

# Air Quality Management Procedure

## 1. Purpose

The purpose of this Procedure is to provide a summary of tasks, responsibilities, tools and templates applicable to renewals programs delivered by the Project Delivery Group relevant to air quality management. The Procedure includes:

- Dust Suppression
- Light Management

The scope also includes the assignment of responsibilities to each of the procedure steps.

This document should be read in conjunction with the following:

- Incident Management - Reporting and Investigation Procedure
- PDG Environmental Management Plan

## 2. Scope

<input type="checkbox"/> Planning	<input type="checkbox"/> Delivery	<input type="checkbox"/> Handover
<input type="checkbox"/> Program Management	<input type="checkbox"/> Procurement	<input type="checkbox"/> Community & Stakeholder
<input type="checkbox"/> Safety	<input checked="" type="checkbox"/> Environment	<input type="checkbox"/> Quality

This Procedure steps through the processes for air quality management on projects and programs delivered by TasWater.

## 3. Definitions



This Procedure should be read in conjunction with the Project Delivery Group Acronyms and Glossary document.

**This is not an exhaustive list. It provides step-by-step guidance. Please refer to the relevant management plan or tools for detailed information.**

## 4. Dust Suppression

The purpose of this procedure is to ensure that dust generation is planned for during pre-construction planning and site establishment and minimised during the construction process.



PROCEDURE	RESPONSIBILITY
<b>PRE-CONSTRUCTION PLANNING AND SETUP</b>	
<ul style="list-style-type: none"> <li>• Identify and record potential sources of dust generation as part of the project's HSE Risk Register and Site Environment Plan development.</li> <li>• Where required, equip site entries and exits with suitable mitigation to minimise soil transport to and from the site in accordance with the <b>Sediment and Erosion Control Procedure</b>. Suitable mitigation may include:               <ul style="list-style-type: none"> <li>- Locate stockpiles where they are protected from the wind, where practicable</li> <li>- Construct wind breaks or wind screens such as wind fences around the site, where practicable</li> <li>- Consider the seasonality of wind in an area when planning construction</li> <li>- Restrict land clearing or earthmoving activities during periods of high wind.</li> </ul> </li> </ul>	Contractor / TasWater Environmental Advisor

PROCEDURE		RESPONSIBILITY
 <p data-bbox="419 533 552 562"><b>Wind Fence</b></p>	 <p data-bbox="901 533 1040 562"><b>Rumble Grid</b></p>	

**MINIMISING DUST DURING CONSTRUCTION**

<ul style="list-style-type: none"> <li>• Use water trucks and/or chemical dust suppressants in high risk dust generating areas such as disturbed areas, haul roads and stockpiles.</li> <li>• Polymer based additives are effective for reducing dust generation compared to water alone. Chemical dust suppressants can be used on-site to minimise dust generation and increase soil stability when necessary.</li> <li>• TasWater Environmental Advisor acceptance of the proposed chemical dust suppressant must be obtained prior to using the product on site, including a review of the Safety Data Sheet (SDS) for the product.</li> <li>• Australian based suppliers of chemical dust suppressants include, for example:               <ul style="list-style-type: none"> <li>- RST Mining and Civil Solutions (<a href="https://www.rstsolutions.com.au">https://www.rstsolutions.com.au</a>)</li> <li>- Vital Industries (<a href="https://www.vitalindustries.com.au">https://www.vitalindustries.com.au</a>)</li> </ul> </li> <li>• Common chemical dust suppressants used include:               <ul style="list-style-type: none"> <li>- Total Ground Control</li> <li>- RT5 Superskin</li> <li>- Vital Bon-Matt Stonewall</li> </ul> </li> <li>• The effectiveness of dust controls should be assessed during periods of strong winds (40-50km/hr) and dust generating activities rescheduled where control of dust generation cannot be achieved.</li> <li>• All trucks transporting spoil and fill material on public roads must have their loads secured and covered</li> </ul>	<p>Contractor</p>
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 <p data-bbox="419 1675 552 1704"><b>Water truck</b></p>	 <p data-bbox="850 1675 1088 1704"><b>Chemical suppressant</b></p>	
		

PROCEDURE		RESPONSIBILITY
Applying RT5 Superskin to stockpiles for dust and erosion control	Guardian Road Binder Road Stabiliser & Dust Suppressant for Haul & LV Roads	
<b>LAND STABILISATION DURING AND POST CONSTRUCTION</b>		
<ul style="list-style-type: none"> <li>To avoid excessive dust generation, minimise or stage vegetation disturbance.</li> <li>When an area of works is completed, exposed soils should be stabilised as soon as possible to minimise the generation of dust using one of the following techniques:               <ul style="list-style-type: none"> <li>Revegetation with native species</li> <li>Temporary, quick germinating grasses such as rye and oats can be used to stabilise soil until slower growing plants can be established</li> <li>Hydroseeding</li> <li>Mulch (straw or other material) can be used to protect soil and support plant growth. Mulch spread to a depth of 75–100mm minimises soil and water loss and controls weed growth. It may be less suitable on steep sites and in high wind areas</li> <li>Biodegradable erosion control mats are useful when revegetating steep slopes</li> <li>Apply gravel, landscaping rock or semi-permeable paving to areas where planting, mulching, or paving is impractical.</li> </ul> </li> <li>Integrate your landscaping strategy with sediment control. For example, diversion channels and trenches that filter sediment can be used with rubble in the base to create a deep root planting opportunity.</li> </ul>		Contractor
 <p><b>Mulch provides temporary ground cover until permanent vegetation is established</b></p>	 <p><b>Mulching with established vegetation covered in jute matting</b></p>	
<b>INCIDENT REPORTING</b>		
<ul style="list-style-type: none"> <li>Any public complaints received regarding dust generation from a site must be reported to the TasWater Environmental Advisor, recorded as an environmental incident in accordance with the Incident Management - Reporting and Investigation Procedure and entered to IRIS for action tracking and closeout.</li> </ul>		All

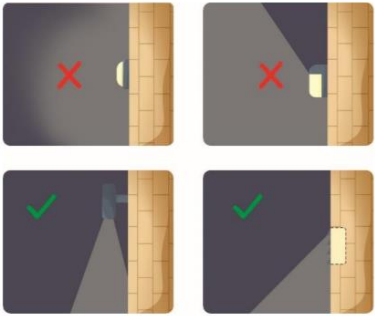
## 5. Light Management

The purpose of this procedure is to ensure light pollution generated by works is minimised. Best Practice lighting design minimises unnecessary artificial light that could be harmful to wildlife or disturb sensitive receivers, result in energy waste, loss of the night sky and adverse impacts to human health.

Light pollution takes several forms, including:

- Glare – undue brightness of a light source
- Over-illumination – lighting areas at levels beyond those at which human vision is able to differentiate
- Light clutter– excessive grouping of light sources
- Light trespass– unwanted direct lighting of an area

- Skyglow– the increased night sky brightness that is produced by upwardly emitted and reflected electric light being scattered by water, dust and gas molecules in the atmosphere.

PROCEDURE	RESPONSIBILITY
<b>MINIMISING LIGHT POLLUTION</b>	
<ul style="list-style-type: none"> <li>• Simple management principles can be used to reduce light pollution, including:               <ul style="list-style-type: none"> <li>- Use the lowest intensity lighting appropriate for the task. Starting from a base of no lights, use only the minimum number and intensity of lights needed to provide safe and secure illumination for the area at the time required to meet the lighting objectives.</li> <li>- Use adaptive light controls to manage light timing, intensity and colour to minimise unnecessary light output and energy consumption.</li> <li>- Turn off lights when not in use or required.</li> <li>- Light only the object or area intended – keep lights close to the ground, directed and shielded to avoid light spill. Existing lights can be modified by installing a shield.</li> <li>- Use non-reflective, dark-coloured surfaces where possible.</li> <li>- Mount lighting fixtures as low as possible.</li> <li>- Direct light to the task. Light focusing reflectors can assist to direct light to where it is required.</li> <li>- Install screening such as walls, vegetation barriers and other structures to shield sensitive areas against light.</li> <li>- Limit increase in lighting, if installing additional lighting, consideration should be given to decreasing the lux in the existing over lighted areas.</li> </ul> </li> </ul>	Contractor
<div style="text-align: center;">  <p>Lighting should be directed to ensure that only the intended area is lit</p> </div>	
<b>INCIDENT REPORTING</b>	
<ul style="list-style-type: none"> <li>• Any public complaints received regarding light generation from a site must be reported to the TasWater Environmental Advisor, recorded as an environmental incident in accordance with the Incident Management - Reporting and Investigation Procedure and entered to IRIS for action tracking and closeout.</li> </ul>	All

## 6. References

This procedure is supported by implementation of the following Procedures, Tools and Knowledge:

- Incident Management - Reporting and Investigation Procedure
- PDG Environmental Management Plan
- PDG Glossary and Acronyms
- Sediment and Erosion Control Procedure.