

**STANDARD OPERATING PROCEDURE  
SP012  
WASTE MANAGEMENT**

<b>ENVIRONMENTAL RISK ACTION PLAN</b>	
<b>Waste Management</b>	
Objective	<ul style="list-style-type: none"> <li>To comply with contractual and legislative requirements in relation to the community relations and complaints handling on the various project sites</li> </ul>
Legal, Contractual & Other Requirements	<ul style="list-style-type: none"> <li>Contract Specification</li> <li>See ENV005 Legal Requirements</li> </ul>
Targets	<ul style="list-style-type: none"> <li>Reduce waste generation through detailed works planning.</li> <li>Maximise reuse and recycling through the separation of waste types.</li> </ul>
Responsibilities	<ul style="list-style-type: none"> <li>Site Supervisor are required to ensure that the requirements of this standard operating procedure are implemented</li> <li>Subcontractors are required to ensure that the requirements of this ERAP are implemented for their operations.</li> <li>The Project Manager is responsible for providing updates on the status of the project to the relevant stakeholders.</li> </ul>
Controls (means & resources)	<ul style="list-style-type: none"> <li>Establish a secure waste area and provide containers/bins for the collection of waste and recyclables. Do not place near drainage areas.</li> <li>Seek out opportunities and markets for the reuse and recycling of waste materials.</li> <li>Provide impervious bunded storage areas for liquids and liquid wastes.</li> <li>Store all building materials in a manner that prevents loss or damage (ie secure and undercover, separate to waste).</li> <li>Promote the sustainable use of resources by personnel including water and energy.</li> <li>Undertake regular site clean ups.</li> <li>Provide and regularly check spill kit supplies. Ensure the kits are not being used for litter and that they are clearly visible.</li> <li>Prepare monthly waste reports (Wrapp) Doc No: ENV027 and provide them to the Systems Manager.</li> <li>Conduct inspections and complete checklist to assess the condition of waste compounds, waste/litter accumulation on the site and any maintenance requirements/improvements.</li> <li>Undertake a documented inspection to assess site environmental controls and identify improvements to controls or work methods</li> </ul>
Timeframe	<ul style="list-style-type: none"> <li>Duration of site works.</li> </ul>
Monitoring & Reporting	<ul style="list-style-type: none"> <li>Monthly Wrapp Report Doc No: ENV027 to be provided to the Systems Manager</li> <li>Weekly inspections to be recorded on the Daily Site Safety Checklist Doc No: OHS013.14</li> <li>Monthly Management Inspections recorded on Form Doc No: OHS113</li> <li>Monthly project status briefs to be provided to the clients representative and stakeholders if required under the contract. .</li> </ul>
Review & Evaluation	<ul style="list-style-type: none"> <li>In order to ensure this procedure remains effective, it will be reviewed by Senior Management on an annual basis or in the event of a major environmental incident, changes in legislation or if raised by workers concern/s.</li> </ul>

**Version Control**

<b><i>Date</i></b>	<b><i>Version</i></b>	<b><i>Owner</i></b>	<b><i>Comments</i></b>
22.03.11	1	Michelle Murphy	For Issue
23.12.13	2	Michelle Murphy	Management Review
18.05.15	3	Michelle Murphy	Management Review
20.08.18	5	Michelle Murphy	ISO Accreditation Review
09.09.19	6	Michelle Murphy	Management Review
03.02.22	7	Michelle Murphy	Management Review

## APPENDIX A

### **Standard Drawings**

NSW Landcom Standard Drawing	SD 4-1	Stockpiles
NSW Landcom Standard Drawing	SD 5-4	Rock Check Dam
<i>NSW Landcom Standard Drawing</i>	<i>SD 5-5</i>	<i>Earth Bank (Low Flow)</i>
NSW Landcom Standard Drawing	SD 6-7	Straw Bale Filter
NSW Landcom Standard Drawing	SD 6-8	Sediment Fence
NSW Landcom Standard Drawing	SD 6-9	Alternative Sediment Fence
NSW Landcom Standard Drawing	SD 6-12	Geotextile Inlet Filter
NSW Landcom Standard Drawing	SD 6-14	Stabilised Site Access
NSW Landcom Standard Drawing	SD 6-4	Earth Basin - Wet

**Construction Notes**

1. Place stockpiles more than 2 (preferably 5) metres from existing vegetation, concentrated water flow, roads and hazard areas.
2. Construct on the contour as low, flat, elongated mounds.
3. Where there is sufficient area, topsoil stockpiles shall be less than 2 metres in height.
4. Where they are to be in place for more than 10 days, stabilise following the approved ESCP or SWMP to reduce the C-factor to less than 0.10.
5. Construct earth banks (Standard Drawing 5-5) on the upslope side to divert water around stockpiles and sediment fences (Standard Drawing 6-8) 1 to 2 metres downslope.

**STOCKPILES** **SD 4-1**

**Construction Notes**

1. Check dams can be built with various materials, including rocks, logs, sandbags and straw bales. The maintenance program should ensure their integrity is retained, especially where constructed with straw bales. In the case of bales, this might require their replacement each two to four months.
2. Trench the check dam 200 mm into the ground across its whole width. Where rock is used, fill the trenches to at least 100 mm above the ground surface to reduce the risk of undercutting.
3. Normally, their maximum height should not exceed 600 mm above the gully floor. The centre should act as a spillway, being at least 150 mm lower than the outer edges.
4. Space the dams so the toe of the upstream dam is level with the spillway of the next downstream dam.

**ROCK CHECK DAM** **SD 5-4**

**Construction Notes**

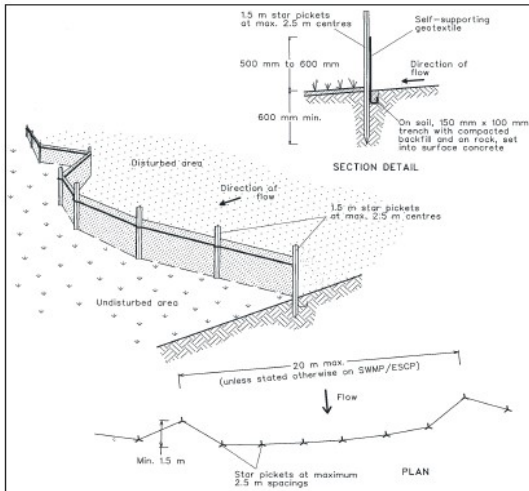
1. Build with gradients between 1 percent and 5 percent.
2. Avoid removing trees and shrubs if possible - work around them.
3. Ensure the structures are free of projections or other irregularities that could impede water flow.
4. Build the drains with circular, parabolic or trapezoidal cross sections, not V shaped.
5. Ensure the banks are properly compacted to prevent failure.
6. Complete permanent or temporary stabilisation within 10 days of construction.

**EARTH BANK (LOW FLOW)** **SD 5-5**

**Construction Notes**

1. Construct the straw bale filter as close as possible to being parallel to the contours of the site.
2. Place bales lengthwise in a row with ends tightly abutting. Use straw to fill any gaps between bales. Straws are to be placed parallel to ground.
3. Ensure that the maximum height of the filter is one bale.
4. Embed each bale in the ground 75 mm to 100 mm and anchor with two 1.2 metre star pickets or stakes. Angle the first star picket or stake in each bale towards the previously laid bale. Drive them 600 mm into the ground and, if possible, flush with the top of the bales. Where star pickets are used and they protrude above the bales, ensure they are fitted with safety caps.
5. Where a straw bale filter is constructed downslope from a disturbed batter, ensure the bales are placed 1 to 2 metres downslope from the toe.
6. Establish a maintenance program that ensures the integrity of the bales is retained - they could require replacement each two to four months.

**STRAW BALE FILTER** **SD 6-7**

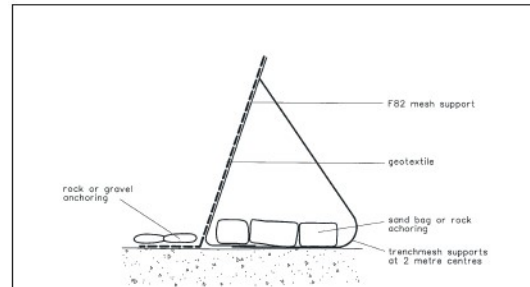


**Construction Notes**

1. Construct sediment fences as close as possible to being parallel to the contours of the site, but with small returns as shown in the drawing to limit the catchment area of any one section. The catchment area should be small enough to limit water flow if concentrated at one point to 50 litres per second in the design storm event, usually the 10-year event.
2. Cut a 150-mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.
3. Drive 1.5 metre long star pickets into ground at 2.5 metre intervals (max) at the downslope edge of the trench. Ensure any star pickets are fitted with safety caps.
4. Fix self-supporting geotextile to the upslope side of the posts ensuring it goes to the base of the trench. Fix the geotextile with wire ties or as recommended by the manufacturer. Only use geotextile specifically produced for sediment fencing. The use of shade cloth for this purpose is not satisfactory.
5. Join sections of fabric at a support post with a 150-mm overlap.
6. Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.

**SEDIMENT FENCE**

**SD 6-8**

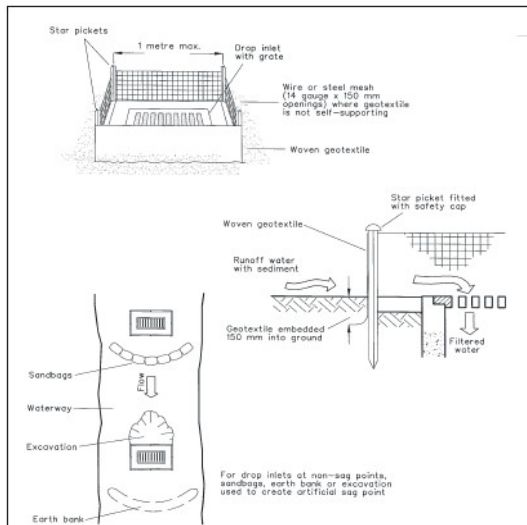


**Construction Notes**

1. Install this type of sediment fence when use of support posts is not desirable or not possible. Such conditions might apply, for example, where approval is granted from the appropriate authorities to place these fences in highly sensitive estuarine areas.
2. Use bent trench mesh to support the F82 welded mesh facing as shown on the drawing above. Attach the geotextile to the welded mesh facing using UV resistant cable ties.
3. Stabilise the whole structure with sandbag or rock anchoring over the trench mesh and the leading edge of the geotextile. The anchoring should be sufficiently large to ensure stability of the structure in the design storm event, usually the 10 year event.

**ALTERNATIVE SEDIMENT FENCE**

**SD 6-9**

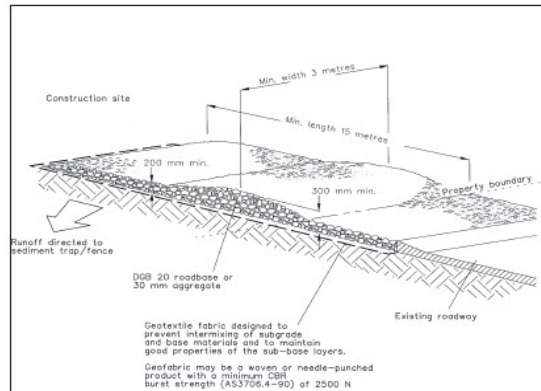


**Construction Notes**

1. Fabricate a sediment barrier made from geotextile or straw bales.
2. Follow Standard Drawing 8-7 and Standard Drawing 6-8 for installation procedures for the straw bales or geotextile. Reduce the picket spacing to 1 metre centres.
3. In waterways, artificial sag points can be created with sandbags or earth banks as shown in the drawing.
4. Do not cover the inlet with geotextile unless the design is adequate to allow for all waters to bypass it.

**GEOTEXTILE INLET FILTER**

**SD 6-12**



**Construction Notes**

1. Strip the topsoil, level the site and compact the subgrade.
2. Cover the area with needle-punched geotextile.
3. Construct a 200-mm thick pad over the geotextile using road base or 30-mm aggregate.
4. Ensure the structure is at least 15 metres long or to building alignment and at least 3 metres wide.
5. Where a sediment fence joins onto the stabilised access, construct a hump in the stabilised access to divert water to the sediment fence

**STABILISED SITE ACCESS**

**SD 6-14**

