bear valley
WATER DISTRICT

BEAR VALLEY WATER DISTRICT
BOARD MEETING
April 9, 2018 - 9 A.M.
Conference Room
441 Creekside Drive, Bear Valley, CA 95223
Call- In Info: 605-475-5920 Access Code: 475-0045

DECLARATION OF A QUORUM

James Bissell, President - Stefaniya Becking, Vice President - John Boyle, Treasurer - Ken Brown, Secretary
Gunnar Thordarson, Member

BOARD MEETING

Public comments on agenda items will be limited to 3 minutes or otherwise at the discretion of the Board Chair.

PUBLIC FORUM

Any member of the public may address and ask questions of the Board relating to any matter within the Board's jurisdiction provided the matter is not on the agenda or pending before the Board.

BOARD BUSINESS

1. **The Board will consider adoption of the January 22, 2018 Board Meeting minutes**
2. **Division of Safety of Dams (DSOD) Compliance Proposals –** Discussion and Possible Action Item
3. **Personnel Manual Update – Resolution 495 -** Discussion and Possible Action Item
4. **Capacity Charges (Buy-In Fee) – Ordinance 73 -** Discussion and Possible Action Item
5. **Reserve Funds -** Discussion and Possible Action Item
6. **Operations Report – General Manager**
7. **Financial Report – General Manager**

    7.1 P&L and Balance Sheet Reports - Discussion and Possible Action Item
    7.2 Accounts Payable Report - Discussion and Possible Action Item
    7.3 A/R & Aging Reports – Discussion
    7.4 FY 2016-17 Audit - Discussion and Possible Action Item

8. **Board Member Reports**

Materials related to any item on this Agenda are available for public inspection in the District Office at 441 Creekside Drive, Bear Valley, CA 95223 during normal business hours. Information on materials in the agenda is also available on the Bear Valley Water District website at http://www.bearvalleywater.org, subject to staff's ability to post the documents before the meeting. Any material provided to the legislative body at the meeting by agency staff or a member of the legislative body will be available at the public meeting, documents provided by others will be available right after the meeting.

This agenda shall be made available upon request in alternative formats to persons with a disability, as required by the Americans with Disabilities Act of 1990 (42USC, #12132) and the Ralph M. Brown Act, CA Government Code # 54954.2.

Any persons requesting a disability related modification or accommodation in order to participate in the meeting should contact Judi Silber at 209-753-2112, during regular business hours, at least 72 hours prior to the meetings. All regular meetings are held on the third Monday of the month at 9:00 A.M.

AGENDA ITEM

DATE: APRIL 9, 2018

TO: BVWD BOARD OF DIRECTORS

FROM: JEFF GOUVEIA, DISTRICT GENERAL MANAGER

RE: BEAR VALLEY SH DAM NO. 1088 – DAM BREAK ANALYSIS & INUNDATION MAPPING

BACKGROUND & DISCUSSION:

On July 14, 2017 the Division of Safety of Dams (DSOD) notified the District regarding newly adopted regulations effective July 1, 2017 requiring dam owners to prepare emergency action plans (EAP) for their dams and critical appurtenant structures under certain conditions and in specific time limits. Bear Valley SH Dam No. 1088, which refers to the dam at the District's 76.4 MG effluent storage reservoir, is classified as a dam meeting the "significant" hazard classification. Per DSOD, based on this level of classification, the EAP must be completed and submitted by January 1, 2021.

One requirement of the EAP is a dam break analysis followed by an inundation map and associated technical study. In reviewing past history at the District it was determined that the District received a similar inundation map request in 1992 but was able to seek an exemption for a period of two years since certain conditions could be met. To date, the District has never prepared a dam break analysis, inundation map or emergency action plan for Dam No. 1088.

DSOD issued Emergency Regulations on October 2, 2017 requiring inundation maps and dam break/flood routing modeling to confirm or dispute DSOD's hazard ratings for dams designated by DSOD as having significant, high, and extremely high hazard ratings. Dams such as Bear Valley SH No. 1088 assigned the significant hazard potential classification are those dams where failure or mis-operation of the dam system would result in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or other significant impacts.

Under the guidance of the District Engineer, staff has determined that compliance with the DSOD requirements will necessitate completing the dam break analysis, inundation mapping, technical study and emergency action plan for Dam No. 1088 in order to satisfy the preparation of an EAP by January 1, 2021.

Therefore, on behalf of the District, the General Manager solicited proposals from six (6) reputable engineering firms either referred by the District Engineer or selected by staff which has completed dam break analyses, inundation mapping and emergency action plans in the region.

The firms contacted and solicited for proposals included:

- Condor Earth – Sonora, CA – Tel: 209.532.0361
- Mead & Hunt, Inc. – Sacramento, CA – Tel: 916.971-3961
- Domenichelli & Associates – El Dorado Hills, CA – Tel: 916.933.1997
- West Consultants – Folsom, CA – Tel: 916.932.7402
- GEI Consultants, Inc. – Rancho Cordova, CA – Tel: 916.631.4500
- HDR, Inc. – Folsom, CA – Tel: 916.817.4913

The Scope of Work requested of the six (6) engineering firms consisted of:

- Compliance with Department of Water Resources DSOD Dam Break Analysis and Inundation Map Regulations

- Compliance with the 2013 FEMA guidelines for inundation mapping - FEMA P-946
- Compliance with newly enacted state law - California Water Code Sections 6160 and 6161 (Effective July 1, 2017)
- Compliance with DSOD Emergency Regulations – No, 2017-1009-03E – Posted October 19, 2017

Proposals received are as follows:

- Condor Earth - $ 17,670 (dam break and inundation mapping only)
- Mead & Hunt, Inc. - $ 19,614 (dam break and inundation mapping only)
- Domenichelli & Associates - $ 26,340 (includes EAP) - $ 20,190 (excluding EAP)
- West Consultants, Inc. - $37,972 (includes EAP) - $30,506 (excluding EAP)
- GEI Consultants - $ 45,242 (includes EAP) - $36,578 (excluding EAP)
- HDR, Inc. – Declined to Submit due to workload issues

Nearly every firm solicited has indicated that many Districts are preparing their own Emergency Action Plans and suggested BVWD could complete this task as well. Several firms have forwarded the template the State requires be used to prepare the plan. In light of these recommendations and receipt of the template as well as in the interest of reducing the overall cost of this project, staff believes the EAP can be completed in house. Staff intends to complete the EAP following receipt of the other contracted deliverables and submit the EAP to the DSOD by the end of FY19 (June 30, 2019).

The Condor Earth and Mead & Hunt proposals exclude the cost of preparing the Emergency Action Plan. However, the West, Domenichelli and GEI proposals include the cost for preparation of the EAP. As noted above, Staff plan to complete the EAP in house and the cost excluding the EAP work has been provided to better compare and clarify the net cost if the completion of the EAP is eliminated.

RECOMMENDATION:

The proposals received from the five (5) engineering firms which submitted proposals are responsive to the request and appear to provide the requested deliverables in order to assist the District in meeting the DSOD requirements on schedule. Each of the firms appears to have similar experience and qualifications with dam break analyses and inundation mapping in California and offer licensed and experienced professionals.

However, what is uncertain and hard to ascertain is the amount of time that may be required to respond to DSOD comments to the initial submission as well as any revisions to the maps, technical memorandum and digital files. It appears the cost of this specific task may range from as little as $1212 (GEI) to as much as $3500 (Condor).

In light of the concern surrounding the cost to respond to DSOD comments and related revisions, while the initial Condor Earth proposal is the lowest, when the additional potential added cost of up to $3500 is included, the Mead & Hunt, Inc. proposal appears to be the lower cost option and alleviates this uncertainty.

Award the Bear Valley SH Dam No. 1088 dam break analysis, inundation mapping and technical study to Mead & Hunt, Inc. for $19,614 per their proposal.

ACTION:

1. Motion to Accept the proposal from Mead & Hunt, Inc. for $19,614

Attachments:
- Condor Earth Proposal
- Mead & Hunt, Inc. Proposal
- Domenichelli & Associates Proposal
- West Consultants Proposal
- GEI Consultants, Inc. Proposal

State of California
California Natural Resources Agency
DEPARTMENT OF WATER RESOURCES
Division of Safety of Dams

INFORMATIONAL NOTICE
EMERGENCY REGULATIONS FOR INUNDATION MAPS

The Division of Safety of Dams is drafting emergency regulations to implement the new statutes contained in Sections 6160 and 6161 of the California Water Code requiring inundation maps and emergency action plans (EAP) for dams and their critical appurtenant structure(s). Dams classified as "low" are exempt from this requirement per Section 6160(c).

The regulations will provide the general framework for preparing and submitting inundation map(s) contained within an EAP. Upon approval, the emergency regulations will be effective until the permanent regulations are established through the regular rulemaking process.

A draft version of the emergency regulations will be posted soon at www.damsafety.water.ca.gov. You may email comments related to these draft regulations to mapregs@water.ca.gov.

Please visit www.damsafety.water.ca.gov for the status of the regulations and other informational documents, including a link to frequently asked questions.

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

July 14, 2017

Mr. Jeff Gouveia, General Manager
Bear Valley Water District
Post Office Box 5027
Bear Valley, California 95223

Bear Valley SH Dam, No. 1088.000
Alpine County

The Division of Safety of Dams (Division) has updated the hazard classification for all dams under State jurisdiction with respect to dam safety. This classification is based solely on downstream hazard considerations, not the actual condition of the dam or its critical appurtenant structures. We have determined that the dam listed above has a "significant" hazard classification. Dams in this category have the potential to impact downstream property should they fail or undergo an uncontrolled release from the dam or major water impounding barrier.

Newly enacted state law that became effective July 1, 2017, requires dam owners to prepare an emergency action plan (EAP) for their dams and critical appurtenant structures under certain conditions and in specific time limits (Water Code Sections 6160 and 6161). For dams meeting the "significant" hazard classification, the EAP must be completed and submitted for the subject dam by **January 1, 2021**. Prior to this date, as required under the new law, an inundation map must be submitted for review and approval by the Division.

Although this Division will be responsible for reviewing and approving the inundation maps, the California Office of Emergency Services (Cal OES) will oversee and approve EAPs in accordance with Government Code Section 8589.5. More information regarding EAPs and the legal responsibilities of dam owners is available at the following websites: www.water.ca.gov/damsafety and www.caloes.ca.gov. Additionally, the full text of the new law (SB 92, Committee on Budget and Fiscal Review, Statutes of 2017) can be found here: www.leginfo.legislature.ca.gov.

If there was an existing EAP as of March 1, 2017, the inundation map contained in the plan must still be submitted for our review and approval in accordance with Section 6161.(a)(4) of the Water Code. Once we determine the inundation map is sufficient, the EAP must be finalized and submitted to Cal OES and our office in accordance with Section 6161.(a)(3).

In accordance with the Federal Emergency Management Agency's guidelines, we consider EAPs a critical component of a responsible dam safety program. Therefore, we advise you to work closely with your local emergency management agency (EMA) and Cal OES and to coordinate your activities with them in order to facilitate an effective EAP development process. As part of our efforts to assist in these matters, local EMAs are being advised of these new requirements.

We will notify you if any changes occur that could affect these requirements. We look forward to working with you and appreciate your cooperation.

If you have any questions or need additional information, please contact Area Engineer Param Dhillon at (916) 227-4621 or Regional Engineer Andrew Mangney at (916) 227-4631. Questions concerning EAPs should be directed to Cal OES at eap@caloes.ca.gov.

Sincerely,

Sharon K. Tapia

Sharon K. Tapia, Chief
Division of Safety of Dams

Certified Mail

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

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August 2017

Mr. Jeff Gouveia, General Manager
Bear Valley Water District
Post Office Box 5027
Bear Valley, California 95223

Bear Valley SH Dam, No. 1088.000
Alpine County

In response to requests pursuant to the Public Records Act and the State's effort to bolster transparency in government, the California Division of Safety of Dams (DSOD) will soon publicly release information related to all dams under the State's jurisdiction.

This letter is to inform you that the following information about your dam will be made available soon on DSOD's website for public viewing (www.water.ca.gov/damsafety):

- Downstream hazard classification
- Reservoir restriction status
- Condition assessment

As you have been recently notified, DSOD updated the downstream hazard classification for all State jurisdictional dams in accordance with Sections 6160 and 6161 of the California Water Code. The updated hazard classification for your dam is "significant."

As described by the Federal Emergency Management Agency, a dam hazard classification represents the possible adverse incremental consequences that result from the release of water or stored contents due to failure of the dam or mis-operation of the dam or appurtenances. It does not represent the current condition of the dam.

DSOD may order a reservoir to be operated to a specific level that is lower than the maximum design storage level when a dam or its appurtenant structure(s) has a known major deficiency or when repairs are not resolved in a timely manner. Restrictions are lifted once the deficiency is remediated or studies demonstrate that the dam is safe for continued use. The reservoir level of your dam is not currently restricted for a deficiency related to dam safety.

In accordance with the annual data collected by the US Army Corp of Engineers for the National Inventory of Dams, DSOD rates the condition of all jurisdictional dams as satisfactory, fair, poor, unsatisfactory, or not rated. Dams without identified deficiencies are considered satisfactory, whereas dams with unresolved deficiencies will be considered in fair, poor, or unsatisfactory condition depending on the severity of the deficiencies. Your dam has been rated in "satisfactory" condition.

If you have any questions about the ratings assigned to your dam or the release of this information, please contact Area Engineer Param Dhillon at (916) 227-4621 or Regional Engineer Andrew Mangney at (916) 227-4631.

Sincerely,

Sharon K. Tapia

Sharon K. Tapia, Chief
Division of Safety of Dams

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY
EDMUND G. BROWN JR., Governor

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

October 2, 2017

Mr. Jeff Gouveia, General Manager
Bear Valley Water District
Post Office Box 5027
Bear Valley, California 95223

RECEIVED OCT - 9 2017

Bear Valley SH Dam, No. 1088.000
Alpine County

This letter is being sent to all dam owners as part of our efforts to bolster dam safety by ensuring safe passage of spillway releases for the upcoming winter flood season. Before this year's flood season, complete all necessary spillway maintenance work, such as removing any debris or vegetation within the spillway approach and channel sections and, if applicable, patching small holes and sealing cracks and joints within the channel lining, clearing spillway drains, and securing all log booms. Every effort must be made to complete this minor maintenance work by November 1, 2017. In addition, spillways should be inspected and repaired as needed after any releases are made throughout the flood season to ensure they remain safe for continued use.

If you have any questions or need additional information, please contact Area Engineer Param Dhillon at (916) 227-4621 or Regional Engineer Andrew Mangney at (916) 227-4631.

Sincerely,

Sharon K. Tapia

Sharon K. Tapia, Chief
Division of Safety of Dams

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY
EDMUND G. BROWN JR., *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

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October 2, 2017

NOTICE OF PROPOSED EMERGENCY REGULATORY ACTION

Subject: Dam Inundation Maps

The California Department of Water Resources (Department) proposes this emergency rulemaking action under the Administrative Procedure Act (APA) to adopt regulations that establish criteria for dam owners to prepare and submit inundation maps for review and approval by the Department. Specifically, these emergency regulations specify definitions, scenarios, and submittal requirements for inundation maps for dams that could impact downstream life or property. The Department proposes these emergency regulations for adoption into California Code of Regulations, Title 23, Division 2, Chapter 1, Article 6.

Under the APA, Government Code section 11346.1, subdivision (a)(2), requires that, at least five working days prior to submission of the proposed emergency action to the Office of Administrative Law (OAL), the adopting agency provide a notice of the proposed emergency action to every person who has filed a request for notice of regulatory action with the agency. After submission of the proposed emergency regulations to OAL, it shall allow interested persons five (5) calendar days to submit comments on the proposed emergency regulations as set forth in Government Code section 11349.6. Upon submission, OAL will have ten (10) calendar days within which to review and make a decision on the proposed emergency regulations. The emergency regulations will become effective when OAL files the regulations with the Secretary of State.

The specific language of the Department's proposed emergency regulations and Finding of Emergency are posted on the Department's website at: http://www.water.ca.gov/public_notices/.

If you have any questions regarding this proposed emergency action, please contact Michael Waggoner, Chief, Field Engineering Branch, Division of Safety of Dams, Department of Water Resources, at (916) 227-9800 or via email at MapRegs@water.ca.gov.

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

EDMUND G. BROWN JR., *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

RECEIVED NOV - 6 2017

November 2, 2017

NOTICE TO OWNERS OF STATE JURISDICTIONAL DAMS

Subject: Emergency Regulations for Dam Inundation Maps

Senate Bill 92 added Sections 6160 and 6161 to the Water Code that became effective on June 27, 2017, requiring owners of State regulated dams, except those classified as low hazard, to prepare emergency action plans (EAPs) containing inundation maps for emergency preparedness. On October 19, 2017, emergency regulations were adopted to provide standards for preparing and submitting inundation maps to this Division for our review and approval. These regulations are available at http://www.water.ca.gov/damsafety/statutes_regulations/index.cfm.

Owners must submit EAPs to the Governor's Office of Emergency Services (Cal OES) for approval by deadlines that are based on the dam's downstream hazard classification. Owners received letters in July identifying their dam's hazard classification and the statutory deadlines for submitting EAPs as shown below:

- Extremely high hazard dams: January 1, 2018
- High hazard dams: January 1, 2019
- Significant hazard dams: January 1, 2021

It is important to note that inundation maps must first be submitted to this Division for review and approval, and only approved inundation maps should be contained within EAPs that are submitted to Cal OES for their approval. For more information on the Cal OES EAP program, please visit http://www.caloes.ca.gov.

Upon approval of the EAP by Cal OES, owners are responsible for ensuring that the approved EAP is disseminated to appropriate public safety and emergency management agencies, which includes our Division. Thank you for your cooperation.

If you have any questions or need additional information, please contact Kristen Martin at (916) 227-2170 or MapRegs@water.ca.gov.

CONDOR EARTH
21663 Brian Lane, P.O. Box 3905
Sonora, CA 95370
209.532.0361
Fax 209.532.0773
www.condorearth.com

WORK ORDER AGREEMENT

We are pleased to acknowledge the following work assignment. CONDOR EARTH TECHNOLOGIES, INC., hereinafter referred to as CONDOR, agrees to perform, and CLIENT agrees to pay for services performed in accordance with the scope of work set forth in this WORK ORDER AGREEMENT (AGREEMENT). This AGREEMENT supersedes any and all negotiations, correspondence, or agreements either written or oral.

Order Received by:	Brad Peterson	Date: February 5, 2018
Authorized by:	Jeff Gouveia	Project No.: 7629
Invoice to:	Bear Valley Water District	
	PO Box 5027	
	Bear Valley, CA 95223	
Name of Job:	Dam Break Analysis and Inundation Map for Bear Valley SH Dam No. 1088.000	
Location of Job:	Alpine County, California	
Scope of Work:	As described in the attached Proposal, dated February 5, 2018.	
Fees to be Charged**:	Time-and-expense not to exceed $17,670 per the attached Proposal.	

* The "Terms for Geotechnical, Civil Engineering, and Special Inspection Services" are part of this AGREEMENT.
* Fee schedule, if attached, is considered part of this AGREEMENT.

The parties have read the foregoing, understand completely the terms, and willingly enter into this AGREEMENT effective on the date signed below by CLIENT.

BEAR VALLEY WATER DISTRICT	CONDOR EARTH TECHNOLOGIES, INC.
By:	By: Ronald L. Skaggs
Printed Name:	Printed Name: Ronald L. Skaggs
Position:	Position: Vice President Engineering
Date:	Date: February 5, 2018
	License No.: CE No. 44588

TERMS FOR GEOTECHNICAL, CIVIL ENGINEERING and SPECIAL INSPECTION SERVICES

PREVAILING WAGE

Unless specifically stated in an approved Work Order, Condor will neither pay Prevailing Wage nor provide Certified Payroll. CLIENT understands that it is CLIENT's responsibility to notify CONDOR of any Prevailing Wage and/or Certified Payroll requirements prior to work-scope and fee development. CLIENT is responsible for paying all back-wages, penalties and other costs associated with Prevailing Wage requirements that CONDOR was not notified of, in writing, prior to execution of this Agreement. CLIENT waives any claim against CONDOR, and agrees to defend, indemnify and hold CONDOR harmless from any claim or liability for injury or loss allegedly arising from CONDOR's failure to pay Prevailing Wages unless CONDOR was specifically notified of the requirement to pay prevailing wages prior to or upon execution of this Agreement. CLIENT also agrees to compensate CONDOR for any time spent or expenses incurred by CONDOR in defense of any such claim, in accordance with CONDOR's current fee schedule and expense reimbursement policy.

In accordance with the previous paragraph, the Work to be performed under this Agreement is designated as (select one and sign):

☐ Prevailing Wage _____
(CLIENT Signature)

☒ Non – Prevailing Wage _____
(CLIENT Signature)

STANDARD OF CARE

CLIENT recognizes that subsurface conditions may vary from those observed at locations where borings, surveys, or explorations are made, and that site conditions may change with time. Data, interpretations, and recommendations by CONDOR will be based solely on information available to CONDOR. CONDOR is responsible for those data, interpretations, and recommendations, but will not be responsible for other parties' interpretations or use of the information developed.

Services performed by CONDOR under this AGREEMENT are expected by CLIENT to be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the geotechnical and civil engineering profession practicing contemporaneously under similar conditions in the locality of the project. Under no circumstance is any warranty, expressed or implied, made in connection with the providing of geotechnical and civil engineering services.

SITE ACCESS AND SITE CONDITIONS

CLIENT will grant or obtain free access to the site for all equipment and personnel necessary for CONDOR to perform the work set forth in this AGREEMENT. CLIENT will notify any and all possessors of the project site that CLIENT has granted CONDOR free access to the site. CONDOR will take reasonable precautions to minimize damage to the site, but it is understood by CLIENT that, in the normal course of work, some damage may occur and the correction of such damage is not part of this AGREEMENT unless so specified in the PROPOSAL.

CLIENT is responsible for accurately delineating the locations of all subterranean structures and utilities. CONDOR will take reasonable precautions to avoid known subterranean structures, and CLIENT waives any claim against CONDOR, and agrees to defend, indemnify, and hold CONDOR harmless from any claim or liability for injury or loss, including costs of defense, arising from damage done to subterranean structures and utilities not identified or accurately located. In addition, CLIENT agrees to compensate CONDOR for any time spent or expenses incurred by CONDOR in defense of any such claim, with compensation to be based upon CONDOR's prevailing fee schedule and expense reimbursement policy.

INDEPENDENT CONSULTANT STATUS

Except as may otherwise be noted herein, CONDOR shall serve as an independent consultant to CLIENT and shall have control over and be responsible for the means and methods for providing services under this AGREEMENT. It is specifically understood that, irrespective of any assignability provisions, CONDOR may retain subcontractors to perform services usually performed by subcontractors and, should CONDOR determine it appropriate or necessary to rely on a subcontractor where it is not customary to do so, CONDOR shall obtain prior written approval or subsequent written confirmation from CLIENT.

MAINTENANCE OF PROFESSIONAL STANDARDS AND ETHICS

CLIENT recognizes that CONDOR's services in all cases must be rendered in accordance with prevailing professional standards and ethics, as well as certain laws or regulations that apply specifically to CONDOR.

MONITORING

If CONDOR is retained by CLIENT to provide a site representative for the purpose of monitoring specific portions of construction work or other field activities as set forth in this AGREEMENT, then this phrase applies. For the specified assignment, CONDOR will report observations and professional opinions to CLIENT. No action of CONDOR or CONDOR's site representative can be construed as altering any AGREEMENT between CLIENT and others. CONDOR will report to CLIENT any observed civil or geotechnical related work which, in CONDOR's professional opinion, does not conform with plans and specifications. CONDOR has no right to reject or stop work of any agent of the CLIENT. Such rights are reserved solely for CLIENT. Furthermore, CONDOR's presence on site does not in any way guarantee the completion or quality of the performance of the work of any party retained by CLIENT to provide field or construction related services.

CONDOR will not be responsible for and will not have control or charge of specific means, methods, techniques, sequences or procedures of construction or other field activities selected by any agent or agreement of CLIENT, or safety precautions and programs incident thereto. CONDOR may be asked for recommendations concerning field procedures. Any such recommendations provided to the CLIENT by CONDOR do not constitute responsible charge of construction procedures, and are subject to the Standard of Care section of these terms.

SAMPLE DISPOSAL

CONDOR will dispose of all remaining soil, rock, concrete, or other material samples sixty (60) days after submission of the report covering those samples. Further storage or transfer of samples can be made at CLIENT's expense upon CLIENT's prior written request.

OWNERSHIP OF INSTRUMENTS OF SERVICE

All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates and other documents prepared by CONDOR are instruments of service and shall remain the property of CONDOR. CONDOR shall retain these records for a period of one (l) year following submission of reports related to the scope of work under this AGREEMENT, during which period they will be made available to CLIENT at all reasonable times.

INFORMATION PROVIDED BY OTHERS

CONDOR shall indicate to CLIENT the information needed for rendering of service, and CLIENT shall provide to CONDOR such information as is available to CLIENT. CLIENT recognizes that it is impossible for CONDOR to assure sufficiency of such information, either because it is impossible to do so, or because of errors or omissions which may have occurred in assembling the information. Accordingly, CLIENT waives any claim against CONDOR, and agrees to defend, indemnify and hold CONDOR harmless from any claim or liability for injury or loss allegedly arising from errors, omissions or inaccuracies in documents or other information provided to CONDOR by CLIENT. Further, CLIENT agrees to compensate CONDOR for any time spent or expense incurred by CONDOR in defense of any claim, with such compensation to be based upon CONDOR's prevailing fee schedule and expense reimbursement policy.

SUBSURFACE RISKS

CLIENT recognizes that special risks occur whenever engineering or related disciplines are applied to identify subsurface conditions. Even a comprehensive sampling and testing program, implemented with the appropriate equipment and experienced personnel under the direction of a trained professional who functions in accordance with a professional standard of care, may fail to detect certain conditions because they are hidden and therefore cannot be considered in development of a subsurface exploration program. For similar reasons, actual geologic, geotechnical and environmental conditions that CONDOR infers to exist between sampling points may differ significantly from those that actually exist. The passage of time also must be considered, and CLIENT recognizes that, due to natural occurrences or direct or indirect human intervention at the site or distant from it, actual conditions discovered may change. CLIENT realizes that nothing can be done to eliminate these risks altogether, but certain techniques can be applied by CONDOR to help reduce them to that level deemed tolerable by CLIENT. CONDOR is available to explain these risks and risk reduction methods to CLIENT but, in any event, the scope of services included with this AGREEMENT is that which CLIENT agreed to or selected in light of his own risk preferences and other considerations.

CHANGED CONDITIONS

CLIENT has relied on CONDOR's judgment in establishing the geotechnical engineering work scope and fee for this project, given the project's nature and risks. CLIENT shall therefore rely on CONDOR's judgment as to the continued adequacy of this

AGREEMENT in light of occurrences or discoveries that were not originally contemplated by or known to CONDOR. Should CONDOR call for contract renegotiation, CONDOR shall identify the changed conditions which in CONDOR's professional judgment make such renegotiation necessary, and CONDOR and CLIENT shall promptly and in good faith enter into renegotiation of this AGREEMENT to permit CONDOR to continue to meet CLIENT's needs. If renegotiated terms cannot be agreed to, CLIENT agrees that CONDOR has an absolute right to terminate this Agreement.

DISCOVERY OF UNANTICIPATED HAZARDOUS MATERIALS

CLIENT represents that CLIENT has made a reasonable effort to evaluate if hazardous materials are on or near the project site, and that CLIENT has informed CONDOR of CLIENT's findings relative to the possible presence of such materials.

Hazardous materials may exist at a site where there is no reason to believe they could or should be present. CONDOR and CLIENT agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work or termination of services. CONDOR and CLIENT also agree that the discovery of unanticipated hazardous materials may make it necessary for CONDOR to take immediate measures to protect health and safety. CLIENT agrees to compensate CONDOR for any equipment decontamination or other costs incident to the discovery of unanticipated hazardous materials.

CONDOR agrees to notify CLIENT when unanticipated hazardous materials or suspected hazardous materials are encountered. CLIENT agrees to make any disclosures required by law to the appropriate governing agencies. CLIENT also agrees to hold CONDOR harmless for any and all consequences of disclosures made by CONDOR or CLIENT that are required by governing law. In the event the project site is not owned by CLIENT, CLIENT recognizes that it is CLIENT's responsibility to inform the property owner of the discovery of unanticipated hazardous materials or suspected hazardous materials.

Notwithstanding any other provision of the AGREEMENT, CLIENT waives any claim against CONDOR and, to the maximum extent permitted by law, agrees to defend, indemnify, and save CONDOR harmless from any claim, liability, and/or defense costs for injury or loss arising from CONDOR's discovery of unanticipated hazardous materials or suspected hazardous materials, including, but not limited to, any costs created by delay of the project and any cost associated with possible reduction of the property's value.

CLIENT will be responsible for ultimate disposal of any samples secured by CONDOR which are found to be contaminated.

NATURALLY OCCURRING ASBESTOS (NOA)

CLIENT waives any claim against CONDOR, and agrees to defend, indemnify and hold CONDOR harmless from any claim or liability for injury or loss which may arise as a result of NOA. CLIENT further agrees to compensate CONDOR for any time spent or expenses incurred by CONDOR in defense of any such claim, in accordance with CONDOR's current fee schedule and expense reimbursement policy.

RISK ALLOCATION

Approved:

Many risks potentially affect CONDOR by virtue of entering into this AGREEMENT to perform professional geotechnical/civil engineering services on behalf of CLIENT. The principal risk is the potential for human error by CONDOR. *CONDOR's potential liability to CLIENT and others is grossly disproportionate to CONDOR's fee due to the size, scope, and value of the project*. Therefore, unless CLIENT and CONDOR otherwise agree in writing in consideration for an increase in CONDOR's fee, CLIENT agrees to limit CONDOR's liability to CLIENT and to all other parties, including third parties, arising from CONDOR's professional acts, errors, or omissions such that the total aggregate liability of CONDOR will not exceed $5,000 or CONDOR's total fee for the services rendered under a Work Order, whichever is greater. (If CLIENT wishes to discuss higher limits and the charges involved, he should speak with CONDOR.) CLIENT further agrees to indemnify and hold harmless CONDOR from and against all liabilities in excess of the monetary limit established above. Under no circumstances, however, shall CONDOR have any obligation to defend independently or collectively CLIENT or other Indemnified Parties from and against liability for damages that may arise or be attributed to work performed by CONDOR under this Agreement. Nor shall CONDOR have any obligation to pay for or compensate any party for their defense costs or fees.

CLIENT

CONDOR

CLIENT agrees that where other consultants or contractors are employed by persons other than CONDOR in the work, CLIENT will not hold CONDOR responsible for loss, damage or injury caused by any acts, errors, or omissions of such other consultants or contractors and CLIENT further agrees to look solely to said other consultant or contractor for recovery from them, or any of them, for any such damage or injury.

Limitations on liability and indemnities in this AGREEMENT are business understandings between the parties voluntarily and knowingly entered into, and shall apply to all theories of recovery including, but not limited to, breach of contract, warranty, tort (including negligence), strict or statutory liability, or any other cause of action. The parties also agree that CLIENT will not seek damages in excess of the limitations indirectly through suits with other parties who may join CONDOR as a third-party defendant. Parties means CLIENT and CONDOR and their officers, employees, agents, affiliates, and subcontractors.

Both CLIENT and CONDOR agree that they will not be liable to each other, under any circumstances, for consequential damages arising out of or related to this AGREEMENT. Consequential damages include, but are not limited to, loss of use and loss of profit.

JOBSITE SAFETY

Insofar as jobsite safety is concerned, CONDOR is responsible solely for CONDOR's employees' activities on the jobsite, but this shall not be construed to relieve CLIENT or any construction contractors from their responsibilities for maintaining a safe jobsite. Neither the professional activities of CONDOR, nor the presence of CONDOR employees and subcontractors, shall be construed to imply CONDOR has any responsibility for methods of work performance, superintendence, sequencing of construction, or safety in, on or about the jobsite. CONDOR shall not have the responsibility, authority or ability to remove or correct jobsite hazards. CLIENT agrees that the General Contractor is solely responsible for jobsite safety, and warrants that this intent shall be made evident in the CLIENT's agreement with the General Contractor. CLIENT also warrants that CONDOR shall be made an additional insured under the General Contractor's general liability insurance policy.

BILLING AND PAYMENT

CLIENT shall pay compensation for CONDOR's services and shall pay for CONDOR's reasonable costs incurred in performing the services required by this Agreement as set forth in approved Work Orders. CLIENT agrees that CONDOR's current fee schedule will be the basis for all time-and-materials charges. CLIENT agrees that CONDOR may revise the fee schedule annually. CLIENT will be notified in writing of fee schedule changes.

CLIENT will pay CONDOR in accordance with the procedures indicated in the PROPOSAL and its attachments. Invoices will be submitted to CLIENT by CONDOR, and will be due and payable upon presentation. If CLIENT objects to all or any portion of any invoice, CLIENT will so notify CONDOR in writing within fourteen (14) calendar days of the invoice date, identify the cause of disagreement, and pay when due that portion of the invoice not in dispute. The parties will immediately make every effort to settle the disputed portion of the invoice. In the absence of written notification described above, the balance as stated on the invoice will be paid.

Invoices are delinquent if payment has not been received within thirty (30) days from date of invoice. CLIENT will pay an additional charge of one-and-one-half (1.5) percent per month (or the maximum percentage allowed by law, whichever is lower) on any delinquent amount, excepting any portion of the invoiced amount in dispute and resolved in favor of CLIENT. Payment thereafter will first be applied to accrued interest and then to the principal unpaid amount. All time spent and expenses incurred (including any attorney's fees) in connection with collection of any delinquent amount will be paid by CLIENT to CONDOR per CONDOR's current fee schedules. In the event CLIENT fails to pay CONDOR within sixty (60) days after invoices are rendered, CLIENT agrees that CONDOR will have the right to consider the failure to pay the CONDOR's invoice as a breach of this AGREEMENT.

TERMINATION

This AGREEMENT may be terminated by either party seven (7) days after written notice in the event of any breach of any provision of this AGREEMENT or in the event of substantial failure of performance by the other party, or if CLIENT suspends the work for more than three (3) months. In the event of termination, CONDOR will be paid for services performed prior to the date of termination plus reasonable termination expenses, including, but not limited to the cost of completing analyses, records, and reports necessary to document job status at the time of termination.

DISPUTES RESOLUTION

All claims, disputes, and other matters in controversy between CONDOR and CLIENT arising out of or in any way related to this AGREEMENT will be submitted to "alternative dispute resolution" (ADR) before and as a condition precedent to other remedies provided by law. If and to the extent CLIENT and CONDOR have agreed on methods for resolving such disputes,

then such methods will be set forth in the "Alternative Dispute Resolution Agreement" which, if attached, is incorporated into and made a part of this AGREEMENT. If no specific ADR procedures are set forth in this AGREEMENT, then it shall be understood that the parties shall submit disputes to mediation as a condition precedent to litigation.

If a dispute at law arises from matters related to the services provided under this AGREEMENT and that dispute requires litigation instead of ADR as provided above, then:

(1) the claim will be brought and tried in judicial jurisdiction of the court of the county where CONDOR's principal place of business is located and CLIENT waives the right to remove the action to any other county or judicial jurisdiction, and

(2) the prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, attorneys' fees, and other claim related expenses.

CURING A BREACH

In the event either party believes that the other has committed a material breach of this AGREEMENT, the party maintaining such a belief shall issue a termination notice to the other identifying the facts as perceived, and both parties shall bargain in good faith to cure the causes for termination as stated in the termination notice. If such a cure can be effected prior to the date by which termination otherwise would be effective, both parties shall commit their understanding to writing, and termination shall not become effective. If in curing an actual or alleged breach either party shall waive any rights otherwise inuring to them by virtue of this AGREEMENT, such waiver shall not be construed to in any way affect future application of the provision involved or any other provision. The parties agree that a waiver of breach of one term, covenant, or condition of this AGREEMENT is not a waiver of breach of others, nor of subsequent breach of the one waived.

ASSIGNMENT

Neither this AGREEMENT nor any interest therein shall be assigned by either party without the written consent of the other.

BINDING ON HEIRS

This AGREEMENT shall be binding on and shall inure to the benefit of the heirs, executor, administrators, successors and assigns of the parties hereto.

HEADINGS

The headings contained in this AGREEMENT are for convenience of reference only and in no way limit or define the scope of this AGREEMENT.

GOVERNING LAW AND SURVIVAL

The law of the State of CALIFORNIA will govern the validity of these TERMS, their interpretation and performance.

CLIENT and CONDOR have entered into this AGREEMENT of their own free will, to communicate to one another mutual understandings and responsibilities. If any of the provisions contained in this AGREEMENT are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions will not be impaired. Limitations of liability and indemnities will survive termination of this AGREEMENT for any cause.

CONDOR EARTH
21663 Brian Lane, P.O. Box 3905
Sonora, CA 95370
209.532.0361
Fax 209.532.0773
www.condorearth.com

Condor Proposal No. 7629

February 5, 2018

Mr. Jeff Gouveia, General Manager
Bear Valley Water District
PO Box 5027
Bear Valley, CA 95223

Subject: Proposal for a Dam Break Analysis and Inundation Map for Bear Valley SH Dam No. 1088.000 – Bear Valley, California

Dear Mr. Gouveia:

Condor Earth (Condor) is pleased to provide the following Proposal and fee estimate to the Bear Valley Water District to perform a dam break analysis and corresponding inundation maps for Bear Valley SH Dam (No. 1088.000), in Bear Valley, California. We understand that the California Division of Safety of Dams (DSOD) has classified Bear Valley SH Dam as a "significant" hazard facility. Dams in this category have the potential to impact downstream property should they fail or undergo an uncontrolled release from the dam or major water impounding barrier.

The dam break analysis will be performed using the computer program HEC-RAS. A 2D flow model will be created using a digital terrain model created from available USGS Elevation Sets. The dam will be connected to the 2D flow model as a storage area using stage-storage information provided by the owner. Inundation areas, peak water surface elevations, and arrival times at locations of interest will be generated from the results of the 2D analysis. A sunny day failure scenario will be analyzed for the dam and any appurtenant structure.

Following our analysis, a summary report will be prepared that addresses the technical study requirements in Section 6161. (a) (4) of the California Water Code. Both the technical report and inundation map will be stamped by a licensed California Civil Engineer. The inundation maps submitted in that report are to be included in the District's Emergency Action Plan (EAP).

Condor appreciates the opportunity to present this Proposal and fee estimate. Please feel free to contact us with any questions.

Respectfully submitted,

CONDOR EARTH

Brad Peterson
Project Director

Ronald L. Skaggs, CE No. 44588
Principal Engineer

Attachments:
Fee Estimate Summary
DWR Letter

Fee Estimate Summary
Condor Earth

Project Task and Name:	**Bear Valley Water District** **Dam Break Analysis - Bear Valley SH Dam No. 1088.000** **Bear Valley, California**
Condor Project Number:	**7629**
Prepared by:	**B. Peterson**
Date:	**2/5/2018**

Description	Quantity	Rate Type	Rate	Cost Estimate
Design				
Personnel				
Principal Engineer	2	hr.	$205	$410
Project Director	24	hr.	$195	$4,680
Senior Hydrologist	40	hr.	$175	$7,000
GIS Analyst / CAD Draftsperson	44	hr.	$120	$5,280
Technical Editor	4	hr.	$75	$300
Total Fee Estimate				**$17,670**

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY
EDMUND G. BROWN JR., Governor

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

July 14, 2017

Mr. Jeff Gouveia, General Manager
Bear Valley Water District
Post Office Box 5027
Bear Valley, California 95223

Bear Valley SH Dam, No. 1088.000
Alpine County

The Division of Safety of Dams (Division) has updated the hazard classification for all dams under State jurisdiction with respect to dam safety. This classification is based solely on downstream hazard considerations, not the actual condition of the dam or its critical appurtenant structures. We have determined that the dam listed above has a "significant" hazard classification. Dams in this category have the potential to impact downstream property should they fail or undergo an uncontrolled release from the dam or major water impounding barrier.

Newly enacted state law that became effective July 1, 2017, requires dam owners to prepare an emergency action plan (EAP) for their dams and critical appurtenant structures under certain conditions and in specific time limits (Water Code Sections 6160 and 6161). For dams meeting the "significant" hazard classification, the EAP must be completed and submitted for the subject dam by **January 1, 2021**. Prior to this date, as required under the new law, an inundation map must be submitted for review and approval by the Division.

Although this Division will be responsible for reviewing and approving the inundation maps, the California Office of Emergency Services (Cal OES) will oversee and approve EAPs in accordance with Government Code Section 8589.5. More information regarding EAPs and the legal responsibilities of dam owners is available at the following websites: www.water.ca.gov/damsafety and www.caloes.ca.gov. Additionally, the full text of the new law (SB 92, Committee on Budget and Fiscal Review, Statutes of 2017) can be found here: www.leginfo.legislature.ca.gov.

If there was an existing EAP as of March 1, 2017, the inundation map contained in the plan must still be submitted for our review and approval in accordance with Section 6161.(a)(4) of the Water Code. Once we determine the inundation map is sufficient, the EAP must be finalized and submitted to Cal OES and our office in accordance with Section 6161.(a)(3).

In accordance with the Federal Emergency Management Agency's guidelines, we consider EAPs a critical component of a responsible dam safety program. Therefore, we advise you to work closely with your local emergency management agency (EMA) and Cal OES and to coordinate your activities with them in order to facilitate an effective EAP development process. As part of our efforts to assist in these matters, local EMAs are being advised of these new requirements.

We will notify you if any changes occur that could affect these requirements. We look forward to working with you and appreciate your cooperation.

If you have any questions or need additional information, please contact Area Engineer Param Dhillon at (916) 227-4621 or Regional Engineer Andrew Mangney at (916) 227-4631. Questions concerning EAPs should be directed to Cal OES at eap@caloes.ca.gov.

Sincerely,

Sharon K. Tapia

Sharon K. Tapia, Chief
Division of Safety of Dams

Certified Mail

Jeff Gouveia

From: Brad Peterson <bpeterson@condorearth.com>
Sent: Thursday, March 22, 2018 10:33 AM
To: Jeff Gouveia
Subject: RE: Bear Valley SH Dam #1088 - Emergency Action Planning (EAP)

Jeff,

We could consider adding a $3500 contingency (20%) to cover any responses to DSOD. It is common to have to address comments from the State. May want to add that to your budget to play it safe. Keep in mind that our fee estimate does not include the EAP related work. If you have any questions, or would like to discuss further, feel free to give me a call.

Brad Peterson
Project Director

Condor Earth
Sonora, Stockton, Jamestown, Merced, Rancho Cordova

21663 Brian Lane
Sonora, CA 95370
Phone: (209) 532-0361 ext. 2063
Direct: (209) 536-7372
Mobile: (209) 629-1244
Email bpeterson@condorearth.com
Company Website: www.condorearth.com

From: Jeff Gouveia [mailto:Jeff.Gouveia@bvwd.ca.gov]
Sent: Wednesday, March 21, 2018 4:04 PM
To: Brad Peterson; 'Jeff Gouveia'
Subject: RE: Bear Valley SH Dam #1088 - Emergency Action Planning (EAP)

Brad,

I'm working on my presentation and recommendation to our Board for the DSOD dam break and mapping work.

In my correspondence with other firms, it's come up that we should anticipate the potential for a response from DSOD on the mapping submitted that may require follow up comments that could be beyond our expertise.

Is this your position as well and how would you suggest we handle this if we award Condor this project ?

Thanks.

Jeff Gouveia | **General Manager** |
Bear Valley Water District
441 Creekside Drive I PO Box 5027, Bear Valley, CA 95223 |
O: 209.753.2112 | C : 209.743.0836 | F: 209.753.6267
Jeff.Gouveia@bvwd.ca.gov I http://bvwd.ca.gov I

Mead & Hunt
180 Promenade Circle, Suite 240
Sacramento, California 95834
916-971-3961
meadhunt.com

April 2, 2018

Jeff Gouveia
General Manager
Bear Valley Water District
441 Creekside Drive
Bear Valley, CA 95223

Subject: Proposal for Inundation Mapping for Bear Valley SH Dam

Jeff:

Mead & Hunt, Inc. (Mead & Hunt) is pleased to submit this proposal to provide engineering services for the above-referenced project.

Qualifications

Please see Appendix 1, which contains a statement of qualifications demonstrating Mead & Hunt's ability and skill to perform the contract and relevant experience. In addition to the completed projects listed in Appendix 1, Mead & Hunt is currently preparing, or close to completing, inundation maps for the following agencies/dams:

1) Calaveras Public Utility District / Middle Fork Dam, Calaveras Reservoir, Jeff Davis Reservoir
2) Yolo County FC & Water Conservation District / Indian Valley Reservoir
3) City of Benicia / Lake Herman Dam
4) City of Fairfield / Pennsylvania Creek Dam
5) City of St. Helena / St. Helena Reservoir, Bell Canyon Dam

Mead & Hunt affirms that the staff members listed in Appendix 1 (or other equally skilled staff members) have the availability to perform the proposed Scope of Work in accordance with the proposed Schedule.

Mead & Hunt, founded in the year 1900, has continuously been in business for the last 117 years, which is a testament to the reliability of our business. The firm is entirely owned by its own employees. We carry the amount and type of insurance that is customary in the firm's line of business. Our general liability insurance coverage is $1 million per claim while our professional liability insurance coverage is $5 million per claim.

Project Understanding

Bear Valley Water District (District) owns and operates the Bear Valley SH Dam (DWR No. 1088.000) in Alpine County, California, near the Bear Valley resort area. Bear Valley SH Dam is a 43-foot high earthen structure that stores effluent from the District's adjacent wastewater treatment facility.

The dam is regulated by the California Department of Water Resources' (DWR) Division of Safety of Dams (DSOD). Following recent legislative and regulatory developments with respect to dam safety, the District has requested that Mead & Hunt submit a proposal to prepare inundation maps for the dam.

Proposed Approach

Governing Criteria for the Study

In October 2017, DWR completed the process of promulgating emergency regulations (hereinafter referred to as "DWR Emergency Regulations") under the authority granted by Senate Bill 92. The DWR Emergency Regulations primarily affected the approach and methods used in preparing inundation maps, as outlined in Title 23 of the California Code of Regulations. The new regulations prominently affect four areas of inundation mapping:

1) Hazard potential classification
2) When updates are needed
3) Technical study requirements
4) Map production requirements

Therefore, all tasks described hereunder will be performed in accordance with Water Code Sections 6160 and 6161, the DWR Emergency Regulations for Inundation Maps adopted on October 19, 2017 (23 CCR 335 et seq.), and FEMA P-946 ***Federal Guidelines for Inundation Mapping of Flood Risks Associated with Dam Incidents and Failures*** (2013) which is adopted by reference into the DWR Emergency Regulations.

It is important to note that DWR is in the process of promulgating final regulations to replace the emergency regulations. The final regulations are expected to come into effect in the fall of 2018. Foreseeably, the final regulations will vary in some respects from the emergency regulations. If required, an amendment to the scope and budget will be requested based on the final regulations.

Structures Included in Study

State regulations require that inundation maps be prepared for critical appurtenant structures in addition to the main dam. Based on our discussions with the District, we assume that the following critical appurtenant structures exist:

1) North Dam
2) South Dam
3) Low-level outlet

Accordingly, the scope of work covers the three structures identified above. It is assumed that the unlined spillway in the southwest corner of the reservoir impounds no water at the maximum water storage elevation authorized in the DWR Certificate of Approval for the dam, and therefore does not meet the definition of a critical appurtenant structure.

Failure Scenarios

As per Title 23 California Code of Regulations Section 335.12(c), a sunny day failure scenario is required for each dam and critical appurtenant structure. A storm-induced failure may be submitted at the discretion of the dam owner, but is not required. Therefore, inundation mapping will be developed for the sunny day failure scenario only.

Scope of Services

Mead & Hunt will perform the following services:

TASK 1 – HYDRAULIC ANALYSIS

Mead & Hunt will schedule a conference call for project kickoff with the District. Mead & Hunt will develop a list of information required from the District to complete the work. Mead & Hunt will review available drawings, maps, terrain and hydrologic data, and state/federal standards for deliverables.

Inundation area boundaries and flood data will be produced by simulating the dam and critical appurtenant structure failures using a HEC-RAS hydraulic model. Mead & Hunt will use a 2D, unsteady flow HEC-RAS model for this work. Hydrologic assumptions and model boundary conditions will be developed to represent the sunny day scenarios. The failure scenarios will utilize breach parameters as described in FEMA P-946.

The assumed source of elevation data for the HEC-RAS model is the U.S. Geological Survey (USGS) National Elevation Dataset (NED) 1/3 arc-second topographic grid data, which was most recently published in 2013 for the study area. Manning's n roughness coefficient values will be developed using the National Land Cover Dataset (NLCD) grid data and refined as needed based on aerial imagery and ground-based photography. A building outlines shapefile, if available, may also be used to refine the Manning's n value layer in HEC-RAS. Hydraulic structures will be added to the 2D model where bridges, culverts or levees are expected to significantly alter the flow path.

The geographic extent of the hydraulic model simulation is assumed to terminate in accordance with FEMA P-946 at McKays Point Diversion Dam (DWR No. 1024.006). The extent of the mapped inundation area may terminate in accordance with the DWR Emergency Regulations upstream of this location.

A sequential dam failure scenario is required for an upstream dam system that causes the failure of one or more downstream dam systems. It is assumed that McKays Point Diversion Dam would not fail as a result of a failure at Bear Valley SH Dam, and therefore no sequential failure analysis will be performed. This assumption will be checked based on the hydraulic model results and appropriate documentation provided in the technical memorandum.

TASK 2 – MAPPING AND REPORTING

Mead & Hunt will develop inundation maps for the dam and critical appurtenant structures for the modeled sunny day failure scenario. For each dam and critical appurtenant structure, two maps will be developed according to the DWR Emergency Regulations: one with flood wave arrival time contours and one with deflood time contours. The maps will be produced for a 11”x17” page size at a scale of 1:24,000 (1 inch = 2,000 feet).

Mead & Hunt will write a technical memorandum describing the methodology and assumptions of the study. PDF files of the draft maps and technical memorandum will be submitted to the District for review. The draft technical memorandum will also be submitted in MS Word format. After receiving District comments, the maps and technical memorandum will be revised and submitted to DSOD, including two hard copies and electronic versions. Digital files will also be submitted to DSOD, as required in the DWR Emergency Regulations, to include a vector file of the inundation area boundary and raster files of the flood wave arrival time, maximum depth, peak velocity and deflood time.

After receiving comments from DSOD, Mead & Hunt will revise the maps, technical memorandum, and digital files and resubmit for DSOD approval, if necessary.

Deliverables

- Draft and final inundation maps, to District (PDF)
- Draft and final technical memorandum, to District (PDF and MS Word)
- Draft inundation maps and technical memorandum, to DSOD (2 hard copies and PDF)
- Digital files, to DSOD (electronic files)
- Final DSOD-approved inundation maps, technical memorandum, and digital files, to District (PDF and electronic files)

Schedule

- Draft inundation maps, technical study: 4 months after written notice to proceed.
- Final inundation maps, technical study: 1 month after receiving District’s, DSOD’s, or CalOES’s comments on drafts.

Assumptions and Responsibilities of District

- We assume that publicly-available elevation data published by USGS is the best available elevation data, and that it will be sufficiently detailed and accurate for the purposes of this work.
- The assumed downstream extent of model simulation and inundation mapping is as described under Task 1 above.
- If additional data is needed to support modeling of culverts, bridges, or other hydraulic structures, we assume that the District will provide basic measurements and photographs of the structures in question as requested by Mead & Hunt.

- The District will provide a cover letter on District letterhead to be included in each submittal package to DSOD and CalOES.
- The District will provide access to the project site (if needed), available data, drawings and information related to the project.
- The District will provide available as-built drawings, reservoir stage-storage relationships, and other pertinent information related to the dam and critical appurtenant structures.
- The District will coordinate with other dam owners, municipalities, and counties to request data relevant to the work, as requested by Mead & Hunt.
- The District will protect Mead & Hunt-supplied digital information or data, if any, from contamination, misuse, or changes.

Compensation

The work described under the Scope of Services will be performed on a lump-sum basis for a total sum of $19,614. The task-wise breakdown of estimated cost is shown below.

Table 1: Task-wise breakdown of estimated cost

Task No.	Task Name	Cost
1	Hydraulic Analysis	$9,687
2	Mapping and Reporting	$9,927
	TOTAL	**$19,614**

We appreciate the opportunity to submit this proposal to the District.

Respectfully submitted,

MEAD & HUNT, Inc.

Rahul Ranade, PE
Senior Associate

DOMENICHELLI AND ASSOCIATES, INC.
CIVIL ENGINEERING

Jeff Gouveia
General Manager
Bear Valley Water District
441 Creekside Drive, PO Box 5027
Bear Valley, CA 95223

March 30, 2018

RE: Proposal to provide an Emergency Action Plan with Inundation Mapping Services for Bear Valley SH Reservoir

Dear Jeff,

Domenichelli and Associates, Inc. (D&A) is pleased to submit the following proposal for completion of an Emergency Action Plan (EAP) with Inundation Mapping for the Bear Valley SH Dam (as named in the DSOD listing of jurisdictional dams). We understand that the dam has been classified as having "significant" hazard potential in the event of a dam failure, and therefore is under a submittal deadline of January 2021. Our objective with this proposal is to demonstrate to the Bear Valley Water District (BVWD) that our team has recent and relevant experience with similar projects and that we can provide the necessary deliverables in a timely manner at reasonable costs.

The following highlights some of our firm's qualifications and approaches:

Extensive Modeling and Mapping Experience – Since 2002, D&A has provided hydraulic modeling and mapping for multiple agencies and private entities. Recent complete work includes inundation studies for Bass Lake Dam, Holiday Lake Dam and Hinkle Reservoir all within the Sierra foothills. We are also currently preparing EAPs and inundation maps for a local community HOA and a private landowner near our office in El Dorado Hills. We also have new inundation studies underway for Paradise Reservoir and Magalia Reservoirs in Butte County.

Client and Project Commitment – Our company workload is very manageable. As a smaller firm, we can easily plan when and what type of work to pursue in order to best utilize our staff. We have carefully reviewed our workload and are confident that we can devote the necessary staff to complete the work on your project in a timely manner.

Competitive Costs – As a small business, we can provide high level service at competitive rates. With our understanding of the project and the limits of the detailed mapping, we will provide cost effective solutions.

Thank you for the opportunity to provide this proposal for your important project. We look forward to working with you. If you have any questions or require additional information, please do not hesitate to contact me at (916) 933-1997.

Sincerely,

Joe Domenichelli, President

Domenichelli and Associates, Inc.

Qualifications

Company Overview and Project Background:

Domenichelli & Associates (D&A) is a water resources engineering firm serving northern California, in the areas of water supply, wastewater and drainage infrastructure planning and design. We are a registered small business firm of five registered engineers, five engineers in training and additional staff support. Our relatively small firm of skilled technical staff allows us to provide high level engineering services and reasonable rates. Relative to the SH Reservoir Project we can provide the latest in inundation modeling and mapping, along with a concise Emergency Action Plan (EAP) that follows the current (2017) State regulations.

References:

The following are our references for similar project work. Detailed project descriptions of these and other projects are located below under Project Team Experience.

San Juan Water District (SJWD), Hinkle Reservoir, December 2017	Rob Watson, Engineering Manager (916) 791-6923 Email: rob.watson@sjwd.org
Rescue Union School District, Bass Lake Dam Inundation Study and EAP, Completed April 2011, Re-issued December 2017.	Philip Jones, Rescue Union School District (530) 672-4300 Email: pjones@my.rescueusd.org
El Dorado County DOT, Cameron Park Flood Mapping Study and Various Drainage Studies 1994 to Present	Dave Spiegelberg, County DOT, Senior Engineer (530) 621-6077 Email: dave.spiegelberg@edcgov.us

Project Team Description and Qualifications

Domenichelli & Associates (D&A) understands the level of staff required to perform this type of work and has the staff available to commit to the work effort. **Joe Domenichelli** will bring to the project over 35-years of experience in water resources modeling and design and will provide QA/QC for the project.

Brian Hammer with 10 years of experience will focus on the development of the Emergency Action Plan, provide oversight of modeling services, and manage the project. Brian has worked for D&A for his entire career and has prepared hydraulic models for both large and small communities as well as multiple dam failure analyses. His experience includes the use of both 1D and 2D modeling.

David Cooper with 5 years of experience, will lead the modeling and mapping effort. David will work under Brian to provide accurate mapping which meets the State's new requirements. David recently completed inundation modeling and mapping for an extreme hazard dam in Sacramento County.

Key Personnel Resumes

The following resumes highlight the qualifications of each of our main team members that will be committed to the project.

Technical Specialties

- ✓ Master Planning
- ✓ Project Management
- ✓ QA/QC

Project Role	**Project Principal/Quality Control/Quality Assurance**
Years of Experience	**35 total**
Registration	**Professional Engineer CA and NV**
Education	**B.S. Civil Engineering, CSU Chico**

As project principal, Mr. Domenichelli's responsibilities will include overall QA/QC and team management as well as model review. Mr. Domenichelli has more than 35 years of engineering experience primarily in the area of water resources engineering. He has provided a variety of services from master planning for entire communities to the design and construction management of municipal improvements such as water pipelines, pump stations and storage tanks. His understanding of the regulatory process through similar work will allow him to provide management necessary to complete the task efficiently.

Joe's extensive experience allows him to assist with mapping and emergency action plan development.

JOE DOMENICHELLI, PE – PRESIDENT – QA/QC

Summary of Relevant Experience

- Schaad Reservoir Emergency Action Plan and Inundation Study, Calaveras County, California –Prepared a dam failure inundation study and detailed Emergency Action Plan as part of an application for a proposed hydroelectric plant at the base of the dam.
- Calero, Chesbro and Clementia Reservoirs Dam Failure Inundation Study, Rancho Murieta, California – Prepared a dam failure inundation study and assisted the District in preparation of an EAP for submittal to the State DSOD. The analysis included the modeling of failure to the Cosumnes River downstream past Highway 16. A sequential dam failure analysis was necessary for two of the reservoirs that are interconnected before entering the River.
- San Joaquin Area Flood Control Agency, California – Provided hydrologic and hydraulic studies for more than 50 miles of channel reach within the Stockton area using the Army Corps HEC-1 and HEC-2, computer models. Also designed project levee reaches and erosion protection features at 30 bridge crossings. Was in charge of submittals and review for COE levee certification on these project reaches.
- Flood Barrier – Town of Yountville, California – Designed a flood wall barrier around two mobile home parks within the Town limits and prepared the CLOMR and LOMR to take these developments out of the floodplain. Performed hydraulic analysis using HEC-2 and HEC-RAS for the Napa River. Also designed interior storm drains, drainage basin, and pump station.
- 2D Modeling of Tuolumne River Reach, California – Utilized the River 2D Hydrodynamic Model to create a two-dimensional hydraulic model of the Tuolumne River. The model was created to evaluate the limits of small and large mouth bass habitat along the project reach. The results of this model were used for restoration designs along the Tuolumne River.

Technical Specialties

- ✓ Hydraulic Modeling
- ✓ Project Management
- ✓ Surge Modeling
- ✓ Infrastructure Design

Project Role	**Project Manager**
Years of Experience	**10 total**
Registration	**Professional Engineer CA**
Education	**B.S. Civil Engineering, California Polytechnic State University, San Luis Obispo**

Brian Hammer is a registered engineer with 10 years of experience. Mr. Hammer has worked with Domenichelli & Associates for 10 years gaining experience in water systems design, hydraulics and hydrology, and water resources engineering. He has experience with Land Development Desktop (LDD), AutoCAD Civil 3D, InfoWater, H2ONet, XPSWMM, HEC-RAS, HEC-1, and HEC-HMS modeling applications. Mr. Hammer has provided hydraulic analysis for communities throughout Sacramento County, El Dorado County, San Joaquin County, Placer County, Stanislaus County, and Guam. Mr. Hammer's experience in hydraulic analysis, and hydraulic design has enabled him to provide analysis that is both technically sound and realistic to field conditions.

BRIAN T. HAMMER, PE – PROJECT MANAGER

Summary of Relevant Experience

- Hinkle Reservoir Emergency Action Plan Mapping, Folsom, California – Managed and reviewed the modeling and mapping of the Hinkle Reservoir dam break inundation study. Project had an accelerated schedule due to regulatory deadlines and was completed on-time allowing the District to remain in compliance.
- Gibson Ranch Dam Inundation Study, Sacramento County, California – Provided analysis and mapping for Gibson Ranch Dam failure. Study was preformed to establish potential downstream impacts to current and future residents.
- Bass Lake Dam Inundation Study, El Dorado Hills, California – Provided analysis and mapping for Bass Lake Dam failure. Study was preformed to establish downstream impacts to current residents and a future school site.
- Holiday Lake Inundation Study, Shingle Springs, California – Prepared a detailed dam failure and inundation study of Holiday Lake Dam in Shingle Springs for a proposed downstream development to show that the proposed project would not be flooded due to a failure.
- Eastridge Lake Inundation Study, El Dorado County, California – Prepared a detailed dam failure and inundation study for a proposed downstream development to show that the proposed project would not be flooded due to a failure. Site included multiple bridge crossings with overtopping.
- Willow Island Phase I Design, Yuba City, California – Provided preliminary mapping for the overall plan, rock slope protection design, parking lot layout and assisted in bike trail design criteria. Reviewed hydraulic analysis by others for the COE and provided recommendation for hydraulic parameters.
- Douglas City Restoration Design, Trinity River, California – Provided a hydraulic study and restoration design using HEC-RAS and LDD on the Douglas City reach of the Trinity River. The design included introduction of logs, rock slope protection and root wads. Modeled existing conditions, proposed conditions, and future growth conditions and compared the results to determine the project's hydraulic effect on the river reach.

DAVID COOPER, EIT – LEAD HYDRAULIC MODELER

Technical Specialties

- ✓ Inundation Studies
- ✓ FEMA Mapping
- ✓ Inundation Mapping

Project Role	**Lead Hydraulic Modeling**
Years of Experience	**5 total**
Registration	**Engineer-In-Training**
Education	**B.S. Civil Engineering, CSU Sacramento**

David Cooper is an EIT who been with D&A since 2013 supporting D&A's engineers in a multitude of water infrastructure and hydraulic modeling projects. Mr. Cooper recently provided hydraulic modeling services for San Juan Water District for their Emergency Action Plan. His recent experience with similar models will allow him to understand the areas of the model that have the greatest potential for errors and produce a map of high accuracy.

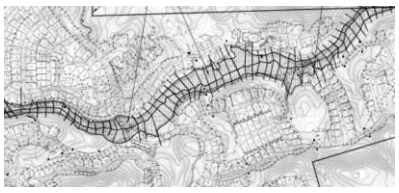
Summary of Relevant Experience

- Hinkle Reservoir Emergency Action Plan Mapping, Folsom, California – Lead modeler and mapper for the Hinkle Reservoir dam break inundation study. Used LiDAR, Civil3D, HEC-RAS 2D, and GIS software to provide 2D modeling and mapping to the 2017 mapping requirements.
- Folsom Plan Area LOMR, Folsom, California – Provided hydraulic modeling support for floodplain mapping in the newly incorporated area of Folsom, California. Provided hydrology and hydraulic calculations for FEMA review and approval. Continued updates to the model also provide 2D analysis capabilities for future projects.
- Cordova Hills LOMR, Sacramento County, California – Provided hydraulic modeling support for floodplain mapping in Sacramento County, California. Provided hydrology and hydraulic calculations for FEMA review and approval. Used HEC-RAS GIS import and RAS Mapper to import topography and provide detailed background mapping. Modeling prepared for future 2D modeling and mapping.
- Buckman Road Bridge, San Juan County, California – Performed hydrologic, hydraulic, and scour analysis, channel scour protection and bank stabilization designs for Buckman Road Bridge crossing in San Joaquin County. Used AutoCAD Civil3D to develop alignments, surfaces, and profiles of the channel.
- Cotta Road Bridge, San Juan County, California – Performed hydrologic, hydraulic, and scour analysis, channel scour protection and bank stabilization designs for Cotta Road Bridge crossing in San Joaquin County. Used AutoCAD Civil3D to develop alignments, surfaces, and profiles of the channel.
- Five Bridges Scour Protection Designs, San Joaquin County, California – Performed hydraulic and scour analysis, channel scour protection and bank stabilization designs for five major stream crossing in San Joaquin County. Crossings include Jack Tone Road Bridge over Mormon Slough and Mariposa Road over Littlejohn's Creek. All of the crossings require encroachment permits from the Central Valley Flood Control Board.

Project Team Experience

As stated above, D&A has significant and recent experience performing dam inundation studies and assisting in the preparation of Emergency Action Plans (EAPs). The following information demonstrates our firm's qualifications to perform this work.

Recent Projects

Project Name	Project Description	Map
San Juan Water District (SJWD), Hinkle Reservoir, December 2017	Assisted SJWD in the preparation of an updated EAP primarily through providing dam failure and inundation modeling analysis and mapping from the water treatment plant reservoir downstream to the American River. After receiving the notice to proceed in early December 2017, the project was completed per the new 2017 DWR in 4 weeks. A report was provided for inclusion into the EAP.	
Rescue Union School District, Bass Lake Dam Inundation Study and EAP, Completed April 2011, Re-issued December 2017.	Provided dam failure and inundation modeling analysis and mapping downstream of the reservoir to show impacts within the Serrano development, including the site of a proposed school. The study report was used to prepare an EAP which was updated in December of 2017.	
CTA Engineering, Eastridge Lake Inundation Study, El Dorado County February, 2016	D&A prepared a detailed dam failure and inundation study for a proposed downstream development to show that the proposed project would not be flooded due to a dam break.	
CTA Engineering, Holiday Lake Inundation Study, El Dorado County. February, 2016	D&A prepared a detailed dam failure and inundation study of Holiday Lake Dam in Shingle Springs for a proposed downstream development to show that the proposed project would not be flooded due to a dam break.	

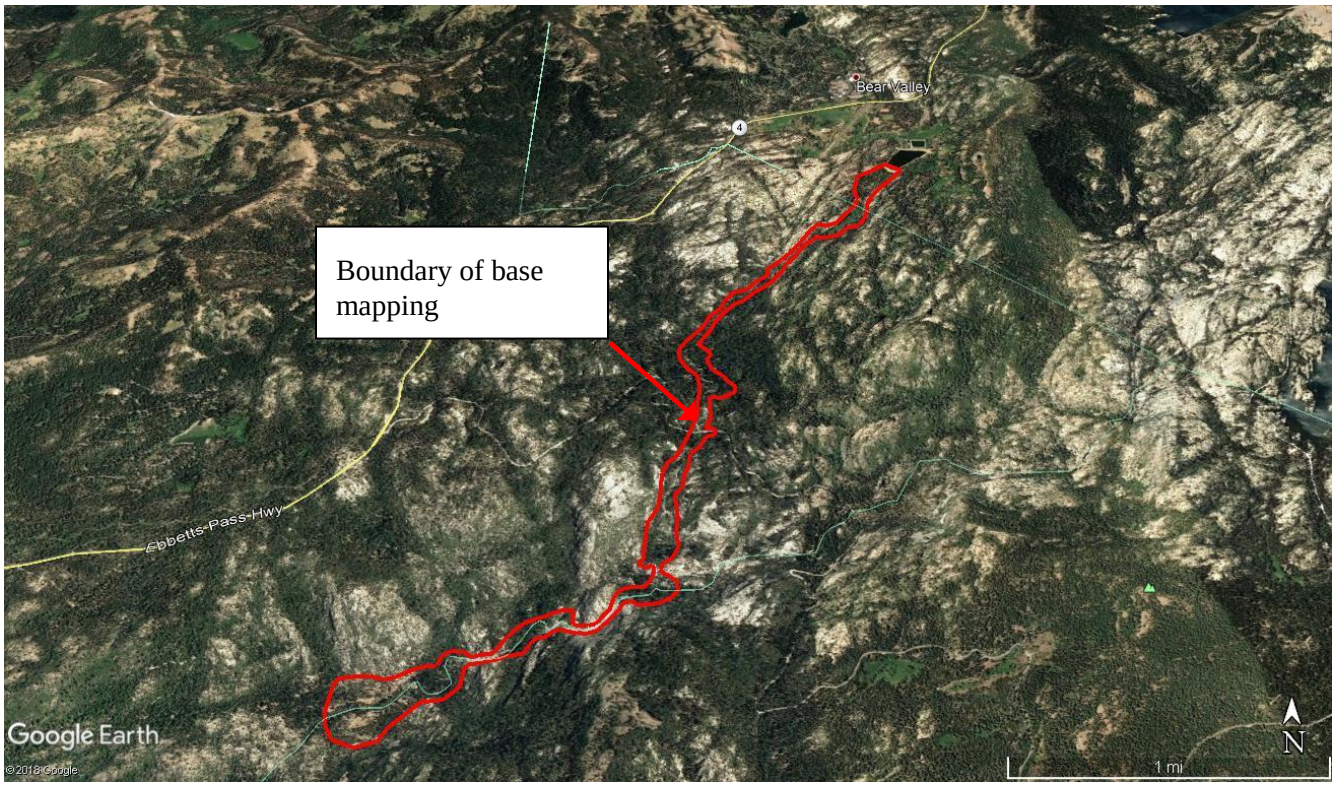
Subcontracted Services

D&A will provide all services necessary to complete the EAP and Inundation Mapping in-house, with the exception of surveying if needed. Surveying will be provided by REY Engineering located in Folsom, CA.

Project Understanding

As the submittal deadline for "significant hazard" dams is January 1, 2021, the EAP and inundation mapping can be easily completed within the required timeframe. We have become familiar with the new regulations from previous work, so there will be no learning curve for our team to meet Division of Safety of Dams (DSOD) and State Office of Emergency Services (OES) requirements. With our contacts at DSOD, we have a direct understanding of criteria and level of mapping needed. It is important to be able to define the limits of mapping to provide a reasonable price while meeting the State requirements. The mapping component can be quite costly as the project inundation boundaries grow. We have reviewed the potential inundation areas and we are confident with the proposed limits (see base mapping boundary shown below) as a worst-case scenario.

Base mapping will be prepared using digital USGS Quads that can be obtained free of charge. We will also measure dimensions at the Spicer Meadow Rd culvert during our data gathering visit. This crossing is the only feature that appears to be potentially impacted in the vicinity of the dam. Our modeling will extend down Bloods Creek to the North Fork Stanislaus River (NFSR) until the depth is determined to be non-hazardous. This will likely occur near the confluence of the NFSR. However, if our modeling shows, or the DSOD feels, that the mapping should extend further down the NFSR to the only location within several miles where there are habitable structures (at the Wolfboro Boys Scout Camp), we are providing an optional service to extend the mapping and conduct a detailed topographic survey at the campground to the limits as shown below. For a smaller remote site like the campground, detailed surveying can be accomplished in one day trip with a ground crew or by UAV (drone) aerial surveying.



Work Tasks, Timeline, and Cost

Domenichelli and Associates (D&A) has a clear understanding of the scope of work and level of effort required to provide an Emergency Action Plan with inundation mapping for SH Reservoir. Our previous modeling work for others has given D&A the experience to develop dynamic models, both simple and complex, to comply with regulatory agencies. The following outlines our proposed approach and scope of services:

Proposed Scope of Services (Work Tasks)

Task 1 – Gather and Review Existing Information

This task will build on research we have already completed (relative to base mapping, regulations and EAP guidelines) and will include sending D&A staff to the site and BVWD office as necessary to gather dam as-built plans, pertinent organizational and contact information for the EAP, and to discuss lines of communication not already established. This task assumes that there are adequate as-built drawings for the dam. We will also take measurements at the Spicer Meadow Rd crossing to add into our modeling.

Task 2 – Prepare Draft and Final Inundation Mapping and Study

2a – Base Mapping – D&A will obtain digital quad sheets for the base mapping and mesh them with the as-builts of the dam and will take measurement at the Spicer Meadow Rd crossing for input into the inundation model. If after submitting to the State, they request more detail at the Spicer Meadow Rd culvert and possibly the Wolfboro Camp site further downstream, we will sub-contract with REY Engineering located in Folsom, CA to provide a one-day topographic survey of these locations as shown above.

2b – HEC-RAS Dam Failure and Inundation Modeling – D&A will input the base mapping from Task 3a into the 2-dimensional dam failure and flood routing modeling routine using the HEC-RAS program. The program will simulate the failure and route flood flows downstream, automatically mapping the limits and providing depths, velocities, arrival times, and durations for downstream locations. We will model the dam-break downstream until the flows stay within the channel banks or are not a threat to existing structures. We anticipate this will be down to the confluence with the North Fork Stanislaus River. If the State requires or our initial modeling shows that modeling should be extended to the Wolfboro Camp site, we will provide the extended modeling and mapping under Optional Task 5.

2c – Draft Inundation Map and Study Preparation – From the results of the modeling, a draft inundation map will be prepared for review, which will include text and callouts of information required by the State guidelines. The study report will accompany the map and will include a summary of background data, criteria, methodology used and model results all per the State guidelines. After review by the BVWD and any comments incorporated, the Study Report and Map will be forwarded to the State DSOD and OES for review, along with the EAP from Task 3.

Task 3 – Prepare Draft & Final EAP

Along with data gathered in Task 1, D&A will gather pertinent information from other local emergency response agencies that are necessary for preparing the EAP. We will closely follow the state guidelines, sample EAPs and our recently completed work to provide a draft EAP. The draft EAP will be submitted to the BVWD along with the inundation map (under Task 2) for review. After comments from the BVWD are incorporated into the EAP it will be forwarded, along with the inundation map to the State (DSOD and OES) for review. We anticipate that the State will have only minor comments and will require one final submittal (see Task 4).

Task 4 – Coordination with State

D&A will submit draft documents to State and will be available to answer any questions during their review. Although we do not anticipate significant comments from the State agencies, we include this task to respond to comments and submit final stamped and signed documents to satisfy the requirements for the BVWD.

Optional Task 5 - Extended Mapping

Should the initial model run to NFSR not prove to be adequate to meet the inundation limit guidelines, D&A will extend the modeling and mapping to the Wolboro Boy Scout Camp. We are confident that flows will be contained within the banks of the channel to this point. We will not begin this task without review of the initial modeling results with the District and upon written authorization to proceed.

Timeline

Based on our recent work submitting to the State, we can submit the draft EAP and Inundation Map within 8 calendar weeks from the notice to proceed. After review by BVWD we will provide submittal documents to the State within 2 weeks.

Fee Estimate

The following fees are based on our proposed scope of work and level of effort included in this proposal.

Bear Valley Water District	D&A Billing Rates & Hours			Surveying	
SH Reservoir EAP & Inundation Mapping	QA/QC	PE	EIT	& Expenses:	
Estimate of fees	Joe D.	Brian H.	David C.		
Task — Billing Rates/hour	$175	$135	$105		Totals
1 **Gather and Review Information**					
	8	8	16	$ 200	$ 4,360
Subtotal:					**$ 4,360**
2 **Inundation Study and Mapping**					
2.a Base Mapping		4	16		$ 2,220
2.b HEC-RAS Inundation Modeling	2	8	32		$ 4,790
2.c Draft & Final Inundation Map & Study Report	2	8	48		$ 6,470
Subtotal:					**$ 13,480**
3 **Emergency Action Plan Development**					
Draft & Final Emergency Action Plan	2	24	24	$ 40	$ 6,150
Subtotal:					**$ 6,150**
4 **Documentation Submittals to State DSOD & OES**					
Submittals and coordination with State	2	4	12	$ 200	$ 2,350
Subtotal:					**$ 2,350**
Total Fee without Optional Task 5:	**16**	**56**	**148**	**$ 440**	**$ 26,340**
5 **Extended Mapping and Modeling**					
Extend Map to Boy Scout Camp	2	4	12	$ 14,542	$ 16,692
Total Fee with Optional Task 5	**18**	**60**	**160**	**$ 14,982**	**$ 43,032**

Proposal for:
Inundation Maps and Emergency Action Plan for Bear Valley SH Dam

Bear Valley Water District
441 Creekside Drive
Bear Valley CA, 95223

Submitted by
WEST Consultants
101 Parkshore Drive
Folsom, CA 95630

February 9, 2018

Dam Breach Inundation Mapping for
Bear Valley SH Dam
Scope of Service, Cost and Schedule

WEST CONSULTANTS, INC.

WEST Consultants (WEST) is a California Corporation founded in 1988 that specializes in Water Resources Engineering. WEST is composed of highly skilled and experienced personnel needed to develop the required dam breach flood inundation mapping for the Bear Valley Water District's (BVWD) flood inundation map, technical study and EAP. WEST staff members are recognized as experts in hydrology, hydraulics, sediment transport, fluvial geomorphology, water quality, numerical modeling, data collection, monitoring, technology transfer, expert technical review, training, and litigation support. Our highly qualified engineers and scientists have strong academic backgrounds and diverse water resource engineering project experience, including more than 35 professionals with advanced degrees in water resources engineering. Twelve staff members have earned a PhD and twelve are designated as Diplomates in Water Resources Engineering (D.WRE) by the American Academy of Water Resources Engineers. We are industry leaders, providing critical leadership in various technical societies and making significant contributions to the development of state-of-the-art technical methods and modeling technology.

Professional engineers and scientists look to WEST for training in the use of cutting-edge hydrologic and hydraulic models. WEST is internationally known for developing and providing technical training and is a main developer and presenter of training for the American Society of Civil Engineers (ASCE). During the past five years, WEST has developed and presented over 180 different training courses on topics, including dam breach modeling, in over 30 states and 13 foreign countries.

WEST operates seven offices located in California, Arizona, Oregon, and Washington. The Bear Valley SH Dam inundation project will be led by our office in Folsom, CA.

WEST's staff is broadly experienced in developing dam inundation studies in California, across the United States, and internationally. WEST scientists and engineers frequently take major leadership roles in professional dam safety organizations such as the Association of State Dam Safety Officials, the U.S. Society on Dams, the American Society of Civil Engineers, Environment and Water Resources Institute, and the International Commission on Large Dams. WEST staff members have developed and applied innovative, state-of-the art, risk-based dam breach analyses, risk-informed levee design techniques, and contributed to design standards related to dam safety. WEST is able to provide the expertise usually associated with much larger companies with the flexibility and responsiveness of a small business.

TECHNOLOGY

WEST SERVICES

WEST Consultants provides engineering and environmental services to help clients with all aspects of water resources related projects. WEST's corporate capabilities include:

HYDROLOGIC AND HYDRAULIC ENGINEERING

- One, Two, and Three-Dimensional Hydrodynamic Modeling
- Hydrologic Analysis and Modeling
- Development of Guidelines for Hydrologic and Hydraulic Design and Practices
- Systems Analysis of Rivers and Watersheds
- Water Resources Planning
- Flood Control and Stabilization Works
- Radar Rainfall Estimation and Analysis
- Water Control Manual Development
- Flood Warning System Analysis and Design
- Design of Hydraulic Structures
- Groundwater Modeling
- Wetlands Modeling

SEDIMENTATION, SCOUR ANALYSIS AND EROSION

- Sediment Transport Analysis
- Bridge Scour Analysis
- Geomorphic Analysis and River Mechanics
- Estuarine Reservoir Sedimentation
- Streambank Protection
- Channel Stability and Erosion Control
- Erosion Analysis and Control at Pipeline Crossings

FLOOD INSURANCE STUDIES

- Hydraulic & Hydrologic Modeling and Floodplain Mapping
- Preparation of New Flood Insurance Studies and Re-studies
- Preparation of Letters of Map Change Applications
- Preparation of Digital Flood Insurance Rate Maps (DFIRMs)

FORENSIC ENGINEERING AND EXPERT TESTIMONY

- Sand and Gravel Mining
- Channel and Bank Stability
- Bridge and Dam Failure
- Drainage and Flood Control
- Sedimentation and Erosion
- Hydraulics, Hydrology and Water Resources

ENVIRONMENTAL ENGINEERING

- Water Quality Analysis of Rivers and Estuaries
- Transport and Fate of Pollutants
- Permits and Reclamation Analysis for Energy and Mining

The personnel at WEST Consultants are considered by the engineering community as experts in the application of many computer models, including: HEC-HMS, HEC-RAS, HEC-6/-6T, HEC-ResSim, CWMS, HEC-RTS, RMA-2, SED-2D, FESWMS, FLO-2D, xpstorm, and MODFLOW. WEST Consultants conducts frequent short courses for HEC-RAS and HEC-HMS modeling, Bridge Scour Analysis, and Streambank Stabilization and Restoration worldwide. More than 5,000 engineers and scientific professionals looked to WEST Consultants to provide introductory and advanced training on a variety of models and applications over the past decade.

DAM MODELING EXPERIENCE

Dam and reservoir owners have been clients of WEST Consultants for more than 29 years. WEST provides specialized services to owners from cities, counties, special districts, utilities, CA Department of Water Resources, the US Army Corps of Engineers, the Federal Emergency Management Agency, Tennessee Valley Authority, Federal Energy Regulatory Commission, and private organizations. The vast majority of WEST's clients have been public agencies.

WEST staff members are recognized as experts in hydrology, hydraulics, sediment transport, fluvial geomorphology, water quality, numerical modeling, data collection, monitoring, technology transfer, expert technical review, training and litigation support.

DAMS AND RESERVOIRS

Our experience includes a wide variety of dam and reservoir related studies and design efforts, such as

- Dam breach modeling,
- Inundation mapping,
- Emergency action planning,
- Instrumentation,
- Warning systems,
- Reconnaissance- and feasibility-level planning studies,
- Preliminary and final design,
- Operation studies,
- Reservoir sedimentation,
- Geomorphology and sediment transport,
- Dam safety investigations,
- Environmental impact assessment, and
- Mitigation studies.

Professional engineers and scientists look to WEST Consultants for training in the use of state of the art hydrology and hydraulic models. WEST, is internationally known for developing and providing training and is a main developer and presenter of training for the American Society of Civil Engineers. Overall, during the past five years, WEST has developed and presented over 180 different training courses on aspects of modeling hydrology, sediment transport, streambank stabilization, dam breach, floodplain management, and other topics in over 30 states and 12 countries (including Canada, Chile, Brazil, Paraguay, Peru, Italy, Spain, France, Sweden, Norway, Moldova, and South Africa).

For 29 years, the vast majority of WEST's clients have been public agencies. Figure 1 presents a geographic representation of WEST's Dam and Reservoir studies. Table 1 presents a sampling of WEST's relevant dam breach, inundation mapping, and EAP development projects.

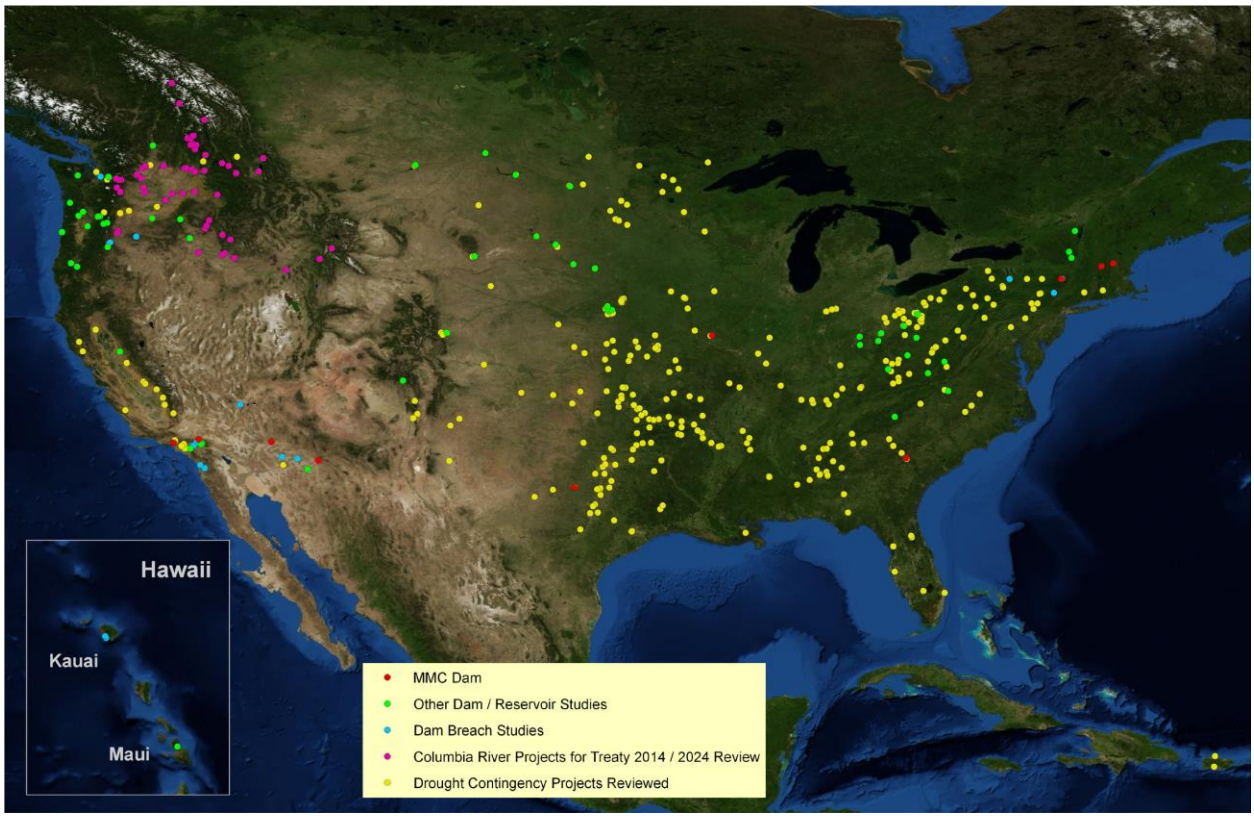


Figure 1: Geographic Distribution of WEST Consultants Dams and Reservoir Studies

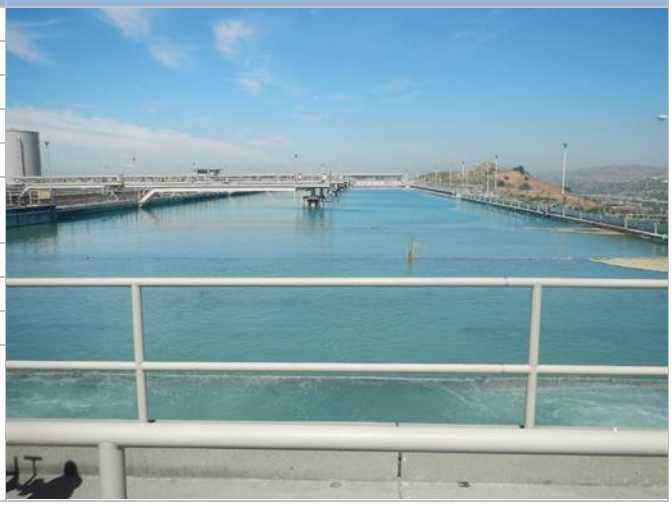
Table 1: Summary of Relevant Dam Breach Project Experience

Name	Client	Location	Type
Folsom Dam Dike	City of Roseville	Roseville, CA	Modeling, Probabilistic Inundation Map, EAP Update
R.B. Diemer Filtration Plant Mixing and Settling Basin	Metropolitan Water District of Southern California	Yorba Linda, CA	Modeling and Inundation Map
Copper Basin Dam	Metropolitan Water District of Southern California	San Bernardino County, CA	Modeling and Inundation Map
Gene Wash Reservoir Dam	Metropolitan Water District of Southern California	San Bernardino County, CA	Modeling and Inundation Map
Daley Basin Dam	County of San Bernardino Flood Control District	Del Rosa, CA	Modeling and Inundation Map
Harrison Basin Dam	County of San Bernardino Flood Control District	San Bernardino County, CA	Modeling and Inundation Map
Lemon Basin Dam	County of San Bernardino Flood Control District	San Bernardino County, CA	Modeling and Inundation Map
Little San Canyon Dam	County of San Bernardino Flood Control District	San Bernardino County, CA	Modeling and Inundation Map
Cook Canyon Basin Dam	County of San Bernardino Flood Control District	San Bernardino County, CA	Modeling and Inundation Map
Dynamite Basin Dam	County of San Bernardino Flood Control District	Highland, CA	Modeling and Inundation Map
Elder Creek Basin	County of San Bernardino Flood Control District	Highland, CA	Modeling and Inundation Map
Oak Creek Basin Dam	County of San Bernardino Flood Control District	Highland, CA	Modeling and Inundation Map
Clearwater Forebay	PacifiCorp	Clearwater, OR	Modeling and Probabilistic Inundation Map
Walton Lake Dam and Three Creek Dam	US Forest Service	Bend, OR	Modeling and Inundation Map, Flood hazard
Olivenhain Dam	MWH-Parsons JV	San Diego County, CA	Modeling and Inundation Map
San Vicente Dam	GEI Consultants	San Diego, County, CA	Modeling and Inundation Map
Elua Dam	Corps of Engineers	Kauai, HI	Modeling and Inundation Map
Aepo Dam	Corps of Engineers	Kauai, HI	Modeling and Inundation Map
Morgan Lake	Anderson Perry	La Grande, OR	Modeling and Inundation Map
Creekside Dams No. 1, 3	Cow Creek Tribe	Canyonville, OR	Modeling and Inundation Map
Rinker Gravel Mine	Rinker Materials	Vancouver, WA	Modeling and Inundation Map
LNG Dike Breach	HDR	Corpus Christi, TX	Modeling and Inundation Map
Funrue Dam	Dan Funrue	Silverton, OR	Modeling and Inundation Map and EAP
Wageman Dam	Carolyn Dowdy	Roseburg, OR	Modeling and Inundation Map and EAP
Bear Creek Dam	City of Drain, OR	Drain, OR	Modeling and Inundation Map and EAP
Kay Reservoir	Steve Graham	North Plains, OR	Modeling and Inundation Map
Big Creek Dams 1 and 2	City of Newport, OR	Newport, OR	Modeling and Inundation Map
Malheur Reservoir	Oregon State Dam Safety	Vale, OR	Modeling and Inundation Map
Enloe Dam Breach	Christensen Associates	Okanogan County, WA	Modeling and Inundation Map

Note that the effort described in the Specific Examples of Work section, below, generally describes the effort that was undertaken on the projects listed in Table 1.

WEST's experience with dam studies spans the spectrum from small ponds to some of the largest dams and reservoirs in the world. At the small end of the spectrum, WEST was selected by the Metropolitan Water District of Southern California to conduct a dam breach inundation study for the R.B. Diemer Filtration Plant Mixing and Settling Basin No. 8 (Diemer No. 8, as described in Table 2). WEST's team has experience with hundreds of dams and reservoirs from small scale examples like Diemer No. 8 all the way to major facilities like DWR's Oroville Dam, which is the tallest dam in the U.S. WEST has updated and developed Water Control manuals for USACE dam and reservoir projects across the U.S., including manuals for locks and dams along the Mississippi River System and major USACE projects such as Howard A. Hanson Dam and John Redmond Dam and Reservoir.

Table 2: Example small scale dam breach analysis completed by WEST.

Subject	Diemer No. 8 Basin	
DWR Number	35-009	
Year Built	1968	
Capacity	17.84 ac-ft.	
Area	1.12 ac	
Crest Elevation (NAVD88)	830.22 ft.	
Overflow Spillway Crest Elevation (NAVD88)	829.22 ft.	
Height	16 ft.	
Crest Length	494 ft.	
Classification	Small Reservoir	
Material	Concrete	

RELEVANT PROJECT EXPERIENCE

FUNRUE RESERVOIR DAM BREACH AND EMERGENCY ACTION PLAN, SILVERTON OR

Funrue Dam was designed by the National Resource Conservation Service (NRCS) and constructed by the owner between September 1971 and October 1972. It is an earthen embankment dam about 860 feet long, with a maximum height of 28 feet, and a crest width of 11 feet. Total storage volume at normal pool elevation is 85.5 acre-feet and stored water is used primarily for irrigation and recreation.

Similar to the California DSOD, the Oregon Water Resources Dam Safety Program determined that because a failure of the dam could pose a significant threat to downstream life and property the dam was classified as "high hazard." The Owners of Funrue Dam were advised to develop an Emergency Action Plan (EAP) outlining emergency response procedures in the event of a dam failure.

WEST Consultants, Inc. prepared a Hydrologic Engineering Center Hydrologic Modeling System (HEC-HMS) model of the Funrue Reservoir watershed to estimate the Probable Maximum Precipitation (PMP) event inflow hydrograph to Funrue Reservoir. An HEC-RAS hydraulic model was used to route the Probable Maximum Flood (PMF) inflow hydrograph through the reservoir, simulate dam breach conditions, and route the flood downstream. Both "sunny day" and PMP-induced dam breach scenarios were considered.

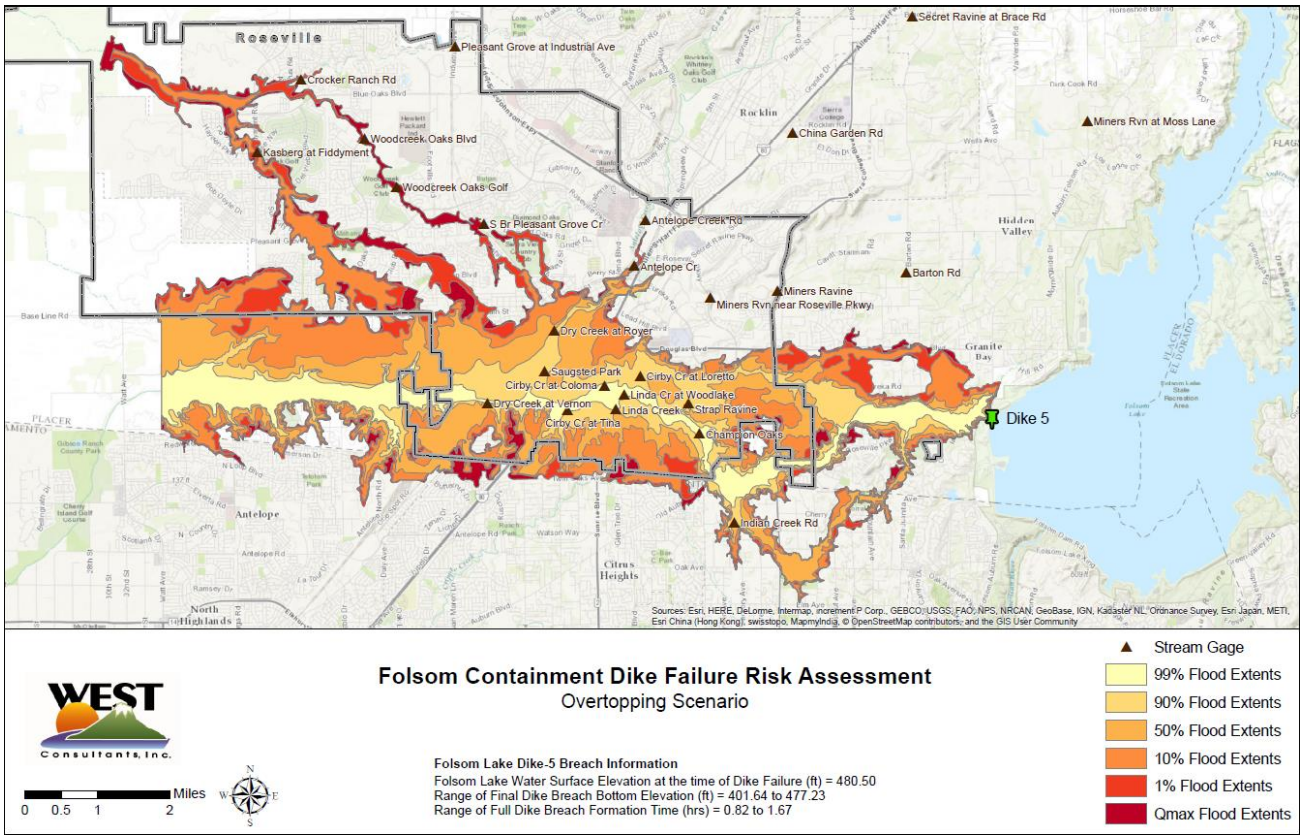
Results of the hydraulic analysis were used for dam breach inundation mapping and the development of an EAP to define emergency response procedures and responsibilities in the event of a dam failure.

Project Owner: Dan Funrue
Contact: (503) 932-4127

CITY OF ROSEVILLE FLOOD WARNING, INUNDATION MAPPING, EAP, PLACER COUNTY, CA

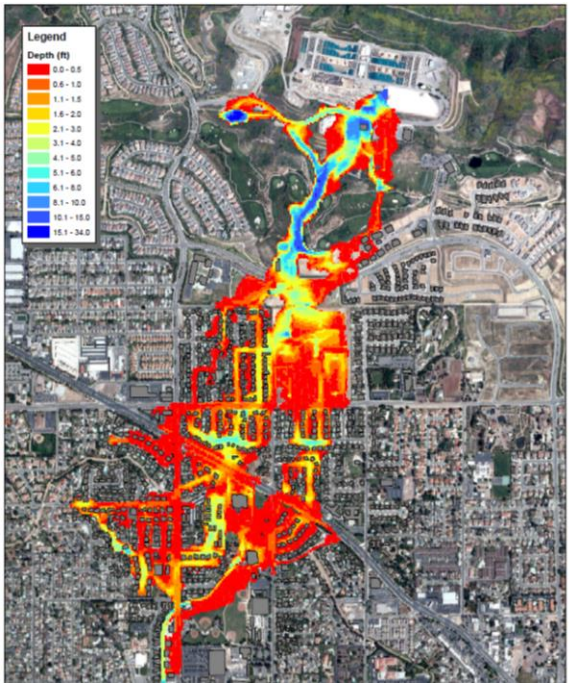
WEST Consultants led the project for the City of Roseville and adjacent areas in Placer County to upgrade real-time flood forecasting, prepare inundation mapping for real-time flood forecasting, prepare probabilistic inundation maps for potential dam breach flooding, and to incorporate the new information into local EAP updates.

Using a unique and innovative approach developed by WEST, the dam breach analysis examined thousands of combinations of failure modes and rates of failure to create probabilistic dam breach inundation maps. Given the occurrence of a breach which can evolve in many different ways, the maps provide emergency planners with probabilities of inundation from most likely to least likely areas of inundation, including the traditional worst-case scenario.



Project Owner: City of Roseville.
Contact: Brian Walker (916) 746-1349, WalkerBrian@roseville.ca.us

FINISHED WATER RESERVOIR INUNDATION STUDY FOR METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA



WEST Consultants, Inc. (WEST) performed a dam failure inundation study for a Finished Water Reservoir (FWR), owned by the Metropolitan Water District of Southern California (MWD). WEST performed the flood inundation analysis based on three different breach locations around the reservoir. The specific objectives of this inundation study were to meet the requirements for inundation mapping as provided by inundation mapping regulations promulgated by the California Governor's Office of Emergency Services (OES).

The FWR is located in Southern California and is a rectangular concrete structure with a maximum pool depth of 16.7 feet and has a total capacity 76 ac-ft. WEST collected and reviewed the necessary background data (digital topography, reservoir and dam data, inflow hydrographs, etc.) for the flood inundation study. The modeling methodology was thoroughly considered and appropriate modeling parameters (breach parameters, failure conditions, channel roughness coefficients, etc.) adopted. A single breach hydrograph was developed for the three hypothetical breach locations. The peak flow breach parameters were estimated based on guidelines provided by OES and MWD.

A two-dimensional (2D) hydrodynamic model was constructed for modeling the floodplain. A 2D model is preferred because it can easily account for multiple potential flow paths in the urban setting downstream of the reservoir. A model grid size of 25 feet was selected to provide better resolution of the residential community downstream of the reservoir. Area reduction factors (ARF's), width reduction factors (WRF's), and spatially varying roughness values based on land use were included in the model.

The inundation maps were developed on USGS 7.5-minute quadrangles to conform to OES criteria. A technical report was prepared to summarize all modeling assumptions, input and output, and other pertinent backup data.

Project Owner: Metropolitan Water District of Southern California.
Contact: Sonnie Kashay (213) 217-7220

As a subconsultant to GEI, WEST performed the dambreak inundation modeling and mapping for the San Vicente Dam in San Diego County. The maps for this location are one of the twelve locations that have been approved by DSOD and CalOES and are available on the DSOD webpage. Figure 2 is a portion of the map. Full mapping is available at http://www.water.ca.gov/damsafety/docs/inundation%20maps/0008-009_San%20Vicente_Main%20Dam.pdf.

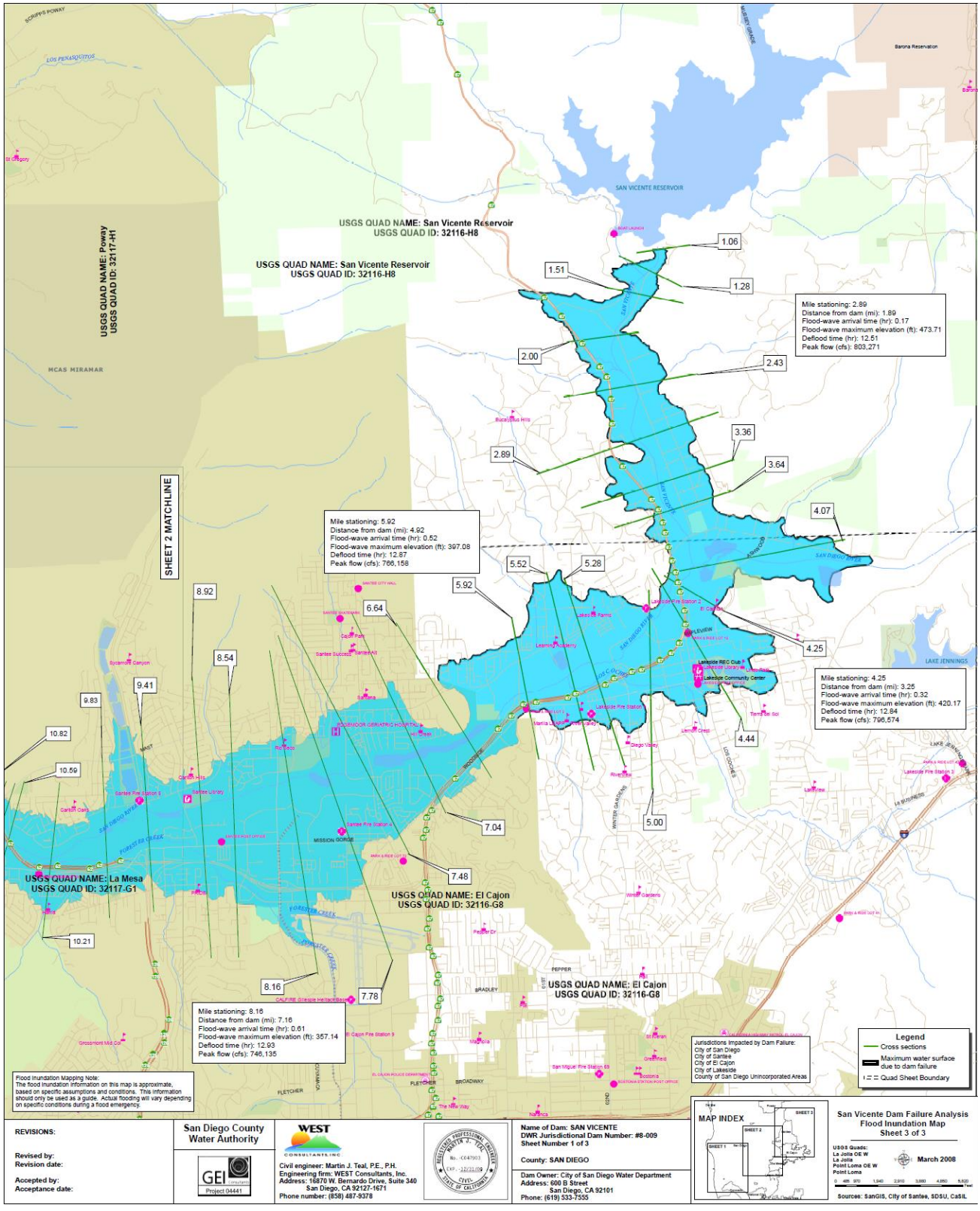


Figure 2: San Vicente Dambreak Mapping Sample from DSOD webpage

REFERENCES

Company Name: San Bernardino County Flood Control District
Name of Contact: David Lovell
Phone Number: (909) 387-7964
Email: dlovell@dpw.sbcounty.gov
Knowledge of WEST work: Project Manager for eight dam break and inundation studies

Company Name: City of Roseville
Name of Contact: Brian Walker
Phone Number: (916) 746-1349
Email: WalkerBrian@roseville.ca.us
Knowledge of WEST work: Project Manager for Roseville Flood Warning System and Folsom Dam Dike Failure

Company Name: US Army Corps of Engineers, Hydrologic Engineering Center
Name of Contact: Christopher Dunn
Phone Number: (530) 756-1104
Email: christopher.dunn@usace.army.mil
Knowledge of WEST work: HEC Director familiar with WEST Dam and levee failure analyses

PROJECT UNDERSTANDING AND WORKPLAN

The inundation map and Emergency Action Plan prepared for Bear Valley SH Dam, Table 3 and Figure 3, will comply with the 2013 FEMA guidelines for inundation mapping (FEMA P-946.), the newly enacted state law, effective July 1, 2017. (California Water Code Sections 6160 and 6161) and the emergency regulations (No. 2017-1009-03E) posted on October 19, 2017. Technical studies will be prepared for each dam, in compliance with CA DWR DSOD Inundation Map Regulations.

The scope of work includes developing a dam break hydrograph for downstream inundation mapping for Bear Valley SH Dam. The failure of the dam will be simulated using the latest version of the HEC RAS software, assuming various failure scenarios; including, at a minimum, a sunny day failure with the reservoir at the maximum possible water surface elevation (corresponding to the crest of the spillway). The dam breach flood pulse will be routed downstream to model the extent of inundation in downstream impacted areas. In keeping with the DSOD modeling regulations, a 1-dimensional HEC-RAS hydraulic model will be used in confined channel areas downstream of the dam. In areas where flow spreads, a 2-dimensional model will be used to develop the mapping. A failure of the dam does not appear to impact any local population center.

Developed over the past three decades, WEST's proven approach to dam breach analysis and downstream inundation mapping will be used. This approach leverages experience derived from hundreds of similar projects and will promote quality and consistency needed to effectively support the development of flood mapping and EAPs that will meet approval with CalOES and DSOD. The following paragraphs summarize WEST's work plan.

Table 3: Dam Information from California DWR Dam Inventory

Bear Valley SH Dam	
Category	**Detail**
Dam Number	1088
National ID Number	CA01114
Latitude	38.45
Longitude	-120.03
Owner	Bear Valley Water District
Owner Type	Park, sanitation, utility or water district
Dam Height (ft)	43
Crest Length (ft)	520
Capacity (ac-ft)	346
Dam Type	Earth
Certified Status	Certified
Downstream Hazard	Significant
Condition Assessment	Satisfactory
Reservoir Restrictions	No
County	Alpine
Year Built	1975

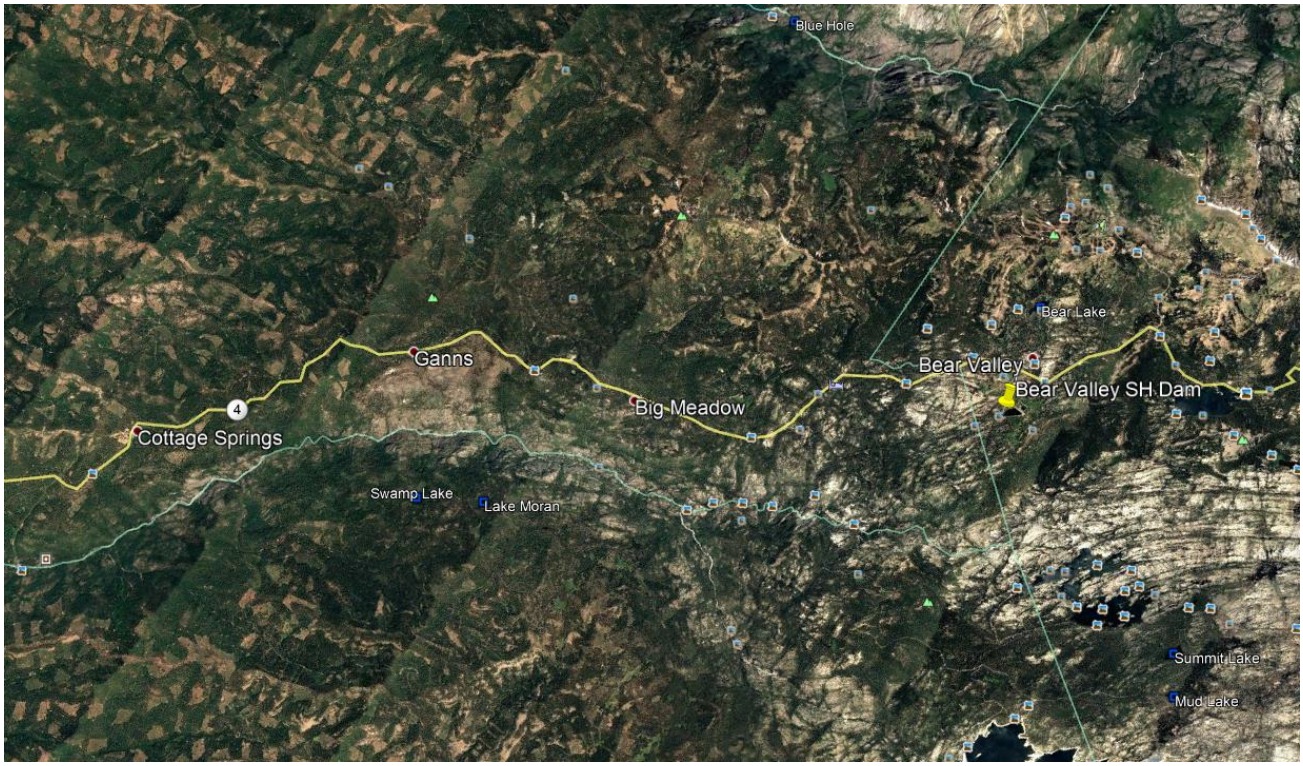


Figure 3: Dam Location

INUNDATION MAP REVIEW PROCESS

Cal OES and DSOD have developed a review process for map and EAP submissions. Figure 4 provides the overview of the process. The technical report and flood maps must be reviewed and approved by the DSOD prior to inclusion in the EAP. Mapping includes inundation extent and depth, flood arrival time and deflood time. Flood arrival time is especially

important for local emergency services to know the time they have to implement emergency procedures. WEST will submit the report and maps and will address all State comments until maps are approved for inclusion in the EAP. WEST will then include the mapping in the EAP and submit to CalOES.

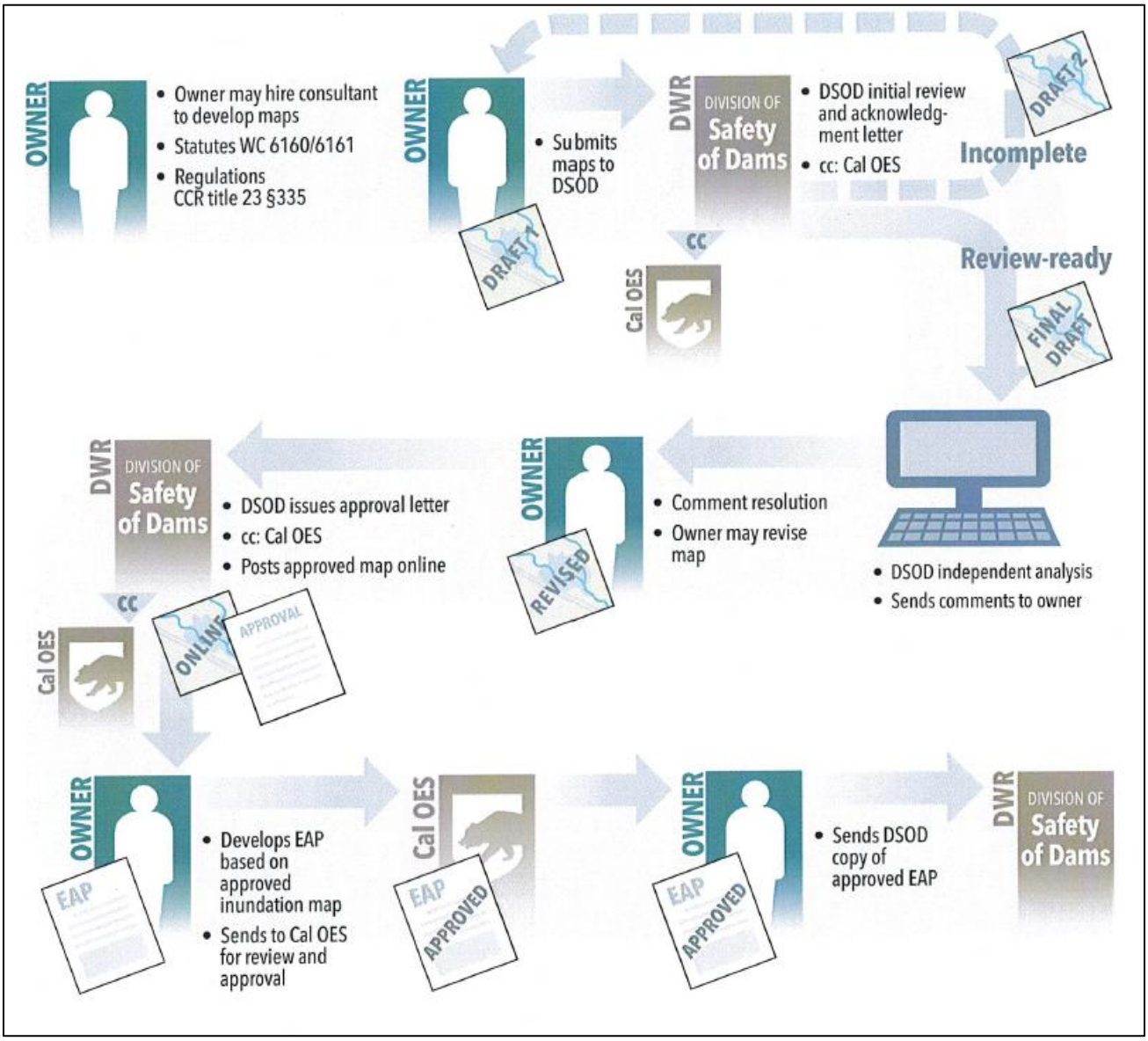


Figure 4: Review Process

DOCUMENT AND DATA REVIEW

COORDINATION

WEST will coordinate closely with BVWD via emails, telephone calls, video conference or in-person to make sure the project is meeting the BVWD's needs, staying on scope and within budget.

DATA COLLECTION

WEST will review available relevant literature and will seek support from the BVWD in acquiring the following data, if available, and information to support the dambreak analysis:

- Dam as-built drawings,
- Dam design reports,
- Stage-storage curves, if not in the as-builts or design reports,
- Recent hydrographic surveys
- LIDAR Data,
- Geo-RAS files,
- HEC-RAS Models, if available,
- Current EAPs, and
- Other pertinent information.

FIELD RECONNAISSANCE

A site visit will be arranged at a mutually agreeable date and time to confirm dam conditions and flow area parameters. Any field inspection of possible downstream flooded areas which are not on BVWD property will be at the Consultant's discretion.

Field reconnaissance will be conducted to review the study area, make close observations of the dam and reservoir, road crossings, hydraulic roughness conditions of floodplain areas, obstructions to flow, and other pertinent features.

REVIEW EXISTING EAPS

WEST will review the existing EAP, if one exists, and use any relevant information for the modeling and study.

HYDRAULIC MODEL DEVELOPMENT

Using the latest version of HEC RAS 5, WEST will model the reservoirs, the dam embankment failure, one-dimensional flow in the channel downstream and two-dimensional (2-D) flow, if needed, in the inundation areas outside the channel. Geometric data for the model will be developed from existing elevation data. Manning's roughness values for the 1-D model will be developed based on site observations and recommendations from prior studies. Structure data and roughness values will be developed to assure that flow within all parts of the HEC-RAS model are hydraulically appropriate.

This hydraulic model will define the depth and velocity at locations downstream from the breach as a function of time; enabling the development of depth, velocity, and time of arrival maps for the flood wave. A combination of these variables will be used to map the flood hazard downstream from a dam break. The flood hazard definitions will be developed in cooperation with BVWD staff in concert with CalOES guidelines.

DEFINE DAM BREAKS

DETERMINE DAM BREAK PARAMETERS

WEST will evaluate and determine parameters based on industry recommendations and WEST's past experience. A "drawdown parameter" for each reservoir for proper routing selection will be developed to mitigate the potential for overestimating peak breach outflows and inundated areas.

DAM BREAK SENSITIVITY ANALYSIS

A sensitivity analysis will be performed on breach formation (i.e. width and duration) to ensure that the breach forms in an appropriate manner and provide sufficiently conservative conditions. CA DWR guidance for inundation mapping in EAPs directs that dam breach analysis assume a sunny day failure with reservoir full to the elevation of the emergency spillway.

APPURTENANT STRUCTURES

Failure of any critical appurtenant structures at the dams will be evaluated.

RUN DAM BREAK SIMULATIONS

PRELIMINARY SUNNY-DAY DAM-BREAK SIMULATIONS

CCR guidance for EAP inundation mapping directs that sunny day dam breach analyses assume a full reservoir condition. This implies a storage pool elevation equal to the spillway crest elevation when failure occurs, and no additional inflow to the reservoir. Preliminary simulations of the sunny-day dam breaks will be performed to assure that the dam break parameters and break hydrographs are reasonable and that the inundation area is included within the 2-D flow area.

REFINE PARAMETERS AND 2-D FLOW AREA

If the break hydrographs are not reasonable, the break parameters will be modified. If 2-D flow areas are used and the dambreak inundation meets the edge of the 2-D flow area in undesirable locations (i.e. areas where an outflow boundary is not defined), the 2-D flow area will be expanded to cover the required area. This includes both the new grid areas just downstream from the embankments and the creek channel further downstream where higher flow may expand the inundation.

RUN FINAL SUNNY-DAY DAM BREAK SIMULATIONS

Once the parameters are refined and the model domain is established, final simulations of the breaches will be completed.

DEVELOP INUNDATION MAPS

INUNDATION MAP PRODUCTION

Based on the detailed output from the HEC-RAS model and the risk criteria defined above, inundation maps, velocity maps and flood risk maps will be developed. WEST will provide sample maps to BVWD and will integrate the BVWD's formatting requests (one round of comments) in the final maps. The inundation maps will show areas where property is inundated by the dambreak.

DEVELOP FINAL MAPS

Final maps will be developed based on comments from BVWD.

REPORT AND DELIVERABLES

REPORT

WEST will prepare a technical study report in accordance with CCR §335.12, including descriptions of the structure, modeling methodology, and selection of dam break parameters and other relevant assumptions. The hours planned for this task assume development of a draft report, response to comments from the BVWD, and final revisions. WEST will provide BVWD with electronic copies of all report, model(s), and GIS data developed as part of this project.

SUBMIT TO DSOD

WEST will submit the maps and all required information to DSOD for approval. WEST will address any comments received from DSOD. Responses will be coordinated with BVWD before resubmitting to DSOD.

EMERGENCY ACTION PLAN

Using the DSOD approved inundation mapping, WEST will develop/update the EAP. Any updated DSOD/OES/FEMA guidance will be incorporated. WEST will submit EAP to CalOES for approval. WEST will address any comments from CalOES.

DELIVERABLES

WEST will provide BVWD with electronic copies of all reports, models, and GIS data developed as part of this project along with the approved EAP. The content and format for map(s), technical study, and digital database will meet the requirements specified in the proposed Emergency Regulations for Inundation Maps (23 CCR, Division 2, Chapter 1, Article 6 6, Section 335). WEST will make the final submission to CalOES.

COST AND SCHEDULE

WEST's estimated fee to provide technical studies for dam breach and downstream inundation is $37,972.

WEST is committed to deliver the technical studies, including dam inundation mapping and EAP within the DSOD/CalOES required timeline. The proposed schedule, Figure 5, shows the number of weeks estimated to complete the study including approximately 12 weeks for reviews.

Dam breach analysis presents its own unique and complex downstream conveyance issues. With our experience and capacity, WEST is committed to delivering the inundation maps and technical studies in a timely manner which enables BVWD to meet DSOD and CalOES requirements.

PROPOSED PROJECT SCHEDULE - Inundation Map Development for Bear Valley SH Dam																
Description	Weeks from Notice to Proceed															
	Start															End
	1	2	3…	…8	9	10	11	12	13	14	15	16	17	18…	…26	27
Project Management and Coordination																
Kickoff Meeting, Site Visit and Collection of Data																
Review the support documents, topographic data, plans, reports																
Hydraulic Model Development and Dambreak																
Prepare Draft Inundation Maps																
Prepare Draft Reports																
District Comments on Draft Report and Map																
Address District Comments. Prepare the Final Report and Map for the submission																
Submit to DSOD for review (2 week review)																
Address DSOD Comments and resubmit																
Prepare EAP and Submit to CalOES (60 Day review)																
Address CalOES Comments and resubmit																

Figure 5: Project Schedule

COVER LETTER

March 23, 2018

Jeff Gouveia
General Manager
Bear Valley Water District
PO Box 5027
Bear Valley, CA 95223

Consulting Engineers and Scientists

Subject: Proposal for Emergency Action Plan and Inundation Mapping Services for Bear Valley SH Dam (No. 1088.000)

Dear Mr. Gouveia:

We have prepared our proposal to Bear Valley Water District (District) with the provided materials for Bear Valley SH Dam. Our proposal presents our qualifications to develop an Emergency Action Plan (EAP), perform a comprehensive assessment, and create Inundation Maps in compliance with the newly enacted Emergency Regulations for Inundation Maps and Federal Emergency Management Agency (FEMA) P-946, 2013 guidelines for Bear Valley SH Dam.

GEI Consultants, Inc. (GEI) is an employee-owned, national engineering firm that provides water resources, geotechnical, environmental and ecological services. GEI is recognized as one of the leading and experienced dam engineering companies in the United States. Our reputation is substantiated by our selection for several long-term, indefinite-quantity contracts for dam engineering services from clients such as the California Department of Water Resources (DWR), the U.S. Army Corps of Engineers (USACE), U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, Pacific Gas and Electric (PG&E), and El Dorado Irrigation District (EID). We have unique regulatory experience in California dam safety and have excellent working relationships with both the DWR Division of Safety of Dams (DSOD) and Federal Energy Regulatory Commission (FERC). In addition, GEI is currently working with DWR on the Oroville Emergency Spillway Recovery project and other ongoing spillway reviews and inspections in California. Dam engineering, dam safety, and flood control are core practices of our firm and have been for more than 40 years.

GEI has the following to offer the District:

In-Depth Understanding of Inundation Mapping and Emergency Action Plans – The cost of preparing flood elevations, travel times, and velocity estimates for dam break modeling and inundation mapping generally depends on the amount and complexity of the stream channels to be modeled. GEI's familiarity with modeling hundreds of miles of dam breach flood inundation gives us significant insight into streamlining the modeling process. We can typically avoid the pitfalls of hydraulic model instability that less experienced firms may overlook. Our hydraulic experts know how to approach the modeling effort to obtain the most accurate depictions of flood impacts in a cost-effective manner.

GEI Consultants, Inc.
2868 Prospect Park Drive, Suite 400, Rancho Cordova, CA 95670
916.631.4500 fax: 916.631.4501

Positive Relationship with DSOD – GEI has an on-going, day-to-day working relationship with DSOD. Following the Oroville Spillway failure, DSOD is demanding greater scrutiny of current spillway conditions and potential spillway failure modes of both concrete-lined chute spillways and unlined spillways. Our approach and attention to detail and documentation will satisfy the requirements of DSOD.

GEI Staff Qualifications – GEI is very interested in working with the District on all important projects. We have proposed staff to perform this work who are highly qualified, ready to deliver this work for the District, and who can also dedicate the required time and resources to meet the schedule outlined in the RFP. Our project team consists of Mark Fortner, PE, PLS, as Project Manager, who has broad civil engineering experience in the fields of hydrology and hydraulics for flood control, dam safety, water supply, and water resource management. Katherine Maher, PE, as Technical QA/QC Manager, has broad range of expertise in dam break and inundation analysis, hydrologic and hydraulic modeling, local and regional flood protection planning, and dam inspection and assessment. Andrew Price will perform the mapping work and is already familiar with downstream conditions and mapping for the dam.

As Project Manager, I am authorized to negotiate the contract with the District, and our rates will remain in effect throughout the contract with the District.

We appreciate the opportunity to assist the District and to provide our dam emergency knowledge and experience to fulfill all your needs on this important task. Please contact me at 916.631.4534 or mfortner@geiconsultants.com if you have any questions about our proposal.

Sincerely yours,

GEI Consultants, Inc.

Mark Fortner, PE, PLS
Senior Engineer/Project Manager

Katherine Maher, PE
Senior Engineer/QAQC Manager

QUALIFICATIONS

Established in 1970, GEI Consultants, Inc. (GEI) is an employee-owned, national engineering firm that provides water resources, geotechnical, environmental, and ecological services. The firm was established in 1970 and has grown from 450 employees to nearly 800 employees located in 37 offices in the last 5 years, including 5 offices in California. The firm has devoted a major portion of its resources to the evaluation, remediation, design and construction of the nation's dams, flood control levees, water supply reservoirs, and conveyance infrastructure. As one of the top dam engineering firms in the U.S., and the recipient of many top awards for our innovative projects, GEI is also a leading provider of dam safety and inspection services. This includes coordinating and obtaining necessary approvals from DSOD.

Over the past decade, we have served in lead roles in many large and complex dam projects in California, many of which have been managed and executed from our Rancho Cordova and Oakland offices by the key staff proposed for your project. Our California offices house 200 staff. GEI has experience in successfully completing multiple EAPs and inundation mapping projects in California.

Local Office
2868 Prospect Park Drive, Suite 310
Rancho Cordova, CA 95670
916.631.4500

Corporate Office
400 Unicorn Park Drive
Woburn, MA 01801
781.721.4000

GEI Website
www.geiconsultants.com

POINT OF CONTACT

Mark Fortner, PE, PLS, a Senior Engineer with GEI, will serve as Project Manager for this project. He will be the primary point of contact for the District's Emergency Action Plan and Inundation Mapping Services for the Bear Valley SH Dam project. He can be reached at 916.631.4534 or mfortner@geiconsultants.com.

INUNDATION MAPPING AND DAM BREAK ANALYSIS EXPERIENCE

GEI's experts have formulated dam break models in compliance with DSOD and FERC guidelines using the accepted Hydrologic Engineering Center River Analysis System (HEC-RAS) program from USACE and integrate these results in ArcGIS system software to aid visualization. GEI has experience in successfully completing recent multiple EAP and inundation mapping projects in California. These projects include the EAP for Hernandez Dam and Paicines Dam in the San Benito County, Ross Dam Failure and Inundation Study in Calaveras County, Operations Response and Recovery Plan for Mirabel (Inflatable) Dam in Sonoma County, and Inundation Mapping Services for DWR. Our ongoing inundation mapping projects include Yosemite Lake Dam EAP and Inundation Study for Merced Irrigation District, Lopez Dam and Terminal Dam Inundation Technical Study for San Luis Obispo County Flood and Water Conservation District, and Higuera Dam EAP and Mapping for Wells Fargo Bank. Multiple elements of these projects required mapping levee breaches and mapping the flood extents in California. Some of the notable efforts with DWR include the Central Valley Flood Protection Program (CVFPP) where GEI modeled multiple hydrological scenarios to evaluate the potential of flood mitigation of the proposed capital improvement projects in the Central Valley.

PROJECT MANAGEMENT, MEETINGS, AND OTHER SERVICES

Proactive management is vital to the success of any undertaking. GEI's proposed Project Manager, Mark Fortner, has demonstrated experience in guiding complex projects to successful completion through rigorous project planning, scheduling, and control. Mr. Fortner will review the work and work products for quality and completeness.

GEI will monitor the work status and adhere to the established project schedule and budget. We will report to the District on a regular weekly or monthly basis, as appropriate to the phase of the project, to ensure that the District is fully aware of the progress of the work being performed.

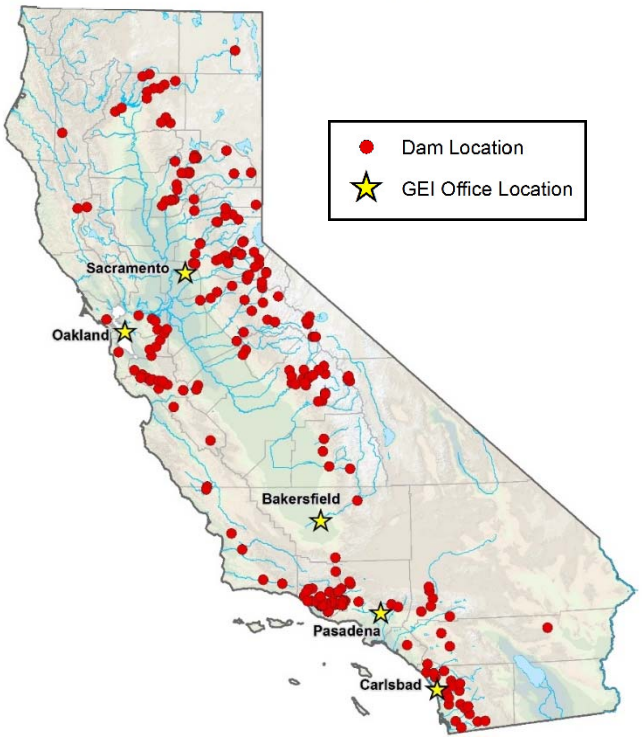
A key component to effective project management is communication. Proactive communication, coupled with budget and schedule controls, adherence to strict quality assurance and quality control processes, and coordination and leadership, will facilitate GEI's ability to provide quality products and service to the District. GEI anticipates that regular meetings and conference calls with the District will be a part of this project. Additionally, meetings with stakeholder groups will be essential to maintaining the public trust.

MISCELLANEOUS DAM SAFETY, STABILITY, AND ENGINEERING CONSULTING

GEI provides water resources, geotechnical, and environmental consulting engineering services, and devotes a major portion of its resources to the planning, evaluation, remediation, and improvement of California and U.S. water supply and flood control, specializing in the evaluation, design and remediation of dams, levees, and related hydraulic control structures. Our services are built on the expertise and teamwork of nearly 800 employees nationwide, including 200 in California. GEI has proven experience in managing complex water projects, including flood risk and flood evaluations of dams and levees, and planning, evaluation, rehabilitation, design, and construction of dam and levee improvements. GEI's decades-long work in our water practice, including a specialty focus on dams and levees, has afforded what many clients and regulatory agencies view as unique insight in developing thoughtful, detailed approaches for streamlining project investigation and engineering design, leading to cost-effective and reliable projects.

Over the past 20 years, GEI's California practice has grown to earn a strong reputation for excellence in dam and levee safety investigation, analysis, design, and construction. GEI is recognized as one of the foremost dam engineering companies in the United States. As previously stated, our reputation is substantiated by our selection for several long-term, indefinite-quantity contracts for dam engineering services from clients such as DWR, USACE, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, PG&E, and local water supply districts. In California, we provide dam engineering services to numerous water agencies, utilities, local governments, and state agencies. **Figure 1** is an annotated map showing the breadth of GEI's dam experience in California with experience on over 240 dams.

FIGURE 1. GEI CALIFORNIA DAM EXPERIENCE

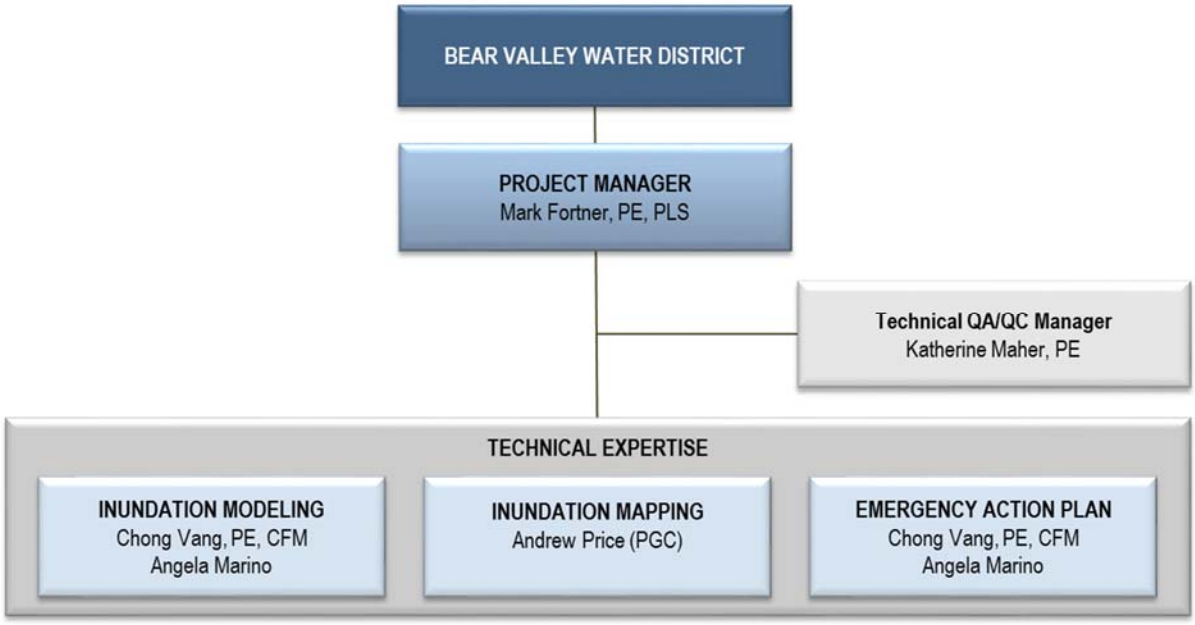


GEI PROJECT TEAM

GEI has put together the following team to complete the dam break and inundation mapping for the District. The team will be led by Mark Fortner as Project Manager. Mr. Fortner will be responsible for managing the GEI Team and to deliver the services in accordance with the established scope of services. Mr. Fortner will be responsible for making sure the GEI Team resources are made available to perform tasks. Katherine Maher, PE, will provide senior guidance and Quality Assurance/Quality Control. Chong Vang, PE, CFM, will be the Inundation Modeling Lead to ensure the inundation study is in accordance to the state and federal guidelines. Andrew Price, Price Geographic Consulting (PGC) will develop the flood inundations map in accordance to DSOD and Cal OES guidelines. Chong Vang, PE, CFM will coordinate with the identified emergency management agencies and prepare the EAP in accordance to Cal OES guidelines. Resumes are provided in the **Appendix.**

The GEI Team organizational chart **(Figure 2)** illustrates how our team will function and who will perform which specific duties.

FIGURE 2. GEI PROJECT TEAM ORGANIZATION



IDENTIFICATION OF SUBCONSULTANTS

GEI is teaming with Price Geographic Consulting to perform the scope of services for the District's EAP and Inundation Mapping Services for Bear Valley SH Dam. GEI will perform the project management and schedule, dam failure analyzes, and prepare the technical reports. In partnership with PGC, PGC will develop the inundation mapping. PGC has been providing geospatial mapping, analysis and GIS solutions for the environmental, hydroelectric, water resource, engineering, mining and forestry communities since 1997. PGC prepares inundation maps, utility systems maps, UAV (Drone) aerial surveys, inspections, topographic maps and photogrammetry, GPS data collection, Geographic Information System (GIS) development, annexation and redistricting mapping and many other services to assist organizations in fulfilling their missions in a responsive, timely, and cost aware manner. PGC utilizes ESRI ArcGIS, Autodesk AutoCAD, and Pix4D software, sub-centimeter GPS equipment, and UAV (drone) quadcopters to get your project done.

REFERENCES

We encourage the District to contact our client references **(Table 1)** to discuss GEI's performance on recent dam engineering projects. Our clients have told us that they truly appreciate the high quality and personalized service that GEI provides.

TABLE 1. CLIENT REFERENCES

Reference Information	Client/Project Owner	Project Details	Team Members
Michael Minkler General Manager 209.736.9419	Utica Water & Power Authority 1168 Booster Way Angels Camp, CA 95222 Years Relationship: 5	Ross Dam Failure and Inundation Study Performed a dam sunny day failure analysis and flood wave routing Completion Date: December 2017 Project Cost: $30,000	PM: Bill Rettberg H&H Lead: Mark Fortner QAQC: Chris Ferrari Modeler: Chong Vang GIS: Andrew Price
Jeff Cattaneo General Manager 831.637.8218	San Benito County Water District 30 Mansfield Road Hollister, CA 95024 Years Relationship: 10	Hernandez Dam and Paicines Dam Emergency Action Plans Developed EAPs for Hernandez Dam and Paicines Dam with inundation maps of hypothetical dam failure analysis Completion Date: April 2016 Project Cost: $80,000	PM: Richard Sanchez H&H Lead: Mark Fortner Modeler: Chong Vang GIS: Sarah Troedson
Dudley McFadden 916.452.3211	Sacramento Municipal Utility District 6201 S Street, Mailstop B355 Sacramento, CA 95817 Years Relationship: 5	Rancho Seco Dam Breach and Inundation Mapping Dam break and failure analysis to with use of HEC-RAS and NWS BREACH computer models Completion Date: August 2014 Project Cost: $45,000	PM: Bill Rettberg H&H Lead: Mark Fortner Modeler: Katherine Maher GIS: Sarah Troedson
David L. Panec PE Chief, Dam Safety Branch 916.653.0772	California Department of Water Resources 1416 Ninth Street Sacramento, CA 95814 Years Relationship: 10	DWR Inundation Mapping Studies Engineering services to DWR for dam break and preparation of inundation maps Completion Date: October 2014 Project Cost: $1.2 M	PM: Steve Verigin Technical: Mark Fortner Modeler: Katherine Maher GIS: Sarah Troedson

PROJECT UNDERSTANDING AND WORK PLAN

GEI Team understands the objective of this project is to develop an Emergency Action Plan, perform a dam break analysis and flood wave routing downstream, and preparation of inundation maps for Bear Valley SH Dam, No. 1088.000, owned by the District. Specific dam information is included on **Table 2** and see **Figure 3** for aerial view of dam location. We understand that the dam is comprised of multiple components and probable failure modes. Our proposal includes evaluation of several failure modes and potential mapping. We will also route the dam break flood and determine if populations are at risk and the need for mapping.

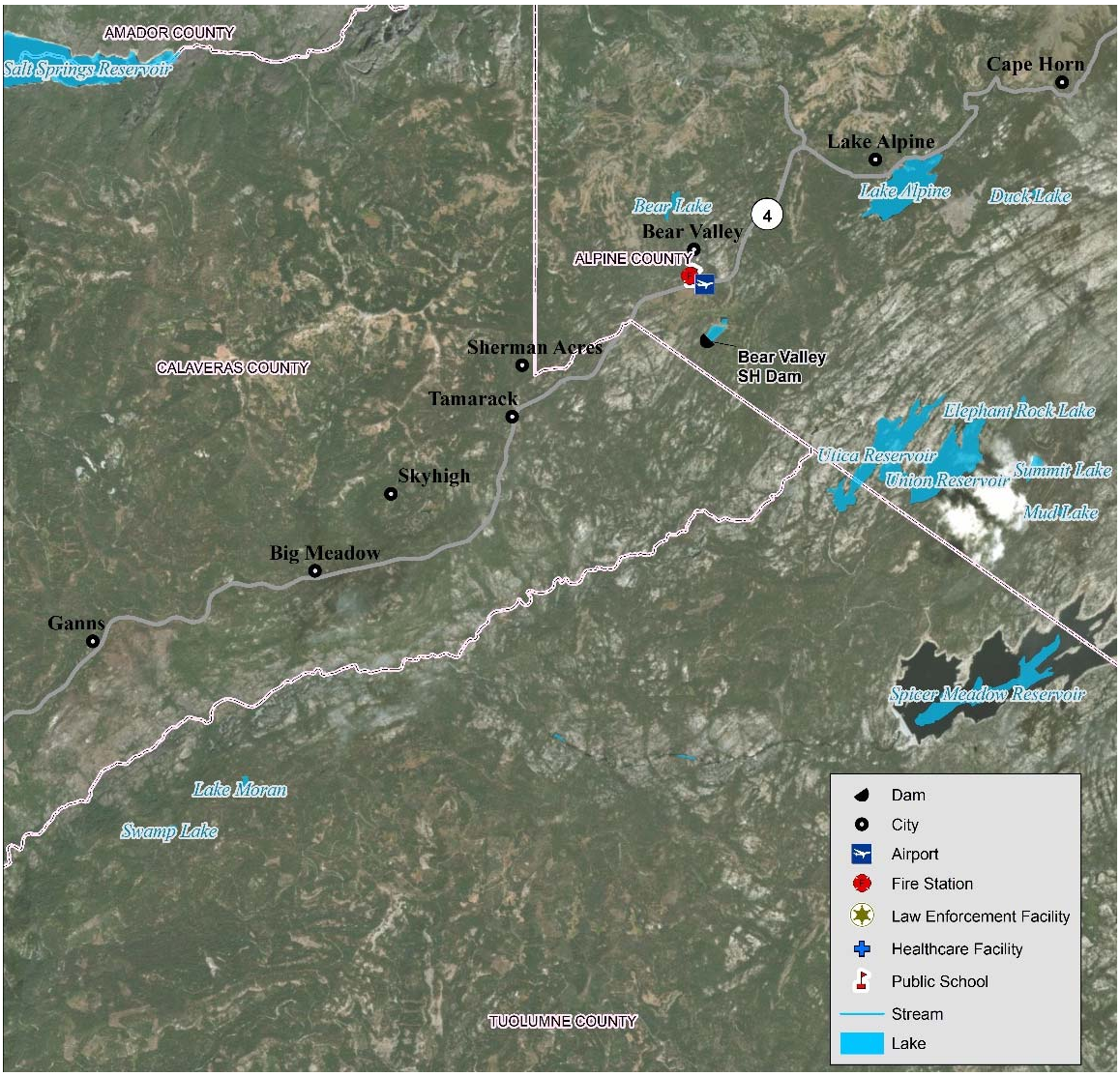
Under the newly enacted state law effective of July 1, 2017, dam owners are to prepare an EAP for their dam and critical appurtenant structures under certain conditions and specific time limits (California Water Code Sections 6160 and 6161). Bear Valley SH Dam, owned by the District, have a hazard classification of "significant." EAPs for significant hazard classification dams must be completed and submitted on or before January 1, 2021 to Cal OES.

TABLE 2. BEAR VALLEY SH DAM INFORMATION

Dam No.	Dam Name	Year Built	Dam Height (feet)	Crest Elevation (feet)	Crest Length (feet)	Reservoir Capacity (acre-feet)	Reservoir Area (acre)	Dam Type
1088.000	Bear Valley SH	1975	43	7,090.20	520	346	16	Earthen

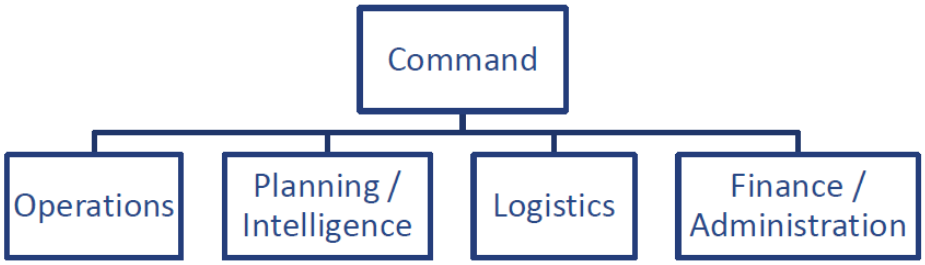
Source: DSOD; Note: Elevations are presented as local datum; Reservoir area base on maximum water storage elevation.

FIGURE 3. BEAR VALLEY SH DAM LOCATION



EMERGENCY ACTION PLAN

A dam safety EAP will be prepared for Bear Valley SH Dam detailing the potential emergency conditions at the dam and specific actions to be followed to minimize the loss of life and property damage. The EAP will be prepared in a manner consistent with requirements of the District, DSOD, Cal OES, and local emergency management agencies by coordinating with these agencies. The EAP will leverage the National Incident Management System (NIMS), Standardized Emergency Management System (SEMS), and the Incident Command System (ICS) when responding to emergencies. The basic organizational structure of all three systems is shown here.



GEI Team will coordinate with the District to ensure the EAP includes:

- Current contact information of emergency management team, emergency services contacts, and available local resources
- Emergency Notification Flowcharts identifying the responsible emergency personnel for notifying representatives for each emergency management official
- The Five-Step EAP process of emergency detection, determining the emergency level, notifying emergency management team, proceeding with remediation actions, and termination of the EAP
- Reporting log
- Dam location and vicinity, dam data, inundation map, and potential facilities at risk

INUNDATION STUDY

Dam break analyses and inundation mapping for Bear Valley SH Dam will be performed consistent with California Water Code and the Federal Emergency Mapping Agency (FEMA) Guidelines for Inundation Mapping of Flood Risks Associated with Dam Incidents and Failures (FEMA P-946), July 2013.

The analyses will be based on information on the design and construction of the dam, including composition, zoning, dimensions of the dam, and basin elevation-area-capacity curves. We plan to use the U.S. Geological Survey (USGS) National Elevation Dataset (NED) topographic mapping for the potential inundation areas, and anticipate that it is sufficiently detailed to generate a terrain surface to determine preferential flow paths for the dam breach floods, unless more detailed topographic data is available from the District or other sources.

The inundation mapping will extend to a point downstream of the dam where the breach flood is either absorbed by a large body of water or the flood water depths become less than one foot or at a point which the flood flows are no longer considered to pose a hazard.

WORK PLAN AND SCHEDULE

Based on the District's request and the GEI Team's experience in EAP, dam breach modeling, and inundation map preparation we have identified the following tasks to describe the scope of work that will prepared to develop the models, prepare the maps, and the reports. This will provide a basis for finalizing a scope of work and budget with the District.

TASK 1: PROJECT MANAGEMENT

A kick-off meeting will be scheduled after execution of the agreement with the District. GEI Team will establish appropriate contacts, present GEI's plan for implementing the work, reaffirm proposed scope of work, and discuss the schedule for completion of the project. The schedule will include milestones for the remainder of the project and allow for District review periods. The schedule is tentative to complete the project and can be revised after discussion with the District because of the time urgency for completion.

Meetings are anticipated to be conducted regularly with scheduled person and/or phone meetings with the District. During these meetings, GEI Team will ask questions, receive input, and obtain decisions from the District to assure the inundation mapping and study for the dams meet the purpose and requirements of the District.

TASK 2: DOCUMENT GATHERING AND SITE VISITS

GEI Team will review the relevant existing data provided by the District. The review will include the dam configuration and construction materials, spillway configuration and rating curve, reservoir elevation-area-capacity data, previous studies and hydraulic models if available, and the associated downstream reaches. We understand some of these records provided by the District may be judged as "Sensitive Material" and will obtain the appropriate releases from the District. We will take the necessary steps to ensure the documents remain confidential. If necessary, GEI will coordinate with DSOD to retain relevant information of the Bear Valley SH Dam.

We will work with the District to obtain all necessary geo-referenced shapefiles and data that the District may have or would like to incorporate into the studies and plan as applicable and relevant to this project. GEI Team will define the downstream reaches, communities, and critical facilities using GIS and the most appropriate and available mapping data. Prior to any terrain development, we will review the proposed terrain data with District personnel and evaluate the level of accuracy of the data to determine if it is appropriate for hydraulic modeling.

GEI Team will also review recent aerial photography and other currently available information to perform a preliminary evaluation of the downstream reaches. A reconnaissance of the dam and the downstream reach will be performed to support the hydraulic analyses. If necessary, the reconnaissance will include estimation of the size and features of bridges and culverts that are expected to impact the results of the dam failure study.

TASK 3: INUNDATION STUDY REPORT PREPARATION

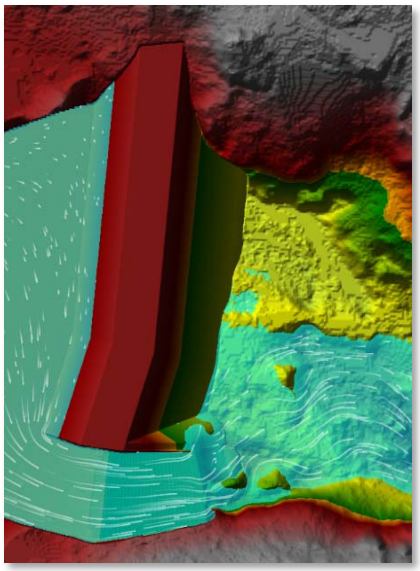
Task 3.1 – Dam Break Analysis

Dam breach analyzes will performed for Bear Valley SH Dam. GEI Team will develop breach parameters for the dam based on dam composition and construction methods. We will include multiple failure modes and critical appurtenant structures. Following the FEMA P-946 guideline, an event-based approach of a fair weather (Sunny Day) failure case will be analyzed for Bear Valley SH Dam. Breach analyses will be modeled

as a piping failure with breach parameters developed in accordance with the FEMA and FERC guidelines. Additional, published dam breach parameter estimation methods (parametric regression equations) will be evaluated.

Task 3.2 – Flood Wave Routing Analysis

FIGURE 4. HEC-RAS 5.0 MODEL 2-D OUTPUT



We will develop hydraulic computer models using the latest version of the USACE Hydrologic Engineering Center River Analysis System (HEC-RAS) software, version 5.0.3, to route the flood wave downstream to determine the peak water surface elevations, peak discharges, times to peak stage, arrival times, deflood times, floodplain widths and velocities for the dam breach conditions. We believe there are several advantages to using HEC-RAS for this project:

- HEC-RAS can perform 1-dimensional (1D) and 2-dimensional (2D) unsteady flow routing (**Figure 4**).
- HEC-RAS can easily import the downstream high-resolution terrain data.
- HEC-RAS can simulate 2D flow in the flat gradient urban areas.
- Flood channel cross-sections and flood plains can be geo-spatially referenced in HEC-RAS and modeled as a 1D, 2D, or 1D coupled with 2D features.
- HEC-RAS has features to post process and create preliminary inundation maps as well as communicates with GIS.
- Results from multiple scenarios are easily compared and illustrated in HEC-RAS which is useful for performing sensitivity analyses of critical modeling assumptions such as the breach parameters and manning's n-values.

GEI will also use HEC-RAS to test and document the sensitivity of the dam breach outflow hydrographs to the breach parameters and select the most reasonable parameters. We will discuss the breach methods and outflow hydrographs with the District to ensure all project expectations are met.

We anticipate a two-dimensional model will be used, provided sufficient high-quality terrain data is available. The downstream hydraulic routing will extend to a point downstream of the dams where the dam failure flood impacts no longer pose a hazard. The downstream model limit may vary for each of the failure analyses but will occur when the breach flood is either absorbed by a large body of water or the flood water depth become less than one foot or at a point which the flood flows are no longer considered to pose a hazard.

Task 3.3 – Draft Report Preparation

After development of the dam failure and routing analyses, GEI will develop a Bear Valley SH Dam Break and Inundation Study. The report will summarize our hydraulic analyses performed in Task 3.1 and Task 3.2 and identify potential flood wave impacts downstream of the dam. In addition to the report text, figures and appendices, GEI will provide all electronic files developed for the engineering analyses, inundation mapping, and computer models.

The Dam Break and Inundation Study will include an executive summary and will be organized as follows:

1. Introduction
2. Project Description
3. Previous Studies and Records
4. Dam Break Analysis
5. Flood Wave Routing Analysis
6. Results
7. Recommendations (if necessary)
8. Limitation of Liability
9. References
10. Appendices

One hard color copy of the Draft Bear Valley SH Dam Break and Inundation Study and electronic copies in MS Word and PDF will be provided to the District for review and comment. The report will include reservoir capacity tables, other relevant dam and reservoir data, tabular hydraulic data for each cross-section or critical structure location, and abbreviated output from computer models. The report will be suitable as appendix or supporting documentation in the EAP documents.

Task 3.4 – Final Report Preparation

GEI Team will incorporate the District's comments on the draft report into the Final Bear Valley SH Dam Break and Inundation Study. GEI Team will provide four hard color copies of the Final Bear Valley SH Dam Break and Inundation Study with an electronic storage device containing the report, electronic files in MS Word and PDF, PDFs of inundation maps, supporting calculations and hydraulic and hydrologic models to the District. The Final Bear Valley SH Dam will be appropriate to be submitted to DSOD.

Task 3.5 – Address DSOD Comments and Finalize Report

GEI Team understands the final report will be provided to DSOD for review. Upon DSOD's review, if deem incomplete, GEI Team will address and incorporate DSOD's comments to the dam's Final Bear Valley SH Dam Break and Inundation Study. GEI Team will coordinate with the District and DSOD to ensure all comments are addressed before resubmittal of the final report to DSOD.

TASK 4: INUNDATION MAPPING

Task 4.1 – Draft Inundation Maps

The GEI Team will prepare Environmental Systems Research Institute (ESRI) shapefile format inundation maps based on the dam failure evaluation in conformance with DSOD and Cal OES requirements. We will coordinate with the District to develop two (2) sets of color 24- by 36-inch inundation maps that include the best available National Agricultural Imagery Program (NAIP) color aerial imagery. One set of inundation maps detailing the maximum flood depth hazard zones with arrival time contours and another set of inundation maps detailing the maximum flood depth hazard zones with deflood time contours. The inundation maps will also be provided in the report as 11- by 17-inch maps. The inundation maps will be developed at scale of one-inch to 2,000 feet, except in rural areas with minimal development. The inundation maps will be suitable to be included in the EAP.

The inundation maps will show the sunny day dam failure flood boundary and identify dam breach information at critical locations including distance from dam, flood wave arrival time, time to peak, peak discharge, maximum flow depth, maximum flow velocity, and deflood time. The inundation maps will indicate the maximum flood depths with color-coded hazard ratings. The inundation mapping will also identify roads, highways and other critical infrastructure impacted by the dam breach flood wave, including

major roads expected to be overtopped. The maps will also include all the required information regarding the dam, graphic scale and north arrow, breach assumptions and routing methods, Confidential and Proprietary statement, and data sources used to develop the maps.

One hard color copy of the Bear Valley SH Dam inundation map and electronic copy in PDF will be provided to the District for review and comment.

Task 4.2 – Final Inundation Maps

GEI Team will incorporate the District's comments on the draft inundation map into the final Bear Valley SH Dam inundation amp. GEI Team will provide four hard color copies along with an electronic storage device containing the PDFs of the inundation maps to the District.

Task 4.3 – Address DSOD Comments and Finalize Report

GEI Team understands the final inundation map will be provided to DSOD for review. Upon DSOD's review, if deem incomplete, GEI Team will address and incorporate DSOD's comments to the dam's final inundation map. GEI Team will coordinate with the District and DSOD to ensure all comments are addressed before resubmittal of the final map to DSOD.

TASK 5: EMERGENCY ACTION PLAN

Task 5.1 – Coordination and Outreach

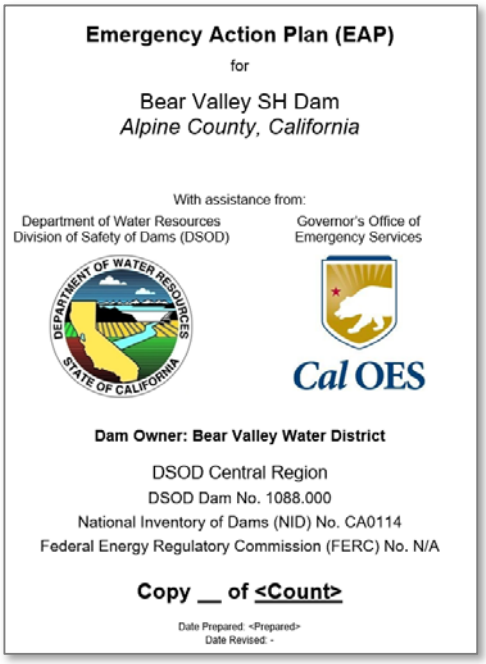
GEI Team will coordinate with the District to review relevant existing data, studies, and identify downstream inundation area. We will coordinate with and obtain current contacts of the emergency management agencies from the federal, state, and local levels. Collection of the District's current contact information and available local resources are to be included in the EAP. The District will be provided a general outline of the EAP guidelines from the DSOD and Cal OES requirements.

We will coordinate with the District to obtain all necessary shapefiles and data to be included in the inundation maps of the EAP. Critical facilities will be identified and, if necessary, will be included in the EAP.

FIGURE 5. EXAMPLE EMERGENCY ACTION PLAN

Task 5.2 – Draft EAP Preparation

GEI Team will prepare a draft EAP detailing the potential emergency conditions at the dam and specific actions to be followed to minimize the loss of life and property damage. The EAP will be prepared in a manner consistent with requirements of the District, DSOD and Cal OES by coordinating with these agencies **(Figure 5)**. The EAP will include the following:



- Current contact information of emergency management team, emergency services contacts, and available local resources
- Emergency Notification Flowcharts identifying responsible emergency personnel for notifying representatives for each emergency management official
- The Five-Step EAP process of emergency detection, determining the emergency level, notifying representatives for each emergency management official
- Reporting log
- Dam location and vicinity, dam data, inundation map, and potential facilities at risk

One hard copy of the Draft EAP for Bear Valley SH Dam and electronic copy in MS Word and PDF will be provided to the District for review and comment.

Task 5.3 – Final EAP Preparation and Cal OES and DSOD

The GEI Team will incorporate the District's comments on the Draft EAP for Bear Valley SH Dam into the Final EAP for Bear Valley SH Dam. GEI will provide four hard copies of the Final EAP for Bear Valley SH Dam with an electronic storage device containing the plan, electronic files in MS Word and PDF, and PDFs of inundation maps to the District.

Task 5.4 – Address Cal OES Comments and Finalize Plan

GEI Team understands the final plan will be provided to Cal OES for review. Upon their review, if deemed incomplete, the GEI Team will address and incorporate Cal OES comments to the Final EAP For Bear Valley SH Dam. GEI will coordinate with the District and Cal OES to ensure all comments are addressed before resubmittal of the final plan to Cal OES.

RATE SCHEDULE AND COST ESTIMATE

We have prepared Rate Schedule and Cost Estimate. Our rates will remain in effect throughout the contract with the District.

FEE SCHEDULE AND PAYMENT TERMS

GEI Consultants

FEE SCHEDULE

Personnel Category	*Hourly Billing Rate* $ per hour
Staff Professional – Grade 1	$ 113
Staff Professional – Grade 2	$ 125
Project Professional – Grade 3	$ 137
Project Professional – Grade 4	$ 154
Senior Professional – Grade 5	$ 181
Senior Professional – Grade 6	$ 206
Senior Professional – Grade 7	$ 245
Senior Consultant – Grade 8	$ 275
Senior Consultant – Grade 9	$ 335
Senior Principal – Grade 10	$ 335
Senior CADD Drafter and Designer	$ 137
CADD Drafter / Designer and Senior Technician	$ 125
Field Professional	$ 103
Technician, Word Processor, Administrative Staff	$ 102
Office Aide	$ 80

These rates are billed for both regular and overtime hours in all categories.
Rates will increase up to 5% annually, at GEI's option, for all contracts that extend beyond twelve (12) months after the date of the contract. Rates for Deposition and Testimony are increased 1.5 times.

OTHER PROJECT COSTS

Subconsultants, Subcontractors and Other Project Expenses - All costs for subconsultants, subcontractors and other project expenses will be billed at cost plus a 15% service charge. Examples of such expenses ordinarily charged to projects are subcontractors; subconsultants: chemical laboratory charges; rented or leased field and laboratory equipment; outside printing and reproduction; communications and mailing charges; reproduction expenses; shipping costs for samples and equipment; disposal of samples; rental vehicles; fares for travel on public carriers; special fees for insurance certificates, permits, licenses, etc.; fees for restoration of paving or land due to field exploration, etc.; state sales and use taxes and state taxes on GEI fees.

Billing Rates for Specialized Technical Computer Programs – Computer usage for specialized technical programs will be billed at a flat rate of $10.00 per hour in addition to the labor required to operate the computer.

Field and Laboratory Equipment Billing Rates – GEI-owned field and laboratory equipment such as pumps, sampling equipment, monitoring instrumentation, field density equipment, portable gas chromatographs, etc. will be billed at a daily, weekly, or monthly rate, as needed for the project. Expendable supplies are billed at a unit rate.

Transportation and Subsistence - Automobile expenses for GEI or employee owned cars will be charged at the rate per mile set by the Internal Revenue Service for tax purposes plus tolls and parking charges or at a day rate negotiated for each project. When required for a project, four-wheel drive vehicles owned by GEI or the employees will be billed at a daily rate appropriate for those vehicles. Per diem living costs for personnel on assignment away from their home office will be negotiated for each project.

PAYMENT TERMS

Invoices will be submitted monthly or upon completion of a specified scope of service, as described in the accompanying contract (proposal, project, or agreement document that is signed and dated by GEI and CLIENT).

Payment is due upon receipt of the invoice. Interest will accrue at the rate of 1% of the invoice amount per month, for amounts that remain unpaid more than 30 days after the invoice date. All payments will be made by either check or electronic transfer to the address specified by GEI and will include reference to GEI's invoice number.

COST ESTIMATE

Task No.	Description	Labor Estimates																Total Estimate			
		Grade 8		Grade 5		Grade 5		Grade 4		Grade 3		Grade 2		Grade 1		Admin					
		Project Manager		QAQC Manager		Senior Engineer / GIS		Staff Engineer / GIS		Staff Engineer / GIS		Staff Engineer / GIS		Staff Engineer / GIS		Document Production					
		Hrs	$267	Hrs	$181	Hrs	$181	Hrs	$154	Hrs	$137	Hrs	$125	Hrs	$113	Hrs	$102	Hrs	Labor	ODCs	Total
1	**Project Management**																				
1.1	Project Planning, Review, and Schedule	6	$1,602			1	$181											7	$1,783		$1,783
1.2	Project Meeting	6	$1,602			6	$1,086											12	$2,688		$2,688
																		19	**$4,471**		**$4,471**
2	**Document Gathering and Site Visits**																				
2.1	Data Collection and Review					4	$724	4	$616			4	$500					12	$1,840	$200	$2,040
2.2	Site Visit					6	$1,086					6	$750					12	$1,836	$120	$1,956
																		24	**$3,676**	**$320**	**$3,996**
3	**Inundation Study Report Preparation**																				
3.1	Dam Break Analysis					4	$724											4	$724		$724
3.2	Flood Wave Routing Analysis					24	$4,344					16	$2,000					40	$6,344		$6,344
3.3	Draft Report Preparation	2	$534	2	$362	16	$2,896					16	$2,000			2	$204	38	$5,996	$40	$6,036
3.4	Final Report Preparation	1	$267	1	$181	4	$724									2	$204	8	$1,376	$40	$1,416
3.5	Address DSOD Comments and Finalize Report	1	$267			4	$724											5	$991	$40	$1,031
																		95	**$15,431**	**$120**	**$15,551**
4	**Inundation Mapping**																				
4.1	Draft Inundation Maps	1	$267	1	$181	40	$7,240					16	$2,000			2	$204	60	$9,892	$40	$9,932
4.2	Final Inundation Maps	1	$267	1	$181	4	$724									2	$204	8	$1,376	$40	$1,416
4.3	Address DSOD Comments and Finalize Maps	1	$267	1	$181	4	$724											6	$1,172	$40	$1,212
																		74	**$12,440**	**$120**	**$12,560**
5	**Emergency Action Plan**																				
5.1	Coordination and Outreach					8	$1,448											8	$1,448		$1,448
5.2	Draft EAP Preparation	1	$267	1	$181	16	$2,896					8	$1,000			2	$204	28	$4,548	$40	$4,588
5.3	Final EAP Preparation	1	$267	1	$181	4	$724									2	$204	8	$1,376	$40	$1,416
5.4	Address Cal OES Comments and Finalize Plan	1	$267	1	$181	4	$724											6	$1,172	$40	$1,212
																		50	**$8,544**	**$120**	**$8,664**
	Total for Tasks 1, 2, 3, 4, and 5	**22**	**$5,874**	**9**	**$1,629**	**149**	**$26,969**	**4**	**$616**			**66**	**$8,250**			**12**	**$1,224**	**262**	**$44,562**	**680**	**$45,242**

APPENDIX - RESUMES

Mark E. Fortner, P.E., P.L.S.
Project Manager

resume

Mark Fortner has broad civil engineering experience in the fields of hydrology and hydraulics for flood control, dam safety, water supply, and water resource management. This work includes providing services to irrigation districts, water companies, large and small agricultural businesses, gravel operators, state and county agencies. Specific work includes analysis and development of improved operations for snow melt runoff forecasting of the Feather, Yuba, and Merced watersheds using the USGS –PRMS model. He has conducted hydrologic, hydraulic analyses for PMF spillway analysis, dam break, and for a variety of projects incompliance with FERC, DSOD and California OES guidelines. Mr. Fortner's other responsibilities include representing clients at various agency or organizational meetings, and coordinating with regulatory agencies for project design.

EDUCATION
B.S., Civil Engineering, Sacramento State University

EXPERIENCE IN THE INDUSTRY
29 years

EXPERIENCE WITH GEI
9 years

REGISTRATIONS AND LICENSES
Professional Engineer, CA No. 48266
Licensed Land Surveyor, CA No. 7342

PROJECT EXPERIENCE

Oroville Emergency Spillway Recovery Project, California Department of Water Resources (DWR), Feather River, CA. Served as the lead hydraulics engineer for the recovery of the damaged Oroville Reservoir spillway which is part of the California State Water Project. The dam is a zoned earth fill embankment located on the Feather River in Butte County. The 3,000-foot spillway was damaged in February 2017 causing overflow of the emergency spillway for the first time since completion in 1968. A team led by DWR and its consultants developed a recovery plan in close coordination with the Division of Safety of Dams (DSOD) and the Federal Energy Regulatory Commission (FERC) to rebuild the spillway. Served as the hydraulics lead for the recovery team to evaluate spillway hydraulic and incorporate modern engineering components into the new spillway design.

Hernandez Dam and Paicines Dam Emergency Action Plans, San Benito County Water District, CA. Managed the preparation of a dam safety Emergency Action Plan (EAP) for Hernandez Dam and Paicines Dam detailing the potential emergency conditions at the dams and specific actions to be followed to minimize the loss of life and property damage. The EAP identified the notification flowcharts and contact information, the Five-Step EAP process of determining the emergency level, and the roles and responsibilities of the emergency management teams. The inundation mapping was performed using hypothetical failures of Hernandez Dam and Paicines Dam under a "sunny-day" condition. The dam failure analyses, flood wave routing, sensitivity analysis of breach parameters and manning's n-values were completed using U.S. Army Corps of Engineers (USACE) HEC-RAS 5.0 unsteady 2D flow analysis. Data collected from USGS digital elevation model (DEM) and AMBAG Light Detection and Ranging (LiDAR) survey along with USGS National Land Cover Dataset (NLCD) were used to model the impact areas downstream as a 2-Dimensional (2D) floodplain. The maximum extent of the 2D

floodplain was approximately 86 miles from the headwaters of Hernandez Dam to the confluence of San Benito River and Pajaro River.

Dam Failure and Inundation Mapping Study, Sacramento Municipal Utility District (SMUD), Sacramento, CA. Project Manager for dam failure analysis and inundation mapping of SMUD's Rancho Seco Dam located in California's Central Valley. Responsible for estimating dam breach parameters, developing and calibrating a HEC-RAS model, identifying downstream structures and hazards, performing dynamic flood routing, performing sensitivity analyses, and preparing inundation mapping in compliance with CalOES criteria.

Engineering Design Support for Dam Safety, California Department of Water Resources (DWR), Sacramento, CA. Served as the technical leader for developing computer models to simulate dam break failures, determine dam break hydrographs, and simulate the overland progression of the dam break flood waves. Eight potential dam and reservoir sites were investigated. All eight dams are high hazard dams with the potential for loss of human life and large property damage. Dam types ranged from earth fill to concrete gravity dams. Dam heights ranged from 100 feet to 770 feet and capacities from 180,000 acre-feet to over 4 million acre-feet. The GEI team collected previous studies, evaluated breach parameters, developed inundation modeling, and worked closely with federal and state agencies to produce the inundation maps in compliance with FERC and OES standards.

Project 184 FERC Dam Inspections, El Dorado Irrigation District (EID), Placerville, CA. Supervised the evaluation of hypothetical failures and downstream flooding of EID dams in preparation of GIS-based inundation maps for Emergency Action Plans. Dam failure analysis and flood wave routing were performed using USACE HEC-RAS computer program. Breach parameters were developed based on suggested values in the Federal Energy Regulatory Commission Engineering Guidelines (FERC). The modeling included sunny day (normal pool), PMF flood failures, and sensitivity analyses of breach parameters and Manning's n-values.

Flood Emergency Response (Flood ER) Program, California Department of Water Resources (DWR), Sacramento, CA. GEI is the prime consultant assisting DWR with a major, multi-year program to overhaul California's Flood Emergency Response Program. Served as the Project Manager for evaluating and testing snowmelt runoff models, particularly the USGS-PRMS model, for applicability of use by DWR for water supply forecasting. This work will culminate in a final report to document process and provide a working model for operational forecasting of springtime snowmelt runoff. Also served as the project manager for watershed runoff and modernization to improve operational runoff forecasting leading up to flood events.

Probable Maximum Flood Study for Virginia Ranch Dam, Browns Valley Irrigation District, Yuba County, CA. Lead hydrology and hydraulics engineer for PMF study of Virginia Ranch Dam which impounds Collins Lake. The dam is a 152-foot earth embankment dam storing 57,000 acre feet. Served as lead engineer responsible for hydrology and hydraulic calculations and computer modeling for the development of the PMF estimates for Virginia Ranch Dam. Specific tasks included subbasin delineation of a 108 square-mile watershed, development of probable maximum precipitation (PMP) for each subbasin using HMR 59, estimating basin loss rates, determining drainage base flows, developing unit hydrographs, creating channel and reservoir routing parameters, and preparing the final report and figures.

Hydrologic and Hydraulic Study, Mimino and Kaneha Reservoirs Cornerstone Hawaii Holdings, Kauai, Hawaii. Hydrologic and hydraulic analysis for spillway capacity to pass inflow design flood (IDF), PMF. This work consisted of complying with requirements for state-regulated dams in Hawaii, "Guidelines for Safety Inspections of Dams" DLNR (1992), for PMP storm evaluation and runoff analysis into Mimino and Kaneha reservoirs. Reservoir routing and spillway capacity determination was performed. Both dams are used for irrigation purposes.

Chong Vang, P.E., CFM
Project Engineer

resume

Chong Vang's expertise is in water resources planning and project management. His experiences include providing lead technical engineering and project management support on civil designs, site plans, floodplain water management, and hydrologic and hydraulic modeling analyzes. Mr. Vang has experience evaluating dam breach analyzes and developing inundation mapping for dams in accordance to Cal OES, FERC, and FEMA. He is involved in providing water resources engineering support to the California Department of Water Resources (DWR) Division of Flood Management in directing the DWR's integrated flood management and emergency response systems throughout California flood control facilities. He has managed project task orders integral to DWR pre-planning of forecast operations support.

PROJECT EXPERIENCE

Hernandez Dam and Paicines Dam Emergency Action Plan (EAP), Dam Failure and Inundation Study, San Benito County Water District, Hollister, CA. Project Engineer prepared an EAP in accordance with California Governor's Office of Emergency Services (Cal OES) and Federal Emergency Management Agency (FEMA) requirements for regulatory Hernandez Dam and Paicines Dam, classified as high-hazard. The EAP detailed the potential emergency conditions at the dam and specified actions to be followed by the District to minimize the loss of life and property damage. A dam "sunny day" failure analysis was performed and developed inundation mapping for the District's dam located at the headwaters of San Benito River and Pajaro River. HEC-RAS, a numerical hydraulic model was developed to evaluate the dynamic flood routing downstream of each dam. The downstream floodplain was modeled as a 2-D area overlaid with LiDAR topography data. Additional flood inundation sensitivity analyses were preformed including dam failure parameter sensitivity, failure methodology, and floodplain land cover and terrain evaluation. A completed dam failure and inundation study report was included as an appendix to the EAP.

Mirabel Inflatable Dam Operations Response and Recovery Plan, Sonoma County Water Agency, Santa Rosa, CA. Project Engineer responsible for developing the Operations Response and Recovery Plan. The plan established and defined the emergency management procedures and the organizational response for overall coordination of public protective actions by the Emergency Management Team. Emergency management actions may be needed in events of emergency situations to the Mirabel Inflatable Dam located along Russian River. The plan identifies the operations monitoring plan for the inflatable dam during wet and dry season and applicable emergency scenarios.

EDUCATION

M.S., Water Resources Engineering, California State University, Sacramento
B.S., Mechanical Engineering, California State University, Sacramento

EXPERIENCE IN THE INDUSTRY

10 years

EXPERIENCE WITH GEI

5 years

REGISTRATIONS AND LICENSES

Professional Engineer, CA No. 80454

CERTIFICATION

Certified Floodplain Manager, ASFPM No. US-17-09945

GEI Consultants

Ross Dam Failure and Inundation Study, Utica Water and Power Authority, Calaveras County, CA. Project Engineer tasked with developing a detailed dam breach analyses and inundation mapping downstream of Ross Dam, headwater of French Gulch Creek. The dam breach analyses and inundation mapping was performed in accordance with California Water Code, Division 3, Part 1, Chapter 4, Article 6, Section 6160-6162. The breach analyses were modeled as a fair weather (Sunny Day) breach outlined in FEMA guidelines and routed downstream with the latest hydraulic computer model from USACE HEC-RAS version 5.0.3. The inundation mapping identified potential impacts due to the flood wave of the dam failure and detailed cross section results of peak breach discharge, peak flood wave arrival time for one foot, maximum flood wave elevation, deflood time, and maximum average velocities produced by the breach flood wave.

Central Valley Flood Protection Plan, California Department of Water Resources (DWR), Sacramento, CA. Project Engineer responsible for technical support on the planning efforts for the Sacramento River Basin Wide Feasibility Study (BWFS). Performed hydraulic modeling and evaluation of the Sacramento River Basin system configurations with the use of 1-D hydraulic models (HEC-RAS). Used geo-spatial processing tools to implement channel feature modifications to the hydraulic model geometers. Coordinated with the management team on the Yolo Bypass Feasibility Study technical evaluation and modeling of the Yolo Bypass flow conveyance optimization. Lead the technical development efforts of the 2-D hydraulic model of the Yolo Bypass with habitat restoration evaluations for near-term and long-term implementation. Emphases on the enhancement of the bypass ecosystem habitat restoration and the resiliency of the flood management system. The hydraulic evaluation included the development of a detailed 2-D hydrodynamic model to evaluate the options to improve bypass capacity and resiliency through levee setbacks and raises, effects of sea-level rise, and expansions of existing weirs, effects of habitat and environmental restoration plans on water currents, velocities, and hydraulic conveyance capacity.

Flood Emergency Response Program (Phase I), California Department of Water Resources (DWR), Statewide, CA. Staff Engineer responsible for post-processing hydrologic and hydraulic results and products from DWR Central Valley Floodplain Evaluation and Delineation (CVFED) Program and DWR Central Valley Hydrology Study (CVHS) data. Products from CVFED and CVHS were integrated into DWR's Flood Emergency Response Information Exchange (FERIX) to provide interactive geographical information display of flood inundation extents within the Central Valley. Provided technical assistance to DWR staff on the development of 1-D HEC-RAS hydraulic modeling and 2-D FLO-2D floodplain modeling and inundation. Part of the CVFED Technical Review Team with the responsibility to track and perform Quality Assurance on the development of hydraulic models. The hydraulic models included regions within the Sacramento River Basin, San Joaquin Basin, and Upper Cache watershed that included the Middle Creek, Scotts Creek, and surrounding streams.

Flood Emergency Response Program (Phase II), California Department of Water Resources (DWR), Statewide, CA. Project Engineer involved in multiple project management, coordination, and technical assistance to DWR Hydrology and Flood Operations Office (HAFOO). Managed projects of developing a standard quality control guideline for real-time snow data collection and snow field equipment maintenance plan; and estimate the peak flood wave travel times for streams in the Central Valley, North Coast, Central Coast, South Coast, and San Francisco Bay by analyzing period of records from DWR California Data Exchange Center (CDEC). Provided technical support in analyzing the hydraulic conveyance capacity of the Sacramento River and San Joaquin River basin systems with the use of hydraulic model; development of a real-time river forecasting tool for use in HEC-HMS and HEC-RTS; development of geo-spatial pre- and post-processing tools for hydrology and hydraulic modeling applications; and quality control review of CVFED program HEC-RAS riverine hydraulic models, 2-D riverine TUFLOW models, and FLO-2D floodplain models; provided assistances to the development of inundation modeling and mapping for 10 urban area within the Central Valley; integration of hydrology and hydraulic geo-spatial and post processing data to FERIX to provide interactive and dynamic geographical information in support of flood emergency responses

Katherine M. Maher, P.E.
Senior Engineer

resume

Katherine Maher is a professional civil engineer specializing in water resources engineering. Her experience includes hydrologic and hydraulic modeling, local and regional flood protection planning, and hydrologic and climate data management. She has worked on a broad range of projects including dambreak and inundation analysis, reservoir system modeling, and flood protection planning. Ms. Maher is now working on applying her hydrologic modeling experience to flood forecasting and seasonal snowmelt-runoff forecasting applications. Ms. Maher is proficient in several software applications including HEC-ResSim, HEC-RAS, HEC-GeoRAS, HEC-HMS, PRMS, and GIS.

EDUCATION
M.S., Civil Engineering, University of California, Davis
B.S., Civil Engineering, University of California, Davis

EXPERIENCE IN THE INDUSTRY
7 years

EXPERIENCE WITH GEI
6 years

REGISTRATIONS AND LICENSES
Professional Engineer, CA No. 81144

PROJECT EXPERIENCE

Probable Maximum Flood Study for Elderberry Forebay Dam, Los Department of Power and Water, Los Angeles County, CA. Conducted hydrologic and hydraulic analyses for a PMF study of Elderberry Forebay Dam. The dam is an earth fill embankment dam storing 28,400-acre-feet. Responsible for hydrology and hydraulic calculations and computer modeling for the development of the PMF estimates for the dam. Specific tasks included subbasin delineation, development of probable maximum precipitation (PMP) using HMR 58/59, development and verification of a HEC-HMS model, estimation of basin loss rates, determination of drainage base flows, development of unit hydrographs, estimation of channel and reservoir routing parameters, and preparation of the final report and figures.

Engineering Design Support for Dam Safety, California Department of Water Resources, Statewide, CA. Project Engineer responsible for performing hydraulic calculations and flood mapping for breaches of several high hazard DWR jurisdictional dams. Tasks included estimating dam breach parameters, developing and calibrating HEC-RAS models, performing dynamic flood routing, performing sensitivity analyses, and preparing the final report and figures. HEC-RAS, in combination with FLO-2D models, was utilized to develop inundation maps with ArcGIS to depict graphically the computed inundation results.

Dam Failure and Inundation Mapping Study, Sacramento Municipal Utility District, Sacramento, CA. Project Engineer for dam failure analysis and inundation mapping of Sacramento Municipal Utility District (SMUD) dam located in the California Central Valley. Estimated dam breach parameters, developed and calibrated a HEC-RAS model, identified downstream structures and hazards, performed dynamic flood routing, performed sensitivity analyses, and prepared the final report.

Flood Emergency Response Program (Phase II), California Department of Water Resources, Statewide, CA. Project Engineer providing ongoing hydrologic and hydraulic engineering support for a five-year flood emergency response planning project. Work includes

providing ongoing technical support for snowmelt watershed runoff forecasting models on the Feather, Yuba, and Merced basins and overseeing the development of java tools to improve and streamline watershed runoff forecasting process. Work also included development of a real-time flood forecasting system for the Feather River using HEC-HMS. GEI is leading a multi-firm team supporting DWR in redesigning the Flood Emergency Response Program for the State of California.

Forecast-Coordinated Operations Design, Yuba County Water Agency, Marysville, CA. Serves as project engineer. Specific work includes performing reservoir operations analysis using HEC-ResSim to analyze benefits of forecast-informed operations (F-IO) of reservoirs and provide technical support for program management team. The purpose of the Forecast-Coordinated Operations is to improve the real-time flood control operations of the Yuba-Feather system and to provide coordinated operation of Lake Oroville and New Bullards Bar Reservoir, based on forecasted flood flows.

Flood Emergency Response Program (Phase I), California Department of Water Resources, Statewide, CA. Project Engineer for watershed runoff forecasting study. Evaluated the USGS Precipitation Runoff Modeling System (PRMS), USACE Hydrologic Modeling System (HEC-HMS), and DWR's HED71 model performance as a runoff forecasting tool on the Feather River Basin. Developed a method to process Quantitative Precipitation Forecasts (QPF) for model input, assisted in model development and calibration, evaluated and compared model results with historic forecasts, and prepared documentation.

Central Valley Flood Protection Plan, California Department of Water Resources, Sacramento, CA. Project Engineer responsible for performing hydraulic modeling for the Basin Wide Feasibility Study as part of a five-year effort to update the Central valley Flood Protection Plan (CVFPP). Analyzed alternative bypass configurations for the Sacramento Basin using HEC-RAS. The intent of the Central Valley Flood Protection Plan (CVFPP) is to provide guidance in managing flood risk along the Sacramento and San Joaquin River systems. SB 5 dictated the CVFPP is updated every five years, and the 2017 version of the plan will be the second publication.

Bucks Creek Hydroelectric Project, City of Santa Clara, CA. GEI is leading CEQA compliance and providing expert guidance and strategic relicensing services in support of relicensing the Bucks Creek Hydroelectric Project under the FERC Integrated Licensing Process (ILP). GEI is providing technical services, independent advice, objective evaluation, and strategic guidance through all steps and activities associated with both CEQA and the ILP. Responsibilities include review of the hydraulic and operations model and participation in the Hydrology Working Group comprised of agencies and other interested stakeholders.

District Engineering Services, Bethel Island Municipal Improvement District, Bethel Island, CA. Project Engineer providing assistance on various levee and interior project design issues. Work includes assisting with grant funding applications, planning, coordination and construction management for levee improvement projects, and the evaluation of the District's interior drainage system of canals and pumps. The BIMID projects to be completed within the next two years total $3,000,000 for levee improvement projects to increase the height and width of the levee system.

Resume of Andrew T. Price

463 Perkins Lake Road
Moyie Springs, Idaho 83845
(208) 267-2975, Mobile 208-920-1903
pricegeographic@gmail.com

Summary

Andrew Price is a geographer providing geospatial services to environmental, natural resource, water resource, hydroelectric, engineering, municipal and state organizations, utilizing Geographic Information Systems (GIS), UAV (Drone) imagery and mapping, Global Positioning Systems (GPS) to perfume a wide variety of mapping and analysis.

Qualifications and Experience

- Broad experience in Geographic Information Systems (GIS), creation of mapping datasets, analysis of data and creating effective map sets, slides and exhibits
- Inundation Mapping for Hydroelectric and Non-Hydro Dams, FERC and CA DSOD
- Mapping for Municipal, Environmental, Re-districting, Land Planning & Development, Annexation, Mining, Agriculture
- UAV (Drone) aerial surveying, photogrammetry, 3D models, photography & videography
- Photography for use in documenting infrastructure, illustrating flood effects and for a variety of other purposes. Photos taken from ground, helicopter or fixed wing aircraft using high-resolution digital SLR camera
- Senoir Civil Engineering Designer on a variety of land development projects involving water, sewer, grading, drainage, roadways, easement, right-of-way, and plan preparation
- Effective use of aerial imagery, USGS Topo Maps, digital elevation models, LiDAR
- Georeferenceing of maps and aerial imagery
- Preparation of mapping exhibits for a variety of applications

Professional Experience

Sept. 1993 to Present

Price Geographic Consulting – *Moyie Springs, Idaho & Placerville, California*
Principal/Geographer. **GIS projects, Data analysis, Map Exhibits, Map Atlas, Civil Design**
Projects include infrastructure GIS/FIS development projects, Hydroelectric Inundation Mapping, GIS Support, Natural Resource Mapping and Analysis, Wetland and Rare plant mapping, Land Use Planning & Civil Engineering Design Services. UAV Aerial Photography and Image geo-referencing. Use of ArcGIS, AutoCAD, Pix4D, GPS data collection. Project management, supervision of mapping staff.

Jan. 1989 to Aug. 1997

Patterson Development - *Placerville, California*
Civil Engineering Designer. Design and preparation of topographic maps, Tentative maps, site, grading, road, water and sewer improvements using AutoCAD and Land Development Desktop software. Skills include digital terrain model creation, slope maps, lot layout, earthwork volumes, preparation of construction cost estimates. Supervision of employees.

Mar. 1988 to Jan. 1989

Brandley Engineering - *Sacramento, California*
Civil Engineering Technician. Design and draft site and grading plans, generate topographic maps from field survey data, calculate earthwork quantities, assist on survey crew, perform construction inspection and materials testing, use of AutoCad software.

Sept. 1987 to Mar. 1988

California Department of Water Resources - *Red Bluff, California*
Project Coordinator/Contract Position. Preparation of vegetation and land use maps for the Coastal Aqueduct alignment using aerial photo interpretation methods. Prepare final mylar map sheets. Supervision of project staff.

Dec.1986 to Sept. 1987

California Department of Water Resources - *Red Bluff, California*
Cartographer/Research Assistant. Land use mapping of agricultural areas in the Northern District, riparian succession mapping of the Sacramento River from Sacramento to Keswick dam including field verification, both using aerial photo interpretation. Calculation of area, change detection, drafting. Performed water inflow and water use calculations and mapping for the Honey Lake watershed hydrology study.

Oct. 1985 to Nov. 1986

California State University, Chico/California Energy Commission - *Chico, California*
Cartographer/ Aerial Photo Interpreter. Classification and mapping of natural vegetation associations of the Geysers Geothermal Resource Area. Project size: 260 square miles. Aerial photo interpretation on color infrared imagery. Correction of mapping data at time of transfer to Mylar base. Supervise project staff.

Education

Jan. 1983 to Dec. 1985

California State University, Chico - *Chico, California*
Bachelor of Arts degree in Geography. Spatial analysis, land use/natural resource mapping, aerial photo interpretation, satellite image processing, agriculture science, GIS.

Sept. 1980 to Dec. 1982

Humboldt State University - *Arcata, California*
General education with emphasis in botany, natural sciences and photography.

Client List

Idaho Department of Lands, UAV Aerial Surveying & GPS of forest lands

El Dorado Irrigation District, CA, Inundation Mapping, GPS surveying

Kootenai Tribe of Northern Idaho, UAV aerial surveying, and environmental mapping

Merced Irrigation District, CA, Inundation Mapping

Utica Water and Power Authority, CA, Inundation Mapping

City of Bonners Ferry, ID, GIS development, water, sewer, electric

Placer County Water Agency, CA, Inundation Mapping

City of Placerville, CA, GIS development and mapping

Empire District Energy Company, MO, Inundation Mapping

AGENDA ITEM

DATE: APRIL 9, 2018

TO: BVWD BOARD OF DIRECTORS

FROM: JEFF GOUVEIA, DISTRICT GENERAL MANAGER

RE: 2018 PERSONNEL MANUAL - DRAFT

BACKGROUND AND DISCUSSION:

Employers must remain aware of significant changes in key areas of employment law and written policies must be updated continuously to reflect changes to current law as well as changes in how the agency is operated. District records indicate that the District's Personnel Manual was first prepared in 1975. The Manual was later revised in 1989 and adopted by the Board in February 1990. Minor changes were then made to employment policies over the ensuing years and the Manual was again updated and adopted in July 2009 under the direction of the Board of Directors. In addition to the recent effort by the District to enhance the employee benefits program, significant changes in state and federal labor law as well as changes to internal operating policies since the last revision necessitate a comprehensive review and update of the agency's Personnel Manual.

Therefore, an analysis of the existing Personnel Manual was undertaken to achieve the following primary objectives:

1) To update policies related to recently approved changes to the employee benefits program
2) To update policies to ensure compliance with the most current state and federal employment policies
3) To update the Manual to reflect policies and practices based on how the District is currently operated

Staff elected to enlist help from "HR-California," an online resource provided by the California Chamber of Commerce, to initiate this policy revision. HR-California is a comprehensive employment law compliance resource designed to help employers navigate the complicated landscape of state and federal employment regulations. Since so much time had passed since the District last completed a comprehensive review of employment policies, Staff moved to purchase HR-California's "Employee Handbook Creator" and using their Handbook Wizard, was able to complete an initial draft Manual providing for the most current state and federal employment policies.

The raw HR-California draft Manual was then compared with the existing Personnel Manual and edited to reflect specific BVWD policies and practices. A final initial draft of the Personnel Manual was sent to District legal counsel for review. The comments and recommendations by the legal department were incorporated into the working document and are now reflected in the draft 2018 Personnel Manual attached.

Key highlights of the draft 2018 Personnel Manual include:

1. Introductory Period Policy for New Hires
2. Stand-By Policy
3. Call-Out Policy
4. Overtime Policy
5. Compensatory Time Off (CTO) Policy
6. Meal Period Policy
7. Reporting Time Policy
8. Telecommuting Policy
9. Long Term Disability Insurance Benefit

10. Cash In-Lieu Benefit
11. Motor Vehicle Record (MVR) Policy
12. Federal Family and Medical Leave Act (FMLA)
13. California Healthy Workplaces, Healthy Families Act
14. California Family Rights Act (CFRA)
15. Additional Leave Benefits Program
16. Leave Donation Program
17. Computer, Internet Use and Social Media Policy

RECOMMENDATION:

Based on the comprehensive review and comment of the draft 2018 Personnel Manual by District Legal Counsel, it is recommended that the Board consider adopting the new policy document by accepting the 2018 Employee Manual through Resolution.

ACTION:

1. Motion to Accept the BVWD Personnel Manual dated April 1, 2018
2. Motion to Adopt Resolution 495 - Adopting Revised Personnel Manual

Attachments:

- 2018 BVWD Personnel Manual (Draft)
- Industry Standard - Comparative Benefits Analysis – Updated April 2018
- Legal Counsel Comments

RESOLUTION NO. 495

RESOLUTION ADOPTING REVISED PERSONNEL MANUAL AND REPEALING EXISTING PERSONNEL POLICIES

WHEREAS, the Bear Valley Water District ("District") has existing personnel policies, including a personnel manual, adopted February 19, 1990, and revised June 20, 2005 and July 20, 2009 (collectively "Existing Personnel Policies"),

WHEREAS, the District Board of Directors desires to adopt the attached Personnel Manual to replace the Existing Personnel Policies,

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of Bear Valley Water District hereby adopts the Personnel Manual attached hereto as Exhibit A. The General Manager is directed to have each employee execute the Confirmation of Receipt of the Personnel Manual;

IT IS FURTHER RESOLVED that the Board of Directors of the Bear Valley Water District that the Existing Personnel Policies are hereby repealed.

PASSED AND ADOPTED by the Board of Directors, at a regular meeting thereof, held on the ____ day of _____, 2018, by the following vote:

AYES: _____
NOES: _____
ABSENT: _____
ABSTENTION: _____

Bear Valley Water District

By:_____

_____, PRESIDENT

ATTEST:

_____

_____, SECRETARY

CERTIFICATION

I, _____, Secretary of the Bear Valley Water District, do hereby certify that the foregoing is a full, true and correct copy of a resolution of the Bear Valley Water District duly passed and adopted at a regular meeting of the Board of Directors thereof held on the ___ day of _____, 2018.

Dated: _____, 201_ _____

_____, SECRETARY

Industry Standard - Comparative Benefits Analysis for Calaveras, Tuolumne, El Dorado, Nevada & Placer Counties

Comparative Benefits Analysis FY17/18 - Updated April 2018

Agency	Medical	Dental	Vision	Retirement	Vacation	Holidays	Sick Leave	Life Insurance & AD&D	Disability Insurance Premium	Other Benefits
Bear Valley Water District Budget: $795,991 ADF Flow: 0.06 / Design: 0.500	Anthem Blue Cross PPO 100% Dep - 0 %	Delta Dental PPO 100% Dep - 0 %	VSP Vision 100% Dep - 0 %	ICMA-RC Def Contribution Plan 401 (a) - 3 % Grant 457(b) - 3 % Match	10 - 25 Days	12	12 Days	$100k	Short & Long Term Disability Insurance CA SDI + SDRMA	Education Incentives Training/Education Reimbursement Uniform Allowance
Calaveras Co. Water District Budget: $17,612,197 ADF Flow: 0.175 / Design: N/A	CalPERS 100% Dep - 85 %	Delta Dental 100% Dep - 100 %	VSP Vision 100% 100%	Cal PERS PEPRA - 2 % @ 62	22 - 32 Days	12	22 - 32 Days PTO	1.5 * Salary	SDI	Section 125 Flex Spending Plan Cal PERS 457 Plan Longevity Pay - 2.5 % @ 15 yrs; 5 % @ 20 Employee Assistance Programs
City of Angels Camp Budget: $ N /A ADF Flow: 0.357 / Design: 0.600	CalPERS 100% Dep - 75 %	CalPERS 100% Dep - 60 %	CalPERS 100% Dep - 60 %	Cal PERS 2.7 % @ 57	10.5 - 21 Days	13	12.6 Days	$15-30 K	66.6 % of Monthly Salary	Section 125 Flex Spending Plan Rural Subsidy Education Incentives Longevity Pay
Murphy's Sanitary District Budget: $733,328 ADF Flow: 0.200 / Design: .425	$12,888 / year Dep - 0%	0% Dep - 0 %	0% Dep - 0 %	Cal PERS Classic - 2.7% @ 55 PEPRA - 2 % @ 62	10 - 15 Days	12	12 Days	N / A	SDI	
San Andreas Sanitary District Budget: ADF Flow: 0.280 / Design: 0.250	Cal PERS 100% Dep - 100 % Cash-In-Lieu $500 Cap	JPIA 100% Dep - 90%	JPIA 100% Dep - 90%	Cal PERS PEPRA - 2 % @ 62	10 - 20 Days	13	12 Days	1.5 * Salary	SDI	Longevity Pay - $500 - 4000 Uniform/Boot Allowance Training/Education Reimbursement
Tuolumne Utilities District Budget: $12,347,478 ADF Flow: 2.06 / Design: 2.60	Cal PERS 100% Dep - Pays Prem	ACWA 100% Dep - 100 %	ACWA 100% Dep - 100 %	Cal PERS PEPRA - 2 % @ 62	10 - 20 Days	12	3.69 / 40 Hours (24 Days)	2 * Salary	66.6 % of Monthly Salary	Cal PERS 457 Plan Employee Assistance Programs Uniform Allowance Credit Union / Health Club Memberships
Alpine Springs Co. Water District Budget: $1,770,425 ADF Flow: N/A / Design: N/A	Cal PERS 100% +60% Out of Pocket Exp. Reimbursed	Sunlife 100%	100% Co-insurance Reimbursement	Cal PERS PEPRA - 2 % @ 62	10 - 26 Days	11	6 Days	Principle	$2,483 - $3,048	Uniform Allowance Laundry Service
Squaw Valley Public Service District Budget: $1,118,170 ADF Flow: 0.203 / Design: N/A	Cal PERS 100% Dep - 100%	Cal PERS 100% Dep - 100%	Reimbursed 100% Dep - 100%	Cal PERS Classic - 2.7% @ 55 PEPRA - 2 % @ 62	15 - 24 Days	11	12 Days	Signa Standard Life $15K Employee Pd. Up to $150K	Hartford Disability Employer Pays $10k A.D.&D. Short & Long Term	Section 125 Flex Spending Plan Education Incentives - 10%
South Tahoe Public Utility District Budget: $25,900,000 ADF Flow: 4.0 / Design: 7.7	ACWA 100% Dep - 100%	Dist Self Insures Claims - 80% Major Procedures - 70%	VSP Vision 100% Dep - 100%	Cal PERS PEPRA - 2 % @ 62	10 - 23 Days	12	12 Days	1 * Salary	SDI	Health Savings Account (H.S.A) Uniform Allowance
North Tahoe Public Utility District Budget: $6,724,069 ADF Flow: 0.717 / Design: 7.7	Local 39 HealthTrust 100% Dep - 100 %	Local 39 Health Trust 100% Dep - 100 %	Local 39 Health Trust 100% Dep - 100 %	Cal PERS PEPRA - 2 % @ 62	11 - 25 Days	12	12 Days	$50,000	SDI	Education Incentives Uniform Allowance
Truckee Sanitary District Budget: $7,002,000 ADF Flow: 1.3 / Design: 6.6	Cal PERS 100% Dep - 100%	Met Life 100% Dep - 100%	Self Insured $250 Eye Exam $350 Hardware	Cal PERS PEPRA - 2 % @ 62	12- 20 Days	12	12 Days	Met Life	Met Life A.D.&D.	Uniform Allowance
Tahoe City Public Utility District Budget: $3,639,830 ADF Flow: 0.8 / Design: 7.8	Cal PERS 100% Dep - 100%	Self Insured 100% Dep - 100%	Self Insured 100% Dep - 100%	Cal PERS Classic - 2.7% @ 55 PEPRA - 2 % @ 62	15 - 31 Days	12	8 Days	North American Benefit Co. 1 Year Annual Salary - 75K Cap	SDI	Education Incentives Uniform Allowance

BEAR VALLEY WATER DISTRICT

PERSONNEL MANUAL

April 1, 2018

Table of Contents

General Employment Policies

Introductory Statement

Welcome! As an employee of the Bear Valley Water District (the "District"), you are an important member of a team effort. We hope that you will find your position with the District rewarding, challenging, and productive.

Because our success depends upon the dedication of our employees, we are highly selective in choosing new members of our team. We look to you and the other employees to contribute to the success of the District.

This employee handbook is intended to explain the terms and conditions of employment of all full, part-time and temporary employees as well as supervisors and managers. Written employment contracts between the Bear Valley Water District and some individuals may supersede some of the provisions of this handbook.

This handbook summarizes the policies and practices in effect at the time of publication. This handbook supersedes all previously issued handbooks and any policy or benefit statements or memoranda that are inconsistent with the policies described here. Your supervisor or manager will be happy to answer any questions you may have.

At-Will Employment Status

Bear Valley Water District personnel are employed on an at-will basis. Employment at-will means that the employment relationship may be terminated, with or without cause and with or without advance notice at any time by the employee or the District. Nothing in this handbook shall limit the right to terminate at-will employment.

No manager, supervisor, or employee of the District has any authority to enter into an agreement for employment for any specified period of time or to make an agreement for employment on other than at-will terms. Only the General Manager of the Bear Valley Water District has the authority to make any such agreement, which is binding only if it is in writing.

Nothing in this at-will statement is intended to interfere with an employee's rights to communicate or work with others toward altering the terms and conditions of his or her employment.

Harassment Discrimination and Retaliation Prevention

The Bear Valley Water District is an equal opportunity employer. The Bear Valley Water District is committed to providing a work environment free of harassment, discrimination, retaliation, and disrespectful or other unprofessional conduct based on:

- Race
- Religion (including religious dress and grooming practices)
- Color

- Sex/gender (including pregnancy, childbirth, breastfeeding or related medical conditions), sex stereotype, gender identity/gender expression/transgender (including whether or not you are transitioning or have transitioned) and sexual orientation
- National origin (including language use restrictions and possession of a driver's license issued to persons unable to prove their presence in the United States is authorized under federal law [Vehicle Code section 12801.9])
- Ancestry
- Physical or mental disability
- Medical condition
- Genetic information/characteristics
- Marital status/registered domestic partner status
- Age
- Sexual orientation
- Military or veteran status
- Any other basis protected by federal, state or local law or ordinance or regulation

The Bear Valley Water District also prohibits discrimination, harassment, disrespectful or unprofessional conduct based on the perception that anyone has any of those characteristics, or is associated with a person who has or is perceived as having any of those characteristics.

In addition, the District prohibits retaliation against individuals who raise complaints of discrimination or harassment or who participate in workplace investigations.

All such conduct violates District policy, Harassment Prevention

The District's policy prohibiting harassment applies to all persons involved in the operation of the District. The District prohibits harassment, disrespectful or unprofessional conduct by any employee of the District, including supervisors, managers and co-workers. The District's anti-harassment policy also applies to vendors, customers, independent contractors, unpaid interns, volunteers, persons providing services pursuant to a contract and other persons with whom you come into contact while working.

Prohibited harassment, disrespectful or unprofessional conduct includes, but is not limited to, the following behavior:

- Verbal conduct such as epithets, derogatory jokes or comments, slurs or unwanted sexual advances, invitations, comments, posts or messages;
- Visual displays such as derogatory and/or sexually-oriented posters, photography, cartoons, drawings or gestures;
- Physical conduct including assault, unwanted touching, intentionally blocking normal movement or interfering with work because of sex, race or any other protected basis;
- Threats and demands to submit to sexual requests or sexual advances as a condition of continued employment, or to avoid some other loss and offers of employment benefits in return for sexual favors;
- Retaliation for reporting or threatening to report harassment; and
- Communication via electronic media of any type that includes any conduct that is prohibited by state and/or federal law or by District policy.

Sexual harassment does not need to be motivated by sexual desire to be unlawful or to violate this policy. For example, hostile acts toward an employee because of his/her gender can

amount to sexual harassment, regardless of whether the treatment is motivated by sexual desire.

Prohibited harassment is not just sexual harassment but harassment based on any protected category.

Non-Discrimination

The District is committed to compliance with all applicable laws providing equal employment opportunities. This commitment applies to all persons involved in District operations. The District prohibits unlawful discrimination against any job applicant, employee or unpaid intern by any employee of the District, including supervisors and coworkers.

Pay discrimination between employees of the opposite sex or between employees of another race or ethnicity performing substantially similar work, as defined by the California Fair Pay Act and federal law, is prohibited. Pay differentials may be valid in certain situations defined by law. Employees will not be retaliated against for inquiring about or discussing wages. However, the Bear Valley Water District is not obligated to disclose the wages of other employees.

Anti-Retaliation

The District will not retaliate against you for filing a complaint or participating in any workplace investigation or complaint process, and will not tolerate or permit retaliation by management, employees or co-workers.

Reasonable Accommodation

Discrimination can also include failing to reasonably accommodate religious practices or qualified individuals with disabilities where the accommodation does not pose an undue hardship.

To comply with applicable laws ensuring equal employment opportunities to qualified individuals with a disability, the District will make reasonable accommodations for the known physical or mental limitations of an otherwise qualified individual with a disability who is an applicant or an employee unless undue hardship would result.

Any job applicant or employee who requires an accommodation in order to perform the essential functions of the job should contact a District representative with day-to-day personnel responsibilities and discuss the need for an accommodation. The District will engage in an interactive process with the employee to identify possible accommodations, if any, that will help the applicant or employee perform the job. An applicant, employee or unpaid intern who requires an accommodation of a religious belief or practice (including religious dress and grooming practices, such as religious clothing or hairstyles) should also contact a District representative with day-to-day personnel responsibilities and discuss the need for an accommodation. If the accommodation is reasonable and will not impose an undue hardship, the District will make the accommodation.

The District will not retaliate against you for requesting a reasonable accommodation and will not knowingly tolerate or permit retaliation by management, employees or co-workers.

Complaint Process

If you believe that you have been the subject of harassment, discrimination, retaliation or other prohibited conduct, bring your complaint to your supervisor or to any of the following as soon as possible after the incident:

- Chief Plant Operator
- Office Manager
- General Manager

You can bring your complaint to any of these individuals. If you need assistance with your complaint, or if you prefer to make a complaint in person, contact the Office Manager. Please provide all known details of the incident or incidents, names of individuals involved and names of any witnesses. It would be best to communicate your complaint in writing, but this is not mandatory.

The District encourages all individuals to report any incidents of harassment, discrimination, retaliation or other prohibited conduct forbidden by this policy immediately so that complaints can be quickly and fairly resolved.

You also should be aware that the Federal Equal Employment Opportunity Commission and the California Department of Fair Employment and Housing investigate and prosecute complaints of prohibited harassment, discrimination and retaliation in employment. If you think you have been harassed or discriminated against or that you have been retaliated against for resisting, complaining or participating in an investigation, you may file a complaint with the appropriate agency. The nearest office can be found by visiting the agency websites at www.dfeh.ca.gov and www.eeoc.gov.

Supervisors must refer all complaints involving harassment, discrimination, retaliation or other prohibited conduct to the General Manager of the District so the District can try to resolve the complaint.

When the District receives allegations of misconduct, it will immediately undertake a fair, timely, thorough and objective investigation of the allegations in accordance with all legal requirements. The District will reach reasonable conclusions based on the evidence collected.

The District will maintain confidentiality to the extent possible. However, the District cannot promise complete confidentiality. The employer's duty to investigate and take corrective action may require the disclosure of information to individuals with a need to know.

Complaints will be:

- Responded to in a timely manner
- Kept confidential to the extent possible
- Investigated impartially by qualified personnel in a timely manner
- Documented and tracked for reasonable progress
- Given appropriate options for remedial action and resolution
- Closed in a timely manner

If the District determines that harassment, discrimination, retaliation or other prohibited conduct has occurred; appropriate and effective corrective and remedial action will be taken in

accordance with the circumstances involved. The District also will take appropriate action to deter future misconduct.

Any employee determined by the District to be responsible for harassment, discrimination, retaliation or other prohibited conduct will be subject to appropriate disciplinary action, up to, and including termination. Employees should also know that if they engage in unlawful harassment, they can be held personally liable for the misconduct.

Right to Revise

This personnel manual contains the employment policies and practices of the Bear Valley Water District in effect at the time of publication. All previously issued manuals and any inconsistent policy statements or memoranda are superseded.

The Bear Valley Water District reserves the right to revise, modify, delete, or add to any and all policies, procedures, work rules, or benefits stated in this manual or in any other document, except for the policy of at-will employment. However, any such changes must be in writing and must be signed by the Secretary of the Board of the Bear Valley Water District.

Any written changes to this manual will be distributed to all employees so that employees will be aware of the new policies or procedures. No oral statements or representations can in any way alter the provisions of this manual.

This manual sets forth the entire agreement between you and the Bear Valley Water District as to the duration of employment and the circumstances under which employment may be terminated. Nothing in this personnel manual or in any other personnel document, including benefit plan descriptions, creates or is intended to create a promise or representation of continued employment for any employee.

Nothing in this at-will statement is intended to interfere with an employee's rights to communicate or work with others toward altering the terms and conditions of his or her employment.

Hiring

New Hires - Introductory Period

The first six (6) weeks of continuous employment at Bear Valley Water District is considered an introductory period. During this time, you will learn your responsibilities, get acquainted with fellow employees and determine whether or not you are happy with your job. Your supervisor will closely monitor your performance.

Completion of the six (6) week introductory period does not entitle you to remain employed by the Bear Valley Water District for any definite period of time. Your status as an at-will employee does not change. The employment relationship may be terminated with or without cause and with or without advance notice, at any time by you or the District.

Employment Classifications: Exempt / Non-Exempt

The following terms will be used to describe employment classifications and status:

Exempt Employees

Exempt employees are not subject to the overtime pay provisions of the federal Fair Labor Standards Act (FLSA). An exempt employee is one whose specific job duties and salary meet all of the requirements of the U.S. Department of Labor's regulations. In general, an exempt employee is one who is paid on a salary basis at not less than $455 per week who holds an administrative, professional, or management position.

Non-Exempt Employees

Salaried employees who are not administrative, professional, or managerial employees (as defined by the U.S. Department of Labor) and many hourly employees are generally not exempt from the FLSA's overtime provisions.

Regular Employees

Regular employees are those who are hired to work on a regular schedule. Regular employees may be classified as full-time or part-time.

Full-Time Employees

Regular full-time employees are those who are scheduled for and do work 30 hours per week or more. Regular full-time employees are eligible for most employee benefits described in this handbook. Benefit eligibility may depend on length of continuous service. Benefit eligibility requirements may also be imposed by the plans themselves or by law.

Part-Time Employees

Part-time employees are those who are scheduled for and do work fewer than 30 hours per week, but not fewer than 20 hours. Part-time employees are eligible for the following Bear Valley Water District benefits. Benefit eligibility may depend on length of continuous service. Benefit eligibility requirements may also be imposed by the plans themselves or by law.

- Holiday pay
- Vacation pay
- Vacation accrual
- Sick leave
- Medical, dental, vision benefits
- Retirement benefits
- Life Insurance
- Long term disability benefits
- Cash In-Lieu benefits
- Workers' Compensation Insurance
- Social Security Insurance
- Unemployment Insurance

If an eligible employee elects to enroll in only select components of the benefits program, including medical, dental, vision or long term disability benefits as permitted by the District's cash in-lieu program, the employee must also enroll in the life insurance program.

Temporary Employees

Temporary employees are those employed for short-term assignments. Short-term assignments generally are periods of three months or fewer; however, such assignments may be extended. Temporary employees are not eligible for employee benefits except those mandated by applicable law.

Job Duties

During the six (6) week introductory period, your supervisor will explain your job responsibilities and the performance standards expected of you. Following the (6) week introductory period, be aware that your job responsibilities may change at any time during your employment. From time to time, you may be asked to work on special projects, or to assist with other work necessary or important to the operation of your department or the Bear Valley Water District. Your cooperation and assistance in performing such additional work is expected.

The Bear Valley Water District reserves the right, at any time, with or without notice, to alter or change job responsibilities, reassign or transfer job positions, or assign additional job responsibilities.

Stand-By Policy & Compensation

As a public utility expected to provide utility service without interruption and to ensure public health and safety at all times, it is essential that the District maintain "stand-by" staff in the event of an emergency or other system failure after normal working hours which requires immediate

attention.

Stand-by time refers to the period during which an employee is not ordinarily required to perform work for the District (e.g. overnight) but is required to be available upon short notice to respond to an incident or potential emergency at the collection or treatment facilities of the District.

At least one employee will be assigned to stand-by status every day of the year. Employees who are on stand-by status will receive a compensation rate equivalent to (2) two hours of straight time pay for each stand-by shift. This shift pay will be in addition to the compensation the employee receives for regular hours actually worked that same day, in the event the employee is not called to perform work.

If an employee on stand-by status is "called-out"(called back to work) to address an incident or potential emergency, the employee will receive straight time pay, including overtime if applicable, for the period the employee is required to work in addition to the (2) hour shift pay.

Stand-by duty requires the employee assigned to any stand-by shift:

1) To be ready to respond immediately to calls for service
2) To be reachable by telephone or pager
3) To remain within a reasonable distance of the work location, and
4) To refrain from activities that might impair their ability to perform assigned duties.

Call-Out Policy & Compensation

As a public utility expected to provide utility service without interruption and to ensure public health and safety at all times, all employees of the Bear Valley Water District, including but not limited to the employee assigned to stand-by duty, may be called back to work to address an emergency or other situation to maintain the regular operation of District facilities. This policy addresses the District's "call-out" policies and compensation for this additional work in the same or next workday.

Any employee who is called back to work for a second work period in any one workday and is furnished with less than two hours' work will be paid a minimum of two hours pay at the regular straight-time rate for the second work period, without regard to the number of hours actually worked, unless the reasons for lack of work are beyond the District's control.

The calculation of time worked in the event of a call-out will be the moment the employee receives notification of a potential problem at the plant (e.g. employee receives a page on their pager or text/call on their cell phone) and will run through until the employee returns back to their home or the original location where they received the initial notification. This policy is referred to as the "door to door" compensation policy for call outs.

In addition to the minimum of two hours the employee may be compensated for a call-out, depending on the seriousness of the emergency and the time it may take to appropriately resolve the operational issues involved, the employee's time worked that day may exceed a normal 40 hours in one workweek and therefore the employee will be entitled to overtime compensation as described below:

- All hours worked in excess of 40 hours in one workweek will be treated as overtime. A workday begins at 12:01 a.m. and ends at midnight 24 hours later. Workweeks begin

each Monday at 12:01 a.m.;
- Compensation for hours in excess of 40 for the workweek shall be paid at a rate of one and one-half times the employee's regular rate of pay;
- Exempt employees may have to work hours beyond their normal schedules as work demands require. No overtime compensation will be paid to exempt employees.

Job Sharing

Job-sharing is defined as two part-time employees assigned to share the duties and responsibilities of a full-time job position. The Bear Valley Water District will support job sharing where reasonable and practical and where District operational and business needs will not be adversely affected. In order for job sharing to work, the two individuals work as a team to accomplish one full-time position's duties, communicate effectively, and ensure continuity of work.

The Chief Plant Operator or the General Manager is responsible for identifying if a job sharing arrangement is workable within his or her department. The Chief Plant Operator or General Manager must assess the impact and outcome in terms of production, quality and absenteeism, and whether job sharing is in the best interests of the District and employee. The General Manager must also assess the overall feasibility of the job sharing arrangement. Any job sharing arrangement must receive final approval from the General Manager. The decision as to whether to allow a job sharing arrangement is within the discretion of the District and some jobs may be unsuitable for job sharing.

The exact details of the job share arrangement will be decided by and implemented by either the Chief Plant Operator or the General Manager to ensure that operational needs are met.

Examples of job sharing arrangements are as follows:

- Split days -- one partner working the first half of the shift and the other partner working the second half.
- Split weeks -- one partner working the first 3.5 days (e.g., Sunday to Wednesday morning) and the other partner working the remaining 3.5 days (e.g., Wednesday afternoon to Saturday)
- Three days one week and four days the next with the job sharers alternating to work the extra day.
- Alternate weeks -- one partner works one week, the next partner works the following week.

Job sharers must have a strong commitment to the job and to making the job sharing arrangement work. Job sharers must ensure that there is a workable communication system in place so that supervisors, co-workers, customers and/or clients can expect to communicate with both job sharers via the person on duty at the time.

Job sharing will affect your eligibility for certain benefits. Please contact the Office Manager for specific details. The Office Manager has the general responsibility of overseeing the day-to-day implementation of this job sharing policy in accordance with payroll and legal requirements.

If a job sharing position is approved, your position is part of a full time position which has been divided under a job sharing arrangement. Should your job share partner resign or transfer, the

General Manager and Chief Plant Operator will assess the needs of the District and determine a course of action. The following are potential options:

- Convert the remaining job sharing partner to a full time 30 - 40-hour work week position.
- Advertise the position as a part-time job share. In the event that the position cannot be filled, the position will revert to a full-time position with the requirement that the remaining partner assume the full-time requirements of the position, including the 40-hour work week.
- Adjust the work schedule of the remaining job partner to meet District needs.
- Allow the remaining job share partner to continue working the part-time schedule.

Job sharing arrangements will be continually evaluated and can be discontinued at any time. An approved job share agreement does not change or alter the at-will nature of the employee's employment with the District. Employment at-will means that the employment relationship may be terminated, with or without cause and with or without advance notice at any time by the employee or the District.

Bridging of Time

Bear Valley Water District will give service credit to employees previously employed by the District, provided the break in service does not exceed 365 days. Generally, the break in service time will be deducted from the employee's original service date.

The Office Manager will discuss reinstatement of benefits and other length of service issues with rehired employees. Special rules apply to reinstatement of paid sick leave benefits under the California Healthy Workplaces, Healthy Families Act.

Leaves of Absence

California Paid Sick Leave

Beginning July 1, 2015, California law provides for mandatory paid sick leave under the Healthy Workplaces, Healthy Families Act (the "Act"). All employees who have worked in California for 30 or more days within a year from the start of their employment are eligible for protected paid sick time under the Act. Employees cannot be discriminated or retaliated against for requesting or using paid sick time.

Sick Leave Accrual – Full Time Employees

Regular full-time employees accrue sick leave at a rate of 1 hour for every 20 hours worked or 8 hours (1 day) of paid sick leave for every 160 hours (30 days) worked.

An employee who is scheduled to and does work an average of 40 hours per week will normally accrue 12 working days or 96 hours of sick leave in each year of employment.

Lump Sum Sick Leave

The Bear Valley Water District will provide all other eligible employees with three days or 24 hours of paid sick time at the beginning of each 12 month period beginning January 1 each year as set forth below ("Lump Sum Sick Leave"). However, newly hired employees are not eligible to take their paid sick time until the 90th day of employment with the District. Lump Sum Sick Leave may only be used in the year it is provided and does carry over from year to year.

The Bear Valley Water District does not pay employees for unused paid sick leave.

If you have any questions about paid sick leave, please contact the Office Manager.

Pro-rata Sick Leave Accrual

Part-time and temporary employees accrue sick time in the same proportion as his/her working hours bear to the normal working hours of a full-time employee.

A temporary employee who is employed "off and on" throughout the course of the year would not be considered employed between assignments. However, the District will combine all days of employment during each assignment to determine eligibility for paid sick leave under the Healthy Workplaces, Healthy Families Act.

A temporary employee may potentially never be eligible for paid sick leave if they do not work 30 days in a year. Additionally, temporary employees must actually work for 90 days in order to actually use paid sick leave.

Cap on Sick Leave Accrual

Employees may earn a maximum of 192 hours or 24 days paid sick time. After an employee has

reached this maximum amount, no additional paid sick time will be earned until some or all of the employee's accrued paid sick time is used.

Qualifying Reasons for Paid Sick Leave

Paid sick time under the Act can be used for any of the following reasons:

- Diagnosis, care or treatment of an existing health condition for an employee or covered family member, as defined below.
- Preventive care for an employee or an employee's covered family member.
- For certain specified purposes when the employee is a victim of domestic violence, sexual assault or stalking.

For purposes of paid sick leave, a covered family member includes:

- A child: Defined as a biological, foster or adopted child; a stepchild; or a legal ward, regardless of the age or dependency status of the child. A "child" also may be someone for whom you have accepted the duties and responsibilities of raising, even if he or she is not your legal child.
- A parent: Defined as a biological, foster or adoptive parent; a stepparent; or a legal guardian of an employee or the employee's spouse or registered domestic partner. A "parent" may also be someone who accepted the duties and responsibilities of raising you when you were a minor child, even if he or she is not your legal parent.
- A spouse.
- A registered domestic partner.
- A grandparent.
- A grandchild.
- A sibling.

Use of Paid Sick Time and Notification

Sick Leave is intended to be used only when actually required for the reasons described above and is not to be used for other "personal" absences. Employees are not required, as a condition of using sick leave, to search for or find a replacement worker to cover the hours during which the employee is using sick leave. Employees cannot be discriminated or retaliated against for requesting or using accrued sick leave.

If the need for paid sick leave is foreseeable, employees must provide reasonable advance oral or written notification to their immediate supervisor. If the need for paid sick leave is not foreseeable, employees must provide notice of the need for the leave to their immediate supervisor as soon as practicable.

An employee's use of sick leave may run concurrently with other leaves under local, state or federal law.

An employee can use paid sick time for any of the above reasons protected by the Act. If the need for paid sick time is foreseeable, employees must provide advance oral or written notification to their immediate supervisor. If the need for paid sick time is not foreseeable, employees shall provide notice to their immediate supervisor as soon as practicable.

Incremental Use of Sick Leave

Each time an employee uses sick leave, sick leave can be used in an initial minimum increment of one hour followed by 15 minutes increments.

Sick Leave and Workers' Compensation Benefits

Sick Leave is a benefit that also covers absences for work-related illness or injury. Employees who have a work-related illness or injury are covered by workers' compensation insurance. However, workers' compensation benefits usually do not cover absences for medical treatment. When you report a work-related illness or injury, you will be sent for medical treatment, if treatment is necessary. You will be paid your regular wages for the time you spend seeking initial medical treatment.

Any further medical treatment will be under the direction of the health care provider. Any absences from work for follow-up treatment, physical therapy or other prescribed appointments will not be paid as time worked. If you have accrued and unused sick leave, you may use sick leave to receive pay for these absences.

If you do not have accrued sick leave, you may choose to substitute vacation time for further absences from work related to your illness or injury.

Sick Leave Cash-Out – Retirement / Death

Upon retirement from the District or in the event of the death of an employee, after (5) years of service, the employee or his or her survivor(s) or estate shall receive compensation at the employee's regular straight pay for accrued sick leave.

At the time of retirement from the District, the employee or his or her survivors may collect compensation for twenty-five (25%) percent of his/her accrued sick leave not to exceed 192 hours of accrued leave.

Alternately, the employee or his or her survivors may elect to convert fifty (50%) of his/her accrued sick leave balance toward their District funded pension plan.

Vacation / Paid Time-Off (PTO) Program

Vacation Accrual

Regular full-time employees accrue paid vacation / time off in accordance with the following policy:

	Accrual – Days	Accrual – Hours	Accrual Rate/Hour
• Years 1 – 5:	10	80	.0385
• Years 6 - 10:	15	120	.0577
• Years 11 - 15:	20	160	.0770
• Years 16 +:	25	200	.0962

Vacations/PTO shall be scheduled to provide adequate coverage of job responsibilities and staffing requirements. The General Manager or Chief Plant Operator will make final determinations and must approve your vacation/PTO schedule in advance.

Pro-rata Accrual

Part-time employees accrue paid vacation/PTO time in the same proportion as his/her working hours bear to the normal working hours of a full-time employee.

Temporary employees are not eligible for vacation/PTO accrual.

Vacation Accrual Calculation Method

In the first through fifth (1st -5th) years of continuous employment, full-time and part-time employees begin to accrue vacation time/PTO at the rate of .0385 hours per hour worked. An employee who is scheduled to and does work 40 hours per week will normally accrue 10 working days or 80 hours vacation/PTO time in the first year of employment.

In the sixth through tenth (6th -10th) years of continuous employment, full-time and part-time employees will accrue vacation/PTO time at the rate of .0577 hours per hour worked. An employee who is scheduled to and does work an average of 40 hours per week will normally accrue 15 working days or 120 hours of vacation/PTO beginning in the 6th year of employment.

In the eleventh (11th – 15th) year of continuous employment, full-time and part-time employees will accrue vacation/PTO time at the rate of .0770 hours per hour worked. An employee who is scheduled to and does work 40 hours per week will normally accrue 20 working days or 160 hours of vacation/PTO time beginning in the 11th year of employment.

Beginning with the sixteenth (16th) year of continuous employment and thereafter, full-time and part-time employees will accrue vacation/PTO time at the rate of .0962 hours per hour worked. An employee who is scheduled to and does work 40 hours per week will normally accrue 25 working days or 200 hours of vacation/PTO time in the 11th year of employment.

Maximum Vacation/PTO Accrual

The District encourages employees to take vacation/PTO annually. Vacation/PTO should be taken within the year following accrual. Earned vacation/PTO time accrues to a maximum of 10 working days in the first year of employment; 15 working days in the second year of employment; 20 working days in the third year of employment and 25 days in the fourth and following years of employment.

An employee may accrue a maximum of 30 days or 240 hours of vacation/PTO time. The office manager will notify an employee when accrual is nearing and/or has reached the maximum accrual. Employees shall have 60 days following notification to reduce vacation accrual to less than 30 days or 240 hours.

No additional vacation/PTO will be earned until accrued vacation time is used. The Office Manager is responsible for tracking accrued vacation/PTO time.

Pay In-Lieu of Vacation

The California Department of Labor Standards and Enforcement (DLSE) views paid vacation as "deferred compensation." In the following circumstances, an employee must be paid in lieu of vacation: upon retirement, termination or conversion from Regular to Non-Regular status; Leaves of Absence extending through year-end; while on half pay or no pay Short-Term Disability status; or as required by law.

Additionally, employees who accrue vacation/PTO must be allowed at some future time to either take vacation time off or be paid vacation pay in-lieu of time off work. In the case of the latter, this is a payment for vacation credit earned with no scheduled vacation time off taken.

While the District encourages and prefers employees to take vacation/PTO in the year following accrual, employees who have accrued vacation/PTO who choose not to take time off may request cash in-lieu of vacation/PTO time from the Office Manager.

To request payment, the employee must complete the Pay In-Lieu of Vacation Authorization Form.

Vacation Cash-Out –Retirement / Termination / Death

Full and part time employees whose status is terminated without the employee having taken accrued vacation shall be entitled to pay in-lieu for the number of hours of vacation to which he or she is entitled.

Upon retirement from the District or in the event of the death of an employee, his or her survivor(s) or estate shall receive compensation at the employee's regular straight pay for accrued vacation/PTO.

Additional Leave Benefits Program

Personal Leave

A personal leave of absence without pay may be granted at the discretion of the Bear Valley Water District. Requests for personal leave should be limited to unusual circumstances requiring an absence of longer than two weeks. Approved personal absences of shorter duration are not normally treated as leaves, but rather as excused absences without pay.

Federal Family and Medical Leave Act and the California Family Rights Act ("FMLA/CFRA")

The federal Family and Medical Leave Act and the California Family Rights Act ("FMLA/CFRA") provide eligible employees the opportunity to take unpaid, job-protected leave for certain specified reasons.

As a public agency, the Bear Valley Water District is subject to the FMLA/CFRA and therefore has an obligation to inform employees of their rights under the FMLA/CFRA. Under FMLA/CFRA, employees are not eligible for leave unless they meet all of the eligibility requirements, including size of the employer. At this time the District does not employ 50 persons in a 75 mile radius and

therefore no employees are eligible for FMLA/CFRA. The following FMLA/CFRA discussion is for informational purposes only and also accounts for the possibility that the District may at some point reach 50 employees.

State and federal family and medical leave laws provide up to 12 work weeks of unpaid family/medical leave within a 12-month period, under the following conditions:

- The employee has been employed with the District for a total of at least 12 months prior to the commencement of leave. The 12 months of employment must have accumulated within the previous seven years (certain exceptions apply);
- The employee has worked at least 1,250 hours during the previous 12-month period before the need for leave; and
- The employee works at a location where the District employs at least 50 persons within a 75-mile radius.

Leave may be taken for one or more of the following reasons:

- The birth of the employee's child, or placement of a child with the employee for adoption or foster care (FMLA/CFRA);
- For incapacity due to pregnancy, prenatal medical care or child birth (FMLA only);
- For a serious health condition that makes the employee unable to perform his or her job (FMLA/CFRA);
- To care for the employee's spouse, child, or parent who has a serious health condition (FMLA/CFRA);
- To care for the employee's registered domestic partner (CFRA only).

For additional information about eligibility for family/medical leave, contact the Office Manager.

New Parent Leave Policy - FMLA/CFRA

Eligibility and Duration

Employees who: (1) have more than 12 months of service, (2) have at least 1,250 hours of service during the previous 12-month period, (3) work at a location where the District employs at least 20 persons within a 75-mile radius, and (4) are not covered under the FMLA/CFRA policy, may take up to 12 weeks of parental leave to bond with a new child within one year of the child's birth, adoption, or foster care placement.

If both parents are employed by the District, the total amount of leave taken by both parents shall not exceed 12 weeks and both parents may not take leave simultaneously.

Intermittent New Parent Leave

New Parent Leave does not have to be taken in one continuous period of time. The basic minimum duration of the leave shall be two weeks. However, the District shall grant a request for New Parent Leave of less than two weeks' duration on any two occasions. Additional requests

for leaves lasting less than two weeks may be granted, subject to the District's discretion.

Any leaves taken must be concluded within one year of the child's birth, adoption, or foster care placement.

Substitution of Paid Leave

Generally, FMLA/CFRA New Parent Leave is unpaid except to the extent that an employee chooses to utilize accrued sick time or PTO during the period of New Parent Leave. Such leave taken will run concurrently with New Parent Leave.

The District may require, or employees may choose, to use accrued paid leave while taking FMLA leave. In order to use paid leave for FMLA leave, employees must comply with the District's normal paid leave policies. For more information on those specific circumstances requiring or allowing the substitution of paid leave, contact the Office Manager.

New Parent Leave's Effect on Benefits

While on New Parent Leave, the District will maintain and pay for the employee's group health coverage, at the same level and under the same conditions that coverage would have been provided if the employee was working. Such coverage will commence at the start of the leave and continue for the duration of the employee's New Parent Leave, but will not exceed 12 weeks over the course of a 12-month period (26 workweeks if the leave is to care for a covered service member).

The employee's portion of the premium payment, if any, is due when it would be made by payroll deduction. The District may recover from the employee any premiums paid as required under New Parent Leave if: (1) the employee fails to return from leave after the leave period expires and (2) the failure to return is for a reason other than continuation, recurrence, or onset of a serious health condition or other circumstances beyond the employee's control.

Employees on pregnancy disability leave will be allowed to continue to participate in group health coverage for up to a maximum of four months of pregnancy disability leave (if such insurance was provided before the leave was taken) on the same terms as if you had continued to work. The right to continued group health coverage during pregnancy disability leave is a separate and distinct entitlement from the CFRA entitlement.

New Parent Leave's Effect on Pregnancy Disability Leave and Paid Family Leave

New Parent Leave may be taken in addition to the leave provided for under Pregnancy Disability Leave if the employee is otherwise qualified. In addition, because New Parent Leave is used to bond with a new child, employees may be eligible for Paid Family Leave (PFL) from the State of California if qualified.

Procedure for Requesting New Parent Leave

Employees must provide 30 calendar days' advance notice to the District of the need for New Parent Leave as well as the requested duration of the leave. For events that are unforeseeable 30 days in advance, the employee must notify the District as soon as is practical and generally

must comply with the District's normal call-in or notice procedures.

The District will respond to the leave request no later than five (5) business days after receiving the request. The District will inform the employee if he or she is eligible for New Parent Leave and provide the employee with a notice of his or her rights and responsibilities.

Concurrent Personal and Family/Medical Leave

Any leave taken under this provision that qualifies as leave under the state and/or federal Family and Medical Leave Acts will be counted as family/medical leave and charged to your entitlement of 12 workweeks of family/medical leave in a 12-month period.

Reinstatement

Upon the employee's return from New Parent Leave, he or she shall be reinstated to his or her same or comparable position.

Under most circumstances, upon return from family/medical leave, an employee will be reinstated to his or her original job or to an equivalent job with equivalent pay, benefits, and other employment terms and conditions. However, an employee has no greater right to reinstatement than if he or she had been continuously employed rather than on leave. For example, if an employee on family/medical leave would have been laid off had he or she not gone on leave, or if the employee's job is eliminated during the leave and no equivalent or comparable job is available, then the employee would not be entitled to reinstatement. In addition, an employee's use of family/medical leave will not result in the loss of any employment benefit that the employee earned before using family/medical leave.

Reinstatement after family/medical leave may be denied to certain salaried "key" employees under the following conditions:

- An employee requesting reinstatement was among the highest-paid 10 percent of salaried employees employed within 75 miles of the worksite at which the employee worked at the time of the leave request;
- The refusal to reinstate is necessary because reinstatement would cause substantial and grievous economic injury to the District's operations;
- The employee is notified of the District's intent to refuse reinstatement at the time the District determines the refusal is necessary; and
- If leave has already begun, the District gives the employee a reasonable opportunity to return to work following the notice described previously.

Time Accrual

Please contact the Office Manager with any questions regarding accrual of other District provided paid leave benefits (such as vacation/PTO or sick leave) during unpaid FMLA/CFRA leave.

Carryover

Leave granted under any of the reasons provided by state and federal law will be counted as family/medical leave and will be considered as part of the 12-workweek entitlement (26-workweek entitlement if leave is to care for a service member) in any 12-month period. No carryover of unused leave from one 12-month period to the next 12-month period is permitted.

Calculating the 12-month Period

For purposes of calculating the 12-month period during which 12 weeks of FMLA or qualifying exigency leaves may be taken, the Bear Valley Water District uses the fiscal year.

Under most circumstances, leave under federal and state law will run at the same time and the eligible employee will be entitled to a total of 12 weeks of family and medical leave in the designated 12-month period.

For leave to care for a covered service member, the 12-month period begins on the first day of the leave, regardless of how the 12-month period is calculated for other leaves. Leave to care for a covered service member is for a maximum of 26 workweeks during a 12-month period.

Leave Procedures

The following procedures shall apply when an employee requests family medical leave:

- Please contact the Office Manager as soon as you realize the need for family/medical leave. If the leave is based on the expected birth, placement for adoption or foster care, or planned medical treatment for a serious health condition of the employee or a family member, the employee must notify the District at least 30 days before leave is to begin. The employee must consult with his or her supervisor regarding scheduling of any planned medical treatment or supervision in order to minimize disruption to the operations of the District. Any such scheduling is subject to the approval of the health care provider of the employee or the health care provider of the employee's child, parent, or spouse.
- If the employee cannot provide 30 days' notice, the District must be informed as soon as is practical.
- If the Family and Medical Leave Act/California Family Rights Act request is made because of the employee's own serious health condition, the District may require, at its expense, a second opinion from a health care provider that the District chooses. The health care provider designated to give a second opinion will not be one who is employed on a regular basis by the District.
- If the second opinion differs from the first opinion, the District may require, at its expense, the employee to obtain the opinion of a third health care provider designated or approved jointly by the employer and the employee. The opinion of the third health care provider shall be considered final and binding on the District and the employee.

Certification

The Bear Valley Water District requires the employee to provide certification from the health

care provider. You will have 15 calendar days from the District's request for certification to provide it to the District, unless it is not practicable to do so. The District may require recertification from the health care provider if the employee requests additional leave upon expiration of the time period in the original certification. *(For example, if an employee needs two weeks of family and medical leave, but following the two weeks needs intermittent leave, a new medical certification will be requested and required.)* If the employee does not provide medical certification in a timely manner to substantiate the need for family and medical leave, the District may delay approval of the leave, or continuation thereof, until certification is received. If certification is never received, the leave may not be considered family and medical leave.

If the leave is needed to care for a sick child, spouse, or parent, the employee must provide a certification from the health care provider stating:

- Date of commencement of the serious health condition;
- Probable duration of the condition;
- Estimated amount of time for care by the health care provider; and
- Confirmation that the serious health condition warrants the participation of the employee.

When both parents are employed by the District, and request simultaneous leave for the birth or placement for adoption or foster care of a child, the District will not grant more than a total of 12 workweeks family/medical leave for this reason.

If an employee cites his/her own serious health condition as a reason for leave, the employee must provide a certification from the health care provider stating:

- Date of commencement of the serious health condition;
- Probable duration of the condition; and
- Inability of the employee to work at all or to perform any one or more of the essential functions of his/her position because of the serious health condition.

If an employee is absent because of his/her own serious health condition, the District will also require a medical release to return to work form or certification from the employee's health care provider that the employee is able to resume work.

Failure to provide a release to return to work certificate from the employee's health care provider will result in denial of reinstatement for the employee until the certificate is obtained.

Intermittent Leave

Employees may take Family and Medical Leave Act/California Family Rights Act leave intermittently (in blocks of time, or by reducing their normal weekly or daily work schedule) if the leave is for the serious health condition of the employee or a qualifying family member and the reduced leave schedule is medically necessary as determined by the health care provider of the person with the serious health condition. The smallest increment of time that can be used for such leave is 15 minutes.

See also the discussion of Pregnancy, Childbirth or Related Medical Conditions above.

Extended Medical Leave

A medical leave of absence may be granted for non-work-related medical disabilities (other than pregnancy, childbirth, and related medical conditions) with a doctor's written certificate of disability. Extended disability leaves will also be considered on a case-by-case basis, consistent with the District's obligations under federal and state disability laws.

Employees should request any leave in writing as far in advance as possible. If you are granted a medical leave, the Bear Valley Water District will pay you sick pay for the period of time equivalent to your accumulated sick pay earned. You also may use any paid vacation/PTO time previously accrued.

A medical leave begins on the first day your doctor certifies that you are unable to work, and ends when your doctor certifies that you are able to return to work. The Office Manager will supply you with a form for your doctor to complete, showing the date you were disabled and the estimated date you will be able to return to work. An employee returning from a medical disability leave must present a doctor's certificate declaring fitness to return to work.

If returning from a non-work-related medical leave, you will be offered the same position you held at the time your leave began, if available. If your former position is not available, a comparable position will be offered. If neither the same nor a comparable position is available, your return to work will depend on job openings existing at the time of your scheduled return. The Bear Valley Water District makes no guarantees of reinstatement, and your return will depend on your qualifications for existing openings.

California workers' compensation laws govern work-related injuries and illnesses. California pregnancy disability laws govern leaves taken because of pregnancy, childbirth, and related medical conditions. An employee that needs reasonable accommodations should contact a District representative with day-to-day personnel responsibilities and discuss the need for an accommodation.

Any leave taken under this provision qualifying as leave under the state and/or federal family and medical leave laws (FMLA/CFRA) will be counted as family/medical leave, charged to your entitlement of 12 workweeks of family/medical leave in a 12-month period, and governed by the rules relating to family/medical leave.

Bereavement Leave

The Bear Valley Water District grants leave of absence to employees in the event of the death of the employee's current spouse, registered domestic partner, child, parent, legal guardian, brother, sister, grandparent, or grandchild; or mother-, father-, sister-, brother-, son-, or daughter-in-law. An employee with such a death in the family may take up to 3 consecutive scheduled workdays off with pay with the approval of the District. The employee's supervisor may approve additional unpaid time off.

Time Off for Voting

If an employee does not have sufficient time outside of working hours to vote in an official state-sanctioned election, the employee may take off enough working time to vote. Such time off shall be taken at the beginning or the end of the regular working shift, whichever allows for

more free time, and the time taken off shall be combined with the voting time available outside of working hours to a maximum of two hours combined. Under these circumstances, an employee will be allowed a maximum of two hours of time off during an election day without loss of pay. When possible, an employee requesting time off to vote shall give his or her supervisor at least two days' notice.

Volunteer Civil Service Personnel Leave

No employee shall be disciplined for taking time off to perform emergency duty as a volunteer firefighter, peace officer, or emergency rescue personnel. Employees who perform emergency duty as a volunteer firefighter, reserve peace officer, or emergency rescue personnel may also take up to a total of fourteen (14) days unpaid leave time per calendar year to engage in required fire, law enforcement or emergency rescue training. Please alert your supervisor that you may have to take time off for emergency duty or emergency duty training. When taking time off for emergency duty, please alert your supervisor before doing so when possible.

Jury Duty and Witness Leave

The Bear Valley Water District encourages employees to serve on jury duty when called. Non-exempt employees who have completed their introductory periods will receive full pay while serving up to 5 days of jury duty. Exempt employees will receive full salary unless they are absent for a full week and perform no work. You should notify your supervisor of the need for time off for jury duty as soon as a notice or summons from the court is received. You may be requested to provide written verification from the court clerk of performance of jury service. If work time remains after any day of jury selection or jury duty, you will be expected to return to work for the remainder of your work schedule.

Fees Paid by the Court

You may retain any mileage allowance or other fee paid by the court for jury services.

School and Child Care Activities Leave

Employees are encouraged to participate in the school or child care activities of their child(ren).

The absence is subject to all of the following conditions:

- Time off under this policy can only be used by parents, guardians, grandparents, stepparents, foster parents or a person who stands *in loco parentis* to one or more children of the age to attend kindergarten through grade 12 or a licensed child care provider;
- The amount of time off for school or child care activities described below cannot exceed a total of 40 hours each year;
- Covered employees can use the time off to find, enroll or reenroll a child in a school or with a licensed child care provider or to participate in activities of the child's school or licensed child care provider. The time off for these purposes cannot exceed eight hours in any calendar month. Employees planning to take time off for these purposes must provide reasonable advance notice to their supervisor;
- Covered employees can also use time off to address a "child care provider or school emergency" if the employee gives notice to the employer. A child care provider or

school emergency means that the employee's child cannot remain in a school or with a child care provider due to one of the following:

- The school or child care provider has requested that the child be picked up, or has an attendance policy (excluding planned holidays) that prohibits the child from attending or requires the child to be picked up from the school or child care provider;
- Behavioral or discipline problems;
- Closure or unexpected unavailability of the school or child care provider, excluding planned holidays; or
- A natural disaster, including, but not limited to, fire, earthquake or flood.

- Employees must provide their supervisor with documentation from the school or licensed child care provider verifying that they were engaged in these child related activities on the day and time of the absence;

School Appearances Involving Suspension Leave

If an employee who is the parent or guardian of a child facing suspension from school is summoned to the school to discuss the matter, the employee should alert his or her supervisor as soon as possible before leaving work. In agreement with California Labor Code Section 230.7, no discriminatory action will be taken against an employee who takes time off for this purpose.

Pregnancy Disability Leave Five or More Employees

If you are pregnant, have a related medical condition, or are recovering from childbirth, please review this policy. Any employee planning to take pregnancy disability leave should advise the Office Manager as early as possible. The individual should make an appointment with the Office Manager to discuss the following conditions:

- Duration of pregnancy disability leave will be determined by the advice of the employee's physician, but employees disabled by pregnancy may take up to four months of leave per pregnancy (the working days you normally would work in one-third of a year or 17 1/3 weeks). Part-time employees are entitled to leave on a pro rata basis. The four months of leave includes any period of time for actual disability caused by the employee's pregnancy, childbirth, or related medical condition. This includes leave for severe morning sickness and for prenatal care, doctor-ordered bed rest, as well as other reasons. Your healthcare provider determines how much time you need for your disability.
- The Bear Valley Water District will also reasonably accommodate medical needs related to pregnancy, childbirth, or related conditions or temporarily transfer you to a less strenuous or hazardous position (where one is available) or duties if medically needed because of your pregnancy.
- Employees who need to take pregnancy disability must inform the Bear Valley Water District when a leave is expected to begin and how long it will likely last. If the need for a leave, reasonable accommodation, or transfer is foreseeable (such as the expected birth of a child or a planned medical treatment for yourself), employees must provide at least 30 days advance notice before the pregnancy disability leave or transfer is to begin. Employees must consult with the personnel manager regarding the scheduling of any planned medical treatment or supervision in order to minimize disruption to the operations of the District. Any such scheduling is subject to the approval of the employee's health care provider;

- For emergencies or events that are unforeseeable, we need you to notify the District, at least verbally, as soon as practical after you learn of the need for the leave.
- Failure to comply with these notice requirements may result in delay of leave, reasonable accommodation, or transfer;
- Pregnancy leave usually begins when ordered by the employee's physician. The employee must provide the Bear Valley Water District with a written certification from a health care provider for need of PDL, reasonable accommodation or transfer. The certification must be returned no later than 15 calendar days after it is requested by the District. Failure to do so may, in some circumstances, delay PDL leave, reasonable accommodation or transfer. Please see the personnel department for a medical certification form to give to your health provider.
- Leave returns will be allowed only when the employee's physician sends a release;
- An employee will be allowed to use accrued sick time (if otherwise eligible to take the time) during a pregnancy disability leave. An employee will be allowed to use accrued vacation time (if otherwise eligible to take the time) during a pregnancy disability leave; and
- Leave does not need to be taken in one continuous period of time and may be taken intermittently, as needed. Leave may be taken in increments of 15 minutes.

If intermittent leave or leave on a reduced work schedule is medically advisable the employee may, in some instances, be required to transfer temporarily to an available alternative position that meets the employee's needs. The alternative position need not consist of equivalent duties, but must have the equivalent rate of pay and benefits. The employee must be qualified for the position. The position must better accommodate the employee's leave requirements than her regular job. Transfer to an alternative position can include altering an existing job to better accommodate the employee's need for intermittent leave or a reduced work schedule.

Upon submission of a medical certification that an employee is able to return to work from a pregnancy disability leave, an employee will be reinstated to her same position held at the time the leave began or, in certain instances, to a comparable position, if available. There are limited exceptions to this policy. An employee returning from a pregnancy disability leave has no greater right to reinstatement than if the employee had been continuously employed.

Employees on pregnancy disability leave will be allowed to continue to participate in group health insurance coverage for up to a maximum of four months of disability leave (if such insurance was provided before the leave was taken) at the level and under the conditions that coverage would have been provided if the employee had continued in employment continuously for the duration of the leave. In some instances, an employer can recover from an employee premiums paid to maintain health coverage if the employee fails to return following pregnancy disability leave.

Pregnancy, Childbirth or Related Conditions

Leave because of the employee's disability for pregnancy, childbirth or related medical condition is not counted as time used under California law (the California Family Rights Act). However, time off because of pregnancy disability, childbirth or related medical condition does count as family and medical leave under federal law (the Family and Medical Leave Act).

Employees who take time off for pregnancy disability and who are eligible for family and medical leave will also be placed on family and medical leave that runs at the same time as their pregnancy disability leave. Once the pregnant employee is no longer disabled, or once

the employee has exhausted PDL and has given birth she may apply for leave under the California Family Rights Act, for purposes of baby bonding.

Any leave taken for the birth, adoption, or foster care placement of a child does not have to be taken in one continuous period of time. California Family Rights Act leave taken for the birth or placement of a child will be granted in minimum amounts of two weeks. However, the District will grant a request for a California Family Rights Act leave (for birth/placement of a child) of less than two weeks' duration on any two occasions. The District may also grant additional requests for leave lasting less than two weeks at its discretion. Any leave taken must be concluded within one year of the birth or placement of the child with the employee.

Military Leave

Employees who wish to serve in the military and take military leave should contact the Office Manager for information about their rights before and after such leave. You are entitled to reinstatement upon completion of military service, provided you return or apply for reinstatement within the time allowed by law.

Military Spouse Leave

Employees who work more than 20 hours per week and have a spouse in the Armed Forces, National Guard or Reserves who have been deployed during a period of military conflict are eligible for up to 10 unpaid days off when their spouse is on leave from (not returning from) military deployment.

Employees must request this leave in writing to the Office Manager within two business days of receiving official notice that their spouse will be on leave. Employees requesting this leave are required to attach to the leave request written documentation certifying the spouse will be on leave from deployment.

Leave Related to Military Service

A leave taken due to a "qualifying exigency" related to military service must be supported by a certification of its necessity. A leave taken due to the need to care for a service member shall be supported by a certification by the service member's health care provider or other certification allowed by law. Special certification requirements apply to leaves related to military service.

Military Family Leave Entitlements

- Eligible employees whose spouse, son, daughter or parent is on covered active duty or call to covered active duty status may use their 12-week leave entitlement to address certain qualifying exigencies. Qualifying exigencies may include attending certain military events, arranging for alternative childcare, addressing certain financial and legal arrangements, attending certain counseling sessions, and attending post-deployment reintegration briefings.
- Eligible employees may also take a special leave entitlement of up to 26 weeks of leave

to care for a covered service member during a single 12-month period. (FMLA/CFRA for 12 weeks if the care provider is eligible for both, followed by 14 weeks of (FMLA only), or 26 weeks of FMLA only if leave is not CFRA covered leave). A covered service member is either:

- A current member of the Armed forces, including a member of the National Guard or Reserves, who is undergoing medical treatment, recuperation or therapy, is otherwise in outpatient status, or is otherwise on the temporary disability retired list, for a serious injury or illness*; or
- A veteran who was discharged or released under conditions other than dishonorable at any time during the five-year period prior to the first date the eligible employee takes FMLA leave to care for the covered veteran, and who is undergoing medical treatment, recuperation, or therapy for a serious injury or illness.*

*The FMLA definitions of "serious injury or illness" for current service members and veterans are distinct from the FMLA definition of "serious health condition."

Victims of Crime Leave

An employee who is themselves a victim or who is the family member of a victim of certain serious crimes may take time off from work to attend judicial proceedings related to the crime or to attend proceedings involving rights of the victim.

A family member of a crime victim may be eligible to take this leave if he/she is the crime victim's spouse, parent, child or sibling. Other family members may also be covered depending on the purpose of the leave.

The absence from work must be in order to attend judicial proceedings or proceedings involving rights of the victim. Only certain crimes are covered. You must provide reasonable advance notice of your need for leave, and documentation related to the proceeding may be required. If advance notice is not possible, you must provide appropriate documentation within a reasonable time after the absence.

Any absence from work to attend judicial proceedings or proceedings involving victim rights will be unpaid, unless you choose to use accrued vacation/PTO pay.

For more information regarding this leave (including whether you are covered, when and what type of documentation is required, and which type of paid time off can be used), please contact the Office Manager.

Domestic Violence, Sexual Assault or Stalking Leave and Accommodation

Employees who are victims of domestic violence, sexual assault and stalking are eligible for unpaid leave. Although the leave is generally unpaid, employees can use their paid sick time under California's Healthy Workplaces, Healthy Families Act for the purposes described below.

You may request leave if you are involved in a judicial action, such as obtaining restraining orders, or appearing in court to obtain relief to ensure your health, safety or welfare, or that of your child. Please provide reasonable advance notice of the need for leave unless advance notice is not feasible. Contact the Office Manager for more information.

Employees who are victims of domestic violence, sexual assault or stalking and need a reasonable accommodation for their safety at work should contact a District representative with day-to-day personnel responsibilities and discuss the need for an accommodation. If you are requesting such a reasonable accommodation, you will need to submit a written statement signed by you, or by an individual acting on your behalf, certifying that the accommodation is for the purpose of your safety at work.

For reasonable accommodation requests, the District will also require certification demonstrating that you are the victim of domestic violence, sexual assault or stalking. Any of the forms of certification described above for leave purposes will suffice. The District may request recertification every six months from the date of the previous certification. You should notify the District if an approved accommodation is no longer needed.

The District will engage in an interactive process with the employee to identify possible accommodations, if any, that are effective and will make reasonable accommodations unless an undue hardship will result.

The Bear Valley Water District will, to the extent allowed by law, maintain the confidentiality of an employee requesting leave or accommodation under these provisions.

Domestic Violence, Sexual Assault or Stalking Leave for Treatment

Employees who are victims of domestic violence, sexual assault or stalking are eligible for unpaid leave. Although the leave is generally unpaid, employees can use their paid sick time under California's Healthy Workplaces, Healthy Families Act for the purposes described below.

You may request leave for any of the following purposes:

- To seek medical attention for injuries caused by domestic violence, sexual assault or stalking;
- To obtain services from a domestic violence shelter, program or rape crisis center as a result of domestic violence, sexual assault or stalking;
- To obtain psychological counseling related to experiencing domestic violence, sexual assault or stalking;
- To participate in safety planning and take other actions to increase safety from future domestic violence, sexual assault or stalking including temporary or permanent relocation.

Please provide reasonable advance notice of the need for leave unless advance notice is not feasible. Contact the Office Manager for more information.

The Bear Valley Water District will, to the extent allowed by law, maintain the confidentiality of an employee requesting leave under this provision.

The length of unpaid leave an employee may take is limited to 12 weeks provided for in the federal Family and Medical Leave Act of 1993 for eligible employees.

Organ and Bone Marrow Donor Leave

Employees who are donors for organ or bone marrow may take paid time off as follows:

- Employees may take up to 30 business days of leave in any one-year period for the purpose of donating an organ to another person. The one-year period is calculated from the date the employee begins his/her leave.
- Employees may take up to 5 business days of leave in any one-year period for the purpose of donating bone marrow to another person. The one-year period is calculated from the date the employee's leave begins.
- During the leave for organ/bone marrow donors, the Bear Valley Water District will continue to provide and pay for any group health plan benefits the employee was enrolled in prior to the leave of absence.
- Leave taken for the purpose of organ or bone marrow donation is not leave for the purpose of family medical leave under state law, The California Family Rights Act.
- Employees who wish to take a leave of absence to donate bone marrow or an organ will be required to provide written verification of the need for leave, including confirmation that the employee is an organ or bone marrow donor and that there is a medical necessity for the donation of the organ or bone marrow.

The Bear Valley Water District requires that employees taking leave for organ donation use two weeks of accrued but unused sick leave and/or vacation time/PTO.

The Bear Valley Water District requires that employees taking leave for bone marrow donation use five days of accrued but unused sick leave and/or vacation.

Once a Donor has exhausted the required paid sick and/or vacation/PTO leave, the employee will be paid for the remaining leave of absence, if additional leave is needed, up to the maximum allowed by law.

Leave Donation Program

Statement of Policy

The Bear Valley Water District has a leave donation program that is meant to provide assistance to employees who are suffering from a crisis event that has resulted in a need for additional time off in excess of their available sick or other paid time. The program allows eligible employees to voluntarily donate time from their available sick leave to their co-workers in accordance with the policy.

This policy is strictly voluntary. The policy does not guarantee any employee the right to extended leave beyond what is provided for by the District's stated policy and its legal obligations. Final approval of receipt of any sick leave donation and of the ability to donate accrued leave rests with the General Manager.

Donations made under this policy shall be deemed to be equivalent one hour increments and are not based on the job classification or salary of the donating employee or the recipient employee.

Eligibility to Donate

In order for you to donate sick leave to another employee you must:

- Be employed by the Bear Valley Water District for one year

- Donate sick leave in units of 1 hour
- Donate no more than 50 percent of your current balance
- You must maintain a minimum of 20 hours in your current balance after the donation.
- Not be currently on an approved leave of absence

Employees who donate leave are not permitted to exhaust their own sick leave balance because they may experience their own need for time off.

Guidelines for Receipt of Leave Donation

Employees who would like to receive donated sick time from co-workers, must have a crisis event as determined by the General Manager.

A crisis event includes circumstances such as the following:

- A catastrophic injury or illness of an employee or immediate family member.
- Death of an immediate family member.
- A crisis of a severe nature that directly impacts the employee, such as a catastrophic casualty loss due to a natural disaster.

The donated time can only be used for time off related to the approved crisis event. Recipient employees must use their own available paid leave time prior to using any donated time. Employees who receive donated sick time may receive no more than 480 hours (12 weeks) within a rolling 12 month period. The leave donation program does not guarantee the recipient employee the right to extended leave beyond the District's stated policy and its legal obligations. The decision as to whether a personal leave should be granted, whether there is a crisis event, or whether the employee can receive donated sick time is within the discretion of the Bear Valley Water District.

Any donated sick time that is in excess of the time used by the recipient for the approved crisis event will be returned to the donor. There is no "cash" value to the recipient of the donated sick time.

Procedure

Employees who wish to donate sick time to a co-worker must make a written request to Office Manager who will confirm eligibility. The request must be approved by the General Manager.

The identity of donors will remain confidential.

Donations under the program are voluntary and no employee will be subject to intimidation or disparate treatment for participating in or declining to participate in the leave donation program. Misrepresenting or falsifying the need to receive donated leave under this program is grounds for discipline, including termination.

Benefits

Benefits Overview

The Bear Valley Water District is committed to providing the following benefits for eligible employees. Benefit eligibility may be dependent upon your employee classification (full-time/part-time vs. temporary employee, for example) and on length of continuous employment at the Bear Valley Water District. Benefit eligibility requirements may also be imposed by the plans themselves.

The District will provide medical, dental and vision plans for participation by eligible District employees and their qualifying dependents, The District will pay 100 % of the premium for medical, dental and vision insurance for employees. The District will provide for enrollment in the plans for qualifying dependents but the premium for these dependents is to be paid entirely by the employee by automatic payroll deduction.

Upon becoming eligible for certain employee benefit plans, the actual benefits available will be described in the benefits booklet and Summary Plan Description document which will describe the benefits in greater detail. For information regarding employee benefits and to answer any questions you may contact the Office Manager.

The District reserves the right to modify, amend or terminate benefits and to modify or amend benefit eligibility requirements at any time and for any reason, subject to any legal restrictions.

The District offers the following employee benefits:

- Medical Insurance
- Dental Insurance
- Vision Insurance
- Life Insurance
- Long Term Disability Insurance
- Retirement Benefits
- Holiday Pay
- Vacation / Paid Time Off (PTO)
- Cash In-Lieu Program
- Workers' Compensation Insurance
- Social Security Insurance
- Unemployment Insurance

Newly hired eligible employees seeking enrollment in any one or more of the following benefits may apply for enrollment following the two (2) month mandatory waiting period: medical, dental, vision, life insurance and long term disability. Benefits will begin on the first day of the second month following an employees' enrollment in the program. Newly hired employees are eligible for all other remaining benefits on the date of hire.

For all eligible employees, the District shall pay 100 % of the employee's premium for all the benefits listed above. Employees may add dependents to the District's medical, dental and/or vision plans but premiums will be paid out of the employee's earnings. The District provides no dependent premium benefit at this time.

Holidays

For each calendar year, the Bear Valley Water District observes the following paid holidays:

1. January 1 (New Year's Day)
2. Martin Luther King Jr.'s Birthday
3. Presidents' Day
4. Memorial Day
5. July 4th (Independence Day)
6. Labor Day
7. Veteran's Day
8. Thanksgiving Day
9. Friday after Thanksgiving
10. December 24 (Christmas Eve)
11. December 25 (Christmas Day)
12. December 31 (New Year's Eve)

Each non-exempt employee's eligibility for holiday pay begins after completion of his or her introductory period. If employees are required to work on a paid scheduled holiday they will receive straight time pay.

Holidays are to be taken on the day they occur. If the holiday falls on a day the employee is not scheduled to work, employees may take a substitute holiday on a day when he or she would otherwise have been required to work. The substitute holiday absence must be approved in advance by your supervisor unless the absence is otherwise protected by law.

When a holiday falls on a Saturday or Sunday, it is to be observed on the preceding Friday or the following Monday. However, the Bear Valley Water District may grant another day off in lieu of closing. Holiday observance will be announced in advance.

Payroll Deductions

Each employee's paycheck may have the following legally required deductions:

1. F.I.T.- Federal Income Tax
2. F.I.C.A.- Federal Insurance Contribution Act (Social Security Tax)
3. S.I.T.- State Income Tax
4. S.D.I.- State Disability Insurance
5. Garnishment/Levy (Wage Attachments)

There may be other deductions that you can voluntarily authorize including:

1. Employee Dependent Premium Payments (Medical/Dental/Vision)
2. Enhanced Life Insurance Benefit Payments
3. 457(b) Deferred Compensation Retirement Plan
4. 401(a) and/or 457(b) Loan Payments

Cash In-Lieu Program

If you have qualifying group medical, dental and vision insurance through a spouse, domestic partner, parent, or another source, you have the option to receive cash in-lieu of District benefits with certain restrictions and limitations. Qualifying group health coverage includes health coverage that provides minimum value as established by the federal Patient Protection Affordable Care Act (ACA) and is maintained by an employer or employee organization.

The ACA establishes a minimum value standard of benefits of a health plan. For a qualifying group health plan to meet the ACA's minimum value standards, the plan must cover at least 60 percent of the total allowed costs of benefits provided under the plan. Employees may refer to their plan's Summary of Benefits and Coverage document to determine if their coverage meets the law's minimum value standards.

Employees enrolled in individual coverage, such as Medicare, Medi-Cal, and Covered California, are not eligible to receive cash in-lieu of other health coverage, even if the coverage provides minimum value.

Open Enrollment is October 1 through October 31 each year.

Enrollments and changes made during Open Enrollment are effective January 1 of the upcoming year.

If you enrolled or you were automatically re-enrolled during Open Enrollment, you have until the end of open enrollment or October 31 of that particular year to cancel or make changes to your enrollment.

You may still be able to enroll or make changes to your benefits if you are newly hired, newly eligible, or experience a change in status. Please contact the Office Manager for more information.

Calculation and Benefits of the Cash Option

The cash option is calculated using the current cost of individual aggregate coverage for the total set of District benefits offered to qualifying employees, including medical, dental, vision, life and long term disability insurance. The total calculated individual cost of these benefits for fiscal year 2017, for example, is $992.

District policy established by the Board of Directors defines that the cash in-lieu option shall be no more than 50 % of the calculated individual annual total benefit amount in any given year, or $496, for example, for fiscal year 2017.

District policy permits employees to choose individual options from the aggregate set of District benefits described above and receive reduced cash in-lieu benefits. Depending on which individual benefits the employee chooses to enroll in, the cash option shall be decreased by the District's actual cost to provide this benefit. Any seeking to enroll in any of the medical, dental

or vision components of the benefit plan must also enroll in the life insurance component. The actual cost of life insurance, in addition to any other enrollment elections, will necessarily reduce the employees cash in-lieu benefit by the same amount.

Cash in-lieu money is treated as taxable income and is reported on your W-2 statement for the tax year when you receive payment. Cash option payments are not considered compensation for retirement purposes.

Before Enrolling in a Cash Option

The cash in-lieu option is designed to expand your benefit options, not limit or decrease important health and/or dental coverage for you and your family. Accordingly, it's important to make sure your health, dental and vision needs are met before you enroll in the cash in-lieu option. Here are some factors to consider when making your enrollment decision.

- One-Year Commitment - If you enroll in the cash option in-lieu of any benefit, you may not re-enroll in District benefits until the following year's Open Enrollment period.
- The only exception is if you lose your other coverage. In this instance, you must notify the Office Manager within 31 days so the District's provider receives notification and your eligibility for group coverage is preserved.

Who May Enroll in a Cash Option?

Full time or part time employees (not more than 30 hours per week but not fewer than 20 hours per week) are eligible to enroll in the cash-in-lieu benefit option.

When May I Enroll?

Your first opportunity to enroll in a cash in-lieu option is within 60 days after becoming "newly eligible" for these benefits. However, for many employees the typical time to enroll is during the annual Fall Open Enrollment period, October 1 – October 31 each year.

Newly eligible

Besides the annual Open Enrollment period, you also have the opportunity to enroll in a cash option within 60 days after becoming "newly eligible." Newly eligible events are as follows:

- You're a new employee hired after the Open Enrollment period.
- You were on an approved leave of absence during the entire Open Enrollment period.
- You experience a change in status that permits you to enroll as newly eligible. If your change in status results in a concurrent approved leave of absence (e.g., birth of child followed by a maternity leave), you may enroll by the deadlines specified below after you return to work.
- Your time base/employee designation changes from one that was ineligible to one that is eligible,

Deadline for newly eligible employees to enroll:

•If you are newly eligible and want to enroll, you must submit enrollment forms to the Office Manager within 60 days after becoming newly eligible. Correctly completed forms received by the Office Manager by the tenth of the month are effective the 1st of the following month (except when the tenth is on a weekend or holiday, in which case the cut-off date will be on the next regular workday).

•If you are newly eligible, your last possible effective date of participation in the 2017 plan year is December 1, 2017. For your enrollment to be effective December 1, 2017, the Office Manager must receive your enrollment form by November 10, 2017. Forms received after that date will be processed for the 2018 plan year.

Can I change my enrollment?

You cannot change or cancel your enrollment during the plan year unless there is a change in your status as discussed below.

If you currently are enrolled in a cash in-lieu option and want to discontinue it for the following plan year, you must complete a Cash Option Enrollment Authorization and submit it to the Office Manager during Open Enrollment.

If you currently are enrolled in a cash option and want to make other changes such as adding eligible dependents and/or another cash option, you must complete an enrollment document and submit it to the Office Manager during Open Enrollment.

Changes and Cancellations

Once you enroll in a cash option, you can't cancel or change your enrollment during the plan year (January 1 through December 31) unless you experience a change in status as discussed below.

If you're enrolled in a cash option when you retire, your cash option will stop automatically. You need to seek your own plan to ensure continuation of benefits.

Payroll status changes

In addition to the events listed below, here are some other payroll status changes and how they affect your cash in lieu enrollment:

• Long Term Disability Leave: If you go on long term disability leave while enrolled in a cash option, your enrollment remains in effect. You will receive a separate check for your cash option.
• State Disability Insurance (SDI): If you go on SDI while enrolled in a cash option, your enrollment will stop while you are on leave unless you supplement your SDI. If you

supplement your SDI, the deductions will continue. If you return to pay status in the same plan year, your enrollment will resume.

• Unpaid Leave of Absence: If you are on an unpaid leave of absence while enrolled in a cash option, your enrollment will stop while you are on leave. If you return to pay status in the same plan year, your enrollment will resume.

• Military Leave: If you are called to active military duty, you are eligible to retain your benefits for up to 365 calendar days above the 180 calendar days provided by GC Section 19775.17. If you are currently receiving cash in-lieu of benefits, you may continue to receive the cash for the duration of your military leave, not to exceed the time limits mentioned above. Military Leave is not an event to newly enroll into the cash program.

Changes in Status

If you experience a change in status that's listed below, you're permitted to take the action that's listed next to that change. You have 60 days following the date of your status change to take the corresponding action.

Your completed form(s) must be received at the Office Manager by the tenth of the month to be effective on the first of the following month.

- Marriage - May enroll in cash option as newly eligible or, if currently enrolled, may cancel/change cash option.
- Divorce (date of final divorce), legal separation, or annulment - May cancel cash option and enroll into benefits.
- Death of spouse or domestic partner - May enroll in cash as newly eligible or, if currently enrolled, may cancel/change Flex elections.
- Loss or commencement of spouse's or domestic partner's employment - If currently enrolled, may cancel/change cash option. New enrollment into cash not allowed.
- Loss of medical and/or dental coverage provided through spouse, domestic partner, or other source, due to an employment status change - If currently enrolled in cash option, may cancel/change cash option. New enrollments not allowed.
- Commencement of medical and/or dental coverage provided through spouse, domestic partner, survivor benefits, or other source, due to an employment status change - May enroll in cash option as newly eligible or, if currently enrolled, may cancel/change cash option.

External Employee Education

Some employees may need to attend training programs, seminars, conferences, lectures, meetings, or other outside activities for the benefit of the Bear Valley Water District or the individual employees. Attendance at such activities, whether required by the District or requested by individual employees, requires the written approval of the General Manager. To obtain approval, any employee wishing to attend an activity must submit a written request detailing all relevant information, including date, hours, location, cost, expenses, and the nature, purpose, and justification for attendance.

Attendance at any such event is subject to the following policies on reimbursement and compensation. For attendance at events required or authorized by the District, customary and reasonable expenses will be reimbursed upon submission of proper receipts. Acceptable expenses generally include registration fees, materials, meals, transportation, and parking. Reimbursement policies regarding these expenses should be discussed with the General Manager in advance.

Employee attendance at authorized outside activities will be considered hours worked for non-exempt employees and will be compensated in accordance with normal payroll practices.

This policy does not apply to an employee's voluntary attendance, outside of normal working hours, at formal or informal educational sessions, even if such sessions generally may lead to improved job performance. While the Bear Valley Water District generally encourages all employees to improve their knowledge, job skills, and promotional qualifications, such activities do not qualify for reimbursement or compensation under this policy unless prior written approval is obtained as described previously.

Lactation Policy

The Bear Valley Water District accommodates lactating employees by providing a reasonable amount of break time to any employee who desires to express breast milk for an infant child. The break time shall, if possible, run concurrently with any break time already provided to the employee. Any break time provided to express breast milk that does not run concurrently with break time already provided to the employee shall be unpaid. However, if providing such break time would seriously disrupt the operations of our business, the District may deny break time to employees who wish to express breast milk.

The District will make reasonable efforts to provide employees who need a lactation accommodation with the use of a room or other private location that is located close to the employee's work area. Employees with private offices will be required to use their offices to express breast milk.

Employees who desire lactation accommodations should contact their supervisor or the Office Manager to request accommodations.

Discrimination on the basis of sex includes discrimination based on breastfeeding and related medical conditions, and is unlawful.

Paid Family Leave

Employees may be eligible for Paid Family Leave (PFL) wage replacement benefits, which are funded through payroll deductions and coordinated through the Employment Development Department (EDD). PFL provides limited compensation for up to six weeks after an unpaid, seven-day waiting period when an employee needs to take leave from work to care for a parent, parent-in-law, child, spouse, registered domestic partner, grandparent, grandchild, or sibling who is seriously ill, or for a working parent who wants time to bond with his or her newborn, foster child or newly adopted child. The PFL program does not provide employees with a right to a leave of absence; it is limited to a state-mandated wage replacement benefit.

Workers' Compensation

Bear Valley Water District, in accordance with state law, provides insurance coverage for employees in case of work-related injury. The workers' compensation benefits provided to injured employees may include:

- Medical care;
- Cash benefits, tax free, to replace lost wages; and
- Assistance to help qualified injured employees return to suitable employment.

To ensure that you receive any workers' compensation benefits to which you may be entitled, if you get hurt, you will need to:

1) Get Medical Care – If you need emergency care, call 911 for help; if you need first aid, contact your employer.
2) Report your Injury – Report the Injury immediately to a supervisor; Call Zenith Insurance at Company (800-440-5020)
3) Complete a written *Employee's Claim for Workers' Compensation Benefits* (DWC-1 Claim Form) and return it to Office Manager
5) See Your Primary Treating Physician
6) Select a Provider from the Zenith Medical Provider Network
7) Select a Pharmacy from the Zenith Pharmacy Network
8) Provide the District with a certification from your health care provider regarding the need for workers' compensation disability leave, as well as your eventual ability to return to work from the leave.

Upon submission of a medical certification that an employee is able to return to work after a workers' compensation leave, the employee under most circumstances will be reinstated to his or her same position held at the time the leave began, or to an equivalent position, if available.

An employee returning from a workers' compensation leave has no greater right to reinstatement than if the employee had been continuously employed rather than on leave. For example, if the employee on workers' compensation leave would have been laid off had he or she not gone on leave, or if the employee's position has been eliminated or filled in order to avoid undermining the District's ability to operate safely and efficiently during the leave, and no equivalent or comparable positions are available, then the employee would not be entitled to reinstatement.

An employee's return depends on his or her qualifications for any existing openings. If, after returning from a workers' compensation disability leave, an employee is unable to perform the essential functions of his or her job because of a physical or mental disability, the District's obligations to the employee may include reasonable accommodation, as governed by the Americans with Disabilities Act.

The law requires the Bear Valley Water District to notify the workers' compensation insurance provider of any concerns of false or fraudulent claims.

District-Provided Physician

The Bear Valley Water District provides medical treatment for work-related injuries through a medical provider network. The District has chosen the Sonora Regional Medical Center to provide medical care to injured employees because of their experience in treating work-related

injuries. Employees seeking medical treatment for a work related injury must first call the Company Nurse Injury Hotline (877-518-6711) for instructions on how to proceed.

Workers' Compensation and FMLA/CFRA

Employees who are ill or injured as a result of a work-related incident, and who are eligible for family and medical leave under state and federal law (Family Medical Leave Act (FMLA) and the California Family Rights Act (CFRA)), will be placed on FMLA/CFRA during the time they are disabled and not released to return to work. The leave under these laws runs concurrently, and eligible employees will be on FMLA/CFRA for a maximum of 12 weeks in a 12-month period fiscal year.

Management

Employee Property

An employee's personal property, including but not limited to lockers, packages, purses, and backpacks, may be inspected upon reasonable suspicion of unauthorized possession of Bear Valley Water District property, possession of dangerous weapons or firearms, or abuse of the District's drug and alcohol policy.

Employment of Relatives

Relatives of employees may be eligible for employment with the Bear Valley Water District only if individuals involved do not work in a direct supervisory relationship, or in job positions in which there is a conflict of interest. The District defines "relatives" as spouses, registered domestic partners, children, siblings, parents, in-laws, and step-relatives. Current employees who marry or become registered domestic partners will be permitted to continue working in the job position held only if they do not work in a direct supervisory relationship with one another or in job positions involving conflict of interest.

Names and Addresses Policy

The Bear Valley Water District is required by law to keep current all employees' names and addresses. Employees are responsible for notifying the District in the event of a name or address change.

Open-Door Policy

Suggestions for improving the Bear Valley Water District are always welcome. At some time, you may have a complaint, suggestion, or question about your job, your working conditions, or the treatment you are receiving. Your complaints, questions, and suggestions also are of concern to the District.

If you have a complaint, suggestion or question, speak with your immediate supervisors as soon as possible. If you are not comfortable speaking to your immediate supervisor, please bring the issue to the Office Manager or any other member of management.

Moreover, if you have raised the issue and if the problem persists, you may present it to the General Manager, who will investigate and provide a solution or explanation.

If the problem is not resolved, you may also present the problem to the President of the Board of Directors of the Bear Valley Water District, who will attempt to reach a final resolution.

While a written complaint will assist us in investigating your concerns, it is not required that you put your complaint in writing. If you need assistance with your complaint, or you prefer to make a complaint in person, contact the Office Manager.

This procedure, which we believe is important for both you and the District, cannot guarantee

that every problem will be resolved to your satisfaction. However, the Bear Valley Water District values your observations and you should feel free to raise issues of concern without the fear of retaliation.

Performance Evaluations

Each employee will receive periodic performance reviews conducted by the General Manager. Your first performance evaluation will take place after the employee completes the introductory period following the first six (6) weeks of continuous employment. Subsequent performance evaluations will be conducted annually. The frequency of performance evaluations may vary depending upon length of service, job position, past performance, changes in job duties, or recurring performance problems.

Your performance evaluations may review factors such as the quality and quantity of the work you perform, your knowledge of the job, your initiative, your work attitude, and your attitude toward others. The performance evaluations are intended to make you aware of your progress, areas for improvement, and objectives or goals for future work performance. Favorable performance evaluations do not guarantee increases in salary or promotions. Salary increases and promotions are solely within the discretion of the Bear Valley Water District and depend upon many factors in addition to performance. After the review, you will be required to sign the evaluation report simply to acknowledge that it has been presented to you, that you have discussed it with the General Manager, and that you are aware of its contents.

Personnel Records

You have a right to inspect or receive a copy of the personnel records that the Bear Valley Water District maintains relating to your performance or to any grievance concerning you. Certain documents may be excluded or redacted from your personnel file by law, and there are legal limitations on the number of requests that can be made.

Any request to inspect or copy personnel records must be made in writing to the Office Manager. You can obtain a form for making such a written request from the Office Manager.

You may designate a representative to conduct the inspection of the records or receive a copy of the records. However, any designated representative must be authorized by you in writing to inspect or receive a copy of the records. The Bear Valley Water District may take reasonable steps to verify the identity of any representative you have designated in writing to inspect or receive a copy of your personnel records.

The personnel records may be made available to you either at the place where you work or at a mutually agreeable location (with no loss of compensation for going to that location to inspect or copy the records). The records will be made available no later than 30 calendar days from the date the Bear Valley Water District receives your written request to inspect or copy your personnel records (unless you/your representative and the Bear Valley Water District mutually agree in writing to a date beyond 30 calendar days but no later than 35 calendar days from receipt of the written request).

If you request a copy of the contents of your file, you will be charged the actual cost of copying.

Disclosure of personnel information to outside sources, other than your designated

representative, will be limited. However, the Bear Valley Water District will cooperate with requests from authorized law enforcement or local, state, or federal agencies conducting official investigations and as otherwise legally required.

Telecommuting

Telecommuting provides employees with an opportunity to work from an alternative work environment instead of in the primary location of the District. Telecommuting must be pre-approved by the General Manager and cannot be initiated without a *Telecommuting Agreement*.

The Bear Valley Water District retains the right in its sole discretion to designate positions that are appropriate for telecommuting and approve employees for telecommuting. Telecommuting must be approved by the General Manager. Telecommuting does not change the conditions of employment or required compliance with all District policies and procedures. The District reserves the right to change or terminate the *Telecommuting Agreement* at any time, without cause or advance notice. An employee's ability to work under a Telecommuting Agreement rests in the sole discretion of the District. Telecommuting is a privilege and may not be appropriate for all employees. If an employee wishes to request a *Telecommuting Agreement*, s/he should contact the Office Manager and ask for a *Telecommuting Request* form.

Telecommuting Safety

The Telecommuter is solely responsible for ensuring the safety of his or her alternative work environment. However, because the District is legally obligated to provide its employees with a workplace that is free from hazards that might cause serious harm or injury, the District reserves the right to periodically inspect the Telecommuter's home work space. Any such inspection will be preceded by advance notice and an appointment will be scheduled. Telecommuters are protected by the District's workers' compensation insurance. As such, Telecommuters are required to immediately report any injuries that occur while working.

The Telecommuter shall be liable for any injuries that occur to third parties at or around the Telecommuter's alternative work environment.

Telecommuting Plan

All Telecommuters will be required to sign a *Telecommuting Agreement* with their supervisor that outlines the days and work hours (as applicable) of the Telecommuter; equipment the Telecommuter will need; how the Telecommuter will communicate with the District; use of support or secretarial staff; and other appropriate information.

Hours of Work

Unless otherwise agreed in the *Telecommuting Agreement*, hours and days of work will not change. Employees agree to apply themselves during work hours.

Nonexempt employees agree not to work outside of scheduled hours without advance approval; this includes such activities as checking and responding to emails. Any work outside

of a scheduled shift must be reported to a supervisor.

Telecommuting is not intended as a substitute for child care or care for another adult. If a child or adult needs care during work time, another responsible individual is expected to be present.

Attendance at Meetings

Telecommuters are expected to attend all required meetings.

Costs Associated with Telecommuting

The District shall not incur additional costs due to a *Telecommuting Agreement*. The *Telecommuting Agreement* will specify any costs the District will cover.

Workplace Privacy - Audio/Video Recordings

Due to concerns regarding the potential for invasion of privacy, sexual or other harassment, and protection of proprietary or confidential information, employees may not use any audio or video recording devices while on working time. Employees also may not use any audio or video recordings in work areas that the Bear Valley Water District has identified as confidential, secure or private, unless the employee is engaged in protected activity related to improving the terms and conditions of his/her employment, such as documenting health and safety issues.

The District uses or may use video surveillance in public areas (not in restrooms, locker rooms or changing areas). The video surveillance will not include sound recording.

District Property

Bulletin Boards

The Bear Valley Water District maintains a bulletin area located in the main office.

The bulletin area is used to provide information to employees concerning events hosted by employees, such as fundraising.

Employees may not post items in the District bulletin area unless the following conditions are met:

- Postings may be made by District employees only;
- The information to be posted must first be approved by the Office Manager;
- Postings are limited to 11" x 17" in size;
- The bulletin area will be updated once a month; and
- Posted items will be dated and will be removed after one month.

Electronic and Social Media

This policy is intended to protect the District's computer systems and electronic information.

For purposes of these policies, the following definitions apply: "Computers" are defined as desktop computers, laptops, handheld devices (including but not limited to iPhones, Black berries, smart phones, iPads, and other electronic tablets and cell phones), computer software/hardware and servers.

The Bear Valley Water District also uses various forms of "electronic communication." "Electronic communications" includes e-mail, text messages, telephones, cell phones and other handheld devices (such as cell phones, Blackberries or smart phones or writing tablets or iPads), fax machines, and online services including the Internet.

"Electronic information" is any information created by an employee using computers or any means of electronic communication, including but not limited to, data, messages, multimedia data, and files.

The following general policies apply:

- Computers and all data transmitted through the Bear Valley Water District servers are District property owned by the District for the purpose of conducting District business. These items must be maintained according to the Bear Valley Water District rules and regulations. Computers must be kept clean and employees must exercise care to prevent loss and damage. Prior authorization must be obtained before any District property may be removed from the premises.
- All electronic communications also remain the sole property of the Bear Valley Water District and are to be used for District business. For example, email messages are considered District records.
- Electronic information created by an employee using any computer or any means of electronic communication is also the property of the Bear Valley Water District and remains the property of the Bear Valley Water District.

- Information stored in Bear Valley Water District computers and file servers, including without limitation personnel files, ratepayer information, vendor lists, research data, budgets and lab data is the property of the District and may not be distributed outside the District in any form whatsoever without the written permission of the General Manager.
- Violation of any of the provisions of this policy, whether intentional or not, will subject Bear Valley Water District employees to disciplinary action, up to and including termination.

Monitoring of District Property

The Bear Valley Water District reserves the right to inspect all District property to ensure compliance with its rules and regulations, without notice to the employee and at any time, not necessarily in the employee's presence. The Bear Valley Water District computers and all electronic communications and electronic information are subject to monitoring and no one should expect privacy regarding such use. The District reserves the right to access, review and monitor electronic files, information, messages, text messages, e-mail, Internet history, browser-based webmail systems and other digital archives and to access, review and monitor the use of computers, software, and electronic communications to ensure that no misuse or violation of District policy or any law occurs. E-mail may be monitored by the District and there is no expectation of privacy. Assume that e-mail may be accessed, forwarded, read or heard by someone other than the intended recipient, even if marked as "private."

Employee passwords may be used for purposes of security but the use of a password does not affect the District's ownership of the electronic information or ability to monitor the information. The District may override an employee's password for any reason.

Employees are not permitted to access the electronic communications of other employees or third parties unless directed to do so by Bear Valley Water District management.

Prohibited Use

All existing District policies apply to employee use of computers, electronic communications, electronic information, and the Internet. This includes policies that deal with misuse of District assets or resources. It is a violation of Bear Valley Water District policy to use computers, electronic communications, electronic information, or the Internet, in a manner that: is discriminatory harassing or obscene; constitutes copyright or trademark infringement; violates software licensing rules; is illegal; or is against Bear Valley Water District policy. It is also a violation of policy to use computers, electronic communications, electronic information, or the Internet to communicate confidential or sensitive information or trade secrets.

The display of any kind of sexually explicit multimedia content, message, or document on any District computer is a violation of the District's policy against sexual harassment. This description of prohibited usage is not exhaustive and it is within the discretion of Bear Valley Water District to determine if there has been a violation of this policy. Employees that engage in prohibited use will be subject to discipline and/or immediate termination.

This policy is not intended to limit the ability of employees to discuss with other employees the terms and conditions of their employment, including such topics as wages, job performance, workload, supervisors, or staffing.

Computer and Internet Use

Bear Valley Water District provides computers, electronic communications, electronic information, and information technology resources, including the Internet, to its employees to help them do their job. Generally, these District resources should be used for business related purposes. However, the District recognizes that occasional personal use of these District resources and property may occur during working time. The District allows such occasional personal use as long as the usage does not interfere with the employee's work performance, take away from work time, consume supplies, slow other users, slow the servers or computer systems, or tie up printers or other shared resources, or violate any District policy, including policies against harassment, discrimination and disclosure of confidential or trade secret information.

This policy is not intended to limit the ability of employees to use District email systems to communicate with other employees regarding the terms and conditions of their employment, including such topics as wages, job performance, workload, supervisors or staffing.

All policies relating to monitoring usage of District property apply. The Bear Valley Water District reserves the right to adjust this policy on a case by case basis as it deems appropriate.

Social Media

Social media is a set of Internet tools that aid in the facilitation of interaction between people online. If you have specific questions about which programs the District deems to be social media, consult with the General Manager. The District recognizes that occasional personal use of social media using District resources may occur during working hours. The District allows such occasional personal use as long as the usage does not interfere with the employee's work performance, take away from work time, consume supplies, slow other users, slow the servers or computer systems, or tie up printers or other shared resources, or violate any District policy, including policies against harassment, discrimination and disclosure of confidential or trade secret information. All policies relating to monitoring usage of District property apply. The Bear Valley Water District reserves the right to adjust this policy on a case by case basis as it deems appropriate.

Employees can use their own personal devices to engage in social media during breaks and meal periods; however, all other District policies against inappropriate usage, including the District's no tolerance for discrimination, harassment or retaliation in the workplace, and protection of confidential or trade secret information, apply.

Nothing in the District's social media policy is designed to interfere with, restrain or prevent employee communications regarding wages, hours or other terms and conditions of employment.

Employee-owned Devices

The Bear Valley Water District recognizes that occasional use of the employee's own computers (including hand held devices) and electronic communications may occur during working time. The District allows such occasional personal use as long as the usage does not interfere with the employee's work performance, take away from work time or violate any District policy. All other District policies, including the District's no tolerance for discrimination, harassment or retaliation in the workplace apply. The Bear Valley Water District reserves the right to adjust this policy on a case by case basis as it deems appropriate.

Employer Property

Lockers, furniture, desks, computers, cell phones, data processing equipment/software and vehicles are Bear Valley Water District property and must be maintained according to District rules and regulations. They must be kept clean and are to be used only for work-related purposes. The Bear Valley Water District reserves the right to inspect all District property including computer or phone data or messages to ensure compliance with its rules and regulations, without notice to the employee and at any time, not necessarily in the employee's presence. Prior authorization must be obtained before any District property may be removed from the premises.

District voice mail and/or electronic mail (e-mail) including texting, pagers and mobile email are to be used for business purposes. The Bear Valley Water District reserves the right to monitor voice mail messages, and e-mail messages, and texts to ensure compliance with this rule, without notice to the employee and at any time, not necessarily in the employee's presence.

The Bear Valley Water District may periodically need to assign and/or change "passwords" and personal codes for:

- email
- voice mail
- cell phones
- computers
- safes
- software

These communication technologies and related storage media and databases are to be used only for District business and they remain the property of the Bear Valley Water District.

The Bear Valley Water District reserves the right to keep a record of all passwords and codes used and/or may be able to override any such password system. Messages on the District voice-mail and email systems are subject to the same District policies against discrimination and harassment as are any workplace communications. Offensive, harassing or discriminatory content in such messages will not be tolerated.

No personal locks may be used on District-provided lockers unless the employee furnishes a copy of the key or the combination to the lock. Unauthorized use of a personal lock by an employee may result in losing the right to use a District locker.

For security reasons, employees should not leave personal belongings of value in the workplace. Terminated employees should remove any personal items at the time they leave the Bear Valley Water District. Personal items left in the workplace are subject to disposal if not claimed at the time of an employee's termination.

Guests and Visitors

Visits from friends and family are to be kept to a minimum, in order to preserve an appropriate work environment. It is extremely important that the impression left with Bear Valley Water District visitors is that of a professional organization with the highest standards of conduct.

Emergencies in which children must be in the office for an extended length of time are to be kept to an absolute minimum. The District may not be used as a substitute for regular child care of employees' children. On those occasions when children are present, they should not be allowed to disrupt others in the office.

Your child is your responsibility and must be under your direct supervision at all times. If a child is ill, you must present a doctor's note to your immediate supervisor indicating the child is not contagious. Under no circumstances may children provide work for the District, unless the child is hired as an employee pursuant to District policies.

If you wish to bring a minor child to work and prior notice is possible, request from your supervisor and complete the *Guest and Visitors Request* form, which will be reviewed by the General Manager. You should also use the *Guest and Visitors Request* form if you wish to bring your pet to work.

The District reserves its right in its sole discretion to deny such a request for reasons including, but not limited to, the requested guest or visitor has been disruptive in the past, there is a special event scheduled on the date(s) requested, or the work environment is not appropriate for the visitor or guest due to safety or other reasons.

Housekeeping

All employees are expected to keep their work areas clean and organized. People using common areas such as lunch rooms, locker rooms, and restrooms are expected to keep them sanitary. Please clean up after meals and dispose of trash properly.

Off-Duty Use of Facilities

Employees are prohibited from remaining on Bear Valley Water District premises or making use of District facilities while not on duty. Employees are expressly prohibited from using District facilities, District property, or District equipment for personal use. This policy is not intended to limit the ability of employees to use the District's email systems to communicate with other employees regarding the terms and conditions of their employment during non-working times, including such topics as wages, job performance, workload, supervisors or staffing.

Parking

Employees may park their vehicles in designated areas, if space permits. If space is unavailable, employees must park in permissible public areas in the vicinity of Bear Valley Water District property. Employees may not use parking areas specifically designated for customers, vendors,

District vehicles, or reserved for managers. The Bear Valley Water District is not responsible for any loss or damage to employee vehicles or contents while parked on District property.

Prohibiting Personal Use of District Cell Phone

Cell phones (including handheld devices and smart phones such as iPhones) may be provided to some employees to assist them in performing their job. Cell phones are District property. Data (including web browsing), messages (including voice mail, mobile email, and text messaging), and other stored electronic information is subject to monitoring and the employee does not have an expectation of privacy in the use of this District property.

The District may ask you to assign a password to your District cell phone to prevent unauthorized access. This password does not affect the District's ownership of the cell phone or ability to monitor the information.

District cell phones must not be used in any manner that violates any other District policy, including safety policies, confidentiality polices, electronic and social media policies, and policies against discrimination and harassment.

Employees who are provided a District cell phone may use it to send and receive occasional and limited personal communications. Any personal usage of a District-issued cell phone must not interfere with the employee's work performance, take away from work time, or violate any District policy, including policies against harassment, discrimination and disclosure of confidential or trade secret information. Employees are responsible for paying for additional time or data usage in excess of any rate plan maintained by the District and unrelated to performance of job duties or following District directions.

Smoking

Smoking is prohibited at this workplace. The smoking prohibition applies to all smoking devices, including, but not limited to, the use of electronic smoking devices, such as electronic cigarettes, pipes, hookahs, and vaping devices.

Solicitation and Distribution of Literature

In order to ensure efficient operation of the District's business and to prevent disruption to employees, the District has established policies related to solicitations and distribution of literature on District property. The Bear Valley Water District has enacted rules applicable to all employees governing solicitation, distribution of written material, and entry onto the premises and work areas. All employees are expected to comply strictly with these rules. Any employee who is in doubt concerning the application of these rules should consult with his or her supervisor.

No employee shall solicit or promote support for any cause or organization during his or her working time or during the working time of the employee or employees at whom such activity is directed. No employee shall distribute or circulate any written or printed material in work areas at any time, or during his or her working time or during the working time of the employee or employees at whom such activity is directed.

Under no circumstances will non-employees be permitted to solicit or to distribute written material for any purpose on District property.

Employee Conduct

Business Conduct and Ethics

No employee may accept a gift or gratuity from any customer, vendor, supplier, or other person doing business with the Bear Valley Water District because doing so may give the appearance of influencing business decisions, transactions or service. Please discuss expenses paid by such persons for business meals or trips with the District in advance.

Conflicts of Interest

All employees must avoid situations involving actual conflict of interest. Personal or romantic involvement with a competitor, supplier, or subordinate employee of the Bear Valley Water District, which impairs an employee's ability to exercise good judgment on behalf of the District, can create an actual conflict of interest. Supervisor-subordinate romantic or personal relationships also can lead to supervisory problems, possible claims of sexual harassment, and morale problems.

An employee involved in any of the types of relationships or situations described in this policy should immediately and fully disclose the relevant circumstances to his or her immediate supervisor, or any other appropriate supervisor, for a determination about whether an actual conflict exists. If an actual conflict is determined, the Bear Valley Water District may take whatever corrective action appears appropriate according to the circumstances. Failure to disclose facts shall constitute grounds for disciplinary action.

Customer Relations

Employees are expected to be polite, courteous, prompt, and attentive to every customer. When an employee encounters an uncomfortable situation that he or she does not feel capable of handling, the General Manager should be called immediately.

The District is a service-based public utility provider and employees must remember that the customer always comes first. Customers are to be treated courteously and given proper attention at all times. Never regard a customer's question or concern as an interruption or an annoyance. You must respond to inquiries from customers, whether in person or by telephone, promptly and professionally.

Never place a telephone caller on hold for an extended period. Direct incoming calls to the appropriate person and make sure the call is received.

Through your conduct, show your desire to assist the customer in obtaining the help he or she needs. If you are unable to help a customer, find someone who can.

All correspondence and documents, whether to customers or others, must be neatly prepared and error-free. Attention to accuracy and detail in all paperwork demonstrates your commitment to those with whom we do business.

Never argue with a customer. If a problem develops or if a customer remains dissatisfied, ask

your supervisor or the General Manager to intervene.

Dress Codes and Other Personal Standards

Employees are expected to wear clothing appropriate for the nature of our business and the type of work performed. Clothing should be neat, clean and tasteful. Avoid clothing that can create a safety hazard. Department managers may issue more specific guidelines.

Because each employee is a representative of the Bear Valley Water District in the eyes of the public, each employee must report to work properly groomed and wearing appropriate clothing. Employees are expected to dress neatly and in a manner consistent with the nature of the work performed.

The following are examples of acceptable work attire:

- Suits
- Dress shirts
- Blouses
- Sweaters
- Sport coats
- Blazers
- Ties
- Slacks
- Skirts
- Business dresses
- Employee Uniforms (if issued)

Tank or halter tops and inappropriate casual shoes or sneakers are not permitted for any employees. All clothing should be clean and without rips or holes. Employees who report to work inappropriately dressed may be asked to clock out and return in acceptable attire.

All employees required to wear uniforms provided by the Bear Valley Water District must take care of their uniforms and report any wear or damage to their supervisors. Instructions regarding cleaning and maintenance of uniforms will be provided. Supervisors will inform you of additional requirements regarding acceptable attire. Certain employees may be required to wear safety equipment or clothing. Any deviations from these guidelines must be approved by your supervisor.

This dress code policy will not be enforced in a manner that discriminates against anyone based on a protected class, such as race, sex, gender identity or gender expression, religion, national origin or any other class protected by federal, state or local law. For more information, see the *Harassment, Discrimination and Retaliation Prevention* policy. Employees who need a reasonable accommodation because of religious beliefs, observances or practices should contact a District representative with day-to-day personnel responsibility and discuss the need for accommodation.

Drug and Alcohol Abuse

The Bear Valley Water District is concerned about the use of alcohol, marijuana, illegal drugs or

controlled substances as it affects the workplace. Use of these substances, whether on or off the job can detract from an employee's work performance, efficiency, safety, and health, and seriously impair District operations. In addition, the use or possession of these substances on the job constitutes a potential danger to the welfare and safety of other employees and exposes the District to the risks of property loss or damage, or injury to other persons.

The following rules and standards of conduct apply to all employees while on District property, at work, or working on District business. The following are strictly prohibited by District policy:

- Being under the influence of, or impaired by, an illegal or controlled substance, alcohol or marijuana while on the job.
- Using or possessing illegal or controlled substances, alcohol or marijuana while on the job (including the illegal use of prescription drugs and possessing drug paraphernalia)
- Distributing, selling, or purchasing of an illegal or controlled substance, alcohol or marijuana while on the job.

Violation of these rules and standards of conduct will not be tolerated. The Bear Valley Water District also may bring the matter to the attention of appropriate law enforcement authorities.

In order to enforce this policy, the Bear Valley Water District reserves the right to conduct searches of District property or employees and/or their personal property, and to implement other measures necessary to deter and detect abuse of this policy.

An employee's conviction on a charge of illegal sale or possession of any controlled substance while off District property will not be tolerated because such conduct, even though off duty, reflects adversely on the Bear Valley Water District. In addition, the District must keep people who sell or possess controlled substances off District premises in order to keep the controlled substances themselves off the premises.

The Bear Valley Water District will encourage and reasonably accommodate employees with alcohol, marijuana or drug dependencies to seek treatment and/or rehabilitation. Employees desiring such assistance should request a treatment or rehabilitation leave. The District is not obligated, however, to continue to employ any person whose performance of essential job duties is impaired because of drug, alcohol or marijuana use. Additionally, employees who are given the opportunity to seek treatment and/or rehabilitation, but fail to successfully overcome their dependency or problem, will not automatically be reemployed or be given a second opportunity to seek treatment and/or rehabilitation. This policy on treatment and rehabilitation is not intended to affect the District's treatment of employees who violate the regulations described previously. Rather, rehabilitation is an option for an employee who acknowledges a chemical dependency and voluntarily seeks treatment to end that dependency.

News Media Contacts

Employees may be approached for interviews or comments by the news media. Only people designated by the General Manager may comment to news reporters on Bear Valley Water District policy or events relevant to the Bear Valley Water District.

This policy does not limit an employee's right to discuss the terms and conditions of his or her employment, or to try and improve these conditions.

Off-Duty Conduct

While the Bear Valley Water District does not seek to interfere with the off-duty and personal conduct of its employees, certain types of off-duty conduct may interfere with the District's legitimate business interests.

Off-duty conduct by an employee that directly conflicts with the District's essential business interests and disrupts business operations will not be tolerated.

Other Employment

While employed by the Bear Valley Water District, employees are expected to devote their energies to their jobs with the District.

Employment that directly conflicts with the District's essential business interests and disrupts business operations is strictly prohibited.

Employees who wish to engage in additional employment that may create a real conflict of interest must submit a written request to Bear Valley Water District explaining the details of the additional employment. If the additional employment is authorized, the Bear Valley Water District assumes no responsibility for it. The Bear Valley Water District shall not provide workers' compensation coverage or any other benefit for injuries occurring from or arising out of additional employment. Authorization to engage in additional employment can be revoked at any time.

Political Activity

Many employees participate in political activities on their own time. District time, facilities, property or equipment (including all computers, networks, and electronic equipment) must not be used for an employee's outside political activities. The Bear Valley Water District will not reimburse any employee for political contributions, and employees should not attempt to receive or facilitate such reimbursements.

Absent a formal statement by the Bear Valley Water District announcing any political endorsements, employees must not, through their own actions, speech, contributions, or written communication, mislead others to believe that the Bear Valley Water District officially endorses or opposes any candidates for political office that the Bear Valley Water District itself has not publicly announced. District employees are entitled to their own personal position.

The District will not discriminate against employees based on their lawful political activity engaged in outside of work.

Prohibited Conduct

Employees are expected to conduct themselves in a manner to further the District's objectives. The following conduct is prohibited and will not be tolerated by the Bear Valley Water District.

This list of prohibited conduct is illustrative only; other types of conduct that threaten security, personal safety, employee welfare and District operations also may be prohibited and will result in disciplinary action up to and including termination.

- Falsifying employment records, employment information, or other District records;
- Inefficient or careless performance of job responsibilities or inability to perform job duties satisfactorily;
- Recording the work time of another employee or allowing any other employee to record your work time, or falsifying any time card, either your own or another employee's;
- Theft and deliberate or careless damage or destruction of any District property, or the property of any employee or customer;
- Removing or borrowing District property without prior authorization;
- Unauthorized use or misuse of District equipment, time, materials, or facilities;
- Provoking a fight or fighting during working hours or on District property;
- Participating in horseplay or practical jokes on District time or on District premises;
- Carrying firearms or any other dangerous weapons on District premises at any time;
- Engaging in criminal conduct whether or not related to job performance;
- Causing, creating or participating in a disruption of any kind during working hours on District property;
- Insubordination, including but not limited to failure or refusal to obey the orders or instructions of a supervisor or member of management, or the use of abusive or threatening language toward a supervisor or member of management;
- Using abusive, threatening or intimidating language at any time on District premises;
- Violation of District punctuality and attendance policies. Absences protected by state or federal law do not count as violations of this policy. Protected paid sick time under California law does not count as a violation of this policy;
- Failing to obtain permission to leave work for any reason during normal working hours, not including meal periods;
- Failing to observe working schedules, including rest and lunch periods;
- Sleeping or malingering on the job;
- Making or accepting personal telephone calls, including cell phone calls, of more than ten minutes in duration during working hours, except in cases of emergency or extreme circumstances;
- Working overtime without authorization or refusing to work assigned overtime;
- Violation of dress standards;
- Violating any safety, health, security or District policy, rule, procedure or violation of the District's drug and alcohol policy;
- Committing a fraudulent act or a breach of trust under any circumstances;
- Violating the District's anti-harassment or equal employment opportunity policies; and
- Failing to promptly report work-related injury or illness.

This statement of prohibited conduct does not alter the District's policy of at-will employment. Either you or the Bear Valley Water District remain free to terminate the employment relationship at any time, with or without reason or advance notice.

Prohibited Use of District Cell Phone While Driving

In the interest of the safety of our employees and other drivers, Bear Valley Water District employees are prohibited from using cell phones (including all smart phones) or other wireless communication devices (including laptops) while driving on District business and/or District time.

This prohibition includes any use of the cell phone or other wireless communications device, such as answering or placing calls, engaging in conversations, texting, Web browsing or using any smart phone application while driving.

If your job requires that you keep your cell phone or other wireless communication device turned on while you are driving, you must use a hands-free, voice-operated device at all times. Under no circumstances should employees place phone calls while operating a motor vehicle while driving on District business and/or District time. Violating this policy is a violation of law and a violation of District rules.

Employees Under Age 18

A person under the age of 18 years is prohibited from driving a motor vehicle while using a wireless telephone, even if equipped with a hands-free device, or while using a mobile service device. The prohibition would not apply to such a person using a wireless telephone or a mobile service device for emergency purposes. Violating this policy is a violation of law and a violation of District rules.

Writing, sending, or reading text-based communication, including text messaging, instant messaging, e-mail, web browsing and use of smart phone applications, on a wireless device or cell phone while driving is also prohibited under this policy. Violating this policy is a violation of law and a violation of District rules.

Employees must safely pull off the road before conducting any District business, including business requiring wireless communication.

Punctuality and Attendance

As an employee of the Bear Valley Water District, you are expected to be punctual and regular in attendance. Any tardiness or absence causes problems for your fellow employees and your supervisor. When you are absent, your assigned work must be performed by others.

Employees are expected to report to work as scheduled, on time, and prepared to start work. Employees also are expected to remain at work for their entire work schedule, except for meal periods or when required to leave on authorized District business. Late arrivals, early departures or other unanticipated and unapproved absences from scheduled hours are disruptive and must be avoided.

If you are unable to report for work on any particular day, you must provide reasonable advance notice to your supervisor before the time you are scheduled to begin working for that day. You must inform your supervisor of the expected duration of any absence. If you fail to provide reasonable advance notice before your scheduled time to begin work and do not arrive in time for your assigned shift, you will be considered tardy for that day. If the circumstances for your tardiness or absence were unforeseen, inform your supervisor as soon as practicable of the reason for the tardiness or absenteeism.

Excessive absenteeism or tardiness, providing false information or abuse of leave laws will not be tolerated. Generally, if you fail to report for work without any notification to your supervisor and your absence continues for a period of three (3) days, the Bear Valley Water District will consider that you have voluntarily abandoned or quit your employment.

Absences protected by local, state and federal law do not count as a violation of the punctuality and attendance policy. Paid sick time protected under California law does not count as a violation of this policy.

Wages

Timekeeping Requirements

All nonexempt employees are required to use the time clock software in the Main Office to record time worked for payroll purposes. All time worked must be accurately reported on your time record.

Employees must record their own time at the start and at the end of each work period. Employees must clock out for their meal period and record the start and end of the meal period.

Employees are not allowed to work "off the clock." Working off the clock violates District policy. Any work performed before or after a regularly scheduled shift must be approved in advance by your supervisor. If you perform any off-the-clock work, please report the work to your supervisor.

Employees also must record their time whenever they leave the building for any reason other than Bear Valley Water District business.

Employees will be required to certify that their time record is accurate.

Any handwritten marks or changes on the timecard must be initialed by the Office Manager. Punching another employee's timecard, allowing another employee to punch your timecard, or altering a timecard is not permissible and is subject to disciplinary action.

Any errors on your timecard should be reported immediately to the Office Manager.

Please also refer to the Bear Valley Water District's Meal and Rest Break Policy.

Work Schedules

The Bear Valley Water District office is normally open for business between the hours of 9 AM - 5 PM, Monday through Friday. Normal hours for field staff may vary depending on the time of year. Your immediate supervisor will assign you your individual work schedule. All employees are expected to be at their respective worksites at the start of their scheduled shifts, ready to work.

Exchanging work schedules with other employees is discouraged. However, if you need to exchange schedules, notify your supervisor, who may authorize an exchange if possible. Work schedule exchanges will not be approved for the mere convenience of an employee or if the exchange interferes with normal operations or results in excessive overtime.

The workweek begins at 12:01 a.m. Monday and ends at midnight on Sunday.

Payment of Wages

Paychecks are normally available at the Main Office. If you observe an error on your check, please report it immediately to the Office Manager.

All employees of Bear Valley Water District are paid every other Friday for work performed during

the previous two-week pay period. If a regular payday falls on a holiday, employees will be paid on the workday before the holiday.

Bear Valley Water District offers automatic payroll deposit. You may begin and stop automatic payroll deposit at any time. To begin automatic payroll deposit, you must complete a form available from the Office Manager and return it to at least 10 days before the pay period for which you would like the service to begin. You should carefully monitor your payroll deposit statements for the first two pay periods after the service begins.

To stop automatic payroll deposit, complete the form available from the Office Manager and return it to him/her at least 10 days before the pay period for which you would like the service to end. You will receive a regular payroll check on the first pay period after the receipt of the form, provided it is received no later than 10 days before the end of the pay period.

Advances

The Bear Valley Water District does not permit advances against paychecks or against unaccrued vacation.

Reporting- Time Pay

The Bear Valley Water District will comply with all applicable regulations regarding reporting-time pay for nonexempt employees.

The Bear Valley Water District will pay a minimum of two hours of pay to employees who are required to report to work on a day other than their normally scheduled workday.

The Bear Valley Water District will also pay a minimum of two hours of pay to employees who report to work but are unable to work under the following circumstances:

- Interruption of work because of the failure of any or all public utilities; or
- Interruption of work because of natural causes or other circumstances beyond the District's power to control.

Overtime for Nonexempt Employees

Employees may be required to work overtime as necessary. Only actual hours worked in a given workday or workweek can apply in calculating overtime. The Bear Valley Water District will attempt to distribute overtime evenly and accommodate individual schedules. All overtime work must be previously authorized by a supervisor.

Section 3(s)(1)(C) of the FLSA covers all public agency employees of a State, a political subdivision of a State, or an interstate government agency. As a public agency, the Bear Valley Water District provides compensation for all overtime hours worked by non-exempt employees in accordance with federal law as follows:

- All hours worked in excess of 40 hours in one workweek will be treated as overtime. A workday begins at 12:01 a.m. and ends at midnight 24 hours later. Workweeks begin each Monday at 12:01 a.m.;

- Compensation for hours in excess of 40 for the workweek shall be paid at a rate one and one-half (1.5) times the employee's regular rate of pay;
- Exempt employees may have to work hours beyond their normal schedules as work demands require. No overtime compensation will be paid to exempt employees.

Compensatory Time Off (CTO)

As a public agency, the District is not subject to Labor Code Section 204.3 regarding compensatory time off. However, as a matter of clarification and to orient new employees, the following policy details how the District compensates for compensatory time off.

Compensatory Time Off ("CTO"), also known as "banked time" or "flex time", is accrued by an employee in lieu of receiving overtime pay during a pay period in which overtime hours were worked. CTO is accrued at a rate of 1.5 regular hours for every hour of overtime worked. CTO may be accumulated up to a total of two hundred and forty (240) hours. Upon reaching the accrual limit, no additional CTO can be accrued until the employee has used CTO to reduce the accrued amount below the limit.

Employees who are scheduled to work less than 40 hours per week may also accrue CTO at a rate of 1 regular hour for every hour they work in excess of their regular weekly schedule provided that they do not work more than 40 hours in a week.

Employees must request and be approved to use accrued CTO from their supervisor. Requests may be denied if it would unduly disrupt District operations.

An employee who has accrued CTO shall upon termination of employment, be paid for the unused CTO at their final regular rate of pay.

Deductions for Exempt Employees

Employees paid on a "salary basis" regularly receive a predetermined amount of compensation each pay period. Subject to the exceptions listed below, exempt employees will receive full salary for any workweek in which they perform any work, regardless of the number of days or hours worked. Exempt employees may not be paid for any workweek in which they perform no work, subject to Bear Valley Water District benefits programs and policies.

No deductions from salary may be made for time when work is not available, provided the exempt employee is ready, willing, and able to work. Deductions from pay are permissible when an exempt employee:

- Is absent from work for one or more full days for personal reasons other than sickness or disability;
- Is absent for one or more full days due to sickness or disability if the deduction is made in accordance with a bona fide plan, policy, or practice of providing full compensation for salary lost due to illness and the employee has exhausted his or her leave under this policy;
- Is absent for jury duty or military duty for a full week and performs no work during the week; or
- Works less than a full week during the initial or final week of employment;

Partial day deductions from available accrued vacation or sick leave balances will also be made by the District when applicable.

It is District policy to comply with these salary basis requirements. Therefore, the Bear Valley Water District prohibits all District managers from making any improper deductions from the salaries of exempt employees. The District wants employees to be aware of this policy and know that the District does not allow deductions that violate federal or state law.

If you believe that an improper deduction from your salary has been made, you should immediately report this information to your direct supervisor or to the Office Manager.

Reports of improper deductions will be investigated promptly. If it is determined that an improper deduction has occurred, you will be promptly reimbursed for any improper deduction made.

Pay for Mandatory Meetings/Training

The Bear Valley Water District will pay non-exempt employees for their attendance at meetings, lectures, and training programs under the following conditions:

- Attendance is mandatory;
- The meeting, course, or lecture is directly related to the employee's job;
- The employee who is required to attend such meetings, lectures, or training programs will be notified of the necessity for such attendance by his or her supervisor;
- Employees, whether or not they perform productive work during attendance at meetings, lectures or training programs will be compensated at their regular rate of pay; and
- Any hours in excess of eight in a day or 40 in a week will be paid at the appropriate overtime rate, at the hourly rate in effect at the time the overtime work is being performed.

Expense Accounts

The Bear Valley Water District reimburses employees for business expenses every other Friday (pay days) of each month. Employees who have expense accounts or who have incurred business expenses must submit required receipts and the Expense Reimbursement Form to Office Manager no later than the Tuesday prior to the Friday (pay day) of each pay period.

If you have any questions about the District's expense reimbursement policy, contact the Office Manager.

Personal and/or vacation travel may be combined with business travel provided there is no additional cost to the Bear Valley Water District, and it meets with the approval of the General Manager. Bear Valley Water District credit cards are not to be used for personal expenses.

Makeup Time

The Bear Valley Water District allows the use of makeup time when non-exempt employees need time off to tend to personal obligations. Makeup time worked will not be paid at an overtime rate. Employees may take time off and then make up the time later in the same workweek, or

may work extra hours earlier in the workweek to make up for time that will be taken off later in the workweek.

Makeup time requests must be submitted in writing to your supervisor, with your signature, on the District-provided form. Requests will be considered for approval based on the legitimate business needs of the District at the time the request is submitted. A separate written request is required for each occasion the employee requests makeup time.

If you request time off that you will make up later in the week, you must submit your request at least 24 hours before the desired time off in advance of the desired time off. If you request to work makeup time first in order to take time off later in the week, you must submit your request at least 24 hours before working the makeup time before working the makeup time. Your makeup time request must be approved in writing before you take the requested time off or work makeup time, whichever is first.

All makeup time must be worked in the same workweek as the time taken off. The District's seven-day workweek is Monday through Sunday. Employees may not work more than 8 hours in a day or 40 hours in a workweek as a result of making up time that was or would be lost due to a personal obligation.

If you take time off and are unable to work the scheduled makeup time for any reason, the hours missed will normally be unpaid. However, your supervisor may arrange with you another day to make up the time if possible, based on scheduling needs. If you work makeup time in advance of time you plan to take off, you must take that time off, even if you no longer need the time off for any reason.

An employee's use of makeup time is completely voluntary. The Bear Valley Water District does not encourage, discourage, or solicit the use of makeup time.

Meal and Rest Periods

Rest Breaks

All nonexempt employees are entitled to uninterrupted rest break periods during their workday. If you are a nonexempt employee, you will be paid for all such break periods, and you will not clock out.

Number of Rest Breaks

You will be authorized and permitted one (1) 10-minute net rest break for every four (4) hours you work (or major fraction thereof, which is defined as any amount of time over two (2) hours). A rest break need not be authorized for employees whose total daily work time is less than three and one half (3.5) hours.

You will be relieved of all duty during your rest break periods. You are free to come and go as you please and are free to leave the premises. You are expected to return to work promptly at the end of any rest break.

If you work a shift from three and one-half (3.5) to six (6) hours in length you will be entitled to one (1) ten-minute rest break. If you work more than six (6) hours and up to ten (10) hours, you

will be entitled to two (2) ten-minute rest breaks. If you work more than ten (10) hours and up to fourteen (14) hours, you will be entitled to three (3) ten-minute rest breaks.

Timing of Rest Breaks

You are authorized and permitted to take a rest break in the middle of each four hour work period.

Your rest break will be scheduled by your immediate supervisor.

Meal Period – "On-Duty"

As a public agency, the District is not subject to Labor Code Section 512 regarding meal periods. However, as a matter of clarification and to orient new employees to District policy, the following policy details how the District addresses meal periods.

As stipulated in the California Labor Code, the District permits public utility field staff an "on-duty" meal period since the nature of the work prevents an employee from being relieved of all duty and when by written agreement between the employer and employee an on-the-job paid meal period is agreed to.

Due to the nature of the work District field staff perform, which can be typically characterized as sole worker in remote sites, the District shall permit "on-duty" meal periods for field staff as long as a written agreement signed by both the employee and the employer is in place. The written agreement must state that the employee may, in writing, revoke the agreement at any time.

Unless the employee is relieved of all duty during his or her thirty minute meal period, the meal period shall be considered an "on duty" meal period that is counted as hours worked which must be compensated at the employee's regular rate of pay.

Unless an "on-duty" meal period agreement is in place, all nonexempt employees will be provided an uninterrupted unpaid meal period of at least 30 minutes if you work more than five (5) hours in a workday. You must clock out for your meal period. You will be permitted a reasonable opportunity to take this meal period, and you will be relieved of all duty. During your meal period, you are free to come and go as you please and are free to leave the premises. You are expected to return to work promptly at the end of any meal period.

If your total work period for the day is more than five (5) hours per day but no more than six (6) hours, you may waive the meal period. This cannot be done without the mutual consent of you and your supervisor. You must discuss any such waiver with your supervisor in advance.

The waiver must be in writing.

Timing of Meal Period

Your meal period will be provided no later than the end of your fifth hour of work. For example, if you begin work at 8:00 a.m., you must start your meal period by 12:59 p.m. (which is before the end of your fifth hour of work).

Your meal period will be scheduled by your immediate supervisor.

Second Meal Period

If you work more than ten (10) hours in a day, you will be provided a second, unpaid meal period of at least 30 minutes. Again, you must clock out for your meal period. You will be permitted a reasonable opportunity to take this meal period, and you will be relieved of all duty. There will be no control over your activities during your meal period. During your meal period, you are free to leave the premises and are free to come and go as you please. You are expected to return to work promptly at the end of any meal period.

Depending on the circumstances, you may be able to waive your second meal period if you took the first meal period and if your total hours worked for the day is no more than twelve (12) hours. This cannot be done without the mutual consent of you and your supervisor and must be in writing. You must discuss any such waiver with your supervisor in advance.

Timing of Second Meal Period

This second meal period will be provided no later than the end of your 10th hour of work.

Your second meal period will be scheduled by your immediate supervisor.

Recording Meal Periods

You must clock out for any meal period and record the start and end of the meal period.

Employees are not allowed to work "off the clock." All work time must be accurately reported on your time record.

If for any reason you are not provided a meal period in accordance with District policy, or if you are in any way discouraged or impeded from taking your meal period or from taking the full amount of time allotted to you, please immediately notify the General Manager.

Anytime you miss a meal period that was provided to you (or you work any portion of a provided meal period), you will be required to report to the Office Manager and document the reason for the missed meal period or time worked.

Please also refer to the Bear Valley Water District Timekeeping Policy.

Safety and Health

Health and Safety

All employees are responsible for their own safety, as well as that of others in the workplace. To help us maintain a safe workplace, everyone must be safety-conscious at all times. Employees must report all work-related injuries or illnesses immediately to your supervisor or to the Office Manager. In compliance with California law, and to promote the concept of a safe workplace, the Bear Valley Water District maintains an Injury and Illness Prevention Program. The Injury and Illness Prevention Program is available for review by employees and/or employee representatives in the General Manager's office.

In compliance with Proposition 65, the Bear Valley Water District will inform employees of any known exposure to a chemical known to cause cancer or reproductive toxicity.

Security

The Bear Valley Water District has developed guidelines to help maintain a secure workplace. Be aware of persons loitering for no apparent reason in parking areas, walkways, entrances and exits, and service areas. Report any suspicious persons or activities to your supervisor. Secure your desk or office at the end of the day. When called away from your work area for an extended length of time, do not leave valuable and/or personal articles in or around your workstation that may be accessible. The security of facilities as well as the welfare of our employees depends upon the alertness and sensitivity of every individual to potential security risks. You should immediately notify your supervisor when unknown persons are acting in a suspicious manner in or around the facilities, or when keys or other secured items are missing.

The District's workplace security program is described in detail in the District's Illness and Injury Prevention Program (IIPP).

Heat & Cold Related Illnesses

The District is concerned with employee health and safety. Employees who work outside may be exposed to extreme temperatures or adverse working conditions, particularly in the winter or summer months. All supervisors are trained in the recognition and prevention of heat and cold illnesses. Employees who work outside are encouraged to frequently drink water. Employees who work outside are also allowed and encouraged to take cool-down or warm-up rest periods of at least five minutes (in addition to the time needed to access shelter) when needed to protect themselves from overheating or freezing. These preventative rest periods are paid time.

Please refer to the District's Injury Illness and Prevention Program or talk to your supervisor for details on how to ensure you are protected from heat and cold illness dangers.

Workplace Violence

The Bear Valley Water District has adopted the following workplace violence policy to ensure a safe working environment for all employees.

The District has zero tolerance for acts of violence and threats of violence. Without exception, acts and threats of violence are not permitted. All such acts and threats, even those made in apparent jest, will be taken seriously, and will lead to discipline up to and including termination.

Possession of non-work related weapons on District premises and at District-sponsored events shall constitute a threat of violence.

It is every employee's responsibility to assist in establishing and maintaining a violence-free work environment. Therefore, each employee is expected and encouraged to report any incident which may be threatening to you or your co-workers or any event which you reasonably believe is threatening or violent.

You may report an incident to any supervisor or manager.

A threat includes, but is not limited to, any indication of intent to harm a person or damage District property. Threats may be direct or indirect, and they may be communicated verbally or nonverbally. The following are examples of threats and acts that shall be considered violent - this list is in no way all-inclusive:

Example	Type of Threat
Saying, "Do you want to see your next birthday?"	Indirect
Writing, "Employees who kill their supervisors have the right idea."	Indirect
Saying, "I'm going to punch your lights out."	Direct
Making a hitting motion or obscene gesture	Nonverbal
Displaying weapons	Extreme
Stalking or otherwise forcing undue attention on someone, whether romantic or hostile	Extreme
Taking actions likely to cause bodily harm or property damage	Acts of violence

The District's workplace violence program is described in detail in the District's Illness and Injury Prevention Program (IIPP).

Inclement Weather/Natural Disasters

In the event of severe weather or a natural disaster that prevents employees from safely traveling to and from work, the following leave policies will apply:

- Inclement weather: Conditions that excuse absence from work include: road closure. If weather conditions prevent you from safely traveling to work, you must notify your supervisor by phone, if telephone service is functional, or by any other available means. Employees may be paid for up to one day(s) per year when weather conditions prevent them from reaching the worksite. Absences in excess of one day(s) will be unpaid or will be deducted from accumulated vacation/PTO time.
- In the event of a natural disaster, the office will be closed if the building is damaged or highways leading to the office are damaged. For instructions on reporting to another location, contact your immediate supervisor immediately, if possible.

Employees Who Are Required to Drive

Employees whose job duties require them to drive a District vehicle or their own vehicles for District business will be required to show proof of current valid driving licenses and proof of insurability under the District's policy or current effective insurance coverage before the first day of employment.

The Bear Valley Water District participates in the Employer Pull Notice (EPN) Program established by the California Department of Motor Vehicles (DMV) to provide employers and regulatory agencies with a means of promoting driver safety through the ongoing review of driver records. The EPN program automatically generates a driver record upon enrollment of driver in the EPN program, annually from the date of enrollment as well as when a driver has actions or activities added to his/her driver record. Since driving is a mandated part of employment with the District, employees must agree to be enrolled in the program by signing the Authorization for Release of Driver Record Information (DMV Form INF-1101).

If an employee is required to drive as part of his or her job, the Bear Valley Water District retains the right to transfer to an alternative position, suspend, or terminate an employee whose license is suspended or revoked, or who fails to maintain personal automobile insurance coverage or who is uninsurable under the District's policy.

Employees who drive their own vehicles on District business will be reimbursed at the rate of IRS standard mileage rate per mile.

Ergonomics

The Bear Valley Water District is subject to Cal/OSHA ergonomics standards for minimizing workplace repetitive motion injuries. The District will make necessary adjustments to reduce exposure to ergonomic hazards through modifications to equipment and processes and employee training. The District encourages safe and proper work procedures and requires all employees to follow safety instructions and guidelines.

The Bear Valley Water District believes that reduction of ergonomic risk is instrumental in maintaining an environment of personal safety and well-being, and is essential to our business. We intend to provide appropriate resources to create a risk-free environment. If you have any questions about ergonomics, please contact your immediate supervisor or the Office Manager.

Fragrance Policy

We strive to maintain a fragrance-free workplace. Employees may not wear any of the following in the workplace or when on the job, regardless of location, if they may come in contact with customers or coworkers: cologne, after shave lotion, perfume, perfumed hand lotion, fragranced hair products, fragranced deodorants and/or similar products.

Recreational Activities and Programs

The Bear Valley Water District or its insurer will not be liable for payment of workers'

compensation benefits for any injury that arises out of an employee's voluntary participation in any off-duty recreational, social, or athletic activity that is not part of the employee's work-related duties.

Termination

Involuntary Termination and Progressive Discipline

Violation of Bear Valley Water District policies and rules may warrant disciplinary action. The District has a system of progressive discipline that may include verbal warnings, written warnings, and suspension. The system is not formal, and Bear Valley Water District may, in its sole discretion, utilize whatever form of discipline is deemed appropriate under the circumstances, up to, and including, immediate termination of employment. The District's policy of progressive discipline in no way limits or alters the at-will employment relationship.

Voluntary Resignation

Voluntary resignation results when an employee voluntarily quits his or her employment at the Bear Valley Water District, or fails to report to work for three (3) consecutively scheduled workdays without notice to, or approval by, his or her supervisor (unless the absence is protected by law). All District-owned property, including vehicles, keys, uniforms, and credit cards, must be returned immediately upon termination of employment.

Reductions in Force

Under some circumstances, including seasonally, the Bear Valley Water District may need to restructure or reduce its workforce. If restructuring our operations or reducing the number of employees becomes necessary, the District will attempt to provide advance notice, if possible, to help prepare affected individuals. If possible, employees subject to layoff will be informed of the nature of the layoff and the foreseeable duration of the layoff, whether short-term or indefinite.

In determining which employees will be subject to layoff, the Bear Valley Water District will take into account, among other things, operation and requirements, the skill, productivity, ability, and past performance of those involved, and also, when feasible, the employee's length of service.

Employee References

All requests for references must be directed to the Office Manager. No other manager, supervisor, or employee is authorized to release references for current or former employees.

By policy, the Bear Valley Water District discloses only the dates of employment and the title of the last position held of former employees. If you authorize the disclosure in writing, the Bear Valley Water District also will inform prospective employers of the amount of salary or wage you last earned.

Confirmation of Receipt of Personnel Manual

Confirmation of Receipt

I have received my copy of the District's personnel manual. I understand and agree that it is my responsibility to read and familiarize myself with the policies and procedures contained in the manual.

I understand and agree that nothing in the personnel manual creates or is intended to create a promise or representation of continued employment and that employment at the Bear Valley Water District is employment at-will; employment may be terminated at the will of either the District or myself. My signature certifies that I understand that the foregoing agreement on at-will status is the sole and entire agreement between the Bear Valley Water District and myself concerning the duration of my employment and the circumstances under which my employment may be terminated. It supersedes all prior agreements, understandings, and representations concerning my employment with the Bear Valley Water District.

I understand that except for employment at-will status, any and all policies or practices can be changed at any time by the District. The Bear Valley Water District reserves the right to change my hours, wages, and working conditions at any time. I understand and agree that other than the President of Bear Valley Water District Board of Directors, no manager, supervisor, or representative of the District has authority to enter into any agreement, express or implied, for employment for any specific period of time, or to make any agreement for employment other than at-will; only the President has the authority to make any such agreement and then only in writing, signed by the Secretary of the Board.

Employee's Signature_____

Employee's Printed Name _____

Date _____

Confirmation of Harassment Discrimination and Retaliation Prevention Policy

I have received my copy of the District's Harassment, Discrimination and Retaliation Prevention policy. I understand and agree that it is my responsibility to read and familiarize myself with this policy.

I understand that the District is committed to providing a work environment that is free from harassment, discrimination and retaliation. My signature certifies that I understand that I must conform to and abide by the rules and requirements described in this policy.

Employee's Signature_____

Employee's Printed Name _____

Date _____

Forms

Employee Performance Evaluation Report – Confirmation of Receipt

Employee Pay In-Lieu of Vacation Authorization Form

Employee Request for Personnel Records

Employee Request to Telecommute

Employee Telecommuting Agreement

Employee Guest & Visitors Request

Employee Expense Reimbursement Request

Employee Make Up Time Request

Employee-Employer Agreement for an "On-Duty" Meal Period

Employee Request for Direct Deposit

Employer Authorization for Release of Driver Record Information (DMV INF-1101)

NEUMILLER & BEARDSLEE
A Professional Corporation

Memorandum

Via E-Mail

TO: Daniel J. Schroeder
FROM: Ricardo Z. Aranda
DATE: March 5, 2018
FILE: 08587-19899
RE: Bear Valley Water District Employment Policies

ISSUE

Review email from Jeff Gouveia regarding Bear Valley Water District's proposed policies regarding Compensatory Time Off ("Flex Time") and On Duty Meal Periods.

SHORT ANSWER

The points in Mr. Gouveia's email are generally accurate and serve as a basis for creating policies regarding Compensatory Time Off and On Duty Meal Periods. There are some changes that can be made in light of (1) the employer's proposed use of "flex" time for hours that are not "overtime" and (2) the employer's status as a public entity exempts it from the California Labor Code's meal period requirements.

Suggested changes and examples of the two polices are below.

ANALYSIS

Jeff Gouveia's email accurately describes the general rules regarding "flex" time (referred to in the applicable law as "compensatory time off in lieu of overtime") and on-duty meal periods including the requirements under the California Labor Code. However, it is important to note that as a public agency, BVWD is not subject to the provisions of the Labor Code on these subjects. *Johnson v. Arvin-Edison Water Storage Dist.*, (2009) 174 Cal. App. 4th 729, 741, holds that unless expressly included in the statute, public agencies are not subject to Labor Code provisions including section 204.3 regarding compensatory time off and section 512 regarding meal breaks.

1. <u>Compensatory Time Off</u>.

The Federal Fair Labor Standards Act (FLSA) rules for Compensatory Time off would apply to BVWD and the FLSA generally provides the public employers may provide time off in lieu of overtime. The employer must provide time off at a rate that is at least

one and one-half hours of time off for each hour of overtime worked. The employee may accrue up to 240 compensatory hours and the employee must be permitted to use compensatory time off when requested unless doing so would "unduly disrupt" the operations of the agency. The employee is entitled to receive cash for unused compensatory time off at termination.

However, these rules apply to time off provided *in lieu of overtime*. In the case where BVWD states that it offers flex time to employees who work more than their scheduled 30 hours but no more than 40 hours per week, this is not considered Compensatory Time subject to the FLSA. An FLSA opinion letter states that an employer may still offer time off for the "extra" work. However, if the employee does work over 40 hours in a week, he or she must be paid for the 40 hours worked.

Therefore, a sample policy for BVWD's "Flex Time" may look like the following:

> Compensatory Time Off – Compensatory Time Off ("CTO") is accrued by an employee in lieu of receiving overtime pay during a pay period in which overtime hours were worked . CTO is accrued at a rate of 1.5 regular hours for every hour of overtime worked. CTO may be accumulated up to a total of two hundred and forty (240) hours. Upon reaching the accrual limit, no additional CTO can be accrued until the employee has used CTO to reduce the accrued amount below the limit.
>
> Employees who are scheduled to work less than 40 hours per week may also accrue CTO at a rate of 1 regular hour for every hour they work in excess of their regular weekly schedule provided that they do not work more than 40 hours in a week.
>
> Employees must request and be approved to use accrued CTO from their supervisor. Requests may be denied if it would unduly disrupt District operations.
> An employee who has accrued CTO shall upon termination of employment, be paid for the unused CTO at their final regular rate of pay.

2. <u>On Duty Meal Periods</u>.

Mr. Gouveia's email describes the requirements for an on-duty meal period under California's wage orders and the circumstances he describes would likely justify using an on-duty meal period agreement. However, BVWD is not subject to the wage orders or Labor Code section 512 which specifies the requirements for a proper meal period.

The FLSA does not provide for meal periods. Therefore, BVWD could simply state in its meal period policy (without a separate written agreement that could be revoked) that certain employees will be required to have an on-duty meal period. If, BVWD chose to use a separate agreement following state law, it would like something like the following:

ON-DUTY MEAL PERIOD AGREEMENT

On-Duty Meal Period

Bear Valley Water District ("**Employer**") and the undersigned employee ("**Employee**") agree that the due to the nature of Employee's work (i.e. [**describe nature – Employee is the sole worker at worksites that cannot be left unsupervised for safety reasons**] Employee is prevented from being relieved of all duties during Employee's meal period.

As such, Employer and Employee agree that Employee will be "on duty" and paid for working during the meal period.

Employee understands that this agreement becomes effective by signing below and will remain in effect until it is revoked in writing by either Employee or Employer. Employee understands that Employee can revoke this agreement at any time by notifying Employer, in writing.

I acknowledge that I have read this On-Duty Meal Period Agreement and understand it. I enter into this mutual agreement freely and voluntarily. I understand that this agreement can be revoked in writing by either me or my employer at any time.

Employee

_____

Print name:

Date:

On behalf of the Employer, I agree to this On-Duty Meal Period Agreement.

Employer

_____

Print name:
Title:

Date:

RZA:rza

AGENDA ITEM

DATE: APRIL 9, 2018

TO: BVWD BOARD OF DIRECTORS

FROM: JEFF GOUVEIA, DISTRICT GENERAL MANAGER

RE: DISTRICT CAPACITY AND BUY-IN FEE CALCULATION

BACKGROUND:

The District Engineer's 2017 water balance coupled with completion of various capital projects since the last revision necessitates a revised capacity charge. Yet, the absence of a clear historical approach to determining the cost basis of the District's assets highlights the need to standardize the approach to determining the actual value of District assets.

While undertaking the latest effort to revise the capacity charge ("buy-in" fee) for new connections to the wastewater system, staff reviewed the history behind previous capacity charge determinations. Since 1972, District records indicate the capacity charge has been reviewed and revised approximately 20 times. However, the historical record for these revisions does not appear to indicate nor establish the methodology behind the determination of the cost basis used to calculate the value of the District's collection, treatment and disposal systems.

Moreover, the most recent revisions to the capacity charge, including Ordinance No. 68 (2006) which established a charge of $15,740 and Ordinance No. 71 (2015) which reduced the fee to $5414, established these charges based on assumptions of proposed project costs or estimates for projects under review. In many cases, some of these projects were never initiated and in other cases the projects came in significantly under the estimate used as a basis for past capacity charges.

Following discussion and careful consideration of the issue, the General Manager and District Engineer decided the District's depreciation schedule provides the most accurate and defensible historical record of actual costs of the District's collection, treatment and disposal systems. The depreciation schedule was established by the District's independent auditor and is updated annually to reflect completed capital expenditures that meet the District's capitalization policy.

As further explained in the District Engineer's January 9, 2018 memorandum, the District's depreciation scheduled has been utilized to inform the recommendation for revising the capacity charge. The schedule has been updated to reflect all items currently owned by the District, the date each item was purchased and the original cost of the item. These costs were then escalated to December 2017 costs using the Engineering News Record (ENR) 20 City Construction Cost Index.

RECOMMENDATION:

Based upon this analysis, the total adjusted value of the District's collection, treatment and disposal systems in December 2017 dollars is approximately $13,605,000. The capacity charge (buy-in fee) based on this revised total asset value and revised equivalent dwelling units available for each residential connection is $7370. This figure represents all projects completed to date and does not include any proposed projects nor any erroneous estimates for projects previously completed.

In the interest of establishing a revised capacity charge in 2018 which is both defensible and based in true costs, not estimates, it is recommended the Board accept the District Engineer's January 9, 2018 memorandum and the underlying approach to establishing the cost basis through an adjustment of the depreciation schedule as well as adopt Ordinance 73 – Revising Sewer Capacity Charges.

ACTION:

1. Motion to Accept District Engineer's January 9, 2018 Memorandum – Capacity Update & Buy In Fee
2. Motion to Accept Ordinance 73 - Revising Sewer Capacity Charges

Attachments:

- District Engineer January 9, 2018 Memo – Capacity Update & Buy In Fee
- Revised Existing Number of Connections/EDUs – January 16, 2018
- Depreciation Schedule & Buy-In Calculation – December 31, 2018
- Ordinance 73 - Revising Sewer Capacity Charges

ORDINANCE NO. 73

BEAR VALLEY WATER DISTRICT

AN ORDINANCE AMENDING SUBSECTIONS A AND B OF SECTION 2 OF ARTICLE IV OF ORDINANCE NO.1 REVISING SEWER CAPACITY CHARGES.

WHEREAS, the Board ("Board") of Directors of the Bear Valley Water District ("District") has determined that the capacity charges for new connections should be revised, and

WHEREAS, the Board has determined that the District must revise its sewer capacity charges originally established in Article IV of Ordinance No. 1, and most recently amended by Ordinance No. 71 establishing sections 1 and 2 under Article IV establishing a connection fee and a capacity charge for new connection as set forth in Government Code Section 66013(b)(1) and (5), and (3); and

WHEREAS, the Board desires to revise the capacity charge set forth Subsection A and B of Section 2 of Article IV; and

NOW THEREFORE, the Board of Directors of the Bear Valley Water District finds, determines and resolves as follows:

1. The above recitals are true and correct, and are hereby incorporated as part of this Ordinance.

2. Subsections A and B of Section 2 of Article IV of Ordinance No. 1, and all amendments thereto, is amended as follows:

> "A. The Capacity Charge for each residential connection permitted by the District shall be $7,370.00.
>
> B. Subject to Article IV, section 2.C, the Capacity Charge for each non-residential connection permitted by the District shall be proportionately rated to a twenty-four-fixture-unit residence following the Equivalent Drainage Fixture Unit Table in the current edition of the Uniform Plumbing Code as follows:
>
> $$\text{Capacity Charge} = \frac{\text{Fixture Load x \$7,370.00}}{24}$$ "

3. The Board finds and declares that the adoption of this ordinance and the charges established herein is exempt from the requirements of the California Environmental Act pursuant to Title 14, *California Code of Regulations* § 15273(a), and

specifically adopts and incorporates herein as part of the record and as findings those sections of the report which discuss the need for revenue, including the projected total operating expenses, the capital projects and required improvements, and specifically finds and declares that the charges established herein for the purposes specified in Title 14, *California Code of Regulations* § 15273(a)(1) through 15273(a)(4), and not to fund expansion of the sewer system.

4. The Secretary of the District is hereby authorized and directed to file a notice of exemption pursuant to Title 14, *California Code of Regulations* § 15062.

5. This ordinance shall become effective 30 days after its passage.

6. Upon the effective date of this Ordinance, those portions of Ordinances predating this Ordinance that conflict with this Ordinance, are hereby repealed.

Passed and adopted at the regular meeting of the Board of Directors of the Bear Valley Water District on _____, by the following votes:

AYES:

NOS:

ABSENT:

ABSTAIN:

_____
President
Bear Valley Water District

ATTEST:

_____
Board Secretary
Bear Valley Water District

BEAR VALLEY WATER DISTRICT

MEMORANDUM

TO **BOARD OF DIRECTORS**

FROM **GARY S. GHIO, DISTRICT ENGINEER** GSG

RE **DISTRICT CAPACITY AND BUY-IN FEE CALCULATION UPDATE**

DATE **January 9, 2018**

In 2014 the District adopted a buy-in fee to be charged to new customers based upon a District capacity of 245 additional EDUs along with a total cost of District completed improvements determined through the Eco-Logic 2006 Phase 1 Tertiary Facility Plan combined with the cost of improvements which were completed since the Plan was created. Attached to this memorandum is a copy of a memorandum to the Board of Directors dated November 20, 2014 which provides the basis for the current buy-in fee of $5,414. (See pages 4 and 5)

When the buy-in fee was adopted in 2014 there were still several uncertainties associated with the District's potential ability to discharge into Bloods Creek; primarily the limited flow data which was available for Bloods Creek at that time combined with the fact that the District had not done any type of discharge previously to verify the adequacy of the discharge system.

Subsequent to this, the District received a new NPDES permit which removed some of the requirements which limited future District capacity to 245 additional EDUs. The primary limitation contained in the previous NPDES permit was the requirement that the polishing pond reach the two-thirds full level prior to discharge. This requirement was removed in the current, adopted NPDES permit and in June of 2016 the water balances were updated to reflect the potential change in NPDES permit. The result of this analysis indicated an increase in the District's capacity to 1,196 additional EDUs assuming no infiltration associated with said EDUs. Although this determination was made in June 2016, it was recommended to the Board not to modify District capacity due to the issues associated with lack of information on Bloods Creek flow. I have also attached a copy of the June 7, 2016 memorandum to the Board of Directors wherein these items were discussed. (See pages 6 - 9)

As the Board of Directors is aware, the winter of 2017/2018 once again exceeded the total precipitation criteria for 1 in 100 year storm season. Due to this, the District proceeded with its first ever successful discharge to Bloods Creek; and in addition, obtained valid creek flow data

for Bloods Creek for the entire January through June period. In addition, this successful discharge once again provides the District the opportunity to update its 1 in 100 year water balance to verify the assumptions, limitations and capacity determinations which were utilized in previous water balances.

2017 WATER BALANCE UPDATE

The following table presents a comparison of the total precipitation and snow water content projected in the 1 in 100 year water balances as well what occurred during the 2010/2011, 2015/2016, and 2017/2018 precipitation seasons.

	1 IN 100	2010/2011	2015/2016	2017/2018
Total Precipitation (In Inches)	83.00	84.73	54.62	90.91
Snow Water Content (In Inches)	60.00	60.82	34.56	43.32

As can be seen by the above comparisons of total precipitation and snow water content for 2010/2011 and 2017/2018, both storm seasons exceeded the 1 in 100 total precipitation amount, but the snow water content was significantly lower in 2017/2018 as compared to 2010/2011.

Attached to this memorandum is the 2017 water balance update with actual flows/precipitation which was calibrated based upon actual storage levels encountered for November through June. (See page 10) As can be seen by the water balance the estimated storage, predicted by the spreadsheet, tracks very closely with actual storage experienced during this time period which provides verification of the accuracy of the water balance.

The Regional Water Quality Control Board criteria to perform 1 in 100 year projections is to utilize a historical DWR monitoring site in order to derive the 100 year monthly distribution of precipitation. As no DWR site exists near Bear Valley which has this data, the previous water balances (2011 and 2016) and capacity determinations were based on the monthly distribution of precipitation that was experienced in 2011 which was the last year of 1 in 100 year total precipitation exceedance at that time. The 2017 precipitation year also exceeded the 1 in 100 year total precipitation amount, but the pattern differed significantly from what was experienced in 2010/2011. The 2017 1 in 100 year water balance projections which are attached to this memorandum (See pages 11-12) were performed utilizing both precipitation patterns reduced down to 1 in 100 year levels. This analysis was performed to ensure the water balances' basis is the worst case precipitation level and pattern based upon available data.

In comparing the resulting two 2017 spreadsheets, the 2017 precipitation pattern would have been a worst year in terms of volumes as compared to 2010/2011 but not of such significance that it would alter the capacity determination from 2016 of an additional 1,196 EDUs. Based upon the results of this analysis, combined with a much higher level of confidence on the ability of the District to discharge the required volumes into Bloods Creek, indicates the Board of Directors could increase District capacity to an additional 1,196 EDUs over existing connections with confidence.

BUY-IN FEE UPDATE

As any change in adopted District capacity correlates directly to the buy-in fee which is charged to new development, District staff has re-examined the existing number of connections (EDUs) as well as actual costs of the District's collection and treatment systems. Attached to this memorandum is a summary of the existing number of connections as of January 5, 2018 broken down by residential and commercial developments. (See page 13.) In addition, this table provides information on recent flows from not only the mountain but from the Forest Service and Lake Alpine Resort which were previously lacking. As can be seen from this table, the total number of EDUs currently connected to the District's system is 650. Combining the current number of connected EDUs (650) with additional District capacity (1,196) yields a total District capacity of 1,846 EDUs.

In order to verify the actual costs of the District's collection and treatment systems, the District's depreciation schedule was updated to reflect all items currently owned by the District, the date purchased, and the original cost of the item. These costs were then escalated to December 2017 costs using the ENR 20 City Construction Cost Index. Based upon this analysis, the total value of the District's collection and treatment systems in December 2017 dollars would be approximately $13,605,000. See attached depreciation schedule for breakdown of items, date purchased, original and escalated costs (pages 14-16).

The following presents the calculation for the buy-in fee:

Cost of completed improvements = $13,605,000
Existing plus Additional Capacity EDUs = 1846
Buy-in Fee = $13,605,000 / 1846 = $7,370 per EDU

Based upon the analysis of costs, 2017 Water Balance update, and increased confidence in the level of Bloods Creek flows and corresponding ablitiy of the District to discharge required volumes it is recommended the Board of Directors adopt the District capacity as 1,196 additional EDUs and revised the Buy-in Fee amount to $7,370/EDU.

I will be present at the January 22 Board meeting should the Board have questions on any of the items contained herein.

BEAR VALLEY WATER DISTRICT

MEMORANDUM

TO **BOARD OF DIRECTORS**

FROM **GARY GHIO, DISTRICT ENGINEER**

RE **BUY-IN FEE CALCULATION**

DATE **NOVEMEBER 20, 2014**

Based upon discussions with Dan Schroeder, District Legal Counsel, it is recommended that in lieu of developing a revised connection fee for the District that the District charge a buy-in fee to new development until such time as the existing District capacity (245 EDU's) is reached.

The attached buy-in fee calculation reflects a recommended buy-in fee cost for each equivalent dwelling unit (EDU) served until such time as the District reaches its current capacity (245 additional EDU). This memo details the methodology used to determine the various components of the buy-in fee calculation.

Update of the previously determined existing facilities cost allocation:

Existing Facilities Cost Allocation per the 2006 Phase I Tertiary Facilities Plan = $3,032
Average annual Construction Cost Index escalation rate history between 2006 and 2014 = 3.1%
Using the single payment compound-amount interest factor, $3,032 $(1+0.031)^8$ = $3,871

Additional buy-in cost for completed improvements since 2006:

Cost of completed improvements and financing thereof = $1,435,097
Existing plus Additional Capacity EDUs = 930
Additional buy-in cost = $1,435,097 / 930 = $1,543 per EDU

Buy-in Fee = $3,871 + $1,543 = $5,414

List of Improvements

11/19/2014

Phase	Item #	Improvement Project Description	Cost	Reference
Completed Improvements	1	Outfall Project	$815,000	[1] & [2]
	2	Main Pump Station	$272,500	[1]
	3	Chlorine Tank	$108,145	Jeff
	4	Dechlorination Facility	$22,618	Jeff
		Total:	**$1,218,263**	

References:

[1] 9/13/11 Connection Fee Memorandum from G. Ghio

[2] 11/14/06 Connection Fee Memorandum from N. Colwell

Buy-in Fee Calculation

11/19/2014

Fee Component	Description	Value
Buy-in	Existing Facilities Cost Allocation per EDU[a]	$3,871
	Cost of Completed Improvements[b]	$1,218,263
	Cost of Financing for Completed Improvements[b]	$216,834

Equivalent Dwelling Units	Current EDUs Served	685
	Existing District Capacity, EDU	245
	Total EDUs	930

Total Cost per EDU	Buy-in Cost	$3,871
	Cost of Completed Improvements	$1,543
	Buy-in cost per EDU:	**$5,414**

Notes:

a. Buy in cost of $3,032/EDU per the 2006 Phase I Tertiary Facilities Plan adjusted to 2014 levels

b. Projects completed since 2006 Connection Fee Analysis. Costs to be distributed over 930 customers

References:

[1] 11/14/06 Connection Fee Memorandum from N. Colwell and Bear Valley Master Plan

BEAR VALLEY WATER DISTRICT

MEMORANDUM

TO **BOARD OF DIRECTORS**

FROM **GARY S. GHIO, DISTRICT ENGINEER**

RE **1 in 100 YEAR WATER BALANCE AND PROPOSED NPDES PERMIT RENEWAL**

DATE **June 7, 2016**

As directed, I have updated the District's 1 in 100 Year Water Balance in an effort to reflect the anticipated requirements which are contained within the draft renewal copy of the District's NPDES permit for discharges to Bloods Creek.

As the Board Members may recall, the District's current NPDES permit prohibits discharge to Bloods Creek from the polishing pond when there is greater than 35 MG of unused storage in the pond. The 35 MG threshold was dictated by the Regional Water Quality Control Board (RWQCB) during the NPDES renewal process in 2011 and was based upon the requirement of having the polishing pond two-thirds full before the discharge to Bloods Creek could commence. This limitation was incorporated into the District's 1 in 100 Year Water Balance and resulted in estimates of future District capacity of 245 RLUs. (See Bear Valley Water District Memorandum dated February 4, 2014.)

As the proposed NPDES permit has removed the two-thirds full requirement for discharge, and in an effort to determine the effects on District capacity, the 1 in 100 Year Water Balance (attached) was revised based upon the assumption that discharge to Bloods Creek would commence once flows within the creek were adequate to accept the District's discharge.

Bloods Creek Flow Data and Influent Flow Data

In order to determine potential monthly amounts of discharge to Bloods Creek based upon the 20:1 dilution requirement contained in the NPDES permit, 2015/2016 Bloods Creek flow data was utilized in the updated water balance in lieu of 2010/2011 data due to concerns with the accuracy of the 2010/2011 data. Both sets of data are attached to this memorandum for information purposes.

The following table presents a comparison of the total precipitation and snow water content projected in the 1 in 100 Year Water Balance as well as what occurred during the 2010/2011 and 2015/16 precipitation seasons.

	1 in 100	2010/2011	2015/2016
Total Precipitation (Inches)	83.00	84.73	54.62
Snow Water Content (Inches)	60.00	60.82	34.56

Although the 2015/2016 water year did not approach what was experienced in 2010/2011, which forms the basis for the 1 in 100 Year Water Balance, the potential discharge amounts for January thru May contained in the attached water balance, are based upon the 2015/2016 flow data and proposed permit limits. The amount of potential creek discharge for the month of June was assumed the same as May due to lack of data in 2015/2016 and the fact that discharges would have occurred thru June in the 2010/2011 scenario. This should result in a conservative estimate of District capacity.

In addition to updating the potential discharge amounts to Bloods Creek, the 90th percentile influent flows contained in the water balance were updated to include influent data thru May 2016.

Water Balance Results

As can be seen from the attached water balance, incorporating the items described above results in a potential District capacity of 1,196 RLUs assuming no infiltration associated with said RLUs.

The Board should remain cognizant that the water balances are to serve as a guide to capacity and total discharge amounts only. The exact timing of discharges to Bloods Creek as well as irrigation of the spray fields will differ from year to year. Due to the limited Bloods Creek flow data used in this analysis, it is not recommended the District revise the adopted estimate of future District capacity. This analysis is primarily to provide the Board members with information regarding the potential increase in capacity based upon the renewal of the NPDES permit.

Collection of accurate Bloods Creek flow data is essential to the determination of District Capacity and as additional data is collected during subsequent years the potential monthly discharge amounts should be refined. It should also be noted the District's waste discharge requirements (WDRs) currently contain a wastewater inflow limit of 100,000 gpd which will need to be revised as new customers are added and flows increase.

#2318/nlm
Board Memo_5-13-16

BEAR VALLEY WATER DISTRICT
COMPARISON OF BLOOD CREEK FLOWS 2010/2011 AND 2015/2016
June 7, 2016

BLOODS CREEK TOTAL FLOW (MG)

	January	February	March	April	May	June
2010/2011			232	736	1,163	1,705
2015/2016	92	189	402	711	600	

20:1 DILUTION BLOODS CREEK FLOWS (MG)

	January	February	March	April	May	June
2010/2011			11.0	35.1	55.4	81.2
2015/2016	4.4	9.0	19.1	33.8	28.6	

BEAR VALLEY WATER DISTRICT WASTEWATER TREATMENT AND DISPOSAL SYSTEM 1/5/2016 11:49

(2016 update - (Potential NPDES Permit) Water Year 2011 1 in 100 Year Water Balance Projection - 2000 thru 5/2016 90TH Percentile monthly ADF Plus 1,196 EDU (201 gpd/EDU) -Assumes no infiltration with new EDUs

INPUT DATA

TREATMENT POND CHARACTERISTICS		STORAGE RESERVOIR		IRRIGATION AREA CHARACTERISTICS		CLIMATOLOGICAL FACTORS	
GROSS AREA (ac)	3.2	GROSS AREA (ac)	18.6	DISTRICT DISPOSAL LAND (AC)	83		
WATER SURFACE AREA (ac)	2.9	MAX. WATER SURFACE (ac)	14.2	SOIL WATER DEFICIT BEFORE IRRIGATION (IN)	n/a	OCT-APR EVAP/AVG EVAP RATIO	0.75
				FRACT OF LAND IRRIGATED	n/a	MAY-SEP EVAP/AVG EVAP RATIO	1.00
		STORAGE CAPACITY (MG)	76.43	IRRIGATION EFFICIENCY (DECIMAL FRACT)	n/a	PAN COEFFICIENT	0.80
		FRAC EST. PERC	1.0	FRACTION OF EST. PERC RATE	n/a	LAND PRECIP COLLECTED (FRAC)	0.9

PARAMETER / MONTH	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	ANNUAL
DAYS IN MONTH	30	31	31	28	31	30	31	30	31	31	30	31	365
AVG PAN EVAP (IN)	0.89	0.61	0.76	0.83	2.14	3.69	5.34	6.84	7.63	6.87	5.17	3.05	43.62
ESTIMATED PRECIP (IN)	10.66	20.00	2.84	10.62	21.42	3.37	4.65	1.57	1.66	0.00	1.86	4.35	83.00
ESTIMATED SNOW ACCUM (IN Water)$_{(c)}$	7.82	23.83	26.08	38.04	53.71	41.62	22.38	0.00	0.00	0.00	0.00	2.96	
ESTIMATED SNOW MELT IN MONTH (IN Water)	0.00	0.00	0.36	0.12	0.71	13.40	21.11	22.88	0.00	0.00	0.00	1.42	60.00
ESTIMATED NEW SNOW IN MONTH (IN Water)	7.82	16.01	2.61	10.08	18.38	1.30	2.37	0.00	0.00	0.00	0.00	1.53	60.11
ESTIMATED MAX PERCOLATION (IN)$_{(a)}$	10.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0
# OF ADDITIONAL CONNECTIONS (RLU)	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	
ADDITIONAL INFLUENT FLOW (GAL/D)	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	
90TH PERCENTILE EXISTING FLOWS (Avg. GAL/D)	35,340	75,835	83,020	108,476	123,884	184,549	184,858	125,446	74,976	64,231	40,142	32,953	
TOTAL INFLUENT FLOW (GAL/D)	275,736	316,231	323,416	348,872	364,280	424,945	425,254	365,842	315,372	304,627	280,538	273,349	

CALCULATIONS

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	ANNUAL
WASTEWATER VOLUME (gal)	8,272,080	9,803,161	10,025,896	9,768,416	11,292,680	12,749,350	13,183,804	10,975,260	9,776,532	9,443,437	8,416,140	8,473,619	122,179,575
EVAPORATION (IN)	0.5	0.4	0.5	0.5	1.3	2.2	4.3	5.3	6.1	5.5	4.1	1.9	32.6
PRECIPITATION (IN)	10.66	20.00	2.84	10.62	21.42	3.37	4.65	1.57	1.66	0.00	1.86	4.35	83.00
TREATMENT POND													
PERCOLATION (IN)	-8.38	-5.41	-12.69	-7.74	-5.73	-21.66	-15.57	-17.29	-4.18	-2.11	-2.81	-2.97	-106.55
PERC VOLUME (gal)	-659,620	-426,378	-999,502	-609,371	-451,372	-1,705,370	-1,226,247	-1,361,614	-329,361	-166,362	-221,115	-233,864	-8,390,176
EVAP. VOLUME (gal)	39,374	31,499	39,374	39,374	102,372	173,244	338,614	417,361	480,359	433,111	322,664	149,620	2,567,166
PRECIP. VOLUME (gal)	917,603	1,721,582	244,465	914,160	1,843,614	290,057	400,258	135,144	142,891	0	160,107	374,444	7,144,564
TREATMENT DISPOSAL(GAIN)/ (gal)	(1,537,849)	(2,116,461)	(1,204,593)	(1,484,157)	(2,192,615)	(1,822,212)	(1,287,901)	(1,079,397)	6,107	266,749	(58,356)	(458,688)	(12,967,574)
POLISHING RESERVOIR													
PERCOLATION (IN)	10.00	29.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.00
PERC VOLUME (gal)	1,535,438	7,268,203	0	0	0	0	0	0	0	0	0	0	8,803,641
W.S. AREA (ac)$_{(b)}$	5.65	9.23	10.59	11.26	11.85	12.20	11.03	11.01	10.27	10.10	8.53	3.88	
EVAP. VOLUME (gal)	75,772	100,251	143,735	152,944	418,428	728,847	1,287,727	1,584,042	1,700,365	1,507,916	949,500	189,939	8,850,465
PRECIP. VOLUME (gal)	5,017,132	9,607,174	1,374,682	5,160,095	10,441,680	1,645,993	2,256,380	761,738	802,063	0	889,925	2,029,313	39,983,375
MONTHLY AVAIL. SNOWMELT (IN)$_{(c)}$	0.00	0.00	0.36	0.12	0.71	13.40	21.11	22.88	0.00	0.00	0.00	1.42	60.00
ESTIMATED SNOW CONTR. (%)$_{(d)}$	0%	0%	0%	0%	0%	0%	45%	28%	0%	0%	0%	0%	
ESTIMATED AREA OF INFLUENCE (ac)	50	50	50	50	50	50	50	50	50	50	50	50	
ESTIMATED INFLUX TO STORAGE (gal)$_{(e)}$	0	0	0	0	0	0	12,697,727	8,697,760	0	0	0	0	21,595,507
RESERVOIR DISPOSAL(GAIN) (gal)	(3,404,922)	(2,238,720)	(1,230,947)	(5,007,151)	(10,023,451)	(917,146)	(13,666,380)	(7,875,476)	898,301	1,507,916	59,575	(1,828,974)	(43,924,776)
IRRIGATION													
IRRIGATION DISPOSAL (gal)$_{(f)}$	0	0	0	0	0	0	0	0	10,786,000	22,361,000	17,521,000	11,999,000	62,677,000
STORAGE													
BEGINNING STORAGE (gal)	3,238,000	16,482,851	30,641,193	38,702,628	45,962,353	50,371,299	35,859,007	35,597,093	29,927,225	25,001,349	10,309,121	1,203,044	
CALCULATED STORAGE GAIN (gal)	13,214,851	14,158,341	12,461,435	16,259,725	23,508,946	15,487,708	28,338,086	19,930,133	-1,925,876	-14,692,228	-9,106,077	-1,240,119	
PROJECTED ESTIMATED STORAGE (gal)	16,482,851	30,641,193	43,102,628	54,962,353	69,471,299	65,359,007	64,197,093	55,527,226	25,001,349	10,309,121	1,203,044	0	
AMOUNT DISCHARGED TO BLOODS CREEK (gal)	0	0	4,400,000	9,000,000	19,100,000	30,000,000	28,600,000	28,600,000	0	0	0	0	119,700,000
ACTUAL ESTIMATED STORAGE (gal)	16,482,851	30,641,193	38,702,628	45,962,353	50,371,299	35,859,007	35,597,093	26,927,226	25,001,349	10,309,121	1,203,044	0	

MAXIMUM STORAGE (MG) 50.37
AVAILABLE STORAGE (MG) 76.43

SUMMARY

ANNUAL INFLOW (MG)	
WASTEWATER	122.18
PRECIPITATION	47.13
SNOW INFLUX (MG)	21.50
TOTAL	190.90

ANNUAL OUTFLOW POTENTIAL (MG)	
AMOUNT DISCHARGED TO BLOODS CREEK	119.70
EVAPORATION	11.42
PERCOLATION	17.19
IRRIGATION	62.68
TOTAL	210.99

OVERALL BALANCE	
UNUSED DISPOSAL CAPACITY (MG) (MUST NOT BE NEGATIVE)	16.82
UNUSED STORAGE CAPACITY (MG) (MUST NOT BE NEGATIVE)	26.06

(a) Estimated percolation based upon measured inflow components, estimated evaporation, and actual reservoir levels in 2011 - in Storage Reservoir only.
(b) Reservoir water surface area is a function of storage volume at start of month.
(c) Estimated snowmelt volume available for influx to storage reservoir.
(d) Estimated percentage of snowmelt contributing to influx to reservoir.
(e) Estimated based on fraction of accumulated snow within reservoir "area of influence" entering the reservoir during snowmelt months.
(f) Disposal capacity based on maximum estimated land disposal volumes.
(g) Per Bloods Creek Gauging Station
(h) Not used in calculations

BEAR VALLEY WATER DISTRICT WASTEWATER TREATMENT AND DISPOSAL SYSTEM 1/5/2018 9:34

(2017 update) Actual Flows/Precipitation

INPUT DATA

TREATMENT POND CHARACTERISTICS		STORAGE RESERVOIR		IRRIGATION AREA CHARACTERISTICS		CLIMATOLOGICAL FACTORS	
GROSS AREA (ac)	3.2	GROSS AREA (ac)	18.6	DISTRICT DISPOSAL LAND (AC)	80		
WATER SURFACE AREA (ac)	2.9	MAX. WATER SURFACE (ac)	14.2	SOIL WATER DEFICIT BEFORE IRRIGATION (IN)	n/a	OCT-APR EVAP/AVG EVAP RATIO	0.76
				FRACT OF LAND IRRIGATED	n/a	MAY-SEP EVAP/AVG EVAP RATIO	1.00
		STORAGE CAPACITY (MG)	76.43	IRRIGATION EFFICIENCY (DECIMAL FRACT)	n/a	PAN COEFFICIENT	0.80
		FRAC EST. PERC	1.0	FRACTION OF EST. PERC RATE	n/a	LAND PRECIP COLLECTED (FRAC)	0.9

PARAMETER / MONTH	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	ANNUAL
DAYS IN MONTH	30	31	31	28	31	30	31	30	31	31	30	31	365
AVG PAN EVAP (IN)	0.89	0.61	0.76	0.93	2.14	3.69	5.34	6.54	7.63	6.87	5.17	3.05	43.62
ACTUAL PRECIP (IN)	3.47	9.29	33.72	24.71	6.27	10.16	1.20	2.09	0.00	0.00	0.00	0.00	90.91
ACTUAL SNOW ACCUM (IN Water)$_{(d)}$	2.26	4.56	27.72	43.32	40.56	39.24	0.00	0.00	0.00	0.00	0.00	0.00	
ACTUAL SNOW MELT IN MONTH (IN Water)	0.84	1.08	0.00	1.32	8.28	10.56	39.24	0.00	0.00	0.00	0.00	0.00	61.32
ACTUAL NEW SNOW IN MONTH (IN Water)	3.12	3.36	23.16	18.92	5.62	9.24	0.00	0.00	0.00	0.00	0.00	0.00	61.32
ESTIMATED MAX PERCOLATION (IN)$_{(a)}$	10.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
ACTUAL INFLUENT FLOW (Avg. GAL/D)	32,967	93,549	152,032	212,250	121,032	156,800	186,581	108,700	0	0	0	0	

CALCULATIONS

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	ANNUAL
WASTEWATER VOLUME (gal)	969,010	2,900,019	4,712,992	5,943,000	3,751,992	4,704,000	5,784,011	3,261,000	0	0	0	0	32,046,024
EVAPORATION (IN)	0.5	0.4	0.5	0.5	1.3	2.2	4.3	5.3	6.1	5.5	4.1	1.9	32.6
PRECIPITATION (IN)	3.47	9.29	33.72	24.71	6.27	10.16	1.20	2.09	0.00	0.00	0.00	0.00	90.91
TREATMENT POND													
PERCOLATION (IN)	8.38	5.41	12.69	7.74	5.73	21.66	15.57	17.29	4.18	2.11	2.61	2.97	108.55
PERC VOLUME (gal)	659,820	426,378	999,502	609,371	451,372	1,705,370	1,226,247	1,361,614	329,361	166,362	221,115	233,864	8,390,176
EVAP. VOLUME (gal)	39,374	31,499	39,374	39,374	102,372	173,244	338,614	417,361	480,359	433,111	322,864	149,520	2,567,168
PRECIP. VOLUME (gal)	298,694	799,675	2,902,587	2,127,014	539,716	874,564	103,295	179,905	0	0	0	0	7,825,450
TREATMENT DISPOSAL(GAIN) (gal)	(400,299)	341,798	1,863,711	1,478,269	(14,028)	(1,004,051)	(1,461,566)	(1,599,070)	(809,720)	(599,473)	(543,979)	(383,484)	(3,131,893)
POLISHING RESERVOIR													
PERCOLATION (IN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PERC VOLUME (gal)	0	0	0	0	0	0	0	0	0	0	0	0	0
W.S. AREA (ac)$_{(b)}$	6.20	7.79	9.22	11.29	12.94	12.57	11.28	10.43	8.89	8.62	8.25	7.84	
EVAP. VOLUME (gal)	84,162	84,572	126,165	153,323	458,775	750,752	1,317,554	1,501,080	1,472,930	1,288,867	918,969	404,466	8,556,633
PRECIP. VOLUME (gal)	1,638,285	4,426,117	16,186,694	12,008,052	3,075,012	4,972,517	583,124	1,010,762	0	0	0	0	43,910,592
MONTHLY AVAIL. SNOWMELT (IN)$_{(c)}$	0.84	1.08	0.00	1.32	8.28	10.56	39.24	0.00	0.00	0.00	0.00	0.00	61.32
ESTIMATED SNOW CONTR. (%)$_{(d)}$	100%	100%	100%	100%	40%	40%	30%	0%	0%	0%	0%	0%	
ESTIMATED AREA OF INFLUENCE (ac)	50	50	50	50	50	50	50	50	50	50	50	50	
ESTIMATED INFLUX TO STORAGE (gal)$_{(e)}$	1,140,460	1,466,331	0	1,782,183	4,496,750	5,734,885	15,983,013	0	0	0	0	0	30,613,742
RESERVOIR DISPOSAL(GAIN) (gal)	2,694,503	5,807,876	16,071,528	13,646,942	7,114,988	9,958,751	15,248,583	(490,316)	(1,472,930)	(1,286,867)	(918,969)	(404,466)	65,967,701
IRRIGATION													
IRRIGATION DISPOSAL (gal)$_{(f)}$	0	0	0	0	0	0	0	0	0	0	0	0	0
STORAGE													
BEGINNING STORAGE (gal)	4,060,000	7,343,314	16,393,007	39,041,239	60,109,451	55,139,552	38,935,244	28,624,449	13,134,329	10,651,679	8,965,340	7,502,391	
CALCULATED STORAGE GAIN (gal)	3,283,314	9,049,693	22,648,232	21,068,212	10,852,950	13,656,700	19,571,027	1,171,612	-2,282,650	-1,686,339	-1,462,949	-787,970	
PROJECTED ESTIMATED STORAGE (gal)	7,343,314	16,393,007	39,041,239	60,109,451	70,962,401	68,796,252	58,506,271	29,996,061	10,851,679	8,965,340	7,502,391	6,714,421	=CARRYOVER
AMOUNT DISCHARGED TO BLOODS CREEK (gal)	0	0	0	0	15,822,849	29,861,008	29,581,822	16,861,732	0	0	0	0	92,227,411
ESTIMATED STORAGE (gal)	7,343,314	16,393,007	39,041,239	60,109,451	55,139,552	38,935,244	28,924,449	13,134,329	10,851,679	8,965,340	7,502,391	6,714,421	
ACTUAL STORAGE (gal)	7,460,000	17,530,000	40,520,000	64,370,000	58,340,000	39,880,000	27,490,000	15,720,000					

MAXIMUM STORAGE (MG) 60.11
AVAILABLE STORAGE (MG) 76.43

SUMMARY

ANNUAL INFLOW (MG)	
WASTEWATER	32.05
PRECIPITATION	51.74
SNOW INFLUX (MG)	30.61
TOTAL	114.40

ANNUAL OUTFLOW POTENTIAL (MG)	
AMOUNT DISCHARGED TO BLOODS CREEK	92.23
EVAPORATION	11.12
PERCOLATION	8.39
IRRIGATION	0.00
TOTAL	111.74

OVERALL BALANCE	
UNUSED DISPOSAL CAPACITY (MG)	-6.71
(MUST NOT BE NEGATIVE)	
UNUSED STORAGE CAPACITY (MG)	16.32
(MUST NOT BE NEGATIVE)	

(a) Estimated percolation based upon measured inflow components, estimated evaporation, and actual reservoir levels in 2011 - in Storage Reservoir only.
(b) Reservoir water surface area is a function of storage volume at start of month.
(c) Estimated snowmelt volume available for influx to storage reservoir.
(d) Estimated percentage of snowmelt contributing to influx to reservoir.
(e) Estimated based on fraction of accumulated snow within reservoir "area of influence" entering the reservoir during snowmelt months.
(f) Disposal capacity based on maximum estimated land disposal volumes.
(g) Per Bloods Creek Gauging Station
(h) Not used in calculations

BEAR VALLEY WATER DISTRICT WASTEWATER TREATMENT AND DISPOSAL SYSTEM 1/5/2018 11:53

(2017 update- 2011 Precip. Pattern) 1 in 100 Year Water Balance Projection - 2000 thru 5/2016 90TH Percentile monthly ADF plus 1196 EDU (201 gpd/EDU) - Assumes no infiltratin with new EDUs

INPUT DATA

TREATMENT POND CHARACTERISTICS		STORAGE RESERVOIR		IRRIGATION AREA CHARACTERISTICS		CLIMATOLOGICAL FACTORS	
GROSS AREA (ac)	3.2	GROSS AREA (ac)	18.6	DISTRICT DISPOSAL LAND (AC)	80		
WATER SURFACE AREA (ac)	2.9	MAX. WATER SURFACE (ac)	14.2	SOIL WATER DEFICIT BEFORE IRRIGATION (IN)	n/a	OCT-APR EVAP/AVG EVAP RATIO	0.76
				FRACT OF LAND IRRIGATED	n/a	MAY-SEP EVAP/AVG EVAP RATIO	1.00
		STORAGE CAPACITY (MG)	76.43	IRRIGATION EFFICIENCY (DECIMAL FRACT)	n/a	PAN COEFFICIENT	0.80
		FRAC EST. PERC	1.0	FRACTION OF EST. PERC RATE	n/a	LAND PRECIP COLLECTED (FRAC)	0.9

PARAMETER / MONTH	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	ANNUAL
DAYS IN MONTH	30	31	31	28	31	30	31	30	31	31	30	31	365
AVG PAN EVAP (IN)	0.89	0.61	0.76	0.83	2.14	3.69	5.34	6.64	7.63	6.87	5.17	3.05	43.82
ESTIMATED PRECIP (IN)	10.66	20.00	2.84	10.62	21.42	3.37	4.65	1.57	1.66	0.00	1.86	4.35	83.00
ESTIMATED SNOW ACCUM (IN Water)(c)	7.82	23.83	26.08	36.04	53.71	41.62	22.68	0.00	0.00	0.00	0.00	2.96	
ESTIMATED SNOW MELT IN MONTH (IN Water)	0.00	0.00	0.36	0.12	0.71	13.40	21.11	22.88	0.00	0.00	0.00	1.42	60.00
ESTIMATED NEW SNOW IN MONTH (IN Water)	7.82	16.01	2.61	10.08	18.38	1.30	2.37	0.00	0.00	0.00	0.00	1.53	60.11
ESTIMATED MAX PERCOLATION (IN)(a)	10.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
# OF ADDITIONAL CONNECTIONS (RLU)	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	
ADDITIONAL INFLUENT FLOW (GAL/D)	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	
90TH PERCENTILE EXISTING FLOWS (Avg. GAL/D)	35,340	75,835	83,020	108,476	123,884	184,549	184,869	125,446	74,976	64,231	40,142	32,953	
TOTAL INFLUENT FLOW (GAL/D)	275,736	316,231	323,416	348,872	364,280	424,945	425,264	365,842	315,372	304,627	280,538	273,349	

CALCULATIONS

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	ANNUAL
WASTEWATER VOLUME (gal)	8,272,080	9,803,161	10,025,896	9,768,416	11,292,680	12,748,350	13,183,804	10,975,260	9,776,532	9,443,437	8,416,140	8,473,819	122,179,575
EVAPORATION (IN)	0.5	0.4	0.5	0.5	1.3	2.2	4.3	5.3	6.1	5.5	4.1	1.9	32.5
PRECIPITATION (IN)	10.66	20.00	2.84	10.62	21.42	3.37	4.65	1.57	1.66	0.00	1.86	4.35	83.00
TREATMENT POND													
PERCOLATION (IN)	6.38	5.41	12.69	7.74	5.73	21.68	15.57	17.29	4.18	2.11	2.61	2.97	106.55
PERC VOLUME (gal)	659,620	426,378	999,502	609,371	451,372	1,705,370	1,226,247	1,361,614	329,361	166,382	221,115	233,864	8,390,176
EVAP. VOLUME (gal)	39,374	31,499	39,374	39,374	102,372	173,244	338,614	417,361	460,359	433,111	322,864	149,820	2,567,166
PRECIP. VOLUME (gal)	917,603	1,721,582	244,465	914,160	1,843,814	290,087	400,266	135,144	142,891	0	160,107	374,444	7,144,564
TREATMENT DISPOSAL(GAIN)/ (gal)	218,609	1,263,705	(794,411)	265,415	1,200,070	(1,568,528)	(1,164,593)	(1,643,831)	(666,829)	(599,473)	(383,872)	(9,040)	(3,612,778)
POLISHING RESERVOIR													
PERCOLATION (IN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PERC VOLUME (gal)	0	0	0	0	0	0	0	0	0	0	0	0	0
W.S. AREA (ac)(b)	6.20	9.37	11.21	11.71	12.19	12.46	11.02	10.79	9.80	9.69	8.30	2.57	
EVAP. VOLUME (gal)	84,162	101,709	152,244	158,953	430,172	744,194	1,286,794	1,553,151	1,623,738	1,446,766	700,934	132,594	8,415,492
PRECIP. VOLUME (gal)	5,032,687	9,614,764	1,379,515	5,172,859	10,461,230	1,848,344	2,256,279	760,823	799,978	0	878,643	2,010,884	40,016,223
MONTHLY AVAIL. SNOWMELT (IN)(c)	0.00	0.00	0.36	0.12	0.71	13.40	21.11	22.88	0.00	0.00	0.00	1.42	60.00
ESTIMATED SNOW CONTR. (%)(d)	0%	0%	0%	0%	0%	0%	45%	28%	50%	50%	50%	50%	
ESTIMATED AREA OF INFLUENCE (ac)	50	50	50	50	50	50	50	50	50	50	50	50	
ESTIMATED INFLUX TO STORAGE (gal)(e)	0	0	0	0	0	0	12,997,727	8,697,780	0	0	0	966,122	22,661,629
RESERVOIR DISPOSAL(GAIN) (gal)	4,948,725	9,512,995	1,227,271	5,013,906	10,031,058	904,150	13,667,212	7,905,452	(823,760)	(1,446,786)	177,715	2,844,422	54,162,360
IRRIGATION													
IRRIGATION DISPOSAL (gal)(f)	0	0	0	0	0	0	0	0	10,796,000	22,381,000	17,521,000	11,999,000	62,677,000
STORAGE													
BEGINNING STORAGE (gal)	4,050,000	17,499,415	38,079,276	44,138,032	50,185,768	53,699,576	35,763,549	33,049,972	21,686,853	19,176,796	4,212,974	0	
CALCULATED STORAGE GAIN (gal)	13,449,415	20,579,861	10,458,756	15,047,737	22,613,808	12,063,973	25,886,423	17,236,881	-2,510,057	-14,963,822	-9,311,017	-589,799	
PROJECTED ESTIMATED STORAGE (gal)	17,499,415	38,079,276	48,538,032	59,185,768	72,799,576	65,763,549	61,649,972	50,286,853	19,176,796	4,212,974	0	0	
AMOUNT DISCHARGED TO BLOODS CREEK (gal)	0	0	4,400,000	9,000,000	19,100,000	30,000,000	28,600,000	28,600,000	0	0	0	0	119,700,000
ESTIMATED STORAGE (gal)	17,499,415	38,079,276	44,138,032	50,185,768	53,699,576	35,763,549	33,049,972	21,686,853	19,176,796	4,212,974	0	0	

MAXIMUM STORAGE (MG) 53.70
AVAILABLE STORAGE (MG) 76.43

SUMMARY

ANNUAL INFLOW (MG)	
WASTEWATER	122.18
PRECIPITATION	47.16
SNOW INFLUX (MG)	22.56
TOTAL	191.90

ANNUAL OUTFLOW POTENTIAL (MG)	
AMOUNT DISCHARGED TO BLOODS CREEK	119.70
EVAPORATION	10.98
PERCOLATION	8.39
IRRIGATION	62.68
TOTAL	201.75

OVERALL BALANCE	
UNUSED DISPOSAL CAPACITY (MG) (MUST NOT BE NEGATIVE)	5.79
UNUSED STORAGE CAPACITY (MG) (MUST NOT BE NEGATIVE)	22.73

(a) Estimated percolation based upon measured inflow components, estimated evaporation, and actual reservoir levels in 2011 - in Storage Reservoir only.
(b) Reservoir water surface area is a function of storage volume at start of month.
(c) Estimated snowmelt volume available for influx to storage reservoir.
(d) Estimated percentage of snowmelt contributing to influx to reservoir.
(e) Estimated based on fraction of accumulated snow within reservoir "area of influence" entering the reservoir during snowmelt months.
(f) Disposal capacity based on maximum estimated land disposal volumes.
(g) Per Bloods Creek Gauging Station
(h) Not used in calculations

BEAR VALLEY WATER DISTRICT WASTEWATER TREATMENT AND DISPOSAL SYSTEM

(2017 update - 2017 Precip. Pattern) 1 in 100 Year Water Balance Projection - 2000 thru 5/2016 90TH Percentile monthly ADF plus 1196 EDU (201 gpd/EDU) - Assumes no infiltratin with new EDUs

1/5/2018 11:52

INPUT DATA

TREATMENT POND CHARACTERISTICS	
GROSS AREA (ac)	3.2
WATER SURFACE AREA (ac)	2.9

STORAGE RESERVOIR	
GROSS AREA (ac)	18.6
MAX. WATER SURFACE (ac)	14.2
STORAGE CAPACITY (MG)	76.43
FRAC EST. PERC.	1.0

IRRIGATION AREA CHARACTERISTICS	
DISTRICT DISPOSAL LAND (AC)	80
SOIL WATER DEFICIT BEFORE IRRIGATION (IN)	n/a
FRACT OF LAND IRRIGATED	n/a
IRRIGATION EFFICIENCY (DECIMAL FRACT)	n/a
FRACTION OF EST. PERC RATE	n/a

CLIMATOLOGICAL FACTORS	
OCT-APR EVAP/AVG EVAP RATIO	0.76
MAY-SEP EVAP/AVG EVAP RATIO	1.00
PAN COEFFICIENT	0.80
LAND PRECIP COLLECTED (FRAC)	0.9

PARAMETER / MONTH	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	ANNUAL
DAYS IN MONTH	30	31	31	28	31	30	31	30	31	31	30	31	365
AVG PAN EVAP (IN)	0.89	0.61	0.76	0.83	2.14	3.66	5.34	6.64	7.63	6.87	5.17	3.05	43.62
ESTIMATED PRECIP (IN)	3.17	8.48	30.79	22.56	5.72	9.28	1.10	1.91	0.00	0.00	0.00	0.00	83.00
ESTIMATED SNOW ACCUM (IN Water)(d)	2.23	4.46	27.12	42.39	39.69	38.40	0.00	0.00	0.00	0.00	0.00	0.00	
ESTIMATED SNOW MELT IN MONTH (IN Water)	0.82	1.06	0.00	1.29	8.10	10.33	38.40	0.00	0.00	0.00	0.00	0.00	60.00
ESTIMATED NEW SNOW IN MONTH (IN Water)	3.05	3.29	22.66	16.56	5.40	8.04	0.00	0.00	0.00	0.00	0.00	0.00	60.00
ESTIMATED MAX PERCOLATION (IN)(e)	10.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
# OF ADDITIONAL CONNECTIONS (RLU)	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	
ADDITIONAL INFLUENT FLOW (GAL/D)	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	240,396	
90TH PERCENTILE EXISTING FLOWS (Avg. GAL/D)	35,340	75,835	83,020	108,476	123,684	184,549	184,838	125,446	74,976	64,231	40,142	32,953	
TOTAL INFLUENT FLOW (GAL/D)	275,736	316,231	323,416	348,872	364,260	424,945	425,234	365,842	315,372	304,627	280,538	273,349	

CALCULATIONS

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	ANNUAL
WASTEWATER VOLUME (gal)	8,272,080	9,803,161	10,025,696	9,768,416	11,292,680	12,748,350	13,183,504	10,975,260	9,776,532	9,443,437	8,416,140	8,473,819	122,179,575
EVAPORATION (IN)	0.5	0.4	0.5	0.5	1.3	2.2	4.3	5.3	6.1	5.5	4.1	1.9	32.6
PRECIPITATION (IN)	3.17	8.48	30.79	22.56	5.72	9.28	1.10	1.91	0.00	0.00	0.00	0.00	83.01
TREATMENT POND													
PERCOLATION (IN)	8.38	5.41	12.69	7.74	5.73	21.66	15.57	17.29	4.18	2.11	2.81	2.97	106.55
PERC VOLUME (gal)	659,820	426,378	999,502	609,371	451,372	1,705,370	1,226,247	1,361,614	329,361	166,362	221,115	233,864	8,390,176
EVAP. VOLUME (gal)	39,374	31,499	39,374	39,374	102,372	173,244	338,614	417,361	480,359	433,111	322,664	149,520	2,567,166
PRECIP. VOLUME (gal)	272,871	729,951	2,650,375	1,941,944	492,372	798,814	94,697	164,411	0	0	0	0	7,145,425
TREATMENT DISPOSAL(GAIN)/ (gal)	(426,123)	272,074	1,611,500	1,293,199	(51,372)	(1,079,801)	(1,470,174)	(1,614,564)	(809,720)	(599,473)	(543,979)	(383,484)	(3,811,916)
POLISHING RESERVOIR													
PERCOLATION (IN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PERC VOLUME (gal)	0	0	0	0	0	0	0	0	0	0	0	0	0
W.S. AREA (ac)(b)	6.20	9.02	10.52	12.32	13.41	13.33	12.67	12.50	10.89	10.58	9.12	6.05	
EVAP. VOLUME (gal)	84,162	97,925	142,868	167,265	473,377	796,269	1,479,375	1,799,534	1,903,763	1,560,200	1,015,010	343,175	9,782,944
PRECIP. VOLUME (gal)	1,499,647	4,068,510	14,698,488	11,026,175	2,812,579	4,581,027	538,670	934,466	0	0	0	0	40,336,541
MONTHLY AVAIL. SNOWMELT (IN)(c)	0.82	1.06	0.00	1.29	8.10	10.33	38.40	0.00	0.00	0.00	0.00	0.00	60.00
ESTIMATED SNOW CONTR. (%)(d)	100%	100%	100%	100%	40%	40%	30%	0%	0%	0%	0%	0%	
ESTIMATED AREA OF INFLUENCE (ac)	50	50	50	50	50	50	50	50	50	50	50	50	
ESTIMATED INFLUX TO STORAGE (gal)(e)	1,115,930	1,434,787	0	1,753,604	4,399,951	5,611,532	15,838,956	0	0	0	0	0	29,954,738
RESERVOIR DISPOSAL(GAIN) (gal)	2,526,414	5,405,352	14,755,579	12,612,514	6,739,152	9,376,289	14,698,250	(865,067)	(1,903,763)	(1,560,200)	(1,015,010)	(343,175)	60,508,335
IRRIGATION													
IRRIGATION DISPOSAL (gal)(f)	0	0	0	0	0	0	0	0	10,790,000	22,361,000	17,521,000	11,999,000	62,677,000
STORAGE													
BEGINNING STORAGE (gal)	4,060,000	14,434,371	29,914,958	51,907,933	66,582,062	65,452,522	56,497,361	54,309,241	34,204,670	30,571,918	15,474,682	4,810,833	
CALCULATED STORAGE GAIN (gal)	10,374,371	15,480,587	26,392,975	23,674,129	17,970,460	21,044,839	26,411,880	8,465,628	-3,632,951	-15,097,236	-10,663,849	-4,251,841	
PROJECTED ESTIMATED STORAGE (gal)	14,434,371	29,914,958	56,307,933	75,582,062	84,552,522	86,497,361	82,909,241	62,804,870	30,571,918	15,474,682	4,810,833	558,993	=CARRYOVER
AMOUNT DISCHARGED TO BLOODS CREEK (gal)	0	0	4,400,000	9,000,000	18,100,000	30,000,000	25,600,000	28,500,000	0	0	0	0	119,700,000
ESTIMATED STORAGE (gal)	14,434,371	29,914,958	51,907,933	66,582,062	66,452,522	56,497,361	54,309,241	34,204,670	30,571,918	15,474,682	4,810,833	558,993	

MAXIMUM STORAGE (MG) 66.58
AVAILABLE STORAGE (MG) 76.43

SUMMARY

ANNUAL INFLOW (MG)	
WASTEWATER	122.18
PRECIPITATION	47.48
SNOW INFLUX (MG)	29.95
TOTAL	199.62

ANNUAL OUTFLOW POTENTIAL (MG)	
AMOUNT DISCHARGED TO BLOODS CREEK	119.70
EVAPORATION	12.35
PERCOLATION	8.39
IRRIGATION	62.68
TOTAL	203.12

OVERALL BALANCE	
UNUSED DISPOSAL CAPACITY (MG)	-0.56
(MUST NOT BE NEGATIVE)	
UNUSED STORAGE CAPACITY (MG)	9.85
(MUST NOT BE NEGATIVE)	

(a) Estimated percolation based upon measured inflow components, estimated evaporation, and actual reservoir levels in 2011 - in Storage Reservoir only.
(b) Reservoir water surface area is a function of storage volume at start of month.
(c) Estimated snowmelt volume available for influx to storage reservoir.
(d) Estimated percentage of snowmelt contributing to influx to reservoir.
(e) Estimated based on fraction of accumulated snow within reservoir "area of influence" entering the reservoir during snowmelt months.
(f) Disposal capacity based on maximum estimated land disposal volumes.
(g) Per Bloods Creek Gauging Station
(h) Not used in calculations

BEAR VALLEY WATER DISTRICT
EXISTING NUMBER OF CONNECTIONS (EDUs)
1/16/2018

RESIDENTIAL DEVELOPMENT	Number of Connections (EDUs) 2005 [11]	2018	Buildout
Single Family Parcels			
Northside			
SF - 1 [1] (Old Sub)	41	45	59
SF - 2, 3, 4, 6 [2] (New Sub)	283	301	436
Lake Alpine Basin Cabins [4]	22	22	37
North Side Sub Total	346	368	532
Southside			
SF - 5	0	0	44
SF - 7	0	0	50
SF - 8	0	0	22
SF - 9	0	0	44
SF - 10	0	0	1
Southside Sub Total	0	0	161
Residential Sub Total	346	368	693
Multi Family Parcels			
Northside			
MF - 1 [3] (Condo Bear)	16	16	16
MF - 2, 3 [3] (Creekside)	113	113	132
MF - 4 [3] (Tamarack)	20	20	20
MF - 5 (Pine Tree Vilage / Silver Mountain)	0	20	100
MF - 6 [3] (Sundowner)	0	12	12
MF - 9	0	0	30
MF- 11	0	0	12
MF - 10 (Black Forest)	0	0	45
MF - 12 (Bear Paw Ridge)	0	0	113
North Side Sub Total	149	181	480
Southside			
MF - 12 (Southside)	0	0	34
MF - 13 (Southside)	0	0	54
MF - 14 (Southside)	0	0	62
MF - 15 (Southside)	0	0	122
MF - 16 (Southside)	0	0	40
South Side Sub Total	0	0	312
Multi Family Sub Total	149	181	792
Single Family + Multi Family Total	495	549	1485
COMMERCIAL DEVELOPMENT			
VC - 1 (Bear Valley Village - Existing) [5]	54	54	76
VC - 2 (Bear Valley Village - Proposed) [6]	0	0	385
Bear Valley Mountain Resort [7] [8]	21	21	29
Bear Top Lodge (Proposed) [9]	0	0	14
US Forest Service Facilities (Resort/Campgrounds) [10]	26	26	26
Commercial Sub Total	101	101	530
Grand Total	596	650	2015
Total Number of EDUs Per 1978 Master Plan =	596	650	2015
EDUs Remaining - System Total - 1846 EDUs =	1250	1196	-169

[1] BVMP General Development Plan - SF 1

[2] - BVMP General Development Plan - SF 2, 3, 4, 6, MF-11, MF-12 (New Sub incl Cub Lane, Avalanche, Flynn Road, Granite Ridge)

[3] Existing Condos - Creekside = 113, Condo Bear = 16, Tamarack = 20, Sundowner = 12 ; Total = 161

[4] (22) Special Use Permit (SUP) Cabins Invoiced (connected to BVWD); 37 Cabins Total - Assumes All *Could* Connect to BVWD

[5] BVMP General Development Plan - VC 1 + C 1

[6] 2012 BVV EIR 2012 Addendum - The project would generate a net demand for 385 new SFEs :
(350 residential SFEs + 16.8 employee housing SFEs + 45 commercial SFEs – 26.5 Bear Valley Lodge SFEs = 385 SFEs).
Rather than defining a unit as a two-bedroom residence, the applicant is proposing to define the residential portion of the project in terms of Equivalent Dwelling Units where one EDU is equivalent to 1,350 sf of residential space.

[7] 2012 BVV EIR Addendum - Increasing skier visitation by 40,000 (i.e., from 140,000 to 180,000 skiers per season) represents a 29 percent increase. Therefore, the ski area improvements could generate demand for an additional 7 SFEs (i.e., a 29-percent increase over 24 SFEs).

[8] Bear Valley Mountain - Wastewater Flow 543,300 gal - 12 month

[9] 2012 Bear Valley Mountain Expansion EA - 12,500 sq ft Bear Top Lodge - 270 seat capacity - 14 RLUs

[10] USFS - Day Use Bathrooms (4) 131,150 gal - 12 month
USFS - Campground Bathrooms (14) 303,980 gal - 12 month
Lake Alpine Resort (Rest/Cabins/Store) 295,191 gal - 12 month

[11] 2006 BVWD - ECO:LOGIC Engineering - Phase 1 Tertiary Facilities Plan

Bear Valley Water District
Depreciation Schedule - Book Data
Year Ended 12/31/2017
Buy-In Fee Calculation

Set No.		Asset Description	Life	Date Purchased	Original Cost	Date Constructed ENR Construction Cost Index	Dec. 2017 ENR Construction Cost Index	Adjusted Dec 2017 Cost
(c) 1:	LAND							
1.0 Land	1.0 Land		0	1/19/20	$25,805			
© 1: LAND					$25,805			
(c) 21:	PLANT & ADMIN							
11.0		1993 Ford 4X4 Pickup Truck	5	6/1/93	$12,747	5260	10870	$26,342
14.0		Snowblower	5	10/1/97	$1,925	5848	10870	$3,578
15.0		Office Building	40	10/31/97	$288,204	5848	10870	$535,701
17.0		Dodge Ram Pickup	6	1/1/99	$16,846	6000	10870	$30,519
197.0		Utility Transfer Switch	20	8/24/15	$1,555	10039	10870	$1,684
		Phone System		2016	$2,240	10338	10870	$2,355
		Web Site		2014	$1,775	9806	10870	$1,968
© 21: PLANT & ADMIN - 18 Asset(s)					$325,292			$602,147
(c) 22:	SEWAGE - LIFT STATIONS							
21.0		Generator	20	11/1/91	$12,402	4896	10870	$27,535
23.0		Boat Ramp	15	12/1/92	$6,299	5059	10870	$13,534
25.0		Chickaree Pump House	10	6/1/98	$3,190	5895	10870	$5,882
26.0		Chickaree Pump House	10	1/1/99	$1,126	6000	10870	$2,040
27.0		Lake Alpine Pumps & Auto Dialer	15	1/1/05	$76,657	7297	10870	$114,192
28.0		Irr. Pump #2 & Upgrades	15	1/1/05	$2,720	7297	10870	$4,052
29.0		Remodel Costs	15	1/1/05	$8,765	7297	10870	$13,057
30.0		Boat Ramp	15	1/1/05	$2,567	7297	10870	$3,824
31.0		Auto Dialer	15	9/1/05	$3,516	7540	10870	$5,069
33.0		A/B 100 HP Start w/Controls	15	10/13/06	$13,621	7883	10870	$18,782
199.0		Phase Converter L.A.	10	6/30/17	$6,891	10703	10870	$6,999
		(2) Apollo Actuator Valves - Lake Alpine Boat Ramp		2017	$5,959	10870	10870	$5,959
© 22:	SEWAGE - LIFT STATIONS - 17 Asset (s)				$143,713			$220,924
© 23:	SEWAGE COLLECTION							
37.0		Main & LA Pump Station	40	9/1/79	$33,186	3003	10870	$120,124
38.0		Connector	10	10/1/79	$7,846	3003	10870	$28,400
39.0		Pump Station Modification	40	10/1/79	$6,748	3003	10870	$24,426
40.0		Log Cabin Bypass	20	11/1/79	$8,157	3003	10870	$29,526
42.0		Containment Basin	10	9/1/79	$5,716	3003	10870	$20,690
43.0		Comminutor	10	10/1/79	$3,289	3003	10870	$11,905
44.0		Pump	10	7/31/80	$2,236	3237	10870	$7,509
46.0		Pump & Switch Gear	10	11/1/80	$2,478	3237	10870	$8,321
48.0		Raco High Water Alarm	10	10/18/83	$1,809	4066	10870	$4,836
49.0		Transformer	10	10/1/84	$4,567	4146	10870	$11,974
52.0		Relief Control Valve-LA Pump	10	7/1/85	$1,947	4195	10870	$5,045
53.0		Press Relief Valves - Boat Ramp	10	7/1/85	$518	4195	10870	$1,342
57.0		Leak Detection System	10	9/1/86	$1,982	4295	10870	$5,016
61.0		Overflow Tanks	10	6/1/88	$9,339	4519	10870	$22,464
63.0		Smart Pump LC Unitype	10	10/1/89	$1,129	4615	10870	$2,659
64.0		New Pump - Lake Alpine	10	10/1/89	$6,778	4615	10870	$15,965
67.0		Generator (Emergency Response)	15	8/1/02	$9,547	6592	10870	$15,743
70.0		System Maps	10	11/1/03	$6,928	6794	10870	$11,084
71.0		Waterman Valve	10	11/1/03	$5,954	6794	10870	$9,526
75.0		2007 Chevy Truck	5	10/13/06	$8,330	7883	10870	$11,486
77.0		Confined Space Entry Equipment	10	1/1/09	$4,219	8549	10870	$5,364
177.0		Main Pump Station Flood Control	20	6/30/12	$171,561	9291	10870	$200,718
182.0		Ebara K Series Pump	10	6/25/13	$6,114	9542	10870	$6,965
183.0		Versight Pro 200 Push Camera	10	8/30/13	$11,910	9545	10870	$13,563
185.0		Additional Ebara Pump Costs	10	9/30/13	$688	9552	10870	$783
198.0		Smartcover Monitor/Alarm	7	6/30/17	$15,390	10703	10870	$15,630
		New E&H 8" Mag Flow Meter - Main Pump St.		2017	$16,185	10870	10870	$16,185
© 23:	SEWAGE COLLECTION 47 Asset (s)				$354,551			$627,250

Set No.	Asset Description	Life	Date Purchased	Original Cost	Date Constructed ENR Construction Cost Index	Dec. 2017 ENR Construction Cost Index	Adjusted Dec 2017 Cost
@ 24:	SEWAGE DISPOSAL FACILITY						
76.0	Bloods Creek Outfall	40	6/30/08	$742,797	8185	10870	$986,463
78.0	Disposal Facilities	40	1/1/71	$8,587	1581	10870	$59,039
79.0	Engineering	40	1/1/77	$6,648	2576	10870	$28,053
80.0	Irrigation Pipe	10	8/1/80	$7,567	3237	10870	$25,410
81.0	Spray Field Phase I	10	1/1/83	$48,778	4066	10870	$130,403
82.0	Sprayfield Additions	20	9/1/85	$6,644	4195	10870	$17,216
83.0	Pump & Irrigation Valves	10	8/1/86	$7,074	4295	10870	$17,903
84.0	Irrigation Systems	10	8/1/87	$5,070	4406	10870	$12,508
85.0	New Irrigation System	7	7/1/88	$522	4519	10870	$1,256
86.0	Absorbtion Trench	10	7/1/88	$1,970	4519	10870	$4,739
87.0	Trench	10	9/1/88	$5,123	4519	10870	$12,323
88.0	Sprayfield	10	7/1/89	$1,068	4615	10870	$2,516
89.0	Sprayfield	10	9/1/89	$445	4615	10870	$1,048
90.0	Sprayfield	10	4/1/90	$10,237	4693	10870	$23,711
91.0	Pump	10	7/1/90	$7,643	4734	10870	$17,550
92.0	Sprayfield Expansion	10	10/1/91	$4,251	4892	10870	$9,446
93.0	Sprayfield Expansion	10	6/1/93	$420	5260	10870	$868
94.0	Sprayfield Expansion	10	8/1/93	$13,353	5230	10870	$27,753
95.0	Extend Sprayfield	10	12/1/96	$10,131	5744	10870	$19,172
96.0	Irrigation Pipe	10	3/1/98	$898	5875	10870	$1,661
97.0	Booster Pump MDL 8C-4	10	7/1/01	$8,940	6404	10870	$15,175
98.0	Guard-It Auto Dialer	10	9/1/01	$1,053	6391	10870	$1,791
99.0	Pumps	10	8/1/01	$8,399	6389	10870	$14,290
100.0	Effluent 100 HP Pump	10	10/1/01	$7,000	6397	10870	$11,895
101.0	Peerless Pump	10	9/1/02	$5,974	6589	10870	$9,855
102.0	Simfloo Pump	7	10/1/02	$2,365	6579	10870	$3,908
103.0	Irrigation Flow Meter	10	6/1/04	$9,841	7109	10870	$15,047
104.0	Groundwater Monitoring Wells	10	1/1/05	$10,785	7297	10870	$16,066
105.0	Paco Pumps	10	10/23/06	$4,050	7883	10870	$5,585
106.0	Outfall Permit & Design	50	1/5/07	$51,378	7880	10870	$70,873
107.0	NPDES Permit - 2011	5	7/1/11	$60,189	9080	10870	$72,054
108.0	DSP Facilities/Sprayfield Pipe	5	6/30/12	$17,442	9291	10870	$20,406
109.0	Dechlorination System	10	7/1/12	$21,540	9324	10870	$25,112
110.0	Outfall Bypass	25	8/24/14	$28,914	9846	10870	$31,921
111.0	Pump Rebuild	15	9/22/14	$20,199	9870	10870	$22,246
112.0	Softstart for Pump	15	9/17/14	$8,545	9870	10870	$9,411
113.0	Cla-Val Irrigation Pump	20	11/24/14	$7,229	9912	10870	$7,928
114.0	Sprayfield Pipes	5	6/30/17	$5,965	10703	10870	$6,058
115.0	MPS Pump Contoller - SCADA Power Fail Relay	10	6/30/17	$1,188	10703	10870	$1,207
178.0	Sigma Flow Meter - Analog Connections	10	6/30/17	$2,072	10703	10870	$2,104
	2015 Mixing Zone Study		2015	$37,612	10035	10870	$40,741
179.0	2017 Mixing Zone Study	5	6/30/17	$13,234	10703	10870	$13,440
181.0	NPDES Permit - 2016	5	6/30/17	$10,345	10703	10870	$10,506
190.0	Priority Pollutant Test	5	6/30/17	$10,378	10703	10870	$10,540
	Chronic and Acute Toxicity Tests		2017	$7,361	10870	10870	$7,361
	SCADA Monitoring Alarm System (2014-2017)		2017	$122,348	10870	10870	$122,348
	Sprayfield Access Road Improvements		2017	$12,515	10870	10870	$12,515
	ATI Chlorine & Sulfite Analyzers + Install		2017	$21,657	10870	10870	$21,657
@ 24:	SEWAGE DISPOSAL FACILITY			$1,407,744			$2,001,075
@ 25:	SUBSURFACE LINES						
116.0	Sewage Lines	99	1/19/71	$72,801	1581	10870	$500,536
117.0	Engineering	99	8/30/71	$1,003	1581	10870	$6,896
118.0	System (1972-1)	99	1/19/74	$564,625	2020	10870	$3,038,353
119.0	Tract #5 Sewer System (1974-1)	99	1/19/76	$34,732	2401	10870	$157,241
120.0	Lake Alpine Col Sys 1 Pump Station	99	1/1/76	$502,742	2401	10870	$2,276,054
121.0	Sewer Line	75	9/19/64	$5,500	936	10870	$63,873
122.0	Subsurface Lines	75	11/1/97	$1,941	5838	10870	$3,614
123.0	Sewer Lateral To Lot 1-7	75	12/1/01	$3,978	6390	10870	$6,767
124.0	Sewage Lines - Pain - Inst.	99	1/1/77	$4,167	2576	10870	$17,584
125.0	Sewer Lines Lissen Project	50	7/31/10	$5,000	8844	10870	$6,145
	ESRI ArcGIS - GIS System		2017	$12,674	10870	10870	$12,674
	NexGen AMS - Asset Management System		2017	$13,888	10870	10870	$13,888
	US Jetter Model 4018-75		2017	$59,272	10870	10870	$59,272
@ 25:	SUBSURFACE LINES 12 Asset(s)			$1,282,323			$6,162,897

Set No.	Asset Description	Life	Date Purchased	Original Cost	Date Constructed ENR Construction Cost Index	Dec. 2017 ENR Construction Cost Index	Adjusted Dec 2017 Cost
© 26:	TREATMENT FACILITY						
127.0	Treatment Facility	40	1/19/71	$27,918	1581	10870	$191,947
128.0	Soil Test & Pollution Study	40	1/19/73	$3,276	1895	10870	$18,792
129.0	Treatment Plant & Disposal System	40	1/1/76	$658,865	2401	10870	$2,982,867
130.0	Spring Field Phase II	40	11/1/83	$107,354	4066	10870	$286,999
131.0	A Frame	40	9/1/83	$2,669	4066	10870	$7,135
132.0	Lake Alpine Col System & Pump Station	99	6/12/78	$43,200	2776	10870	$169,159
133.0	Pump, NSC	10	7/1/89	$3,226	4615	10870	$7,598
134.0	Comminutor	10	10/1/89	$11,384	4615	10870	$26,813
135.0	Pump	10	10/1/91	$6,323	4892	10870	$14,050
136.0	Comminutor	10	3/1/94	$3,492	5381	10870	$7,054
137.0	Truck	5	7/1/01	$9,322	6404	10870	$15,823
138.0	WWTF Sampling Equipment	10	1/1/04	$1,388	6825	10870	$2,211
139.0	Chlorine Safety Upgrades	5	11/1/05	$4,405	7630	10870	$6,276
140.0	Toshiba 30HP Air Compressor	10	9/5/06	$1,329	7763	10870	$1,861
141.0	2007 Chevy Truck	5	10/13/06	$8,330	7883	10870	$11,486
142.0	Chlorine Contact Tank Project	30	7/31/10	$108,145	8844	10870	$132,919
143.0	Chlorine Gas Detection System	10	10/1/13	$5,420	9689	10870	$6,081
144.0	Addn'l Chlorine Gas Dection System	10	11/22/13	$490	9666	10870	$551
145.0	Addn'l Chlorine Gas Dection System	10	1/13/14	$308	9664	10870	$346
146.0	D. O. Probe	10	9/1/14	$10,101	9870	10870	$11,124
147.0	Gardner Denver VFD Blower	15	12/9/14	$41,437	9936	10870	$45,332
148.0	TSS Probe	10	8/1/15	$3,929	10039	10870	$4,254
149.0	Lighteneing /Surge Protector - EH	25	11/30/15	$3,315	10092	10870	$3,571
150.0	Treatment Pond Dock	70	6/30/16	$10,582	10337	10870	$11,128
	(2) Paco 350 GPM Transfer Pumps + Install		2017	$22,486	10870	10870	$22,486
	Regal 100 PPD Chlorination System		2017	$3,260	10870	10870	$3,260
© 26:	TREATMENT FACILITY 56 Asset(s)			$1,101,954			$3,991,122
GRAND TOTALS				$4,641,381			$13,605,417

ADMIN FACILTIES	$351,097	$602,147
COLLECTION SYSTEM	$1,282,323	$6,162,897
LIFT STATIONS	$498,264	$848,175
TREATMENT FACILITY	$1,101,954	$3,991,122
DISPOSAL FACILITY	$1,407,744	$2,001,075
TOTAL	$4,641,381	$13,605,417

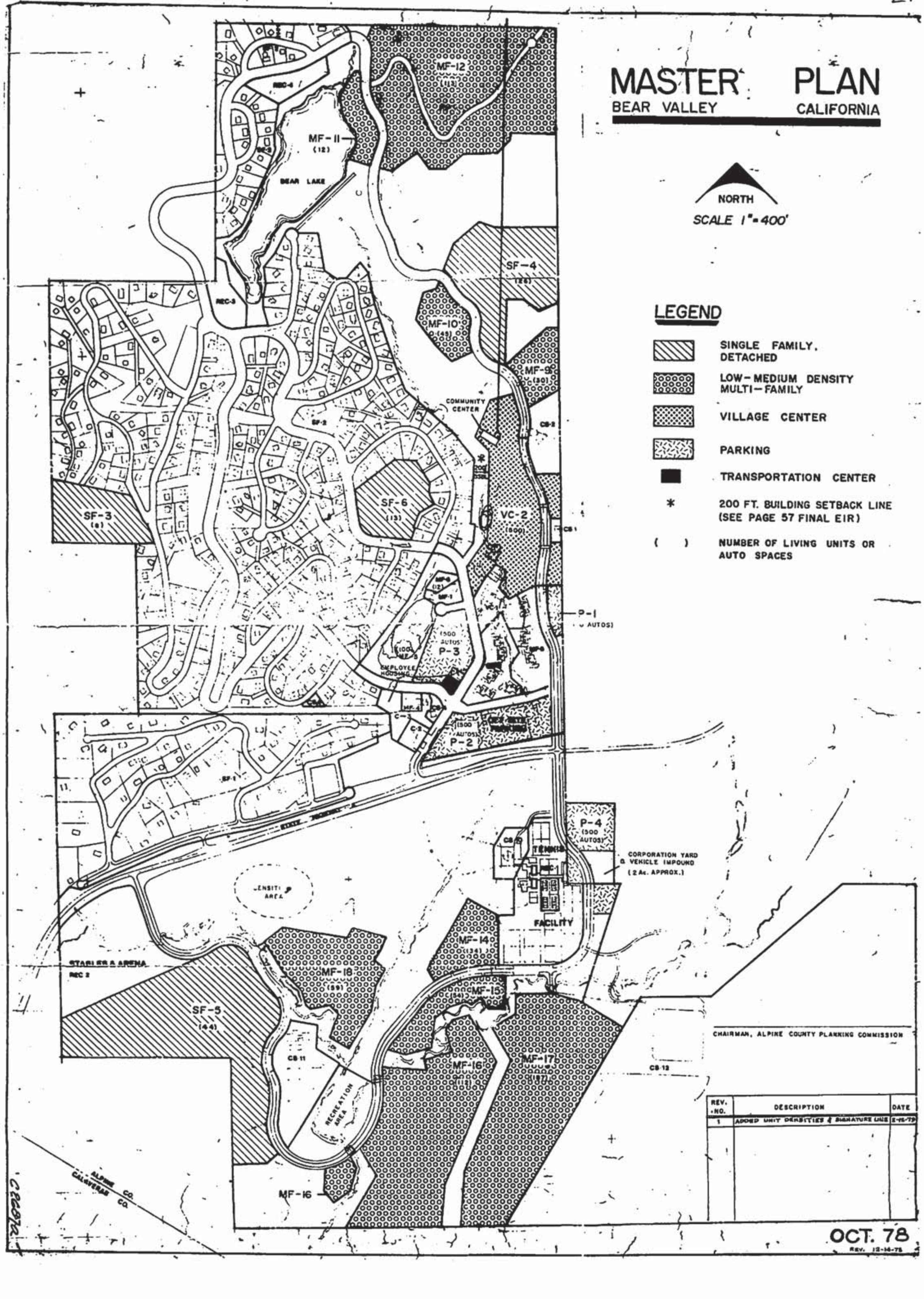
CURRENT EDUs:	650
ADDITIONAL EDUs:	1196
TOTAL:	1846
BUY IN FEE:	$7,370

2.

PROJECT SUMMARY

BEAR VALLEY DEVELOPMENT PLAN

ALPINE COUNTY
PLANNING DEPARTMENT
P. O. Box 107
MARKLEEVILLE, CA 96120


MASTER PLAN
BEAR VALLEY CALIFORNIA
NORTH
SCALE 1"=400'
LEGEND
SINGLE FAMILY, DETACHED
LOW-MEDIUM DENSITY MULTI-FAMILY
VILLAGE CENTER
PARKING
TRANSPORTATION CENTER
* 200 FT. BUILDING SETBACK LINE (SEE PAGE 57 FINAL EIR)
( ) NUMBER OF LIVING UNITS OR AUTO SPACES
MF-12 (113)
MF-11 (12)
BEAR LAKE
SF-4 (26)
MF-10 (43)
MF-9 (30)
COMMUNITY CENTER
SF-3 (8)
SF-6 (13)
VC-2 (500)
P-1
P-3
EMPLOYEE HOUSING
P-2
P-4 (500 AUTOS)
CORPORATION YARD & VEHICLE IMPOUND (2 Ac. APPROX.)
TENNIS
FACILITY
MF-14 (134)
MF-18 (59)
MF-15
SF-5 (44)
STABLES & ARENA
REC 2
RECREATION AREA
MF-16
MF-17 (187)
ALPINE CO.
CALAVERAS CO.
CHAIRMAN, ALPINE COUNTY PLANNING COMMISSION
REV. NO. | DESCRIPTION | DATE
1 | ADDED UNIT DENSITIES & SIGNATURE LINE |
OCT. 78
REV. 12-14-78

General Development Plan
North Side

Single Family Parcel	Acerage	Density	Units	Beds 6/Unit	Cars 2/Unit
SF 1	52.8	1.1	59	354	118
SF 2	200.0	1.9	389	2334	778
SF 3	6.9	1.1	8	48	16
SF 4	12.7	2.0	26	156	52
SF 6	6.2	2.1	13	78	26
Sub Total	278.6		495	2970	990

Multi Family Parcel	Acerage	Density	Units	Beds 4/Unit	Cars 1.5/Unit
MF 1	.7	22.8	16	64	24
MF 2	3.9	15.4	60	240	90
MF 3	4.1	17.6	72	288	108
MF 4	.7	28.6	20	80	30
MF 5	5.4	18.5	100	400	150
MF 6	.5	24.0	12	48	18
MF 7	---	---	---	---	---
MF 8	---	---	---	---	---
MF 9	3.5	8.6	30	120	45
MF 10	3.8	11.8	45	180	68
MF 11	2.5	4.8	12	48	18
MF 12	33.1	3.4	113	452	170
MF 13	---	---	---	---	---
Sub Total	58.2		480	1920	721

Village Center	Acerage	Density	Units	Beds 2/Unit	Cars 1/Unit
VC 1	2.5	---	62	124	62
VC 2	15.2	---	500	1000	500
Sub Total	17.7		562	1124	562

Commerical	Acerage	Density	Units	Beds 2/Unit	Cars 1/Unit
C 1	.1	---	14	28	14
C 2	.7	---	---	---	---
C 3	1.5	---	---	---	---
Sub Total	2.3		14	28	14

North Side Total	356.8		1551	6042	2287
80% Occupancy				4834	1830

South Side

Single Family Parcel	Acreage	Density	Units	Beds 6/Unit	Cars 2/Unit
SF 6	13.8	1.8	25	150	50
SF 7	20.4	2.5	50	300	100
SF 8	22.0	1.0	22	132	44
SF 9	39.4		44	264	88
SF 10 *	27.5	-	1	6	2
Sub-Total	123.1		142	852	284

Multi Family Parcel	Acreage	Density	Units	Beds	Cars
MF 12	4.6	7.4	34	136	51
MF 13	4.1	13.2	54	216	81
MF 14	3.9	15.9	62	248	93
MF 15	8.9	13.7	122	488	183
MF 16	3.0	13.3	40	160	60
Sub-Total	24.5	12.7	312	1248	468
Southside Total	147.6		454	2100	752
80% Occupancy				1680	602
General Development Plan Total	508		2052	8414	3130
80% Occupancy				6731	2504

Community Services

CS1	P.G.& E Substation	0.3 acres
CS2	Elementary School	2.9
CS3	Maintenance Center	1.6
CS4	Sheriff & Fire Station	0.4
CS5	Pacific Telephone	0.2
CS6	Maintenance Yard	0.4
CS7	Short Term Parking	0.9
CS8	Off-Site Parking	5.0
CS10	Heliport	2.0
CS11	School	5.9
CS12	Sewage Treatment	127.6

Recreation

ec1	Tennis Facility	13.6
Rec2	Stables and Arena	3.3
Rec3	Homeowner's Center	2.2
Rec4	Beach - Picnic Area	2.1

* Not a part of this project

ORDINANCE NO. 73

BEAR VALLEY WATER DISTRICT

AN ORDINANCE AMENDING SUBSECTIONS A AND B OF SECTION 2 OF ARTICLE IV OF ORDINANCE NO.1 REVISING SEWER CAPACITY CHARGES.

WHEREAS, the Board ("Board") of Directors of the Bear Valley Water District ("District") has determined that the capacity charges for new connections should be revised, and

WHEREAS, the Board has determined that the District must revise its sewer capacity charges originally established in Article IV of Ordinance No. 1, and most recently amended by Ordinance No. 71 establishing sections 1 and 2 under Article IV establishing a connection fee and a capacity charge for new connection as set forth in Government Code Section 66013(b)(1) and (5), and (3); and

WHEREAS, the Board desires to revise the capacity charge set forth Subsection A and B of Section 2 of Article IV; and

NOW THEREFORE, the Board of Directors of the Bear Valley Water District finds, determines and resolves as follows:

1. The above recitals are true and correct, and are hereby incorporated as part of this Ordinance.

2. Subsections A and B of Section 2 of Article IV of Ordinance No. 1, and all amendments thereto, is amended as follows:

> "A. The Capacity Charge for each residential connection permitted by the District shall be $7,370.00.
>
> B. Subject to Article IV, section 2.C, the Capacity Charge for each non-residential connection permitted by the District shall be proportionately rated to a twenty-four-fixture-unit residence following the Equivalent Drainage Fixture Unit Table in the current edition of the Uniform Plumbing Code as follows:
>
> $$\text{Capacity Charge} = \frac{\text{Fixture Load} \times \$7{,}370.00}{24}$$ "

3. The Board finds and declares that the adoption of this ordinance and the charges established herein is exempt from the requirements of the California Environmental Act pursuant to Title 14, *California Code of Regulations* § 15273(a), and

specifically adopts and incorporates herein as part of the record and as findings those sections of the report which discuss the need for revenue, including the projected total operating expenses, the capital projects and required improvements, and specifically finds and declares that the charges established herein for the purposes specified in Title 14, *California Code of Regulations* § 15273(a)(1) through 15273(a)(4), and not to fund expansion of the sewer system.

4. The Secretary of the District is hereby authorized and directed to file a notice of exemption pursuant to Title 14, *California Code of Regulations* § 15062.

5. This ordinance shall become effective 30 days after its passage.

6. Upon the effective date of this Ordinance, those portions of Ordinances predating this Ordinance that conflict with this Ordinance, are hereby repealed.

Passed and adopted at the regular meeting of the Board of Directors of the Bear Valley Water District on _____, by the following votes:

AYES:

NOS:

ABSENT:

ABSTAIN:

_____
President
Bear Valley Water District

ATTEST:

_____
Board Secretary
Bear Valley Water District

ORDINANCE NO. 71

BEAR VALLEY WATER DISTRICT

AN ORDINANCE AMENDING ARTICLE IV OF ORDINANCE NO. 1 AMENDING SEWER CONNECTION FEES AND CHARGES.

WHEREAS, the Board ("Board") of Directors of the Bear Valley Water District ("District") has determined that the capacity charges for new connections should be revised, and

WHEREAS, the Board has determined that the District must reduce its sewer capacity charges originally established in Article IV of Ordinance No. 1, and most recently amended by Ordinance No. 68; and

WHEREAS, the Board desires to create a separate subsection under Article IV establishing a connection fee and a capacity charge for new connection as set forth in Government Code Section 66013(b)(1) and (5), and (3); and

NOW THEREFORE, the Board of Directors of the Bear Valley Water District finds, determines and resolves as follows:

1. The above recitals are true and correct, and are hereby incorporated as part of this Ordinance.

2. Article IV of Ordinance No. 1, and all amendments thereto is amended as follows:

"Article IV"

Sewer Connection Charges

Section 1. Connection Fee. All applications for new or additional sewer service to the District's Sewer System shall submit a fully completed written application ("Connection Application") for each connection requested to the District in the form provided by the District together with payment of the following:

A. Application Fee. Applicants shall pay a nonrefundable application administrative fee of $100.00 for each Residential connection in the Connection Application and $100.00 for each non-Residential connection in the Connection Application to cover the District's costs of administration of the application.

B. The Connection Fee. The Applicant shall be responsible for retaining a licensed contractor approved by the District to make the physical connection to the District's Sewer System at the applicant's expense and shall pay the District a

Connection Fee as defined by Government Code Section 66013(b)(5) for the inspection of the physical connection for each connection applied for as follows:

1. $100.00 for each Residential Connection applied for.
2. $100.00 for each Non-Residential Connection applied for.

Section 2. Capacity Charges. All applicants for new or additional sewer service to the District's Sewer System shall pay a Capacity Charge as defined by Government Code Section 66013(b)(3) prior to issuance of a permit by the District. The Capacity Charge for each connection for existing and uncommitted sewer capacity shall be as follows:

A. The Capacity Charge for each residential connection permitted by the District shall be $ 5,414.00.

B. Subject to Article IV, section 2.C, the Capacity Charge for each non-residential connection permitted by the District shall be proportionately rated to a twenty-four-fixture-unit residence following the Equivalent Drainage Fixture Unit Table in the current edition of the Uniform Plumbing Code as follows:

$$\text{Capacity Charge} = \frac{\text{Fixture Load x \$5,414}}{24}$$

C. The Capacity Charge for each non-residential connection that the District determines may generate a high waste volume or impose high BOD loading shall be established by the Board of Directors and based on the projected flow and BOD load as determined by the District's Engineer or Manager.

3. The Board finds and declares that the adoption of this ordinance and the charges established herein is exempt from the requirements of the California Environmental Act pursuant to Title 14, *California Code of Regulations* § 15273(a), and specifically adopts and incorporates herein as part of the record and as findings those sections of the report which discuss the need for revenue, including the projected total operating expenses, the capital projects and required improvements, and specifically finds and declares that the charges established herein for the purposes specified in Title 14, *California Code of Regulations* § 15273(a)(1) through 15273(a)(4), and not to fund expansion of the sewer system.

4. The Secretary of the District is hereby authorized and directed to file a notice of exemption pursuant to Title 14, *California Code of Regulations* § 15062.

5. This ordinance shall become effective 30 days after its passage.

6. Upon the effective date of this Ordinance, those portions of Ordinances predating this Ordinance that conflict with this Ordinance, are hereby repealed.

Passed and adopted at the regular meeting of the Board of Directors of the Bear Valley Water District on February 23, 2015 by the following votes:

AYES:

NOS:

ABSENT:

ABSTAIN:

_____
President
Bear Valley Water District

ATTEST:

_____
Board Secretary
Bear Valley Water District

AGENDA ITEM

DATE: APRIL 9, 2018

TO: BVWD BOARD OF DIRECTORS

FROM: JEFF GOUVEIA, DISTRICT GENERAL MANAGER

RE: RESERVE FUNDS

BACKGROUND & DISCUSSION:

In October 2017 the Board of Directors adopted the District's *Reserve Policy* citing that a key part of the District's financial preparedness rests on sound reserve policies and that careful fiscal planning is essential to the long term, sustainable delivery of its core services.

In establishing the Policy, the Board designated the following (3) funds:

1. Sewer Operations and Maintenance (O&M) Emergency Reserve Fund
2. Sewer Capital Improvement & Replacement Program (CIP) Reserve Fund
3. Sewer System Capacity Fee Reserve Fund

The *Reserve Policy* further established that "*the year-end balance ranges and/or annual contributions will be reviewed annually during the budgeting process*." The *Sewer Capacity Fee Reserve Fund* was previously established and is fully funded at this time. However, the remaining two funds (Emergency Reserve and CIP Reserve) are currently unfunded.

In advance of the budget cycle which the Board will take up at its next meeting in June 2018, Staff have agendized this item to provide an opportunity for the Board to discuss and consider funding these two remaining funds, either in part or in full, under the guidelines established in the Reserve Policy during the upcoming budget cycle.

Staff has conferred with the District's Auditor on the matter, both for concept and approach, and the Auditor supports as well as commends the District on its effort to set aside monies in reserve for both emergency and capital improvement planning. The Auditor advised Staff to utilize the "pool" approach to account for these funds on the balance sheet in lieu of opening separate bank accounts and sees no issues with respect to reporting these funds on year- end financial statements.

RECOMMENDATION:

In coordination with the District Treasurer, staff recommends that the Board consider fully funding the Emergency Reserve Fund and the CIP Reserve Fund under the guidelines established in the District's *Reserve Policy*.

ACTION:

1. Motion to fully fund the Emergency Reserve Fund at $150,000
2. Motion to fully fund the CIP Reserve Fund at $425,000

Attachments:

- BVWD Reserve Policy (October 2017)
- District Funding Scenarios
- BVWD 5-Year Budget Projection (FY 17 – 21)

RESERVE FUND POLICY

OVERVIEW

The Bear Valley Water District (District) considers careful fiscal planning essential to the long term, sustainable delivery of its core services, specifically the collection, treatment and disposal of waste water for all of its customers as well as the careful stewardship of the public's financial and environmental assets.

The District has determined that a key part of the District's financial preparedness rests on sound reserve policies and guidelines. This policy is intended to provide for the prudent accumulation and management of designated reserve funds to achieve the District's long term financial goals.

OBJECTIVES

Managed and allocated effectively, reserves ultimately provide stakeholders a variety of benefits. In addition to financial policies established to guarantee that the District can meet the future financial requirements of customer demand and system reliability, reserve policies are also considered essential to ensure stable rates for ratepayers in the District, well-maintained public assets, emergency preparedness, capital improvement and replacement of assets, savings to balance budgets and the proper allocation of funds for the future growth and expansion of facilities.

This Reserve Fund Policy was developed to clearly identify specific designated reserve funds and govern how they will be managed. It is the intent of this Reserve Fund Policy to clearly identify types of reserve funds as well as define the purpose, target balance, use and funding mechanism of each fund. The adequacy of the target reserve year-end balance ranges and/or annual contributions will be reviewed annually during the budgeting process and may be revised accordingly as necessary.

The Board of Directors establishes the following reserve funds with this policy:

1.0 - Sewer Operations and Maintenance (O&M) Emergency Reserve Fund

2.0 - Sewer Capital Improvement & Replacement Program (CIP) Reserve Fund

3.0 - Sewer System Capacity Fee Reserve Fund

1.0 SEWER OPERATIONS AND MAINTENANCE (O&M) EMERGENCY RESERVE FUND

1.1. Fund Type: Assigned Fund (GASB 54) - The District's Assigned Fund balance classification reflects a fund that the Board of Directors intends to be used for specific purposes but is subject to neither the restricted nor committed levels of constraint bound by legislation or formal Board action. As an Assigned Fund, this lower level of constraint provides for more flexibility by the General Manager to access and utilize this fund as emergencies arise.

1.2 Purpose: To ensure cash resources are available to fund the daily administration, operation and maintenance activities necessary to provide District services in the event of unplanned major maintenance or equipment failure.

1.3. Target Balance: A minimum of three (3) months of O&M expenses to fund the District's operational expenditures during a potential emergency.

1.4. Methodology/Rationale: The District is required to have sufficient cash flow to meet the next three months of budgeted District expenditures (Government Code Section 53646(b)(3)). In addition to holding enough cash for 3 months of operating expenses, industry standards also suggest setting aside sufficient cash in anticipation of an emergency system failure to replace the most vulnerable component of your system or one that would cause the greatest disruption of service.

1.5. Use of Funds: This fund will be used to pay for unplanned, emergency O&M expenditures determined necessary by the Board and/or the General Manager.

1.6. Funding: Annual contributions will vary depending on the current balance of the fund and current year regular and emergency expenditures. The 5-year O&M expense average is approximately $600,000 suggesting an O&M emergency fund balance of a minimum of $150,000. The Agency will strive to fully fund this Reserve every year based on excess cash flow as available.

2.0 SEWER CAPITAL IMPROVEMENT PROGRAM (CIP) RESERVE FUND

2.1. Fund Type: Committed Fund (GASB 54) - The District's Committed Fund balance classification is subject to internal constraints self-imposed by formal action of the District's Board of Directors. For committed fund balances, formal action of the Board is required to establish (and modify or rescind) a commitment of fund balance.

2.2. Purpose: Fees are collected for the future replacement of existing facilities and major equipment.

2.3. Target Balance: The target balance will comprise an amount determined by the Board of Directors which considers both the District's 5-Year Capital Improvement Program (CIP) and the current total aggregate asset value as reflected in the most current depreciation schedule. The District records depreciation using the straight-line method over the estimated useful lives of facilities and equipment. The 5-Year CIP assumes replacement of capital equipment equivalent to the depreciation schedule. At a minimum, the Board should allocate to the fund enough each fiscal year to adequately fund the 5-Year CIP.

2.4. Methodology/Rationale: The Capital Improvement Program (CIP) reserve fund is for system rehabilitation, long term equipment replacement and equipment and component purchases that meet the District's Capital Assets Policy. The fee is collected through ratepayer service fees to replace District facilities and equipment as they reach the end of their useful life and also to handle unanticipated repairs during the life-cycle. A key objective for accumulating capital reserves is to minimize external borrowing and interest expenses.

2.5. Use of Funds: The CIP Reserve Fund will be used to replace facilities and equipment as necessary to continue reliable and efficient delivery of District services. The Board of Directors will authorize use of planned capital reserves during the budget process. Capital reserves are also available for unplanned (unbudgeted) capital replacement projects.

2.6. Funding: At a minimum, the target annual funding amount of the CIP Fund should reflect the approved annual budgeted depreciation amount in conjunction with the approved 5-Year CIP Plan. However, by vote of the Board of Directors, this reserve fund balance may be fully funded either at once or incrementally to provide for capital reserves sufficient to cover the District's total depreciated fixed asset position.

3.0 SEWER SYSTEM CAPACITY CHARGE RESERVE FUND

3.1. Fund Type: Restricted Fund (GASB 54) - The District's Restricted Fund balance classification reflects a fund subject to externally imposed and legally enforceable constraints which limit the District's Board to redirecting these funds to other uses or funds. The California Water Code explicitly limits public water agencies use of capacity funds collected from new customers to expanding system capacity.

3.2. Purpose: Government Code Section 66013(b)(3) does not allow us to charge new or existing customers an arbitrary amount to fund a future, undefined capacity expansion project. On the other hand, we are permitted to charge a new customer a fee that reflects an appropriate share of the historic cost of the established capacity. The amount of this fee is periodically calculated and adjusted through an engineering report that is subject to board approval. This "capacity" fee is collected from new customers and is required by law to be reserved for future capacity expansion, even if no expansion plan is in place at that time.

3.3. Target Balance: The target balance shall be set as a function of any board approved capacity enhancement plans. In the absence of any such approved plans, no specific target shall be set, but the funds shall accrue as available. At the time the District may need to expand capacity in the system, the target balance will be set at the amount as determined by the District Engineer.

3.4. Methodology/Rationale: Capacity charges are based on the capacity of the District's wastewater system to provide service to customers. Capacity charges are determined by an engineering report that establishes the basis for the charge and how it was calculated. All applicants for new or additional sewer service to the District's Sewer System shall pay a Capacity Charge as defined by Government Code Section 66013(b)(3) and District Ordinance 71 prior to issuance of a permit by the District. Capacity Charges represent the property owner's proportional capital costs associated with existing system capacity for a new sewer connection at the time of the connection. The current capacity fee calculation reflects the recommended cost for each equivalent dwelling unit (EDU) served until such time as the District reaches its current system capacity.

3.5. Use of Funds: The funds shall be used only for system capacity expansion/enhancement projects which ensure the property owner's proportional share of capacity in the system is associated with the specific capital cost for a new sewer connection at the time of the connection.

3.6. Funding: This fee is collected with each service application from a vacant parcel with the intent to connect to the wastewater system. In addition, the per new connection value of treatment and distribution capacity will be charged to all new land development projects and deposited into this account. Interest earnings will be accrued on and added to fund balance, using the District's earnings rate on investments.

	Current	Scenario 1	Scenario 2	Scenario 3	Scenario 4
		Fully Fund O&M Res Fund CIP to FY19 Dep	Fully Fund O&M Res Fund CIP to 5-Year CIP Budget	Fully Fund O&M Res Fund CIP to 5-Year CIP Budget Inlcude FY18 Net Cash Flow Proj of $23k	Fully Fund O&M Res Fund CIP to 5-Year CIP Budget Inlcude FY19 Net Cash Flow Proj of $60k
ASSETS					
Current Assets					
Checking/Savings					
Unrestricted Cash - General Operating Account	395,557.77	272,577.77	121,990.61	144,991.61	150,000.00
Restricted Cash - LAIF - CIP Reserve Fund		123,000.00	425,000.00	425,000.00	425,000.00
Unrestricted LAIF	301,432.84	151,432.84	0.00	0.00	31,990.61
Restricted LAIF - O&M Emergency Fund		150,000.00	150,000.00	150,000.00	150,000.00
Capacity Fee Reserve Fund	21,656.00	21,656.00	21,656.00	21,656.00	21,656.00
Petty Cash	50.00	50.00	50.00	50.00	50.00
Total Checking/Savings	718,696.61	718,716.61	718,696.61	741,697.61	778,696.61

Res Policy - **Section 1.4** - Sufficient Funds to meet (3) months of budgeted expenditures

Investment Policy - Objective #3 - Yield - To be considered if other basic requirements (safety, liquidity) are met

Res Policy - **Section 1.3** - A minimum of (3) months O&M Expenses - FY18 O&M Budget $603,090 (3 mos = $150,772)

Res Policy - **Section 1.3** - A minimum of (3) months O&M Expenses - FY18 O&M Budget $603,090 (3 mos = $150,772)

Res Policy - **Section 2.3, 2.6** - Target balance to consider 5-Year CIP; Minimum to be annual budgeted depreciation amount

Bear Valley Water District Financial Year 2017-18 + 5 Year Budget Forecast	BUDGET FY 16 - 17	% DIFF PREV YEAR	BUDGET FY 17 - 18	% DIFF PREV YEAR	BUDGET FY 18 - 19	% DIFF PREV YEAR	BUDGET FY 19 - 20	% DIFF PREV YEAR	BUDGET FY 20 - 21	% DIFF PREV YEAR	5 YR Total
REVENUES											
Residential	591,000	79.54%	589,000		589,000		589,000		589,000		
Commercial	152,000	20.46%	190,000		190,000		190,000		190,000		
Subtotal Operating Revenue	**743,000**	**-0.24%**	**779,000**	**4.62%**	**779,000**	**0.00%**	**779,000**	**0.00%**	**779,000**	**0.00%**	**$3,859,000**
EXPENSES											
Salaries and Benefits	289,284	6.62%	325,776	11.20%	348,492	6.52%	361,415	3.58%	376,363	3.97%	
Director Expenses - Meetings, Elections, Training	8,500		3,000		3,000		3,000		3,000		
Operator Education, Training & Certifications	1,000		1,500		1,500		1,500		1,500		
Gas, Diesel, Oil & Filters	13,000		3,000		3,000		3,000		3,000		
Insurance	22,000		22,500		23,500		23,500		23,500		
Memberships & Conferences	5,000		5,500		5,500		5,500		5,500		
Office Expenses & Supplies	10,000		10,000		10,000		10,000		10,000		
Field Expenses & Supplies	15,000		18,000		18,000		18,000		18,000		
Grooming, Snow Removal & Vehicle Storage	2,500		3,500		3,500		3,500		3,500		
General Engineering & Consulting	15,000		5,000		5,000		5,000		5,000		
General Legal & Accounting	10,000		10,000		10,000		10,000		10,000		
Equipment Rental	18,000		600		600		600		600		
Repairs & Maintenance	61,200		78,214		60,000		60,000		60,000		
Laboratory Fees	21,000		25,000		25,000		25,000		25,000		
Regulatory Reporting & Compliance Projects	7,000		6,500		26,500		6,500		6,500		
Taxes, Fees, Licenses & Assessments	30,000		30,000		30,000		30,000		30,000		
Utilities	55,000		55,000		55,000		55,000		55,000		
Subtotal Operating Expenses	**583,484**	**5.30%**	**603,090**	**3.25%**	**628,592**	**4.06%**	**621,515**	**-1.14%**	**636,463**	**2.35%**	**$614,629**
Net Operational Income	**159,516**		**175,910**		**150,408**		**157,485**		**142,537**		**$785,856**
OTHER REVENUE											
Interest Income - LAIF	500		2,000		2,000		2,000		2,000		
Late Fees, Penalties & Interest	10,000		10,000		10,000		10,000		10,000		
Expense Reimbursements - USFS	2,384		3,863		3,863		3,863		3,863		
Expense Reimbursements - Concessionnairre	4,439		5,290		5,290		5,290		5,290		
Connection Fees (Incl Application & Inspection Fees)	0		0		0		0		0		
Subtotal Other Revenue	**17,323**		**21,152**		**21,153**		**21,153**		**21,153**		
OTHER EXPENSES											
Loan Interest	20,156		18,809		17,203		15,680		14,011		
Depreciation	96,348		114,223		123,451		122,551		120,601		
Subtotal Other Expenses	**116,504**		**133,032**		**140,654**		**138,231**		**134,612**		
Net Other Income	**(99,181)**		**(111,880)**		**(119,501)**		**(117,078)**		**(113,459)**		
NET INCOME	**60,335**		**64,031**		**30,907**		**40,407**		**29,078**		**$224,757**
NON-CASH EXPENDITURES (included in net income)											
Depreciation	96,348		114,223		123,451		122,551		120,601		
Subtotal Non-Cash Expenses	96,348		114,223		123,451		122,551		120,601		
CASH EXPENDITURES (Not Included in net income)											
Capital Improvements / Replacements	(66,500)		(117,500)		(55,000)		(50,000)		(34,000)		**(423,000)**
Loan Payments - Principal	(36,182)		(37,629)		(39,134)		(40,657)		(42,326)		
Subtotal Addl Cash Expenses	(102,682)		(155,129)		(94,134)		(90,657)		(76,326)		
NET CASH FLOW	**54,001**		**23,125**		**60,224**		**72,301**		**73,353**		**$283,003**
Debt/Coverage Ratio - Loan Covenants - 1.25 or Greater	**4.330**		**4.737**		**3.944**		**4.008**		**3.536**		

AGENDA ITEM

DATE: APRIL 9, 2018

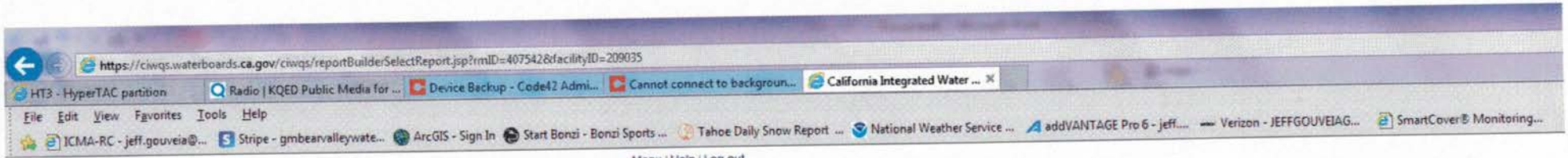
TO: BVWD BOARD OF DIRECTORS

FROM: JEFF GOUVEIA, DISTRICT GENERAL MANAGER

RE: MONTHLY OPERATIONS REPORT

---

1. Collections, Treatment & Disposal Operations - Update
    a. Flows - Influent Flows & Pond Transfers
    a. Volumes - Storage, Capacity & Disposal
2. Permit Compliance & Monitoring & Reporting Programs (MRPs) - Update
    a. WDR MRP - Land Discharge Permit – Compliance & Reporting Update
        i. Reporting Status Matrix – All Reporting Submitted On-Time
    b. NPDES MRP – Surface Water Discharge Permit – Compliance & Reporting Update
        i. Reporting Status Matrix – All Reporting Submitted On-Time
        ii. Self-Monitoring Report Review – March 8, 2018 - No Violations / Annual Report Submitted
        iii. Central Valley Board – New Director – Patrick Pulupa
3. Other
    a. Department of Water Resources – March 8
        i. Notification of Annual Fee Increases
        ii. California Dam Safety Program
    b. Web Site Update



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SMR / DMR Reporting

Facility Name: Bear Valley WWTF
Water Board Office: Region 5S - Sacramento
Reporting Level: Level II

Order Number: R5-2016-0045-01
Case Worker: Mohammad Farhad
All Electronic Date: 08/01/2016

To review or submit a report, select it from the list below. To change the list of reports, check the status types and/or enter start and end dates.

Show reports that meet these criteria

Status:

- ☑ Submitted - report was already submitted to water board
- ☑ In-Progress - report has been edited but not submitted
- ☑ Past Due - report deadline has passed and report has not been submitted
- ☑ Future - report due date is in the future
- ☑ Withdrawn - report has been withdrawn

Show Report Due Between: 10/02/2017 and 10/02/2018

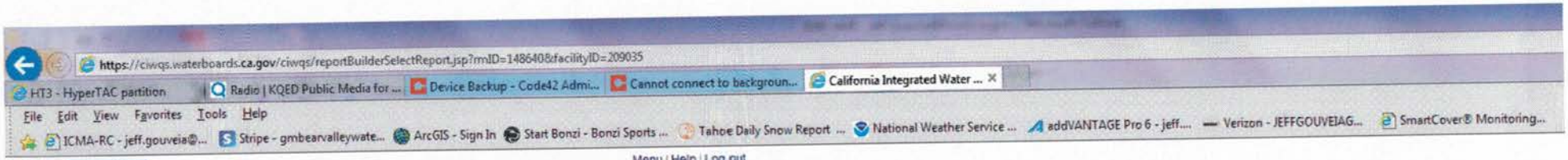
Refresh List | Show Calendar Year

Export to Excel **Show:** 100

Previous 1-14 of 14 Next

Search results:

ID	Report Name	Type	Frequency	Reporting Period	Due Date	Status	Date Received	Date Reviewed	Certified Violations	Report	Withdrawal
1894788	March 2018	MONNPDES	Monthly	03/01/2018 - 03/31/2018	05/01/2018	Future			No		
1894789	April 2018	MONNPDES	Monthly	04/01/2018 - 04/30/2018	06/01/2018	Future			No		
1894790	May 2018	MONNPDES	Monthly	05/01/2018 - 05/31/2018	07/01/2018	Future			No		
1894791	June 2018	MONNPDES	Monthly	06/01/2018 - 06/30/2018	08/01/2018	Future			No		
1894792	July 2018	MONNPDES	Monthly	07/01/2018 - 07/31/2018	09/01/2018	Future			No		
1894793	August 2018	MONNPDES	Monthly	08/01/2018 - 08/31/2018	10/01/2018	Future			No		
1894781	September 2017	MONNPDES	Monthly	09/01/2017 - 09/30/2017	11/01/2017	Submitted	10/25/2017	03/06/2018	No	Download Report	
1894782	October 2017	MONNPDES	Monthly	10/01/2017 - 10/31/2017	12/01/2017	Submitted	11/27/2017	03/06/2018	No	Download Report	
1894783	November 2017	MONNPDES	Monthly	11/01/2017 - 11/30/2017	01/01/2018	Submitted	12/19/2017	03/06/2018	No	Download Report	
1973962	2018/01/30 (Tech Rpt IX.D.4)	TECHRPT	Once	01/30/2018 - 01/30/2018	01/30/2018	Submitted	01/30/2018	03/06/2018	No	Download Report	
1894784	December 2017	MONNPDES	Monthly	12/01/2017 - 12/31/2017	02/01/2018	Submitted	01/29/2018	03/06/2018	No	Download Report	
1894785	2017	MONNPDES	Annual	01/01/2017 - 12/31/2017	02/01/2018	Submitted	01/30/2018	03/06/2018	No	Download Report	
1894786	January 2018	MONNPDES	Monthly	01/01/2018 - 01/31/2018	03/01/2018	Submitted	02/22/2018	03/06/2018	No	Download Report	
1894787	February 2018	MONNPDES	Monthly	02/01/2018 - 02/28/2018	04/01/2018	Submitted	03/22/2018		No	Download Report	



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SMR / DMR Reporting

Facility Name: Bear Valley WWTF
Water Board Office: Region 5S - Sacramento
Reporting Level: Level I

Order Number: R5-2001-0208
Case Worker: Kenny Croyle

To review or submit a report, select it from the list below. To change the list of reports, check the status types and/or enter start and end dates.

Show reports that meet these criteria

Status:

- ☑ Submitted - report was already submitted to water board
- ☑ In-Progress - report has been edited but not submitted
- ☑ Past Due - report deadline has passed and report has not been submitted
- ☑ Future - report due date is in the future
- ☑ Withdrawn - report has been withdrawn

Show Report Due Between: 10/02/2017 and 10/02/2018

Refresh List | Show Calendar Year

Export to Excel **Show:** 100

Search results: Previous 1-12 of 12 Next

ID	Report Name	Type	Frequency	Reporting Period	Due Date	Status	Date Received	Date Reviewed	Certified Violations
2015248	January 2018	MONRPT	Monthly	01/01/2018 - 01/31/2018	03/01/2018	Past Due			No
2040873	March 2018	MONRPT	Monthly	03/01/2018 - 03/31/2018	05/01/2018	Future			No
2048795	April 2018	MONRPT	Monthly	04/01/2018 - 04/30/2018	06/01/2018	Future			No
2048796	Q1 2018 (3 times per year)	GR_WATER	Quarterly	04/01/2018 - 07/31/2018	09/01/2018	Future			No
1960281	Q2 2017 (3 times per year)	GR_WATER	Quarterly	08/01/2017 - 09/30/2017	11/01/2017	Submitted	10/30/2017		No
1971077	September 2017	MONRPT	Monthly	09/01/2017 - 09/30/2017	11/01/2017	Submitted	10/25/2017		No
1980289	October 2017	MONRPT	Monthly	10/01/2017 - 10/31/2017	12/01/2017	Submitted	11/27/2017		No
1992020	November 2017	MONRPT	Monthly	11/01/2017 - 11/30/2017	01/01/2018	Submitted	12/19/2017		No
1870433	2017	MONRPT	Annual	01/01/2017 - 12/31/2017	02/01/2018	Submitted	01/16/2018		No
1980290	Q3 2017 (3 times per year)	GR_WATER	Quarterly	10/01/2017 - 12/31/2017	02/01/2018	Submitted	01/16/2018		No
2005726	December 2017	MONRPT	Monthly	12/01/2017 - 12/31/2017	02/01/2018	Submitted	01/29/2018		No
2031319	February 2018	MONRPT	Monthly	02/01/2018 - 02/28/2018	04/01/2018	Submitted	03/22/2018		No

RECEIVED MAR 1 2 2018

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

CALIFORNIA
Water Boards

Central Valley Regional Water Quality Control Board

8 March 2018

Jeff Gouveia
General Manager
Bear Valley Water District
P.O. Box 5027
Bear Valley, CA 95223

SELF-MONITORING REPORT REVIEW, BEAR VALLEY WATER DISTRICT, BEAR VALLEY WASTEWATER TREATMENT FACILITY, ALPINE COUNTY

The Bear Valley Water District (Discharger) discharges treated wastewater from the Bear Valley Wastewater Treatment Facility (Facility), which is regulated by surface water discharge permit Waste Discharge Requirements (Surface Water WDRs) Order R5-2016-0045 (NPDES CA0085146) and land discharge permit WDRs (Land Discharge WDRs) Order 5-01-208. The Monitoring and Reporting Program (MRP) of the WDRs requires monitoring for constituents and other parameters and specifies the location and frequency of monitoring. Central Valley Water Board staff has reviewed the electronic self-monitoring reports (eSMRs) for the Surface Water WDRs submitted by the Discharger for the **December 2017, Annual 2017**, and **January 2018** monitoring periods.

No discharge to surface water occurred during the period reviewed under cover of this letter. No violations of the Surface Water WDRs or MRP were identified from review of the eSMRs.

Submittal Required by Surface Water WDRs

The following annual report listed in Table A was required by WDRs R5-2016-0045 during the period reviewed under cover of this letter. The next report required is the *2018 Annual Operations Report,* which is due 30 January 2019.

Table A. Submittal Required by the WDRs

Report	Due Date	Date Submitted
2017 Annual Operations Report	1/30/2018	1/30/2018

If you have any questions, please contact Mohammad Farhad at (916) 464-1181 or Mohammad.Farhad@waterboards.ca.gov.

KARI HOLMES, P.E.
Senior Water Resource Control Engineer
NPDES/Storm Water Compliance and Enforcement Unit

Media Release

Central Valley Regional Water Quality Control Board
http://www.waterboards.ca.gov/centralvalley

Central Valley Water Board Names Patrick Pulupa as New Executive Officer

FOR IMMEDIATE RELEASE
Feb. 8, 2018

Contact: Miryam Barajas
Phone: (916) 341-5253

The Central Valley Regional Water Quality Control Board has selected Patrick Pulupa as its next executive officer. Starting March 1, Pulupa will work alongside Pamela Creedon, the Central Valley Water Board's current executive officer, during a three-month transition period until her retirement on June 1.

"Our Board unanimously chose an outstanding candidate to fill the position of executive officer to carry forward the important work of protecting and improving water quality in the Central Valley Water Region," said Central Valley Water Board Chair Karl Longley.

Pulupa, the Central Valley Water Board's legal counsel since 2007, has provided legal advice and representation to the Central Valley Water Board in all matters associated with water quality regulation. Pulupa's comprehensive background in the Water Board's 20 core programs will serve him and the board well in addressing a myriad of Central Valley water quality issues.

In addition, Pulupa has extensive experience in the Board's new programs. These include the CV-SALTs program, a region-wide salt and nitrate management plan; an oil fields regulatory program; a cannabis regulatory program; agricultural regulatory programs and drinking water quality. These programs affect stakeholders throughout the region and beyond.

Pulupa has strong working relationships with the wide variety of stakeholders that are affected by the Board's regulatory decisions and will continue to foster the trust and collaboration that are an integral part of the Board's work.

Of the state's nine regional water boards, the Central Valley Water Board has the largest jurisdictional area, covering approximately 40 percent of the state. Thirty-eight of California's 58 counties are either completely or partially within the Central Valley Water Board's boundaries. Surface water sources under the Central Valley Water Board's jurisdiction supply drinking water to more than 23 million people, and irrigation water for more than three million acres of farmland. Groundwater regulated by the Central Valley Water Board accounts for almost 50 percent of the private and public drinking-water supply in the Central Valley.

The Central Valley Water Board has a staff of 262 employees located in three offices and an annual operating budget of more than $38 million. Executive, management, technical, scientist and administrative staff for the Central Valley Water Board are located in three offices: Sacramento, Redding and Fresno. The executive officer is located in the Sacramento branch and works with five assistant executive officers located in each of the three offices to manage staff.

###

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

EDMUND G. BROWN JR., *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

March 8, 2018

SUBJECT: Notification of Annual Fee Increases in Fiscal Year 2018/2019
California Dam Safety Program

The Department of Water Resources, Division of Safety of Dams (DSOD) remains committed to its mission of protecting the public through the regulation of dam safety in the most cost-effective manner. California's Dam Safety Program (Program) is funded solely through annual fees and application filing fees. Revenues collected from dam fees are used entirely to support the Program. As a dam owner, you play a key role in dam safety by maintaining, repairing, and operating your dam in a safe and proper manner and through your support of this Program.

Consistent with the Governor's four-point plan to bolster dam safety in California, we are completing a five-year analysis of our estimated operating expenses and the fees required to adequately support the Program. Over the last 10 years, fee increases have averaged 4.2% annually; however, with the recent program expansion and additional regulatory oversight required statewide, additional fee increases may be required over the next five years.

Recent legislation directed/authorized DSOD to adopt through emergency regulations a revised schedule of fees to be effective in Fiscal Year 2018/2019. Components of the proposed fee schedule will still be a flat fee per dam and a fee based on a per foot basis.

We appreciate your cooperation as we move through the rulemaking process and will keep you informed of opportunities to comment on the proposed regulation. If you have any questions, you may call Andrew Mangney, Field Engineering Branch Chief, at (916) 227-9800.

Sincerely,

Sharon K. Tapia

Sharon K. Tapia, Chief
Division of Safety of Dams

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

EDMUND G. BROWN JR., *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

March 8, 2018

NOTICE OF PROPOSED EMERGENCY REGULATORY ACTION

Subject: Annual Fees

The California Department of Water Resources (Department) proposes this emergency rulemaking action under the Administrative Procedure Act (APA) to adopt regulations that detail a schedule of fees to cover the Department's reasonable budgetary costs in carrying out the supervision of dam safety. These emergency regulations set forth the Department's method for determining this schedule of fees. Specifically, the Department is proposing a fee schedule based on specified terms and equations; moreover, this fee schedule process is similar to fee schedules adopted by other State regulatory agencies subject to variable revenue swings. As part of this process, a standardized method will define how the annual fee revenue will be determined; how the Department will adjust the fee each year to account for the over-collection or under-collection of revenue; and how the annual fee will be calculated. The Department proposes these emergency regulations for adoption into California Code of Regulations, Title 23, Division 2, Chapter 1, Article 3.

Under the APA, Government Code Section 11346.1, Subdivision (a)(2), requires that, at least five working days prior to submission of the proposed emergency action to the Office of Administrative Law (OAL), the adopting agency provide a notice of the proposed emergency action to every person who has filed a request for notice of regulatory action with the agency. After submission of the proposed emergency regulations to OAL, it shall allow interested persons five (5) calendar days to submit comments on the proposed emergency regulations as set forth in Government Code Section 11349.6. Upon submission, OAL will have ten (10) calendar days within which to review and decide on the proposed emergency regulations. The emergency regulations will become effective when OAL files the regulations with the Secretary of State.

The specific language of the Department's proposed emergency regulations and Finding of Emergency are posted on the Department's website at: www.water.ca.gov/damsafety.

If you have any questions regarding this proposed emergency action, please contact Michael Waggoner, Assistant Chief, Field Engineering Branch, Division of Safety of Dams, Department of Water Resources, at (916) 227-9800.