

35.

Water System Capacity to Meet Needs of Pending
Subdivisions, Public Works Report
August 9, 2014



CITY OF BLACK DIAMOND

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PUBLIC WORKS REPORT

TO: Andy Williamson FROM: Seth Boettcher DATE: August 9, 2014

IN REFERENCE TO:
City of Black Diamond
Water System Capacity to
meet needs of pending
subdivisions

SEE THE FOLLOWING ATTACHED ITEM(S):

COPY OF LETTER
 PLANS

REPORTS
 PRINTS

SPECIFICATIONS
 CHANGE ORDER

CONTRACT _____
 PICTURES _____

URGENT
FOR REVIEW & COMMENT

FOR APPROVAL

FOR YOUR USE

AS REQUESTED

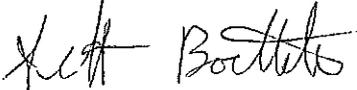
REMARKS:

The capacity of a water system is multi-faceted. The City will be upgrading the chlorine system to meet higher future demands in 2015. After this upgrade, the next limitation on the system is peak day supply (pumping capacity).

At current peak day demands approximately 2.5 times average day and assuming that the new development will have a peaking factor of 2.0, the water system can provide an **additional 561** new connections at 187 gallons per day per connection. However this limitation is only a 3 year issue as the pumping capacity will be upgraded within 3 years to provide full use of the City's water right. Once the City's water source has been upgraded it is expected that the City can add an **additional 1100** residential connections to the existing system (with delivery distribution improvements of course).

In addition to the pending springs reconstruction project in process, the City has water supply capacity from the City of Tacoma available ready for use. It is the City's plan to fully utilize their own water source first and then draw water from Tacoma. However if for some reason the spring project is delayed and the city has the need for additional supply, the City has the option of turning on the Tacoma supply. With the Tacoma supply the next limitation of the system is only the water mains to deliver the water to the Villages MPD. With water available from Tacoma the City has the supply for the full build out of both MPD's.

This memo is to provide you with the assurance of overall water system capacity but does not address water delivery issues to specific subdivisions. Water delivery issues to each subdivision are being dealt with during the design and construction phase of each implementing plat.

Seth Boettcher, P.E. 
City of Black Diamond, Public Works Director



EXPIRES 03/27/16