

# ENVIRONMENTAL MANAGEMENT PLAN

SHARK LAKE RD & DALYUP RD INTERSECTIONS

SOUTH COAST HIGHWAY (H008)

SLK 460.64 & 441.49

Prepared by Main Roads Goldfields-Esperance Region

EO Simon Weighell

November 2010

## Contents

<b>1. Purpose</b>	<b>3</b>
<b>2. Environmental Policy</b>	<b>3</b>
<b>3. Environmental Impact Assessment</b>	<b>3</b>
<b>4. Revegetation</b>	<b>3</b>
<b>5. Environmental Management Plan</b>	<b>4</b>
<b>Appendix E1 – Environmental Policy</b>	<b>10</b>
<b>Appendix E2 – Preliminary Environmental Impact Assessment</b>	<b>12</b>
<b>Appendix E3 – Revegetation Plan</b>	<b>13</b>

## **1. PURPOSE**

The purpose of this report is to provide a site specific Environmental Management Plan (EMP) which details how environmental aspects associated with the project need to be managed in order to avoid unacceptable environmental impacts.

## **2. ENVIRONMENTAL POLICY**

Main Roads Western Australia's (Main Roads) environmental policy applies to this project. A copy of the policy can be found at Appendix E1.

## **3. ENVIRONMENTAL IMPACT ASSESSMENT**

A project specific Preliminary Environmental Impact Assessment (PEIA) has been completed for the works and is attached as Appendix E2. The PEIA details the extent of environmental constraints identified for the project as well as any associated environmental approvals that may be required. This information forms the basis for the development of this EMP and therefore the PEIA should be read in conjunction with it.

## **4. REVEGETATION**

Revegetation works at a material pit located near the Dalyup Rd intersection form part of the contract. Please refer to the related Revegetation Plan at Appendix E3 for further information.

## 5. ENVIRONMENTAL MANAGEMENT PLAN

The following table outlines management actions required to avoid/limit environmental impacts caused by the project. Each management action is associated with a specific topic, and has been developed with the aim of fulfilling a related objective (Note: these objectives are consistent with the environmental policy). In addition to this, responsibilities are identified (Main Roads, Contractor or both) as well as the timing of each management action in relation to the project's phase of construction.

ENVIRONMENTAL MANAGEMENT PLAN				
Timing	Topic	Objective	Management Action	Responsibility
All phases of construction	Induction / Start-up meetings / Progress meetings	Create awareness in all personnel of the Main Roads Environmental Policy as well as the environmental aspects associated with the project.	Main Roads Environmental Policy to be communicated to all personnel.	Contractor
			All personnel to be informed of the environmental aspects associated with the project prior to undertaking any works.	Contractor
			Attendance / participation records for inductions / meetings to be kept. Such records must demonstrate adequate communication of environmental policies and aspects.	Contractor
All phases of construction	Clearing - Record-keeping	Ensure that the required records relating to clearing native vegetation under Main Roads State-wide Purpose Clearing Permit CPS 818/4 are maintained.	Record: - a copy of the PEIA, - a map showing the location where the clearing occurred, recorded in an ESRI Shapefile, - the size of the area cleared (in hectares), and - the dates on which the clearing was done.	Main Roads

ENVIRONMENTAL MANAGEMENT PLAN				
Timing	Topic	Objective	Management Action	Responsibility
All phases of construction	Aboriginal Heritage	Ensure that Aboriginal heritage values are maintained.	No Aboriginal Heritage sites are known to exist within the proposed work areas. If any Aboriginal site is discovered during the works, work within 50m of that area is to cease immediately and shall not recommence until relevant approvals are obtained.	Contractor – ceasing of works Main Roads – obtaining of approvals
All phases of construction	Weed & Dieback Management	Ensure that the risk of dieback and weed spread is minimised as far as is practically possible (refer to PEIA at Appendix E2 for dieback status of project areas as well as locations and extent of weed infestations and good quality native vegetation).	Ensure that all equipment is free of soil and vegetative material prior to entering and leaving the work site.	Contractor
			Wash-down certificates to be issued and kept for all equipment brought on to site.	Contractor
			Weed infested material to be cleaned from equipment prior to traversing areas of good quality native vegetation.	Contractor
			Equipment to be cleaned prior to traversing areas of dieback free status from areas of dieback uninterpretable or dieback infested status.	Contractor
			Equipment to be cleaned prior to traversing areas of dieback uninterpretable status from areas of dieback infested status.	Contractor
			No weed infested material (e.g. spoil) to be moved adjacent to or within areas of good quality native vegetation.	Contractor
			No dieback infested material (e.g. cut and fill, wash-down materials) to be moved to areas of dieback free or dieback uninterpretable status.	Contractor
			No dieback uninterpretable material (e.g. cut and fill, wash-down materials) to be moved to areas of dieback free status.	Contractor
			No weed or potentially dieback infested material / spoil to be removed to land other than that vested within Main Roads without approval from the landowner, Main Roads Project Manager and Main Roads Goldfields-Esperance Region's Environment Officer.	Contractor

<b>ENVIRONMENTAL MANAGEMENT PLAN</b>				
<b>Timing</b>	<b>Topic</b>	<b>Objective</b>	<b>Management Action</b>	<b>Responsibility</b>
All phases of construction	Pollution and Litter	Ensure that the works are managed to a standard that minimises pollution or the risk of pollution occurring.	The designated servicing area is to be bunded to contain any spills or leaks or it will drain into a temporary sump. It is not to be located in an area adjacent to drainage areas or watercourses / wetlands.	Contractor
			Emergency cleanup procedures shall be implemented in the case of any spillage. These are to include the control of spilled material and removal of contaminated soil to an approved Shire waste disposal facility. Appropriate equipment is to be available on site at all times in the case of a spill.	Contractor
			All waste oil is to be collected for disposal / recycling and any empty fuel / oil containers, used filters and waste hydraulic parts are to be collected and stored in an allocated area before being removed to an approved Shire waste disposal / recycling facility.	Contractor
			The project areas, including hardstand areas, are to be kept in a tidy manner at all times. No littering is to be tolerated and an adequate number of rubbish bins are to be provided on site at all times.	Contractor
All phases of construction	Fire	Ensure that the fire risk associated with the construction of the project is minimised.	No fires shall be lit within the project area and standard fire prevention methods (e.g. spark arresting mufflers) are to be employed at all times.	Contractor
			Fire response equipment to be present and readily available on site at all times.	Contractor
All phases of construction	Environmental Incidents	Ensure that any environmental incidents that occur during works do not have a significant or long term impact on the environment.	Implement corrective and preventive actions in liaison with an environmental specialist and Main Roads Manager Environment where necessary.	Both

ENVIRONMENTAL MANAGEMENT PLAN				
Timing	Topic	Objective	Management Action	Responsibility
		Ensure that the details of any environmental incidents are recorded in accordance with corporate requirements.	Complete and submit environmental incident report forms in accordance with the Main Roads corporate procedure 6707/042 <i>Environmental Incident Reporting and Investigation</i> . Environmental Incident report forms are available on the Main Roads Internet site at <a href="http://www.mainroads.wa.gov.au/UnderstandingRoads/Environment/Pages/incident_report.aspx">http://www.mainroads.wa.gov.au/UnderstandingRoads/Environment/Pages/incident_report.aspx</a>	Both
Construction	Flora and Fauna	Ensure that the overall objectives of the works are compatible with maintaining the biological integrity of the surrounding environment, and minimising the loss of flora and fauna and the level of degradation.	Clearing is to be kept to an absolute minimum and any no go areas including trees or shrubs to be kept are to be clearly marked out in the field prior to works being carried out (Note: refer to PEIA for no go areas, maximum clearing boundaries and maximum clearing amounts).	Contractor
			Upon discovery of any Declared Rare or Nationally Protected flora, work is to immediately cease until approval to clear such flora is obtained.	Contractor – ceasing of works Main Roads – obtaining of approvals
			Cleared vegetation that is not infested with dieback or weeds is to be mulched and stockpiled separately and re-used on site in an appropriate manner (e.g. respread over batters).	Contractor
			Cleared vegetation is not to be burnt.	Contractor
			Care is to be taken when clearing in order to avoid death of / injury to any local fauna. Any death of / injury to fauna is to be reported to the Main Roads Project Manager immediately and the appropriate actions taken (e.g. contact DEC, RSPCA or Veterinarian).	Contractor
			Where possible, nests or nesting sites are to be avoided or relocated.	Contractor

<b>ENVIRONMENTAL MANAGEMENT PLAN</b>				
<b>Timing</b>	<b>Topic</b>	<b>Objective</b>	<b>Management Action</b>	<b>Responsibility</b>
Construction	Soil & Erosion Management	Ensure that soil is managed in a way that prevents future land degradation and erosion.	Stripped topsoil that is not infested with dieback or weeds is to be stockpiled separately and re-used on site in an appropriate manner (e.g. respread over batters).	Contractor
			Cleared areas to be landscaped in a way that prevents future erosion.	Contractor
Construction	Revegetation – Site Preparation Works	Ensure that site preparation works are carried out in a way that aids the best possible revegetation outcome.	Site preparation works to be carried out in accordance with the requirements of the project's Revegetation Plan found at Appendix E3. Guidance to be sought from the Main Roads Goldfields-Esperance Region Environment Officer where necessary.	Contractor
Construction	Ground and Surface Water Management	Ensure that the project does not have an unacceptable level of impact on water resources and that water quality in the area is not compromised.	Water required for project activities to be sourced legally and used in a sustainable manner.	Contractor
			Where possible, road drainage is to be directed away from natural watercourses and wetlands.	Contractor
			Water extraction activities to be carried out in a way which prevents the potential for contamination of the water source (e.g. bunding of pumping equipment).	Contractor
Construction	Noise, Vibration and Dust	Ensure that the construction of the proposal does not become a nuisance to the public.	Any complaints regarding dust, noise or vibration are to be attended to as soon as possible.	Contractor
			Dust suppression techniques to be employed during construction works.	Contractor



ENVIRONMENTAL MANAGEMENT PLAN				
Timing	Topic	Objective	Management Action	Responsibility
Post-Construction	Clean-up	Ensure that the project area is left clean and tidy.	All waste materials from the development are to be completely removed from the site and disposed of at an approved Shire waste disposal facility upon completion of works.	Contractor
			All remaining road building materials (e.g. aggregate) to be removed from the site upon completion of works to an approved stockpile site.	Both

## **Appendix E1**

# **ENVIRONMENTAL POLICY**



# Environmental Policy STATEMENT

*MAIN ROADS WESTERN AUSTRALIA manages the State's road network to provide safe and efficient road access that will enhance community lifestyles and support economic prosperity. We seek to achieve balanced and sustainable outcomes for the community. Responsible environmental stewardship in developing and maintaining the road network is critical to our success.*

## Principles

Main Roads is committed to:

- Protecting and enhancing the environmental values of road reserves;
- Minimising the impact on the natural environment of roads and road use; and
- Conserving natural resources and minimising energy consumption and waste.

## Objectives

In applying these principles, Main Roads aims to:

- Fully satisfy all environmental legislation, Government Policy and, where specific legislation is lacking, uphold the spirit of the law;
- Implement, maintain and continually improve an effective environmental management system across Main Roads planning, business, project and management processes;
- Apply an approach of "avoid, minimise and mitigate", in order of preference, to the management of environmental impacts associated with road construction projects;
- Develop awareness of environmental management processes, standards and responsibilities among Main Roads' employees and contractor partners;
- Listen and be responsive to community and stakeholder views on environmental issues; and
- Set specific environmental objectives and targets relating to the key environmental aspects of Main Roads' activities, and measure and report progress in achieving these targets.

Menno Henneveld  
Commissioner of Main Roads  
June 2004

## **Appendix E2**

# **PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT**

## **Appendix E3**

# **REVEGETATION PLAN**