

**Note on Construction of Tunnel in Udaipur under Package No**  
**UDA/WS/12**

Initially survey was carried out by RUIDP to lay Mild Steel Pipeline from Dewas to Nandeswar (near Udaipur) along the existing road, where treatment plant is proposed. However this requires very high pumping upto a level of 830m with pumping head of about 268m. Therefore another option to construct new tunnel in 4.6 km length at elevation of about 725 m was considered with pumping head of 163m, thereby reducing the head by more than 100m. Such a high reduction in pumping head shall result in substantial power savings over the entire life span of this water supply system.

The work order for work of construction of 4.6km long tunnel with internal dia of 2.5 M at a with inlet and outlet levels of 710m & 705m respectively was issued on 5.12.2003 in favour of M/s Valecha Engineering Ltd., Mumbai for a total Contract amount of Rs. 1662.89 lakhs. The work completed by 30.06.2006.

This work included the design and construction of 4.6 km long tunnel with RCC lining in the hills near Dewas for Udaipur city Mansi Wakal Water Supply Project. The tunnel is proposed to take water from a MS pipe line (executed by HZL) coming from Mansi Wakal Dam at down stream of the existing Dewas Dam in a valley and deliver water at a distance of about 4.6 km downstream in a MS pipe line (executed by RUIDP), which shall carry the water to the 23.35MLD capacity Water Treatment Plant (executed by RUIDP) downstream by gravity. The internal dia of tunnel is 2.5M with 4 nos shaft constructed in the stretch of 4.6 km long tunnel with varying depth from 25 M to 100 M. The approximate distance of the tunnel site from Udaipur is about 25 km.

