

All these benefits except freedom from mill owners claim, can be obtained more economically by raising Lower Chain Lake and in addition the loss of 190,000,000 gallons of storage would be avoided and the capacity of these Low Service Reservoirs would be increased to 350,000,000 gallons, a matter of the greatest importance considering the present condition of the works. The proposed conduit could not have been built in permanent material for the amount estimated. The design was for a wooden structure 6 feet high, the bottom of which was to be placed 11 feet below the ordinary surface level of the water. In order to prevent the wood from decaying it was intended to keep it always under water. If this intention had been carried out the available depth of storage would be five feet, minus the thickness of the wooden top of the conduit. The depth of storage under the present system to the top of the conduit between Long and Chain Lakes is a few inches more. At times it will be absolutely necessary in order to satisfy the demand to draw the lake down 3 feet lower. Such being the case it would not be advisable to construct such an expensive piece of work of perishable material. A comparison of the cost of building the conduit of permanent material with that of raising Lower Chain Lake, all the resultant benefits on both sides being considered, would probably lead to the adoption of the latter scheme. If carried out it would have the effect (besides that already mentioned) of increasing the head 7 feet, the pressure 3 pounds and the capacity of the main half a million gallons per diem, while the increase in storage would be 165,000,000 gallons.

The city owns nearly all the land around Long Lake, but there are one or two pieces yet to be acquired. The land owned by the city should be marked by proper boundaries. At present it is impossible to determine where any portion of it lies. I would strongly recommend that all land around Long Lake, Chain Lakes, Bayce's Lake, Ragged Lake and Spruce Hill Lakes, not already purchased, be acquired at once by the city and per-