

Site Selection Study for Proposed Kadugodi Ground Level Reservoir.

Bangalore Water Supply and Sewerage Board (BWSSB) has taken up implementation of Cauvery Water Supply Scheme, Stage V with financial assistance of Japan International Cooperation Agency (JICA) to augment water supply by 775 Mld to city of Bangalore.

Distribution system is designed to supply water through gravity by locating GLR at highest elevated location in that particular command area. Under Stage -V seven GLR are proposed and Kadugodi is one of the GLRs.

The most important consideration in the choice of a site for a GLR is the elevation. The height of water stored, measured from the bottom of the tank, and must produce sufficient head or pressure to enable water to flow through a gravity pipeline to the users.

KADUGODI GLR:

This GLR will supply water to 9 Villages of Mahadevapura Zone. BWSSB made a detailed assessment on government/private lands most feasible for locating 48 ML Ground level reservoir (GLR) at Kadugodi.

KADUGODI GLR- ALTERNATE SITE STUDY



Option 2-Kadugodi Plantation

Option 1- BMRC Land

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Kadugodi GLR command area.

Maximum and Minimum Water Levels at Kadugodi GLR are + 900.00 m and + 894.00 m respectively.

The Ground Elevation of command areas are indicated below:

- 1) Belathur - +869.86 m to + 859.49 m.
- 2) Kumbena Agrahara - +879.94 m to +859.49 m.
- 3) Kadugodi Plantation - +896.70 m to + 868.60 m.
- 4) Channasandra - +891.76 m to +854.97 m.
- 5) Nagondanahalli - +895.16 m to +854.27 m.
- 6) Hagadur - +895.45 m to +856.63 m.
- 7) Soranhunise and Kanekandya - +885.72 m to +857.26 m.
- 8) Varthur - +885.44 m to +862.24 m.

Study of Land Records -Bhumi (RTC):



BWSSB obtained the details of Government land available in and around Kadugodi the study was essentially site visit cum information gathering on availability of Government lands from Revenue records/Bhumi. Based on the study only two sites/locations are available 1. BMRCL depo land and 2. Kadugodi Plantation for locating GLR and the land requirement is 6 acres.

Option 1 – BMRCL (Bangalore Metro) for Land :

BMRCL is constructing its Depot at Kadugodi. BWSSB Engineers met BMRCL Engineers and requested them for sparing part of land in their possession (whichever was not used) for the construction of GLR. Average ground level at this location is 891 m. BMRCL informed that they do not have surplus land to spare and suggested BWSSB to contact forest department, GoK as they got the land from Forest Department.

Option 2– Kadugodi Plantation belong to Forest Department:

Based on land records it was understood that land bearing Survey no 1, Kadugodi Plantation belonged to Forest Department, GoK. The identified location elevation is 895 m. This site is found to have 4 meter higher elevation when compared to surrounding land (Option 1). This location will facilitate distribution in entire command by gravity.


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Justification for selection of Kadugodi Plantation site

- Based on above study except Kadugodi Plantation area there are no other suitable elevated land/location is available within the command area.
- The quantity of water required for the command area is 85 MLD, Among the 9 villages only Kadugodi Plantation village is having vacant/ government land, which is suitable to construct GLR of huge capacity (48 ML), which requires a land area of 6.0 acres to construct the GLR and other utilities.
- Also it is located at a higher elevation and can supply water to the whole command areas.
- Proposed Maximum and Minimum water levels in the Kadugodi GLR permits gravity flow at an adequate pressure to the command areas.
- The selection of Gravity flow system will provide cost savings in terms of avoiding pumping and energy saving.
- Hence it is recommended to go for Kadugodi Plantation area for construction of proposed GLR.

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