



Yucaipa Valley Water District

12770 Second Street, Yucaipa, California 92399 Phone: (909) 797-5117

Notice and Agenda of a Meeting of the Board of Directors

Tuesday, May 26, 2020 at 4:00 p.m.

Due to the spread of COVID-19 and in accordance with the Governor's Executive Order N-29-20 (a copy of which is attached to this agenda), the Yucaipa Valley Water District will be conducting this meeting by teleconference only. Public comments on matters listed on the agenda or on any matter within the District's jurisdiction will be received during Public Comments, Agenda Item No. III.

**This meeting is available by calling
(888) 475-4499 using passcode 676-950-731#**

**View live presentation material at
<https://zoom.us/j/676950731> ([Click here](#))**

There will be no public physical location for attending this meeting in person. The District's Board meeting room will be closed to the public until further notice.

If you are unable to participate by telephone, you may submit comments and/or questions in writing for the Board's consideration by sending them to inquiry@yvwd.us. Submit your written inquiry prior to the start of the meeting. All public comments received prior to the start of the meeting will be provided to the Board and may be read into the record or compiled as part of the record.

- I. CALL TO ORDER**
- II. ROLL CALL**
- III. PUBLIC COMMENTS** - At this time, members of the public may briefly address the Board of Directors on matters within its jurisdiction or on any matter listed on this agenda.

Any person who requires accommodation to participate in this meeting should contact the District office at (909) 797-5117, at least 48 hours prior to the meeting to request a disability-related modification or accommodation.

Materials that are provided to the Board of Directors after the meeting packet is compiled and distributed will be made available for public review during normal business hours at the District office located at 12770 Second Street, Yucaipa. Meeting materials are also available on the District's website at www.yvwd.dst.ca.us

IV. CONSENT CALENDAR - All consent calendar matters are routine and will be acted upon in one motion. There will be no discussion of these items unless board members, administrative staff, or members of the public request specific items to be discussed and/or removed prior to the vote for approval.

- A. Minutes of Meetings
 - 1. Board Meeting - May 19, 2020

V. STAFF REPORT

- A. Status Report Regarding the Proclamation of a Local Emergency Related to the Coronavirus and COVID-19 in the Yucaipa Valley Water District Service Area within the Counties of Riverside and San Bernardino [[Director Memorandum No. 20-077 - Page 15 of 119](#)]

RECOMMENDED ACTION: Pending

- B. Overview of a Revised Policy for Members of the Board of Directors Regarding Expense Reimbursement, Meeting Attendance, Compensation, and Benefits [[Director Memorandum No. 20-078 - Page 56 of 119](#)]

RECOMMENDED ACTION: That the Board adopts Resolution No. 2020-26.

- C. Consideration of Resolution No. 2020-27 Updating the Authorized Signatories for Bank of America Accounts [[Director Memorandum No. 20-079 - Page 66 of 119](#)]

RECOMMENDED ACTION: That the Board approve Resolution No. 2020-27.

- D. Discussion Regarding the Review of Statement of Facts Required by Government Code Section 53051 [[Director Memorandum No. 20-080 - Page 68 of 119](#)]

RECOMMENDED ACTION: That the Board authorizes the General Manager to file the Updated Statement of Facts.

- E. Identification and Declaration of Bad Debt for Calendar Year 2018 [[Director Memorandum No. 20-081 - Page 71 of 119](#)]

RECOMMENDED ACTION: That the Board authorizes the District staff to declare bad debt for Calendar Year 2018 in the amount of \$12,121.87.

- F. Authorization to Destroy Various Documents and Files Pursuant to the District's Record Retention Policy [[Director Memorandum No. 20-082 - Page 72 of 119](#)]

RECOMMENDED ACTION: That the Board authorizes the District staff to proceed with the destruction of various documents and records pursuant to District policy.

- G. Overview of the Energy Resiliency Project and the Self-Generation Incentive Program [[Director Memorandum No. 20-083 - Page 88 of 119](#)]

RECOMMENDED ACTION: That the Board authorize the General Manager to execute an agreement with Southern California Edison's Self-Generation Incentive Program for a sum not to exceed \$290,000.

- H. Status Report of the Replacement of the Drinking Water Reservoir R-16.6 - Calimesa [[Director Memorandum No. 20-084 - Page 90 of 119](#)]

RECOMMENDED ACTION: Staff Presentation - No Action Required.

- I. Authorization to Proceed with the Final Design of the R-16.2 Drinking Water Storage and Distribution Facility [[Director Memorandum No. 20-085 - Page 94 of 119](#)]

RECOMMENDED ACTION: That the Board authorize Krieger and Stewart to initiate the design of infrastructure for a sum not to exceed \$185,700.

- J. Appointment of a Primary and Alternate Representative to the San Bernardino Valley Municipal Water District's Advisory Commission on Water Policy [[Director Memorandum No. 20-086 - Page 107 of 119](#)]

RECOMMENDED ACTION: That by minute order, the Board appoint a primary and alternate elected official to the Advisory Commission on Water Policy.

- K. Appointment of a Primary and Alternate Representative to the City of Yucaipa Economic Development Advisory Committee [[Director Memorandum No. 20-087 - Page 108 of 119](#)]
RECOMMENDED ACTION: That by minute order, the Board appoint a primary and alternate elected official to the City of Yucaipa Economic Development Advisory Committee.
- L. Reorganization of the Officers of the Board of Directors - Vice President [[Director Memorandum No. 20-088 - Page 109 of 119](#)]
RECOMMENDED ACTION: That the Board nominate and select a Vice-President and adopt Resolution No. 2020-28 confirming the election results.

VI. BOARD REPORTS & DIRECTOR COMMENTS

VII. ANNOUNCEMENTS

- A. June 2, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**
B. June 9, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**
C. June 16, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**
D. June 23, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**
E. June 30, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**
F. July 7, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**
G. July 14, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**
H. July 21, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**
I. July 28, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**
J. August 4, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**
K. August 11, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**
L. August 18, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**
M. August 25, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**
N. September 1, 2020 at 4:00 p.m. - Board Meeting - **Teleconference Only**

VIII. CLOSED SESSION

- A. Conference with Real Property Negotiator(s) - Government Code 54956.8
Property: Assessor's Parcel Number: 0319-121-38
Agency Negotiator: Joseph Zoba, General Manager
Negotiating Parties: Harry Holdorff
Under Negotiation: Terms of Payment and Price
- B. Conference with Real Property Negotiator(s) - Government Code 54956.8
Property: Overlying Water Rights in the Beaumont Basin
Agency Negotiator: Joseph Zoba, General Manager
Negotiating Parties: Oak Valley Development Company
Under Negotiation: Terms of Payment and Price
- C. Conference with Legal Counsel - Anticipated Litigation (Government Code 54956.9(d)(2) & (4)) - One Case

IX. ADJOURNMENT

**EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA**

EXECUTIVE ORDER N-29-20

WHEREAS on March 4, 2020, I proclaimed a State of Emergency to exist in California as a result of the threat of COVID-19; and

WHEREAS despite sustained efforts, the virus continues to spread and is impacting nearly all sectors of California; and

WHEREAS the threat of COVID-19 has resulted in serious and ongoing economic harms, in particular to some of the most vulnerable Californians; and

WHEREAS time bound eligibility redeterminations are required for Medi-Cal, CalFresh, CalWORKs, Cash Assistance Program for Immigrants, California Food Assistance Program, and In Home Supportive Services beneficiaries to continue their benefits, in accordance with processes established by the Department of Social Services, the Department of Health Care Services, and the Federal Government; and

WHEREAS social distancing recommendations or Orders as well as a statewide imperative for critical employees to focus on health needs may prevent Medi-Cal, CalFresh, CalWORKs, Cash Assistance Program for Immigrants, California Food Assistance Program, and In Home Supportive Services beneficiaries from obtaining in-person eligibility redeterminations; and

WHEREAS under the provisions of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this order would prevent, hinder, or delay appropriate actions to prevent and mitigate the effects of the COVID-19 pandemic.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes of the State of California, and in particular, Government Code sections 8567 and 8571, do hereby issue the following order to become effective immediately:

IT IS HEREBY ORDERED THAT:

1. As to individuals currently eligible for benefits under Medi-Cal, CalFresh, CalWORKs, the Cash Assistance Program for Immigrants, the California Food Assistance Program, or In Home Supportive Services benefits, and to the extent necessary to allow such individuals to maintain eligibility for such benefits, any state law, including but not limited to California Code of Regulations, Title 22, section 50189(a) and Welfare and Institutions Code sections 18940 and 11265, that would require redetermination of such benefits is suspended for a period of 90 days from the date of this Order. This Order shall be construed to be consistent with applicable federal laws, including but not limited to Code of Federal Regulations, Title 42, section 435.912, subdivision (e), as interpreted by the Centers for Medicare and Medicaid Services (in guidance issued on January 30, 2018) to permit the extension of

otherwise-applicable Medicaid time limits in emergency situations.

2. Through June 17, 2020, any month or partial month in which California Work Opportunity and Responsibility to Kids (CalWORKs) aid or services are received pursuant to Welfare and Institutions Code Section 11200 et seq. shall not be counted for purposes of the 48-month time limit set forth in Welfare and Institutions Code Section 11454. Any waiver of this time limit shall not be applied if it will exceed the federal time limits set forth in Code of Federal Regulations, Title 45, section 264.1.
3. Paragraph 11 of Executive Order N-25-20 (March 12, 2020) is withdrawn and superseded by the following text:

Notwithstanding any other provision of state or local law (including, but not limited to, the Bagley-Keene Act or the Brown Act), and subject to the notice and accessibility requirements set forth below, a local legislative body or state body is authorized to hold public meetings via teleconferencing and to make public meetings accessible telephonically or otherwise electronically to all members of the public seeking to observe and to address the local legislative body or state body. All requirements in both the Bagley-Keene Act and the Brown Act expressly or impliedly requiring the physical presence of members, the clerk or other personnel of the body, or of the public as a condition of participation in or quorum for a public meeting are hereby waived.

In particular, any otherwise-applicable requirements that

- (i) state and local bodies notice each teleconference location from which a member will be participating in a public meeting;
- (ii) each teleconference location be accessible to the public;
- (iii) members of the public may address the body at each teleconference conference location;
- (iv) state and local bodies post agendas at all teleconference locations;
- (v) at least one member of the state body be physically present at the location specified in the notice of the meeting; and
- (vi) during teleconference meetings, at least a quorum of the members of the local body participate from locations within the boundaries of the territory over which the local body exercises jurisdiction

are hereby suspended.

A local legislative body or state body that holds a meeting via teleconferencing and allows members of the public to observe and address the meeting telephonically or otherwise electronically, consistent with the notice and accessibility requirements set forth below, shall have satisfied any requirement that the body allow

members of the public to attend the meeting and offer public comment. Such a body need not make available any physical location from which members of the public may observe the meeting and offer public comment.

Accessibility Requirements: If a local legislative body or state body holds a meeting via teleconferencing and allows members of the public to observe and address the meeting telephonically or otherwise electronically, the body shall also:

- (i) Implement a procedure for receiving and swiftly resolving requests for reasonable modification or accommodation from individuals with disabilities, consistent with the Americans with Disabilities Act and resolving any doubt whatsoever in favor of accessibility; and
- (ii) Advertise that procedure each time notice is given of the means by which members of the public may observe the meeting and offer public comment, pursuant to subparagraph (ii) of the Notice Requirements below.

Notice Requirements: Except to the extent this Order expressly provides otherwise, each local legislative body and state body shall:

- (i) Give advance notice of the time of, and post the agenda for, each public meeting according to the timeframes otherwise prescribed by the Bagley-Keene Act or the Brown Act, and using the means otherwise prescribed by the Bagley-Keene Act or the Brown Act, as applicable; and
- (ii) In each instance in which notice of the time of the meeting is otherwise given or the agenda for the meeting is otherwise posted, also give notice of the means by which members of the public may observe the meeting and offer public comment. As to any instance in which there is a change in such means of public observation and comment, or any instance prior to the issuance of this Order in which the time of the meeting has been noticed or the agenda for the meeting has been posted without also including notice of such means, a body may satisfy this requirement by advertising such means using "the most rapid means of communication available at the time" within the meaning of Government Code, section 54954, subdivision (e); this shall include, but need not be limited to, posting such means on the body's Internet website.

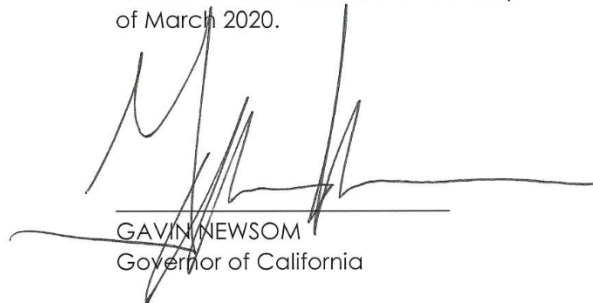
All of the foregoing provisions concerning the conduct of public meetings shall apply only during the period in which state or local public health officials have imposed or recommended social distancing measures.

All state and local bodies are urged to use sound discretion and to make reasonable efforts to adhere as closely as reasonably possible to the provisions of the Bagley-Keene Act and the Brown Act, and other applicable local laws regulating the conduct of public meetings, in order to maximize transparency and provide the public access to their meetings.

IT IS FURTHER ORDERED that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Order.

This Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

IN WITNESS WHEREOF I have
hereunto set my hand and caused
the Great Seal of the State of
California to be affixed this 17th day
of March 2020.



GAVIN NEWSOM
Governor of California

Consent Calendar



Yucaipa Valley Water District

MINUTES OF A BOARD MEETING - TELECONFERENCE

May 19, 2020 at 4:00 P.M.

Directors Present:

Chris Mann, President
Jay Bogh, Director
Lonni Granlund, Director
Joyce McIntire, Director

Staff Present:

Jennifer Ares, Water Resource Manager
Madeline Blua, Water Resource Specialist
Allison Edmisten, Chief Financial Officer
Chelsie Fogus, Administrative Assistant I
Ashley Gibson, Regulatory Compliance Manager
Kathryn Hallberg, Implementation Manager
Dustin Hochreiter, Senior Engineering Technician
Tim Mackamul, Operations Manager
Matthew Porras, Implementation Manager
Mike Rivera, Public Works Supervisor
Charles Thomas, Operations Manager
John Wrobel, Public Works Manager
Joseph Zoba, General Manager

Directors Absent:

None

Consulting Staff Present:

David Wysocki, Legal Counsel

Registered Guests and Others Present:

Bassam Alzammar
Melisa Alzammar
David Gee
Bruce Granlund
Jan Leja
Dennis Miller
George Sardeson
Ron Duncan, San Gorgonio Pass Water Agency
Leonard Stephenson, San Gorgonio Pass Water Agency

Due to the spread of COVID-19 and in accordance with the Governor's Executive Order N-29-20 (a copy of which was attached to the meeting agenda), the Yucaipa Valley Water District conducted this meeting by teleconference.

The meeting was available to the public by calling (888) 475-4499 using passcode 676-950-731 and live presentation material was available at <https://zoom.us/j/676950731>.

CALL TO ORDER

The regular meeting of the Board of Directors of the Yucaipa Valley Water District was called to order by Chris Mann at 4:00 p.m.

ROLL CALL

The roll was called and Director Jay Bogh, Director Lonni Granlund, Director Chris Mann, and Director Joyce McIntire were present.

PUBLIC COMMENTS

George Sardeson requested to provide comments during agenda item V.A. Appointment of a Director to the Yucaipa Valley Water District Board of Directors - Division 2.

CONSENT CALENDAR

Director Lonni Granlund moved to approve the consent calendar and Director Jay Bogh seconded the motion.

- A. Minutes of Meetings
 - 1. Board Meeting - May 12, 2020
- B. Payment of Bills
 - 1. Approve/Ratify Invoices for Board Awarded Contracts
 - 2. Ratify General Expenses for April 2020

The motion was approved by the following vote:

Director Jay Bogh - Yes
Director Lonni Granlund - Yes
Director Chris Mann - Yes
Director Joyce McIntire - Yes

STAFF REPORT

A staff report was not provided at this meeting.

DISCUSSION ITEMS:

DM 20-076

APPOINTMENT OF A
DIRECTOR TO THE
YUCAIPA VALLEY
WATER DISTRICT
BOARD OF DIRECTORS
- DIVISION 2

Director Chris Mann welcomed the four applicants that applied for the position of Director for Division 2: David Gee, Bassam Alzammar, Jan Leja, and Dennis Miller.

Director Chris Mann then discussed the format of the appointment process which included:

- Presentation by General Manager Joseph Zoba;
- Random selection of applicant order for statements and questions by board members;
- Statements by each applicant;
- Board member questions of applicant;
- Public comments; and
- Board of Director open deliberation and selection.

General Manager Joseph Zoba provided an overview of the resignation of the board member seat by Director Bruce Granlund and the process taken by the District to meet the requirements of Government Code Section 1780.

Legal Counsel randomly selected the order of candidates to be:

- David Gee;
- Bassam Alzammar;
- Jan Leja; and
- Dennis Miller.

Applicant David Gee provided an opening statement and then responded to questions by the Board of Directors.

Applicant Bassam Alzammar provided an opening statement and then responded to questions by the Board of Directors.

Applicant Jan Leja provided an opening statement and then responded to questions by the Board of Directors.

Applicant Dennis Miller provided an opening statement and then responded to questions by the Board of Directors.

Prior to opening the meeting to public comments, Director Chris Mann stated that a letter from Diane Smith was received in support of David Gee, and an email from Steve Ledbetter was received in support of Bassam Alzammar.

Director Chris Mann opened the meeting to public comments. A public comment was received from George Sardeson and another resident in support of Bassam Alzammar.

After receiving information from the applicants and the public, the members of the Board of Directors conducted an open deliberation of the applicants.

Following discussions by each member of the Board of Directors, Director Lonni Granlund moved to appoint Dennis Miller to the Board of Directors for Division 2.

Director Joyce McIntire seconded the motion.

The motion was approved by the following vote:

Director Jay Bogh - No
Director Lonni Granlund - Yes
Director Chris Mann - Yes
Director Joyce McIntire - Yes

General Manager Joseph Zoba administered the Oath of Office to Dennis Miller as the newly appointed member of the Yucaipa Valley Water District Board of Directors.

BOARD REPORTS AND
DIRECTOR COMMENTS

Director Joyce McIntire reported on the Beaumont Cherry Valley Water District board meeting held on May 11, 2020.

Director Joyce McIntire and Director Chris Mann reported on the San Gorgonio Pass Water Agency board meeting held on May 18, 2020.

ANNOUNCEMENTS

Director Chris Mann called attention to the announcements listed on the agenda.

CLOSED SESSION

A closed session conference was not conducted at this meeting.

ADJOURNMENT

The meeting was adjourned at 5:40 p.m.

Respectfully submitted,

Joseph B. Zoba, Secretary

(Seal)

Staff Report



Yucaipa Valley Water District

Discussion Items



Yucaipa Valley Water District



Date: May 26, 2020

Prepared By: Joseph B. Zoba, General Manager

Subject: Status Report Regarding the Proclamation of a Local Emergency Related to the Coronavirus and COVID-19 in the Yucaipa Valley Water District Service Area within the Counties of Riverside and San Bernardino

Recommendation: Pending

The Centers for Disease Control and Prevention (CDC) is responding to an outbreak of respiratory disease caused by a novel (new) coronavirus that was first detected in China and has now been detected in countries throughout the world¹, including in the United States. The virus has been named “SARS-CoV-2” and the disease it causes has been named “coronavirus disease 2019” (abbreviated “COVID-19”).

In light of rising public concern over the coronavirus disease 2019 (COVID-19), the drinking water supplied by the Yucaipa Valley Water District is clean, safe, and reliable. The SARS-CoV-2 virus has no impact on the quality or supply of tap water. The use of high pressure membranes at the Yucaipa Valley Regional Water Filtration Facility and the Wochholz Regional Water Recycling Facility have been proven to be an effective additional barrier to viruses and various undesirable chemical molecules. Additionally, the Yucaipa Valley Water District uses chlorine to disinfect the water before it enters the distribution system to protect against microorganisms such as bacteria, viruses, fungus, and other micro-organisms. This ensures safe drinking water for all our customers.

The District staff constantly monitors our distribution system to ensure that there is sufficient chlorine residual and there are no bacteriological issues. We conduct thousands of water quality tests annually to ensure our drinking water meets rigorous drinking water standards. Highly-skilled District staff constantly perform analyses both on-site and send other samples to state-certified laboratories for independent validation.

In addition, the Yucaipa Valley Water District has an extensive backflow prevention program where water cannot flow back into the drinking water system from properties that may pose a contamination risk.

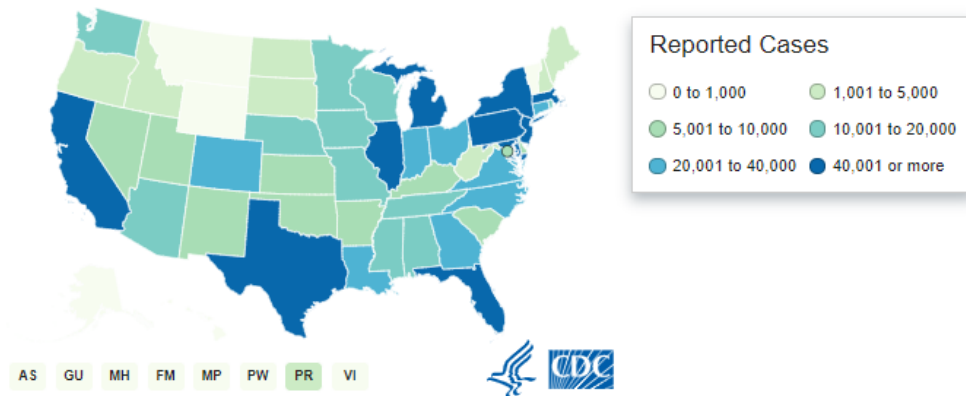
The Yucaipa Valley Water District has installed microfiltration and reverse osmosis systems that further protect drinking water and recycled water from bacteriological impacts. The recycled water supply is further protected with the use of ultraviolet disinfection and reverse osmosis membranes that are able to provide additional protections against microorganisms.

The District staff will provide an update about the current steps taken by the District to protect the safety of employees and the community we serve.

¹ Novel Coronavirus (COVID-19) Situation Summary <https://covid19.who.int/>

29 states report more than 10,000 cases of COVID-19.

This map shows COVID-19 cases and deaths reported by U.S. states, the District of Columbia, and other U.S.-affiliated jurisdictions. Hover over the map to see the number of cases and deaths reported in each jurisdiction. To go to a jurisdiction's health department website, click on the jurisdiction on the map.



2

COVID-19 in California by the Numbers

Note: The following numbers reflect information received by local health jurisdictions as of 2 p.m. PDT March 23. More current numbers may be available from [local health jurisdictions](#).

2,102 – Positive cases

40 – Deaths (including one non-California resident)

*Increase occurred over period of two days.

- 531 – Community-acquired cases
- 1,571 – Cases acquired through person-to-person transmission, travel (including cruise ship passengers), repatriation, or under investigation.
 - This includes 31 health care workers.

Ages of all confirmed positive cases:

- Age 0-17: 28 cases
- Age 18-49: 970 cases
- Age 50-64: 493 cases
- Age 65+: 449 cases
- Unknown: 162 cases

Gender of all confirmed positive cases:

- Female: 843 cases
- Male: 1,081 cases
- Unknown: 178 cases

22 – [State and county health labs](#) currently testing

3

² States Reporting Cases of COVID-19 to the CDC <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>

³ <https://www.cdph.ca.gov/Programs/OPA/Pages/NR20-32.aspx>



Coronavirus Disease 2019 (COVID-19)

Guidance for Building Water Systems

Ensure the safety of your building water system and devices after a prolonged shutdown

Updated April 22, 2020




Summary of Changes

- Updated hot tub/spa disinfection guidance (Step 5c)

Stagnant, or standing water can cause conditions that increase the risk for growth and spread of *Legionella* and other biofilm-associated bacteria. When water is stagnant, hot water temperatures can decrease to the *Legionella* growth range (77–108°F, 25–42°C). Stagnant water can also lead to low or undetectable levels of disinfectant, such as chlorine. Ensure that your water system is safe to use after a prolonged shutdown to minimize the risk of Legionnaires' disease and other diseases associated with water.

8 Steps to take before your business or building reopens

1. Develop a comprehensive water management program (WMP) for your water system and all devices that use water. Guidance to help with this process is available from CDC and others.
 - a. Water Management Program Toolkit:
This toolkit is designed to help people understand which buildings and devices need a *Legionella* water management program to reduce the risk of Legionnaires' disease, what makes a good program, and how to develop it.
<https://www.cdc.gov/legionella/wmp/toolkit/index.html>
 - b. Preventing Legionnaires' Disease: A Training on *Legionella* Water Management Programs (PreventLD Training)
Take this training from CDC and partners on creating a water management program to reduce risk of Legionnaires' disease. PreventLD Training aligns with industry standards on managing risk of *Legionella* bacteria.
<https://www.cdc.gov/nceh/ehs/elearn/prevent-LD-training.html>
 - c. Hotel Guidance:
Considerations for Hotel Owners and Managers: How to Prevent Legionnaires' Disease
<https://www.cdc.gov/legionella/wmp/hotel-owners-managers.html>
 - d. Operating Public Hot Tubs for pool staff and owners
<https://www.cdc.gov/healthywater/swimming/aquatics-professionals/operating-public-hot-tubs.html>
 - e. From Plumbing to Patients
Water management programs in healthcare facilities are an important way to help protect vulnerable patient populations as well as staff and visitors.
<https://www.cdc.gov/hai/prevent/environment/water.html>
 - f. Preventing Occupational Exposure to *Legionella*
<https://www.cdc.gov/niosh/docs/wp-solutions/2019-131/default.html>
2. Ensure your water heater is properly maintained and the temperature is correctly set
 - a. Determine if your manufacturer recommends draining the water heater after a prolonged period of disuse. Ensure that all maintenance activities are carried out according to the manufacturer's instructions or by professionals.
 - b. Make sure that your water heater is set to at least 120°F
 - c. Higher temperatures can further reduce the risk of *Legionella* growth, but ensure that you take measures to prevent scalding if your water heater is set to >130°F

3. Flush your water system
 - a. Flush hot and cold water through all points of use (e.g., showers, sink faucets)
 - i. Flushing may need to occur in segments (e.g., floors or individual rooms) due to facility size and water pressure. The purpose of building flushing is to replace all water inside building piping with fresh water.
 - b. Flush until the hot water reaches its maximum temperature
4. Clean all decorative water features, such as fountains.
 - a. Be sure to follow any recommended manufacturer guidelines for cleaning
 - b. Ensure that decorative water features are free of visible slime or biofilm
 - c. After the water feature has been re-filled, measure disinfectant levels to ensure that the water is safe for use
5. Ensure hot tubs/spas are safe for use
 - a. Check for existing guidelines from your local or state regulatory agency before use
 - b. Ensure that hot tubs/spas are free of visible slime or biofilm before filling with water
 - c. Perform a hot tub/spa disinfection procedure before use
 - i. CDC Guidance (follow Steps 4–9 and 12–13): <https://www.cdc.gov/legionella/downloads/hot-tub-disinfection.pdf> 
 - ii. Facilities may decide to test the hot tub/spa for *Legionella* before returning to service if previous device maintenance logs, bacterial testing results, or associated cases of Legionnaires' disease indicate an elevated level of risk to occupants. All *Legionella* testing decisions should be made in consultation with facility water management program staff along with relevant public health authorities.
6. Ensure cooling towers are clean and well-maintained
 - a. Ensure that cooling towers are maintained (including start-up and shut-down procedures) per manufacturer's guidelines and industry best practices
 - b. Ensure that the tower and basin are free of visible slime or biofilm before use
 - i. If the tower appears well-maintained, perform an online disinfection procedure
 - Guidance on disinfection procedures from the Cooling Technology Institute: <http://www.cti.org/downloads/WTP-148.pdf>  
7. Ensure safety equipment including fire sprinkler systems, eye wash stations, and safety showers are clean and well-maintained
 - a. Regularly flush, clean, and disinfect these systems according to manufacturers' specifications.
8. Maintain your water system
 - a. Consider contacting your local water utility to learn about any recent disruptions in the water supply. This could include working with the local water utility to ensure that standard checkpoints near the building or at the meter to the building have recently been checked or request that disinfectant residual entering the building meets expected standards.
 - b. After your water system has returned to normal, ensure that the risk of *Legionella* growth is minimized by regularly checking water quality parameters such as temperature, pH, and disinfectant levels.
 - c. Follow your water management program, document activities, and promptly intervene when problems arise.

RESOLUTION NO. 2020-15

A RESOLUTION OF THE YUCAIPA VALLEY WATER DISTRICT PROCLAIMING A LOCAL EMERGENCY RELATED TO THE CORONAVIRUS AND COVID-19 IN THE YUCAIPA VALLEY WATER DISTRICT SERVICE AREA WITHIN THE COUNTIES OF RIVERSIDE AND SAN BERNARDINO

WHEREAS, the Yucaipa Valley Water District (the “District”) is a public agency of the State of California organized and existing pursuant to the provisions of the County Water District Law of this State (Section 30000, et seq. of the Water Code); and

WHEREAS, the governing body of the Yucaipa Valley Water District has the authority to proclaim a local emergency; and

WHEREAS, California Government Code Section 3100 states that all public employees are declared to be disaster service workers subject to such disaster service activities as may be assigned to them by their superiors or by law, and the Yucaipa Valley Water District needs to provide drinking water, recycled water and sewer services deemed as an essential public service; and

WHEREAS, any actions that the Yucaipa Valley Water District may take to ensure the continuation of critical services to protect the safety of customers and to provide for immunities that will protect the Yucaipa Valley Water District for actions taken, as covered under the California Emergency Services Act; and

WHEREAS, working with the County of Riverside and the County of San Bernardino, this proclamation authorizes the undertaking of powers and invoking and disseminating emergency orders (e.g., emergency orders, emergency spending authorities, emergency or pre-established contracting, order necessary Personal Protective Equipment, recovery, etc.) and regulations necessary to provide for the protection of life, property, and the environment; and

WHEREAS, this proclamation establishes that an emergency exists, and that if mutual aid of in-county resources are needed to assist the District, as covered under the California Master Mutual Aid Agreement and any local agreements to provide mutual aid should be sufficient to establish, and that the Emergency Services Act applies; and

WHEREAS, this proclamation establishes that an emergency exists, and if out-of-county assistance is needed, requests for mutual aid should follow procedures set forth by the Standardized Emergency Management System (SEMS) and the Governor’s Office of Emergency Services (CalOES), including obtaining mission numbers through the County of Riverside Emergency Management Department from CalOES for responding agencies. This is particularly important for possible reimbursement of extraordinary expenses in the event of a proclaimed “State of Emergency” or in the event of a presidential declaration of disaster when state or federal disaster relief funds become available; and

WHEREAS, conditions of disaster or of extreme peril to the health and safety of persons and property have arisen both internationally and within the United States as a result of the introduction of the novel coronavirus (COVID-19), a novel communicable disease which led to

California Governor Gavin Newsom, to proclaim a State of Emergency for California on March 4, 2020; and

WHEREAS, currently COVID-19 has spread globally and as of March 19, 2020 has impacted 168 countries, infecting more than 209,839 persons and causing more than 8,778 fatalities worldwide (Source: WHO Novel Coronavirus (COVID-19) Situation - <https://experience.arcgis.com/experience/685d0ace521648f8a5beeeee1b9125cd>). Due to the expanding list of countries with widespread transmission of COVID-19, and increasing travel alerts and warnings for countries experiencing sustained or uncontrolled community transmission issued by the Centers for Disease Control and Prevention (CDC), COVID-19 has created conditions that are likely to be beyond the control of local resources and require the combined forces of other political subdivisions to combat this virus; and

WHEREAS, a Local Health Emergency was proclaimed by the County of Riverside Public Health Officer on March 8, 2020, and ratified by the Board of Supervisors on March 10, 2020; and

WHEREAS, the County of San Bernardino Public Health Officer on March 17, 2020, ordered a cancellation of all gatherings; and

WHEREAS, a Local Emergency was proclaimed by the County of Riverside Board of Supervisors on March 10, 2020; and

WHEREAS, the CDC confirmed person-to-person transmission of COVID-19 in the United States, raising the possibility of community transmission occurring in the general public. This has resulted in a Federal Declaration of National Emergency as declared by President Donald Trump on March 13, 2020; and

WHEREAS, the Yucaipa Valley Water District's ability to mobilize local resources, coordinate interagency response, accelerate procurement of vital supplies, use mutual aid, and seek future reimbursement by State and Federal governments will be critical to successfully responding to COVID-19; and

WHEREAS, these conditions warrant and necessitate that the Yucaipa Valley Water District proclaim the existence of a local emergency; now, therefore,

BE IT RESOLVED that the Board of Directors of the Yucaipa Valley Water District hereby proclaims the existence of a local emergency and directs the General Manager (or his designee) to take the necessary steps for the protection of life, health and safety of the employees and residents of our community.

IT IS FURTHER RESOLVED that during the existence of said local emergency, the powers, functions, and duties of the Yucaipa Valley Water District shall be those prescribed by state law and by ordinances and resolutions of the Board of Directors at the discretion and direction of the General Manager.

IT IS FURTHER RESOLVED that all departments of the Yucaipa Valley Water District shall review and revise their department emergency and contingency plans to address the risks COVID-19 poses to the ongoing performance of their critical functions.

IT IS FURTHER RESOLVED that all District departments and employees shall track costs for staffing, supplies, and equipment related to COVID-19 preparation and prevention and forward that information to the Chief Financial Officer; and complete an Initial Damage Estimate (IDE) Category B, and forward that information to the Riverside County Emergency Management Department and the San Bernardino County Office of Emergency Services.

IT IS FURTHER RESOLVED that the District's departments shall coordinate District-wide planning, preparedness and response efforts regarding COVID-19 with the Riverside County EMD and San Bernardino County OES.

IT IS FURTHER RESOLVED that this Resolution shall take effect immediately and that widespread publicity and notice shall be given said Proclamation through the most feasible and adequate means of disseminating such notice throughout the District.

BE IT FURTHER RESOLVED AND ORDERED that a copy of this Resolution be forwarded to the Riverside County EMD and San Bernardino County OES to be forwarded to the Director of the California Governor's Office of Emergency Services.

PASSED, APPROVED and ADOPTED this 24th day of March 2020.

YUCAIPA VALLEY WATER DISTRICT

ATTEST:

Chris Mann, President Board of Directors

Joseph B. Zoba, General Manager

June 5, 2017

Version 1.1



Developing a Water Management Program to Reduce *Legionella* Growth & Spread in Buildings

A PRACTICAL GUIDE TO IMPLEMENTING INDUSTRY STANDARDS



Source: <https://www.cdc.gov/legionella/downloads/toolkit.pdf>

Foreword

Legionnaires' disease is a serious type of pneumonia caused by bacteria, called *Legionella*, that live in water. *Legionella* can make people sick when they inhale contaminated water from building water systems that are not adequately maintained. Unfortunately, Legionnaires' disease is on the rise in the United States. To reverse this trend, we are asking for your help to manage the risk of exposure to *Legionella* from water in your building.

Your building may need a water management program to reduce the risk for Legionnaires' disease associated with your building water system and devices. This water management program should identify areas or devices in your building where *Legionella* might grow or spread to people so that you can reduce that risk. *Legionella* water management programs are now an industry standard for large buildings in the United States (ASHRAE 188: *Legionellosis: Risk Management for Building Water Systems* June 26, 2015. ASHRAE: Atlanta).

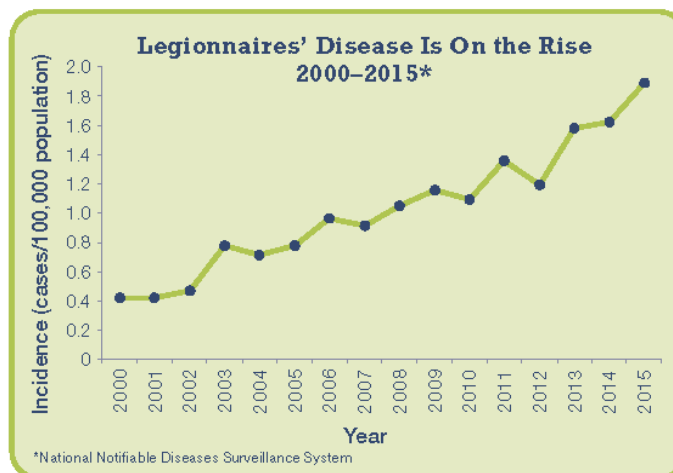
This toolkit will help you develop and implement a water management program to reduce your building's risk for growing and spreading *Legionella*. If you already have a program, this toolkit will help you assess and strengthen it. Included are practical resources to help you ensure that your water management program is comprehensive, effective, and in line with industry standards. This toolkit also highlights special considerations for healthcare facilities.

Because building water systems vary in their design and complexity, examples in this toolkit are only meant to help you understand the process. You should develop a water management program to reduce *Legionella* growth and spread that is specific to your building.

We welcome your feedback on this toolkit by emailing RDB@cdc.gov.

For additional information about Legionnaires' disease, visit www.cdc.gov/legionella.

This toolkit can also be found online at www.cdc.gov/legionella/WMPtoolkit.



In the United States, reported cases of Legionnaires' disease have increased by nearly four and a half times since 2000. More illness occurs in the summer and early fall but can happen any time of year.

Nancy Messonnier, MD, CAPT USPHS

Director, National Center for Immunization and Respiratory Diseases
U.S. Centers for Disease Control and Prevention

Patrick Breyse, PhD

Director, National Center for Environmental Health/Agency for Toxic Substances and Disease Registry
U.S. Centers for Disease Control and Prevention

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How to Use This Toolkit

If you've never developed a *Legionella* water management program (a plan to reduce the risk of *Legionella* growth and spread), you might not be sure where or how to start. This toolkit will provide guidance to help you develop, implement, and evaluate a *Legionella* water management program for your building. You do not have to have training or certification in any specific hazard analysis, risk assessment, or risk management methodologies to use this toolkit. However, you may need to seek help from an expert in some cases. Be sure to follow all relevant federal, state, and local laws, regulations, and ordinances. If anything in this toolkit conflicts with these policies, always adhere to the policies.

Where do we start?

The first step is to determine if you even need a program. You can use the worksheet on page 2 to find out if your entire building or parts of it are at increased risk for *Legionella* growth and spread. If you learn that you need to develop a program, this toolkit will explain what steps you should take and give several examples to clarify the process.

Do we really need a water management program to prevent *Legionella* growth and spread?

If you answer **YES** to any of the questions on page 2, then yes! Developing and implementing a program means that you are helping to protect people from getting Legionnaires' disease, a serious type of pneumonia (see Appendix A for more information on this disease).

Is this toolkit full of scientific terms?

You might come across some technical terms that are unfamiliar. The glossary on page 3 and the introduction to *Legionella* ecology on pages 4–5 should help you with these terms.

Will this toolkit tell us everything that we need to do?

No. Because every building is unique, only you have access to all the information that is needed to develop and implement a program specific to your building. An example of a building is included to help illustrate some of the steps. It's

important to know that these examples are not comprehensive and you will need to create a program specific to your building water system and devices.

This toolkit looks really long. What's the bottom line?

You need to actively identify and manage hazardous conditions that support growth and spread of *Legionella*. As you work through the toolkit, you'll learn about the importance of identifying and controlling hazardous conditions that increase the chance of *Legionella* growth and spread. The bottom line is that you need to:

- ◆ Identify building water systems for which *Legionella* control measures are needed
- ◆ Assess how much risk the hazardous conditions in those water systems pose
- ◆ Apply control measures to reduce the hazardous conditions, whenever possible, to prevent *Legionella* growth and spread
- ◆ Make sure the program is running as designed and is effective

Is there anyone who can help us develop our program?

Yes. As you'll learn in the toolkit, it's recommended that you form a water management team. Your team should include a variety of people who bring different skills to the table (learn more on page 7). You might already have all the expertise you need on staff, but sometimes you will need to get outside help. In some cases, you may need to train your in-house personnel or hire professionals with specific experience in *Legionella* bacteria in building water systems, such as a certified industrial hygienist, a microbiologist, or an environmental health specialist. Blueprints could come in handy, too.

What do all of the gray boxes mean?

The gray boxes throughout the document highlight program elements that are especially relevant for healthcare facilities. The content found outside of the gray boxes is also applicable to these types of facilities.

Identifying Buildings at Increased Risk

Survey your building (or property) to determine if you need a water management program to reduce the risk of *Legionella* growth and spread.

If you answer **YES to any of questions 1 through 4, you should have a water management program for *that building's* hot and cold water distribution system.**

Healthcare Facilities

Yes ____ No ____ 1. Is your building a healthcare facility where patients stay overnight or does your building house or treat people who have chronic and acute medical problems† or weakened immune systems?

Yes ____ No ____ 2. Does your building primarily house people older than 65 years (like a retirement home or assisted-living facility)?

Yes ____ No ____ 3. Does your building have multiple housing units and a centralized hot water system (like a hotel or high-rise apartment complex)?

Yes ____ No ____ 4. Does your building have more than 10 stories (including basement levels)?

Devices in buildings that can spread contaminated water droplets should have a water management program even if the building itself does not. If you answer **NO to all of questions 1 through 4 but **YES** to any of questions 5 through 8, you should have a water management program for *that device*.**

Yes ____ No ____ 5. Does your building have a cooling tower*?

Yes ____ No ____ 6. Does your building have a hot tub (also known as a spa) that is not drained between each use?

Yes ____ No ____ 7. Does your building have a decorative fountain?

Yes ____ No ____ 8. Does your building have a centrally-installed mister, atomizer, air washer, or humidifier?

If you answer **NO to questions 1 through 8, you should still maintain water systems according to manufacturer recommendations.**

On properties with multiple buildings, prioritize buildings that house or treat people who are at increased risk for Legionnaires' disease (see Appendix A to learn who is at increased risk).

The building standards discussed in this toolkit do not apply to single-family or small multiple-family residences (e.g., duplexes), even those with the devices in questions 6 through 8, but residents do need to take steps to protect themselves from waterborne diseases.

Homeowners should follow local and state guidelines for household water use, and owners of the devices in questions 6 through 8 should follow the manufacturer's instructions regarding cleaning, disinfecting, and maintenance.

Glossary

Biofilm (slime): Germs and the slime they secrete that stick to and grow on any continually moist surface; provides housing, food, and security for many different types of germs, including *Legionella*

Building water systems: Includes hot and cold water distribution and all devices that use water people can be exposed to, such as hot tubs, decorative fountains, and cooling towers

Control: To manage the conditions within your building according to your water management program

Control measures: Things you do in your building water systems to limit growth and spread of *Legionella*, such as heating, adding disinfectant, or cleaning

Control limits: The maximum value, minimum value, or range of values that are acceptable for the control measures that you are monitoring to reduce the risk for *Legionella* growth and spread

Control points: Locations in the water systems where a control measure can be applied

Contingency response: Reaction to control measures that are persistently outside of control limits or events that pose an immediate risk to control of your building water systems; required for all instances when Legionnaires' disease occurs, but may also be appropriate for unexpected events such as equipment failure or acts of nature that disrupt the water system

Corrective action: Actions taken to reestablish control when monitoring or measurement values are outside control limits

Dead legs: Piping that is subject to low or no flow due to design or decreased water use such as capped pipes or unused faucets

Disinfectant: Chemical or physical treatment used to kill germs, such as chlorine, monochloramine, chlorine dioxide, copper-silver ionization, ultraviolet light, or ozone

Hazardous conditions: Anything that, if not controlled, can contribute to the growth and spread of *Legionella* to a person

Healthcare facility: A place where patients stay overnight for medical care or where people with chronic or acute medical problems* are treated; this may include inpatient or outpatient care areas

Heterotrophic plate counts: A measure of the number and variety of bacteria that are common in water; a high count may indicate a high microbial load and the need for corrective action, but cannot be substituted for *Legionella* testing

Legionella: Bacteria that can cause Legionnaires' disease

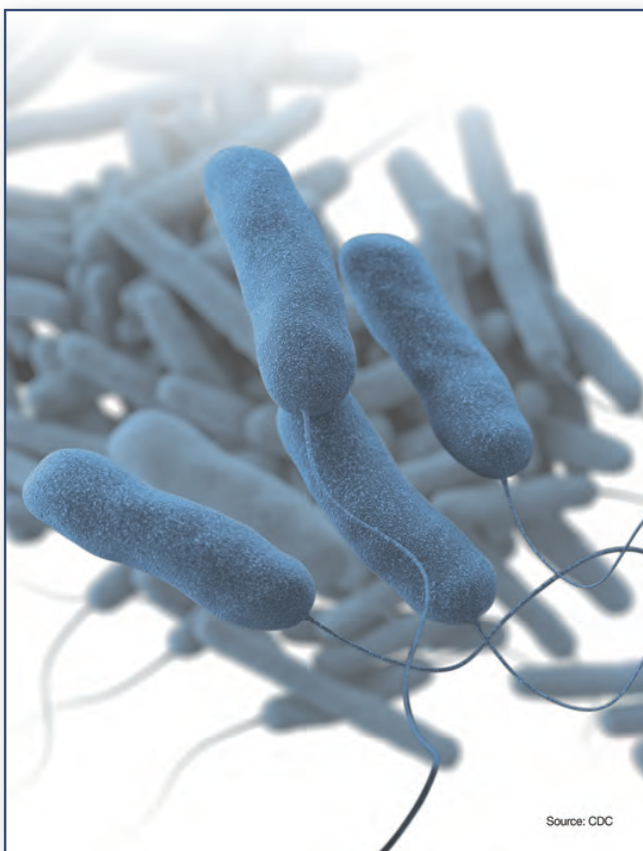
Legionnaires' disease: A serious type of pneumonia caused by *Legionella*

Residual: The amount of disinfectant available in water to kill germs

Scale and sediment: The mineral build-up in a water system that uses up disinfectant and supports germ growth and/or survival

Stagnation: When water does not flow well; areas of stagnant water encourage biofilm growth and reduce temperature and level of disinfectant

Introduction to *Legionella* Ecology



Legionella pneumophila

Legionella is found naturally in freshwater environments, like lakes and streams, but generally the low amounts in freshwater do not lead to disease. *Legionella* can become a health problem in building water systems. To pose a health risk, *Legionella* first has to **grow** (increase in numbers). Then it has to be **aerosolized** so people can breathe in small, contaminated water droplets.

Where can *Legionella* grow and/or spread?

Legionella can grow in many parts of building water systems that are continually wet, and certain devices can then spread contaminated water droplets. Examples include:

- Hot and cold water storage tanks
- Water heaters
- Water-hammer arrestors
- Expansion tanks
- Water filters
- Electronic and manual faucets*
- Aerators
- Faucet flow restrictors
- Showerheads* and hoses
- Pipes, valves, and fittings
- Centrally-installed misters*, atomizers*, air washers*, and humidifiers*
- Nonsteam aerosol-generating humidifiers*
- Infrequently used equipment, including eyewash stations*
- Ice machines*
- Hot tubs*
- Decorative fountains*
- Cooling towers*
- Medical devices* (such as CPAP machines, hydrotherapy equipment, bronchoscopes)

*These devices can spread *Legionella* through aerosols or aspiration

Factors external to buildings that can lead to *Legionella* growth

- **Construction:** Vibrations and changes in water pressure can dislodge biofilm and free *Legionella* into the water entering your building.
- **Water main breaks:** Changes in water pressure can dislodge biofilm and free *Legionella* into the water, while dirt and other materials can be introduced into the water and use up disinfectant.
- **Changes in municipal water quality:** Changes in water quality can increase sediment, lower disinfectant levels, increase turbidity, or cause pH to be outside recommended ranges. Changes in disinfectant type can impact how you should monitor your program.

Factors internal to buildings that can lead to *Legionella* growth

- ◆ **Biofilm:** Protects *Legionella* from heat and disinfectant; provides food and shelter to germs; grows on any surface that is constantly moist and can last for decades
- ◆ **Scale and sediment:** Uses up disinfectant and creates a protected home for *Legionella* and other germs
- ◆ **Water temperature fluctuations:** Provide conditions where *Legionella* grows best (77°F–108°F); *Legionella* can still grow outside this range
- ◆ **Water pressure changes:** Can cause biofilm to dislodge, colonizing downstream devices
- ◆ **pH:** Disinfectants are most effective within a narrow range (approximately 6.5 to 8.5)

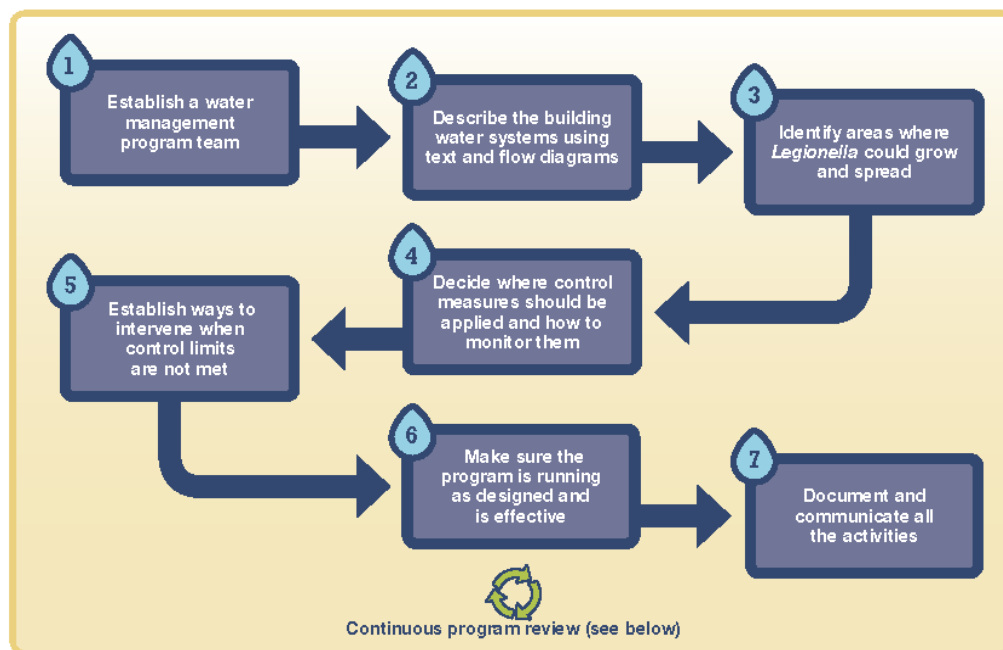
Many things can cause the hot water temperature to drop into the range where *Legionella* can grow, including low settings on water heaters, heat loss as water travels through long pipes away from the heat source, mixing cold and hot water within the plumbing system, heat transfer (when cold and hot water pipes are too close together), or heat loss due to water stagnation. In hot weather, cold water in pipes can heat up into this range.

- ◆ **Inadequate disinfectant:** Does not kill or inactivate *Legionella*.
Even if the water entering your building is of high quality, it may contain *Legionella*. In some buildings, processes such as heating, storing, and filtering can degrade the quality of the water. These processes use up the disinfectant the water entered with, allowing the few *Legionella* that entered to grow into a large number if not controlled.
- ◆ **Water stagnation:** Encourages biofilm growth and reduces temperature and levels of disinfectant. Common issues that contribute to water stagnation include renovations that lead to 'dead legs' and reduced building occupancy, which can occur in hotels during off-peak seasons, for example. Stagnation can also occur when fixtures go unused, like a rarely used shower in a hospital room.



Elements of a Water Management Program

Developing and maintaining a water management program is a multi-step, continuous process. The key steps, listed here, are explained in more detail throughout the toolkit with the associated step number appearing on the page where the specific step is discussed.



Program Review

You need to **review** the elements of your program at least once per year. Make sure you also review and revise your program when any of the following events occur:

- ◆ Data review shows control measures are persistently outside of control limits
- ◆ A major maintenance or water service change occurs, such as:
 - New construction
 - Equipment changes (e.g., new hot tub chlorinator pump)
 - Changes in treatment products (e.g., disinfectants)
 - Changes in water usage (e.g., high and low season for hotel)
 - Changes in the municipal water supply
- ◆ One or more cases of disease are thought to be associated with your system(s)
- ◆ Changes occur in applicable laws, regulations, standards, or guidelines

If an event triggers you to review and update your water management program, remember to:

- ◆ Update the process flow diagram, associated control points, control limits, and corrective actions
- ◆ Update the written description of your building water systems
- ◆ Train those responsible for implementing and monitoring the updated program

Establish a Water Management Program Team

1

Certain skills, described in the diagram below, are needed to develop and implement your water management program. These skills would typically be provided by a combination of people, some of whom may have multiple skills (examples shown below).



Consider who among your employees, partners, and outside experts can provide these skills so that you can develop the most effective program possible. Those who might be part of your water management program team include:

- ◆ Building owner
- ◆ Building manager/administrator
- ◆ Maintenance or engineering employees
- ◆ Safety officers
- ◆ Equipment or chemical suppliers
- ◆ Contractors/consultants (e.g., water treatment professionals)
- ◆ Certified industrial hygienists
- ◆ Microbiologists
- ◆ Environmental health specialists
- ◆ State and local health officials

Healthcare Facilities

The team should also include:

- ◆ Someone who understands accreditation standards and licensing requirements
- ◆ Someone with expertise in infection prevention
- ◆ A clinician with expertise in infectious diseases
- ◆ Risk and quality management staff

In some cases, you may need to train your in-house personnel or hire professionals with specific experience in *Legionella* bacteria in building water systems.





Describe Your Building Water Systems Using Text

EXAMPLE: BUILDING A

You will need to write a simple description of your building water system and devices you answered YES to on page 2. This description should include details like where the building connects to the municipal water supply, how water is distributed, and where pools, hot tubs, cooling towers, and water heaters or boilers are located. An existing as-built diagram of the plumbing system and fixtures may be useful in developing this description. Below is a description of the water systems* for an example building (Building A). You will see how this text gets turned into a diagram in the next section (page 10).

1. **Water enters** the basement of the property via a 4-inch main from the municipal water line at Maple Street. Water is immediately drawn off to charge the fire suppression system. The rest of the water is sent through cold water distribution. There is backflow prevention throughout the system, including between the cold water distribution and the city water main and between the cold water distribution and the fire suppression system.

Note: Problems with entering water are usually beyond the building manager's control, such as main breaks or construction that disrupts water service. However, an essential part of a water management program is monitoring water and responding to changes coming in from the municipal water line. You can contact your drinking water provider to report any changes you notice in the quality of water being delivered to your building.

2. **Cold water is distributed** directly to the lit decorative fountain in the lobby, the cooling tower on the roof, the hot tub and pool on the first floor, ice machines on floors 2, 4, 6, 8, and 10, and shower and faucet fixtures in rooms on all 12 floors. All internal plumbing consists of 2-inch copper and polyvinyl chloride (PVC) piping. There is backflow prevention between cold water distribution and the utility lines that serve the cooling tower and hot tub/pool room.

Note: In warm climates, water in pipes that typically carry cold water may reach a temperature that allows for growth of Legionella. Detectable residual disinfectant added by your water provider helps to limit growth of Legionella and other germs. Additionally, decorative fountains with submerged lighting and devices such as cooling towers and ice machines may contain areas where cold water can be heated to temperatures that allow Legionella to grow. Swimming pools do not usually generate hazardous conditions because they rarely reach adequate temperature for growth or generate water droplets small enough to be inhaled.

3. **Cold water is heated** to 140°F by two joined 120-gallon water heaters. The heaters supply a 500-gallon storage tank. Cold water is also delivered to an 80-gallon water heater in the basement that serves the kitchen and staff break room.

Note: Even water heaters set to the correct temperature may contain zones of lower temperature water where cold and hot water mix or where excessive sediment blocks heating elements. Most residual disinfectants are reduced by heating the water.

Healthcare Facilities

Be sure to include descriptions of water sources relevant to:

- Patient care areas
- Clinical support areas
- Components and devices that can expose patients to contaminated water

You should also develop an ongoing dialogue with your drinking water provider so that you are aware of changes that may affect your building's water supply.

4. **Hot water is distributed** to plumbing fixtures in the basement through floor 5 from the joined water heaters in the basement on a direct (non-recirculating) line. Hot water is distributed to floors 6 through 11 from the storage tank with a recirculating line designed to return to the joined water heaters in the basement. Note that hot water is tempered (mixed with cold water) at the fixtures by thermostatic mixing valves.



Note: Water in direct hot and cold water pipes can pose multiple hazardous conditions. First, the process of heating the water can reduce disinfectant levels. Second, if hot water is allowed to sit in the pipes (stagnation), it might reach a temperature where Legionella can grow and could encourage sediment to accumulate or biofilm to form. With recirculating hot water pipes, the greatest risk is that returning water with reduced or no disinfectant cools to a temperature where Legionella can grow. If this happens, Legionella in the return line can travel to central distribution points and contaminate the entire plumbing system of the building.

5. **Hot, cold, and tempered waste water is discarded** through the sanitary sewer line.

Note: It is not known at this time if Legionella can grow and spread in sources such as harvested rainwater or reclaimed graywater (i.e., bath, laundry).

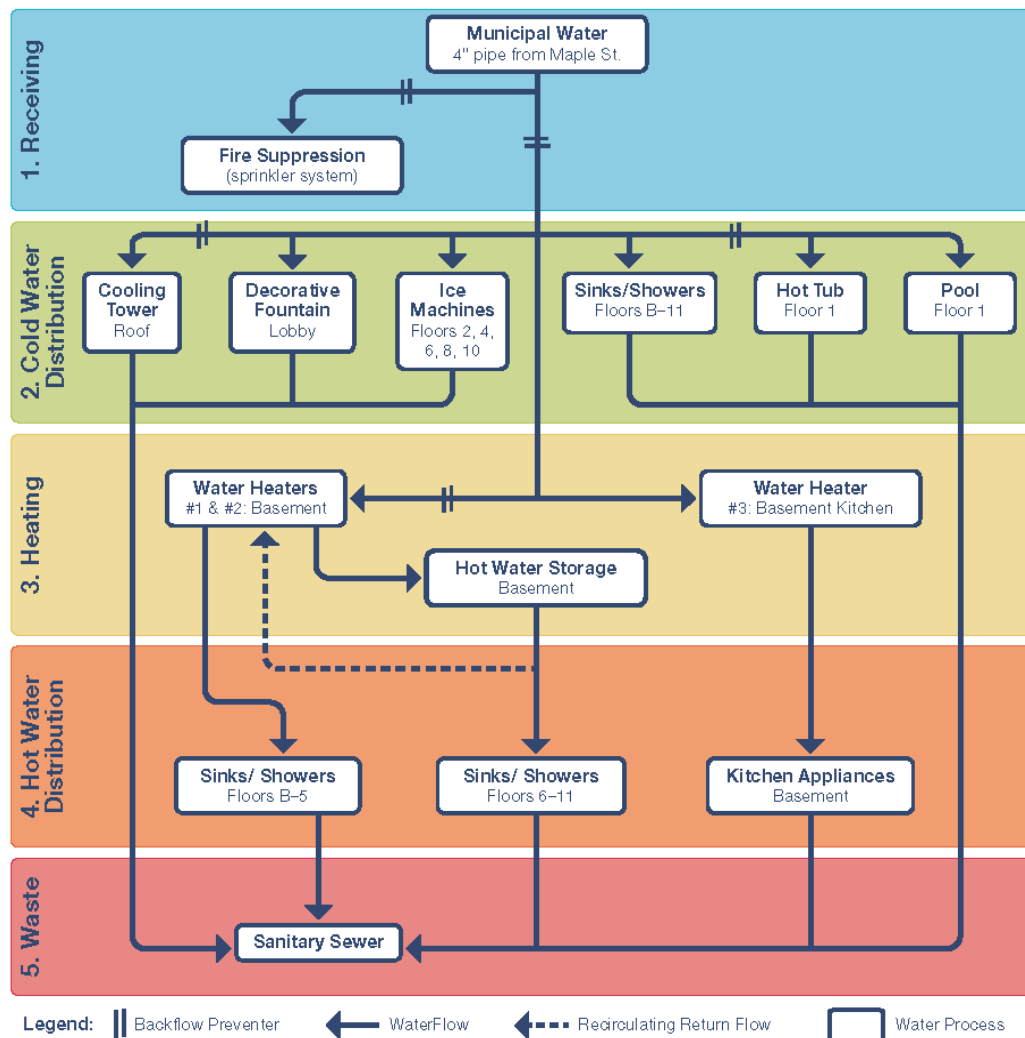


2

Describe Your Building Water Systems Using a Flow Diagram

EXAMPLE: BUILDING A

In addition to developing a written description of your building water systems, you should develop a process flow diagram. Below is an example of a process flow diagram for Building A. Note that this diagram does not need to be as detailed as your building plans. In fact, it's best if the process flow diagram can be understood easily by all members of your team.

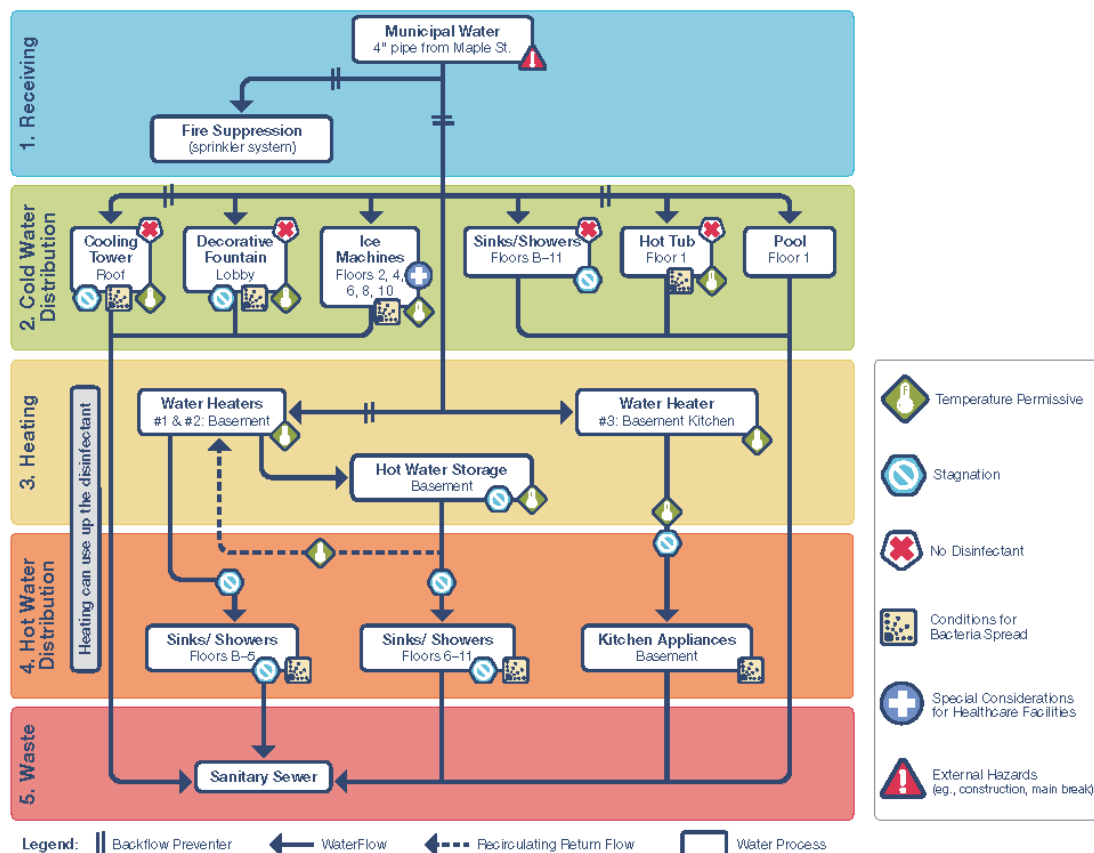


Identify Areas Where *Legionella* Could Grow & Spread

3

EXAMPLE: BUILDING A

Once you have developed your process flow diagram, identify where potentially hazardous conditions could occur in your building water systems. The below diagram points out locations and types of hazardous conditions you could expect in Building A. Each potentially hazardous condition should be addressed individually with a control point, measure, and limit.



Healthcare Facilities

Think about:

- Areas where medical procedures may expose patients to water droplets, such as hydrotherapy
- Areas where patients are more vulnerable to infection, such as bone marrow transplant units, oncology floors, or intensive care units

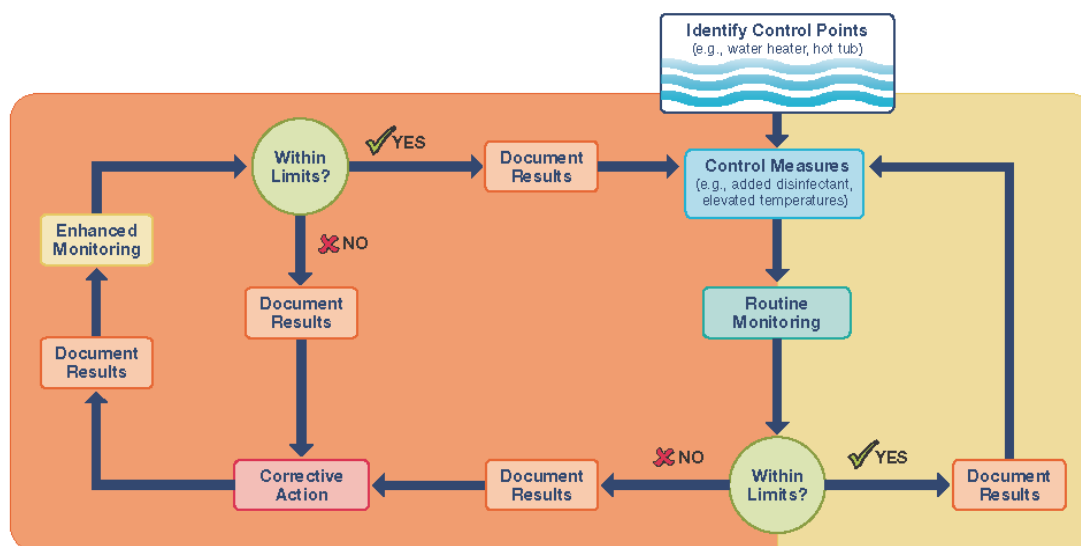
In Building A, the ice machine is included to illustrate that patients with problems swallowing may be at increased risk for *Legionella* spread by aspiration.

Disclaimer: Example content is provided for illustrative purposes only and is not intended to be relevant to all buildings.

Reference: ASHRAE 188: *Legionellosis: Risk Management for Building Water Systems* June 26, 2015. ASHRAE: Atlanta. www.ashrae.org

3 Control Measures & Corrective Actions: The Basics

The diagram below shows the process of implementing and monitoring control measures. If you find that a control limit (i.e., temperature levels, disinfectant levels) is not being met, you need to take corrective actions to get conditions back to within an acceptable range. The right side, in yellow, illustrates the routine process of monitoring control measures to make sure they are within limits. The left side, in orange, shows the process of what to do if control measures are found to be outside of their limits.



Remember, any time there is a suspected case of Legionnaires' disease associated with your building you should:

- Contact your local and/or state health department or work with them if they contact you
- Notify anyone who could be affected by the growth and spread of *Legionella* in your building if the health department asks you to
- Decontaminate the building water systems if necessary (you may need to get additional help from outside experts)
- Review the water management program and revise it, if necessary

Healthcare Facilities

In addition to the steps listed above that you would take in all buildings, if a case of healthcare-associated Legionnaires' disease is discovered in a healthcare facility:

- Make sure the person with expertise in infection prevention on your team is aware
- **Important:** Tell clinicians so they can test patients with healthcare-associated pneumonia for Legionnaires' disease with both culture of lower respiratory secretions and the *Legionella* urinary antigen test
- Report the case to your local and/or state health department; a full investigation may be needed

For more details on identifying and investigating Legionnaires' disease cases in healthcare facilities, see page 24.

Decide Where Control Measures Should Be Applied



Control measures and limits should be established for each control point. See the diagram on the next page for the types of monitoring that could occur in Building A. You will need to monitor to ensure your control measures are performing as designed. Control limits, in which a chemical or physical parameter must be maintained, should include a minimum and a maximum value.

Examples of chemical and physical control measures and limits to reduce the risk of *Legionella* growth:

- ◆ Water quality should be measured throughout the system to ensure that changes that may lead to *Legionella* growth (such as a drop in chlorine levels) are not occurring.
- ◆ Water heaters should be maintained at appropriate temperatures.
- ◆ Decorative fountains should be kept free of debris and visible biofilm.
- ◆ Disinfectant and other chemical levels in cooling towers and hot tubs should be continuously maintained and regularly monitored. Surfaces with any visible biofilm (i.e., slime) should be cleaned.

Healthcare Facilities

Clinicians should test patients with healthcare-associated pneumonia (pneumonia with onset ≥ 48 hours after admission) for Legionnaires' disease. This is especially important among patients at increased risk for developing Legionnaires' disease (see Appendix B), among patients with severe pneumonia (particularly those requiring intensive care), or if any of the following are identified in your facility:

- Other patients with healthcare-associated Legionnaires' disease diagnosed in the past 12 months
- Positive environmental tests for *Legionella* in the past 2 months
- Current changes in water quality that may lead to *Legionella* growth (such as low chlorine levels)

The preferred diagnostic tests for Legionnaires' disease are culture of lower respiratory secretions on selective media and the *Legionella* urinary antigen test.

Additionally, certain commonly-encountered changes in building water system design or management might require increasing the extent and frequency of monitoring. It's a good idea to anticipate additional hazardous conditions that could be associated with scheduled or unanticipated changes in water quality, such as:

- ◆ System start up
- ◆ System shut down
- ◆ Regularly scheduled maintenance
- ◆ Renovations, construction, and installation of new equipment on your property
- ◆ Equipment failure
- ◆ Water main break or other service interruptions

Anti-scald Regulation

You should follow local and state anti-scald regulations. However, maximum temperatures allowed by your state may be too low to limit *Legionella* growth. Engineering controls that mix hot and cold water together at or near the point of use can reduce the risk of scalding while allowing water in pipes to remain hot enough to limit *Legionella* growth.

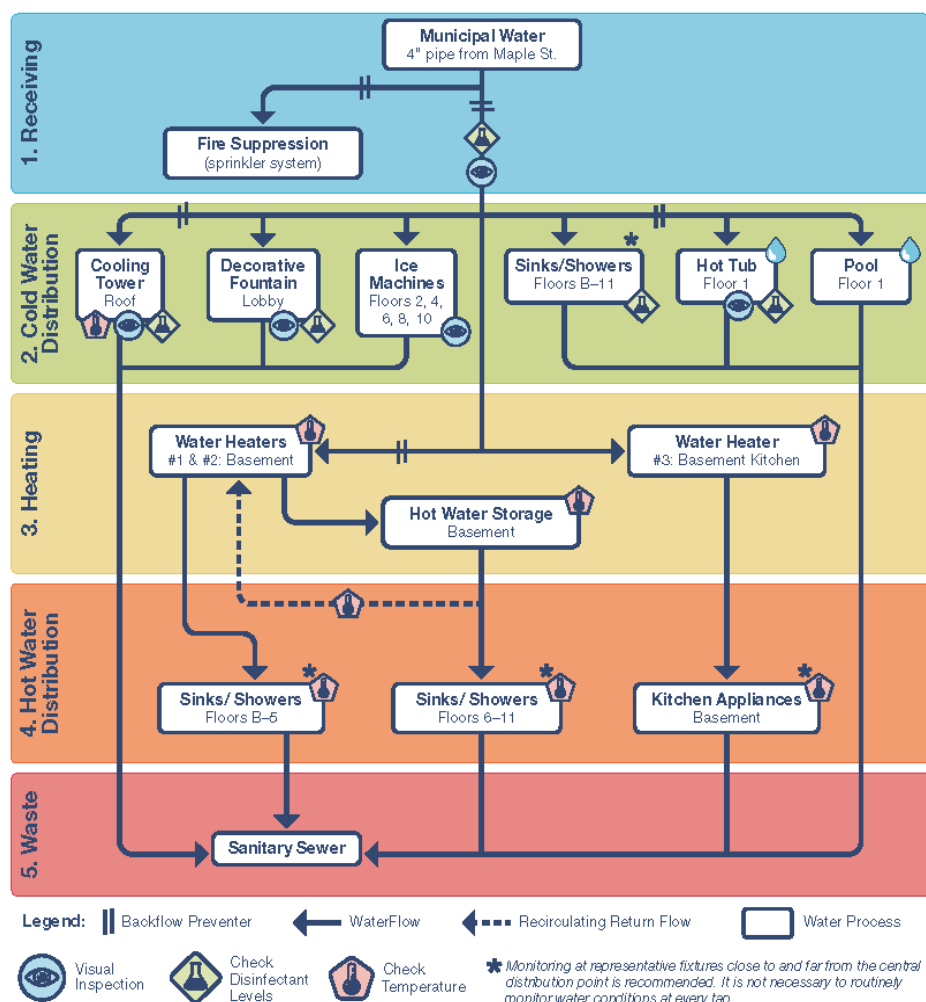


4

Decide How to Monitor Your Control Measures

EXAMPLE: BUILDING A

The diagram below shows which types of monitoring could occur at different locations within Building A's water system to reduce the risk of growth and spread of *Legionella*.



Disclaimer: Example content is provided for illustrative purposes only and is not intended to be relevant to all buildings.

Reference: ASHRAE 188: *Legionellosis: Risk Management for Building Water Systems* June 26, 2015. ASHRAE: Atlanta. www.ashrae.org



Note: In addition to whatever you do to prevent *Legionella*, state and local regulations may exist that govern the design, construction, operation, and maintenance of public aquatic facilities (e.g., pools and hot tubs). See CDC's Model Aquatic Health Code at www.cdc.gov/mahc/index.html for helpful information, but this document is not a substitute for state and local regulations.



Note: Heterotrophic plate counts can aid in your monitoring program as an indicator of water quality, but should not be used as a control measure.

Establish Ways to Intervene When Control Limits Are Not Met

5

CORRECTIVE ACTION EXAMPLES

Building water systems are dynamic. You should plan for your monitoring results to vary over time and be prepared to apply corrective actions. **Corrective actions** are taken in response to systems performing outside of control limits. The following are examples of corrective actions.

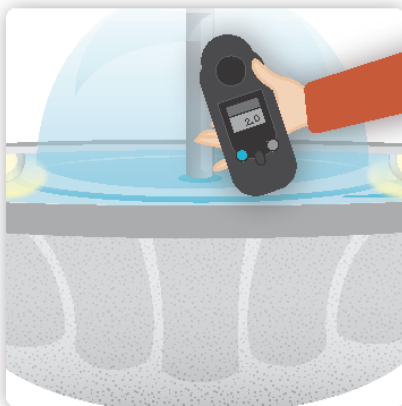
Example 1—Biofilm growth in the decorative fountain



1. During her weekly inspection of the fountain in the first floor lobby, Michelle Patterson notes that the fountain walls have accumulated a slimy growth.



2. As dictated by her water management program, Michelle immediately shuts off the fountain, drains it to the sanitary sewer, and scrubs it with a detergent recommended by the manufacturer.



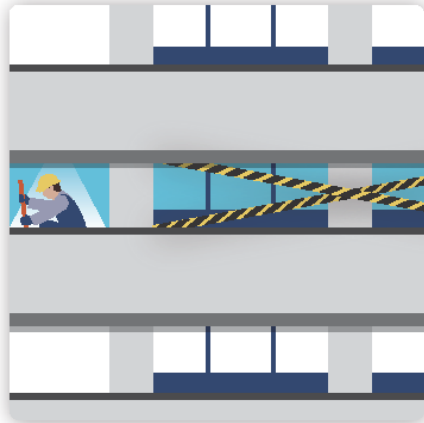
3. She then follows the program's start up procedure to refill the fountain with water and checks the residual disinfectant levels to make sure that they are within control limits.



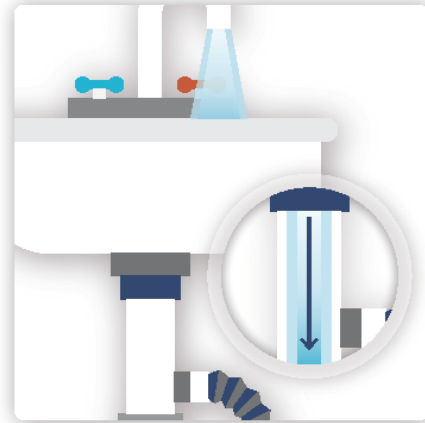
4. Michelle documents her observations and the performance of interim cleaning in her log book. She informs her supervisor.



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Example 2—Unoccupied floor

1. The eighth floor of the building is being renovated and is closed to the public. Jason Hernandez understands that this may cause a temporary hazardous condition because water usage will decrease, which means that stagnation is possible.



2. After discussing the issue with his supervisor, Jason counteracts the potential for stagnation by daily flushing of the sinks and fixtures with hot and cold water in several rooms including those at the end of the hall, which are farthest from the vertical pipe serving that floor (riser).



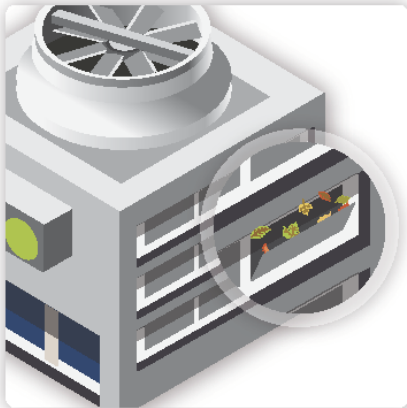
3. Jason also increases the frequency of measuring temperature and chlorine levels on the eighth floor from weekly to daily for the duration of the renovation.



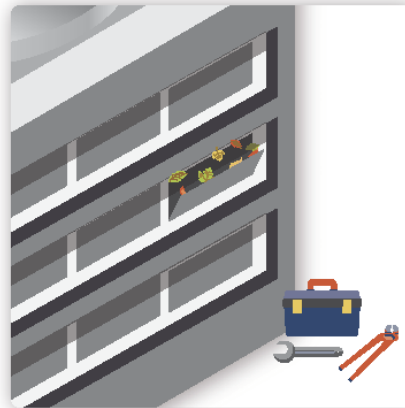
4. He documents the method and duration of flushing and records his daily temperature and chlorine readings in his log book. He reviews his documentation with his supervisor.

Example 3—Debris in the cooling tower

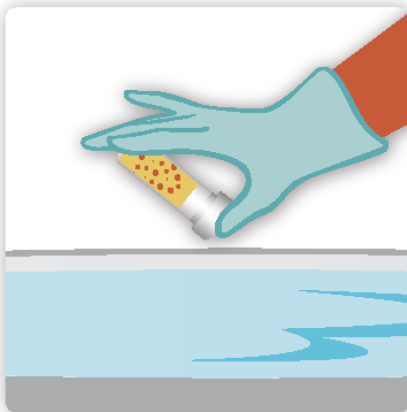
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1. During weekly inspection of the cooling tower, Michelle discovers that leaf litter has accumulated in the reservoir.



2. Upon further investigation, she finds that a panel has become dislodged, allowing windblown debris to enter.



3. After replacing the panel and skimming out the debris, Michelle checks the disinfectant levels and performs a heterotrophic plate count as an indicator of water quality.



4. She documents her actions in her log book. She also makes a note to check the disinfectant levels daily for a week to make sure that the cooling tower remains within control limits. She reviews her actions and documentation with her supervisor.

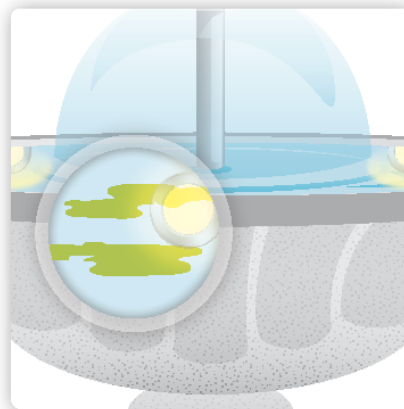
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CONTINGENCY RESPONSE EXAMPLES

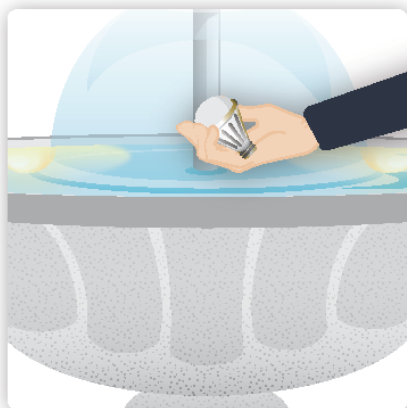
Even the most closely monitored systems will sometimes require adjustments, as shown in the following examples. You should be prepared to respond, even to unexpected problems, based on your knowledge of the building water systems and how *Legionella* grows and spreads. You may need to initiate a customized contingency response to gain control of a building water system. **Contingency responses** may involve several steps and often require follow up. A contingency response is always required when a case of Legionnaires' disease has been linked to a building and is also appropriate in other situations.

Example 1—Biofilm growth in the fountain

1. During the annual review of the water management program, supervisor Anson Cho notes that Michelle and Jason performed six interim cleanings of the lobby fountain due to excessive biofilm growth in the past year.



2. Upon further review of the logs, he discovers that the biofilm growth was observed near the inner wall where incandescent lighting illuminates the water.



3. Anson decides to replace the incandescent bulbs with LED bulbs to prevent the lights from heating the water to a temperature that allows biofilm to grow.



4. After three months of routine inspections show that this corrective action reduces biofilm growth and eliminates the need for interim cleaning, Anson amends the water management program to specify use of only LED bulbs in the fountain and he informs the owner.

Disclaimer: Example content is provided for illustrative purposes only and is not intended to be relevant to all buildings.

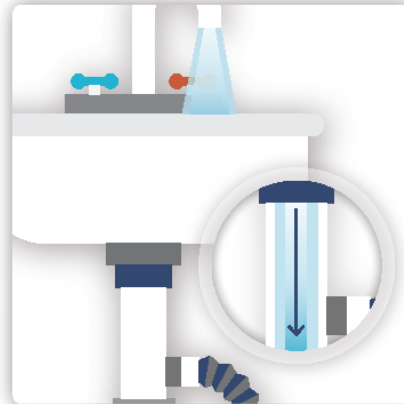
Reference: ASHRAE 188: *Legionellosis: Risk Management for Building Water Systems* June 26, 2015. ASHRAE: Atlanta. www.ashrae.org

Example 2—Water main break

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1. Jason receives several complaints from building occupants of foul-tasting water. He also notes a brownish tint to the water entering the building during his daily visual inspection. Jason immediately contacts the water provider and discovers that there was a water main break nearby but that a boil water advisory was not issued. He sends a notice to building occupants about the main break and that they should limit water usage for the next 4 hours while facilities clear the line.



2. To improve building water quality, Jason flushes the water at multiple sinks and fixtures near the entry until the water runs clear and falls within established water quality parameter control limits. He also flushes fixtures in areas where he received taste and odor complaints and at pre-determined flushing locations per the water management program.



3. Jason increases the frequency of measuring chlorine levels at the taps from weekly to daily to ensure that adequate residual disinfectant is moving through the system.



4. Jason informs his supervisor, documents his actions, and records chlorine readings in his log book.

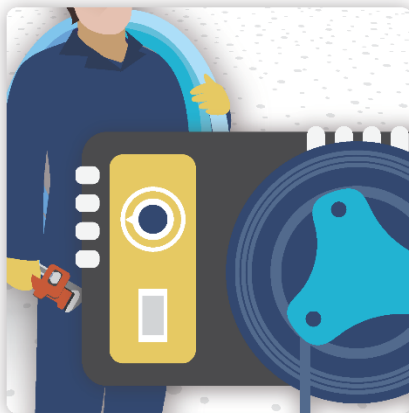
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Example 3—Broken chlorinator in the hot tub

1. Michelle notes chlorine levels of zero within the hot tub during her daily inspection. On further inspection she notices that disinfectant in the automatic delivery system reservoir is full.



2. Michelle immediately closes the hot tub and calls the pool contractor.



3. The contractor arrives the next day to discover that the chlorinator pump has malfunctioned and replaces the unit.



4. Michelle documents the action and follows the water management program's protocol for start up, which includes cleaning the hot tub, shocking it with a high dose of disinfectant, and back-flushing the filter. Michelle also recommends that the supervisor amend the water management program to include a daily check of equipment operation and disinfectant levels in the reservoir, in addition to the daily visual inspection and chlorine measurements, so that such equipment failures may be detected more quickly in the future.

Make Sure the Program Is Running as Designed & Is Effective



Verification: Are we doing what we said we would do?

Your program team should establish procedures to confirm, both initially and on an ongoing basis, that the water management program is being implemented as designed. This step is called "verification." For example, if you said you would test the hot tub daily for chlorine and record and communicate those results, have you been doing that? If you found a problem, did you take the action included in your program?

People should not verify the program activity for which they are responsible. For example, if one person is responsible for maintaining the hot tub and another is responsible for the cooling tower, they could verify each other's work, not their own.

Validation: Is our program actually working?

Now that you have a water management program, you need to be sure that it is effective. Your program team should establish procedures to confirm, both initially and on an ongoing basis, that the water management program effectively controls the hazardous conditions throughout the building water systems. This step is called "validation."

Environmental testing for *Legionella* is useful to validate the effectiveness of control measures. The program team should determine if environmental testing for *Legionella* should be performed and, if so, how test results will be used to validate the program. Factors that might make testing for *Legionella* more important include:

- ◆ Having difficulty maintaining the building water systems within control limits
- ◆ Having a prior history of Legionnaires' disease associated with the building water systems
- ◆ Being a healthcare facility that provides inpatient services to people who are at increased risk for Legionnaires' disease (see Appendix B)

If the program team decides to test for *Legionella*, then the testing protocol should be specified and documented in advance. You should also be familiar with and adhere to local and state regulations and accreditation standards for this testing.

Healthcare Facilities

Water management program teams that include infection control staff may also choose to use their facility's routine surveillance for healthcare-associated Legionnaires' disease to validate their program. To look for healthcare-associated cases, histories for all patients with diagnosed Legionnaires' disease should be reviewed for possible healthcare exposures and certain patients with healthcare-associated pneumonia (see gray box on page 13) should be tested for Legionnaires' disease.



Document & Communicate All the Activities of Your Water Management Program

Documentation

Now that you have done all of the work required to create your water management program, write it down. This information will be important to improve your program and if you or others want to review your records. Your written program should include at least the following:

- ◆ Program team, including names, titles, contact information, and roles on the team
- ◆ Building description, including location, age, uses, and occupants and visitors
- ◆ Water system description, including general summary, uses of water, aerosol-generating devices (e.g., hot tubs, decorative fountains, cooling towers), and process flow diagrams
- ◆ Control measures, including points in the system where critical limits can be monitored and where control can be applied
- ◆ Confirmatory procedures, including verification steps to show that the program is being followed as written and validation to show that the program is effective
- ◆ Document collection and transport methods and which lab will perform the testing if environmental testing is conducted

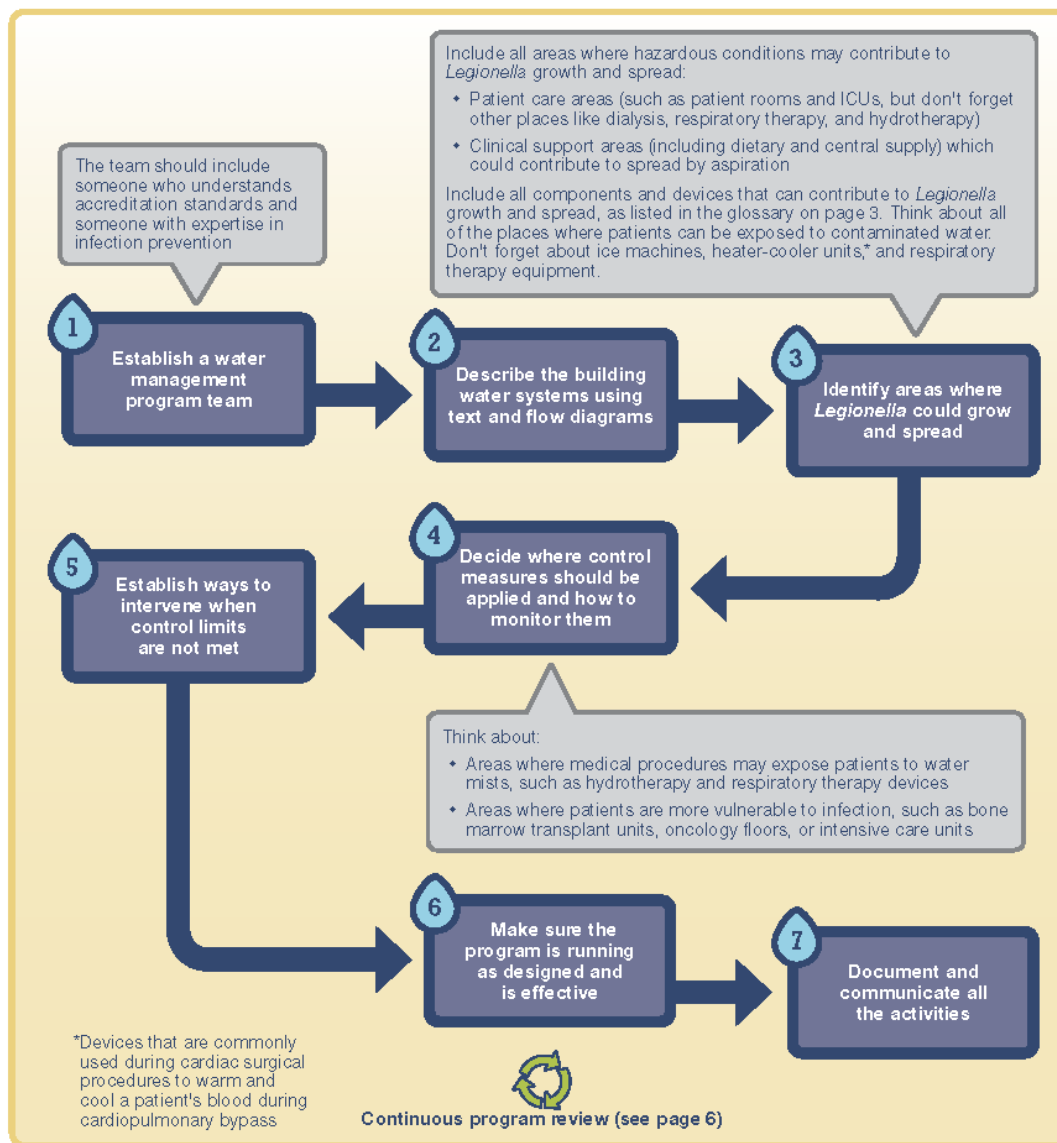
Communication

You have worked hard to develop your water management program and you have carefully documented all aspects of it. Resist the temptation to put it on a shelf and walk away. Consider notifying building occupants that you have a plan in place to keep the building water systems safe, just as you would for an elevator inspection. Be sure to communicate with your employees and colleagues about your program on a regular basis and train those responsible for implementing and monitoring the program. Use this communication as an opportunity to identify strategies for improving the management and efficiency of your water systems.

Special Considerations for Healthcare Facilities

ELEMENTS OF A WATER MANAGEMENT PROGRAM

Developing and maintaining a water management program in healthcare facilities requires a few more considerations than the ones explained on page 6. All healthcare facilities should have a *Legionella* water management program.



Reference: ASHRAE 188: *Legionellosis: Risk Management for Building Water Systems* June 26, 2015. ASHRAE: Atlanta. www.ashrae.org

Note: ASHRAE 188 Normative Annex A applies to accredited healthcare facilities that have a Certification Board of Infection Control and Epidemiology (CBIC) certified infection preventionist or a master's-level epidemiologist.

IDENTIFYING & INVESTIGATING LEGIONNAIRES' DISEASE CASES

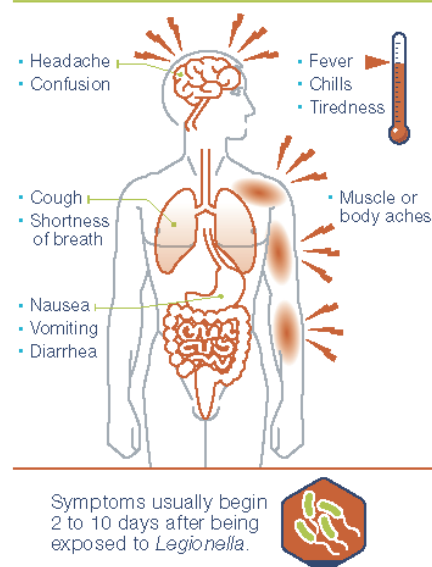
Healthcare facilities are often uniquely positioned to identify and respond to cases of Legionnaires' disease. A healthcare facility's water management program to limit *Legionella* growth and spread should include the actions to take when a patient is diagnosed with Legionnaires' disease or environmental triggers occur. If you decide to conduct a full investigation of the source of an infection, key elements should be included, as noted on the next page. A full investigation following a diagnosis of Legionnaires' disease can help determine whether the infection was acquired in the facility or the community.

Clinicians should test patients with healthcare-associated pneumonia (pneumonia with onset ≥ 48 hours after admission) for Legionnaires' disease. This is especially important among patients at increased risk for developing Legionnaires' disease (see Appendix B), among patients with severe pneumonia (particularly those requiring intensive care), or if any of the following are identified in your facility:

- ◆ Other patients with healthcare-associated Legionnaires' disease diagnosed in the past 12 months
- ◆ Positive environmental tests for *Legionella* in the past 2 months
- ◆ Current changes in water quality that may lead to *Legionella* growth (e.g., low residual disinfectant levels, temperatures permissive to *Legionella* growth, nearby construction, areas of stagnation)

Other patients, besides those with healthcare-associated pneumonia, should also be tested for Legionnaires' disease (see Appendix B). The preferred diagnostic tests for Legionnaires' disease are culture of lower respiratory secretions on selective media and the *Legionella* urinary antigen test.

Legionnaires' disease symptoms



Perform a full investigation for the source of *Legionella* when:

- ◆ ≥1 case of **definite** healthcare-associated Legionnaires' disease (a case in a patient who spent the entire 10 days prior to onset of illness in the facility) is identified at any time
- ◆ ≥2 cases of **possible** healthcare-associated Legionnaires' disease (cases in patients who spent part of the 10 days before symptoms began at the same facility) are identified within 12 months of each other (note that under certain circumstances, during a cooling tower outbreak for example, the interval may be shorter)

Key elements of a full public health investigation include:

- ◆ Working with healthcare facility leaders*
- ◆ Performing a retrospective review of cases in the health department surveillance database to identify earlier cases with possible exposures to the healthcare facility
- ◆ Developing a line list of possible and definite cases associated with the healthcare facility
- ◆ Working with infection control and clinical staff to actively identify all new and recent patients with healthcare-associated pneumonia and test them for *Legionella* using both culture of lower respiratory secretions on selective media and the *Legionella* urinary antigen test
- ◆ Obtaining postmortem specimens, when applicable
- ◆ Considering recommendations for restricting water in the facility or other immediate control measures
- ◆ Performing an environmental assessment to evaluate possible environmental exposures
- ◆ Performing environmental sampling, as indicated by the environmental assessment
- ◆ Decontaminating possible environmental source(s)
- ◆ Subtyping and comparing clinical and environmental isolates, if available
- ◆ Working with healthcare facility leaders to determine how long heightened disease surveillance and environmental sampling should continue to ensure the outbreak is over
- ◆ Working with healthcare facility leaders to review and possibly revise the water management program, if indicated



* Leaders may include infection control practitioners, facility managers, hospital administrators, quality assurance staff, or others.

Reference: ASHRAE 188: *Legionellosis: Risk Management for Building Water Systems* June 26, 2015. ASHRAE: Atlanta. www.ashrae.org

Note: ASHRAE 188 Normative Annex A applies to accredited healthcare facilities that have a Certification Board of Infection Control and Epidemiology (CBIC) certified infection preventionist or a master's-level epidemiologist.

References & Resources

There are many references and resources that can help you develop and implement your *Legionella* water management program, some of which are listed below.

Standard



Standard 188—Legionellosis: Risk Management for Building Water Systems (ANSI Approved)

ASHRAE

Published 2015

www.techstreet.com/ashrae/products/1897561

Guidelines



Guideline 12—Minimizing the Risk of Legionellosis Associated with Building Water Systems

ASHRAE

Published 2000

www.techstreet.com/ashrae/products/232891

(currently under revision)

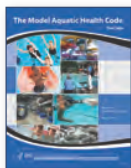


Legionellosis Guideline: Best Practices for Control of *Legionella*

Cooling Technology Institute

Published 2008

www.cti.org/downloads/WTP-148.pdf



Model Aquatic Health Code Guidance

Centers for Disease Control and Prevention

Published 2014

www.cdc.gov/mahc/index.html

Laboratory Resources



ELITE Program

Centers for Disease Control and Prevention and Wisconsin State Laboratory of Hygiene

wwwn.cdc.gov/ELITE/Public/EliteHome.aspx

Planning Guides & Toolkits



Emergency Water Supply Planning Guide for Hospitals and Healthcare Facilities

Centers for Disease Control and Prevention, American Water Works Association
Published 2012

www.cdc.gov/healthywater/pdf/emergency/emergency-water-supply-planning-guide.pdf



Drinking Water Advisory Communication Toolbox

US Department of Health & Human Services, Centers for Disease Control and Prevention, Environmental Protection Agency, American Water Works Association
Published 2013

www.cdc.gov/healthywater/pdf/emergency/drinking-water-advisory-communication-toolbox.pdf



Investigation Tools for Clusters and Outbreaks of Legionnaires' Disease

Centers for Disease Control and Prevention

www.cdc.gov/legionella/outbreak-toolkit

Healthcare Resources



Sehulster LM, Chinn RYW, Arduino MJ, Carpenter J, Donlan R, Ashford D, et al. **Guidelines for Environmental Infection Control in Health-care Facilities. Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC).** *MMWR.* 2003;52(RR-10): 1–42.

www.cdc.gov/mmwr/preview/mmwrhtml/rr5210a1.htm



Kohn WG, Collins AS, Cleveland JL, Harte JA, Eklund KJ, Malvitz DM. **Guidelines for Infection Control in Dental Health-Care Settings—2003.** *MMWR.* 2003;52(RR-17):1–61.

www.cdc.gov/mmwr/preview/mmwrhtml/rr5217a1.htm



Tablan OC, Anderson LJ, Besser R, Bridges MD, Hajjeh R. **Guidelines for Preventing Health-care-associated Pneumonia, 2003: Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee.** *MMWR.* 2004;53(RR-3):1–36.

www.cdc.gov/mmwr/preview/mmwrhtml/rr5303a1.htm



Prevention of Healthcare-associated *Legionella* Disease and Scald Injury from Potable Water Distribution Systems

Veterans Health Administration

Published 2014

www.va.gov/vhapublications/ViewPublication.asp?pub_ID=3033

Legionnaires' Disease Information



Legionnaires' Disease Website

Centers for Disease Control and Prevention

www.cdc.gov/legionella

Laws



Safe Drinking Water Act

Environmental Protection Agency

www.epa.gov/sdwa

Literature Reviews



Technologies for *Legionella* Control in Premise Plumbing Systems

Environmental Protection Agency

www.epa.gov/ground-water-and-drinking-water/technologies-legionella-control-premise-plumbing-systems

Appendix A

LEGIONNAIRES' DISEASE

Legionnaires' (LEE-juh-nares) disease is a very serious type of pneumonia (lung infection) caused by bacteria called *Legionella*. If you develop pneumonia symptoms and may have been exposed to *Legionella*, see a doctor right away. Be sure to mention if you have used a hot tub, spent any nights away from home, or stayed in a hospital in the last two weeks.

Legionnaires' Disease Can Cause Pneumonia Symptoms

Signs and symptoms of Legionnaires' disease can include:

- ▶ Cough
- ▶ Muscle aches
- ▶ High fever
- ▶ Shortness of breath
- ▶ Headache

Doctors use chest x-rays or physical exams to check for pneumonia. Your doctor may also order tests on a sample of urine and sputum (phlegm) to see if your lung infection is caused by *Legionella*.

Legionnaires' Disease Is Serious, but Can Be Treated with Antibiotics

Legionnaires' disease is treated with antibiotics (drugs that kill bacteria in the body). Most people who get sick need care in a hospital but make a full recovery. However, about 1 out of 10 people who get Legionnaires' disease will die from the infection.

Certain People Are at Increased Risk for Legionnaires' Disease

Most healthy people do not get Legionnaires' disease after being exposed to *Legionella*. Being 50 years or older or having certain risk factors can increase your chances of getting sick. These risk factors include:

- ▶ Being a current or former smoker
- ▶ Having chronic lung disease, such as emphysema or chronic obstructive pulmonary disease (COPD)
- ▶ Having a weakened immune system from diseases like cancer, diabetes, or kidney failure
- ▶ Taking medication that weakens your immune system

Legionella Are Usually Spread through Water Droplets in the Air

In nature, *Legionella* live in fresh water and rarely cause illness. In man-made settings, *Legionella* can grow if water is not properly maintained. These man-made water sources become a health problem when small droplets of water that contain the bacteria get into the air and people breathe them in. In rare cases, someone breathes in *Legionella* while they are drinking water and it "goes down the wrong pipe" into the lungs. In general, Legionnaires' disease is not spread from one person to another. However, this may be possible in rare cases.



Legionnaires' disease, a type of severe pneumonia, is caused by breathing in small droplets of water that contain *Legionella*.

Common Sources of Infection

Outbreaks of Legionnaires' disease are often associated with large or complex water systems, like those found in hospitals, hotels, and cruise ships.

The most likely sources of infection include:



Water used for showering (potable water)



Cooling towers (parts of large air conditioning systems)



Decorative fountains



Hot tubs

cdc.gov/legionella

CS260481 03/07/2016



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Control and Prevention

Appendix B

What Clinicians Need to Know about

LEGIONNAIRES' DISEASE

Legionnaires' disease is a sometimes fatal form of pneumonia that is on the rise in the United States. Unfortunately, this disease is also underrecognized and underdiagnosed. Clinicians are in a unique position to make sure cases are detected, allowing rapid investigation by public health officials and prevention of additional cases.

Diagnosis and Testing

Clinical features of Legionnaires' disease include cough, fever, and radiographic pneumonia. Signs and symptoms for Legionnaires' disease are similar to pneumonia caused by other pathogens; the only way to tell if a pneumonia patient has Legionnaires' disease is by getting a specific diagnostic test. Indications that warrant testing include:

- Patients who have failed outpatient antibiotic therapy for community-acquired pneumonia
- Patients with severe pneumonia, in particular those requiring intensive care
- Immunocompromised patients with pneumonia*
- Patients with a travel history (patients who have traveled away from their home within 10 days before the onset of illness)
- All patients with pneumonia in the setting of a Legionnaires' disease outbreak
- Patients at risk for Legionnaires' disease with healthcare-associated pneumonia (pneumonia with onset ≥ 48 hours after admission)

* Clinicians may also consider testing for Legionnaires' disease in patients with other risk factors for this infection (see page 2).

Testing for healthcare-associated Legionnaires' disease is especially important if any of the following are identified in your facility:

- Other patients with healthcare-associated Legionnaires' disease diagnosed in the past 12 months
- Positive environmental tests for *Legionella* in the past 2 months
- Current changes in water quality that may lead to *Legionella* growth (such as low chlorine levels)

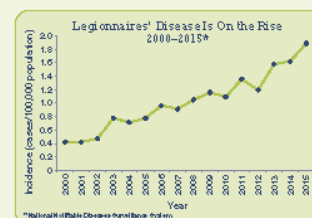
Infection control staff may have more information about these situations in your facility.

The preferred diagnostic tests for Legionnaires' disease are culture of lower respiratory secretions (e.g., sputum, bronchoalveolar lavage) on selective media and the *Legionella* urinary antigen test. Serological assays can be nonspecific and are not recommended in most situations. Best practice is to obtain both sputum culture and a urinary antigen test concurrently. Sputum should ideally be obtained prior to antibiotic administration, but antibiotic treatment should not be delayed to facilitate this process. The urinary antigen test can detect *Legionella* infections in some cases for days to weeks after treatment. The urinary antigen test detects *Legionella pneumophila* serogroup 1, the most common cause of Legionnaires' disease; isolation of *Legionella* by culture is important for detection of other species and serogroups and for public health investigation. Molecular techniques can be used to compare clinical isolates to environmental isolates and confirm the outbreak source.



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Order both a culture of a lower respiratory specimen and a urinary antigen test when testing patients for *Legionella*.



In the United States, reported cases of Legionnaires' disease have grown by nearly four and a half times since 2000. More than 6,000 cases of Legionnaires' disease were reported in 2015, but this number is likely an underestimate as the illness is thought to be underdiagnosed.

More illness occurs in the summer and early fall, but Legionnaires' disease can happen any time of year.

Treatment

If your patient has Legionnaires' disease, see the most recent guidelines for treatment of community-acquired pneumonia (<http://bit.ly/CommunityPneumoniaGuide>) and hospital-acquired pneumonia (<http://bit.ly/HospitalPneumonia>). Macrolides and respiratory fluoroquinolones are currently the preferred agents for treating Legionnaires' disease.

Reporting

Make sure your infection control department or lab are promptly reporting cases of Legionnaires' disease to your local health department. Timely identification and reporting of cases is important, as this allows public health officials to quickly identify and stop potential clusters and outbreaks by linking new cases to previously reported ones.

Etiology

Legionnaires' disease is a severe form of pneumonia that often requires hospitalization and is fatal in about 10% of cases overall, and in 25% of healthcare-associated cases. Legionnaires' disease is caused by *Legionella* bacteria. There are at least 60 different species of *Legionella*, and most are considered capable of causing disease. However, most disease is caused by *L. pneumophila*, particularly serogroup 1.

Transmission

While *Legionella* is found in natural, freshwater environments, it can become a health concern in human-made water systems (e.g., plumbing system of large buildings, cooling towers, certain medical devices, decorative fountains, hot tubs) where conditions allow it to multiply and come in contact with vulnerable persons. People contract *Legionella* by inhaling aerosolized water droplets containing the bacteria, or, less commonly, by aspiration of contaminated drinking water. *Legionella* is usually not transmitted from person to person; however, a single episode of person-to-person transmission has been reported. Fortunately, most people exposed to the bacteria do not become ill.

Risk Factors

Risk factors for developing Legionnaires' disease include:

- Age ≥50 years
- Smoking (current or historical)
- Chronic lung disease, such as emphysema or COPD
- Immune system disorders due to disease or medication
- Systemic malignancy
- Underlying illness, such as diabetes, renal failure, or hepatic failure

Prevention

The key to preventing Legionnaires' disease is maintenance of the water systems in which *Legionella* may grow. If *Legionella* is found in a healthcare facility's water system, the facility should work to eliminate the bacteria. CDC encourages all building owners, and especially those in healthcare facilities, to develop comprehensive water management programs to reduce the risk of *Legionella* growth and spread. Learn more about how to develop a water management program at www.cdc.gov/legionella/WMPtoolkit.

Timely reporting of Legionnaires' disease cases is important for controlling clusters and outbreaks.

Common Sources of Infection

Outbreaks of Legionnaires' disease are most often associated with large or complex water systems, like those found in hospitals, long-term care facilities, hotels, and cruise ships.

The most likely sources of infection include:



Water used for showering
(potable water)



Cooling towers (parts of large
air conditioning systems)



Decorative fountains



Hot tubs



Date: May 26, 2020

Prepared By: Joseph B. Zoba, General Manager

Subject: Overview of a Revised Policy for Members of the Board of Directors Regarding Expense Reimbursement, Meeting Attendance, Compensation, and Benefits

Recommendation: That the Board adopts Resolution No. 2020-26.

On February 4, 2020, the Board of Directors adopted Resolution No. 2020-26 which provided the annual review and update of board member policies and guidelines [Director Memorandum No. 20-014].

With the recent appointment of Dennis Miller as the board member for Division 2 last week, the District staff wanted to provide an opportunity for the Board of Directors to review, modify, or readopt the policy that was presented earlier this year.

RESOLUTION NO 2020-26**A RESOLUTION OF THE YUCAIPA VALLEY WATER DISTRICT
ADOPTING A REVISED POLICY FOR MEMBERS OF THE
BOARD OF DIRECTORS REGARDING EXPENSE REIMBURSEMENT,
MEETING ATTENDANCE, COMPENSATION, BENEFITS AND OTHER ITEMS**

WHEREAS, the Yucaipa Valley Water District ("District") desires to ensure its customers, residents, employees, and those who conduct business with the District, that the District emphasizes values in public service, leadership, and decision-making by adopting these Guidelines; and

WHEREAS, in order to document the District's Board of Director's commitment to ethical behavior in performance of the District's business, the Board desires to adopt these Guidelines; and

WHEREAS, pursuant to Government Code section 53232.2, the Board of Directors adopted a written policy governing compensable activities and reimbursable expenses for travel, meals, lodging, and incidental expenses; and

WHEREAS, the Board of Directors desires to revise the policy.

NOW, THEREFORE, the Board of Directors of the Yucaipa Valley Water District hereby RESOLVE, DETERMINE, and ORDER as follows:

Section 1: Adoption of Policy and Establishment of Procedures. The Board of Directors hereby adopts the Directors Compensation and Expense Reimbursement Policy, set forth as Exhibit "A", attached hereto and incorporated herein by reference.

Section 2: Rescission of Prior Resolution. Resolution No. 2020-07 is hereby repealed.

PASSED, APPROVED and ADOPTED this 26th day of May 2020.

YUCAIPA VALLEY WATER DISTRICT

Chris Mann, President Board of Directors

ATTEST:

Joseph B. Zoba, General Manager



Policy for Members of the Board of Directors Regarding Conduct of Directors, Expense Reimbursement, Meeting Attendance, Compensation, and Benefits

February 26, 2020

This Policy governs the code of conduct, and compensation/reimbursement of expenses for members of the Yucaipa Valley Water District's Board of Directors.

Section 1. Key Guiding Principles

Members of the Board of Directors ("Directors") are subject to the provisions of this Policy in addition to other District policies, state laws and regulations. Such laws govern but are not limited to: disclosure of personal economic interests, receipt of loans, gifts, travel payments and honoraria, campaign contributions, conflicts of interest, dual office-holding and incompatible offices, and criminal and civil misconduct in office. If a Director has a question regarding interpretation or compliance with this Policy, or state laws and regulations, the Director shall refer the matter to the General Manager who shall provide the Director with information or may refer the matter to Legal Counsel for further guidance.

While the laws are expansive, the core ethical requirements can be summarized as follows:

- Public office cannot be used for personal financial gain.
- Holding public office does not entitle anyone to personal advantage or benefits.
- The public's business must be conducted openly.
- Fair processes and merit-based decision-making create an environment of good governance and service to the public.

The purpose of this Code of Conduct is to: provide guidance for dealing with ethical issues; heighten awareness of ethics and values as critical elements in a Director's conduct; and improve ethical decision-making.

- A. **Integrity.** A Director must not place himself or herself under any financial or other obligation to any individual or organization that might reasonably be thought to influence the Director's performance of his or her duties.
- B. **Leadership.** A Director has a duty to promote and support the key principles by leadership and example and to maintain and strengthen the public's trust and confidence in the integrity of the District.
- C. **Selflessness.** A Director has a duty to make decisions solely in the public interest. A Director must not act in order to gain financial or other benefits for himself or herself, his



- or her family, friends or business interests. This means making decisions because they benefit the District, not because they benefit the Director.
- D. Objectivity. A Director must make decisions solely on merit and in accordance with the Director's statutory obligations when carrying out public business.
 - E. Accountability. A Director is accountable to the public for his or her decisions and actions.
 - F. Transparency. A Director has a duty to be as open and transparent as possible about his or her decisions and actions and give reasons for decisions.
 - G. Honesty. A Director has a duty to act honestly. A Director must declare any private interests relating to his or her public duties and take steps to resolve any conflicts arising in such a way that protects the public interest or recuse or disqualify himself or herself from taking any action which would constitute a conflict of interest.
 - H. Respect. A Director must treat others with respect at all times and observe the rights of other people. A Director must treat fellow Directors, officials, staff, customers, and the public, with courtesy and civility.

Section 2. Conduct of Directors

- A. Ethics Training. Directors shall complete two (2) hours of state-mandated ethics training for local agency officials to meet the specific requirements of state law. State law also mandates two (2) hours of training within one (1) year of initially taking office.
- B. Relationship Between Board Members. Directors shall strive to work collaboratively and assist each other in conducting the affairs of the District. Directors shall function as a part of a whole. Directors should bring all issues to the attention of the Board as a whole, rather than to select individual Directors.
- C. Relationship with The Public and Other Public Agencies. Directors shall refer all complaints from customers, residents, and members of the public, to the General Manager. A Director shall not make representations or promises to any member of the public regarding the future action of the District or of the Board, unless such representation or promise has been duly authorized by the Board. When making public statements, a Director shall make it clear whether he or she is authorized to speak on behalf of the Board, or whether he or she is presenting their own views. When representing the Board, a Director's comments should reflect approved Board policies. In areas where no policy has yet been developed, the Director's comments shall make this fact clear.
- D. Presentation and Appearance to the Public. In order to present a positive image to the public, customers and residents, Directors should strive to maintain a professional appearance while performing their duties as Directors.
- E. Relationship with General Manager and Staff.
 - 1. The Board sets the policy of the District. The General Manager is responsible for implementing the policy as formulated by the Board. Directors shall not engage in actions which would constitute day-to-day management. The General Manager is



the highest-ranking nonelected officer of the District. The General Manager is appointed by and serves at the pleasure of the Board and performs such duties as may be imposed by the Board. Therefore, the Board will provide policy direction and instructions to the General Manager on matters within the authority of the Board by majority vote of the Board during a duly convened Board meeting. Directors will deal with matters within the authority of the General Manager through the General Manager, and not through other District employees.

2. A Director will not make requests directly to other District staff to undertake analyses, perform other work assignments, or change the priority of work assignments. A Director's contact with District staff should be kept to a minimum and should be made only when direct personal contact is required. A Director, when approached by District personnel concerning specific District policy, shall direct inquiries to the General Manager.
- F. Proper Use and Safeguarding of Property and Resources. A Director will not ask a District employee to perform services for the personal benefit or profit of a Director. Each Director must protect and properly use any District asset within his or her control. Directors will safeguard District property, equipment, monies, and assets against unauthorized use or removal, as well as from loss due to criminal act or breach of trust. The District will not reimburse the traveling and incidental expenses incurred by or for the spouse of a Director who attends a conference, tour or event on official District business (See 75 Ops. Cal. Atty. Gen. 20).
- G. Use of Confidential Information. Under the Brown Act, all meetings of the Board are open to the public except as prescribed by law. The Brown Act sets forth provisions that require public officials to maintain the confidentiality of certain information disclosed or discussed in a duly convened closed session. A Director is not authorized, without the approval of the Board, to disclose information that qualifies as confidential information under the applicable provisions of law to a person not authorized to receive it, that: (i) has been received for, or during, a closed session meeting of the Board; (ii) is protected from disclosure under the attorney-client or other evidentiary privilege; or (iii) is not required to be disclosed under the California Public Records Act. A Director shall not waive the attorney-client privilege of the District by disclosing the legal opinions or advice of Legal Counsel to a third party.
- H. Information Requests. A Director shall request all publicly available documents through the General Manager. All requested public documents shall be provided to the Director making the request within a reasonable period of time. All other Directors will be notified of the requests and said documents shall be made available to them upon request. A Director shall not request copies of documents for the use of any member of the public in order to avoid the payment of copy fees outlined in the Public Records Act.

Section 3. Compensable Activities

- A. Meetings. Each member of the Board of Directors shall be entitled to per diem compensation for attendance at the following meetings such that the total number of compensable days in any calendar month for all meetings attended by a Board member shall not exceed ten (10) calendar days per month as set forth in the District's Ordinance No. 53-2007:



1. Each regular meeting, special meeting, facility tour, ceremonial event, or public training session scheduled and sponsored by the Yucaipa Valley Water District;
 2. Each District ad hoc committee, and committee on which the Director serves or has been duly appointed;
 3. Each publicly noticed meeting or ceremonial event of a governmental board;
 4. Each noticed meeting of a mutual water company within the boundary of the District;
 5. Attendance at an association or organization (such as ASBCSD, CSDA, ACWA, and CASA) related to the drinking water, recycled water, sewer, brine disposal services provided by the District;
 6. Each meeting or hearing of any joint powers authority which the District is a member or the subject matter pertains to the District's services;
 7. A chamber of commerce meeting within the District service area;
 8. An economic development, business, or building industry meeting open to the public;
 9. Each local, state or federal agency or any board, commission, committee or department thereof;
 10. Each tour, field trip, or informal business meeting with or without District staff in the performance of the official duties of the Board of Directors; and
 11. Meetings of agencies, nonprofit organizations, or service clubs when the Director or District staff is scheduled to make a presentation on behalf of the District
- B. Required Training. Each Director shall be entitled to compensation for attendance at the ethics training required by Government Code Section 53235 and the sexual harassment training and education required by Government Code Section 12950.1.
- C. Other Activities. Compensation for attending other meetings or activities shall be determined in advance by the Board of Directors based on activities that provide a benefit to the District. Benefits include, but are not necessarily limited to, the acquisition of information, education, training, and skills that will further the District's ability to protect public health and the environment by providing effective drinking water, recycled water, wastewater treatment, and brine disposal service. Other benefits include positive changes to federal and state statutes and regulations that govern the District, and maintenance of positive relations with the public and other governmental agencies.
1. On a case-by-case basis and by a majority vote of the Board of Directors, a Director may receive compensation for attendance at the following activities:
 - a. Meetings with representatives of local, regional, state, or national government on issues affecting the District; and
 - b. Meetings, conferences, and seminars sponsored by the California Association of Sanitation Agencies, Western Coalition of Arid States, Association of California Water Agencies, or the California Special Districts Association, or other organization.
 - c. Other activities that the Board of Directors believe achieve the benefits identified in Section 4.C.
- D. In no event shall a Director receive compensation for more than one meeting or other activity on the same day. A Director shall only receive one day of compensation regardless of the number of meetings that District attended on any particular day.

- E. Non-Compensable Activities. Board members shall not receive compensation for the following activities:
1. Attendance at meetings of service clubs, except as described in Section 3.A.11. above;
 2. District sponsored employee events that include, but are not limited to, employee luncheons and retirement events;
 3. Parades, festivals, holiday events, or retirement dinners;
 4. Meetings with existing or potential contractors, vendors, or consultants;
 5. Meetings of partisan political organizations;
 6. Any activity not described in Section 3.A., 3.B., or 3.C. above.

Section 4. Reimbursement of Directors' Expenses

- A. Approved Activities. In accordance with the terms of this Policy, the District will reimburse Directors for certain expenses incurred in connection with the compensable activities described above in Section 3.
- B. Transportation. In travelling to and from events, Directors must use the most economical form of transportation that is reasonably consistent with the Director's travel and scheduling requirements.

1. **Mileage for Personal Vehicles.**

The District will reimburse Directors for use of personal vehicles based on actual miles traveled at the then-current "standard mileage rate" adopted by the U.S. Internal Revenue Service for use in deducting the cost of operating an automobile for business purposes. The District will not reimburse Directors for any other personal vehicle expenses.

When calculating mileage traveled by a Director to attend an event, the District will use the lesser of (1) the distance from the District's administrative headquarters to the event, and (2) the actual distance traveled. Mileage reimbursements shall not exceed the cost of the lowest available airfare.

2. **Other Transportation Expenses.**

When travel by personal vehicle is impractical, the District will reimburse Directors for the actual cost of (1) regularly-scheduled travel by airplane, train, bus, or other commercial carrier, (2) rental cars, and (3) taxis and other comparably-priced for-hire vehicles. The District will also reimburse Directors for related necessary travel expenses such as baggage fees, toll charges, and parking fees.

Before deciding to travel by air, each Director must consider the total cost of alternatives, including the cost of ground transportation and any necessary lodging. Each Director should also consider alternative departure times, departure and arrival airports, dates, departure times, and stopovers to minimize airfare. Directors should request travel arrangements as early as possible to take advantage of lower airfares.

The District will only reimburse Directors for air travel in coach class. Directors must use their personal cars to travel to and from the airport, and utilize long-term airport parking, rather than pay for a taxi or other transportation to and from the airport.

C. Lodging. The District will reimburse Directors for actual and necessary lodging expenses incurred in attending a conference, seminar, or meeting.

1. Directors must take advantage of any government rate or group rate for lodging whenever possible. If there is no government or group rate, the District will reimburse Directors for lodging up to the per diem rate used by the U.S. Internal Revenue Service as the maximum allowable deduction for business-related lodging expenses. The per diem rates are set by the General Service Administration ("GSA") for federal employees. The rates are set forth at [GSA.gov/per diem](https://www.gsa.gov/perdiem).
2. Lodging in connection with an activity that lasts only one day is considered "necessary" when the travel time to and from the activity exceeds two hours.

D. Meals. The District will reimburse Directors for actual and necessary dining expenses incurred while attending:

1. A conference, seminar, or meeting outside of the District, or
2. A District-related business meeting within the District.

The District will reimburse Directors up to the applicable GSA per diem rate for each separate meal set forth at [GSA.gov/per diem](https://www.gsa.gov/perdiem).

E. Incidentals. The District will reimburse Directors for actual and necessary incidental expenses incurred while attending a conference, seminar, or meeting outside the District, up to the applicable GSA per diem rate set forth at [GSA.gov/per diem](https://www.gsa.gov/perdiem). Reimbursable expenses include tips given to drivers, porters, bellhops, baggage carriers, and hotel housekeepers.

F. Travel Arrangements. Each Director must utilize District staff to arrange all travel, lodging, and event registrations. The General Manager shall designate a District employee responsible for making these arrangements.

G. Expenses That Are Not Reimbursable. The District will not reimburse Directors for the costs of:

1. Barber and/or beauty shop services;
2. Fines for traffic or parking violations;
3. Any person accompanying a Director on a District-approved trip or event;
4. Personal telephone calls;
5. Fitness/health/spa facility use;
6. Massages;
7. Alcoholic beverages;
8. Entertainment (movies, sporting events, etc.); or
9. Vehicle expenses other than the standard mileage charge.

- H. Reimbursement Procedure. Each Director seeking reimbursement must file an expense report no later than three weeks after the conclusion of the compensable activity. The report shall attach detailed, actual receipts for all expenses. The report shall document that each expense meets the requirements for reimbursement set forth in this policy. Without limiting the foregoing, each report shall identify the compensable activity and the date, nature, and purpose of each expense for which reimbursement is sought. For reimbursement of a personal vehicle expense at the standard mileage rate, the expense report shall identify the date of the travel, the actual miles traveled, and the business purpose of the travel. The General Manager shall prepare a standard form of expense report for use by Directors in seeking reimbursement.
- I. Board Reports. Each Director seeking reimbursement of expenses incurred in connection with an activity shall provide a brief report of the activity at the next regular meeting of the Board of Directors.
- J. Other Expenses. Any expense that does not meet the requirements of this policy may be reimbursed only if the Board of Directors approves the expense at a public meeting before the expense is incurred.
- K. Penalties. Any Director that misuses public resources or falsifies an expense report required by this policy is subject to the following penalties:
1. Exclusion from closed sessions during directly related discussions of legal action;
 2. Loss of reimbursement privileges;
 3. Restitution of the District;
 4. Civil penalties for misuse of public resources pursuant to Government Code Section 8314; and/or
 5. Prosecution for misuse of public resources pursuant to Penal Code Section 424.

Section 5. Medical Benefits

- A. Medical Benefits. The District shall provide compensation for medical benefits to a member of the Board of Directors equal to a single employee in the Management-Exempt Bargaining Group during their tenure as a board member. No medical benefit(s) shall be provided to spouses or other family members of the board member. Any monetary amount of medical benefit that is unused, may be paid to the board member as either cash or a contribution to a deferred compensation account at the sole discretion of the board member.

Section 6. Communications by Board Members

- A. Opinion Statements, Editorials, and Letters to the Editor. In a manner similar to any other public member, the Board of Directors may submit opinion statements, editorials, and letters to the editor of newspapers to present an opinion on an issue. Board members should be mindful that their individual opinion may not necessarily represent the opinions



of other board members. Therefore, specific language should be inserted within the written piece to reflect the sole opinion and the signature should reference the board member by division.

- B. Board Member Contact with the Public. The District staff will not provide personal contact information of board members to the public. When a customer requests to speak to a board member, the District staff will record the name and contact information of the customer and relay the information to the board member. An email address provided by board members will be added to the District website at the board member request.



Date: May 26, 2020

Prepared By: Allison M. Edmisten, Chief Financial Officer

Subject: Consideration of Resolution No. 2020-27 Updating the Authorized Signatories for Bank of America Accounts

Recommendation: That the Board approve Resolution No. 2020-27.

The District currently has several financial accounts with Bank of America. Bank of America is requesting a resolution superseding prior designations and listing all signors on the account.

Resolution 2020-17 was recently approved by the Board on March 24, 2020 but it included Bruce Granlund as the Division 2 Director. Resolution No. 2020-27 has been updated to reflect the recent appointment of Dennis Miller to Division 2.

The attached resolution lists each Board Member as well as the General Manager as signors on each of the accounts. In addition, all checks are required to have two signatures in order to be processed and honored by the bank.

Once this Resolution is approved, the signors will also be required to sign the necessary Bank of America forms to update these accounts.

RESOLUTION NO. 2020-27**RESOLUTION OF THE YUCAIPA VALLEY WATER DISTRICT
TO CHANGE THE LIST OF AUTHORIZED SIGNATORIES FOR BANK OF AMERICA
ACCOUNTS**

WHEREAS, this Resolution supersedes all earlier resolutions passed in this regard, the authorized signatories to the District's bank accounts maintained with Bank of America,

NOW, THEREFORE, the Board of Directors of the Yucaipa Valley Water District hereby RESOLVE, DETERMINE AND ORDER to hereby modify the signors as follows:

- Chris Mann, President
- Jay Bogh, Director
- Lonni Granlund, Director
- Joyce McIntire, Director
- Dennis Miller, Director
- Joseph B. Zoba, General Manager

WHEREAS, the aforesaid Bank be and is hereby instructed to honor all checks and drafts drawn, accepted or made on behalf of the District by any two aforesaid authorized signatories jointly and to act on any instructions so give relating to the said Bank Accounts of the District,

WHEREAS, any of the two authorized signatories jointly listed above be authorized to close the Bank Accounts if considered in the interest of the District,

PASSED, APPROVED and ADOPTED this 26th day of May 2020.

YUCAIPA VALLEY WATER DISTRICT

Chris Mann, President Board of Directors

ATTEST:

Joseph B. Zoba, General Manager



Date: May 26, 2020

Prepared By: Allison M. Edmisten, Chief Financial Officer

Subject: Discussion Regarding the Review of Statement of Facts Required by Government Code Section 53051

Recommendation: That the Board authorizes the General Manager to file the Updated Statement of Facts.

Government Code Section 53051 requires public agencies to regularly update a Statement of Facts with the California Secretary of State and the county clerks.

The District staff will submit an updated Statement of Facts every January to ensure the document on file is complete and accurate. This item reflects the newly appointed Division 2 Director.

California Government Code Section 53050-53051

53050. The term "public agency," as used in this article, means a district, public authority, public agency, and any other political subdivision or public corporation in the state, but does not include the state or a county, city and county, or city.

53051. (a) Within seventy (70) days after the date of commencement of its legal existence, the governing body of each public agency shall file with the Secretary of State on a form prescribed by the Secretary of State and also with the county clerk of each county in which the public agency maintains an office, a statement of the following facts:

1. The full, legal name of the public agency.
2. The official mailing address of the governing body of the public agency.
3. The name and residence or business address of each member of the governing body of the public agency.
4. The name, title, and residence or business address of the chairman, president, or other presiding officer, and clerk or secretary of the governing body of such public agency.

(b) Within 10 days after any change in the facts required to be stated pursuant to subdivision (a), an amended statement containing the information required by subdivision (a) shall be filed as provided therein. The information submitted to the Secretary of State shall be on a form prescribed by the Secretary of State.

(c) It shall be the duty of the Secretary of State and of the county clerk of each county to establish and maintain an indexed "Roster of Public Agencies," to be so designated, which shall contain all information filed as required in subdivisions (a) and (b), which roster is hereby declared to be a public record.



State of California Secretary of State

STATEMENT OF FACTS ROSTER OF PUBLIC AGENCIES FILING (Government Code section 53051)

Instructions:

1. Complete and mail to: Secretary of State,
P.O. Box 942870, Sacramento, CA 94277-2870 (916) 653-3984
2. A street address must be given as the official mailing address or as the address of the presiding officer.
3. Complete addresses as required.
4. If you need additional space, attach information on an 8½" X 11" page, one sided and legible.

New Filing ☐

Update ☒

(Office Use Only)

Legal name of Public Agency: Yucaipa Valley Water District

Nature of Update: Update of the Statement of Facts for newly appointed Division 2 Director

County: Riverside County and San Bernardino County

Official Mailing Address: Post Office Box 730, Yucaipa, California 92399

Name and Address of each member of the governing board:

Chairman, President or other Presiding Officer (Indicate Title): President

Name: Chris Mann

Address: Post Office Box 730, Yucaipa, California 92399

Secretary or Clerk (Indicate Title): Secretary and General Manager

Name: Joseph B. Zoba

Address: Post Office Box 730, Yucaipa, California 92399

Members:

Name: Chris Mann, President

Address: 12770 Second Street, Yucaipa, California 92399

Name: Dennis Miller, Director

Address: 12770 Second Street, Yucaipa, California 92399

Name: Jav Boqh, Director

Address: 12770 Second Street, Yucaipa, California 92399

Name: Lonni Granlund, Director

Address: 12770 Second Street, Yucaipa, California 92399

Name: Joyce McIntire, Director

Address: 12770 Second Street, Yucaipa, California 92399

RETURN ACKNOWLEDGMENT TO: (Type or Print)

May 26, 2020

Date

NAME

Joseph B. Zoba, Secretary and G.M.

ADDRESS

Post Office Box 730

Signature

CITY/STATE/ZIP

Yucaipa, California 92399

Joseph B. Zoba, Secretary and G.M.

Typed Name and Title



Director Memorandum 20-081

Date: May 26, 2020

Prepared By: Allison M. Edmisten, Chief Financial Officer
Erin Anton, Administrative Supervisor

Subject: Identification and Declaration of Bad Debt for Calendar Year 2018

Recommendation: That the Board authorizes the District staff to declare bad debt for Calendar Year 2018 in the amount of \$12,121.87.

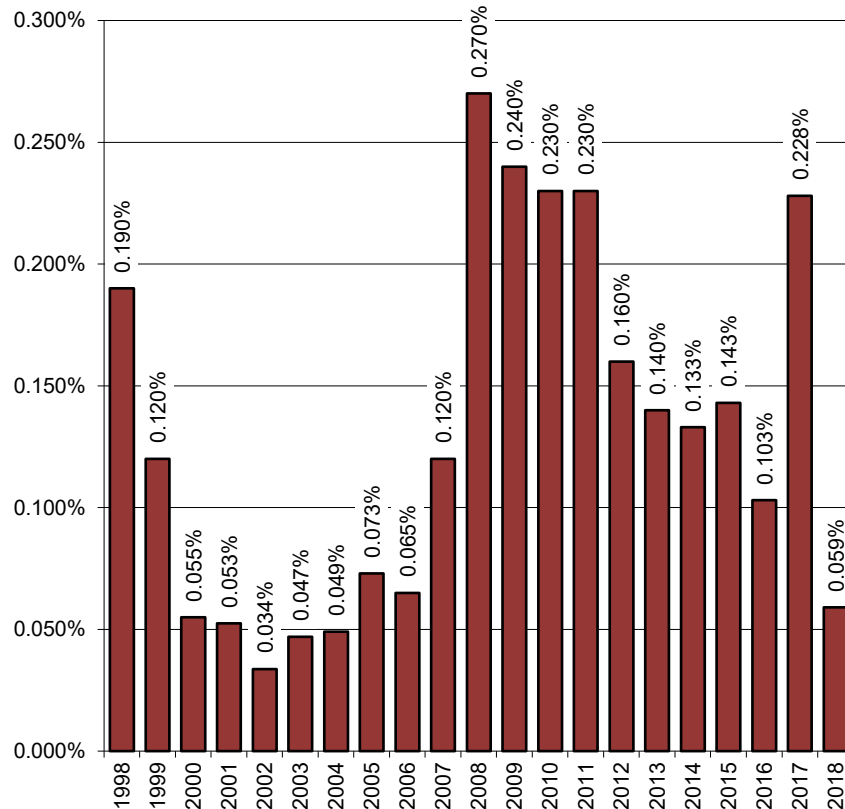
The District actively pursues delinquent accounts, and in most cases is able to collect delinquent fees through a combination of shutting off the services provided, sending accounts to a collection agency, placing a lien on the property involved, and/or pursuing the claims through legal actions such as small claims court. In some cases, the District is unable to collect the money owed the District.

During the calendar year 2018, the amount of bad debt totals \$12,121.87. This total includes \$3,900.03 for sewer only customers, \$7,028.68 for water/sewer customers, and \$1,193.16 for miscellaneous accounts receivable invoices.

As a proper accounting procedure, this bad debt must be accounted for on our financial statements; otherwise the debt remains as a liability on the District's annual audit.

Overall, the total amount of bad debt represents a loss of 0.059% for calendar year 2018 based on total water and sewer revenues.

Bad Debt as a Percentage of Annual Water and Sewer Revenues





Date: May 26, 2020

Prepared By: Allison M. Edmisten, Chief Financial Officer

Subject: Authorization to Destroy Various Documents and Files Pursuant to the District's Record Retention Policy

Recommendation: That the Board authorizes the District staff to proceed with the destruction of various documents and records pursuant to District policy.

On November 19, 2008, the Board of Directors adopted Resolution No. 15-2008 a record retention policy to retain documents for administrative, operational, legal, fiscal, historical, and research purposes.

The policy was structured to meet the following objectives:

- To provide a systematic and orderly destruction of records no longer required by statute to be retained or needed for reference;
- To establish a timely transfer of inactive records to low cost storage;
- To provide protection of records essential to the District, but which are referred to infrequently; and
- To eliminate duplicate records.

Additionally, this policy authorizes the General Manager to implement the retention, imaging, destruction, and disposal of records in a manner consistent with the policy.

As a matter of practice, the District staff summarizes the documents to be destroyed and provides the list for review by the Board to determine if any changes to the existing policy are required.

DOCUMENTS TO BE DESTROYED PURSUANT TO DISTRICT POLICY
DIRECTOR MEMORANDUM NO. 15-050
May 26, 2020

ACCOUNTS PAYABLE

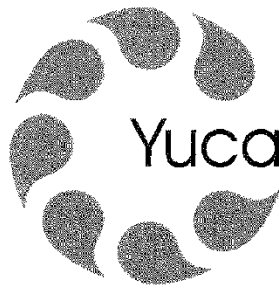
Vendor Paid Bill Files (scanned)	2011-2014
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BILLING/CUSTOMER SERVICE

Billing Registers	2001-2003
Billing Refund Lists	2001-2004

PAYROLL

Payroll Checks, Timecards and Time off Slips (scanned)	2013-2016
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Yucaipa Valley Water District

12770 Second Street, Yucaipa, California 92399

Records Management Policy

November 19, 2008

In 1968 the Legislature passed the California Public Records Act (PRA) (Government Code, Section 6250 et seq.) which is modeled after the federal Freedom of Information Act and details what government information is, and is not, available to the public. In general, all records are open to the public except 28 specific exemption categories listed in PRA, Section 6254. The PRA applies to all records, in whatever form, maintained by either state or local public agencies.

Since, with the exception of the PRA, legislation and directives establishing the state Records Management Program do not apply to local government, county and/or city government agencies do not have a standardized program of accountability for their treatment of public records. Nor does local government have standard retention periods for various record categories other than certain record types identified in government codes that mandate specific local programs. To alleviate this situation the 1999 legislature added Section 12236 to the Government Code, which states in Section 12236 (a) "The Secretary of State shall establish the Local Government Records Program to be administered by the State Archives to establish guidelines for local government retention and to provide archival support to local agencies in this state." The attached policy is based on the guidelines provided by the Secretary of State.

DEFINITIONS

Active Records – As a measure of activity for records that are referred to at least once a month per cubic foot of records. Also – As a retention period for a Perpetual Record that remains "active" until some event occurs to change its status, at which time it has fulfilled its function. (See also Perpetual Record)

Administrative Records – Records commonly found in all offices and typically retained only for short time periods – less than five years. Examples include subject, chronological, budget, and policy files.

Archival Records – Records with enduring value because they reflect significant historical events, document the history and development of an agency, or provide valuable research data.

Discovery – The pretrial disclosure of pertinent facts or documents by one or both parties to a civil action or proceeding. Anything requested during discovery must be disclosed if it exists – even non-records and records that should have been destroyed earlier. Discovery effectively freezes selected holdings until released by opposing attorney or the court.

Non-Records – Material not usually included within the definition of records, such as unofficial copies of documents kept only for convenience or reference, working papers, appointment logs, stocks of publications and processed documents, and library or museum material intended solely for reference or exhibition. Also, documents such as rough notes, calculations or drafts assembled or created and used in the preparation or analysis of other documents. (See also Discovery)

Permanent Records – Records that are required in perpetuity, usually identified by statute or other written guidance. Examples include water rights, easements, land grants, etc.

Perpetual Records – Records retained for an indefinite period of time and then stored or destroyed after some event takes place. Examples include office personnel files which are kept until a person is no longer employed, policy files kept until the policy is changed, contract files kept until the contract terminates, etc.

Program Records - Records that relate to the primary function of the District in response to its daily mission. Examples include lien files, election files, etc.

Public Records - Any information relating to the conduct of the public's business prepared, owned, used, or retained by the District generally final in format and content.

Records - All papers, maps, exhibits, magnetic tapes, photographic films and prints, and other documents produced, received, owned or used by the District.

Records Retention Schedule - A list of all records produced or maintained by the District and the actions taken with regards to those records. A retention schedule is the District's legal authority to receive, create, retain, and dispose of official public records. It assists the agency by documenting which records require office or temporary storage, which records have historic or research value, and which records should be destroyed because they no longer have any administrative, fiscal, or legal value. In the event of litigation, courts accept a retention schedule as establishing an agency's "normal course of doing business".

Retention Period - The length of time a record must be retained to fulfill its administrative, fiscal and/or legal function. Then a record should be disposed of as soon as possible in accordance with an approved Records Retention Schedule.

PURPOSE OF RECORDS MANAGEMENT

The purpose of this policy is to apply efficient and economical management methods to the creation, utilization, maintenance, retention, preservation, and disposal of records. Effective records management ensures that records are kept only as long as they have some administrative, fiscal, or legal value. When records no longer fulfill the value for which they were created, they should be destroyed unless they also have some historic or research significance. Staff members should realize that an effective records management program is not only cost effective; it will also make their jobs easier. They should also know that records retained beyond their value "just in case" only extend the agency's legal liability in the event of adverse litigation.

EVALUATION OF RECORDS

In preparing this policy, the District conducted an inventory of records and determined the immediate and future usefulness of the records. In general, records are retained only as long as they serve the immediate administrative, legal and/or fiscal purposes for which they were created. When records no longer serve these purposes, they are disposed of or preserved for archival purposes, whichever is appropriate.

Records with Administrative Value

Records with administrative value are created to help accomplish the functions for which the District is responsible and have administrative value only as long as they assist the District in performing current or future work. Their administrative use is exhausted when the transactions to which they relate are complete and from that point on they lose value rapidly.

Records with Legal Value

Records with legal value contain evidence of legally enforceable rights or obligations of the District. Examples are records that provide the basis for action, such as legal decisions and opinions; fiscal documents representing agreements, such as leases, titles and contracts; and records of action in particular cases, such as claim papers and legal dockets.

Records with Financial Value

Fiscal records pertain to the financial transactions, such as budgets, ledgers, allotments, payrolls and vouchers. After some records have served a basic administrative function, they may still have sufficient fiscal value to justify additional retention to protect the District against court action and/or audits.

Records with Historical Value

Some records will also have enduring value because they reflect significant historical events or document the history and development of the District. Others contain accumulated data that can be useful for both scientific and historical research.

RECORD RETENTION SCHEDULE

Keeping records, either in offices or storage areas, is very expensive and the actual or potential value of the records must be weighed against the cost. Except for perpetual records, most administrative records should only be kept two or three years and certainly not more than five. Program records (unique and representative of the function of the District) are typically large files and kept for longer periods of time.

In preparing the record retention schedule, the District considered questions such as:

- How serious would it be if a particular record 5 or 10 years from now were unavailable?
- What are the chances of it being needed?
- Are the consequences serious enough to justify keeping a large volume of records for long periods of time at considerable cost?
- Is the information available anywhere else?
- What would it cost to reconstruct the record if necessary?

Answering these questions resulted in a realistic approach to the problem of determining how long records should be kept.

Establishing the retention periods also involved discussion with the people who use the records. Departmental managers were encouraged to look realistically at their need for the records. While it is often comfortable to state "the records are used all the time and therefore must be kept permanently". Permanent retention is very expensive, rarely necessary, and usually must be justified by a specific written requirement such as a statute, legal opinion, or government code. The State of California assumes "permanent" to mean 500 years! Will our records really have any value 500 years from now?

Once retention periods were established for records, the Records Retention Schedule was developed. The schedule formalizes the retention and disposition of the District's records and

establishes the “normal course of doing business”.

The Records Retention Schedule is based on the District's legal authority to do whatever needs to be done with records and documents entrusted to the District's care. It certifies the life, care, and disposition of all records. If subpoenaed records have been destroyed, the District's schedules (and evidence of compliance with those schedules) will defend the District's actions. However, to prove there was no adverse intent when records were destroyed, schedules must be specific and consistently used. Adverse intent (to keep records out of court) is both a civil and criminal offense.

DISPOSITION OF RECORDS

Once records have fulfilled their administrative, fiscal, or legal function they will be disposed of in accordance with the Records Retention Schedule. Disposition may include sending appropriate records to an archival facility, recycling unneeded records, and/or destroying unneeded confidential records. Remember, in the event of litigation the court will want to know what how the District maintains records during our normal course of doing business, therefore it is intent of this policy to explain the process and procedure for the disposition of records.

SUMMARY

The primary concern of a records management policy is the efficient, effective and economical management of information. The guiding principle is to insure that information is available when and where it is needed, in an organized and efficient manner, and in a well-maintained environment. Records management encompasses all the record-keeping requirements that allow the District to establish and maintain control over information flow and administrative operations through the entirety of a document life cycle, from their creation to their final disposition.

ACKNOWLEDGEMENT

The formulation of this policy was mainly derived from publications developed by the California State Archives in association with the League of California Cities and the City Clerks Association of California. This document and record retention schedule was also based on the content available from the Local Government Records Management Guidelines, Archives and Museum Division of the California Secretary of State, February 2006. The use of these guidelines makes this records retention policy consistent with other special districts and local governments in California.

Yucaipa Valley Water District - Record Retention Schedule
Thursday, November 14, 2008

Item	Office of Record	Classification	Record Type / Description	Retention of Original Record	Essential Record	Imaging System	Authority / Citation
1	Accounting	Financial	Accounts Payable & Related Financial Records (Invoices, Check Copies, Purchase Requests, Purchase Orders, Petty Cash Records, Etc...)	AA + 4			GC 60201; MD
2	Accounting	Financial	Accounts Receivable	AA + 4			GC 60201; MD
3	Accounting	Financial	Assessed Valuation (Riverside County)	FYE + 3		DIS	GC 60201; MD
4	Accounting	Financial	Assessed Valuation (San Bernardino County)	FYE + 3		DIS	GC 60201; MD
5	Accounting	Financial	Assessment District Financial Records	AP + 4		DIS	GC 60201; MD
6	Accounting	Financial	Assets Records - Additions/Deletion	P	Yes	DIS, CMMS	GC 60201; MD
7	Accounting	Financial	Audit Work Papers, Backup Records	AA + 4			GC 60201; MD
8	Accounting	Financial	Audit Annual Reports	P			GC 60201; MD
9	Accounting	Financial	Bank Deposit Records & Receipts	AA + 4		DIS	GC 60201; MD
10	Accounting	Financial	Bank Signature Cards	US			GC 60201; MD
11	Accounting	Financial	Bank Statements and Reconciliations	AA + 4			GC 60201; MD
12	Accounting	Financial	Bankruptcy Files, liens	AS + 2			GC 60201; MD
13	Accounting	Financial	Billing Records - Billing ledgers, meter reads, usage, payments including electronic payments, adjustments, shutoff lists, extension lists, routes	FYE + 2	Yes		GC 60201; MD
14	Accounting	Financial	Bond Issue Records	CL + 10	Yes	DIS	GC 60200 - 60204
15	Accounting	Financial	Bond Registers	CL + 10	Yes	DIS	GC 60200 - 60204
16	Accounting	Financial	Bonds - Account Statements	CL + 10			GC 60200 - 60204; 53921; CCP 337.5
17	Accounting	Financial	Bonds - Administration	CL + 10			GC 60200 - 60204; 53921; CCP 337.5
18	Accounting	Financial	Bonds - Bonds and Coupons (paid/cancelled)	CL + 10			GC 60200 - 60204; 53921; CCP 337.5
19	Accounting	Financial	Bonds - Fund Transfers	CL + 10			GC 60200 - 60204; 53921; CCP 337.5
20	Accounting	Financial	Budget - Final Adopted Annual Budget	P		DIS	GC 60200 - 60204
21	Accounting	Financial	Budgets, proposed	DWNLR			GC 60200 - 60204
22	Accounting	Financial	Cancelled Checks	AA + 4			GC 60201; MD
23	Accounting	Financial	Capital Reconciliations	AA + 4			GC 60201; MD
24	Accounting	Financial	Cash Receipts	AA + 4			GC 60201; MD
25	Accounting	Financial	Cash Transfer Report	AA + 4			GC 60201; MD
26	Accounting	Financial	Chart of Accounts, original	US			GC 60201; MD
27	Accounting	Financial	Check Register	AA + 4			GC 60201; MD
28	Accounting	Financial	Contracts Administration Records	AT + 5			GC 60201; MD
29	Accounting	Financial	Correspondence - Accounting	CYE + 5			GC 60201; MD
30	Accounting	Financial	Cost Accounting Records	CYE + 10			MD
31	Accounting	Financial	Customer Files	CL + 2			MD
32	Accounting	Financial	Direct Payment Applications	CL + 2			GC 60201; MD
33	Accounting	Financial	Expense Reports, originals	AA + 4			GC 60201; MD
34	Accounting	Financial	Financial Transactions	AA + 4			GC 60201; MD
35	Accounting	Financial	Financing Corporation - Agendas	CL + 10		DIS	GC 60200 - 60204; 53921; CCP 337.5

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Item	Office of Record	Classification	Record Type / Description	Retention of Original Record	Essential Record	Imaging System	Authority / Citation
36	Accounting	Financial	Financing Corporation - Director Memorandums	CL + 10		DIS	GC 60200 - 60204; 53921; CCP 337.5
37	Accounting	Financial	Financing Corporation - Formation Documents	P		DIS	GC 60200 - 60204; 53921; CCP 337.5
38	Accounting	Financial	Financing Corporation - Minutes	P		DIS	GC 60200 - 60204; 53921; CCP 337.5
39	Accounting	Financial	Fund Transfers/Adjustments	AA + 4			GC 60201; MD
40	Accounting	Financial	General Ledger	AA + 10			GC 60201; MD
41	Accounting	Financial	Inventory Reports	AA + 4	Yes		GC 60201; MD
42	Accounting	Financial	Investment Files (Money Market Certificates, T-Bills and Notes)	AE + 6			GC 60200 - 60204; MD
43	Accounting	Financial	Investment Transactions Reports	P	Yes	DIS	GC 60201; MD
44	Accounting	Financial	IRS Form 1099	AA + 4			26 CFR 31.6001-1(3)(2)
45	Accounting	Financial	Journal Vouchers	FYE + 5			GC 60201; ND
46	Accounting	Financial	LAIF Records	FYE + 5			GC 60201; MD
47	Accounting	Financial	Mandated Costs Recovery Claims/Documentation	AS + 4		DIS	GC 60201; MD
48	Accounting	Financial	Monthly A/R Statements	AA + 4		DIS	GC 60201; MD
49	Accounting	Financial	Policy/Regulations/Procedures	US		DIS	GC 60201; ND
50	Accounting	Financial	Rate Schedules	US		DIS	GC 60201; MD
51	Accounting	Financial	State Controllers Report	FYE + 5		DIS	GC 60201; MD
52	Accounting	Financial	Surplus Equipment Disposal Records	AA + 4			GC 60200 - 60204; CCP 337
53	Accounting	Financial	Trial Balance Reports	AA + 4			MD
54	Accounting	Financial	Warrant Register/Demand Lists	FYE + 2			GC 60200 - 60204
55	Accounting	Financial	Work Order Reports	AA + 4			GC 60200 - 60204
56	Customer Service	Customer	Customer Service Files - new connections	P		CMMIS	ND
57	Customer Service	Customer	Meter Reading - Field Memos, Routes, Maintenance Records	CYE + 2			
58	Customer Service	Forms	Customer Complaint Forms	CYE + 2			MD
59	Department	Agreement	Contracts (GM Approved) - Leases, Equipment, Services, Supplies	AT + 2	Yes	DIS	MD
60	Department	Board	Board Packets - Reference Copies	DWNLR			MD
61	Department	Consultant	Consultant Reference Info/Brochures	DWNLR			GC 60200 - 60204, MD
62	Department	Correspondence	Correspondence (not attached to agreement or project file)	CYE + 2		DIS	MD
63	Department	Correspondence	General Public	CYE + 2			MD
64	Department	Correspondence	Reproduction / Document Requests	CYE + 2			MD
65	Department	Emergency	Disaster Planning Records - Copies	CYE + 2			GC 60201
66	Department	Emergency	Drills/Correspondence	CYE + 2			GC 60201
67	Department	Emergency	Emergency Plans, District (alt), Original	US + 2		DIS	GC 60201
68	Department	Emergency	Emergency Plans/Other Agencies	US + 2		DIS	GC 60201
69	Department	Facilities	Environmental (worksites) Monitoring - Data (Results)	30		DIS	8 CCR 3204(d)
70	Department	Facilities	Environmental (worksites) Monitoring - MSDS	30		DIS	8 CCR 3204(d)
71	Department	Facilities	Environmental (worksites) Monitoring - Sampling Plan	30		DIS	8 CCR 3204(d)

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Item	Office of Record	Classification	Record Type / Description	Retention of Original Record	Essential Record	Imaging System	Authority / Citation
72	Department	Facilities	Environmental (worksites) Monitoring - Worksheets/ Field Notes	1		DIS	8 CCR 3204(d)
73	Department	Facilities	Operations & Maintenance Records	P		DIS, CMMS	GC 60200 - 60204
74	Department	Financial	Budget - Reference Copies	US		DIS	MD
75	Department	Financial	Budget Correspondence/Memos	CYE + 2			GC 60201, MD
76	Department	Financial	Budget - Work Papers	CYE			MD
77	Department	General	Brochures, Vendor Catalogs, Information	DWNLR			MD
78	Department	General	Draft Documents	DWNLR			GC60200 - 60204
79	Department	General	Forms	US			ND
80	Department	General	Inter/Intra Dept Memorandums	CYE + 2			MD
81	Department	General	Meetings, staff agendas, communications, notes,	CYE + 2			MD
82	Department	General	Subject Files	DWNLR			GC60200 - 60204
83	Department	Laboratory Data	Laboratory Reports & Tests	P		DIS, CMMS	40CFR 141.33
84	Department	Operations	Activity Reports	CYE + 2			MD
85	Department	Operations	Confined Space Entry Permits, Originals	CYE + 2		DIS	MD
86	Department	Operations	Flow Charts, Circular	CYE + 5		DIS	MD
87	Department	Operations	Hazardous Waste, Documentation - handling and disposal	CYE + 10		DIS	40 CFR 122.21
88	Department	Operations	Leak Reports	CYE + 2		CMMS	MD
89	Department	Operations	Maintenance and Repair	CYE + 5			MD
90	Department	Operations	Monthly Reports	CYE + 2			
91	Department	Operations	Standby Schedules	CYE + 2			MD
92	Department	Organization	Associations	DWNLR			
93	Department	Organization	Studies, Statistics	4		DIS	MD
94	Department	Policy	Policies and Procedures	US		DIS	MD
95	Department	Procurement	Proposals, Unaccepted	CYE + 2			GC 60200 - 60204
96	Department	Project	Catalogues - vendors	DWNLR			MD
97	Department	Project	Completion Notices, originals	P*		DIS	GC 60200 - 60204, MD
98	Department	Project	Project Files - Non-Construction (for projects funded by federal or state loans and grants refer to loan / grant closeout procedures)	CYE + 10		DIS	MD
99	Department	Quality Control	Bacteriological Analysis	CYE + 5			
100	Department	Quality Control	Chemical Analysis	CYE + 10		LIMS	40CFR 141.33
101	Department	Quality Control	General Laboratory Results	CYE + 12		LIMS	40CFR 141.91
102	Department	Reference	Computer Reference Materials	DWNLR		DIS	
103	Department	Reference	Equipment Manuals, Reference	US		CMMS	MD
104	Department	Reference	Policies and Procedures	US		DIS	MD
105	Department	Regulatory	Safety Meetings, agendas, training material, sign-in sheets - copies (originals maintained by Safety Officer)	CYE + 2		DIS	
106	Department	Reports	Reports and Studies	P		DIS	GC 60200 - 60204, ND
107	Department	Risk Management	Incident Reports & Related Materials	CL + 5		DIS	ND

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Item	Office of Record	Classification	Record Type / Description	Retention of Original Record	Essential Record	Imaging System	Authority / Citation
108	Department	Safety	Completed Tags and Checklists	CYE +2			MD; 29CFR1910.147 - Requires retraining as necessary and a written training certification. No training record retention time is specified.
109	Department	Safety	Compliance Audit Form	CYE +2			MD; 29CFR1910.147 - Requires retraining as necessary and a written training certification. No training record retention time is specified.
110	Department	Safety	Employee Safety Training	CYE +2			MD; 8 CCR 3203(b)(2)
111	Department	Safety	Lockout/Tagout Program	CYE +2			MD; 29CFR1910.147 - Requires retraining as necessary and a written training certification. No training record retention time is specified.
112	Department	Safety	Material Safety Data Sheets (MSDS)	30		DIS	29CFR1910.1200; 8CCR 3204(D)(1)(B)(2)
113	Department	Safety	Respirator Inventory & Maintenance - Original	CYE +2			MD
114	Department	Safety	Safety Manual, Written Programs & Data; Policies and Procedures	US		DIS	MD
115	Utility Services	Assets	Leak Reports	CYE +2			MD
116	Engineering	Boundary	Annexation Files - Working Files	P*		DIS	
117	Engineering	Boundary	Annexations, Detachments, Boundary Changes, Sphere of Influence, General District - completed	P	Yes	DIS	GC 60200 - 60204
118	Engineering	Boundary	Annexations, Detachments, Improvement Districts and Assessment Districts - completed	P	Yes	DIS	GC 60200 - 60204
119	Engineering	Boundary	Boundary Modification Proposals	P	Yes	DIS	GC 60200 - 60204
120	Engineering	Customer	Backflow Test Reports, Originals	CYE +3		DIS, CMMS	CCR Title 17, Section 7605
121	Engineering	Development	Comment Letters - Conditions of Approval, filed with customer service or extension files	P		DIS	MD
122	Engineering	Development	Tract Maps, Parcel Maps, Tentative Tract Files	CYE +5			MD
123	Engineering	Development	Utility Location Requests	CYE +2			MD
124	Engineering	Development	Water Service Cost Worksheets	CYE +2			MD
125	Engineering	Development	Water Supply Assessments	P		DIS	MD
126	Engineering	Development	Will Serve Letters	CYE +2			MD
127	Engineering	Environmental	Environmental Documentation, EIR, Notices of Exemption,	P		DIS	GC 60200 - 60204/CEQA
128	Engineering	Environmental	Negative Declaration, Notices of Determination - District	10		DIS	Guideline 15095(c)
129	Engineering	Facility	Backflow Test Reports, Originals	CYE +3		DIS, CMMS	CCR Title 17, Section 7605
130	Engineering	Facility	Fire Flow Test Results	P		CMMS	MD

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Item	Office of Record	Classification	Record Type / Description	Retention of Original Record	Essential Record	Imaging System	Authority / Citation
131	Engineering	Facility	Plans & Specifications, originals	P		DIS, CMMS	GC 60200 - 60204, ND
132	Engineering	Financial	Formation Files - Assessment Districts, Improvement	P	Yes	DIS	GC60200 - 60204
133	Engineering	Financial	Improvement District Formation, Annexations, Deletions	P	Yes	DIS	GC 60200-60204
134	Engineering	NPW	Cross-Connection Testing Reports	10		DIS, CMMS	
135	Engineering	NPW	Non-Potable Water Engineering Report	P		DIS, CMMS	
136	Engineering	Operations	SARI - Dump Station Records, Waste Manifests	CYE + 3		DIS	
137	Engineering	Operations	SARI Line Meter Readings	CYE + 3		DIS	
138	Engineering	Operations	SARI Line Waste Hauler Permits	P		DIS	MD
139	Engineering	Project	Extension Files - Main line extension	P		DIS, CMMS	GC 60200 - 60204, ND
140	Engineering	Project	Facilities Construction Projects, Correspondence,	P		DIS	
141	Engineering	Project	Feasibility Studies	7		DIS	
142	Engineering	Project	Notices of Completion	P		DIS, CMMS	MD
143	Engineering	Project	Record (As-Built) Drawings	P	Yes	DIS, CMMS	ND
144	Engineering	Project	Request for Proposals	CL + 3		DIS	MD
145	Engineering	Project	Soils Reports	P		DIS	MD
146	Engineering	Project - Other	Comment Letters - No-Comment, Non-Interference - Letters to City and County	CYE + 2			MD
147	Engineering	Projects	Facilities Construction Projects, Inspection Reports	P		DIS, CMMS	GC 60200 - 60204
148	Engineering	Property	Acquisitions/Sale, Real Property	P		DIS, CMMS	GC 60200 - 60204, 6254
149	Engineering	Property	Appraisals, District Property	P		DIS	GC 60200 - 60204, 6254(h)
150	Engineering	Property	Grant Deeds, Easements, Quitclaims	P	Yes	DIS, CMMS	GC 60200 - 60204
151	Engineering	Regulatory	Urban Water Management Plan - Final	P		DIS	MD, CA Water Code
152	Executive	Agreement	Contracts - Agency Agreements, Legal Settlements, Community Facilities Districts, Supplemental Water Sales, Wastewater Sales	AT + 5	Yes	DIS	MD
153	Executive	Agreement	Contracts (Board Approved) - Financing, Operation and Maintenance, Capital Improvement, Construction	AT + 5	Yes	DIS	MD
154	Executive	Assets	Vehicles - Ownerships & Title	AD + 1		DIS	
155	Executive	Assets	Vehicles- Fleet Invoices - Purchase Data	CYE + 2		DIS	
156	Executive	Board	Appointments/Resignations (Review for historical and research value)	AT + 4		DIS	MD
157	Executive	Board	Board Minutes, originals (Image for safety, keep originals)	P	Yes	DIS	GC60200 - 60204
158	Executive	Board	Board Packets, including agendas, special meeting notices, certificates of posting, board letters and backup	P		DIS	GC60200 - 60204; MD
159	Executive	Board	Campaign Statements	AT + 7		DIS	GC 81009 (c)
160	Executive	Board	Committee Agendas	CYE + 2		DIS	MD
161	Executive	Board	Directors Files, Correspondence, Biographical Data, etc.	P		DIS	GC 60200 - 60204; MD
162	Executive	Board	Elections: Correspondence, Notifications and Publications	EL + 5		DIS	GC 81009
163	Executive	Board	Formation Files, Articles of Incorporation - General	P	Yes	DIS	GC 60200 - 60204; CCP
164	Executive	Board	Oaths of Office	AT + 6			GC60200-60204;
165	Executive	Board	Redistricting	P	Yes	DIS	GC 60200-60204
166	Executive	Board	Resolutions & Ordinances (Image for safety, keep originals)	P	Yes	DIS	GC60200 - 60204

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Item	Office of Record	Classification	Record Type / Description	Retention of Original Record	Essential Record	Imaging System	Authority / Citation
167	Executive	Boundary	Sphere of Influence Amendments - completed	P	Yes	DIS	GC60200 - 60204
168	Executive	Correspondence	Board Letters	CYE + 2			MD
169	Executive	Correspondence	Customer information requests, generally - not requests for public information	CL + 2			MD
170	Executive	Election	Calendar of Election	EL + 2		DIS	MD
171	Executive	Election	Certificates of Election	T + 4		DIS	GC 81009(a)(d)
172	Executive	Emergency	Disaster Planning Records - Original	CYE + 2		DIS	GC 60201
173	Executive	FPPC	Statement of Economic Interest - Designated Positions	AT + 7			GC 81009(e)
174	Executive	Legal	Conflict of Interest Code	US		DIS	GC 60200 - 60204
175	Executive	Legal	Lawsuits - Adjudications	P	Yes	DIS	MD
176	Executive	Legal	Lawsuits - All Others	AS + 4		DIS	GC 60201; MD
177	Executive	Legal	Lawsuits - Civil Rights Related Actions	AS + 7		DIS	42 USC 1983
178	Executive	Legal	Lawsuits - Small Claims	AS + 1		DIS	MD
179	Executive	Legal	Legal Opinions	DWNLR		DIS	MD
180	Executive	Operations	AQMD Permits, Originals	US + 2			CFR 40, Chapter 1, Part 70
181	Executive	Personnel	Negotiations - MOA's/MOU's Access restricted	P		DIS	29 USC 211(c), 203(m)
182	Executive	Policy	Board Policies	US		DIS	MD
183	Executive	Public Information	District Brochures, Programs, Publications - including annual Reports and Historical Material	DWNLR			MD
184	Executive	Public Information	News Clippings, Check for Historical Value	5		DIS	MD
185	Executive	Public Information	Projects, Documentation of Activities, Special Events, Tours, Programs, Water Education	CYE + 5			GC 60200 - 60204; MD
186	Executive	Records Mgmt	Record Retention Schedule	US		DIS	MD
187	Executive	Records Mgmt	Records Destruction Authorization	3		DIS	MD
188	Executive	Regulatory	Control, Drinking Water Corrections, Lead Service Lines	10			MD
189	Executive	Regulatory	NPDES Permits	AE + 10		DIS	
190	Executive	Regulatory	Wastewater-Monthly Report to RWQCB	CYE + 5		DIS	40CFR 122.41
191	Executive	Regulatory	Water Quality Compliance	CYE + 12		DIS	40CFR 141.91; 141.33
192	Executive	Risk Management	Accident Reports	AS/AT + 5		DIS	MD
193	Executive	Risk Management	Accident Reports - District Assets (and related materials)	CL + 7		DIS	ND
194	Executive	Risk Management	Claims, Automobile	AS + 10		DIS	MD
195	Executive	Risk Management	Claims, damage	AS + 2		DIS	GC 60201
196	Executive	Risk Management	Claims, Loss or Damage	AS + 10		DIS	MD
197	Executive	Risk Management	Claims, Workers Compensation	AS + 10		DIS	MD
198	Executive	Risk Management	Expired Policy - Liability	AE + 10		DIS	MD
199	Executive	Risk Management	Insurance Certificates	AE + 2		DIS	ND
200	Executive	Risk Management	Insurance Policies, Liability	AE + 10		DIS	GC 60200 - 60204; MD
201	Executive	Risk Management	Proposals, Liability Insurance	CYE + 2			MD
202	Executive	Safety	Atmospheric Testing Records	CYE + 2			29CFR 1910.146; MD

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Item	Office of Record	Classification	Record Type / Description	Retention of Original Record	Essential Record	Imaging System	Authority / Citation
203	Executive	Safety	Confined Space Permits	CYE + 2			ND; 29CFR 1910.146 - Requires retraining as necessary and a written training certification. No training record retention time is specified. Cancelled entry permits are required to be retained for one year.
204	Executive	Safety	CPR/First Aid Training	CYE + 2			MD 8CCR 3203(b) (2)
205	Executive	Safety	Employee Exposure Records - Data (results)	30		DIS	8 CCR 3204(d)(1)(B)(1)
206	Executive	Safety	Employee Exposure Records - Sampling Plan	30		DIS	8 CCR 3204(d)(1)(B)(1)
207	Executive	Safety	Employee Exposure Records - Worksheets/Field Notes	1		DIS	8 CCR 3204(d)(1)(B)(1)
208	Executive	Safety	OSHA Correspondence	CYE + 2		DIS	MD
209	Executive	Safety	Respirator Inventory & Maintenance - Copies	CYE + 2			MD
210	Executive	Safety	Respiratory protection - fit testing records (*or until next test)	*CYE + 2			MD; 29CFR 1910.134 - Requires retraining at least annually, but no specific written training record is required. Written fit testing records must be retained until the next test takes place.
211	Executive	Safety	Safety Committee Meeting Minutes - Original	CYE + 2			MD; 8 CCR 3203(c)(2)
212	Executive	Safety	Safety Inspections	CYE + 2			MD; 8CCR 3203(b)(1)
213	Executive	Safety	Safety Manual, Written Programs & Data; Policies and Procedures - Original	US			MD
214	Human Resources	Correspondence	Benefits - Correspondence	AE + 10			
215	Human Resources	Correspondence	Personnel - Correspondence	5			
216	Human Resources	Personnel	Applications	2			
217	Human Resources	Personnel	Claims, Unemployment Insurance	AS + 5			ND
218	Human Resources	Personnel	Deferred Compensation Plan, Original	AT + 3			MD
219	Human Resources	Personnel	Disciplinary and Adverse Action Records (demotion, probation, termination, suspension, leave without pay)	AS/AT + 3			29 CFR 1602.31
220	Human Resources	Personnel	DMV - Motor Vehicle Pull Notices	CL + 7			
221	Human Resources	Personnel	Duty Statements	US			MD
222	Human Resources	Personnel	EEO Records and Reports	CYE + 3			29 CFR 1602.30, 32
223	Human Resources	Personnel	Employee Attendance Records	AS/AT + 3			PRA 6254, IPA 1798.40, Confidential Destruction
224	Human Resources	Personnel	Employee Benefits - General Information	DWNLR			GC 60200 - 60204
225	Human Resources	Personnel	Employee Benefits Records, life and deferred compensation plans	AS/AT + 3		DIS	GC 6250 at seq. GC 6276.28; 29USC1027.
226	Human Resources	Personnel	Employee Health and Medical Records	30			8CCR 3204; GC 6264(c)
227	Human Resources	Personnel	Employee Orientation Forms, Packets, Information	US			MD
228	Human Resources	Personnel	Employee Payroll History Sheet	P			

Yucaipa Valley Water District - Record Retention Schedule

Thursday, November 14, 2008

Item	Office of Record	Classification	Record Type / Description	Retention of Original Record	Essential Record	Imaging System	Authority / Citation
229	Human Resources	Personnel	Employee Personnel Files (restricted access), applications, changes, terminations, performance evaluations	AS/AT + 3			PRA 6254, IPA 1798.40, Confidential Destruction
230	Human Resources	Personnel	Employee Recruitment Files	CYE + 3			CA Code 12946; CA Labor
231	Human Resources	Personnel	Employment Announcements	CYE + 2			MD
232	Human Resources	Personnel	Employment Applications - Not Hired	CYE			GC 12946; GC6250 et seq;
233	Human Resources	Personnel	Garnishments	AS/AT + 3			MD
234	Human Resources	Personnel	Grievance Records	AS/AT + 3			
235	Human Resources	Personnel	Health & Safety Bulletins	2			
236	Human Resources	Personnel	Individual Employee File	AS/AT + 3			
237	Human Resources	Personnel	Insurance Policies - Health Plans	AT + 5			
238	Human Resources	Personnel	Medical and Exposure Reports (exposure to toxic substances, harmful physical agents, or blood borne pathogens; environmental, biological, and material safety monitoring reports concerning toxic substances and harmful physical agents in the workplace)	30			GC 60200 - 60204; MD 8CCR 3204, Transfer report with employee upon written request
239	Human Resources	Personnel	Medical Folders	AS/AT + 3			
240	Human Resources	Personnel	Medical Leave Records, including family leave	AS/AT + 3			FMLA 1993; 29CFR 825.500,
241	Human Resources	Personnel	Paychecks	AS/AT + 3			
242	Human Resources	Personnel	Pension Plan	P		DIS	
243	Human Resources	Personnel	Performance Evaluation Calculations	2			PRA 6254, IPA 1798.40, Confidential Destruction
244	Human Resources	Personnel	Proposals, Insurance, Health	CYE + 2			MD
245	Human Resources	Personnel	Retirement Records	AS/AT + 3			29 USC 1027
246	Human Resources	Personnel	Salary & Classification Surveys including job description development	CYE + 2			Labor Code Sec 1197.5(d)
247	Human Resources	Personnel	Timecards	5			
248	Human Resources	Personnel	Training	CYE + 3			PRA 6254, IPA 1798.40, Confidential Destruction
249	Human Resources	Personnel	Training Manuals	US + 5			
250	Human Resources	Personnel	Training Records	CYE + 5			MD
251	Human Resources	Personnel	Travel Records (maintain until travel is complete)	AA			PRA 6254, IPA 1798.40, Confidential Destruction
252	Human Resources	Personnel	Worker's Comp/OSHA - claim files, reports, incidents (working files) original filed with administrator	P		DIS	CCR 14311, 15400.2; CA
253	Human Resources	Personnel	Worker's Compensation Claims, Reports, Incidents	CL + 5			8 CCR 10102
254	Human Resources	Personnel	Worker's Compensation Insurance	CL + 5			8 CCR 10102
255	Human Resources	Personnel	Workers Compensation Reports	30			
256	Human Resources	Safety	Employee Orientation Checklist, Information	AS/AT + 3			MD

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Yucaipa Valley Water District - Record Retention Schedule

Thursday, November 14, 2008

Item	Office of Record	Classification	Record Type / Description	Retention of Original Record	Essential Record	Imaging System	Authority / Citation
257	Human Resources	Safety	Driver Test Results for Alcohol Concentration 0.02 or Greater, Positive Controlled Substances, Refusals to Take Required Tests, Driver Evaluation/Referrals, Calibration Documentation, Administration of Alcohol Controlled Substances Testing Programs, Annual Calendar Year Summary	5			FMCSA (49 CFR part 382); DOT (49 CFR part 40)
258	Human Resources	Safety	Alcohol and Controlled Substances Collection Process	2			FMCSA (49 CFR part 382); DOT (49 CFR part 40)
259	Human Resources	Safety	Negative and Cancelled Controlled Substances Test Results and Alcohol Test Results with Concentration of Less Than 0.02	1			FMCSA (49 CFR part 382); DOT (49 CFR part 40)
260	Purchasing	Procurement	Bids - Accepted \$25,000 to \$100,000 (Filed with Contract)	CYE + 5		DIS, CMMS	
261	Purchasing	Procurement	Bids - Accepted < \$25,000 (Filed with Contract)	CYE + 2		DIS, CMMS	
262	Purchasing	Procurement	Bids - Accepted > \$100,000 (Filed with Contract)	AD		DIS, CMMS	
263	Purchasing	Procurement	Bids - Unaccepted	CYE			

9 of 9



Date: May 26, 2020

Prepared By: Kathryn Hallberg, Implementation Manager

Subject: Overview of the Energy Resiliency Project and the Self-Generation Incentive Program

Recommendation: That the Board authorize the General Manager to execute an agreement with Southern California Edison's Self-Generation Incentive Program for a sum not to exceed \$290,000.

The California Public Utilities Commission's (CPUC) Self-Generation Incentive Program (SGIP) provides incentives to support existing, new, and emerging distributed energy resources. SGIP provides rebates for qualifying distributed energy systems installed on the customer's side of the utility meter. Qualifying technologies include wind turbines, waste heat to power technologies, pressure reduction turbines, internal combustion engines, microturbines, gas turbines, fuel cells, and advanced energy storage systems. The District's Solar Resiliency proposed projects uses a combination of solar, gas turbines and battery storage to allow the District to become completely resilient and not reliant on the increasing cost of SCE, while also stopping the District's vulnerability to Public Safety Power Shutoffs.

Southern California Edison (SCE) is the District's energy provider and has been allotted a little more than \$100 million by the CPUC for the SGIP project. Submittal for projects opened May 1st and allotted funds were depleted by May 20th. The deletion of funds was faster than anticipated.

In response to the rapid depletion of program funds, the District worked with the solar consultant to secure \$2,879,065 for battery storage cost for the Energy Resiliency project at Wochholz Regional Water Recycling Facility (WRWRF). The District also submitted for the Energy Resiliency project at Yucaipa Valley Regional Water Filtration Facility (YVRWFF), this application has not been secured at this time. If other projects do not advance their projects the District's application for YVRWFF will be first in line for an allotment of \$2,879,065.

To secure the funds for the WRWRF project, five percent of this amount is required to be sent to the program administrator by within seven days of securement, which was 05/20/2020. Five percent equates to \$144,853.25 for WRWRF and another \$144,853.25 for YVRWFF. Therefore, the District is requesting a sum not to exceed \$290,000 to secure the funds for battery storage for both the Solar Resiliency projects. Once the application fee is received a conditional reservation letter will be issued. After an estimated time of eight months a confirmed reservation letter will be received. These eight months gives the project time for interconnection applications, environmental studies, etc., to make sure the project will move forward. There is also the ability to deviate from the time restraints per approval form SCE on a case by case basis.

If the project(s) do not move forward after the confirmation reservation letter is received by the District, the application fee money would be forfeited.

Financial Consideration: Funding for this project will be from reserves from either the drinking water or sewer enterprise fund.



Date: May 26, 2020

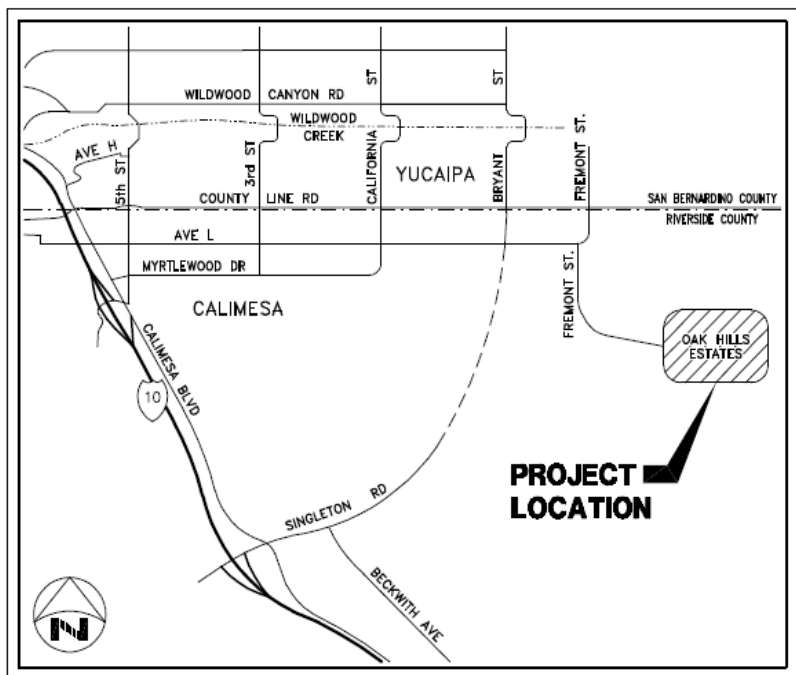
Prepared By: Matthew Porras, Implementation Manager

Subject: Status Report of the Replacement of the Drinking Water Reservoir R-16.6 - Calimesa

Recommendation: Staff Presentation - No Action Required.

The District owns and operates a drinking water storage facility [Asset ID: PW-R-13016.6] that was initially put into service in the early 1980's when the Oak Hills Estates residential area was developed. The R-16.6 reservoir serves drinking water to the 16.6 pressure zone within the residential area.

In the past few years of the reservoir's almost 40-year life, District staff has been observing and monitoring the deteriorating condition. Most recently, numerous leaks on the exterior walls of the tank have developed and have signaled the end of this assets useful life. The replacement of this tank is recommended before the condition becomes more severe.



LOCATION MAP

NOT TO SCALE

On December 17, 2019, the Board of Directors awarded a contract to Superior Tank Company for the replacement of Drinking Water Reservoir R-16.6 for a sum not to exceed \$565,668 [Director Memorandum 19-138]. The new tank will comply with current seismic requirements with a concrete ring wall that will provide the tank a solid foundation and secure bolt down installation. Our current tank is 24 feet tall and 37 feet in diameter with approximately 195,000 gallons of useable capacity. Without extensive grading, the new tank can be increased in size to 32 feet tall and 47 feet wide. The additional height of the new tank would provide the freeboard needed to comply with updated construction standards and the additional width would provide the usable capacity of approximately 298,000 gallons, an increase of over 100,000 gallon capacity.

A geotechnical report was completed to ensure the proposed tank is designed and constructed appropriately. The necessary environmental documents have been completed and filed with the State Clearing House (SCH Number 2019100374) on October 18, 2019 and the required 30 day time period has been fulfilled. District staff installed the temporary tanks and has made the necessary connections to the existing onsite piping. The temporary tank installation and operation are not included in the construction contract.

The existing tank has been demolished and removed from the site. The required over-excavation of the tank site is complete. The ring wall foundation installation is complete and the repair has passed the required testing. The assembly of the bolted tank panels is nearing completion and is pictured below.

This project will be paid for by the Water Fund, Infrastructure Reserves Account [G/L Account #02-000-10311]. This project was included in the CIP budget estimated for fiscal year 2021-22 but as a result of the urgency will be moved to the current fiscal year.









Date: May 26, 2020

Prepared By: Matthew Porras, Implementation Manager

Subject: Authorization to Proceed with the Final Design of the R-16.2 Drinking Water Storage and Distribution Facility

Recommendation: That the Board authorize Krieger and Stewart to initiate the design of infrastructure for a sum not to exceed \$185,700.

As discussed at a previous Board Workshop on March 10, 2020 [Workshop Memorandum 20-064], the drinking water R-16.2 reservoir [Asset ID: PW-R-13016.2] is at the end of its useful life and needs replacement.

The District owns and operates a drinking water storage facility [Asset ID: PW-R-13016.2] that was initially put into service in the early 1980's. The R-16.2 drinking water storage facility (tank) is a bolted steel tank measuring 38 feet in diameter and 24 feet in height with a storage capacity of 200,000 gallons. The existing tank site does not have an electrical service or a permanent booster station. The goal of this project is to replace the existing tank, install a permanent booster station, and prepare the site for the future construction of a recycled water reservoir.



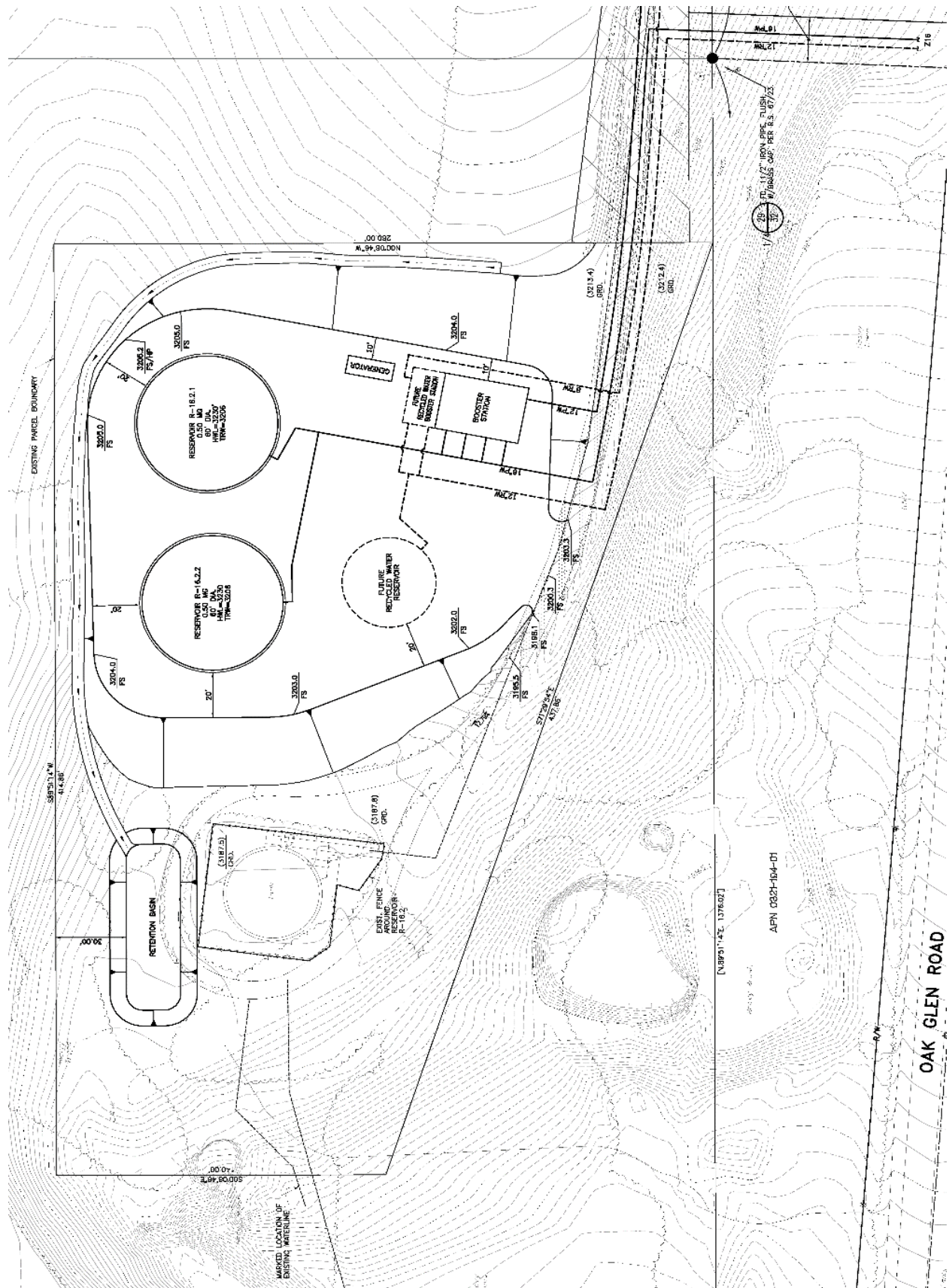
This drinking water reservoir is located off Oak Glen Road, east of Casa Blanca Avenue in the City of Yucaipa. Leaks on the tank and damage to the roof, along with its age and overall deteriorated condition require a full replacement of the tank rather than continued repairs. As seasonal system demands require, a portable drinking water booster will be temporarily installed by District staff to supply the 17 zone from this site.



The preliminary design of the site layout is included below, showing two 500,000 gallon drinking water tanks, a booster station, upgraded site piping, and space for a recycled water tank all within the District's existing property. The existing tank is positioned on the west side of the District's property and will remain in service during the construction of the new tank and booster site.

The preliminary site layout improves the upon the existing design in the following areas:

- Electrical service;
- Permanent booster station with back-up pumping units;
- Increased operational storage;
- Site security;
- Storm water management;
- Back-up power;
- Vehicle ingress and egress; and
- Recycled water infrastructure consideration.



The District staff is considering the various options of project phasing and feasibility of construction. Currently, the project is divided into two major phases. The estimated cost is approximately \$3,000,000 for Phase 1, which is summarized below. Authorization to solicit bids for Phase 1 will be discussed at a future board meeting.

- Phase 1: Electrical service, site grading and drainage improvements, booster house installation, site piping, site fencing, installation of tank R16.2.1, installation of boosters B16.2.1/B16.2.2/B16.2.3, a surge tank, and preparations for back-up power. After the new 0.5 MG tank is online, the existing 0.2 MG will be demolished.
- Phase 2: Installation of R16.2.2 (as demand requires), installation of booster B16.2.4, installation of back-up power solution (generator or battery), recycled water tank, boosters, and site piping (as demand requires), and final site paving.

In order to make the new site function with the existing distribution system, an off-site pipeline must be installed in Oak Glen Road. This pipeline will be the tank feed from the 16 (pressure) zone and will be approximately 1,700 linear feet in length. The pipeline will be 16" in diameter and is planned to be a separate installation and project. The off-site improvements are estimated to cost \$450,000. Authorization to solicit bids for this off-site improvement will be discussed at a future board meeting.

The table below summarizes the design costs and the estimated construction costs of the project:

Design Cost	Phase 1	Off-Site Pipeline	Phase 2	Estimated Total
\$185,700	\$3,000,000	\$450,000	\$1,500,000	\$5,135,700

The purpose of this item is to authorize the General Manager to proceed with Krieger and Stewart Engineering Consultants for the design of the replacement of drinking water reservoir R-16.2 and a booster station for a sum not to exceed \$185,700. The proposal attached for review and consideration.

Financial Consideration

The cost for design and phase 1 of this project will be paid from the Water Fund, FCC-Water Storage Reservoirs account [G/L Account # 02-000-10413].



The table below summarizes the design costs and the estimated construction costs of the project:

Design Cost	Phase 1	Off-Site Pipeline	Phase 2	Estimated Total
\$185,700	\$3,000,000	\$450,000	\$1,500,000	\$5,135,700

The purpose of this item is to authorize the General Manager to proceed with Krieger and Stewart Engineering Consultants for the design of the replacement of drinking water reservoir R-16.2 and a booster station for a sum not to exceed \$185,700. The proposal attached for review and consideration.

Financial Consideration

The cost for design and phase 1 of this project will be paid from the Water Fund, FCC-Water Storage Reservoirs account [G/L Account # 02-000-10413].



May 20, 2020

818-23.22A

Matthew Porras, Implementation Manager
Yucaipa Valley Water District
12770 2nd Street
Yucaipa, CA 92399

Subject: Engineering Services Proposal for the
16.2 Potable Water Reservoir and Booster Pumping Station

Dear Mr. Porras:

As requested by Yucaipa Valley Water District (District), we have prepared the following proposal to provide engineering services to design and prepare construction drawings and specifications for the 16.2 Potable Water Reservoir and Booster Pumping Station project. We understand that the facilities will be constructed on property owned by the District located along Oak Glen Road in Yucaipa.

A. PROJECT DESCRIPTION

The proposed facilities will ultimately consist of two 0.5 MG potable water reservoirs, one 0.3 MG recycled water reservoir, and one booster pumping station configured and equipped to pump to the 17 Pressure Zone. The booster station and either one or both of the potable reservoirs will be constructed under the initial Contract, depending on further District analysis. The recycled reservoir will be constructed in the future under a separate contract.

The proposed pump station will convey potable water to the 17 Zone through 12" and 16" transmission pipelines. Pumping rates for the station have been preliminarily set at approximately 1,000 gpm. Prior to commencing detailed design engineering, the initial and ultimate capacity of the proposed pump station will be confirmed through consultation with District staff.

The pumping units will be constant speed and they will be installed either outdoors on a concrete pad or in a building (to be determined). We anticipate that the pump station facilities will include the following:

1. Three (3) electric motor driven vertical turbine pumping units (two as duty and one as standby).
2. Belowgrade pump suction piping and isolation valves.
3. Abovegrade pump discharge piping and valves, including check valves and isolation valves.
4. Discharge surge tank and appurtenances.
5. Electrical service, electrical switchgear (motor control center), and equipment controls.

3602 University Avenue, Riverside, California 92501-3331
Tel: (951) 684-6900 • Fax: (951) 684-6986 • www.kriegerandstewart.com



Matthew Porras
May 20, 2020
Page 2

5. Electrical service, electrical switchgear (motor control center), and equipment controls.
6. Masonry block building for the pump station.
7. Emergency generator.

B. SCOPE OF SERVICES - RESERVOIR AND PUMPING STATION DESIGN

1. Initial Meeting with District

We will meet with District staff to discuss the project prior to commencing preliminary design. We will confirm project design criteria, including site grading concepts, reservoir sizing, initial and ultimate pumping capacity, number of pumping units, site size and access requirements, pump station location and layout, and confirm District staff equipment preferences (pumping units and electrical switchgear).

3. Perform Hydraulic Analyses and Pump/Motor Selection

We will perform a preliminary hydraulic analysis of the 17 Zone for the proposed piping system and pump station design flow rate. Based on the system hydraulic analysis, we will select pumping units and associated electrical switchgear for the various design conditions.

4. Surge Analyses

We will direct Flow Science to perform preliminary surge analyses for the proposed 17 Zone configuration based on the hydraulic analysis provided by Krieger & Stewart. The preliminary analysis will determine whether a surge tank is required.

After the preliminary design of the proposed pump station is completed, especially the selection of the pumping units, Flow Science will perform a final surge analysis to confirm preliminary recommendations and finalize surge tank size (if necessary). Recommendations will also be provided for the transmission pipeline pressure class.

5. Preliminary Design

We will prepare preliminary site and mechanical layouts which will show the proposed reservoirs and pump station facilities, including site piping, equipment pad with pumping units, electrical panels, and surge tank (if required).

6. Preliminary Design Review Meeting

We will arrange a meeting with District staff to perform a review and receive comments on the preliminary design. One week prior to this review meeting, we will submit two copies of the preliminary design to District staff for review. During the meeting, we will



Matthew Porras
May 20, 2020
Page 3

review preliminary hydraulic analysis results, pumping unit selection, and preliminary site layout and building layout.

7. 65% Construction Document Preparation

After approval of the preliminary site and equipment layouts, we will proceed with preparation of the construction documents in phases to allow intermediate review by District staff. Design will incorporate the items as discussed at the preliminary design review meeting. When approximately 65% complete, we will submit two sets of construction drawings and specifications to the District for review and comment.

The specifications will include technical specifications for all equipment, District standard specifications for basic construction materials (e.g. concrete, steel, piping, painting, and electrical), and applicable District standard drawings.

The construction drawings will be prepared using the District-approved construction drawing title block, orientation, and layout. Drawings will be provided for site piping, structural, mechanical, and electrical.

8. District 65% Review and Meeting

As presented above, we will submit two sets of construction documents to the District for review. Approximately one week thereafter, we will obtain District's comments during a review meeting. Because of the accelerated schedule, we will continue preparation of the construction drawings during the District's review period.

9. Utility Coordination

When the construction drawings are 65% complete, we will send a set to Southern California Edison (SCE) for review and comment. We will also prepare and submit an application for service. This usually requires at least one meeting with SCE at their office.

10. 95% Construction Document Preparation

Based on District staff comments, we will proceed with 95% contract document preparation and preparation of the detailed engineer's estimate of construction cost.

11. District 95% Review and Meeting

When the construction documents are approximately 95% complete, we will submit two sets to the District for review. Approximately one week thereafter, we will obtain District's comments during a review meeting.



Matthew Porras
May 20, 2020
Page 4

12. Final Construction Document Preparation

Based on District staff comments from the 95% construction document review meeting, we will revise the documents as required and submit signed and stamped originals (specifications and drawing mylars) of same to District staff for final approval and signatures.

C. ESTIMATED FEE AND SCHEDULE

Our estimated fees to provide the engineering services described above for subject project are \$169,700 for K&S's services and \$16,000 for Flow Science's services.

Attached **Table 1** presents a preliminary index of construction drawings. Attached **Table 2** shows a tabulation of our fee estimate for design and preparation of contract documents for the Reservoir and Booster Pumping Station project.

Due to the critical schedule for these facilities, we are prepared to commence design immediately upon receiving Notice to Proceed, and anticipate completing the design in fifteen weeks (including District review time); see attached **Table 3** for the detailed project schedule.

Thank you for considering Krieger & Stewart to provide engineering services for this project. We are available at your convenience to discuss our proposal or answer any questions.

Sincerely,

KRIEGER & STEWART

A handwritten signature in black ink that reads "Patrick M. Watson". The signature is written in a cursive style with a large, stylized 'P' and 'W'.

Patrick M. Watson

PMW/blt
818-23P22-PRO

Attachments: Table 1 - Preliminary Construction Drawing Index
Table 2 - Estimated Fee for Design Engineering Services
Table 3 - Proposed Engineering Schedule

TABLE 1
YUCAIPA VALLEY WATER DISTRICT
16.2 POTABLE WATER RESERVOIR AND BOOSTER PUMPING STATION
PRELIMINARY CONSTRUCTION DRAWING INDEX

SHEET NO.	DWG NO.	DESCRIPTION
GENERAL		
1	G-1	Title Sheet, Location and Vicinity Maps, and Drawing Index
2	G-2	Construction Notes
3	G-3	Construction Notes
4	G-4	Legends, Symbols, and Abbreviations
5	G-5	Schedules and Pipe Duty Designations
CIVIL		
6	C-1	Grading Plan
7	C-2	Precise Grading Plan and Coordinate Schedule
8	C-3	Site and Reservoir Sections
9	C-4	Site Piping and Electrical Plan
10	C-5	Site Piping Profiles
11	C-6	Miscellaneous Site Details
12	C-7	Site Fence and Gate Details
DEMOLITION		
13	D-1	Demolition Plan
MECHANICAL		
14	M-1	Mechanical Details
15	M-2	Mechanical Details
16	M-3	Booster Station Mechanical Plan
17	M-4	Booster Station Sections and Details
18	M-5	Roof Plan
19	M-6	Surge Tank Plan and Details
ARCHITECTURAL		
20	A-1	Architectural Details
21	A-2	Building Elevations and Schedules
STRUCTURAL		
22	S-1	Building Foundation Plan and Roof Plan
23	S-2	Building Sections and Structural Details
24	S-3	Structural Details
RESERVOIR		
25	R-1	Reservoir Roof Plan
26	R-3	Reservoir Appurtenance Plan and Details
27	S-3	Reservoir Details
ELECTRICAL		
28	E-1	Electrical Symbols, Abbreviations, and Schedules
29	E-2	Electrical Details
30	E-3	Single Line Diagram and Panel Elevations
31	E-4	Booster Station Electrical Plan and Conduit Schedule
32	E-5	Building Electrical and Lighting Plans
33	E-6	Control Diagrams
34	E-7	Main Control Panel and RTU Panel Layout
35	E-8	Interconnect Diagrams



TABLE 2
YUCAIPA VALLEY WATER DISTRICT
16.2 POTABLE WATER RESERVOIR AND BOOSTER PUMPING STATION
ESTIMATED FEES FOR DESIGN ENGINEERING SERVICES

COMPONENT		PRINCIPAL ENGINEER		SENIOR ENGINEER		STAFF ENGINEER		COMPUTER OPERATOR		SENIOR SECRETARY		OUTSIDE SERVICES		TOTAL	
		HOURS	\$	HOURS	\$	HOURS	\$	HOURS	\$	HOURS	\$	HOURS	\$	\$	
HYDRAULIC ANALYSES & PUMP SELECTION															
SURGE ANALYSES				16	3,632	32	5,600							9,232	
PRELIMINARY DESIGN		8	1,816	24	5,448	40	7,000	32	4,672				SEE BELOW	1,854	
PRELIMINARY DESIGN REVIEW MEETING WITH YVWD		2	454	3	681									18,936	
65% CONTRACT DOCUMENT PREPARATION		16	3,632	60	13,620	100	17,500	160	23,360	40	4,120			62,232	
YVWD 65% REVIEW MEETING		3	681	3	681									1,362	
UTILITY COORDINATION				8	1,816									1,816	
95% CONTRACT DOCUMENT PREPARATION		16	3,632	40	9,080	100	17,500	120	17,520	24	2,472			50,204	
YVWD 95% REVIEW MEETING		3	681	3	681									1,362	
FINAL CONSTRUCTION DOCUMENT PREPARATION		12	2,724	20	4,540	20	3,500	40	5,840	16	1,648			18,252	
		60	13,620	179	40,633	300	52,500	352	51,392	80	8,240			166,385	
		REIMBURSABLES (@2%):													
		K&S DESIGN SERVICES TOTAL (ROUNDED):													
		\$169,700													
OUTSIDE SERVICES															
SURGE ANALYSIS - PERFORMED BY FLOW SCIENCE															
GEOTECHNICAL STUDY - PERFORMED BY LEIGHTON AND ASSOC.															
BY DISTRICT															
ENGINEERING SERVICES TOTAL:															
\$185,700															
PRINCIPAL ENGINEER		@	\$227	/HR											
SENIOR ENGINEER		@	\$227	/HR											
STAFF ENGINEER III		@	\$175	/HR											
OPERATOR II		@	\$146	/HR											
SECRETARY III		@	\$103	/HR											

TABLE 3
YUCAIPA VALLEY WATER DISTRICT
16.2 POTABLE WATER RESERVOIR AND BOOSTER PUMPING STATION
PROPOSED DESIGN SCHEDULE

COMPONENT	WEEK BEGINNING														
	6/1	6/8	6/15	6/22	6/29	7/6	7/13	7/20	7/27	8/3	8/10	8/17	8/24	8/31	9/7
RESERVOIRS AND PUMPING STATION DESIGN															
INITIAL MEETING WITH YVWD	■														
HYDRAULIC ANALYSES & PUMP SELECTION		■	■	■	■	■	■	■	■	■	■	■	■	■	■
SURGE ANALYSES			■	■	■	■	■	■	■	■	■	■	■	■	■
PUMP STATION PRELIMINARY DESIGN			■	■	■	■	■	■	■	■	■	■	■	■	■
PD REVIEW MEETING						■									
65% CONTRACT DOCUMENT PREPARATION															
YVWD 65% REVIEW MEETING										■					
95% CONTRACT DOCUMENT PREPARATION															
YVWD 95% REVIEW MEETING														■	
FINAL CONSTRUCTION DOCUMENT PREPARATION														■	■



PMV/cit
 818-23P22-FEE and SCH TBL.S.XLS (5/20/2020)



Date: March 26, 2020

Prepared By: Joseph Zoba, General Manger

Subject: Appointment of a Primary and Alternate Representative to the San Bernardino Valley Municipal Water District's Advisory Commission on Water Policy

Recommendation: That by minute order, the Board appoint a primary and alternate elected official to the Advisory Commission on Water Policy.

The San Bernardino Valley Municipal Water District (SBVMWD) created the Advisory Commission to provide advice to the SBVMWD Board of Directors regarding water policy.

On January 8, 2019, the Board of Directors appointed Bruce Granlund as the primary representative on the SBVMWD Advisory Commission and Lonni Granlund as the alternate. The District staff recommends that the Board consider updating the appointment(s) to the Advisory Commission to vote on behalf of the Yucaipa Valley Water District.



Date: March 26, 2020

Prepared By: Joseph Zoba, General Manger

Subject: Appointment of a Primary and Alternate Representative to the City of Yucaipa Economic Development Advisory Committee

Recommendation: That by minute order, the Board appoint a primary and alternate elected official to the City of Yucaipa Economic Development Advisory Committee.

The City of Yucaipa created the Economic Development Advisory Committee (EDAC) to provide information to the City Council regarding programs and activities necessary to achieve the City's economic development goals.

On January 8, 2019, the Board of Directors appointed Lonni Granlund as the primary representative to the Economic Development Advisory Committee and Bruce Granlund as the alternate. The District staff recommends that the Board consider updating the appointment(s) to the Economic Development Advisory Committee to represent the community on behalf of the water district.



Date: May 26, 2020

Prepared By: Joseph Zoba, General Manger

Subject: Reorganization of the Officers of the Board of Directors - Vice President

Recommendation: That the Board nominate and select a Vice-President and adopt Resolution No. 2020-28 confirming the election results.

Following every regular election the Board of Directors is required to elect a President and a Vice-President for a two year term.¹

On January 8, 2018, the Board of Directors adopted Resolution No. 2019-01 confirming the election of Director Chris Mann as President and Director Bruce Granlund as Vice-President.

With the resignation of Bruce Granlund on May 13, 2020, and the appointment of Dennis Miller on May 19, 2020, it is appropriate to nominate and elect a Vice President and confirm the appointment with the adoption of Resolution No. 2020-28.

¹ California Water Code §30520 states, "within 30 days after the election of the first directors and thereafter within 30 days after taking office ... the directors shall meet and shall elect one of their number president and may elect one of their number vice president".

RESOLUTION NO. 2020-28**A RESOLUTION OF THE YUCAIPA VALLEY WATER DISTRICT
CONFIRMING THE ELECTION OF OFFICERS**

WHEREAS, California Water Code §30520 states, "Within 30 days after the election of the first directors and thereafter within 30 days after taking office ... the directors shall meet and shall elect one of their number president and may elect one of their number vice president"; and

WHEREAS, on January 8, 2019, the Board of Directors elected Director Chris Mann as President and Director Bruce Granlund as Vice-President; and

WHEREAS, on May 13, 2020, Vice President Bruce Granlund resigned from the Board of Directors; and

WHEREAS, on May 19, 2020, the remaining Board of Directors appointed Dennis Miller to the Board of Directors for Division 2; and

WHEREAS, a vacancy exists for the officer of Vice President on the Board of Directors.

NOW, THEREFORE, BE IT HEREBY RESOLVED AND ORDERED, that the Yucaipa Valley Water District by an affirmative vote of a majority of the Board of Directors has duly elected Director Chris Mann as President and Director [REDACTED] as Vice-President.

BE IT FURTHER RESOLVED, that the President and Vice-President shall serve in such capacities until the next general district election; a vacancy or resignation of the President or Vice-President occurs; or a change of officer(s) by an affirmative vote of a majority of the Board of Directors.

PASSED, APPROVED and ADOPTED this 26th day of May 2020.

YUCAIPA VALLEY WATER DISTRICT

Chris Mann, President Board of Directors

ATTEST:

Joseph B. Zoba, General Manager

Board Reports and Comments



Yucaipa Valley Water District



FACTS ABOUT THE YUCAIPA VALLEY WATER DISTRICT

Service Area Size: 40 square miles (sphere of influence is 68 square miles)

Elevation Change: 3,140 foot elevation change (from 2,044 to 5,184 feet)

Number of Employees: 5 elected board members
72 full time employees

FY 2019-20 Operating Budget: Water Division - \$14,455,500
Sewer Division - \$12,217,712
Recycled Water Division - \$1,301,447

Number of Services: 13,794 drinking water connections serving 19,243 units
14,104 sewer connections serving 22,774 units
111 recycled water connections serving 460 units

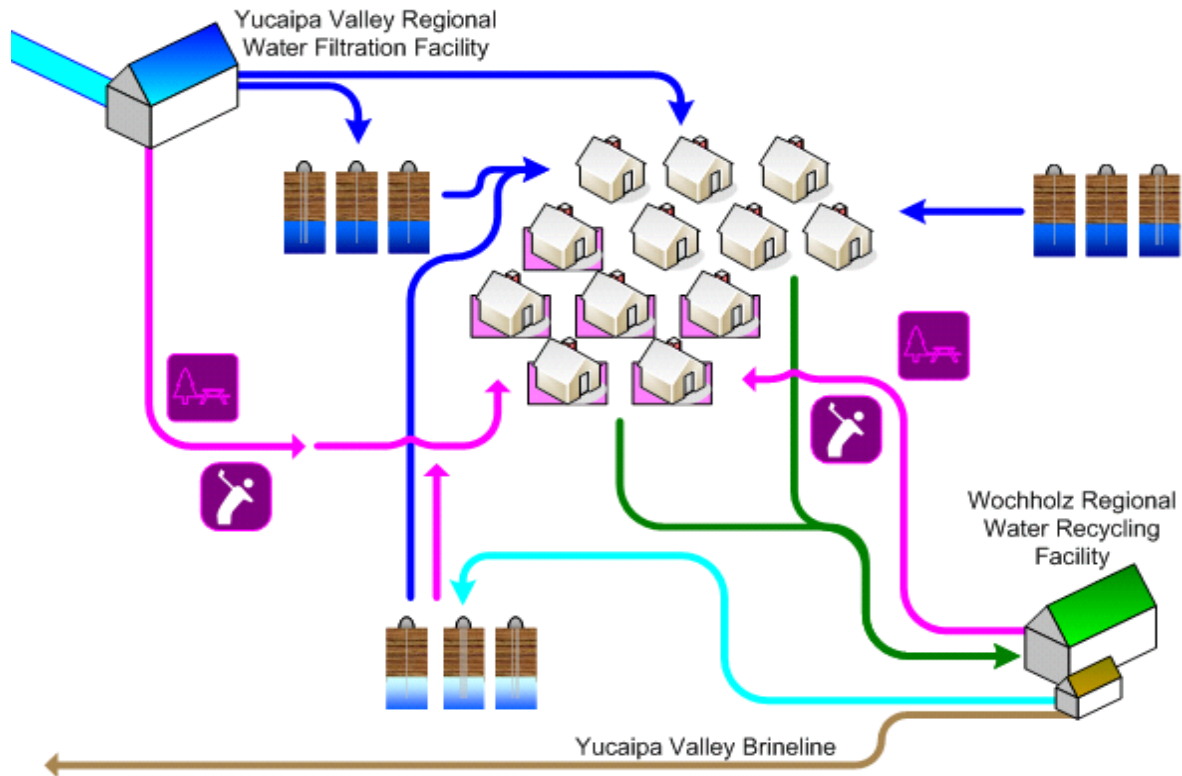
Water System: 223 miles of drinking water pipelines
2,033 fire hydrants
27 reservoirs - 34 million gallons of storage capacity
18 pressure zones
2.958 billion gallon annual drinking water demand
Two water filtration facilities:
- 1 mgd at Oak Glen Surface Water Filtration Facility
- 12 mgd at Yucaipa Valley Regional Water Filtration Facility

Sewer System: 8.0 million gallon treatment capacity - current flow at 3.5 mgd
213 miles of sewer mainlines
4,504 sewer manholes
5 sewer lift stations
1.27 billion gallons of recycled water produced per year

Recycled Water: 22 miles of recycled water pipelines
5 reservoirs - 12 million gallons of storage
0.681 billion gallon annual recycled water demand

Brine Disposal: 2.2 million gallon desalination facility at sewer treatment plant
1.756 million gallons of Inland Empire Brine Line capacity
0.595 million gallons of treatment capacity in Orange County

Sustainability Plan: A Strategic Plan for a Sustainable Future: The Integration and Preservation of Resources, adopted on August 20, 2008.



Typical Rates, Fees and Charges:

- **Drinking Water Commodity Charge:**

1,000 gallons to 15,000 gallons	\$1.429 per each 1,000 gallons
16,000 gallons to 60,000 gallons	\$1.919 per each 1,000 gallons
61,000 gallons to 100,000 gallons	\$2.099 per each 1,000 gallons
101,000 gallons or more	\$2.429 per each 1,000 gallons
- **Recycled Water Commodity Charge:**

1,000 gallons or more	\$1.425 per each 1,000 gallons
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- **Water Meter Service Charge (Drinking Water or Recycled Water):**

5/8" x 3/4" Water Meter	\$14.00 per month
1" Water Meter	\$23.38 per month
1-1/2" Water Meter	\$46.62 per month
- **Sewer Collection and Treatment Charge:**

Typical Residential Charge	\$42.43 per month
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State Water Contractors: San Bernardino Valley Municipal Water District
San Gorgonio Pass Water Agency



	San Bernardino Valley Municipal Water District	San Gorgonio Pass Water Agency
Service Area Size	353 square miles	222 square miles
Table "A" Water Entitlement	102,600 acre feet	17,300 acre feet
Imported Water Rate	\$125.80 / acre foot	\$399 / acre foot
Tax Rates for FY 2019-20	\$0.1425 per \$100	\$0.1775 per \$100
Number of Board Members	Five (5)	Seven (7)
Operating Budget FY 2019-20	\$58,372,000	\$9,551,000

Imported Water Charges (Pass-through State Water Project Charge)

- San Bernardino Valley Municipal Water District - Customers in San Bernardino County or City of Yucaipa pay a pass-through amount of \$0.270 per 1,000 gallons.
- San Gorgonio Pass Water Agency - Customers in Riverside County or City of Calimesa pay a pass-through amount of \$0.660 per 1,000 gallons. A proposed rate change to \$0.857 per 1,000 gallons is pending future consideration by YVWD.





GLOSSARY OF COMMONLY USED TERMS

Every profession has specialized terms which generally evolve to facilitate communication between individuals. The routine use of these terms tends to exclude those who are unfamiliar with the particular specialized language of the group. Sometimes jargon can create communication cause difficulties where professionals in related fields use different terms for the same phenomena.

Below are commonly used water terms and abbreviations with commonly used definitions. If there is any discrepancy in definitions, the District's Regulations Governing Water Service is the final and binding definition.

Acre Foot of Water - The volume of water (325,850 gallons, or 43,560 cubic feet) that would cover an area of one acre to a depth of 1 foot.

Activated-Sludge Process - A secondary biological wastewater treatment process where bacteria reproduce at a high rate with the introduction of excess air or oxygen and consume dissolved nutrients in the wastewater.

Annual Water Quality Report - The document is prepared annually and provides information on water quality, constituents in the water, compliance with drinking water standards and educational material on tap water. It is also referred to as a Consumer Confidence Report (CCR).

Aquifer - The natural underground area with layers of porous, water-bearing materials (sand, gravel) capable of yielding a supply of water; see Groundwater basin.

Backflow - The reversal of water's normal direction of flow. When water passes through a water meter into a home or business it should not reverse flow back into the water mainline.

Best Management Practices (BMPs) - Methods or techniques found to be the most effective and practical means in achieving an objective. Often used in the context of water conservation.

Biochemical Oxygen Demand (BOD) - The amount of oxygen used when organic matter undergoes decomposition by microorganisms. Testing for BOD is done to assess the amount of organic matter in water.

Biosolids - Biosolids are nutrient rich organic and highly treated solid materials produced by the wastewater treatment process. This high-quality product can be recycled as a soil amendment on farmland or further processed as an earth-like product for commercial and home gardens to improve and maintain fertile soil and stimulate plant growth.

Capital Improvement Program (CIP) - Projects for repair, rehabilitation, and replacement of assets. Also includes treatment improvements, additional capacity, and projects for the support facilities.

Certificate of Participation (COP) - A type of financing where an investor purchases a share of the lease revenues of a program rather than the bond being secured by those revenues.

Coliform Bacteria - A group of bacteria found in the intestines of humans and other animals, but also occasionally found elsewhere used as indicators of sewage pollution. E. coli are the most common bacteria in wastewater.

Collections System - In wastewater, it is the system of typically underground pipes that receive and convey sanitary wastewater or storm water.

Conjunctive Use - The coordinated management of surface water and groundwater supplies to maximize the yield of the overall water resource. Active conjunctive use uses artificial recharge, where surface water is intentionally percolated or injected into aquifers for later use. Passive conjunctive use is to simply rely on surface water in wet years and use groundwater in dry years.

Consumer Confidence Report (CCR) - see Annual Water Quality Report.

Contaminants of Potential Concern (CPC) - Pharmaceuticals, hormones, and other organic wastewater contaminants.

Cross-Connection - The actual or potential connection between a potable water supply and a non-potable source, where it is possible for a contaminant to enter the drinking water supply.

Disinfection by-Products (DBPs) - The category of compounds formed when disinfectants in water systems react with natural organic matter present in the source water supplies. Different disinfectants produce different types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established have been identified in drinking water, including trihalomethanes, haloacetic acids, bromate, and chlorite

Drought - a period of below average rainfall causing water supply shortages.

Fire Flow - The ability to have a sufficient quantity of water available to the distribution system to be delivered through fire hydrants or private fire sprinkler systems.

Gallons per Capita per Day (GPCD) - A measurement of the average number of gallons of water use by the number of people served each day in a water system. The calculation is made by dividing the total gallons of water used each day by the total number of people using the water system.

Groundwater Basin - An underground body of water or aquifer defined by physical boundaries.

Groundwater Recharge - The process of placing water in an aquifer. Can be a naturally occurring process or artificially enhanced.

Hard Water - Water having a high concentration of minerals, typically calcium and magnesium ions.

Hydrologic Cycle - The process of evaporation of water into the air and its return to earth in the form of precipitation (rain or snow). This process also includes transpiration from plants, percolation into the ground, groundwater movement, and runoff into rivers, streams, and the ocean; see Water cycle.

Levels of Service (LOS) - Goals to support environmental and public expectations for performance.

Mains, Distribution - A network of pipelines that delivers water (drinking water or recycled water) from transmission mains to residential and commercial properties, usually pipe diameters of 4" to 16".

Mains, Transmission - A system of pipelines that deliver water (drinking water or recycled water) from a source of supply the distribution mains, usually pipe diameters of greater than 16".

Meter - A device capable of measuring, in either gallons or cubic feet, a quantity of water delivered by the District to a service connection.

Overdraft - The pumping of water from a groundwater basin or aquifer in excess of the supply flowing into the basin. This pumping results in a depletion of the groundwater in the basin which has a net effect of lowering the levels of water in the aquifer.

Pipeline - Connected piping that carries water, oil, or other liquids. See Mains, Distribution and Mains, Transmission.

Point of Responsibility, Metered Service - The connection point at the outlet side of a water meter where a landowner's responsibility for all conditions, maintenance, repairs, use and replacement of water service facilities begins, and the District's responsibility ends.

Potable Water - Water that is used for human consumption and regulated by the California Department of Public Health.

Pressure Reducing Valve - A device used to reduce the pressure in a domestic water system when the water pressure exceeds desirable levels.

Pump Station - A drinking water or recycled water facility where pumps are used to push water up to a higher elevation or different location.

Reservoir - A water storage facility where water is stored to be used at a later time for peak demands or emergencies such as fire suppression. Drinking water and recycled water systems will typically use concrete or

steel reservoirs. The State Water Project system considers lakes, such as Shasta Lake and Folsom Lake to be water storage reservoirs.

Runoff - Water that travels downward over the earth's surface due to the force of gravity. It includes water running in streams as well as over land.

Santa Ana River Interceptor (SARI) Line - A regional brine line designed to convey 30 million gallons per day (MGD) of non-reclaimable wastewater from the upper Santa Ana River basin to Orange County Sanitation District for treatment, use and/or disposal.

Secondary treatment - Biological wastewater treatment, particularly the activated-sludge process, where bacteria and other microorganisms consume dissolved nutrients in wastewater.

Service Connection - The water piping system connecting a customer's system with a District water main beginning at the outlet side of the point of responsibility, including all plumbing and equipment located on a parcel required for the District's provision of water service to that parcel.

Sludge - Untreated solid material created by the treatment of wastewater.

Smart Irrigation Controller - A device that automatically adjusts the time and frequency which water is applied to landscaping based on real-time weather such as rainfall, wind, temperature, and humidity.

South Coast Air Quality Management District (SCAQMD) - Regional regulatory agency that develops plans and regulations designed to achieve public health standards by reducing emissions from business and industry.

Special district - A form of local government created by a local community to meet a specific need. Yucaipa Valley Water District is a County Water District formed pursuant to Section 30000 of the California Water Code

Supervisory Control and Data Acquisition (SCADA) - A computerized system which provides the ability to remotely monitor and control water system facilities such as reservoirs, pumps, and other elements of water delivery.

Surface Water - Water found in lakes, streams, rivers, oceans, or reservoirs behind dams. In addition to using groundwater, Yucaipa Valley Water District receives surface water from the Oak Glen area.

Sustainable Groundwater Management Act (SGMA) - Pursuant to legislation signed by Governor Jerry Brown in 2014, the Sustainable Groundwater Management Act requires water agencies to manage groundwater extractions to not cause undesirable results from over production.

Transpiration - The process by which water vapor is released into the atmosphere by living plants.

Trickling filter - A biological secondary treatment process in which bacteria and other microorganisms, growing as slime on the surface of rocks or plastic media, consume nutrients in wastewater as it trickles over them.

Underground Service Alert (USA) - A free service (<https://www.digalert.org>) that notifies utilities such as water, telephone, cable and sewer companies of pending excavations within the area (dial 8-1-1 at least 2 working days before you dig).

Urban runoff - Water from city streets and domestic properties that carry pollutants into the storm drains, rivers, lakes, and oceans.

Valve - A device that regulates, directs, or controls the flow of water by opening, closing, or partially obstructing various passageways.

Wastewater - Any water that enters the sanitary sewer.

Water Banking - The practice of actively storing or exchanging in-lieu surface water supplies in available groundwater basin storage space for later extraction and use by the storing party or for sale or exchange to a third party. Water may be banked as an independent operation or as part of a conjunctive use program.

Water Cycle - The continuous movement water from the earth's surface to the atmosphere and back again.

Water Pressure - Water pressure is created by the weight and elevation of water and/or generated by pumps that deliver water to customers.

Water Service Line - A water service line is used to deliver water from the Yucaipa Valley Water District's mainline distribution system.

Water table - the upper surface of the zone of saturation of groundwater in an unconfined aquifer.

Water transfer - a transaction, in which a holder of a water right or entitlement voluntarily sells/exchanges to a willing buyer the right to use all or a portion of the water under that water right or entitlement.

Watershed - A watershed is the region or land area that contributes to the drainage or catchment area above a specific point on a stream or river.

Water-Wise House Call - a service which provides a custom evaluation of a customer's indoor and outdoor water use and landscape watering requirements.

Well - a hole drilled into the ground to tap an underground aquifer.

Wetlands - lands which are fully saturated or under water at least part of the year, like seasonal vernal pools or swamps.





COMMONLY USED ABBREVIATIONS

AQMD	Air Quality Management District
BOD	Biochemical Oxygen Demand
CARB	California Air Resources Board
CCTV	Closed Circuit Television
CWA	Clean Water Act
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
FOG	Fats, Oils, and Grease
GPD	Gallons per day
MGD	Million gallons per day
O & M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
POTW	Publicly Owned Treatment Works
PPM	Parts per million
RWQCB	Regional Water Quality Control Board
SARI	Santa Ana River Inceptor
SAWPA	Santa Ana Watershed Project Authority
SBVMWD	San Bernardino Valley Municipal Water District
SCADA	Supervisory Control and Data Acquisition system
SGMA	Sustainable Groundwater Management Act
SSMP	Sanitary Sewer Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
WDR	Waste Discharge Requirements
YVWD	Yucaipa Valley Water District