Tunnel Boring Machine Naming Tradition to Kick Off

The Lesotho Highlands Development Authority (LHDA) is eagerly anticipating the arrival of the first of two double-shielded Tunnel Boring Machine (TBM) designed to excavate the 38-kilometre Polihali Transfer Tunnel from the Leribe side. This milestone represents a significant advancement in the construction of Phase II of the Lesotho Highlands Water Project (LHWPII).

The TBM components, including its shields and cutter head, departed from the Shanghai Port in China, and are expected to arrive at the port in Durban on 26 August. Weighing over 900 tons and measuring 350 meters in length once fully assembled, this massive machine's arrival signals the acceleration of tunnel excavation activities.

In keeping with tunnelling tradition, the TBM will be given a Sesotho name which will live on in the legacy and narrative of the Lesotho Highlands Water Project. The LHDA is inviting Basotho from across the country and the diaspora to join in the tradition to celebrate its imminent arrival by entering the tunnel boring machine naming competition. The competition which starts on 28th August 2024 will be hosted on multiple platforms, including Facebook, Twitter, LinkedIn and local radio stations

Competition participants should consider one or more of the following criteria when choosing their names:

- A legend from the Leribe district, the area of the tunnel excavation.
- A leader who demonstrated strength, resilience, and dedication to her community.
- A leader who fostered relationships between their community and others.
- A Mosotho scientist or pioneer in science and mathematics who encouraged youth to pursue science-related fields.
- A leader who has advocated for peace between Lesotho and South Africa.
- An individual who has made significant contributions to Leribe's infrastructure, education, or business sectors.
- Alternatively, a name that embodies strength, power and tenacity, that has relevance to Lesotho, and Leribe as the area where the first TBM is going to work.

An internal panel will shortlist the top 10 most meaningful and creative names which will be announced across the same platforms. Subsequently, the LHDA will open public voting across the same platforms to determine the winning name, which will be bestowed on the TBM on its arrival in Lesotho. The contestant who proposes the winning name will become part of Lesotho Highlands Water Project history, receiving recognition and prizes at the naming ceremony.

On its arrival in Lesotho, the TBM parts will be transported to the Katse TBM access adit at Ha Bereng, Leribe, where the preparation works are already underway to receive the TBM. Assembly of the TBM prior to the start of its digging journey is expected to take approximately 50 days.

Manufactured by CCCC Tianhe of China specifically for the excavation of the Polihali to Katse Transfer Tunnel, the TBM was designed by Robbins, a U.S.-based company renowned for its expertise in tunnelling technology.

The Polihali to Katse Transfer Tunnel is a key component of Phase II of the Lesotho Highlands Water Project. It will facilitate the gravity transfer of water from the Polihali reservoir to the Katse reservoir. The tunnel will be excavated using both tunnel boring and drill-and-blast methods from the Leribe and Polihali ends. The Polihali TBM is scheduled to be shipped to Lesotho early next year and will also receive a name in similar fashion.

The Polihali Transfer Tunnel works include intake works and a gate shaft at the Polihali reservoir, outlet works and a gate shaft at the existing Katse reservoir with an underwater connection to the lake, and access adits to the waterway, along with associated construction infrastructure. The tunnel was designed by MSKC, a consultancy supervising the construction while the Kopano Ke Matla Joint Venture, comprising Yellow River Company, Sinohydro Bureau 3, and Unik Civil Engineering, is constructing the tunnel.