

Bengaluru and its lakes

June 15, 2018 16:47 IST

Updated: June 15, 2018 16:47 IST



The first source of water for the city lay on the outskirts and this started a dependence on external sources, which continues to this day. By S. Vishwanath

At sunset the lake is a splendid place to be. The birds are hurrying home overhead, the fishermen are sending in their last cast hoping for fish fry as dinner, the devotees at the temple are ringing the bell quickly and the city visitors head to their vehicles for the long drive home. To the north-west of the city, at a distance of 24 km. from Vidhana Soudha, on the Arkavathy is the reservoir of Hessarghatta. The first source of water for Bengaluru city which lay outside the city itself and started a dependence on external source of water which continues to this day. The city's complex relationship with water and its lakes started getting firmed up with reliance on outside waters becoming the norm and leading perhaps to the neglect of local tanks and wells.

The story begins in 1892 with Dewan Seshadri Iyer observing the need for a perennial water source for Bengaluru. The then Chief Engineer of Mysore State, M.C. Hutchins, submitted a report favouring Hessarghatta as a source of water over other potential sources such as

Rachenahalli lake because of, among other reasons, the purity of water and the perennial nature of the source. Dewan Seshadri Iyer quickly obtained approval and the project work began in 1894. The existing small tank built in the 1600s purportedly by king Chikkadevaraya was expanded with the construction of a large bund to store 748 million cubic feet of water. The catchment area was identified as beginning in the Nandi Hills and extending to about 74 square kilometres.

The scheme was called the Chamarajendra Water Works and was designed to supply 55 litres per capita to a population of 250,000. Water flowed in a brick aqueduct to a pumping station in Soladevanhalli and Turbanhalli. From here it was pumped using steam engines to a water filtering station in Hebbal called the Jewell Filters. Filtered water was then supplied to both the civilian population as well as the military establishment.

At times the reservoirs upstream of Hessarghatta were breached to ensure water supply to the city. Farmers upstream were compensated for the loss of crop productivity however.

While the reservoir was further deepened to store the water needs of the city for three years, the drought of 1925-26 meant that a new source had to be found. This resulted in the construction of the Thippagondanhalli reservoir further downstream of Hessarghatta on Arkavathy river itself.

Volute siphon

An interesting civil engineering heritage in the reservoir is a siphon named after its inventor from the Indian Institute of Science, Ganesh Iyer. This siphon is installed on the eastern overflow weir. Designed to make sure that any excess inflow into the reservoir was safely drawn and directed to the river bed downstream, the siphon is a volute siphon with a dome on top.

The Hessarghatta reservoir last filled up and overflowed in 1994. Locals and old timers still talk about the loud humming sound made by the siphon when it swung into action. This sound could be heard for kilometres alerting citizens to the lake overflow and drawing them to the outlet to watch the scene.

Prof. D.K. Subramanian has written an excellent essay in 1984 which captures the history of the development of water resources for Bangalore . It is a worthy read.

http://www.kscst.iisc.ernet.in/essays_bangalore/essays_on_bangalore_vol4.pdf .