LHDA Achieves Critical Milestone in Polihali Tunnel Construction with Breakthrough of Intake Towers

We are excited to announce that on Monday 19 August, the Lesotho Highlands Development Authority (LHDA) celebrated a tunnelling milestone on the Polihali Transfer Tunnel construction site – the successful breakthrough of the upper intake tunnel into the lower intake tunnel after seven months of tunnelling. This is a milestone in Polihali Transfer Tunnel works and a significant step in the journey towards the impoundment of the Polihali reservoir.

The intake tunnels will allow water from the 5 042-hectare Polihali reservoir to enter the transfer tunnel for delivery to the Katse reservoir, the centre point of the Lesotho Highlands Water Project.

The breakthrough of the intake tunnels is more than just a technical accomplishment; it signifies the start of two critical phases in the project. The first phase involves the safe commencement of impoundment of the Polihali reservoir, made possible by the collapse of the upper tunnel into the lower one. This process allows for a controlled and secure increase in water levels up to the lower tunnel, which can then be temporarily sealed.

The lower intake tunnel, which plays a vital role in the Polihali Dam's operational future, will facilitate the intake of live water even at low reservoir levels. This feature is essential for ensuring the uninterrupted flow of water, underscoring the importance of this milestone.

Key milestones in the Polihali Transfer Tunnel works include the excavation of the 450-metre long tunnel which began on January 16 and was completed on August 19; the completion of the 370-metre long lower intake tunnel on 05 August and the ongoing excavation of the connecting tunnel. The 1322-metre long connecting tunnel will connect the tunnel boring machine (TBM) access adit at the chamber where the TBM will be assembled, marking the start of the TBM-bored transfer tunnel to Katse. To date, 26 metres of the connecting tunnel have been completed.

These achievements are testament to the dedication and expertise of the LHDA and its consultants and contractors: Metsi a Senqu Khubelu Consultants (MSKC), designers of the Polihali Transfer Tunnel and the Kopano Ke Matla Joint Venture, which is constructing the tunnel.

The successful completion of the intake tunnels brings the LHDA one step closer to realising the full potential of the Polihali Dam:increasing the volume of water transferred to South Africa, increasing the volume of hydropower generated in Lesotho, enhancing the livelihoods of Basotho and contributing to the economies of Lesotho and South Africa