



**SHIRE OF MURWEH**

**MORVEN - CHARLEVILLE - AUGATHELLA**

**MURWEH SHIRE COUNCIL**

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**ENVIRONMENTAL MANAGEMENT PLAN**

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<b>Environmental Policy</b>  <b>Murweh Shire Council      Roadwork's Quality Procedures</b>  <b>Issue Date: 27/02/2014</b>	<b>Policy No. 6</b>
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4. Environmental Policy (Roadwork's)

It is the policy of Murweh Shire Council that roadwork's shall be performed in a manner that complies with Council's IEMS, with specific State regulations, and with particular requirements of the Main Roads Department.

An Environmental Plan shall be drawn up for all roadwork's projects other than routine maintenance. The environmental factors relevant to each project shall be considered before work commences and all necessary protective requirements shall be included in the Environmental Plan.

It is the responsibility of the Environmental Health Officer and the QA Officer to ensure firstly that Environmental Plans are drawn up as required and secondly that they are adhered to.

Approved By:  
Chief Executive Officer



N Polglase

Date...12/10/2016

#### 4.2 Alterations to the EMP Maintenance

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Alterations to this document may be necessary due to changes in legislation or any inadequacies in the assessment, control or communication procedures mentioned herein.

Any changes to this EMP Maintenance are to be made by the Environmental Officer in conjunction with the Director of Engineering Services, Safety Officer/Quality Manager and the Works Supervisor.

#### 4.3 Document Distribution

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The SO/QM is responsible for the distribution of all MSC quality controlled documentation and will maintain a document distribution register accordingly.

The following MSC staff will hold copies of the document:

- |      |    |   |
|------|----|---|
| Copy | -  | Master Copy held by Records Officer - Electronic. (Controlled)  |
|      | 1. | Field Supervisor (Troy McQueen) (Controlled)  |
|      | 2. | Director of Engineering Services (Paul O'Connor) (Controlled)   |
|      | 3. | QA Officer / WHSO (John Wallace) (Controlled)   |
|      | 4. | A copy shall be supplied to the Principal following the negotiation of each RMPC Contract. (Uncontrolled) |

#### 5.0 Legislation Review

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The following list of legislation constitutes the statutory and regulatory requirements for which this document has been prepared. These legislations must undergo a critique on a regular basis and this and any associated MSC Quality Controlled Documents will be adjusted accordingly.

- Environmental Protection Act 1994
- Environmental Protection Regulation 2008
- Environmental Protection (Water) Policy 1997
- Environmental Protection Regulation (Nuisance Provision) 1999
- Environmental Protection (Waste) Regulation 2000
- Nature Conservation Act 1992
- Vegetation Management Act 1999
- Environment Protection and Biodiversity Conservation Act 1999
- Main Roads Specifications MRTS-51
- Aboriginal Cultural Heritage Act 2003
- Biosecurity Act 2014
- Waste Reduction and Recycling Act 2011

#### 6.0 Terminology

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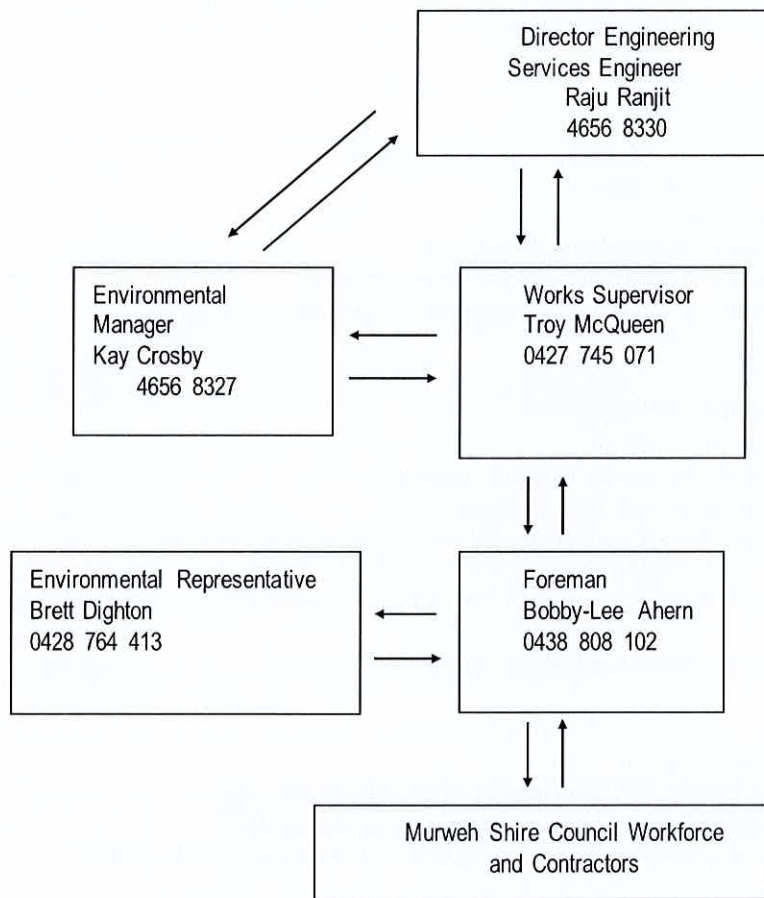
**Noise** includes vibration of any frequency, whether emitted through air or another medium.

**Waste** includes any gas, liquid, solid or energy (or combination of wastes) that is surplus to, or unwanted from any industrial, commercial, domestic or other activity, whether or not of value.

### 7.0 Environmental Responsibilities Structure

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Figure 1. Flow Chart Showing Communication Channels



## 8.0 MSC Environmental Authority and Licenses

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MSC Environmental Authority (IEMS) is a dynamic document and clearly states the management systems to be adopted to obtain best environmental management practice and to meet licence requirements.

Renewed annually, environmental authority EPPR00785513 includes all extraction pits, sewage treatment, and landfill sites.

Whilst licences are not required for the taking of water, MSC must comply with conditions and requirements of the DNRM protocol "*Exemption requirements for the taking of water without a water entitlement under the Water Regulation 2002*".

It is available via the following link:

[http://www.dnrm.qld.gov.au/?a=109113;policy\\_registry/exemption-taking-water-without-entitlement.pdf](http://www.dnrm.qld.gov.au/?a=109113;policy_registry/exemption-taking-water-without-entitlement.pdf)

As a contractor MSC must comply with legislation aimed at protection and preservation of native fauna. Any injury or death of native fauna must be reported as an environmental incident and referred to the EO.

## 9.0 Statement of Environmental Effects

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This document provided by TMR is integral to the MSC EMP, providing guidance on:-

- Any environmental assets and site-specific management techniques for relevant road sections.
- Any known environmental liabilities.
- Any environmental processes and procedures that must be followed for certain activities.
- Known legislative requirements.
- Any known reporting requirements.

## 10.0 Training

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### ENVIRONMENTAL SITE INDUCTION

All personnel before commencing work shall undergo environmental induction. This will be carried out by the PF at the same time as the safety induction. A record will be kept of same (See Attachment 3).

The induction will also include the personnel's responsibility to prevent environmental nuisance and harm and their duty of care as detailed in the Environmental Protection Act 1994 (EP Act).

Topics will include:

- a) Policy and Responsibility
- b) Conditions of Licenses and Approvals
- c) Emergency Plans
- d) Reporting Process
- e) Noise and Vibration
- f) Dust and Air Quality
- g) Erosion and Sediment Control
- h) Water Quality
- i) Waste Management
- j) Flora and Fauna
- k) Landscaping and Revegetation
- l) Cultural Heritage

Any activities that result in environmental harm or nuisance will require documentation and investigation. The following are the elements to be comprehensively assessed in an investigation:

- determine the magnitude of the environmental harm
- critique all possible immediate and long-term remedial actions
- monitor remedial action – assessment of effectiveness
- preventative action – implement procedures to ensure no repeat occurrence
- review and update EMP (Maintenance)

It is anticipated, given an environmental harm incidence or not, that this document would be reviewed periodically or as changes in legislation demand.

### *11.3 Non-conformances*

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All non-conformances discovered during a project shall be reported to the PF who is to document the non-conformance and notify the WS or EO. The non-conformance will be examined by management to establish that it is not an isolated event. Once proven strategies to prevent recurrence will be formulated and reflected in the EMP.

Incidents of environmental nuisance and non-conformance with this EMP are to be reported to the TMR on a monthly basis.

All remediation activities of any contamination resulting from spills and leaks shall be to the TMR'S satisfaction.

#### **Performance Monitoring**

All environmental complaints received will be logged in the environmental complaints register and are to be investigated by the EO and/or the WS/QM. All results of such investigations will be logged in the environmental complaints register accordingly.

In cases where incident involves material or serious environmental harm, TMR shall be notified immediately, otherwise incidents of environmental nuisance and non-conformance with the EMS or EMP shall be reported to the TMR on a monthly basis.

#### **Reporting**

- All incidents involving the spillage of petrochemicals or other potentially polluting or hazardous liquids or materials:
  - if minor, to TMR on a monthly basis
  - if a major spill, to TMR immediately
- Daily checklist to be completed and filed for auditing (see Attachment 2)
- 

The **Duty to Notify** as prescribed by the Act states that if a person's activities either cause, or threaten to cause serious or material environmental harm, then that person has a duty **to inform the administering authority\*** as soon as reasonably practicable after becoming aware of the event involving the harm.

#### **N.B:**

**\*For an employee** – this duty may be fulfilled by notifying their employer, manager, team leader, environmental officer etc. of the harm.

- **An MSC employee may demonstrate that they have fulfilled their Duty to Notify by informing their supervisor of any environmental harm as soon as reasonably practicable.**

Note, notification of harm only applies to **Material** or **Serious** environmental harm

**Material environmental harm** is harm which:

- Is not trivial or negligible in nature, and
- Could cause damage to property, or result in rehabilitation costs of more than \$5k but less than \$50k

**Serious environmental harm** is harm which:

- Is irreversible, high impact or widespread
- Threatens an area of high conservation value or special significance
- Could cause damage to property, or result in rehabilitation costs of more than \$50k.

### *12.1 Stock Control*

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Receiving, storing and distributing of all materials or goods is to be executed as per Section 7.4 Roadwork's Quality/Safety Manual Volume (1) & Section 2 (Policies) Roadwork's Quality Manual Volume (2).

### *12.2 Machinery Servicing*

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Requirements for use of existing, or creation of new stockpile sites is as follows:-

- All stockpile sites shall be located a minimum distance of 100 meters away from any watercourse, and on relatively flat, drained ground; and
- Any new stockpile sites agreed to through the acceptance of the EMP shall not be expanded without the written approval of the principal
- Erosion and sediment controls be installed at stockpile sites

#### 14.0 Air Quality (Emissions and Particulate Matter)

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Road and pavement works do create significant levels of dust and other particulate air borne contaminants. All work on unsealed roads will be constantly watered from water trucks to minimise anticipated dust rising. Water trucks, where practicable will spray any cutting or earth surface drains and storm water channels.

Slashing, mowing and weed eating on the road side does give rise dust and allergy promoting particulates such as weed and grass seeds, pollen spores and decomposed vegetable matter. This phenomenon will be minimised by always operating machinery with protective guards fitted and maintained in operational condition. Operators will be conscious at all times of passing traffic and/or pedestrians and stop work in their presence, where practicable.

The burning of material is prohibited within the road reserve without the written approval of the principal.

##### **Hold Point**

All complaints will be registered in the environmental complaints register and investigated accordingly. All incidence of prolonged air pollution as deemed by the PE and/or EO are to be monitored. The monitoring is a measure of Total Suspended Particles (TSP) and particulate matter (PM<sub>10</sub>). All monitoring is to be undertaken at sensitive receptor sites to be determined by the EO.

#### 15.0 Noise (Including Vibration)

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The very nature of Main Roads work and the machinery required to undertake the same, will inevitable give rise to noise pollution. All MSC equipment has manufacturer noise and vibration specification labels and it is assumed that these specifications would not be exceeded through the standard operation of that particular machine.

It is envisaged that any works conducted within two hundred metres (200m) of any town boundaries or private residences outside the town boundaries will emit noise levels (dependant on the machinery being operated) of environmental significance. All such sites will be monitored for background/ambient background noise levels prior to commencement of work.

##### **Hold Point**

The method of noise measurement adopted for background and ambient background is LA<sub>adj</sub>90 and Leq, respectively, for a minimum of 15 minutes within every hour of any given monitoring period.

##### **Performance Monitoring.**

All environmental noise complaints received will be logged in the environmental complaints register and are to be investigated by the EO and/or the WS/QM. All results of such investigations will be logged in the environmental complaints register accordingly.

In cases where incident involves material or serious environmental harm, the PM and PR shall be notified immediately, otherwise incidents of environmental nuisance and non-conformance with EMP shall be reported to the PM and PR on a monthly basis.

### **Reporting**

- Report the results of the investigation and the actions taken to "close out" the community complaints to the MSC CEO and the Complainant.
- Environmental complaints register completed and retained on site for auditing (Attachment 1).
- Monthly reports for the EMP to PR.
- Daily checklist to be completed and filed for auditing (see Attachment 2)

### *15.1 Vibration*

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Vibrating rollers, jackhammers and hand operated pneumatic wackers do emit vibrations of varying frequencies. All measurements for vibrating machinery in volatile areas are to be measured in terms of Peak Particle Velocity (mm/s). The measurements are to be conducted from receptor sites (to be determined by the EO and/or PE) as near as practicable to and sensitive structure expected to be effected by any such works.

### *15.2 Dilapidation/Condition survey*

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When any vibrating machinery (with emissions of >5 mm/s ppv) are operating within 20 metres of any buildings of significance (historic, monuments etc) a condition survey must be conducted prior and after such works. The radius for a condition survey is to be sixty (60m) metres from the nearest point of emission.

### *15.3 Blasting*

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MSC do not undertake any blasting procedures or operations at this point in time, if this type of procedure is to be implemented in the future, this section of the MRD Maintenance contract is to be reviewed and adequate investigative, monitoring and control procedures and mechanisms are to be documented and implemented.

### *16.0 Native Fauna*

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Generally all RMPC are in previously disturbed areas. However all works to be conducted in areas known or suspected to be of significant wildlife habitat value are to be assessed by the EO during the planning stages of such works.

#### **Hold Point**

Outside existing limits of disturbance (stockpile pads etc), additional assessment will be conducted by TMR officers and if any breeding places are identified, the species management program will be utilised.

Death and injuries pertaining to native animals are to be reported to TMR together with any remedial actions taken. Dead native animals should where possible be transported to the Charleville landfill facility, but in the interest of workers health burying of the animal near to the work site may be the most practical option. For domestic animals (stock) bearing an ear tag or brand, the tag should be removed or the details noted, and the owner contacted via the Department of Primary Industries. For pet animals, the collar together with any attached tags, should be returned to EO, so that the owners may be notified.

Preliminary surveys of gravel pits and turn around areas should identify potential weed issues for the project.	Foreman	Construction
When undertaking clearing works, weed free top soil should be conserved for reuse in site rehabilitation.	Construction Foreman	During Construction
All sites known to have weeds should be avoided and isolated from works unless the weeds are controlled prior to disturbance.	Construction Foreman	During Construction
Reduce the probability that vehicle movements will transport weeds. This may require a "clean in / clean out" policy for known weed areas, whereby machinery is washed before leaving site. Certification will be obtained where relevant.	Construction Foreman	During Construction
Undertake suitable control of known weed infestations through burial or isolation of infested soil.	Construction Foreman	During Construction
Any imported fill material is to be certified weed and fire ant free.	Construction Foreman	Prior to bringing to Site.

### 17.3 Cultural Heritage

Aboriginal Cultural Heritage is protected under the *Aboriginal Cultural Heritage Act 2003*.

Work conducted in a previously cleared/disturbed area, and of a similar nature to previous disturbances, has a low likelihood of encountering or harming cultural heritage. In the unlikely event that cultural artefacts are discovered, TMR will be notified as soon as possible.

For works that disturb previously uncleared land (remnant vegetation) or known cultural heritage sites, a cultural heritage assessment will be conducted.

Historical Cultural Heritage is protected under the *Queensland Heritage Act 1992*. Protected values are found on the Queensland Heritage Register, often including historical buildings and infrastructure. Potential impacts may be direct, or indirect (for example, via vibration).

### 18.0 Natural Hydrology

The natural flow of any rivers, creeks and waterways is of vital environmental, social and economic importance to the Murweh Shire. This very aspect is to be considered in the planning stages of any works pursuant to this TMR Maintenance contract.

The PE and the EO will consider any probable adverse effects to the natural hydrology in the project assessment stage, if such effects become apparent the EO will consult the Transport and Main Roads environmental consultant and the DEHP. The DEHP will determine the final decision of the extent of any works in or to such sensitive areas.

All works in Department of Agriculture and Forestry (DAF) mapped watercourses are to be conducted in compliance with the DAF code 'Accepted development requirements for operational work that is constructing or raising waterway barrier works'

### 19.0 Borrow Pit Rehabilitation

In essence, site rehabilitation aims to leave the site in a stable condition, contoured so as to be consistent with the surrounding landscape, and in-keeping with the character of the area. Borrow pits can vary enormously depending on the amount of material taken and the depths to which excavation has taken place. In most instances there is no defined topsoil, but in the rare instances where this is the case, the topsoil is to be stockpiled around the work area as low flat windrows.

## Attachment 1

## Attachment 2

No evidence of fire ants (visual check for mounds or ants)	
Fill materials certified as fire ant free	

**Waste and Contaminated Goods/Soils**

Rubbish bins provided	
Bins being emptied as required (no overflows)	
Spill kit / clean up kits for chemicals and contamination in place	
Vehicles washed down before entering site	
All prior existing contamination identified and isolated	
Chemicals and fuel appropriately stored and with MSDS	

**Environmental Incident**

Was there an environmental incident today?	
The appropriate persons were notified as per the EMP	
The appropriate authorities were contacted within 24 hrs	
Report any incidents according to procedure in EMP	
Document investigations and outcomes	

Comments:

Name and Signature of Site Manager	Name:..... .....	Date: .....
	Sign:..... .....	



129	Profile Planning	N/A		(noise)			
162	Surface enrichment	N/A					
163	Slurry seal	N/A					
<b>13 - PAVEMENT</b>							
131 – 133 – 134	Repair of bitumen ruts	Soil/water contamination		As per 111/128		PF, OS	
168 – 169 – 185	Pavement repairs - remove bitumen from damaged section						
135 – 136 to 139	As per 128/111					PF, OS	
- 166	Asphalt repairs						
766 – 767	Supply of material	N/A					
<b>14 - SHOULDERS</b>							
141 to 149	Shoulder grading and shaping in rural and urban areas	Erosion/sediment control		- use silt/sediment controls where a waterway is likely to be effected		PF, OS	
<b>15 - CONCRETE ROADWAY</b>							
151 – 154	Crack treatment	N/A					
<b>UNSEALED ROADWAY</b>							
<b>21 – Unsealed roadway</b>							
186	Water cartage	Collection and cartage	Air pollution	- Maintain bore sites - Check DEHP permit - Check private landholder agreement		SO/QM, PF, OS	Permit #
187 – 188	Supply of gravel/material (+ abnormal distances)	- Soil/gravel extraction - Pit maintenance - Storm water management - Access road maintenance	- Air pollution - Vegetation management/control - Soil/water contamination - Habitat protection	- Maintain dust control (water down accesses) - Clear only the necessary area, shape and/or revegetate upon completion - Divert all stormwater - Comprehensive wild life habitat assessment prior to commissioning - operate to TMR guidelines on all road reserve extractions		PF, OS, SO/QM  EO	
211 – 219	Road		- Air/water/soil pollution	- Run water trucks with graders on all			



maintenance in urban areas						
411 – 416 – 417 Slashing	Roadside slashing	Air pollution (particulate matter)	- Always keep safety guards in operational position - Place warning signs facing traffic from both directions	Staff, PF		
412 – 415 – 773 Herbicide or other chemical treatment	- Spraying guide posts - Spraying vegetation too close to road	- Toxicity - Residual effects	- Only use herbicides of non-residual character - Glyphosate and Grazon Unless otherwise approved by TMR EO	PF	Chemical used.	
413 Clearing	- Only for temporary storage site -As per 128	- Flora and fauna protection - Air/Water pollution - Silt/Sediment	- Comprehensive wild life habitat assessment prior to commissioning - If on a watercourse install silt fencing - Clear only the necessary area, revegetate upon completion (if necessary) - Divert all stormwater via silt fencing and/or sediment traps - Maintain dust control (water down accesses)	EO PE,		
418 Mulching	N/A					
<b>42 – Rest Area Service</b>						
421 Rest area servicing	Rubbish collection	Litter control	- Collect all bins and rubbish as required - Dispose rubbish at shire landfill	Staff, PF, OS		
<b>43 – Other Roadside</b>						
175 – 179 – 431 435 Clean road reserve	N/A					
432 Repair stability problems	N/A					
433 Roadside sweeping	As per 126			Staff, PF		
434 – 436 Repair of	As per 314			PF, OS, SO/CM,		

538	Thermoplastic line marking	N/A				
721	Audiotactile line marking	N/A				
<b>54 – Traffic Signals</b>						
176 to 749	Supply, servicing, repair and replacement of traffic signals	N/A				
<b>55 – lighting and Power</b>						
551 to 754	Servicing, repair, replacement and cleaning	N/A				
<b>56 – Road Guideposts and Markers</b>						
561 to 569	Install, clean, paint, repair, replace guideposts or markers	- Installation - Repainting	- Water contamination (concrete) - Residual paint (cleaning)	- Remove all wastes - Clean brushes in a container then dispose of in trade waste receptacle	Staff, PF	

**Form C – Contractor’s Waste Register**

(Required to be collated by Contractor and submitted to Administrator where triggered in Clause 11.2 of Annexure MRTS51.1)

Project	Waste	Month																
		Generated			Reused			Recycled			Disposed to landfill							
		tonnes	kg	litres	tonnes	kg	litres	tonnes	kg	litres	tonnes	kg	litres	tonnes	kg	litres	Cost (\$)	
	Metal																	
	Paper / card board																	
	Vegetation (grasses excluded)																	
	Bridge Timbers																	
	<b>General refuse</b>																	
	Excess earthworks (spoil)																	
	Profiled materials																	
	Concrete																	
	Asphalt, hot / cold mix, bitumen																	
	Oil																	
	Regulated waste Paint, paint sludge, paint water, resins / epoxies, thinners, abrasive blasting waste, emulsion																	
	Tyres/part tyres (rubber)																	
	Regulated waste containers (paint/oil/pesticides etc.)																	
	Batteries (car / truck / machinery)																	
	Third party illegally dumped refuse and litter removed from Site by Contractor																	

### Erosion & Sediment Control Plan

Contract No. SWTD-1057

The following procedures are proposed to address the control of erosion and sediment on the above project.

176mm diameter silt socks of approved manufacture and cut to length to suit the proposed location, shall be fully sand filled and adequately tied each end to avoid sand spillage.

The silt socks shall be placed and installed as follows:

- Securely staked to the ground to prevent movement in any direction
- Silt socks are to be extended a minimum of 300mm, vertically, up each side of the table drain to prevent any flows scouring around the ends
- Should silt socks require overlapping to achieve required length, then the overlap shall be not less than 300mm
- Placed in all road table drains at right angles to stormwater flow paths at spacings deemed to achieve the least possible erosion and flow of sediment within the table drains. Should erosion become evident after any rain event, additional silt socks are to be placed to avoid any further erosion and sediment flow
- Placed at the inlets, outlets, upstream and downstream of all road drainage structures. The drawing below indicates generic placement.

