

Drink. Water Eng. Sci. Discuss., author comment AC1
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Reply on RC1

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Author comment on "Hydraulic performance Analysis of water supply distribution network using water GEM v8i" by Dessalegn Geleta Ebsa and Fekadu Fufa, Drink. Water Eng. Sci. Discuss., <https://doi.org/10.5194/dwes-2020-34-AC1>, 2021

As per described and discussed line number 177 up to 192-line number in the manuscript the quantity of water supply deficiency and water supply production estimated for 2020 to 2035 years under indicated lines. For instance, in line -189 the average daily demands of the study area for 2020, 2025, 2030 and 2035 years is increased by 8.99 %, 50.97 %, 94.23 % and 147.41 % respectively and in line-192 maximum daily demand is increasing by 10.4%, 26.94%, 94.20% and 142.2% where as in line -192 also estimated the peak hour demand 7.33%, 65.90%, 98.73% and 143.02%, for these consequent years respectively. Not only this, in Figure 5 (line 195 -201) it also well described and discussed this maximum daily water demand and peak hourly water demand for the study area.

In the same manner; what you comment on quantification of water supply deficiencies: -

This comment is well done and explained in this manuscript starting line 204 to 210 numbers the quantity of water supply production in cubic metrics and the quantity of water demand or water deficit is deeply justified. Especial this water supply production and water supply deficit is expressed graphically by comparing for each consequent year of excess surplus and deficit of water demand up 2035 years. Additional as indicated in figure 6 this water supply deficit is recorded started from 2020 years and increased smoothly up 2035 years. From this figure 6, water supply production is constant 18655.2 meter cubic throughout the time, whereas the water supply deficit is varying time to time and it beyond to water supply production starting from 2020 ,2025,2030 2035 years which becoming increased by 22433.8; 31335.8; 40208.8 and 49329.7 meter cubic of water supply deficit respectively. In fact, any target of the research paper is to solve the existing problem and recommending to the concerned issues to overcome the temptation by supporting technology and the fact challenging the society. The main target of figure and tables we used in document is to express the required issue easily, so in this paper both of figure and tables is able expressed this message and any of it unreadable or invisible parts.