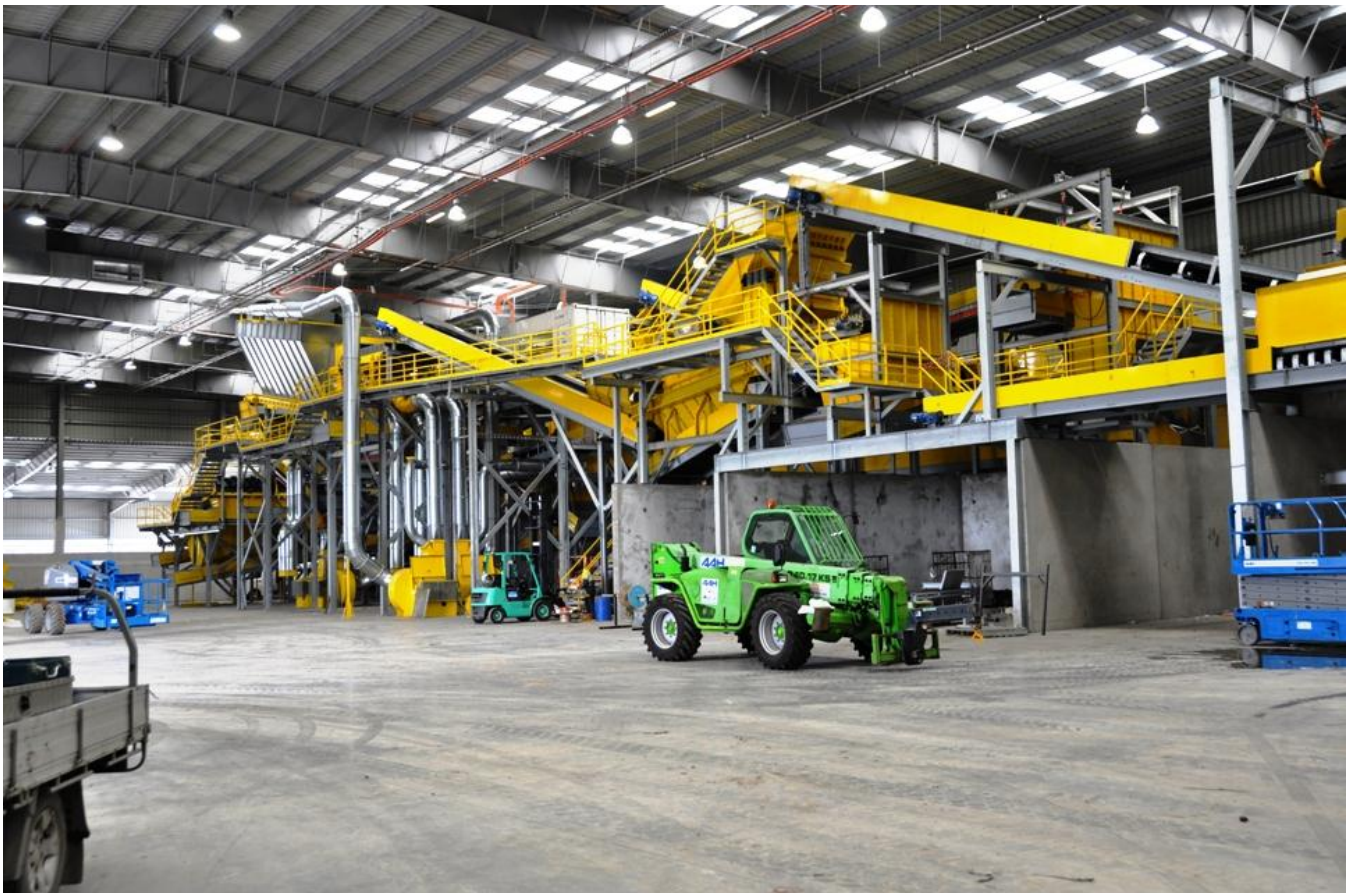


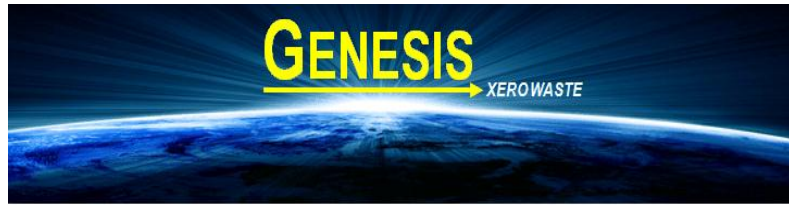
**Commercial in Confidence**

**MPC (Materials Processing Centre)**

- This is where all mixed loads of waste are unloaded and classified in accordance with EPA Guidelines
- Large items of concrete, brick and metal objects are recovered immediately for further processing

Smaller mixed material capable of being recycled is shredded to commence the recycling process. It then proceeds through a series of screens, separators, blowers and magnets until it is segregated to be able to be reused



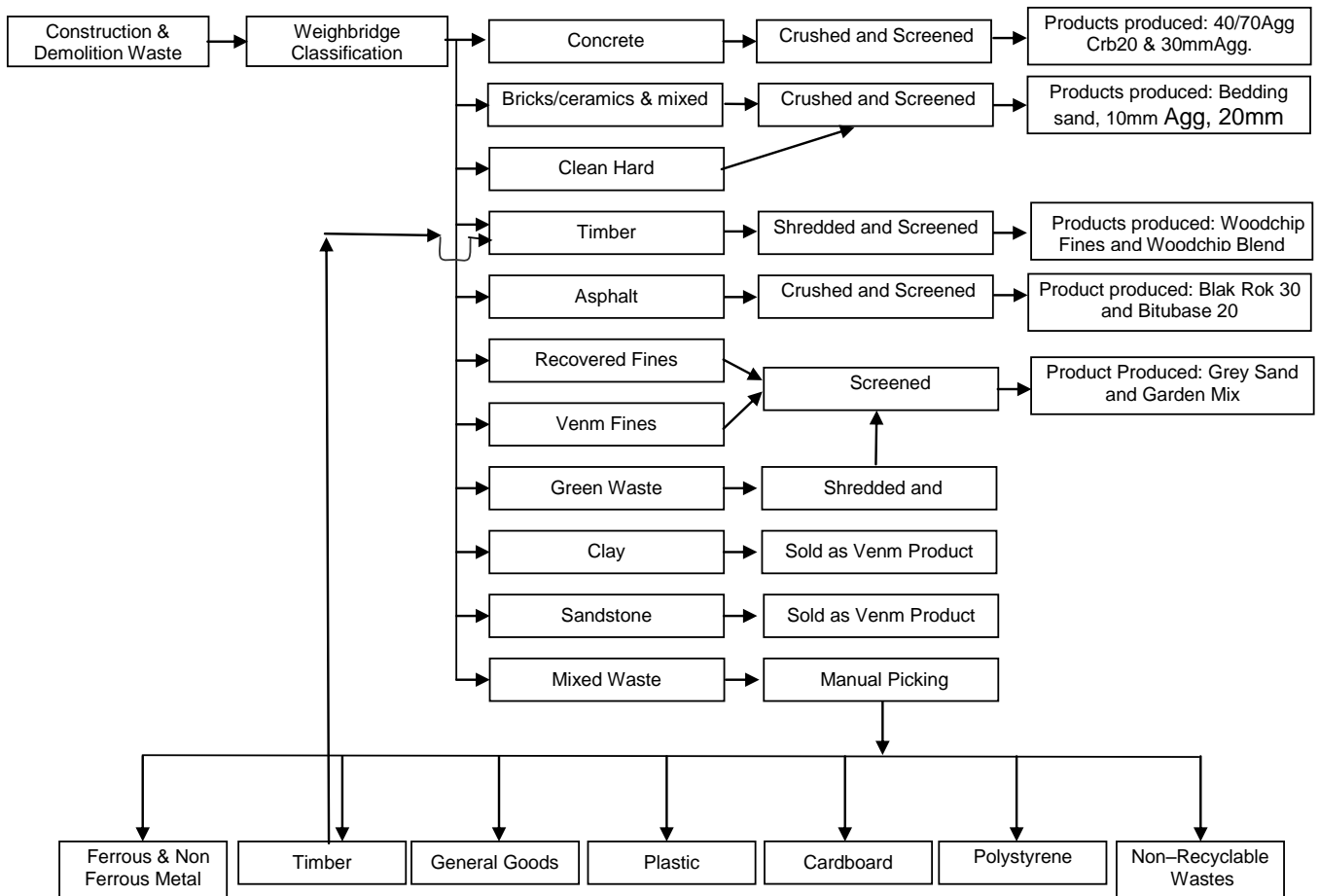


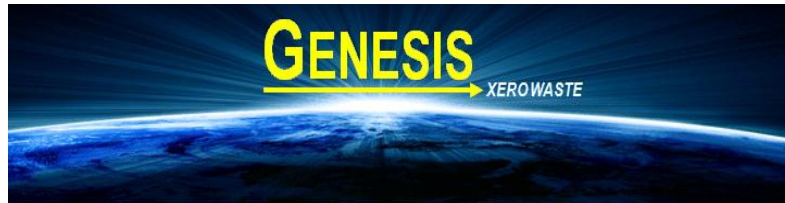
Commercial in Confidence

**RECYCLING**

Recycling is a vital means whereby Australia’s natural resources are conserved and efficiently utilised. Our ‘Waste Management’ system is centred around *resource recovery and recycling* and through innovative approaches **Dial A Dump** consistently achieves recycling figures in excess of the objectives of the Waste Minimisation and Management legislation and the Waste Wise agreement. Below is our Recycling flow diagram of our waste processes.

Dial A Dump Recycling Centre  
Recycling Flow Diagram





**Commercial in Confidence**

**Off Site Recycling**

Off site recycling is the most appropriate course of action for mixed waste streams and sites with minimum room or access difficulties.

At our Recycling and Landfill Facilities, **Dial A Dump** is able to sort and recycle wastes coming from your sites.

This sorting and recycling includes the recovery and production of the following materials:

**Mattresses**  
**Paper/Cardboard**  
**Polystyrene**  
**Glass**  
**Steel - OSI and Black Iron**

**Non-Ferrous metals** such as:

- Lead
- copper
- electrical cable
- brass and aluminium;

All which are sorted and sent to the appropriate processing plants.

**Timber** such as:

- Formwork
- pallets
- hardwood
- tree stumps
- oregon and alike;

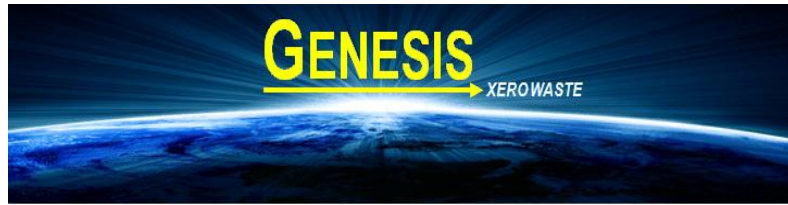
are sorted for reuse, with the rest being processed to make woodchip.

**Green Waste** is transformed into mulch.

**Problem wastes** such as:

- Carpet
- Plastic and tyres;

are all processed at **Dial A Dump** facilities to avoid the potential problems that wastes such as these cause at landfills.



**Commercial in Confidence**

**All hardcore materials:**

- Bricks
- mortar
- concrete
- dirt
- soil
- sand
- tiles
- marble and stone;

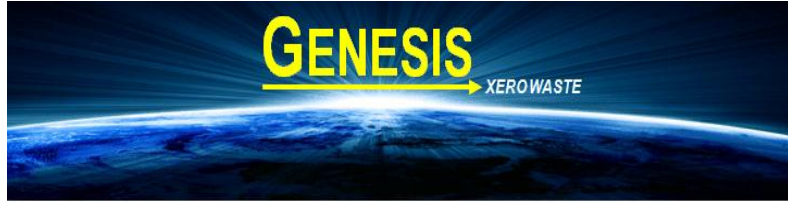
are either stacked for reuse, or re-processed into high quality raw materials such as:

- \* Roadbase
- \* Aggregates for drainage
- \* Fill sand
- \* Soil
- \* Turf underlay

Off-site recycling is an efficient and cost effective option for **Dial A Dump's** customers. Upon returning to **Dial A Dump's** recycling and landfill facility, the general loads collected are sorted and recycled directly on site. Materials currently recycled and reused at our recycling facility include:

Polystyrene	Recycled to make plastic products
Metals	Resold to appropriate processing plants
Timber	Recycled to make Woodchip
Green Waste	Recycled into Mulch
Hardcore	Recycled into products including Roadbase, Sand, Fill and Aggregate.

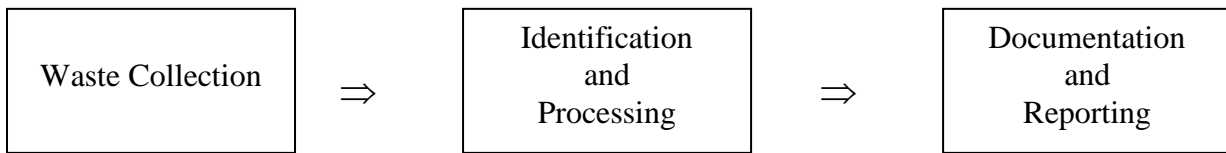
**Dial A Dump** customers can feel secure in the knowledge that their waste is being disposed of and recycled according to environmental protection legislation and the principles of ecologically sustainable development.



Commercial in Confidence

**REPORTING PROCEDURE**

**Dial A Dump** is committed to assisting your company in meeting its requirements under the Waste Criteria and to this end has instituted the following procedures to provide your company an auditable method of confirming that **Dial A Dump** recycles the benchmarked proportion of waste received from your company.



Collection of Materials

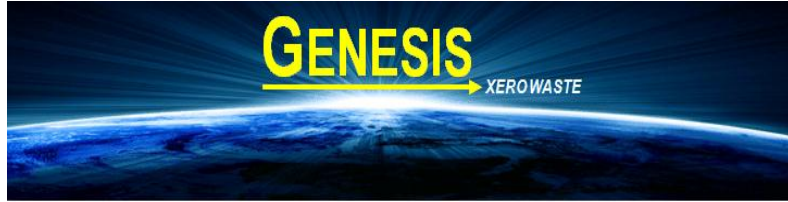
The **Dial A Dump** driver shall, at the time of collecting the bin from your company site, record the identity of the bin from its ID Number. The bin shall then be transported to the most appropriate **Dial A Dump** Recycling facility for evaluation and treatment.

Identification and Processing

Large bins are tipped in the processing yard and visual inspected and photos are taken of the loads. Sample report below. Small bins are processed by source separating by forklift into larger bins.

Inspection Report

Bin Bags - Mix, 4, 6, 9, 10, 13, 17, 27		Site Bins - Recycled & Quarry Products		<b>DIAL A DUMP</b>		
Mail: PO Box 1040, Mascot NSW 1460		E: <a href="mailto:cs@dadi.com.au">cs@dadi.com.au</a>   W: <a href="http://dadi.com.au">dadi.com.au</a>		KEEPING AUSTRALIA CLEAN		
TAX INVOICE		9519 9999		ABN 75 131 565 583		
Greenstar <input type="checkbox"/>	Date: .....					
To: .....						
Address: .....						
Qty	Product/Services					
Bin No. Del.:		Bin No. P/Up:				
Time Arrived:			Time Departed:			
Payment Type:		Cost inc. GST				
Pickup Contents %	Timber	Conc.	Brick	Soil	Plastic	Paper
Gyp	Green	Metal	Insul.	Mix	Other:	
I indemnify Dial A Dump Industries against any liability for damage caused by bins placed at my direction. I acknowledge that I am responsible for ALL Council Fees & Charges and contents* within this bin. I acknowledge that I am liable for damage to bins whilst on hire and that extra charges will apply.						
Client Signature: .....						
Name: (please print) .....						
* NO Food, Liquid, Fibro/Asbestos, Hazardous Chemicals, Tyres, Carpet or Mattresses - please do not conceal unacceptable materials under loads. Extra charges will apply if found in the Bin.						
Load not to exceed rim - overloaded Bin will NOT be removed.						
7 Day hire - call 9519 9999 for pickup. Unpaid COD Bins will NOT be removed.						
Driver:	Docket No. <b>06701</b>					



**Commercial in Confidence**

**Receipt of Materials**

At the **Dial A Dump** Recycling facility, the bin will be taken across the Weighbridge to ascertain the total tonnage weight being brought in and the following details recorded:

- Date and time of receipt of load
- Weight of load
- Origin of load
- Bin Identification Number and size by cubic metre

The Bin will then be transported to a designated unloading area for processing and recycling.

**Weighbridge Report**

DOCKET	REGO	ITEM	TN/CM	GROSS	TARE	NET	BIN SIZE	DATE/TIME

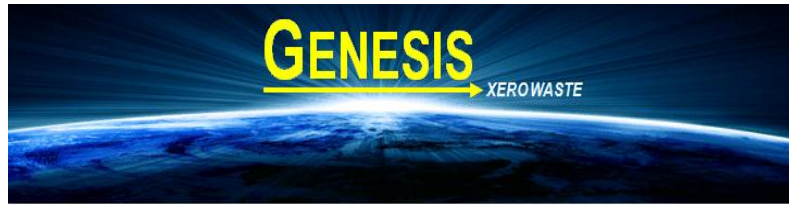
**Documentation**

At the beginning of each month **Dial A Dump** will provide to your company a Recycling Report for each site (in the attached format) summarizing your company **contribution** to the quantities of materials received by **Dial A Dump's** Recycling Centers in the preceding month and their method of processing/disposal.

**Dial A Dump** will maintain records of all Bins collected from your company's **Waste** site and provide, on request, an itemized report detailing:

- Date of collection
- Recycling Centre receiving the Bin
- Registration number of the vehicle collecting the Bin
- The amount of material collected by tonnage and cubic metre

For the purposes of Waste auditing **Dial A Dump** will, on request, provide documentary evidence of the resale of segregated and/or recycled materials (excluding commercially confidential information) from its Recycling Centers to confirm the information provided in the monthly reports to your Company as to the volumes of materials received being recycled.



**Commercial in Confidence**

**REPORTS**

Recycling Reports are a key feature of **Dial A Dump's** waste management services, and can be provided to Customers at the end of each month indicating the Recycling results achieved by individual sites. This allows our Customers the confidence of knowing they are achieving both Government standards and Waste Compliance Criteria and meeting all reporting requirements.

We provide four different styles of waste reports each determine the level of reporting you need to achieve for your project waste management or company compliance for your project.

: **\$125.00 flat fee per site per month.**

Providing the details as below.

All loads weighed and logged.

All are classified by our devoted on site classifier.

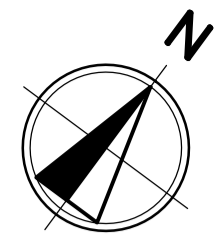
Report the details of the monthly waste retrieved from the site, a cumulative summary of the waste received to date from the site. Information as to what products we have turned their waste into.

Waste Consultant to visit on commencement of the project, at each construction stage and as required.

Monthly Bin Inspection Report											
		Company:									
		Site:									
		Month:									
Material	Total quantity generated				Total disposed of				Method & location of disposal		
	Metre <sup>3</sup>	tonnes			Metre <sup>3</sup>	tonnes	Metre <sup>3</sup>	tonnes	Metre <sup>3</sup>	tonnes	
Bricks and Roof Tiles				0.00							Processed Genesis Eastern Creek
Virgin Excavated Natural Material			0.00								Processed Genesis Eastern Creek
Concrete			0.00								Processed Genesis Eastern Creek
Hebel			0.00								Processed Genesis Eastern Creek
Asphalt			0.00								Processed Genesis Eastern Creek
Vegetation Waste			0.00								Processed Genesis Eastern Creek
Timber			0.00								Processed Genesis Eastern Creek
Soil Mix (GSW)			0.00								Processed Genesis Eastern Creek
Glass			0.00								Processed Genesis Eastern Creek
Plasterboard			0.00								Processed Genesis Eastern Creek
Plastic			0.00								Grapple or Manual /Exported or Visy
Metal			0.00								Magnet, Grapple or Manual / Metal merchant
Cardboard			0.00								Processed Genesis Eastern Creek
Polystyrene			0.00								Processed Genesis Eastern Creek
Insulation							0.00		0.00		Disposed at Genesis Eastern Creek
Mixed Waste							0.00		0.00		Processed Genesis Eastern Creek
<b>Total (weighed)</b>		5.00				1.00				1.00	
Conversion Total	50.00	Metre <sup>3</sup>		1.00	Metre <sup>3</sup>		2.00	Metre <sup>3</sup>			
% Total M3				2.00%			4.00%				
% Total Tonnes				20.00%			20.00%				

## **APPENDIX E – SEDIMENT AND EROSION PLAN**

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LEGEND	
	SITE BOUNDARY
	EXISTING CONTOURS
	CONSTRUCTION VEHICLE EXIT
	SEDIMENT FENCE
	GEOTEXTILE INLET FILTER
	INLET FILTER
	DIVERSION DRAIN

SITE 52 FUJITSU

REFER ARCHITECTS DRAWINGS

EXISTING FIG TREE TO BE RELOCATED

VERGE AND PARKING ARE INDICATIVE ONLY. WORKS TO BE DESIGNED BY SYDNEY OLYMPIC PARK AUTHORITY



REVISIONS		REVISIONS	
REV	DATE	DESCRIPTION	RVD
A	29.07.15	ISSUED FOR INFORMATION	TW

ARCHITECT

CLIENT

Sydney Office—  
L2, 8 Windmill St, Sydney NSW 2000  
P / +61 2 9770 3300  
E / info@bgeeng.com  
bgeeng.com

PROJECT

SOPA SITE 53  
2 FIGTREE DRIVE, SYDNEY OLYMPIC PARK

STATUS			
ISSUED FOR INFORMATION			
NOT TO BE USED FOR CONSTRUCTION			
DESIGNED	CHECKED	APPROVED	
LM	TW		
DATUM	GRID	SCALE	
AHD	MGA	1:250	

TITLE	
EROSION AND SEDIMENT CONTROL PLAN	
PROJECT No.	DRAWING No.
S14184	C-0200
REV	A

## **APPENDIX F – CONSTRUCTION STAGING PLAN**

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Project:  
**SYDNEY OLYMPIC PARK**  
 2 Figtree Drive

Title:  
**APPENDIX F:**  
**STAGING PLANS –**  
 Demolition Stage





Project:  
**SYDNEY OLYMPIC PARK**  
 2 Figtree Drive

Title:  
**APPENDIX F:**  
**STAGING PLANS –**  
 Excavation Stage





- LIFTING EXCLUSION ZONE
- CRANE 1 - 60M RADIUS
- CRANE 2 - 60M RADIUS
- HOIST
- B CLASS HOARDING
- A CLASS HOARDING
- TEMP. FENCING



Project:  
**SYDNEY OLYMPIC PARK**  
 2 Figtree Drive

Title:  
**APPENDIX F:**  
 STAGING PLANS –  
 New Structure Construction Stage

## **APPENDIX G – MIRVAC GROUP POLICIES AND PROCEDURES**

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Mirvac's policies and procedures included:

- Young Worker Policy
- Anti-Harassment Policy
- Drugs and Alcohol Policy
- HSE Consultation Statement
- Health Safety Environment Policy
- Injury Management and Return to Work Policy
- Smoke Free Policy
- UV Radiation / Sunlight Policy
- Community Contact Register
- Dangerous Goods Storage Guidelines
- Noise Control Policy
- Water Quality Discharge Procedure



## YOUNG WORKER POLICY

Young workers and those new to the workforce often lack the experience to be cautious about workplace safety. In the past decade, injury and fatality research demonstrates that young workers aged between 15 and 24 years are over-represented in workplace injury statistics across many industry sectors. The high risk nature of some Mirvac workplaces, such as construction sites, or specific task-related risks at other Mirvac workplaces (such as manual handling, operation of plant and equipment, chemical handling or work at a height over 2 metres) means that the risk of injury to young workers is significant and affords special consideration by Mirvac.

The Mirvac Group Young Worker 'Look Out' Safety Program has been developed to guide and mentor young workers to reduce their risk of injury or illness. The Program applies to new workers, trainees or apprentices under 25 years with less than 2 years experience and is a requirement at 'all' Mirvac construction workplaces and 'all' other Mirvac business undertakings where risk and opportunity planning identifies young workers tasked with work routines assessed as having a medium risk or greater injury potential. In addition, the Program includes students undertaking work experience for which the Mirvac Group Student Placement Procedure is completed.

Launched on 31<sup>st</sup> August 2006, the objectives of the Program are to:

- > increase awareness of young worker safety
- > mentor and build confidence and experience through learning and development
- > supervise or limit risky work routines or activities
- > readily identify young workers at Mirvac workplaces so that assistance and mentoring remains ongoing

Implementation of the Mirvac Group Young Worker 'Look Out' Safety Program requires the completion of the Mirvac Group Young Worker Policy Commitment relevant to the specific Mirvac division or business unit and display of the relevant Mirvac Group 'Look Out' Poster(s) at the workplace.

The Mirvac Group Young Worker 'Look Out' Safety Program has demonstrated a strong capacity to return safer work routines and fewer injuries to young workers who are recognised as the future of Mirvac's skill base. Please join me in supporting and implementing this important initiative.

Susan Lloyd-Hurwitz  
CEO and Managing Director

February 2013

### YOUNG WORKER POLICY

This policy is not intended to be contractual in nature and does not impose any contractual obligations on Mirvac.  
Mirvac reserves the right at its sole discretion to vary, replace or cancel this policy at any time.

Policy Authorised by: Executive Leadership Team

Date last amended: 23.01.2013  
To be reviewed within three years of this date

Policy Maintained by: Corporate Services HSE Department

MG-CS-HSEPOL7.7-D 0113



# BULLYING AND HARASSMENT PREVENTION POLICY

MIRVAC GROUP

## BULLYING & HARASSMENT PREVENTION POLICY

Mirvac is committed to protecting the health, safety and wellbeing of its employees, service providers and other workers by creating a work environment that is free of bullying or unlawful harassment behaviour. Each of Mirvac's employees, service providers and other workers has a legal obligation not to (and must not) bully or unlawfully harass any employee, service provider, other worker, customer, supplier or visitor. Mirvac does not tolerate such behaviour and expects all employees, service providers and other workers to treat each other with dignity, courtesy and respect.

*Bullying* is repeated, unreasonable behaviour directed towards a person or group of persons that creates a risk to their health, safety or wellbeing. *Repeated behaviour* is defined as persistent in nature and can refer to a range of behaviours over time. *Unreasonable behaviour* means behaviour that a reasonable person, having regard for the circumstances, would see as unreasonable, including behaviour that is victimising, humiliating, intimidating or threatening.

### Examples can include:

- abusive, insulting or offensive language;
- expressing malicious rumours;
- harmful and offensive intimidation practices;
- setting deadlines that are unrealistic or exceptionally difficult to achieve.

*Unlawful harassment* is a type of unlawful discrimination. In general, unlawful harassment is any form of conduct or behaviour which affects a person that:

- (a) is unwelcome (not wanted) or uninvited (not asked for); and
- (b) is based on one of the unlawful reasons (such as age, race, religion, sex); and
- (c) is behaviour that a reasonable person would have anticipated might humiliate, offend or intimidate the person being harassed.'

A copy of Mirvac's Equal Employment Opportunity and Anti-Discrimination Policy can be accessed [here](#).

*Unlawful harassment* may make another person feel embarrassed, offended or degraded and does not have to be repeated.

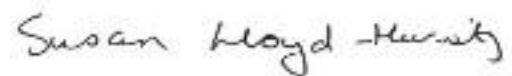
Many things that happen at work are generally not considered to be bullying or harassment, even where some experiences can be uncomfortable for those involved. For instance, performance and conduct management, or related management assessment which is reasonable, does not constitute bullying or harassment. Managers have a right to direct the way work is carried out and to monitor and give feedback on performance and conduct.

Where an employee, service provider or other worker is confronted by an issue which they perceive to be bullying or harassment, they should in the first instance try to address the issue directly with the person involved, if appropriate.

If this action proves too difficult they should then raise the issue with their immediate manager. Alternatively the issue can be raised with a Human Resources Manager, a Bullying and Harassment Contact Officer, an elected Health and Safety Representative, a Health Safety Environment Manager or by telephoning the Mirvac Open Line on 1800 707 840.

As part of our commitment in preventing bullying or harassment behaviour Mirvac treats all reported complaints of such behaviour as a serious matter and applies the Mirvac Group Workplace Issue Resolution Procedure in resolving reported complaints as well as allegations that come to its attention.

All Mirvac workplace employees, service providers and other workers are required to comply with this policy at all times. Breach of this policy is a breach the [Mirvac Code of Conduct/Ethical Business Behaviour](#) and may be subject to disciplinary action. In serious cases this could include termination of employment. Service Providers or other workers who are found to have breached this policy could have their service agreements with Mirvac terminated.



Susan Lloyd-Hurwitz  
CEO and Managing Director



## DRUGS AND ALCOHOL POLICY

Mirvac is committed to providing safe, healthy and productive workplaces. While social drinking may be identified as part of Australia's cultural identity, it is well recognised that drugs and alcohol affect a person's health and their ability to perform tasks safely and productively. As an Employer of Choice, Mirvac shares community concern over the harmful physical, behavioural and social effects of drugs or alcohol and the overall human and economic cost of dependence or abuse.

Drug or alcohol abuse causes short and long term impairment to a person's work performance, can impact on their safety and health and may even impact on the safety of others at work. To eliminate risks associated with drugs or alcohol abuse and achieve Mirvac's commitment to a safe, healthy and productive workplace, the following is prohibited at all Mirvac workplaces:

- > Undertaking high risk work duties or work at high risk workplaces under the influence of drugs or alcohol
- > Driving a motor vehicle under the influence of drugs or with a blood alcohol level over the legal limit while at work or travelling to and from work
- > Illegal drug use or drug use that impairs a worker's capacity to perform their duties, including their responsibility to work safely
- > Operating plant and equipment while under the influence of drugs or alcohol
- > The provision of alcohol to a person(s) under the legal age limit

### Objectives

In enforcing the prohibitions above, Mirvac manages the risks associated with the use of drugs or alcohol in the workplace in a way that is consistent and fair to all employees or workers. More specifically, Mirvac's objectives include:

- > Provision and maintenance of a safe, healthy and productive workplace
- > Inclusion of drug screening for individuals seeking employment in high risk work activities through the Mirvac Group Pre-Placement Medical Assessment process
- > Management of work related social or entertainment events in a responsible manner by adhering to the Mirvac Group Drugs & Alcohol Procedure and its codes of behaviour that support this policy
- > Promoting awareness of the risks associated with drugs or alcohol abuse
- > Ensuring that consultation remains confidential between management and workers in the ongoing prevention, education, counselling and rehabilitation of workers affected by drug or alcohol use

To ensure Mirvac's commitment to a safe, healthy and productive workplace, all managers shall promote and administer compliance with this Policy and the Mirvac Group Drugs & Alcohol Procedure which includes mandatory codes of behaviour. All employees, workers or other visitors to Mirvac workplaces shall abide by the provisions of this Policy as a condition of employment or contract.

Susan Lloyd-Hurwitz  
CEO and Managing Director

February 2013

## CONSULTATION PROCEDURE

### 1.0 Purpose

The purpose of this procedure is to outline the Mirvac Group requirements for establishing agreed consultation frameworks in the workplace.

### 2.0 Scope

The procedure relates to all Mirvac workplaces.

### 3.0 Consultation requirements

Consultation involves taking the views of workers and health and safety representatives into account before making a decision affecting their health, safety and welfare at work or potential impacts on the environment as a result of that work. Consultation does not require consensus or agreement but it does entitle workers to contribute to any decisions made. As a minimum, consultation arrangements require that:

- relevant information about occupational health, safety and welfare and the environment is shared;
- all personnel are given the opportunity to express their views and to contribute in a timely manner to the resolution of HSE and welfare issues at their place of work;
- the views expressed during consultative forums are valued and taken into account when determining the best course of action to resolve any HSE and welfare issues at a workplace;
- the workers consulted are notified of the outcome of the consultation in a timely manner;
- if there is a health safety representative (HSR) representing the workgroup they are automatically included in the HSE committee/consultation group if they wish to be;
- for those workers represented by a health and safety representative (HSR), any consultation must involve the HSR, where reasonably practicable;
- if more than one person has a Health Safety Environment duty in relation to the same matter, each of those persons must consult, cooperate and coordinate activities with each other, so far as is reasonably practicable.

### 4.0 When to consult

Consultation is undertaken at all Mirvac workplaces when:

- the method of consultation is to be agreed between the workforce and the person conducting a business or undertaking (PCBU), and is recorded in either the Mirvac Group [HSE Committee Meeting Minutes HSEF2.06](#) or the Mirvac Group [HSE Meeting Minutes HSEF2.89](#). The Mirvac Group [HSE Consultation](#)

#### CONSULTATION PROCEDURE

Procedure Authorised by: Ross Trethewy Title: Group Manager Health Safety Environment	Date amended: 18.01.2012	Page 1 of 4
Procedure Maintained by: Corporate Services - HSE Department	Current version : MG-CS-HSEP4.23-E 0112	



Statement is then marked up to reflect the agreed method(s) and displayed on the workplace noticeboard or other prominent location(s);

- risks to HSE arising from work are assessed or when a risk assessment/job safety & environment analysis (JSEA) is reviewed;
- identifying hazards and assessing risks to health and safety or the environment arising from the work carried out, or planned to be carried out, by the business or undertaking;
- making decisions about ways to eliminate or minimise those risks;
- making decisions about the adequacy of facilities for the welfare of workers;
- proposing changes that may affect the health or safety of workers or affect the environment;
- introducing or altering procedures for monitoring risks, including any health surveillance;
- appropriate involvement in incident investigation is required;
- developing and reviewing HSE policies and objectives;
- decisions are made about the adequacy of facilities for the welfare of employees;
- changes that may affect HSE or welfare are proposed to premises where persons work, to the systems or methods of work or to the plant or substances used for the work.
- making decisions about procedures for:
  - consulting with workers; or
  - resolving work health or safety issues at the workplace; or
  - monitoring the health of workers; or
  - monitoring the conditions at any workplace under the management or control of the person conducting the business or undertaking; or
  - providing information and training for workers.

**Note:** Three accepted options for consultation exist:

- a health safety environment (HSE) committee or a HSE consultation group;
- a health and safety representative(s) (HSR);
- other arrangements as negotiated and agreed by the Person Conducting a Business or Undertaking (PCBU) and workers at the workplace

## 5.0 Records of consultation

It is a Mirvac Group requirement that before a consultation option can be implemented, the workforce is consulted and the way in which consultation will take place agreed. This process is recorded to demonstrate that the method of consultation for the workplace has in fact been agreed by representatives of the workforce. The Mirvac Group HSE Meeting Minutes HSEF2.89 can be used for this purpose.

### CONSULTATION PROCEDURE

Procedure Authorised by: Ross Trethewy Title: Group Manager Health Safety Environment	Date amended: 18.01.2012	Page 2 of 4
Procedure Maintained by: Corporate Services - HSE Department	Current version : MG-CS-HSEP4.23-E 0112	

It is a Mirvac requirement that formal records of consultation be held at the workplace by the Workplace Manager or a nominated representative. This may include HSE Committee minutes, HSE Meeting minutes, toolbox talks, pre-start meetings or records of other agreed consultation arrangements. This includes records to demonstrate that workers including employees, service providers or others were consulted on the agreed method of consultation established at the workplace including the details of any elections and the results of any negotiations and notifications to workers. Other records will typically include HSE Committee or HSE Consultation Group minutes, HSE meeting minutes, toolbox talks, Take5 talks, pre-start meetings or records of other agreed consultation arrangements.

Service providers (contractors and suppliers) or other workers undertaking work at Mirvac workplaces are required to consult with their workers on issues that may impact their health, safety or welfare or affect the environment. Toolbox talks or pre-start meetings are the typical method by which such consultation takes place. The Workplace Manager, or a nominated representative retains records of service provider consultation at the workplace.

## 6.0 Identification of consultative arrangements & personnel

The identification of workplace HSE Committee/HSE Consultation Group members or Health & Safety Representatives (HSRs) is undertaken at the workplace. This will typically involve display of personnel names and photographs on the workplace notice board or other prominent location(s). Agreed consultative arrangements for the workplace are also nominated on the Mirvac Group [HSE Consultation Statement HSEG3.43](#) which is marked up to reflect the consultative arrangements and displayed in a prominent location(s) at the workplace. If an HSE Committee or HSE Consultation Group is formed then the Mirvac Group [HSE Committee Constitution Guidelines HSEG 3.18](#) may be used as a template.

## 7.0 HSE Issue resolution

Resolution of HSE issues should be resolved as soon as possible to avoid further dispute or a recurrence of the issue or a similar issue. The objective is to resolve the issue completely, to the satisfaction of all parties.

Resolution of an HSE issue requires that any party involved in the issue must inform each of the other parties:

- that there is an issue to be resolved; and
- the nature and scope of the issue.

The parties involved in the issue resolution process may include:

- The person conducting a business or undertaking (PCBU);
- The representative of the PCBU i.e. an employer organisation;
- The Mirvac HSE Coordinator at the workplace (where applicable);
- Any other PCBU who is involved;
- The health and safety representative(s) (HSRs) or deputy HSR representing the workgroup(s) or the representative of the HSR;
- Where there is no HSR for the affected worker(s), then the affected worker(s) or their representative.



Where the issue is not able to be resolved at the workplace level, then the issue must be elevated in the following sequence:

1. the Division/Regional HSE Manager;
2. the Group Manager HSE;

The Group Manager HSE will elevate the matter to the regulatory authority if agreement is not able to be reached at the Mirvac Group level.

Once the matter is resolved and any of the parties request a written agreement, then a copy of the agreement must be given to each of the parties involved and if requested and applicable, a copy given to the workplace HSE committee/consultation group.

• **Referenced Mirvac Documents:**

- [Mirvac Group HSE Consultation Statement](#)
- [Mirvac Group HSE Committee Constitution Guidelines HSEG 3.18](#)
- [Workplace HSE Inspection HSEF2.18](#)
- [Mirvac Group Tool Box Talk Record HSEF 2.10](#)
- [Mirvac Group HSE Committee Meeting Minutes HSEF 2.06](#)
- [Mirvac Group HSE Meeting Minutes HSEF2.89](#)

Procedure Authorised by: Ross Trethewy Title: Group Manager Health Safety Environment	Date amended: 18.01.2012	Page 4 of 4
Procedure Maintained by: Corporate Services - HSE Department	Current version : MG-CS-HSEP4.23-E 0112	



## HEALTH SAFETY ENVIRONMENT POLICY

Mirvac is a leading ASX-listed, integrated real estate group with activities across the real estate, investment and development spectrum. Health Safety Environment is central to the Mirvac core business values. Our vision is simple – to provide workplaces free from harm and supported by a culture which ensures that the safety of people and protection of the environment remains an absolute priority. Mirvac believes the best business solution for management of Health Safety Environment is also the best business solution for all Stakeholders across the Mirvac Group.

### Objectives for achieving our vision include:

- > Complying with applicable statutory requirements, codes of practice, standards and guidelines;
- > Establishing measurable objectives and targets aimed at the elimination of work related incidents or impacts from our activities, products and services;
- > Defining roles, responsibilities and levels of accountability for Health Safety Environment.

### Strategies include:

- > Integration of risk management principles in all core planning activities including the prevention of pollution;
- > Regular review of objectives and targets to promote improved performance outcomes across all business divisions;
- > A commitment to measurable and continual improvement in Health Safety Environment performance across the Mirvac Group through strategic planning;
- > Working with government and industry to improve performance outcomes for the benefit of our stakeholders and wider industry goals;
- > Establishment and ongoing expansion of Health Safety Environment learning and development initiatives
- > Regular consultation with our workforce and other stakeholders to improve decision-making on Health Safety Environment matters;
- > Ensuring incidents are investigated and lessons learnt are distributed across all business divisions within the Group;
- > Distributing Health Safety Environment information, including this policy, across the Group to all employees, workers and interested parties;
- > Providing timely and effective injury management and environmental remediation strategy;
- > Regular review of Health Safety Environment policies and procedures to ensure compliance with legislation and ongoing relevance across the Group;
- > The provision of sufficient resources to ensure Health Safety Environment remains central to core business values;
- > Prequalification of Service Providers (contractors and suppliers);
- > Adopting sustainable business principles and practices that meet the needs of stakeholders without compromising future resource needs;
- > Recognising and rewarding excellence in Health Safety Environment performance.

I commit Mirvac to the implementation of this policy and task all divisions and personnel across Mirvac with the responsibility for achieving our vision.

Susan Lloyd-Hurwitz  
CEO and Managing Director

February 2013

#### HEALTH SAFETY ENVIRONMENT POLICY

This policy is not intended to be contractual in nature and does not impose any contractual obligations on Mirvac.  
Mirvac reserves the right at its sole discretion to vary, replace or cancel this policy at any time.

Policy Authorised by: Executive Leadership Team

Date last amended: 23.01.2013  
To be reviewed within three years of this date

Policy Maintained by: Corporate Services HSE Department

MG-CS-HSEPOL7.0-H 0113



## INJURY MANAGEMENT AND RETURN TO WORK POLICY

Mirvac recognises the benefits of sound injury management principles and practices and commits to implementing such practices in all its workplaces. In conjunction with this commitment Mirvac acknowledges all legislative frameworks which govern and support injury management and return to work activities across all divisions and regions of operation by the Mirvac Group.

Experience demonstrates that early intervention and management of workplace injury through sound injury management practices, assists the recovery process and restores workers to normal duties sooner. Workplace injury management includes early provision of timely and appropriate resources, (including suitable duties, equipment or treatment). The Injury Management & Return To Work program aims to:

- > retain injured or ill workers at work; or
- > facilitate a timely return to work; or
- > maximise the worker's independent functioning and provide for durable employment.

This policy constitutes a joint workforce-management agreement in which Mirvac commits to:

- > Providing suitable duties at the workplace, or other workplaces, which may be modified or alternative duties supported by medical opinion;
- > Providing support to the injured worker(s) through the provision of meaningful and suitable employment and where necessary, attend medical appointments;
- > Maintaining confidentiality over medical and injury management information including verbal and written communication;
- > Educating the injured worker(s) on rights, responsibilities and obligations;
- > Communicate and co-ordinate with all stakeholders to assist in retaining the injured worker at work or planning for their return to work;
- > Ensure that where disputes arise during the return to work process, undertake the dispute resolution process prescribed by the Mirvac Return To Work Program displayed in the workplace;
- > Ensure that participation in the return to work process will not disadvantage the injured worker's employment;
- > Regularly review this policy and associated programs to ensure Mirvac's commitment continues to meet legislative requirements and the needs of all Injury Management & Return To Work stakeholders.

I commit Mirvac to the implementation of this Policy and its supporting framework of workplace injury management procedures, which outline key terms, roles and responsibilities and stages in the return to work process.

Susan Lloyd-Hurwitz  
CEO and Managing Director

February 2013

### INJURY MANAGEMENT AND RETURN TO WORK POLICY

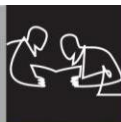
This policy is not intended to be contractual in nature and does not impose any contractual obligations on Mirvac. Mirvac reserves the right at its sole discretion to vary, replace or cancel this policy at any time.

Policy Authorised by: Executive Leadership Team

Date last amended: 23.01.2013  
To be reviewed within three years of this date

Policy Maintained by: Corporate Services HSE Department

MG-CS-HSEPOL7.6-D 0113



## SMOKEFREE POLICY

Mirvac is committed to protecting the health and wellbeing of its employees, workers and visitors by creating a work environment which is free of tobacco smoke. To achieve this commitment, smoking is prohibited within:

- > 'Enclosed' workplaces, e.g. buildings or structures. Enclosed means any space having a ceiling or roof and except for doors and passageways is completely or substantially enclosed by walls or windows
- > 'Semi-enclosed' workplaces, e.g. amenities, lunchrooms and areas where meals are consumed. Semi-enclosed means any area mainly located outside the permanent external walls of a building and has a ceiling or roof and at least two sides that include fixed walls, operable windows, doors or retractable coverings
- > 5 metres of any access points to an enclosed/semi-enclosed Mirvac workplace including a building doorway entry or exit, operable window or louvre and air conditioning vent or duct
- > Lifts, hoists, and undercover car parks
- > 6 metres of any area that is classified as a confined space
- > Mirvac vehicles and plant and equipment if another person(s) is present
- > 10 metres of any designated flammable or combustible goods store
- > Other areas designated as no smoking by signs

Smoking breaks for employees during work hours are not permitted. Where employees experience difficulty with the absence of such breaks, or seek to quit smoking, assistance is provided through the Mirvac Employee Assistance Program.

To enable Mirvac to foster an environment that promotes health and wellbeing at work and at the same time meets legislative obligations under smoke free, health, and occupational health and safety legislation all managers promote and administer compliance with this Policy. All employees, service providers or other visitors to Mirvac workplaces shall abide by the provisions of this Policy.

Littered cigarette butts have environmental impacts on waterways, soils and habitats. Mirvac supports a cigarette butt free environment and asks all smokers to please 'butt it and bin it' to protect the environment.

Susan Lloyd-Hurwitz  
CEO and Managing Director

February 2013

Policy Authorised by: Executive Leadership Team	Date last amended: 23.01.2013 To be reviewed within three years of this date
Policy Maintained by: Corporate Services HSE Department	MG-CS-HSEPOL7.4-D 0113



## UV RADIATION/SUNLIGHT POLICY

At Mirvac the provision of a safe working environment is central to core business values. Mirvac recognises the risk of skin cancer to outdoor workers exposed to Ultra Violet Radiation (UVR) through everyday sunlight. Where outdoor work is performed at Mirvac workplaces, UVR exposure is a consideration in all planning activities.

Initiatives implemented to raise awareness and minimise the risk of UVR exposure to outdoor workers at Mirvac controlled workplaces include:

- > a purchasing arrangement for Mirvac employee work clothing consisting of the requirements for close-weave fabric with a minimum Ultraviolet Protection Factor (UPF) of 30+ that provides protection to the upper and lower limbs
- > the requirement for Mirvac employees undertaking outdoor work at Mirvac workplaces to wear clothing during daylight hours that provides protection to the upper and lower limbs and has a minimum UPF of 30+
- > consultation and awareness training for employees, service providers and other workers through workplace induction emphasising the dangers of UVR exposure and skin cancer
- > completion of the Mirvac Group Health Safety Environment 'Licence To Operate' training course 'Sun Safety Awareness' by all Mirvac employees
- > where provided, sheltered amenity areas not exposed to direct sunlight
- > display of the Mirvac Group 'UV Exposure' poster and the Mirvac Group 'Avoid Heat Stress' poster at all Mirvac workplaces where outdoor work is carried out
- > display of this Policy at all Mirvac workplaces

Identification and assessment of potential UVR risks for outdoor work is a Mirvac risk planning requirement. Where outdoor work is to be carried out at any Mirvac workplace the following minimum control measures are implemented:

- > a safe work procedure or equivalent for outdoor work which includes precautions to minimise UVR exposure
- > availability of a broad brimmed (min. 8-10cm) hat, or brim and neck flap for safety helmets, to all Mirvac employees engaged in outdoor work
- > availability of sunglasses complying with AS/NZS1067 to all Mirvac employees engaged in outdoor work
- > availability of sunscreen min. SPF 30+ at prominent locations at all workplaces where outdoor work occurs

Where UVR is identified as a health and safety hazard, Mirvac monitors the implementation and effectiveness of control measures through regular workplace appraisal.

Susan Lloyd-Hurwitz  
CEO and Managing Director

February 2013



## COMMUNITY CONTACT NOTIFICATION

### PURPOSE

Contact with the community is a means by which Mirvac can positively engage stakeholders and potential clients or customers by demonstrating sound management practices in resolving any concerns raised in a timely manner.

Community members that interface with Mirvac business undertakings present the opportunity for feedback and a positive response by Mirvac.

Any response shall be commensurate with Mirvac’s high regard and sensitivity to social amenity and the lifestyle impacts of its business undertakings.

The details outlined below must be completed for all ‘formal’ (oral or written) representations to any Mirvac representative by a community member or on being directly informed of a concern by a third party and corrective (follow up) action undertaken within 48 hours of notification where required.

**WORKPLACE:** \_\_\_\_\_

### CONTACT DETAIL:

(1) How was the contact made?:

Telephone:  Personal Contact:  Written Letter:  Email:  Fax:   
Other [specify]: \_\_\_\_\_

(2) Date of contact: \_\_\_\_\_ Time of contact: \_\_\_\_\_ am  or pm

(3) Contact made by: [who made the contact?]

Name	Address	Phone

(4) Outline concerns/issues raised:

\_\_\_\_\_

(5) Notification details recorded in the HSE Incident Reporting System by:

Name	Mirvac Division	Date recorded	Phone

(6) Has the contact been referred to another person? Yes  No

(7) If ‘Yes’ list the name and contact details of the person:

List Name	Mirvac Division	Time Referred	Phone

(8) Has the contact been ‘formally’ acknowledged to the complainant? Yes  No

[Note: mandatory within 48 hours of contact]

(9) How was the contact formally acknowledged?

Telephone:  Personal Contact:  Other: [specify] \_\_\_\_\_

(10) Is follow-up action required? Yes  No

#### COMMUNITY CONTACT NOTIFICATION

Form Authorised by: Ross Trethewy Title: Group Manager Health Safety Environment	Date amended: 05.04.2012	Page 1 of 2
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(11) Outline follow-up action undertaken:

[Note: mandatory within 48 hours of contact]

\_\_\_\_\_

(12) Date of follow-up action: \_\_\_\_\_ Time of action \_\_\_\_\_ am  or pm

(13) Date complainant was advised of the outcome/action undertaken as a result of the contact:

Date \_\_\_\_\_ Time of action \_\_\_\_\_ am  or pm

[Note: mandatory within 48 hours of first contact]

(14) What were the 'Contributing Factors' and the 'Root cause' of the issue?

(Action/ inaction by persons, failure of tools/ machines or procedures not followed) *(QUESTION THE CAUSE 5 TIMES)*

e.g. (the issue) Slurry on public road, splashing on passing cars. **Q. 1 Where** did the slurry come from? – From concrete cutting adjacent to road. **Q. 2 How** did it get on the road? – No effective barrier in place. **Q. 3 Why** was there no barrier? – Hazard of slurry splashing on cars not identified. **Q. 4 Why** was this hazard/ control not identified? – Location/task specific risk assessment not reviewed for location. **Q. 5 Why** was the risk assessment not reviewed? – Risk assessment not maintained or checked prior to activity or during daily pre-start meeting.

Insert main issue description

Q.1?

Q. 2?

Q. 3?

Q. 4?

Q. 5?

(15) Identified 'long term' corrective action(s) required to prevent the issue re-occurring

\_\_\_\_\_

(16) Date 'long term' corrective action(s) implemented and R & O Register reviewed:

\_\_\_\_\_

(17) Date the corrective action(s) were monitored by a Mirvac representative and confirmed as having been effective:

\_\_\_\_\_

(18) Completion:

Person completing this report:

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Manager of person completing this report:







Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Form Authorised by: Ross Trethewy Title: Group Manager Health Safety Environment	Date amended: 05.04.2012	Page 2 of 2
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## Dangerous Goods Storage Guidelines

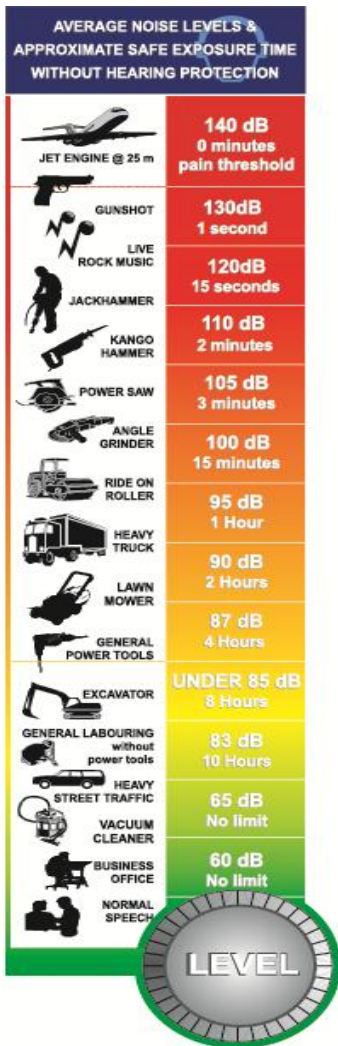
Storage of Dangerous Goods in quantities exceeding those prescribed will require licensing of the workplace premises	
	<p><b>Flammable Liquids 3</b></p> <ul style="list-style-type: none"> <li>§ <b>Packing Group II</b> – Petrol, Methylated spirits, acetone etc.</li> <li>§ Max storage in aggregate = 100lts or less in storage</li> <li>§ <b>Packing Group III</b> – Mineral turpentine, white spirit, kerosene etc.</li> <li>§ Max storage in aggregate = 1000lts or less in storage</li> </ul> <p><b>Storage:</b> In accordance with AS1940 + MSDS for product + in a bunded area with a storage capacity of 110% of the largest container in the store and fitted with an impervious floor + separated from other hazardous substances or dangerous goods, e.g. gas bottles, by minimum 5m + no refuelling within 50 metres of any drainage inlets or watercourse.</p> <p>Flammable liquids kept in the one place above these exemption quantities must be kept in a licensed depot. This may be an approved flammable liquids cabinet or a purpose-built depot. Flammable liquids in volumes below the exemption quantities above don't have to be kept in a licensed depot, but they still have to be stored in accordance with legislative requirements, primarily AS1940 - The storage and handling of flammable and combustible liquids.</p> <p>Manufactured products such as paints, lacquers, adhesives and varnishes can be kept in unlimited amounts provided they are kept in small approved packages. For PGII products, the packages must not exceed 5 L capacity, and for PGIII, they must not exceed 25 L. Once again, they must be stored according to legislative requirements.</p> <p><b>Note:</b> When flammable liquids of different packaging groups are stored together, all are assumed to belong to the highest, most dangerous packaging group and the depot must be treated accordingly. For example, 200 L of Mineral Turps could be stored without a license, but if it's kept in the same room as 20 L of Methylated Spirits, it has to be treated as a depot containing greater than 100 L of PGII flammable liquids and is required to be licensed. Therefore, it is often wise to separate the different packaging groups and manufactured products.</p>
<p><b>Gas Cylinders</b></p>	<p><b>Oxygen/Argon etc - G size = 48kg/48lt water capacity    E size = 24kg/24lt water capacity</b>  <b>Acetylene - G size = 55kg gross mass                    E size = 28kg gross mass</b></p>
  	<p><b>Non Flammable / Non Toxic / Oxidizing - Gas 2.2</b></p> <ul style="list-style-type: none"> <li>§ Oxygen, Nitrogen etc (Packing Group NA);</li> <li>§ Not being a cryogenic liquid = unlimited amount; (oxygen = class 2.2 with residual class 5.1)</li> <li>§ 21 'G' or 42 'E' bottles when in storage; (liquid nitrogen)</li> <li>§ Store in open/secure area min 3m from any other dangerous goods, refer MSDS and AS 4332 - Storage and Handling of Gas in Cylinders and AS 4326-1995 The Storage and Handling of Oxidizing Agents.</li> </ul> <p><b>Note: Minor Storage of mixed class 2 gases (2.1 &amp; 2.2) combined is permissible where the max volume of each gas does not exceed 500lts (class 2.1) and 2000lts (class 2.2) and 1000lts (class 2.2 with residual risk 5.1).</b>  Refer AS 4332 for minor storage of mixed gases.</p>
	<p><b>Flammable Gas 2.1</b></p> <ul style="list-style-type: none"> <li>§ Acetylene, LP Gas (Packing Group NA);</li> <li>§ 6 'G' or 12 'E' bottles or 150kg or less when in storage;</li> <li>§ 16 x 9kg LGP bottles or 150kg or less when in storage;</li> <li>§ 12 'G' or 24 'E' bottles or 300kg when connected for use;</li> <li>§ 32 x 9kg LPG bottles or 300kg when connected for use;</li> <li>§ Storage in indoor and/or outdoor refer MSDS and AS 4332 - Storage and Handling of Gas in Cylinders &amp; AS 1596 - The Storage and Handling of LP Gas</li> </ul> <p><b>Note: Minor Storage of mixed class 2 gases (2.1 &amp; 2.2) combined is permissible where the max volume of each gas does not exceed 500lts (class 2.1) and 2000lts (class 2.2) and 1000lts (class 2.2 with residual risk 5.1).</b>  <b>Note: maximum is based on the combination (aggregate) of gas cylinders being in storage and/or in use</b></p>
	<p><b>Miscellaneous Dangerous Goods Class 9 – Combustible Liquid</b></p> <p>Those products do not normally require a licence but pose an environment threat if spilled.</p> <ul style="list-style-type: none"> <li>§ Class C1 – a combustible liquid that has a flashpoint of 150o C or less</li> <li>§ Class C2 – a combustible liquid that has a flashpoint exceeding 150o C</li> </ul> <p>If the goods are of Class C1 combustible liquids and are not kept in a tank having a capacity exceeding 50 000 litres, e.g. Diesel, an unlimited quantity; or if the goods are of Class C2 combustible liquids an unlimited quantity.</p> <p>Combustible liquids kept in the one place above these exemption quantities must be kept in a licensed depot. Combustible liquids in volumes below the exemption quantities don't have to be kept in a licensed depot, but they still have to be stored in accordance with legislative requirements, primarily AS1940 The Storage and Handling of Flammable and Combustible Liquids + in a bunded area with a storage capacity of 110% of the largest container in the store and fitted with an impervious floor + no refuelling within 50 metres of any drainage inlets or watercourse.</p>
	<p><b>Corrosive Substances 8</b></p> <ul style="list-style-type: none"> <li>§ PGII – 500lts or 500kg e.g. hydrochloric acid, sulphuric acid etc.</li> <li>§ PGIII - 1000 L or 1000 kg e.g. Milestone - Toilet bowl cleaner, Hypoclean (heavy duty sanitizer).</li> </ul> <p>Above the exemption quantities, a licence is required. Below the exemption quantities, corrosives must still be stored according to legal requirements, such as in an approved corrosives cabinet. The appropriate Australian Standard to be followed is AS3780 The Storage and Handling of Corrosive Substances + in a bunded area with a storage capacity of 110% of the largest container in the store and fitted with an impervious floor.</p> <p><b>Note:</b> Acids and alkalis need to be segregated from each other and some acids must also be kept apart from each other due to the possibility of dangerous reactions occurring.</p>



## NOISE CONTROL POLICY

Mirvac is committed to ensuring that its workplaces are free from noise and vibration levels which have the potential to adversely affect human health. This includes the monitoring of noise exposure and peak noise levels at temporary, new or existing workplaces, where noise is identified as a risk and the implementation of noise control measures where adverse levels are identified.

Noise can result in hearing loss based on either the intensity of the noise level, i.e. a peak of more than 140dB(C); or noise levels which exceed an 8 hour noise level equivalent of 85dB(A). As an employer or controller at workplaces where these levels may be exceeded, Mirvac will instigate noise control measures that include:



- > the identification of actual and potential exposure to noise in the workplace by conducting noise assessments or monitoring where identified as a risk
- > assessment of the risks to health and safety of potential or actual exposure to noise
- > the potential impact of noisy works on nearby neighbours or the surrounding community, strict adherence to any hours of operation imposed by local government or other development condition
- > outline of the responsibilities for noise control and information on the risk of noise exposure in workplace inductions
- > procurement of plant and equipment which does not adversely impact on noise levels
- > wherever practicable the implementation of control measures such as encapsulation or isolation of noisy works or plant and equipment to minimise reliance on personal protective equipment and the impact of noise on surrounding workers or others
- > use of personal protective equipment by employees, workers, service providers, visitors, surrounding workers or others who undertake, or are situated close to noisy work
- > the identification of noisy areas or plant and equipment with warning signage to alert personnel of the requirement for the use of personal protective equipment
- > display of the Mirvac Sound Advice Poster at all workplaces where noise is identified in risk and opportunity planning
- > employees or other workers frequently required to use personal protective equipment to protect against the risk of hearing loss associated with noise that exceeds the exposure standard will be monitored by their employer through audiometric testing

Mirvac is committed to assisting industry sectors in which it operates to reduce the instance of noise related hearing loss through ongoing implementation of the Mirvac Group Noise Management Procedure at all Mirvac workplaces. Implementation of this policy and the Mirvac Group Noise Management Procedure by Mirvac personnel is unconditional.

*Susan Lloyd-Hurwitz*

Susan Lloyd-Hurwitz  
CEO and Managing Director



February 2013

NOISE CONTROL POLICY

This policy is not intended to be contractual in nature and does not impose any contractual obligations on Mirvac.  
Mirvac reserves the right at its sole discretion to vary, replace or cancel this policy at any time.

Policy Authorised by: Executive Leadership Team

Date last amended: 23.01.2013  
To be reviewed within three years of this date

Policy Maintained by: Corporate Services HSE Department

MG-CS-HSEPOL7.2-E 0113

# Mirvac Group Water Quality Discharge Procedure



## 1.0 Purpose

This procedure outlines the requirements for the management of sediments and other pollutants contained within stormwater flows and discharges from Mirvac construction projects. The procedure outlines water quality requirements to be achieved before any discharge is undertaken.

## 2.0 Scope

The procedure applies to all development projects across Mirvac where stormwater is discharged through natural flows or from catchment reservoirs including basements, lift shafts, excavations, sedimentation ponds/pits or other water storage vessels.

## 3.0 Definitions

berm	Earth mound designed to restrict and slow water flow so that it drops sediment fines.
hydrology	Predicted stormwater runoffs and estimated flow control barriers and reservoir capacity.
pH	A measure of acidity or alkalinity of water.
turbidity	A measure of water clarity and how much light is able to penetrate through a column of water.
suspended solids	Organic and inorganic particles, such as solids from wastewater, sand, clay, and mud, that are suspended and carried in water
swale	A ditch on a contour or slope designed to slow and hold water flow enabling infiltration of water and nutrients into the soil.

## 4.0 Risk assessment

Stormwater runoff and discharge shall be a consideration in all risk and opportunity planning for Mirvac construction projects. All Mirvac construction works shall manage discharge of sediments and other pollutants to a waterway or waterbody. Management of discharges is a legislative requirement in each state or region of operation and a requirement of the Mirvac Group Health Safety Environment Management System. All discharges shall be carried out without contaminating surrounding waterways or any stormwater discharge system. Management considerations shall include water quality of any natural run-off or discharge (e.g. by dewatering), hydrology and flooding, particularly during wet weather, and include the stability of any stockpile(s) or site terrain.

### 4.1 Barrier measures

Barrier control measures at a construction project shall include:

- sedimentation barriers to perimeter fencing and stockpiles or other excavated areas where run-off is identified as a risk;
- use of silt traps to protect stormwater inlets within a site boundary and those inlets identified 'at risk' in streets immediately bounding a construction project;
- installation of a rumble strip(s) or coarse aggregate to heavy vehicle entry/exit points;
- work tasks generating slurry shall be identified and absorbents, trays, or other methods of retention carried out;
- installation of swales, berms, retention pits or other flow restrictors to slopes to slow run-off so that it drops sediment;
- inspection of all barriers and other controls at maximum weekly intervals and immediately after any significant rainfall event (i.e. 20 mm or more);
- location of high risk plant, e.g. concrete pump, or activities like refuelling away from stormwater inlets or protection of inlets during high risk activities; and
- covering of spoil loads transported from a construction project.

# Mirvac Group Water Quality Discharge Procedure



## 4.2 Monitoring of stormwater quality

Monitoring of any stormwater to be discharged shall be in accordance with this procedure or Local Government Guidelines should such Guidelines require a higher standard. Monitoring prior to discharge shall include the following test results (based on Australian and New Zealand Guidelines for Fresh and Marine Water Quality) using a water quality meter:

- a pH in a range of 6.5 to 8.5;
- a Turbidity range of <50 NTU (Nephelometric Turbidity Units) or no more than 10% higher than the turbidity in the receiving water; and
- suspended solids not exceeding 50 parts per million (ppm).

Where discharge is to occur into environmentally sensitive areas, e.g. marine ecosystems, monitoring shall be undertaken by an independent Service Provider accredited by the National Association of Testing Authorities (NATA).

### 4.2.1 Visual inspection

Stormwater flows shall be observed to ensure:

- no visible litter or other floatable materials such as foams or scums; and
- no visible film of oil, grease and petrochemical products or odours from such products at the point of entry.

### 4.2.2 Sediment removal

Where retained stormwater does not meet the quality outlined previously a Flocculant, e.g. Alum, shall be added in order to remove suspended sediment, bacteria and other elements by settling. Use of any flocculant shall be in accordance with the precautions for use outlined in the Material Safety Data Sheet provided with the product.

### 4.2.3 Records

Monitoring records shall be retained at the construction project for audit purposes using Appendix A – Water Quality Register. All discharge results shall be reviewed for compliance with Part 4 of this procedure through routine audit processes at maximum three (3) month intervals.

## 5.0 Reference material

- **National** ([www.environment.gov.au](http://www.environment.gov.au))
  - Australian and New Zealand Guidelines for Fresh and Marine Water Quality.
- **New South Wales** ([www.environment.nsw.gov.au](http://www.environment.nsw.gov.au))
  - Environment Matters 8: Stormwater Pollution from Building Sites (Guide)
  - Protection Of the Environment Operations (POEO) Act.
- **New Zealand** ([www.mfe.govt.nz](http://www.mfe.govt.nz))
  - National Environmental Standards for Clean Water, Air and Land.
- **Queensland** ([www.epa.qld.gov.au](http://www.epa.qld.gov.au))
  - Environment Protection Water Policy
- **Tasmania** ([www.dpiw.tas.gov.au](http://www.dpiw.tas.gov.au))
  - Environmental Best Practice Guidelines - Construction Practices in Wetlands & Waterways.
- **Victoria** ([www.epa.vic.gov.au](http://www.epa.vic.gov.au))
  - State Environment Protection Policy (Waters of Victoria).
- **Western Australia** ([www.epa.wa.gov.au](http://www.epa.wa.gov.au))
  - Environment Protection Act.

# Water Quality Register



## Appendix - A

<b>Workplace:</b>										
<b>Mirvac representative:</b>					<b>Service Provider:</b>					
Instrument 1 - Type: pH <input type="checkbox"/>			Turbidity <input type="checkbox"/>		Suspended Solids <input type="checkbox"/>			Make/ Model:		Service Date:
Instrument 2 - Type: pH <input type="checkbox"/>			Turbidity <input type="checkbox"/>		Suspended Solids <input type="checkbox"/>			Make/ Model:		Service Date:
Instrument 3 - Type: pH <input type="checkbox"/>			Turbidity <input type="checkbox"/>		Suspended Solids <input type="checkbox"/>			Make/ Model:		Service Date:
		6.5 – 8.5	<50	<50	<b>= ACCEPTABLE LEVELS</b>					
<b>Test Date</b>	<b>Test Time (24Hr)</b>	<b>pH</b>	<b>Turbidity (NTU)</b>	<b>Total Suspended Solids (ppm)</b>	<b>Test Person's Name</b>	<b>Test Location</b>	<b>Comments</b>	<b>Discharge Date</b>	<b>Discharge Quantity (Litres)</b>	

List corrective action: (i.e. treatment required to correct unacceptable levels)

Further comments: