

Bolinas Community Public Utility District

A Special Meeting Of The Board Of Directors

September 30, 2020 270 Elm Road, Bolinas

In compliance with local and state shelter-in-place orders, and as allowed by the Brown Act as currently in effect under the State Emergency Services Act, the Governor’s Emergency Declaration related to COVID-19, and the Governor’s Executive Order N-29-20 (March 17, 2020), the BCPUD did not offer an in-person meeting location for the public to attend this meeting. The meeting was limited to essential district business items and was conducted by the BCPUD Board, staff and public via teleconference.

1. Call to Order.

7:30 p.m.

2. Roll.

Directors Amoroso, Comstock, Godino, Siedman and Smith present; director Siedman presiding.

3. Community Expression.

None.

4. Discuss the Potential Declaration of a Prolonged Drought Condition in the Bolinas Community Public Utility District and Alternative Schedules for Mandatory Conservation Measures Pursuant to a Previously Established Water Shortage Emergency.

Staff noted that the materials to be discussed during the presentation under this agenda item are posted on the BCPUD’s website at www.bcpud.org and anyone interested can upload the materials there and follow along during the presentation. Staff introduced the district’s Chief Operator, Bill Pierce, and the district’s consulting hydrogeologist, Rob Gailey, both of whom are present and available to answer questions. Staff requested that questions be held until after the presentation is complete; directors will then first ask questions, followed by the general public.

Staff said the purposes of the meeting are to update the BCPUD Board and the public about the status of the district’s declining water supply; to summarize the community water use reduction since June; discuss the further water use reduction that is needed; and, explain next steps if water use is not further reduced. BCPUD staff are guardedly optimistic that additional voluntary conservation will be effective to maintain the water supply until sufficient rains occur; however, if the community does not reduce water use, staff anticipates that mandatory rationing will be necessary in the upcoming weeks or months. Water use has declined by approximately 20% in the district since June, which is much appreciated; but conservation efforts have stalled – water use in September was approximately the same as water use in August. Staff believes that the additional water conservation needed is achievable and that mandatory rationing – which has not been necessary since 2009 – can be avoided.

The primary water source for the BCPUD water system is the Arroyo Hondo Creek located in the southern portion of the Point Reyes National Seashore; this small perennial creek has supplied the district since the 1920’s. The limited flow available from this creek is one of the reasons for the BCPUD’s water shortage emergency declaration in the 1970’s, culminating in BCPUD Resolution 173, enacted in 1973, known as the “moratorium resolution”. In the 1980’s BCPUD constructed two water storage reservoirs, Woodrat 1 and Woodrat 2, as emergency back-up water supply sources.

The Arroyo Hondo Creek and Woodrat 1 and 2 reservoirs are surface water sources. The reservoirs are supplied by intermittent creeks that flow during the rainy season. When the rains cease and the dry season begins, the reservoirs are at maximum storage capacity. The Arroyo Hondo Creek is a perennial creek; as such, when the rains cease and the dry season begins, the creek is supplied by groundwater seepage, which decreases slowly over time until the rains occur. To meet the town’s demand for water when the Arroyo Hondo Creek flows decline, the BCPUD supplements with stored water diverted from the reservoirs.

This is a dry year: the district received less than 23 inches of rain during the 2019-20 rain year (July 1, 2019 – June 30, 2020), which is well below the district’s average rainfall of 33 inches and approximately half of the 42 inches of rain received during the prior rain year. The Arroyo Hondo Creek available creek flow in September was about 50,000 – 65,000 gallons per day and the community water use during this month has been approximately 100,000 gallons per day. As such, community water use exceeds the available creek flow by about 50%. To supplement, the BCPUD is diverting from reservoir storage. The BCPUD currently has approximately 9,303,000 gallons of water remaining in its two reservoirs.

It is staff's conclusion that the community must further reduce water use during this critically dry period in order to make the available water supply (i.e., the creek flow and supplemental stored water) last until the rains occur and replenish the creek and reservoirs. That said, it is uncertain when the rains will occur. Historically, the district does not receive sufficient rain in November or December to replenish supplies; by January, the probability of receiving sufficient rains rises to about 70%, by February that probability is about 90% and by March it is 100% based on staff's analysis of the last 68 years of monthly rainfall data.

In August and in September, average community water use per property was 166 gallons per day, but that water use is not evenly spread out across the district. Not all customers have sufficiently reduced their water use; staff believes that further water use reduction is achievable, particularly by the highest water users. As previously noted, further water use reduction is needed to reduce the potential for mandatory water rationing. Staff presented two slides depicting water usage across the district in August; this data shows that 129 customers, or 22 percent of connections, used 50% of the district's water supply that month. Who are these high water users (staff noted that this term is not intended to be judgmental; rather, it is intended to simply factually describe the group of customers using high amounts of water as compared to the majority of customers)? There is no one answer to this question, or one group of customers to "blame" for high usage; the community cannot be divided on this issue, everyone needs to do their part to reduce their water usage.

Staff said that current water supply conditions require that water use in the district needs to decline to an average of 150 gallons per day per connection (not per person) – this is staff's current projection of the sustainable level of water use in the district until the rains occur. If and/or when conditions worsen, this 150 gallons per day per connection target will be revised downward. Who will be most affected? In August 2020, 226 customers, or approximately 38% of BCPUD's 587 customers, used more than 150 gallons per day of water. With respect to businesses, public-serving entities and multi-use facilities, the BCPUD will work with these customers as happened during the mandatory rationing in 2009 to determine an appropriate amount of daily water use. Staff noted that fewer than 20 of the 226 customers using more than 150 gallons per day are businesses, public-serving entities or multi-use facilities – the vast majority are single-family residences.

As for the difference between voluntary conservation and mandatory rationing, staff said the BCPUD must enact a resolution to implement mandatory rationing and articulate consequences for violating the ration amount, which would include warnings followed by termination of water service for non-compliance. To avoid mandatory rationing, BCPUD staff will be monitoring water supply conditions on a daily basis, closely tracking customer water use, emphasizing further reductions by high water users, and engaging in community outreach. BCPUD will notify the Board and community immediately if conditions worsen and/or more conservation (or rationing) is needed. To inform the community, BCPUD staff have posted flyers town-wide, posted updates on social media and the BCPUD's website, written directly to the highest water users, and have ordered signage to be placed around town about the water supply shortage.

Staff encouraged everyone to learn how to read their water meters and track their water usage. Instructions are available on the BCPUD's website; BCPUD staff also are available to help and/or conduct a 'water audit'. Customers can call the district office at (415) 868-1224 for the latest information about water usage at their property. Staff requested all customers to take steps to ensure they are not using more than 150 gallons per day per connection. Again, staff is optimistic the community can do this – unlike pandemics and wildfires, water usage is within our control.

President Siedman asked if there are questions from the general public. A resident asked if allowances can be made for the number of people at a property; for example, there are three adults and 4 children at his home. Staff said the district is focused right now on *per property water use*; accommodations at this time are only for businesses and multi-public use facilities. Ralph Camiccia noted that the community experienced this in 2009 and likely will in the future due to climate change; he urged the Board to look forward 5 years. He questioned whether the community could endure water shortage restrictions every few years. Staff said the district is engaged currently in creating models to predict creek flows and water supply during differing scenarios, as well as more comprehensively analyzing the impact of specific weather conditions on the water supply (such as more or fewer foggy days, for example), in order to plan ahead for the future. Ralph said that new community members should be notified that they have moved into a community with a limited water supply; staff assured Ralph that they are so notified, and said again that the high water users at present include many long-time community members who are aware of the district's limited water supply.

Another resident asked if the BCPUD has any recommendations for devices that can be installed so that people can monitor their water use inside the home, such as some sort of sensor for water faucets. Director Smith said that it is possible read the water meter before a specific use begins, such as taking a shower, and then read it again after the shower, this will provide the information needed to calculate the water use of that particular activity. Genie McNaughton referenced Ralph's point about future changes in climate and noted the district has a composting toilet ordinance and perhaps that program could be expanded to reduce water use, or perhaps a rebate program to encourage people to replace high flow

appliances and fixtures with low flow models. Finally, she asked if there is any possibility of building another reservoir? Staff said this is a great but very complicated question; it is not off the table, but would be very expensive, as would expanding the capacity of the existing reservoirs; staff noted the district has evaluated possible groundwater sources and also is exploring other means by which to enhance the water supply, as well. Staff noted that folks with the ability to do so can consider installing water storage tanks at their property to catch rainfall to be used for landscape irrigation during the dry months.

Director Comstock said he agrees with Ralph Camiccia that the district needs to be looking to the future from both a supply and demand standpoint given the implications of climate change and that severe drought years may become the “new normal”. From the supply standpoint, there are limited options. The district has investigated groundwater sources on its property, but there does not appear to be sufficient water to justify the expense of developing the existing irrigation well into a drinking water well. He noted the BCLT has installed a well on its property on Wharf Road and offered any excess water to the BCPUD for the community’s benefit; the BCPUD is waiting for further information about this water source. Since the supply options are so limited, the BCPUD is doing what it can to manage demand, such as by issuing limited water use permits and considering means by which to improve that permit process.

Director Amoroso said that visitation to downtown seems to be at least twice as high as it historically has been in the 45 years he has lived in town; he asked whether that visitation is having a disproportionate impact on consumption. Staff said no; the primary impact of day-time visitation to town is on the public restrooms and, while that use has increased, it is not disproportionate to other uses. Director Amoroso noted that most of the downtown businesses are either closed or operating under reduced hours right now due to the pandemic and therefore not using very much water; he said if/when these businesses resume operations, the pressure on the water supply will be even greater. In response to a statement by director Amoroso characterizing town consumption as historically high, staff said that it is not the case – in fact, consumption is low on a relative basis compared to other years during the same months. The problem at present is the diminishing supply, which means consumption needs to be reduced even lower.

Joanne Reifer said she has a business associated with her home and inquired what will happen if she exceeds the 150 gallons per day. Staff said that the district is not currently imposing mandatory limits; rather, the district is asking everyone to voluntarily reduce water usage to no more than 150 gallons per day or as close thereto as possible. Staff offered to help conduct a water audit to help identify how much water each use is requiring and advice on how to conserve. Janine Aroyan commented that she was working in Stinson Beach recently and noticed that the meters there are digital and evidently communicate water use regularly to the water district; she wondered if a system like this would help the district identify leaks more quickly. Staff said yes; however, the cost of a comprehensive remote read meter system can be significant and historically there has been community opposition to such “smart” meters. Director Smith agreed that there is a lot of new technology to consider. Remote read meters such as this send out a text message each evening to the water district about water use; some of the systems can be retrofit for existing water meters and he is studying options for the district.

Barbara McDonald asked whether the district has investigated the AirBnB homes and whether the owners are using a lot more water at these properties. Staff said that the high water use practices in town are spread across all sorts of properties, not only short-term rental properties. That said, district staff is working on an information notice about the water supply shortage for such property owners to post at their rental properties. Barbara inquired about the property owners with expensive second homes in town; do they know about the water shortage? Staff said yes, by and large, these property owners are aware of the supply shortage.

Ralph Camiccia noted that many people have installed second units at their homes, so the population has increased in town as a result, but no new meters have been added. He wondered if the BCPUD takes this into account. Staff said that the district does not get involved with *how* people use their water, just *how much* water they use – all customers are treated the same irrespective of how they use their water (i.e., for rental units, for gardening, for business, whatever the case may be).

With regard to the technical appendix, director Comstock said the long-term projections for rainfall to end the current supply shortage are very helpful. He said the projected flows for the Arroyo Hondo Creek on page 41 of the materials is also very interesting. In response to questions, Rob Gailey said that the chart depicts flow in gallons per day on the vertical axis and dates in the horizontal axis; the blue dots represent estimates based on actual diversions on specific dates – he noted there is no flow meter or weir on the creek itself. So the flow data is estimated based on diversions as well as weather data such as rain, fog, sun and the like. He noted that when it is foggy, the trees and plants in the creek watershed are not drawing as heavily on the creek water; in addition, there is some contribution from the fog to the creek. The black curve is based on a concept called base flow recession; it helps explain why a creek continues to flow when it is not raining. Staff noted that this projected flow curve is “pessimistic” in that it is based only on dry weather data; staff will be refining the model throughout the upcoming year to account for rainfall impacts. Rob commented that the slope of the line may actually flatten out in coming months (be less steep) even while there is no rainfall as the days shorten and cool off, resulting in less demand for groundwater from the surrounding trees and plants. Director Comstock said it is critical to have this type

of projection to inform the staff's management of the water supply. Rob Gailey concurred and said the district may want to consider installing a weir on the creek to supplement the data set.

Barbara McDonald said she loves the Bolinas Community Land Trust ("BCLT"), but the projects proposed for affordable housing would seem to endanger the water supply. Staff said all of the BCLT projects are subject to limited water use permits, so the water use is restricted at each of these properties. In response to additional questions, staff explained the limited water use permit issuance and enforcement process. Barbara said she heard the planned project downtown is going to switch water meters with one that is underused so that they can use more water. Staff said the BCLT has not submitted a specific application for water use from the BCPUD at this time; they have installed a water well and are trying to permit that to serve the development. Director Siedman said the topic of the BCLT's projects is not on the agenda and therefore he directed the community back to the topic at hand.

Director Siedman summarized the key takeaway point of the meeting: every property in town is being asked to use no more than 150 gallons of water per day so that the district can avoid mandatory rationing. He expressed confidence that the community will respond to this request as it has responded to other requests for conservation in the past. Staff encouraged community members to call the district office weekdays between 9 am and 3 pm for their personal water use information, conservation tips and instructions on how to read a water meter.

5. Adjournment.

8:42 p.m.