



STATE OF WASHINGTON
DEPARTMENT OF HEALTH
SOUTHWEST DRINKING WATER REGIONAL OPERATIONS
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December 28, 2016

Charles Krumheuer
Bainbridge Island, City of
7305 Hidden Cove Road
Bainbridge Island, Washington 98110-1812

Subject: City of Bainbridge Island, ID #97650, Kitsap County; Water System Plan, ODW Project #16-0808

Dear Charles Krumheuer:

Thank you for submitting the Water System Plan (WSP), received by the Office of Drinking Water (ODW) on August 18, 2016. We have reviewed the Part B WSP in accordance with the pre-plan checklist developed on February 13, 2014, and have the following comments that need to be addressed before ODW can approve the plan.

GENERAL COMMENTS

1. Engineering Requirements. Please ensure that all submittals sent to ODW for review and approval bear the seal, date, and signature of a licensed professional engineer.
2. 10-Year WSP Approval. The State Board of Health approved revisions to WAC 246-290 on November 9, 2016. The WAC revisions are expected to become effective in mid-January 2017 and allow for a WSP approval period of up to ten-years, provided the WSP contains data covering a ten-year period. If the City of Bainbridge Island is interested in obtaining a ten-year WSP approval, please ensure the WSP consistently includes information for both a 10 and 20-year period. For example, as drafted the WSP contains a 6-year financial plan.
3. WSP Adoption. Somewhere in the plan, it needs to be noted that this WSP has been adopted by the City of Bainbridge Island Council and the resolution approving the WSP should be added to the WSP. A meeting of consumers must also be held prior to WSP adoption.
4. Recommendations. The Recommendations section of each chapter are excellent. However, this document is your plan, not a consultant's recommendation report. Where possible, you should identify which actions the utility is planning to take.

CHAPTER 2 – BASIS OF PLANNING

5. Figure 2-3. Figure 2-4 (Rockaway Beach Existing Land Use Parcels Served by City) includes a vacant designation. Including a vacant designation on Figure 2-3 would be helpful given the amount of parcels currently unserved.
6. Page 2-17, Table 2.2. Several policies in Table 2.2 are labeled "proposed new policy." As a component of WSP review and approval, has the Bainbridge City Council approved those policies identified as proposed?



CHAPTER 3 – DEMAND PROJECTIONS

7. Pages 3-10 and 3-17, Equivalent Residential Units. Please clarify the Equivalent Residential Unit (ERU) Maximum Day Demand (MDD) assumptions for each system. Choosing a single MDD assumption for each system is important, because your approved capacity will be expressed in ERUs based on MDD values (assuming both systems are limited by maximum day demands).

CHAPTER 4 – EXISTING SYSTEM

8. Page 4-13 and 4-21, Treatment. Consider revising your fluoridation operating parameters. The federal Department of Health and Human Services has recommended an optimal level for fluoride in drinking water of 0.7 milligrams per liter (mg/L). The State Board of Health, which oversees the state's fluoridation of drinking water rule, revised the rule to reflect this new standard, effective May 9, 2016. You can find more information on ODW's Rule Making webpage, here: <http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/RegulationandCompliance>.
9. Page 4-21. Consider revising your minimum chlorine residual goals. In 2017, we are revising the drinking water code to specify the definition of "detectable residual disinfectant concentration" as 0.2 mg/L of free chlorine, total chlorine, or combined chlorine.

CHAPTER 5 – WATER RESOURCE MANAGEMENT AND WATER USE EFFICIENCY

10. Page 5-14, Wellhead and Appendix I. Consistent with the February 13, 2014, preplan agreement, please provide a wellhead protection program update that includes an updated inventory, maps, and notification letters.
11. Page 5-16, Current Water Use Efficiency Program. Water Use Efficiency (WUE) goal setting must be addressed at a public forum, after public notice. The WUE goal setting public forum may be combined with the meeting of the consumers and public hearing for WSP adoption. However, the WUE goal setting must include a WUE public notice. Please add an explanation of how the goal setting occurred and include the WUE public notice in the WSP.

CHAPTER 6 – SYSTEM ANALYSIS

12. Page 6-2, Equalizing Storage. For both systems, please provide an Equalizing Storage analysis, evaluating the limiting capacities in ERUs. Be sure to show the peak hourly demand (PHD) values and the numbers used to calculate them. In the PHD equation, $MDD \times N$ should equal the system's maximum day source production in gallons per day.
13. Pages 6-8 and 6-11, Available Storage versus Required Storage. Based on Tables 6.5 and 6.8, both systems appear to have inadequate storage capacity for the planning period. Additionally, Figure 3 on Page 7 of the Washington State Survey and Rating Bureau Fire Flow Analysis shows a number of areas that cannot maintain minimum pressure requirements while delivering required fire flows. Please consider developing a detailed action plan describing how you will address the deficiencies. For the areas that are currently deficient or near capacity, we recommend that you develop policies to curtail any additional water demands in those areas until the reliability issues have been resolved.

CHAPTER 7 – WATER QUALITY

14. Page 7-17. Please consider installing manganese treatment on the Winslow Water System sources that exceed the secondary MCL.

CHAPTER 9 – FINANCIAL ANALYSIS

15. General Comment. In order to obtain a 10-year WSP approval following rule revision it will be necessary to extend the current financial plan by four years to cover a 10-year period. According to the WSP's mid-term capital improvement plan (CIP), the additional four-year period CIP is approximately \$3.5 million. With approximately \$2.2 million available at year end 2021 and a steadily declining "net funds before CIP" line item, it will be necessary for the City of Bainbridge Island to clearly demonstrate its plan for remaining financially viable for years 7-10 if the City is interested in obtaining a 10-year WSP approval.
16. General Comment. Chapter 2, Section 1.5.6 states that the City's financial policies are described in Chapter 10. Chapter 10 does not appear to contain a discussion of the City's financial policies. **Please revise to include such a discussion.** For example, what is the City's capital reserve fund target level?
17. Page 10-7, last sentence. Chapter 10 does not contain information about grants and loans that might be available to the City of Bainbridge Island. **Please revise as necessary.**

DEPARTMENT OF ECOLOGY

On August 23, 2016, a copy of this WSP was sent to the Department of Ecology (Ecology). According to the letter issued by Ecology on September 21, 2016, it appears the discussion of your water rights in your WSP is not consistent with Ecology records. Please work with Ecology to resolve any water rights questions.

The Department's review of your WSP does not confer or guarantee any right to a specific quantity of water. Our review is based on your representation of available water quantity. If the Washington Department of Ecology, a local planning agency, or other authority responsible for determining water rights and water system adequacy determines that you have use of less water than you represent, the number of approved connections may be reduced commensurate with the actual amount of water and your legal right to use it.

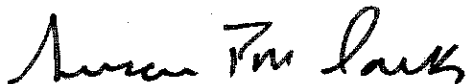
CONCLUSION

Please submit three copies of the revised pages of the WSP and respond to all comments. To expedite our review, please summarize your responses to the comments and where each response is located (for example, page numbers, appendices, and so on).


Regulations establishing a schedule of fees for review of planning, engineering, and construction documents were adopted April 30, 2012 (WAC 246-290-990). An itemized invoice for \$3,705 is enclosed.

If you have any questions, please contact Susan Clark at (360) 236-3031 or by e-mail at susan.clark@doh.wa.gov, or Andy Anderson at (360) 236-3024 or by e-mail at andy.anderson@doh.wa.gov.

Sincerely,



Susan Clark
Office of Drinking Water, Regional Planner



Andy Anderson, P.E.
Office of Drinking Water, Assistant Regional Manager

Enclosures

cc: Chris Minter, City of Bainbridge Island
Lara Kammereck, Carollo Engineers
Kitsap County Health Department
Douglas Wood, MS, LHG, Department of Ecology