

## MATERIALS

**FILTER TUBE:** MANUFACTURED FROM A NON-WOVEN GEOTEXTILE REINFORCED WITH A UV-STABILISED, WOVEN FABRIC OR POLY-PROPYLENE MESH. THE GEOTEXTILE FABRIC SHOULD BE EITHER POLYESTER OR POLYPROPYLENE. PROPERTIES (AS3706) MINIMUM WIDE STRIP TENSILE STRENGTH OF 20kN/m IN BOTH DIRECTIONS; PORE SIZE EOS LESS THAN 160MICRONS, O95 LESS THAN 90MICRONS; MINIMUM MASS OF 300GSM (MINIMUM 'BIDIM' A44 OR EQUIVALENT).

**RIBBED PIPE (USED WITH EARTH BANKS):** RIBBED, PVC OR SIMILAR PIPE.

**EARTH EMBANKMENT:** NON-DISPERSIVE (EMERSON'S AGGREGATE CLASS 6, 7 OR 8) CLEAN EARTH FILL, FREE OF ORGANIC DEBRIS AND WITH SUFFICIENT CLAY CONTENT TO PREVENT THE THROUGH-FLOW OF WATER.

## INSTALLATION

1. REFER TO APPROVED PLANS FOR LOCATION, EXTENT, AND DETAILS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, EXTENT, OR METHOD OF INSTALLATION CONTACT THE ENGINEER OR RESPONSIBLE ON-SITE OFFICER FOR ASSISTANCE.

2. CONSTRUCT A SUITABLE WATER-RETAINING BARRIER/EMBANKMENT OUT OF THE MATERIAL SPECIFIED WITHIN THE APPROVED PLANS.

3. WHILE CONSTRUCTING THE DAM OR EMBANKMENT, INSTALL AND ANCHOR THE SPECIFIED NUMBER OF RIBBED PIPE SECTIONS THROUGH THE DAM/ EMBANKMENT.

4. ENSURE THE INLETS TO EACH FILTER TUBE ARE APPROPRIATELY ELEVATED ABOVE THE ADJACENT GROUND LEVEL TO MINIMISE THE RISK OF SEDIMENT BLOCKAGE OF THE PIPE ENTRANCE.

5. FOR EARTH EMBANKMENT, FIRMLY HAND-TAMP THE EARTH UNDER AND AROUND THE RIPPED PIPE/S IN LIFTS NOT EXCEEDING 100mm. ENSURE THAT ALL FILL MATERIAL IS WELL-COMPACTED.

6. FOR EARTH EMBANKMENTS, ENSURE THAT THE EMBANKMENT HAS MINIMUM DIMENSIONS OF 500mm HEIGHT, WITH 200mm CLEARANCE OVER THE PIPE OBVERT, AND MAXIMUM 2:1(H:V) SIDE SLOPES.

7. SUITABLY CONNECT THE FILTER TUBES TO THE DOWNS-SLOPE END OF THE PROTRUDING CONNECTOR PIPES. ENSURE ALL CONNECTIONS ARE WATERTIGHT.

## MAINTENANCE

1. INSPECT THE BARRIER/EMBANKMENT AND FILTER TUBES REGULARLY AND AT LEAST DAILY DURING DE-WATERING OPERATIONS. MAKE REPAIRS AS NEEDED TO THE FABRIC.

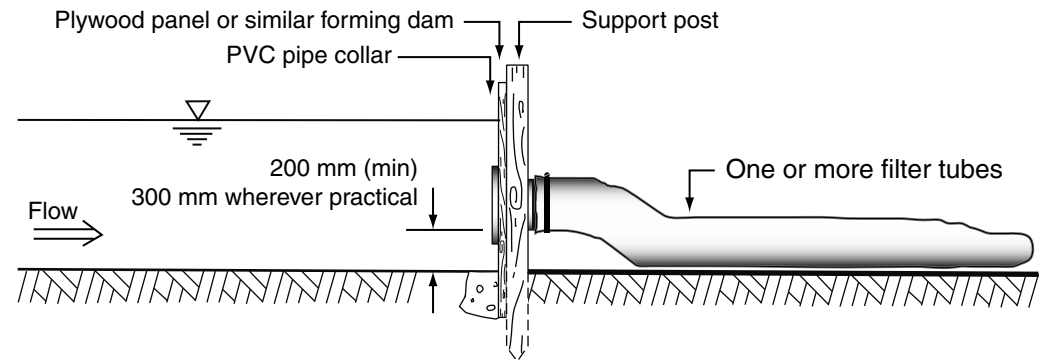
2. INSPECT THE FILTER TUBES FOR OBVIOUS LEAKS RESULTING FROM HOLES, TEARS OR JOINT FAILURE IN THE FABRIC.

3. REPAIR OR REPLACE ANY FILTER TUBE AS NECESSARY TO MAINTAIN THE DESIRED OPERATIONAL PERFORMANCE. IN SOME CIRCUMSTANCES FLOW RATE THROUGH THE FILTER TUBES CAN BE TEMPORARILY IMPROVED BY BRUSHING THE BAG WITH A STIFF-BRISTLED BROOM.

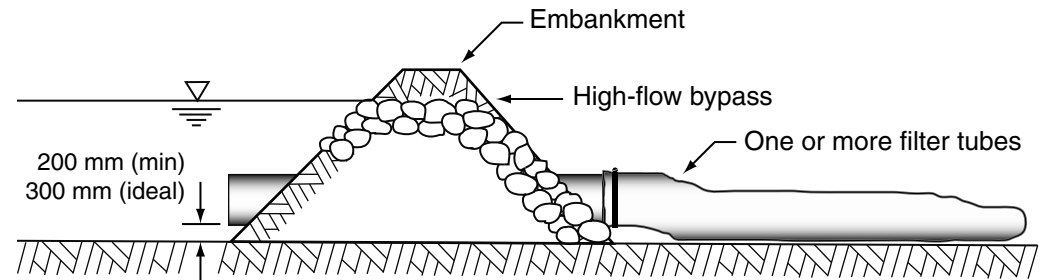
4. REPLACE ANY FILTER TUBE IF SEDIMENT BLOCKAGE OF THE FABRIC DECREASES THE FLOW RATE TO AN UNACCEPTABLE LEVEL, OR THE FILTER TUBE CONTAINS EXCESSIVE SEDIMENT.

## REMOVAL

1. REMOVE OF ALL MATERIALS AND DISPOSE OF THEM IN A SUITABLE MANNER THAT WILL NOT CAUSE AN ONGOING EROSION OR POLLUTION HAZARD.



(a) Filter tubes incorporated a solid, impervious dam



(b) Filter tubes incorporated into an earth embankment

Drawn:	Date:		
GMW	Apr-10	Filter Tube Dam	FTD-01