

हरियाणा तालाब एवं अपशिष्ट जल प्रबंधन प्राधिकरण

Plot No. 9, DHL Square Building, 3rd floor, HSIIDC IT Park, Sector-22, Panchkula-134109

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Letter No. HPWWMA/ENGG-CIVIL/0193-C/2026/ 7429


Date: 30/04/2026

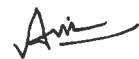
Subject: Technical Guidelines and Procedure for the Construction of Embankments using Earth and Dewatered Sludge

It has been observed during site visits that at many places the embankments are giving way due to improper slope, less compaction or wrong method of using sludge in embankments. Please find below the draft procedure for the execution of earthwork and sludge placement. To ensure structural integrity and prevent erosion, the following specifications must be strictly adhered to:

- Once dewatered, sludge must be excavated and stored in a designated area outside the footprint of the embankment for air-drying. Under no circumstances should wet or raw sludge be placed directly onto the embankments.
- The foundational (bottom) layer of the embankment must consist entirely of earth. A sandwich construction method shall be followed: **Earth** → **Sludge** → **Earth**. This ensures the sludge is encapsulated and does not compromise the stability of the base or the surface
- Earth and dried sludge shall be laid in layers not exceeding 20 cm in depth. For each layer, clods of earth must be broken, followed by necessary watering to achieve optimum moisture content. Each layer must be rolled using a half-ton roller or compacted manually using wooden/steel hammers
- Every third layer, as well as the final topmost layer, must be compacted using a power roller (minimum 8-ton capacity)
- The final surfaces of embankments, flood banks, marginal bunds, and guide banks must be dressed to the required dimensions, including the filling of ground depressions within a 50 m lead. The embankment slopes should be maintained at a ratio of 1:3 or 1:5, as dictated by specific site conditions and as per drawings issued by Pond Authority. Immediately following the final compaction and dressing, turfing of grass must be carried out on the slopes and top surfaces to prevent soil erosion from wind or runoff
- Items for "Lead and Lift" should be incorporated into the estimates based on actual site geography and the distance from the drying beds to the embankment site. If surplus sludge is there, it should be used for filling depressions or low lying areas near the pond but not on or near embankment

This is issued with the approval of competent authority.



20/04/26
For Technical Advisor,
HPWWMA, Panchkula.



Letter No. HPWWMA/ENGG-CIVIL/0193-C/2026/ 7430-39 Date: 30/04/2026

A copy of the above is forwarded to the following for information and necessary action please:-

1. Chief Engineer, PR-PW, Sector 28 Madhya Marg Chandigarh.
2. Chief Engineer (HQ), ULBD, Sector-4, Panchkula .
3. Chief Engineer, IWRD (Const. Unit), Sector-5, Panchkula .
4. All SEs of PR-PW
5. All SEs of ULBD
6. All SE IWRD (Const. Unit)
7. All Executive Engineers of PR, PW.
8. All Municipal Engineers of ULBD.
9. All Executive Engineers of IWRD(CU)
10. PA to EVC


20/4/26
For Technical Advisor,
HPWWMA, Panchkula.

