EBMUD/FIRE AGENCY FORUM FREQUENTLY ASKED QUESTIONS (FAQ)

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HYDRANT

1. **How do I report a hydrant issue in the EBMUD Service Area?**

   If a hydrant needs repair (leaking or broken), take a picture, note the street address and/or intersection and/or hydrant number (from EBMUD's B-Maps), and report the repair to the appropriate EBMUD's Distribution Maintenance and Construction Division (DMC) area contact.

   For hydrants in need of painting, please contact EBMUD's Facilities Maintenance & Construction Department (FMC):

Area	Contact, Phone Number	Area of Coverage
WEST/ CENTRAL	Superintendent (510) 287-0860	**Albany, Berkeley, Emeryville, Oakland, Piedmont, Alameda, San Leandro, San Lorenzo, Castro Valley, Kensington, El Cerrito, and unincorporated sections of northern Hayward.**
EAST/ NORTH	Superintendent (510) 287-0858	**Orinda, Moraga, Lafayette, Walnut Creek, Pleasant Hill, Alamo, Danville, San Ramon, Crockett, Rodeo, Hercules, Pinole, Richmond, El Sobrante, and San Pablo**

   For immediate needs (hydrant knocked off or shutoff), please contact EBMUD's Dispatch Center at (510) 287-0600.

   Please note that EBMUD does not uncover soil around hydrant outlets or relocate hydrants for ease of access. Where lack of maintenance of private property (plants, soil erosion, etc.) or fences and retaining walls impedes hydrant access or operation, the property owner (or City/County if hydrant is located within public right-of-way) is responsible for maintaining access to the hydrant. EBMUD cannot enforce property owners to remove these items and understands that the fire agencies can enforce property owners to fix hydrant access issues. The fire agencies should contact the property owner about ensuring the hydrant is accessible.

   EBMUD does provide general mechanical maintenance for public hydrants within its service area based on the inspections conducted by the local fire agencies and reports by the public. The local fire agencies should continue to advise EBMUD of any hydrants needing repair.

2. **How can I access the Hydrants Out-of-Service database? How do I get notified when a hydrant is placed out of service?**

   The Hydrants Out-of-Service website can be found by going to www.ebmud.com/fire and clicking on the Hydrants Out-of-Service link. The website includes a list and a map that shows the out-of-service hydrants by location. The list of Hydrants Out-of-Service is only maintained for EBMUD publicly owned hydrants and not for private hydrants.

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3. **Can Out-of-Service Hydrants be identified in the field?**

   EBMUD's crews typically use plastic bags to cover and identify a hydrant that is out of service.

4. **Why are existing hydrants placed out of service?**

   Hydrants can be placed out of service due to maintenance, or emergency reasons such as a hit hydrant or due to a water main break taking the pipe and hydrants out of service.

5. **Does EBMUD install bollards around hydrants?**

   The installation of bollards is not implemented by EBMUD because they create a life safety hazard for motorists during collisions. EBMUD relies on the hydrant break-away bolts to reduce the impact on hydrant collisions.

6. **Does EBMUD replace the blue reflectors in the streets, which identify hydrant locations?**

   No. EBMUD is not responsible for the installation or maintenance of the blue reflectors. The City or County is responsible for replacing the blue reflectors. If EBMUD destroyed or otherwise removed the blue reflectors in the course of its pipeline construction work, EBMUD will restore them.

7. **What is EBMUD's practice for relocating hit hydrants? Who is responsible for fixing the hit hydrant? Would EBMUD explore the idea of installing a riser to combat a reoccurring issue of a hydrant getting buried at the bottom of a hill?**

   EBMUD will consider raising or relocating a hydrant on a case-by-case basis as there are different factors involved including costs, breakaway bolts, and maintenance. Typically, the party that damaged the hydrant, if known, is responsible for the hydrant repair costs. Otherwise, EBMUD absorbs the costs for hydrant repairs.

8. **What is EBMUD's responsibility for setting back a hydrant or relocating a hydrant due to City or County improvement projects?**

   When an agency like a City or County completes street improvements (e.g., replace sidewalks and curbs) to improve both street safety and street aesthetics, the City or County must ensure that there are no conflicts between existing EBMUD fire hydrants and new curb ramps and sidewalks. Fire hydrants must be located 5-feet from the edge of curb ramps and 20 to 24-inches from the face of street curbs in accordance with EBMUD design standards.

   Hydrant relocations are horizontal offsets (typically 5 feet or greater) that require the installation of new hydrant service laterals; hydrant relocations require the City or County to submit Hydrant Relocation Application with payment to EBMUD's New Business Office (510-287-1010) via EBMUD's online water service application at https://wsa.ebmud.com.

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In some situations, hydrants only require minor adjustments and need to be setback or forward using the existing hydrant lateral. Typically, for hydrant setbacks or forwards (i.e., minor adjustments), EBMUD absorbs the costs to improve both safety and long-term hydrant maintenance.

9. Who is responsible for the cost of a new hydrant installation if requested by the City or neighborhood? What if the new hydrant can be done in conjunction with an EBMUD pipeline project?

The requester must pay for a new hydrant installation regardless of whether it can be done in conjunction with an EBMUD pipeline project. A fire hydrant application with payment will need to be submitted to EBMUD's New Business Office (510-287-1010) via EBMUD's online water service application at https://wsa.ebmud.com.

10. What is the difference between a dry and wet-barrel hydrant?

Dry barrel hydrants are used mostly in cold-weather regions, but EBMUD has some dry barrel hydrants in its service area. They are called dry barrels because there is no water above ground, which prevents the water in the hydrant body from freezing and breaking.

Most of EBMUD's hydrants are wet barrel. Wet barrel hydrants are charged at system pressure when in service. The shut-off valves are above ground, so there's water at pressure in the barrel even when the hydrant is not in use. Each outlet has a valve that operates independently, and the mechanical parts are easy to access above ground.

11. EBMUD sometimes installs hydrant locking caps to prevent water theft at hydrants. Does EBMUD provide wrenches for hydrants with hydrant locking caps?

No, you can purchase them from Hydra Shield. The link for the vendor is https://hydrashieldinc.com/products/.

12. What does EBMUD allow fire agencies to use when lubricating hydrant nozzles and caps?

EBMUD recommends using Loctite anti-seize lubricant or any brand of white mineral oil, food grade anti-seize compound (food grade grease).

13. What is EBMUD's standard paint color for publicly-owned hydrant bodies?

White is the standard hydrant body color. The white painted hydrant body serves to preserve public safety in the event of a fire as they are more visible at night and easier for first responders to locate.

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14. Does EBMUD allow any non-standard colors on EBMUD hydrants such as local community art projects? Does EBMUD allow local fire agencies or communities to repaint EBMUD hydrants?

No. The standard hydrants are painted white, with color coded tops painted by the fire agency, designating available hydrant flows. EBMUD will maintain and repaint any existing color codes, but EBMUD does not allow hydrants to be painted due to safety issues (to ensure that all valves operate when needed and are not painted shut), to prevent contamination (to ensure that the proper paint was used), and to streamline maintenance (to allow ease of repainting).

15. Does EBMUD sell old hydrant bodies? How much do they cost and where can I buy one?

Yes. Please contact EBMUD's Materials Foremen, Oakport Facility, located at 5601 Oakport Street in Oakland or call at (510) 287-0426 to purchase a used hydrant.

16. Can EBMUD update the current numbering system for hydrant or have the hydrant number tagged onto each hydrant so the fire agencies can better communicate a problem hydrant to EBMUD?

EBMUD does not have a standard numbering system for existing hydrants. The hydrant number was inherited from other water agencies when EBMUD was formed, but the number is unique to each hydrant for mapping purposes. There are no plans to change the numbering system or labeling the hydrants with numbers.

17. How do I report water theft and/or use of water from a hydrant without a meter?

Illegal/unmetered use of fire hydrants can be reported to EBMUD's Dispatch Center at (510) 287-0600.

18. How do I remove a leak detection unit or pressure transient unit from a hydrant? How long are they installed on a hydrant?

Please note that the pressure transient unit is usually installed on one nozzle (typically the 2-1/2 inch) at a given time. The other nozzle (typically a 4-1/2-inch outlet) can still be accessed by the fire agencies. Leak detection loggers are typically installed on the 4-1/2-inch outlets.

If there is a leak detection or pressure transient monitoring device installed on a hydrant, fire agencies can remove them or use the alternative available outlet. If fire agencies remove leak detection loggers from hydrants, please return them to EBMUD. Please refer to Pressure Transient Unit Removal Instructions and Leak Detection Unit Removal Instructions for further information.

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19. What is the purpose of red and white hydrants and where can we get the signage explaining how it works?

The red hydrant indicates a connection to a lower pressure zone and the white hydrant indicates a connection to a higher pressure zone. In locations where the red and white hydrants are near each other, EBMUD may connect the hydrants to move water between the different zones under emergency conditions. Either hydrant can be used for fighting fires. Occasionally, some private hydrants may be painted red or yellow.

If a fire agency wants to connect the red and white hydrants for a major emergency, they must first get EBMUD authorization. Due to the potential contamination of the water to our customers, EBMUD does not allow the fire agencies to connect the red and white hydrant unless absolutely necessary. Please contact EBMUD's Dispatch Center at (510) 287-0600 to get authorization from EBMUD's Operations Control Center (OCC).

EBMUD does not install standard signage explaining the use of red and white hydrants. Fire agencies can develop and install these signs, subject to further review and approval by EBMUD.

20. Why do some hydrants have single or double 2-1/2-inch outlets? Are they low pressure?

Hydrants with single or double 2.-1/2-inch outlets are fairly common and do not represent low pressure. However, EBMUD upgrades these hydrants with a 4-1/2-inch pumper outlet and 2-1/2-inch hose outlet when replacing the water mains, or if the hydrant needs to be replaced for maintenance reasons. Otherwise, the requestor would pay to upgrade the hydrant body.

FLOW AND PRESSURE INFORMATION

21. Can EBMUD provide available flow at 20 psi for each hydrant?

Similar to past requests, the fire agency or requestor would have to pay for such an analysis.

Pressure and flow information for existing public hydrants requires EBMUD to conduct a hydraulic modeling analysis to determine the available flow and pressure the hydrant or potential fire service connection. The flow and pressure information provided is at the street main connection and does not account for pressure losses between the water main and the hydrant. Flow and pressure information can be requested online at https://www.ebmud.com/customers/water-pressure/.

22. Where can I get information on hydrant pressures?

EBMUD does not provide maps of hydrant pressures. However, EBMUD maintains a database for all hydrant flow tests. EBMUD provides fire agencies access to the database at www.ebmud.com/fire.

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23. Is water pressure information available for customers?

Yes. Pressure information for residential dual service design, general inquiries, irrigation services, and insurance assessment is free of charge. There is a fee for EBMUD to conduct a hydraulic modeling analysis to determine the available flow and pressure at hydrants or potential fire service connections. The flow and pressure information provided is at the street main connection and does not account for pressure losses between the water main and service or hydrant. Flow and pressure information can be requested online at https://www.ebmud.com/customers/water-pressure/.

24. Does EBMUD upgrade pipelines and hydrants to meet fire flow standards?

No, EBMUD replaces pipelines and hydrants due to maintenance reasons. New development is responsible for the cost to upgrade existing pipelines and fire hydrants to meet fire flow standards. However, per EBMUD policy, whenever EBMUD replaces water mains for maintenance reasons, EBMUD will size individual pipeline segments to meet current fire flow standards. Fire agencies or communities can also pay for improvements/upgrades to the water distribution system in order to increase available fire flows.

25. Who color codes the hydrant caps? And what do the different colors stand for?

Fire agencies are the ones who established and color-coded the hydrants. EBMUD is only responsible for maintaining the existing hydrant top (flow) and cap colors (pressure). Please refer to NFPA 291 or the following link for further information: http://www.firehydrant.org/info/hycolor.html.

HYDRANT FLOW TEST

26. Does EBMUD provide hydrant flow testing? Does EBMUD have a Hydrant Testing Program? If so, for what applications?

Yes. EBMUD's System Water Quality Division performs the majority of hydrant flow tests. Hydrant flow tests are conducted on an as-needed basis typically in response to water quality complaints from customers or for specific EBMUD capital improvement needs. EBMUD does not have the resources to conduct large scale hydrant flow tests. Fire agencies are welcome to perform hydrant flow tests. The information gathered from testing will be added to the Hydrant Flow Test (HFT) database to improve EBMUD's knowledge of the water distribution system. Please send flow test data to EBMUD at 375 – 11th Street, MS 701, Oakland, CA 94607.

27. Who are EBMUD's points of contact as it pertains to hydrants and flow testing information?

For available flow and pressure from existing or proposed hydrant, pressure information for residential dual services (single family and multi-family with 4 or fewer units), commercial, industrial, institutional, industrial, or multifamily residence with 5 or more units – contact Water

Service Planning Section, Supervisor, at (510) 287-1030 or email jennifer.mcgregor@ebmud.com.

For the Hydrant Testing Program, HFT, and Fire Agency Forum – contact Distribution System Planning Section at (510) 287-1031 or (510) 287-1091.

28. Who is the point of contact for the public to request hydrant flow calculations?

Flow and pressure information for hydrants can be requested online at https://www.ebmud.com/customers/water-pressure/ or by contacting EBMUD's New Business Office at (510) 287-1008 or email nbo@ebmud.com.

29. Does a hydraulic analysis provide a better measure of pressure than a hydrant flow test?

The flow and pressure information provided through hydraulic analysis is based on an all-pipe hydraulic model of EBMUD's water distribution system that accounts for projected maximum day demands and typical low reservoir operating levels with all pump stations off. Field measurements (i.e., hydrant flow tests) are only a snapshot picture of the field conditions and EBMUD's water distribution system at the time the test was conducted and may not capture the low range of available flow and pressure. Various factors, such as area wide customer demand, time of day, weather, water distribution system configuration and system operations will influence the results of field measurements.

30. In other utilities, low water pressures may limit full flow training for firefighting exercises. Are there pressure zones within the EBMUD service area that have this concern?

Generally, it is fine to test at full flow. Historically, full-flow testing has not been a problem.

WATER DISTRIBUTION INFORMATION

31. Where can I find water supply and distribution information for my fire district, particularly for ISO purposes?

Please send requests for information to Distribution System Planning Section at charles.njoroge@ebmud.com or jose.rios@ebmud.com.

32. Where can I access water distribution maps online?

To request a water distribution system map near an address, please visit https://www.ebmud.com/customers/new-meter-installation/ and complete the Map Request Form as instructed.

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33. Are fire agencies notified of major construction projects or facilities being placed out of service? How do I get notified of water facilities that may be out of service in my fire district?

Yes. When reservoirs are taken out of service or returned to service, EBMUD sends out emails to the affected fire agencies. Reservoirs may be taken out of service for seasonal outages (when demands), construction, and/or permanent demolition.

34. Which valves are Fire Agencies allowed to operate?

If a hydrant is busted, broken or gushing, the fire agencies are only allowed to close hydrant gate valves to stop the water leak. Please only operate the hydrant gate valve (gate pot typically painted white and located near the hydrant) and not a water main line valve (blue gate pot cover) or zone gate (sometimes marked blue or red).

Most of EBMUD's hydrant valves "open right" and "close left." Please note EBMUD does not paint gate pots consistently, so use EBMUD's distribution maps (B-Maps) to locate the right valves. Please open and close all valves slowly, especially when the valve is in the mostly closed position to prevent pressure surges. The same applies to opening and closing the hydrant operating nuts. If you are not certain which valve is the hydrant valve, call EBMUD's Dispatch at (510) 287-0600, secure the area and wait. EBMUD will typically respond within an hour (usually much faster).

Fire agencies should not close mainline valves. If a mainline valve is operated and breaks, it could mean taking hundreds of customers out of service for the valve repair, thereby expanding the problem. The fire agencies should keep in mind that some valves open left instead of the usual open right and some valves may be corroded and difficult to operate. If water is gushing out and there is no life safety issue, please leave the valve alone and let EBMUD staff respond. For further information, please refer to EBMUD Guidelines for Interagency Response to Waterline Breaks.

35. What is the relationship between fire sprinkler requirement and meter size?

Dual service meters are sized for the fire sprinkler requirement set by the local fire agency (typical residential design of 2 sprinkler head x 13 gpm/head) + 15 gpm domestic flow allowance. The minimum dual service meter size is 1-inch with a 1½-inch tap and lateral.

36. How can I obtain an updated list of all the fire hydrants located within a city limit?

Please send a request for mapping information to EBMUD's Drafting Supervisor at dennis.karaim @ebmud.com.

EMERGENCY PREPAREDNESS

37. Can EBMUD increase water flow or pressure on demand in response to fires?

EBMUD may be able to increase water pressures. For emergencies, fire agencies should call EBMUD's Dispatch Control Center at (510) 287-0600 for water supply assistance.

38. How does EBMUD prepare for emergency response?

EBMUD conducts emergency exercises, including using the mobile command unit, Incident Command System (ICS), deploying flexible hoses, etc. EBMUD does not provide specific emergency response training but does provide information regarding emergency response. Please contact Manager of Security and Emergency at (510) 867-5292 for more information. EBMUD's ICS capabilities include 160+ employees trained in ICS, a primary (downtown Oakland office) and backup (Walnut Creek Water Treatment Plant) Emergency Operations Center, water bagging trailers, and mobile command trailers. For more information, visit EBMUD's Emergency Preparedness webpage: https://www.ebmud.com/about-us/construction-and-maintenance/fire-safety-and-suppression/emergency-preparedness.

39. What services can we expect from EBMUD during planned PG&E Public Safety Power Shutoffs (PSPS) events?

EBMUD expects to maintain the same level of service during a planned PSPS event. During PSPS seasons, EBMUD rents and deploys portable generators at potentially affected pumping plant sites identified by PG&E.

40. Per the Haywired Report, 4,000 to 6,000 main breaks are expected after a seismic event. Based on this probability, will reservoir isolation valves work? If isolation valves are not operational, is there a plan to manually close valves at tank to prevent them from bleeding out and flooding after a major quake? What is the long term water distribution plan (if any) if water system will be down for 6 weeks to 6 months?

EBMUD has hardened and continues to harden our infrastructure. EBMUD implemented active emergency preparedness and business continuity programs. One type of mitigation we have employed is installation of seismic isolation valves on approximately 30 of our reservoirs. These valves are installed on a case-by-case basis, but in general a reservoir is considered a candidate for a seismic valve if there are multiple reservoirs in a pressure zone, the reservoir is close to an active earthquake fault, and it serves an area that is subject to wildfires. Seismic valves isolate a reservoir after a seismic event to preserve water for firefighting, or other uses, well after the initial event. The strategy is to have water available in the pressure zone(s) both immediately after the seismic event, plus several hours after the initial event.

There are two basic designs for these valves. They can be designed to close remotely from our Operations Control Center (OCC) or some have controls that automatically close the valves when a sensor detects a seismic event and there is a high flow out of the reservoir. They have a backup power source so the valve can operate without external electric power. As long as communications exist to the reservoir, the OCC can override automatic closure of the seismic valve at any time. When the seismic valve has closed, water cannot flow out of the reservoir until the valve has been reopened either locally, or remotely.

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After an earthquake, EBMUD will focus its limited resources on finding the damage, repairing the system, and recovering operations. EBMUD will prioritize repairs as follows:

1) water treatment plants
2) transmission pipelines (i.e., pipelines larger than 20-inches)
3) critical customers
4) coordinated recovery based on repopulation and power/sewer recovery.

41. Where can I find more information about fire safety and fire suppression?

You can visit EBMUD's new fire safety and suppression webpage: https://www.ebmud.com/about-us/construction-and-maintenance/fire-safety-and-suppression/. EBMUD appreciates any feedback to improve the content.

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