

April 1, 2019

LCRA Highland Lakes Watershed Ordinance Technical Manual – BMP Details

This bulletin is to provide additional guidance regarding the LCRA Highland Lakes Watershed Ordinance Technical Manual (5th Edition, 2007) requirements for gabions, revetment mattresses, level spreaders, extended detention/sand filter pond outlets and trash racks. Please incorporate these requirements into plan notes and details.

Gabions/revetment mattresses

- All gabions and revetment mattresses used for water quality best management practices (BMPs), erosion control or slope support/stabilization must be metallic-coated or PVC-coated steel meeting either TXDOT Specification 459 or City of Austin Specification 594S.
 - Use minimum 11 gauge (0.120 inch or 3.05 mm) wire for metallic-coated gabions.
 - Use minimum 12 gauge (0.106 inch or 2.7 mm) wire for PVC-coated gabions.
 - Use minimum 13.5 gauge (0.087 inch or 2.2 mm) wire for revetment mattresses.

Level spreaders and permanent rock berms

- Permanent rock berms and level spreaders constructed per the “Rock Berm” lip option in Figure 3-7 of the LCRA Technical Manual must use metallic-coated or PVC-coated steel with a minimum wire size of 14 gauge (0.080 inch or 2.0 mm diameter).
- Prior to construction of level spreaders, the level spreaders must be staked in the field and inspected by LCRA. The owner or his authorized representative is responsible for contacting LCRA for an inspection. We recommend the design engineer be present at the inspection.
- Level spreaders must be turned up gradient at the ends as necessary to prevent flow from spilling around the ends.

Extended detention/sand filter pond outlets

- We recommend incorporating a minimum 2-inch drop from the riser pipe outlet flowline to the adjacent surface to promote positive drainage. The drop should be protected with rip rap over geotextile or a splash block.

Trash racks for pond outlets

- Trash racks must be constructed of welded wire that is PVC-coated or galvanized steel with a minimum wire size of 13.5 gauge (0.087 inch or 2.2 mm diameter). See Figure 4-4 of the LCRA Technical Manual for trash rack details.
- Filter fabric is required around the trash rack until the pond and contributing drainage areas are stabilized. We recommend placing the fabric to a height of approximately one-half of the water quality elevation or 12 inches, whichever is greater. Filter fabric should not be wrapped directly around the riser pipe.