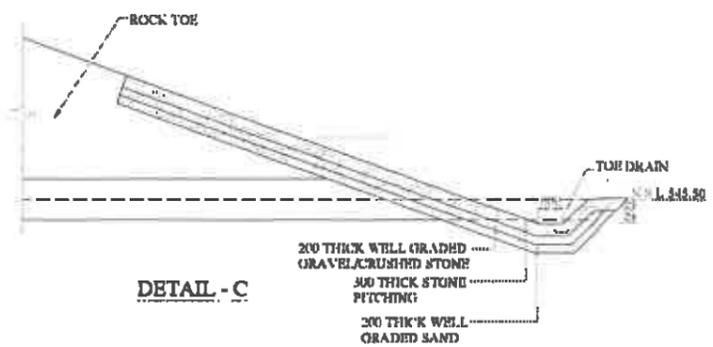


NOTES

- Elevations are in meters and all other dimensions are mm unless specified otherwise.
 - The horizontal sand mat will have slope towards rock toe on per ground profile. If the ground level is sloping towards up stream side the horizontal sand mat shall be elevated suitably to maintain slope towards rock toe.
 - All levels indicated are inclusive of settlement allowance.
 - The parameters adopted for the design are as given below:-
- | Material | Internal Friction angle (φ) in Degree | Internal Friction angle (ψ) in Degree | Unit weight (γ) in kN/m ³ | C (kN/m ²) | φ (Degree) |
|------------------------|---------------------------------------|---------------------------------------|--------------------------------------|------------------------|------------|
| Impermeable Material | 1.10 | | | 1.00 | 25 |
| Clay Core | 1.04 | 2.04 | 1.02 | 2.0 | 12 |
| Blank Fill (Siltstone) | 1.10 | 2.10 | 2.10 | 2.2 | 25 |
- The stripped level below shall be tentative. The excavation level will be limited so that the shear modulus and compressibility of the foundation material is comparable to that of the shell material.
 - For details of dam crest, wave wall and rock toe, refer relevant drawing.
 - Grout curtain with holes drilled at 6m c/c in two rows 2m apart (staggered) up to a depth where in-situ permeability is less than 5 lugeons and grouted to bring down to 3 lugeons (indicative) and in consultation with geologist of GSI.
 - Filter material shall be compacted to an average relative density of 75% with a maximum acceptable relative density of 70%. Filter material shall satisfy the following criteria:-
 - D₁₅ of filter material - 5
 - D₁₅ of base material
 - D₅₀ of filter material - 25
 - D₅₀ of base material
 - D₈₅ of filter material - 5
 - D₈₅ of base material
 Where D₁₅, D₅₀ and D₈₅ represent size of which 15%, 50% and 85% of the total particles by weight are finer than these sizes respectively.
 - The grain size curve of filter material shall be roughly parallel to that of base material. Maximum particle size of filter shall not be more than 75mm, and it should not contain more than 5% of material finer than 0.075mm (No. 200 sieve size).
 - The impervious earthfill material shall be compacted to an average density equal to 100% standard proctor's density, subject to a minimum density equal to 98% of standard proctor's density.
 - The led level of toe drain shall be kept 0.6m below the NSL or upto the stripped surface whichever is lower.
 - The horizontal filter layers at 6m intervals have been provided in upstream to reduce pore pressure during sudden draw down condition and also avoids excessive flattening of upstream slope from consideration of stability and economy.



GOVERNMENT OF TELANGANA
HYDRAULIC

KESHVAPURAM RESERVOIR PROJECT

SECTION OF EARTHFILL DAM

WAPCOS LIMITED
(A GOVERNMENT OF INDIA UNDERTAKING)
76 - C, Institutional Area, Sector- 18 Gurgaon (Haryana)
Pin -122015

SHEET No. 1.1 DRO. No.- WAP-WR/LR/P/DWG/07

General Manager (Engg.)
Project Division - IX,
HMWS & SB, Khairatabad, Hyd-04.

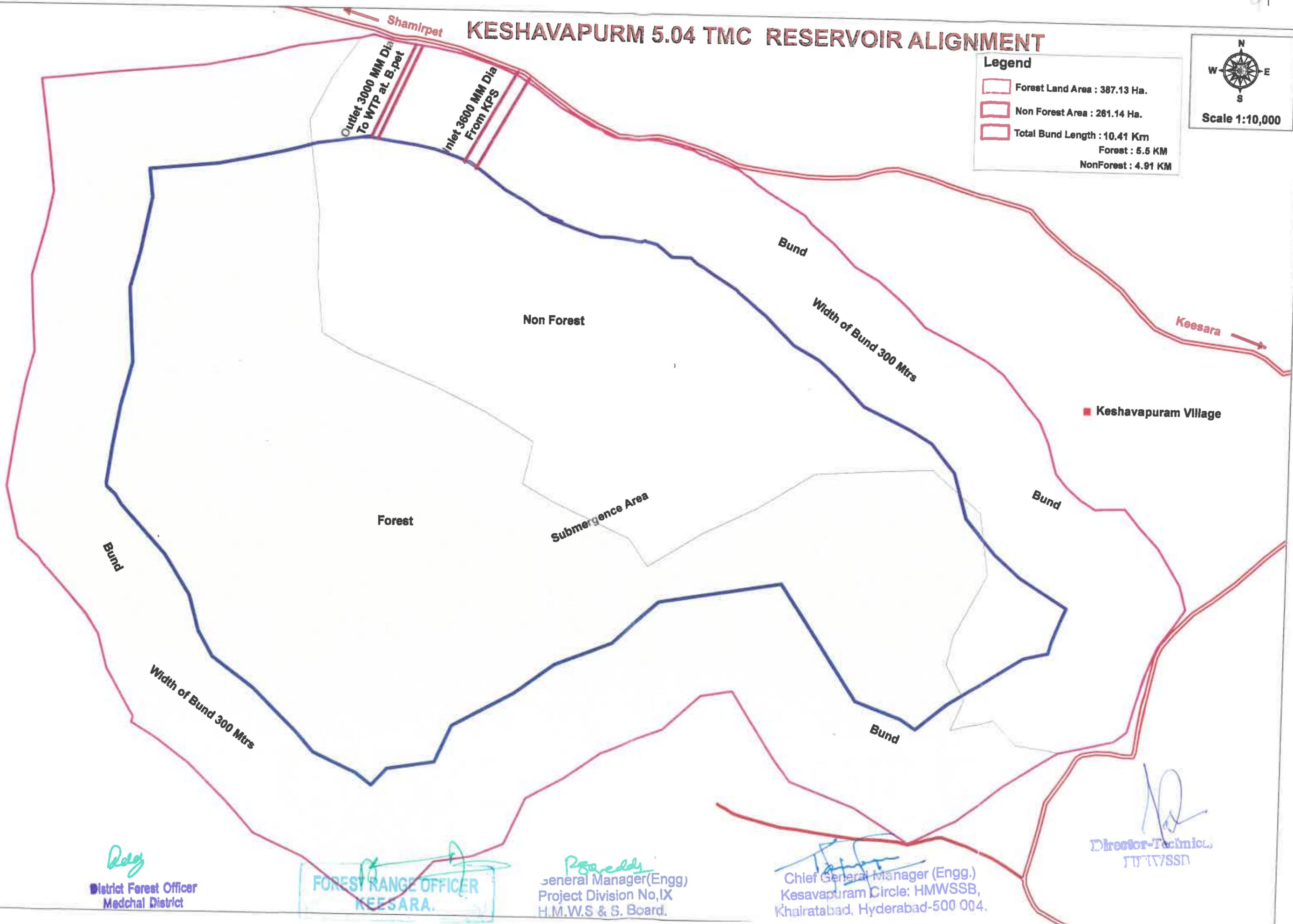
Chief General Manager (Engg.)
Kesavapuram Circle: HMWSSB,
Khairatabad, Hyderabad-500-004.

Director (Tech.)
H.M.W.S. & S. Board,
Khairatabad, Hyderabad-4

KESHAVAPURM 5.04 TMC RESERVOIR ALIGNMENT

Legend

	Forest Land Area : 387.13 Ha.
	Non Forest Area : 261.14 Ha.
	Total Bund Length : 10.41 Km
	Forest : 5.5 KM
	NonForest : 4.91 KM



Reddy
 District Forest Officer
 Medchal District

Reddy
 FOREST RANGE OFFICER
 KEESARA.

Reddy
 General Manager(Engg)
 Project Division No,IX
 H.M.W.S & S. Board.

Reddy
 Chief General Manager (Engg.)
 Kesavapuram Circle: HMWSSB,
 Khairatabad, Hyderabad-500 004.

Reddy
 Director-Technical
 HMWSSB