwater, District Engineer  
Bella Vista Water District  
11368 East Stillwater Way  
Redding, CA 96003

Subject: Letter of Support for USBR Drought Planning Grant  
Bella Vista Water District

Dear Don Groundwater:

The Shasta-Tehama-Trinity Joint Community College District strongly supports the Bella Vista Water District's plans to create a Drought Contingency Plan for their service area. We understand the need to be proactive in the fight against droughts. Recent droughts have resulted in very severe water shortages and emphasized the need for more comprehensive drought planning in our region.

A Drought Contingency Plan will benefit both the District and customers to more effectively manage and conserve water. We have confidence that the Bella Vista Water District will create a useful and practical plan that will play a crucial role in future droughts. We endorse and support their efforts and encourage USBR to fund their application.

Very truly yours,

Morris Rodrigue  
Assistant Superintendent/Vice President of Administrative Services

---

Governing Board Members

Rhonda E. Nehr    Dr. Rob Lydon    Duane K. Miller    Kendall S. Pierson    Rayola B. Pratt    Robert M. Steinacher    Scott J. Swendiman  
McArthur        Red Bluff        Anderson        Redding        Shasta        Corning        Redding

---

Superintendent/President  
Joe Wyse, Ed.D.

DOUG LAMALFA  
1ST DISTRICT, CALIFORNIA

COMMITTEE ON  
NATURAL RESOURCES  
COMMITTEE ON AGRICULTURE

**Congress of the United States**  
**House of Representatives**  
Washington, DC 20515-0501

WASHINGTON OFFICE:  
506 CANNON HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515  
TEL: (202) 225-3076  
FAX: (202) 226-0852

OROVILLE DISTRICT OFFICE:  
1453 DOWNER STREET  
SUITE A  
OROVILLE, CA 95965  
TEL: (530) 534-7100  
FAX: (530) 534-7800

REDDING DISTRICT OFFICE:  
2885 CHURN CREEK ROAD  
SUITE C  
REDDING, CA 96002  
TEL: (530) 223-5898  
FAX: (530) 223-5897

<http://lamalfa.house.gov>

February 9, 2017

Don Groundwater, P.E.  
District Engineer  
Bella Vista Water District  
11368 East Stillwater Way  
Redding, CA 96003

**Subject: Letter of Support for Drought Contingency Planning Grant  
Bella Vista Water District**

Dear Mr. Groundwater:

I have been informed of Bella Vista Water District's intent to file a grant application with the United States Bureau of Reclamation to prepare a Drought Contingency Plan. I am writing this letter to express my support for the project.

The Bella Vista Water District plays an important role in providing water for urban and agricultural uses. Recent droughts have had a negative impact on the area and the District had few options to mitigate the situation. We believe that additional planning and investigations will be helpful in identifying practical solutions for future droughts.

Again, I would like to offer my full support to the Bella Vista Water District in receiving this grant. I am confident you will give fair consideration to their application.

If my staff or I may provide you with additional information, please contact my District Director, Lisa Mara, at 530-878-5035.

Sincerely,



DOUG LAMALFA  
Member of Congress

## City of Shasta Lake

P.O. Box 777 • 1650 Stanton Drive  
Shasta Lake, CA 96019  
Phone: 530-275-7400  
Fax: 530-275-7414  
Website: www.cityofshastalake.org



February 7, 2017

Don Groundwater, District Engineer  
Bella Vista Water District  
11368 East Stillwater Way  
Redding, CA 96003

Subject: Letter of Support for United States Bureau of Reclamation (USBR)  
Drought Planning Grant for the Bella Vista Water District

Dear Don Groundwater:

The City of Shasta Lake strongly supports the Bella Vista Water District's United States Bureau of Reclamation (USBR) grant application with plans to create a Drought Contingency Plan for their service area. The City understands the need to be proactive in the fight against droughts. Recent droughts have resulted in very severe water shortages and have emphasized the need for more comprehensive drought planning within our region.

A Drought Contingency Plan will benefit both the District and customers to more effectively manage and conserve water. The City has confidence that the Bella Vista Water District will create a useful and practical plan that will play a crucial role in future droughts. Therefore, the City fully endorses and supports this effort and encourages USBR to fund their application.

Sincerely,

A handwritten signature in blue ink, appearing to read "John N. Duckett, Jr.", written over a horizontal line.

John N. Duckett, Jr.  
City Manager

c. City File: Bella Vista Water District



# Lassen Canyon Nursery, Inc.

P.O. BOX 992400

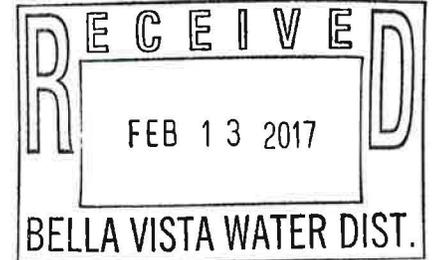
REDDING, CA 96099-2400

PHONE 530-223-1075 FAX 530-223-6754

www.lassencanyonnursery.com

info@lassencanyonnursery.com

February 8, 2017



Don Groundwater, PE  
District Engineer  
Bella Vista Water District  
11368 East Stillwater Way  
Redding, CA 96003

**Subject: Bella Vista Water District  
Letter of Support for Drought Contingency Planning Grant**

Dear Don:

I would like to express my support for the District's proposed Drought Contingency Planning project, and I encourage the United States Bureau of Reclamation to fund the grant application.

As a local landowner in the District, I have been significantly impacted by recent multi-year droughts. These drought years have had a large impact on our economy and way of life. The District currently has very limited water supply options and needs to evaluate water conservation programs as well as water supply development projects. The proposed Drought Contingency Planning project will provide the opportunity to achieve this goal for improved drought resiliency.

I would be interested in volunteering for the Drought Task Force that will be formed and offering my input, ideas and comments on measures to address future droughts.

Sincerely,

Elizabeth Elwood Ponce  
Vice-President

*J. Jordan Taylor*  
*1210 Chandon Court*  
*Redding, CA 96003*  
*(530) 243-9900*

February 9, 2017

Don Groundwater, PE  
District Engineer  
Bella Vista Water District  
11368 East Stillwater Way  
Redding, CA 96003

**RE: Bella Vista Water District**  
**Letter of Support for Drought Contingency Planning Grant**

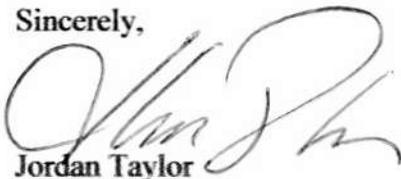
Dear Don:

I would like to express my support for the District's proposed Drought Contingency Planning project, and I encourage the United States Bureau of Reclamation to fund the grant application.

As a local landowner in the District, I have been significantly impacted by recent multi-year droughts. These drought years have had a large impact on our economy and way of life. The District currently has very limited water supply options and needs to evaluate water conservation programs as well as water supply development projects. The proposed Drought Contingency Planning project will provide the opportunity to achieve this goal for improved drought resiliency.

I would be interested in volunteering for the Drought Task Force that will be formed and offering my input, ideas and comments on measures to address future droughts.

Sincerely,

  
Jordan Taylor



# SHASTA COUNTY

## WATER AGENCY

COUNTY OFFICE BUILDING  
1855 PLACER STREET  
REDDING, CA 96001  
(530) 225-5661  
FAX (530) 225-5667

**PATRICK J. MINTURN**  
CHIEF ENGINEER

February 9, 2017

Don Groundwater, P.E.  
District Engineer  
Bella Vista Water District  
11368 East Stillwater Way  
Redding, CA 96003

**Subject: Letter of Support for Drought Contingency Planning Grant  
Bella Vista Water District**

Dear Mr. Groundwater:

Shasta County Water Agency has been informed of Bella Vista Water District's intent to file a grant application with the United States Bureau of Reclamation to prepare a Drought Contingency Plan. We are writing this letter to express our support for the project.

The Bella Vista Water District plays an important role in providing water for urban and agricultural uses. Recent droughts have had a negative impact on the area and the District had few options to mitigate the situation. We believe that additional planning and investigations will be helpful in identifying practical solutions for future droughts.

We strongly endorse this project and request that USBR fund the grant application.

Sincerely,

---

Patrick J. Minturn, Chief Engineer

PJM/ldr



## SHASTA HILLS

ESTATES

Home Owners Association

February 9, 2017

Mr. Don Groundwater, District Engineer  
Bella Vista Water District  
11368 East Stillwater Way  
Redding, CA 96003

RE: Letter of Support for USBR Drought Planning Grant  
Bella Vista Water District

Dear Mr. Groundwater:

This Association is comprised of the owners of 202 homes located in the Shasta Hills Estates subdivision, 200 Churn Creek Road, Redding, California. It is an age-restricted community having approximately 300 residents 55 years of age or older, the majority of whom are retired and living on fixed incomes. Our residents have been significantly impacted in recent years by water shortages caused by drought conditions and the resultant consumption restrictions and penalties. Such conditions emphasize the need for more comprehensive drought planning in our region.

This Association strongly supports the Bella Vista Water District ("BVWD") plans to create a Drought Contingency Plan for their service area. A Drought Contingency Plan will benefit both the District and customers to more effectively manage and conserve water. We have confidence that the BVWD will create a useful and practical plan that will play a crucial role in future droughts. We endorse and support their efforts and encourage USBR to fund their grant application.

If you wish to further discuss this issue, please don't hesitate to contact us through our Manager, Mr. Jordan Taylor, Coldwell Banker Property Management, 2070 Churn Creek Road, Suite B, Redding, CA 96002. He can best be reached at (530) 243-9900 or [jordan.taylormgr.outlook.com](mailto:jordan.taylormgr.outlook.com).

Sincerely,

A handwritten signature in cursive script, appearing to read "Fred Castagna".

Fred Castagna, President

STATE CAPITOL  
P.O. BOX 942849  
SACRAMENTO, CA 94249-0001  
(916) 319-2001  
FAX (916) 319-2101

DISTRICT OFFICE  
280 HEMSTED DRIVE, SUITE 110  
REDDING, CA 96002  
(530) 223-6300  
FAX (530) 223-6737

E-MAIL  
Assemblymember.Dahle@assembly.ca.gov

# Assembly California Legislature



**BRIAN DAHLE**  
ASSEMBLYMAN, FIRST DISTRICT

COMMITTEES  
VICE CHAIR: ENVIRONMENTAL SAFETY  
AND TOXIC MATERIALS  
VICE CHAIR: NATURAL RESOURCES  
PRIVACY AND CONSUMER PROTECTION  
UTILITIES AND COMMERCE  
WATER, PARKS AND WILDLIFE

2/9/2017

Don Groundwater, P.E.  
District Engineer  
Bella Vista Water District  
11368 East Stillwater Way  
Redding, CA 96003

**Subject: Letter of Support for Drought Contingency Planning Grant  
Bella Vista Water District**

Dear Mr. Groundwater:

Our office has been informed of Bella Vista Water District's intent to file a grant application with the United States Bureau of Reclamation to prepare a Drought Contingency Plan. We are writing this letter to express our support for the project.

The Bella Vista Water District plays an important role in providing water for urban and agricultural uses. Recent droughts have had a negative impact on the area and the District had few options to mitigate the situation. We believe that additional planning and investigations will be helpful in identifying practical solutions for future droughts.

We strongly endorse this project and request that USBR fund the grant application.

Sincerely,

A handwritten signature in blue ink that reads "Brian Dahle".

Brian Dahle  
Assemblyman 1<sup>st</sup> District

February 9, 2017

Don Groundwater, PE  
District Engineer  
Bella Vista Water District  
11368 East Stillwater Way  
Redding, CA 96003

**Subject: Bella Vista Water District  
Letter of Support for Drought Contingency Planning Grant**

Dear Don:

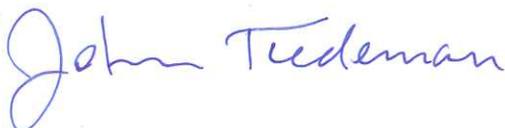
I would like to express my support for the District's proposed Drought Contingency Planning project, and I encourage the United States Bureau of Reclamation to fund the grant application.

As a local landowner in the District, I have been significantly impacted by recent multi-year droughts. These drought years have had a large impact on our economy and way of life. The District currently has very limited water supply options and needs to evaluate water conservation programs as well as water supply development projects. The proposed Drought Contingency Planning project will provide the opportunity to achieve this goal for improved drought resiliency.

I have implemented all reasonable water conservation practices on my organic farm, including 100% drip irrigation, multiple soil moisture monitoring stations, winter cover cropping, mulching, and regular soil and plant tissue sampling. I am among a significant group of growers who produce for local farmers market sales, which also conserves fuel and curbs emissions.

I would be interested in volunteering for the Drought Task Force that will be formed and offering my input, ideas and comments on measures to address future droughts.

Sincerely,



**BELLA VISTA WATER DISTRICT  
DROUGHT CONTINGENCY PLANNING  
GRANT APPLICATION**

**APPENDIX F  
BELLA VISTA WATER DISTRICT  
WATER SHORTAGE CONTINGENCY  
PLAN**

**BELLA VISTA WATER DISTRICT**

**RESOLUTION 15-04**

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE BELLA VISTA WATER DISTRICT ADOPTING A MUNICIPAL AND INDUSTRIAL WATER SHORTAGE CONTINGENCY PLAN**

\*\*\*\*\*

WHEREAS, the Bella Vista Water District has contracted with the U.S. Bureau of Reclamation for a water supply from the Sacramento River in the annual amount of 24,578 acre feet; and

WHEREAS, the availability of Municipal and Industrial (M&I) water for the Bella Vista Water District may be affected by numerous factors including regulatory mandates imposed by the State Water Resources Control Board and/or reductions in surface water allocations imposed by the United States Bureau of Reclamation (USBR) under the shortage provisions of the District's Water Service Contract, reductions in surface water diversions under the District's long-term transfer agreement with the Anderson-Cottonwood Irrigation District as a result of reduced allocations under their Settlement Contract with the USBR; and

WHEREAS, water production facilities failures, water distribution infrastructure failures, contamination of supply, or other factors may result in emergency conditions that threaten the District's ability to provide for public health and safety; and

WHEREAS, the District's Water Shortage Contingency Plan currently in force does not adequately address all the factors that may limit the District's ability to respond to diminished source capacity or emergency conditions.

WHEREAS, California is experiencing drought conditions for the fourth straight year;

WHEREAS, the U.S. Bureau of Reclamation has notified the Bella Vista Water District that the District will only be supplied 25 percent of its historical M&I water use, the allocated amount being 1,828 acre feet of water from Federal facilities during the 2015-2016 water-year;

WHEREAS, the District used a total of 8,216 acre-feet of M&I water during the 2013-2014 water-year and would expect to use more during the 2015-2016 water-year due to the projections of hotter and drier weather than normal; and,

WHEREAS, the Board of Directors declared a water shortage emergency on February 27, 2014 and that the water shortage emergency is still in effect; and

WHEREAS, the District's water shortage measures currently in force do not adequately address all the factors that may limit the District's ability to respond to diminished source capacity or emergency conditions; and

WHEREAS, it is the desire of the Board of Directors to set forth its policy for water shortages; and

NOW, THEREFORE, be it resolved by the Board of Directors of the Bella Vista Water District that to manage M&I water shortages the following M&I Water Shortage Contingency Plan, shall be enacted and shall read as follows:

## **I. PURPOSE AND INTENT**

The purpose of this Resolution is to establish a Municipal and Industrial (M&I) Water Shortage Contingency Plan (WSCP) in order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions.

Water uses regulated or prohibited under the District's Water Shortage Contingency Plan are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply condition are deemed to constitute a waste of water which subjects the offender(s) to penalties as set forth in the WSCP.

## **II. WATER SHORTAGE CONTINGENCY PLAN**

Upon declaration or amendment by the Board of Directors of the specific Stage in effect, the following mandatory water conservation requirements shall be in effect.

The declaration of Short-Term Stage 4 or Stage 5 water conservation requirements may be declared by the District's General Manager or his/her designee and subject to ratification by the District's Board of Directors in a regular or special session. A short-term declaration is for water shortage conditions expected for a duration of 45 days or less.

Exceedance charges may be imposed on all water usage above the allocated amounts for each customer account at Water Conservation Stages 3 and above.

### **A. STAGE 1 – NORMAL WATER SUPPLY (Water Supplies = 85% to 100% of Normal)**

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall not be applied to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem, or shall not be utilized until repaired.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for

health, maintenance, or structural considerations. Swimming pool and spa covers are encouraged to prevent evaporative water loss.

6. Washing streets, parking lots, driveways, or sidewalks, except as necessary for health, aesthetic or sanitary purposes, is prohibited.
7. Reduce water use by the following specified percentages: Residential, Rural, Multi-family and Public/ Institutional customers reduce water use by 5-15%; commercial customers by 5%; and Landscape Irrigation by 10-20%.
8. To reduce evaporation, the use of sprinkler irrigation systems for all M&I customers shall be limited to between one hour before sunset and one hour after sunrise. Sprinkler irrigation systems may be run outside of these hours for testing, but not for more than 5 minutes per cycle and only long enough to verify proper operation and make sprinkler adjustments.
9. Irrigated landscaped areas shall include efficient irrigation systems (e.g., drip irrigation, timed sprinklers, rain sensors, low-flow spray heads, etc.).

**B. STAGE 2 – MODERATE WATER SHORTAGE (Water Supplies = 70% to 85% of Normal)**

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall not be applied to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations. Swimming pool and spa covers are encouraged to prevent evaporative water loss.
6. Washing streets, parking lots, driveways, or sidewalks, except as necessary for health, aesthetic or sanitary purposes, is prohibited.
7. Reduce water use by the following specified percentages: Residential and Rural 15-25%; Multi-family and Public/ Institutional customers reduce water use by 10-20%; commercial customers by 5-10%; and Landscape Irrigation by 15-30%.

8. To reduce evaporation, the use of sprinkler irrigation systems for all M&I customers shall be limited to between one hour before sunset and one hour after sunrise. Sprinkler irrigation systems may be run outside of these hours for testing, but not for more than 5 minutes per cycle and only long enough to verify proper operation and make sprinkler adjustments.
9. Customers with “smart” irrigation timers or controllers are asked to set their controllers to achieve 90 to 95% of the evapotranspiration (ET) rate.
10. Irrigated landscaped areas shall include efficient irrigation systems (e.g., drip irrigation, timed sprinklers, rain sensors, low-flow spray heads, etc.).
11. Eating or drinking establishments, including but not limited to: Restaurants, cafes, cafeterias, bars or other public places where food or drink are served and/or purchased, shall serve water only upon request.
12. Users of construction meters and fire hydrant meters will be monitored for efficient water use.

Penalties: Any customer in violation of Stage 2 requirements shall be first notified of the regulations and warned of the penalty associated with continued violation. If the violation is not timely corrected, any continued violation of mandatory Stage 2 requirements after notice and warning is provided shall be punishable by an administrative fine of \$50.00 per day or per occurrence.

**C. STAGE 3 – SEVERE WATER SHORTAGE (Water Supplies = 50% to 70% of Normal)**

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall not be applied to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within two (2) working days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
6. Washing streets, parking lots, driveways, or sidewalks, except as necessary for health, aesthetic or sanitary purposes, is prohibited.

7. Reduce water use by the following specified percentages: Residential and Rural 25-40%; Multi-family and Public/ Institutional customers reduce water use by 20-30%; commercial customers by 20%; and Landscape Irrigation by 25-50%.
8. To reduce evaporation, the use of sprinkler irrigation systems for all M&I customers shall be limited to between one hour before sunset and one hour after sunrise. Sprinkler irrigation systems may be run outside of these hours for testing, but not for more than 5 minutes per cycle and only long enough to verify proper operation and make sprinkler adjustments.
9. Customers with “smart” irrigation timers or controllers are asked to set their controllers to achieve 75% of the evapotranspiration (ET) rate. Drip irrigation systems are excluded from this requirement.
10. Irrigated landscaped areas shall include efficient irrigation systems (e.g., drip irrigation, timed sprinklers, rain sensors, low-flow spray heads, etc.).

Outdoor irrigation of ornamental landscapes and turf with potable water shall be limited to 3 days a week. Customers whose street addresses end with an odd number may water on Wednesday, Friday and Sunday. Customers whose street addresses end with an even number may water on Tuesday, Thursday and Saturday.

The application of potable water to outdoor landscapes during or within 48 hours after measurable rainfall is prohibited.

11. Eating or drinking establishments, including but not limited to: Restaurants, cafes, cafeterias, bars or other public places where food or drink are served and/or purchased, shall serve water only upon request.
12. Users of construction meters and fire hydrant meters will be monitored for efficient water use. Flushing of water mains, sewers, or fire hydrants is prohibited except for emergencies and essential operations.
13. Water use exceedance tiered pricing will be implemented.
14. Motor vehicles and equipment shall be washed only with buckers or with hoses equipped with automatic shutoff nozzles.
15. Operators of hotels and motels shall offer patrons the option of not having their towels and linens washed daily.

Penalties: Any customer in violation of Stage 3 requirements shall be first notified of the regulations and warned of the penalty associated with continued violation. If the violation is not timely corrected, any continued violation of mandatory Stage 3 requirements after notice and warning is provided shall be punishable by an administrative fine of \$200.00 per day or per occurrence.

**D. STAGE 4 – EXTREME WATER SHORTAGE: SHORT-TERM (Water Supplies = 30% to 50% of Normal)**

The declaration of Short-Term Stage 4 water conservation requirements may be declared by the District’s General Manager or his/her designee and subject to ratification by the District’s Board of Directors in a regular or special session. A short-term declaration is for water shortage conditions expected for a duration of 45 days or less.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall not be applied to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District’s system shall be used to fill or refill artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.
6. The application of potable water to driveways and sidewalks is prohibited.
7. Reduce water use by the following specified percentages: Residential and Rural 40-50%; Multi-family and Public/ Institutional customers reduce water use by 30-50%; commercial customers by 30%; and Landscape Irrigation by 50-100%.
8. To reduce evaporation, the use of sprinkler irrigation systems for all M&I customers shall be limited to between one hour before sunset and one hour after sunrise. Sprinkler irrigation systems may be run outside of these hours for testing, but not for more than 5 minutes per cycle and only long enough to verify proper operation and make sprinkler adjustments.
9. Customers with “smart” irrigation timers or controllers are asked to set their controllers to achieve 75% of the evapotranspiration (ET) rate. Drip irrigation systems are excluded from this requirement.
10. Irrigated landscaped areas shall include efficient irrigation systems (e.g., drip irrigation, timed sprinklers, rain sensors, low-flow spray heads, etc.).

Outdoor irrigation of ornamental landscapes and turf with potable water shall be limited to 1 day a week.

The application of potable water to outdoor landscapes during or within 48 hours after measurable rainfall is prohibited.

11. Eating or drinking establishments, including but not limited to: Restaurants, cafes, cafeterias, bars or other public places where food or drink are served and purchased, shall serve water only upon request.
12. Users of construction meters and fire hydrant meters will be monitored for efficient water use. Flushing of water mains, sewers, or fire hydrants is prohibited except for emergencies and essential operations.
13. Water use exceedance tiered pricing will be implemented.
14. Motor vehicles and equipment shall be washed only with buckers or with hoses equipped with automatic shutoff nozzles.
15. Operators of hotels and motels shall offer patrons the option of not having their towels and linens washed daily.
16. The installation of new turf or landscaping is prohibited.
17. Water use shall be restricted so as to meet the minimum requirements for personal health and safety.
18. No new connections to the District's water distribution system will be allowed.

Penalties: Any customer in violation of Stage 4 requirements shall be first notified of the regulations and warned of the penalty associated with continued violation. If the violation is not timely corrected, any continued violation of mandatory Stage 4 requirements after notice and warning is provided shall be punishable by an administrative fine of \$500.00 per day or per occurrence.

**E. STAGE 4 – EXTREME WATER SHORTAGE: LONG-TERM (Water Supplies = 30% to 50% of Normal)**

The declaration of Long-Term Stage 4 water conservation requirements will be by the District's Board of Directors in a regular or special session. A long-term declaration is for water shortage conditions expected for a duration of more than 45 days.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall not be applied to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures. Care shall be taken not to water past the point of saturation.

3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.
6. The application of potable water to driveways and sidewalks is prohibited.
7. Reduce water use by the following specified percentages: Residential and Rural 40-50%; Multi-family and Public/ Institutional customers reduce water use by 30-50%; commercial customers by 30%; and Landscape Irrigation by 50-100%.
8. To reduce evaporation, the use of sprinkler irrigation systems for all M&I customers shall be limited to between one hour before sunset and one hour after sunrise. Sprinkler irrigation systems may be run outside of these hours for testing, but not for more than 5 minutes per cycle and only long enough to verify proper operation and make sprinkler adjustments.
9. Customers with "smart" irrigation timers or controllers are asked to set their controllers to achieve 75% of the evapotranspiration (ET) rate. Drip irrigation systems are excluded from this requirement.
10. Irrigated landscaped areas shall include efficient irrigation systems (e.g., drip irrigation, timed sprinklers, rain sensors, low-flow spray heads, etc.).

Outdoor irrigation of ornamental landscapes and turf with potable water shall be limited to 1 day a week.

The application of potable water to outdoor landscapes during or within 48 hours after measurable rainfall is prohibited.

11. Eating or drinking establishments, including but not limited to: Restaurants, cafes, cafeterias, bars or other public places where food or drink are served and purchased, shall serve water only upon request.
12. Users of construction meters and fire hydrant meters will be monitored for efficient water use. Flushing of water mains, sewers, or fire hydrants is prohibited except for emergencies and essential operations.
13. Water use exceedance tiered pricing will be implemented.
14. Motor vehicles and equipment shall be washed only at commercial establishments that use recycled or reclaimed water.

15. Operators of hotels and motels shall offer patrons the option of not having their towels and linens washed daily.
16. The installation of new turf or landscaping is prohibited.
17. Water use shall be restricted so as to meet the minimum requirements for personal health and safety.
18. No new connections to the District's water distribution system will be allowed.

Penalties: Any customer in violation of Stage 4 requirements shall be first notified of the regulations and warned of the penalty associated with continued violation. If the violation is not timely corrected, any continued violation of mandatory Stage 4 requirements after notice and warning is provided shall be punishable by an administrative fine of \$500.00 per day or per occurrence.

**F. STAGE 5 – CRITICAL WATER SHORTAGE: SHORT-TERM (Water Supplies =less than 30% of Normal)**

The declaration of Short-Term Stage 5 water conservation requirements may be declared by the District's General Manager or his/her designee and subject to ratification by the District's Board of Directors in a regular or special session. A short-term declaration is for water shortage conditions expected for a duration of 45 days or less.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Landscape irrigation is prohibited.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired immediately. Water service will be suspended until repairs are made.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.
6. The application of potable water to driveways and sidewalks is prohibited.
7. Reduce water use by the following specified percentages: Residential and Rural 50% or more; Multi-family and Public/ Institutional customers reduce water use by 50% or more; commercial customers by 50% or more; and Landscape Irrigation by 100%.

8. Eating or drinking establishments, including but not limited to: Restaurants, cafes, cafeterias, bars or other public places where food or drink are served and purchased, shall serve water only upon request.
9. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District's system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting.
10. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.
11. Water use exceedance tiered pricing and excessive water use fines will be implemented.
12. Motor vehicles and equipment shall be washed only at commercial establishments that use recycled or reclaimed water.
13. Operators of hotels and motels shall offer patrons the option of not having their towels and linens washed daily.
14. The installation of new turf or landscaping is prohibited.
15. Water use shall be restricted so as to meet the minimum requirements for personal health and safety.
16. No new connections to the District's water distribution system will be allowed.

Penalties: Any customer in violation of Stage 5 requirements shall be first notified of the regulations and warned of the penalty associated with continued violation. If the violation is not timely corrected, any continued violation of mandatory Stage 5 requirements after notice and warning is provided shall be punishable by an administrative fine of \$500.00 per day or per occurrence.

**G. STAGE 5 – CRITICAL WATER SHORTAGE: LONG-TERM (Water Supplies =less than 30% of Normal)**

The declaration of Long-Term Stage 5 water conservation requirements will be by the District's Board of Directors in a regular or special session. A long-term declaration is for water shortage conditions expected for a duration of more than 45 days.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Landscape irrigation is prohibited.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.

4. Leaking customer pipes or faulty sprinklers shall be repaired immediately. Water service will be suspended until repairs are made.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.
6. The application of potable water to driveways and sidewalks is prohibited.
7. Reduce water use by the following specified percentages: Residential and Rural 50% or more; Multi-family and Public/ Institutional customers reduce water use by 50% or more; commercial customers by 50% or more; and Landscape Irrigation by 100%.
8. Eating or drinking establishments, including but not limited to: Restaurants, cafes, cafeterias, bars or other public places where food or drink are served and purchased, shall serve water only upon request.
9. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District's system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting.
10. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.
11. Water Crisis/Emergency tiered pricing and excessive water use fines will be implemented.
12. Motor vehicles and equipment shall be washed only at commercial establishments that use recycled or reclaimed water.
13. Operators of hotels and motels shall offer patrons the option of not having their towels and linens washed daily.
14. The installation of new turf or landscaping is prohibited.
15. Water use shall be restricted so as to meet the minimum requirements for personal health and safety.
16. No new connections to the District's water distribution system will be allowed and no commitments will be made to provide service for new water service connections.

Penalties: Any customer in violation of Stage 5 requirements shall be first notified of the regulations and warned of the penalty associated with continued violation. If the violation is not timely corrected, any continued violation of mandatory Stage 5 requirements after notice and warning is provided shall be punishable by an administrative fine of \$500.00 per day or per occurrence.

Passed and adopted this 23<sup>rd</sup> day of March 2015 by the following vote:

Ayes: Bambino, Nash, Smith, Waite

Noes: 0

Absent: Steppat

Abstain: 0



\_\_\_\_\_  
Ted Bambino, President of the Board of  
Board of Directors of Bella Vista Water District

ATTEST:

  
\_\_\_\_\_  
David J. Coxey, Secretary of the Board of  
Directors of Bella Vista Water District



**ATTENTION CUSTOMERS OF THE BVWD SERVICE AREA**

Current water supply condition is:  
**STAGE 1 – WATER CONSERVATION**

Customer Actions	Stage 1	Stage 2	Stage 3	Stage 4		Stage 5	
				ST	LT	ST	LT
1. Water shall be used for beneficial uses only; all unnecessary and wasteful uses of water are prohibited (District Policy Manual Section 143).	✓	✓	✓	✓	✓	✓	✓
2. Water shall not be applied to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures. Care shall be taken not to water past the point of saturation.	✓	✓	✓	✓	✓	No outdoor watering	No outdoor watering
3. Free-flowing hoses for all uses shall be prohibited. Customers shall use automatic shutoff devices on any hose or filling apparatus in use.	✓	✓	✓	✓	✓	✓	✓
4. Faulty sprinklers, breaks, and/or leaks within the customer's plumbing system shall be repaired within specified working days or less by Stage after the customer is notified or discovers the break (Water service may be suspended until all repairs are made).	5 days or less ✓	5 days or less ✓	2 days or less ✓	24 hrs or less ✓	24 hrs or less ✓	Repair immediately ✓	Repair immediately ✓
5. All wading/portable pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump, and be constructed to be leak-proof.	✓	✓	✓	✓	✓	✓	✓
Swimming pool/spa covers encouraged to prevent evaporative water loss.	✓	✓	✓	✓	✓	✓	✓
Potable water use for ornamental ponds and fountains is prohibited.				✓	✓	✓	✓
Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.	✓	✓	✓				
Pools, artificial lakes, ponds or stream filled prior to Stage 4 shall not be emptied and refilled.				✓	✓	✓	✓
6. Washing streets, parking lots, driveways, or sidewalks, except as necessary for health, aesthetic or sanitary purposes, is prohibited.	✓	✓	✓				
Application of potable water to driveways and sidewalks is prohibited. Washing streets, parking lots, or buildings, except as necessary for health or sanitary purposes, is prohibited.				✓	✓	✓	✓
7. Reduce water use by specified % as determined. District will provide tips to reduce water through advertising and website.	✓	✓	✓	✓	✓	✓	✓
Residential and Rural Customers Reductions.	5-15%	15-25%	25%	40-50%	40-50%	50% or more	50% or more
Public Institutional Customers Reductions.	5-15%	10-20%	25%	30-50%	30-50%	50% or more	50% or more
Commercial Customers.	5%	10%	20%	30%	30%	50% or more	50% or more
Landscape Irrigation.	10-20%	15-30%	25%	50-100%	50-100%	100%	100%
8. To reduce evaporation, the use of landscape irrigation systems for all customers, including parks and school grounds, shall be limited to the period between one (1) hour before sunset and one (1) hour after sunrise. Sprinkler irrigation systems may be run outside of these hours for testing, but not for more than 5 minutes per cycle and only long enough to verify proper operation and make sprinkler adjustments.	✓	✓	✓	✓	✓	No outdoor watering	No outdoor watering
9. Customers with "smart" irrigation systems are asked to set their controllers to achieve the specified % of the evapotranspiration rate.		90-95%	75%	50-74%	50-74%	No outdoor watering	No outdoor watering
10. Irrigated landscaped areas shall include efficient irrigation systems (e.g., drip irrigation, timed sprinklers, rain sensors, low-flow spray heads, etc.).	✓	✓	✓	✓	✓	No outdoor watering	No outdoor watering
Landscape irrigation limited to the days per week specified. Limitation does not apply to drip, bubbler, or soaker irrigation hardware or emitters, watering by hand-held bucket, or hose equipped with shutoff nozzle.			3 nights per week	1 night per week	1 night per week	No outdoor watering	No outdoor watering
Application of potable water to outdoor landscapes during or within 48 hours after measureable rainfall .			✓	✓	✓	No outdoor watering	No outdoor watering
11. Restaurant and bar customers shall receive water only upon request.		✓	✓	✓	✓	✓	✓
12. Construction meters and fire hydrant meters will be monitored for efficient water use.		✓	✓	✓	✓	No construction water	No construction water
Flushing of mains, sewer, or fire hydrants is prohibited except for emergencies and essential operations.			✓	✓	✓	✓	✓
13. District will implement excessive water use penalties or tier water rates to discourage excessive water use.			✓	✓	✓	✓	✓
14. Motor vehicles or equipment shall be washed only with buckets or hoses with shutoff nozzles.			✓	✓			
Motor vehicles or equipment shall be washed only at commercial establishments that use recycled or reclaimed water .					✓	✓	✓
15. Operators of hotels and motels offer patrons the option of not having their towels and linens washed daily.			✓	✓	✓	✓	✓
16. Installation of new turf or landscaping is prohibited.				✓	✓	✓	✓
17. Water use shall be restricted so as to meet the minimum requirements for personal health and safety.				✓	✓	✓	✓
18. No new connections to the District water distribution system will be allowed.				✓	✓	✓	✓
19. No commitments will be made to provide service for new water service connections (No new "Will Serve" letters will be issued).							✓

**BELLA VISTA WATER DISTRICT**  
**DROUGHT CONTINGENCY PLANNING**  
**GRANT APPLICATION**

**APPENDIX G**  
**DISTRICT RESOLUTION**

**RESOLUTION NO. 2017-X**

**RESOLUTION  
OF THE  
BOARD OF DIRECTORS  
BELLA VISTA WATER DISTRICT**

**FOR A GRANT FROM THE UNITED STATES BUREAU OF RECLAMATION  
WATERSMART DROUGHT RESPONSE PROGRAM: DROUGHT  
CONTINGENCY PLANNING GRANTS FOR FISCAL YEAR 2017**

Whereas, the Bella Vista Water District is a public agency and is eligible to submit an application for funding from the WaterSMART Drought Response Program: Drought Contingency Planning Grants for Fiscal Year 2017;

Whereas, the Bella Vista Water District would like to develop a Drought Contingency Plan in conformance with United States Bureau Reclamation guidelines that addresses drought monitoring, a vulnerability assessment, mitigation actions, response actions, operational and administrative framework and a plan update process, and have the project partially funded with monies from this grant program;

Whereas, Bella Vista Water District will commit to the financial and legal obligations associated with receipt of financial assistance under the grant program;

Whereas, the Bella Vista Water District Board of Directors has reviewed and supports the proposed application;

Whereas, the Bella Vista Water District has the full capability to provide the amount of funding and/or in-kind contributions specified in the funding plan;

Whereas, if selected for a grant, the Bella Vista Water District will work with United States Bureau of Reclamation to meet established deadlines for entering into a cooperative agreement.

RESOLVED by the Board of Directors of the Bella Vista Water District that pursuant and subject to all of the terms and provisions of the WaterSMART: Drought Response Program: Drought Contingency Planning Grant Application, and amendments thereto, application by this District be made to the United States Bureau of Reclamation to obtain a grant to perform Drought Contingency Planning.

The President of the Board of Directors and/or General Manager is hereby

authorized and directed to prepare the necessary data, make investigations, sign, and file such application with the United States Bureau of Reclamation.

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PASSED AND ADOPTED at a regular meeting of the Board of Directors of the Bella Vista Water District on \_\_\_\_\_, 2017.

\_\_\_\_\_  
\_\_\_\_\_, President  
Board of Directors  
Bella Vista Water District

**CERTIFICATE OF SECRETARY**

I hereby certify that I am the Secretary of the Bella Vista Water District and that the foregoing Resolution was duly adopted by the Board of Directors of said District at the meeting duly held in Redding, California on \_\_\_\_\_, 2017, at which meeting a quorum of said Board of Directors was at all times present and acting.

**IN WITNESS WHEREOF**, I have hereunto set my hand and seal of said District this \_\_\_\_ day of \_\_\_\_\_, 2017.

\_\_\_\_\_  
\_\_\_\_\_, Secretary  
Bella Vista Water District