

BCPUD PIPELINE



Fall 2016

270 Elm Road, P.O. Box 390, Bolinas, CA 94924 (415) 868-1224

In Brief...

The Marin County Local Coastal Plan Amendments

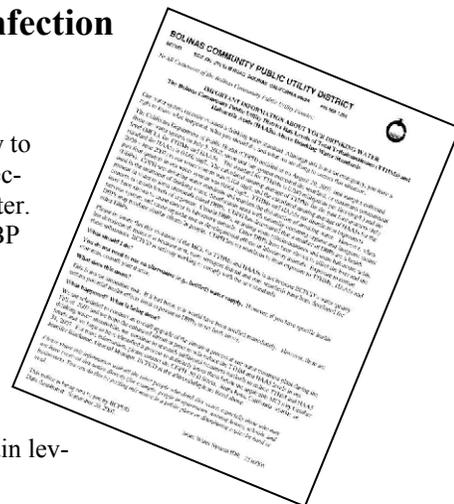
In 2008, the Marin County Board of Supervisors directed the Planning Department staff to review the policies in the county's Local Coastal Plan ("LCP") and recommend needed amendments. County staff has been engaged in the LCP review and amendment recommendation process since that time. A specific page on the County's website is dedicated to posting background, explanations and updates about the LCP amendment process: <http://www.marincounty.org/depts/cd/divisions/planning/local-coastal-program>.

There are many sections of the LCP that impact Bolinas because all of Bolinas is within the California Coastal Zone. As a result, the LCP essentially serves as the primary land use document applicable to Bolinas (and other communities in the Marin Coastal Zone). After eight years of effort, the amendment process is close to completion. The California Coastal Commission has scheduled a hearing for November 2016. If you wish to comment on the LCP, you may do so by sending your comments to marinlcp@marincounty.org.

Water or Sewer emergency?
Please contact our office at 415-868-1224.

Update on the BCPUD's Chlorine Disinfection Byproduct Reduction Project

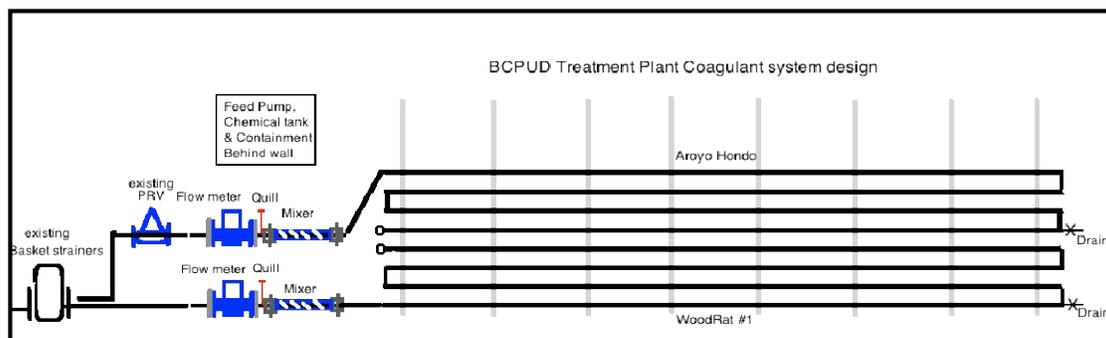
For the past several years, BCPUD staff has worked diligently to address the problem of periodic high levels of chlorine disinfection byproducts ("DBPs") in the district's treated drinking water. As explained in the notices sent out to the public when the DBP levels exceed applicable standards, the State Water Resources Control Board ("SWRCB") sets drinking water standards and requires the disinfection of drinking water. However, when used in the treatment of drinking water, disinfectants react with naturally-occurring organic and inorganic matter present in water to form chemicals called DBPs. The SWRCB has determined that certain DBPs are a health concern at certain levels of exposure.



Solving the problem of high levels of DBPs is complex, and determining the most effective and affordable solution required the pilot-testing of several treatment options. In 2014, BCPUD pilot-tested a nano-filtration treatment plant similar to the treatment process now in use at the Inverness Public Utility District ("IPUD"). BCPUD staff found that nano-filtration treatment removed most of the DBP precursors but, unfortunately, the filter membranes were quickly fouled which made this treatment option cost-prohibitive (due to the relatively high cost of the membranes).

In 2015, the district pilot-tested a coagulant study to determine whether the judicious use of aluminum chlorohydrate ("ACH") coagulant (5-15ppm), in conjunction with the existing micro-filtration process in place at the Woodrat Water Treatment Plant, would significantly reduce the DBP precursors. The results of this study demonstrated that the coagulant lowered the levels of total organic carbon ("TOC") in the district's raw water and lowered the resulting DBP's by more than half. Furthermore, at low doses (below 20 ppm), the ACH coagulant had a minimal effect on membrane fouling and other operational processes of the district's filters. Finally, the study confirmed that ACH coagulant produces a waste product than is easily settled out in the clarifier settling tank that BCPUD staff rehabilitated in 2014 (so no residual is detected in the district's treated drinking water).

In August 2016, the BCPUD formally applied to the SWRCB for an amendment to its operating permit to include ACH coagulation prior to filtration (and certain other operational improvements) as part of the district's water treatment process.



The SWRCB promptly issued permission for the BCPUD to install the coagulation infrastructure and operational improvements, which staff is in the process of doing as this newsletter goes to print. (See diagram on prior page.) The SWRCB will not formally approve an amendment to BCPUD's operating permit until the coagulation process has been operational (with accompanying testing and reporting requirements) for a minimum of one year.

The ACH coagulant dosage will be kept as low as is practical (always below 20 ppm) and during the first year of operation, the finished water will be tested for (among other things) aluminum residual daily (in addition, the clarifier tank supernatant will be tested for aluminum residual once a week). BCPUD staff will be trained on how to adjust the pump speeds, how to calculate dosage and how to test for aluminum residual. Staff also will be trained on appropriate safety procedures for handling ACH and how to optimize the chlorination and coagulation processes. (Notably, the chlorine dose needed to disinfect the BCPUD's drinking water should decrease substantially with a lower level of TOC in the finished water.)

BCPUD is pleased to be moving forward with this project. We would like to recognize the excellent contributions of Lewie Likover (who has been consulting for the district on this project following his retirement as a full-time employee) and consultant Jonathan Van Bourg, both of whom have worked tirelessly to design this cost-effective and innovative solution for the district's chlorine DBP problem. We will continue to keep you apprised as we complete the installation of the project and conduct our operations and testing over the next year.

How Well Do You Know Your BCPUD History?

Did you know that Bolinas historically was served by two water districts? The BCPUD was formed in 1967 as a result of the consolidation of the Bolinas Public Utility District, which had served the downtown and Little Mesa area since 1935, and the Bolinas Beach Public Utility district, which had served the Big Mesa since 1927. A third district, the Marin County Sanitary District #3, formed in 1908, was responsible for the management of the Bolinas sewer system. Today, all water and sewer operations are handled by the Bolinas Community Public Utility District as the successor-in-interest to the three historic districts.



Did you know that Bolinas has its own community plan? It was prepared pursuant to the requirements of the California Coastal Act and the Marin County Local Coastal Program. The Bolinas Planning Group, comprised of community residents, completed work on the Plan in 1975. It was adopted by the Marin County Board of Supervisors December 9, 1975, and subsequently amended in 1983 and 1997. An amendment to the plan, the Bolinas Gridded Mesa Plan, was completed in 1984, and subsequently approved by the Marin County Planning Commission September 24, 1984, the Marin County Board of Supervisors November 27, 1984, and the California Coastal Commission March 27, 1985. Copies of both plans are available on the BCPUD's website at www.bcpud.org

Have you ever visited the BCPUD office? We are located at 270 Elm Road, at the intersection with Maple Road, on the Big Mesa in the former Bolinas Beach Club House. (See historic photo above.) We are open to the public on weekdays between 9:00 a.m. and 1:00 p.m. and by appointment. The BCPUD rents two portions of the office building to tenants for activities beneficial to the community. The main section of the building is rented to the Bolinas Children's Center, a preschool funded in part by Community Action Marin. This school is open to all age-eligible children in Bolinas and also provides an after-school program for kindergarten children. A smaller section on the west side of the building is rented to the Bolinas Hearsay News, the town's local newspaper which is run by volunteer community members and distributed in Bolinas on Mondays, Wednesdays, and Fridays. Please stop by and say hello when you are in the neighborhood!

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