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STATE OF IDAHO

C.L. "Butch" Otter, Governor Curt Fransen, Director

TSP&S-110/2012

December 13, 2012

Jesse Chan, P.E. 1798C Hwy 45 Melba, Idaho 83641

RE: Brian Water Corporation - Facility Plan Comments

Dear Mr. Chan:

IDAPA 58.01.08, *Idaho Rules for Public Drinking Water Systems*, lists in rule section 502.01 general applicable issues that must be addressed in Facility Plans. In addition, rule sections 502.04.a and 502.04.b further define minimum requirements for existing systems such as Brian Water Corporation that must be addressed in Facility Plans. Subsection 502.04 Facility Plan Contents states, in part:

The facility plan is intended to address system wide growth, to identify system deficiencies, and to lay out a plan for system upgrades and expansion.

While the submitted plan addressed the immediate concern involving the nitrate contamination issue, it did not address this overall emphasis of a facility plan; to identify <u>all</u> system deficiencies and lay out a plan for future system upgrades and expansion. For example, the eight significant deficiencies listed in the system's last enhanced sanitary survey (ESS), performed on September 18, 2008, should be identified in the report if they have not been adequately corrected.

Please note that Subsection 502.04.b also stipulates:

If specific items listed in Subsections 502.04.b.i through 502.04.b.vii or Subsections 502.04.a.i through 502.04.a.viii are not applicable to a particular facility plan, then the submitting engineer shall state this in the facility plan and state the reason why the requirement is not applicable. The facility plan must also include sufficient detail to support applicable requirements of Sections 501 through 552.

I have summarized the various requirements that must be addressed in facility plans for existing systems below, with a brief note as to whether or not the submitted plan adequately addresses the issue.

- 1. 502.01.a Facility Plans.
 - i. Hydraulic capacity Not addressed. At a minimum, an evaluation of the hydraulic capacity should include a map of the distribution system showing water main sizes, elevation differences,

Jesse Chan, P.E. Brian Water Corporation – Facility Plan Comments December 13, 2012 Page 2

dead ends, potential locations for the installation of new mains to improve system efficiencies and reduce dead ends, etc.

- ii. Treatment capacity Adequately addressed. As discussed in the report, point of use (POU) and central treatment for nitrate removal do not appear to be viable options at this time.
- iii. Standby power Not addressed. Please see referenced ESS related to auxiliary power.
- iv. Redundancy Not adequately discussed in report. While system will eventually be required to provide redundancy, alternative methods of providing redundancy such as equalization storage and blending were not fully investigated.
- v. Fire flows Not addressed. DEQ understands fire flow is not provided (i.e. no fire hydrants). If so, please note in report.
- vi. Project financing Not addressed. As system is currently privately owned, project financing options are somewhat limited. Report should investigate what options are available under current ownership and also under potential homeowners' association ownership, to include user charges and other sources of income.
- vii. Operation and maintenance considerations Not adequately discussed in report.
- 2. 502.04.a New public water system facility plan requirements (to be included in existing public water system facility plans per 502.04.b)
 - i. Location Adequately addressed
 - ii. Population Adequately addressed
 - iii. Sources of water Adequately addressed, however, potential interconnection with local approved water utility and drilling additional wells into deeper aquifer should be more thoroughly investigated. For instance, the estimate for connecting to the approved water utility does not discuss possible easement issues if construction is planned outside of the Warm Springs right-of-way, and does not discuss other construction costs such as traffic control if construction is planned inside the right-of-way. Similarly, it is unclear whether the new well estimates included all steps required to construct a new community public water supply well. For instance, pitless adapter/unit costs and connection to a new or existing pumphouse piping costs do not appear to be included in the well estimates.
 - iv. Treatment Adequately addressed
 - v. Water quantity Not adequately addressed As the existing wells are not metered, it is difficult to tell exactly how much water is required by the system. Some sort of means to establish verification with the supplied calculations and actual water usage should be investigated.
 - vi. Storage Not addressed The current hydropneumatic tank is not discussed at all, and the potential for an elevated storage or ground storage at a higher elevation should be evaluated if reduced well production is planned to be offset with equalization storage.
 - vii. Operating pressure Not addressed. Pressure ranges for all flow conditions must be addressed.
 - viii. Sewage Not addressed. Please see rule language for requirements (502.04.a.viii.)
- 3. 502.04.b Existing public water system facility plan requirements
 - i. Hydraulic analysis Not required by DEQ at this time.
 - ii. Identify and evaluate problems Adequately addressed.
 - iii. Financing methods Not addressed. See above.

Jesse Chan, P.E. Brian Water Corporation – Facility Plan Comments December 13, 2012 Page 3

- iv. Anticipated charges for users Not addressed. See above.
- Organizational and staffing requirements Not addressed. Report should discuss operator certification, potential HOA organization if proposed, etc.
- vi. Project recommendation for client consideration Addressed in report but as discussed above, potential options should be more thoroughly investigated.
- vii. Outline official actions and procedures to implement the project. Not addressed.

When the Facility Plan is approved, a project specific Preliminary Engineering Report (PER) addressing the nitrate contamination issue may then be submitted to DEQ for review. The PER must be submitted prior to submission of any plans and specifications. Should Brian Water Corporation decide to construct a new well, well construction plans and specifications may be submitted concurrently with a PER.

Please do not hesitate to contact me at 208-373-0274 or via e-mail at mike.piechowski@deq.idaho.gov, if you have questions.

Sincerely,

Mike Piechowski, P.E. Water Quality Engineer

MP:sit

C: Tony Bowar, Brian Water Corporation

PDF: Mike Stambulis, P.E., DEQ State Office Todd Crutcher, P.E., DEQ Boise Regional Office TRIM Doc # 2012AGD4033