

# Pilbara Regional Waste Management Facility Frequently Asked Questions

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## 1. WHAT TYPE OF FACILITY WILL BE CONSTRUCTED?

The Pilbara Regional Waste Management Facility (PRWMF) is an integrated facility which will provide recycling, treatment and disposal options for both the local Onslow community and regional waste generators. The PRWMF will consist of the following key infrastructure:

- Greenwaste Facility
- Construction and Demolition Waste Recycling Facility
- Liquid Waste Facility
- Class IV landfill
- Tyre dedicated landfill cell

## 2. WHY IS A NEW FACILITY NEEDED?

The recent economic and social infrastructure developments in Onslow has altered the Shire of Ashburton's (the Shire) previous waste management infrastructure including the closing of the old Onslow landfill and the creation of a Waste Transfer Station to provide temporary waste haulage services to Tom Price. The Shire recognised that a more sustainable and efficient longer term arrangement was required to cater for the waste generated from the local Onslow community. In addition, the Shire also recognised the wider waste management requirements of the expanding resource sectors across the Pilbara particular on industrial and contaminated wastes that currently have limited viable treatment options. Combining both the local and regional requirements at the facility will reduce the overall cost for all users. This recognition and desire for cost savings led to the creation of the PRWMF.

## 3. WHERE WILL IT BE LOCATED?

The site is approximately 36km south of the town of Onslow. The isolated site is predominantly flat and contains a large sand ridge along the northern boundary of the site which will provide suitable screening to maintain amenity.

## 4. HOW WAS THE SITE SELECTED?

A site selection process was undertaken utilising best practice siting and design principles. Site selection criteria, constraints mapping and multi-criteria analysis was used to assess approximately twenty sites of interest around the Onslow region. The Site Selection process also included detailed regional flood modelling works to determine impacts on the twenty sites of interest. Arising from these site selection works, the proposed location was determined as the preferred location.

## 5. WHAT IS A CLASS IV LANDFILL?

A key element of the facility is the Class IV landfill which is a double composite lined cell that can accept up to Class IV waste materials. The double lining system includes a primary barrier and leachate collection system overlaying a leak detection layer. The Class IV landfill will also include a multi layered capping system to encapsulate the waste after filling as well as environmental management systems for leachate, stormwater and landfill gas. The Class IV will be developed in accordance with best practice landfill guidelines.

## 6. WHAT IS LEACHATE AND HOW IS IT MANAGED?

Leachate is generated when water contact and percolates through waste materials and through the decomposition of waste within a landfill cell. Leachate can contain a wider range of components that varies depending on the source and age of the waste. Without sufficient management controls, leachate can infiltrate into the soil and groundwater causing contamination. Therefore, to ensure leachate is collected and managed appropriately, the Class IV landfill will incorporate a leachate collection system. The leachate collection system is designed to collect leachate generated within the landfill cells and pump the leachate to a collection pond for evaporation.

## 7. WHAT ARE BEST PRACTICE LANDFILL GUIDELINES?

The Environmental Protection Authority (Victoria) *Best Practice Environmental Management - Siting, design, operation and rehabilitation of landfills (August 2015)* (referred to as Best Practice Landfill Guidelines) is the key document used to specify the applicable standards for the PRWMF. The key objective of the Best Practice Landfill Guidelines is to provide information on how to avoid or minimise environmental impacts and has been widely adopted for landfill projects across the Western Australia. The Best Practice Landfill Guidelines covers the full lifecycle of landfills and therefore have been utilised on all aspect of the project to date. A key element of environmental protection for landfill facilities is the lining system which is consistent with international best practice standards.

## 8. WHAT IS CLASS IV WASTE?

Class IV waste is contaminated solid waste that meets specific concentration levels and is permitted be disposed of in a Class IV landfill. Class IV waste is often generated as industrial by-products from the resource sectors. Typical examples of Class IV wastes include:

- contaminated soils – typically hydrocarbon contaminated soils from fuel spills and clean ups
- drilling muds
- oily sludges
- treated timbers
- shutdown, decommission and clean up residues

Due to the concentration levels of Class IV wastes, these materials require specialist treatment prior to disposal Class IV landfill.

## **9. HOW ARE CLASS IV WASTES CLASSIFIED?**

Industrial by-products are classified as Class IV wastes if the concentration levels of various contaminants are within the threshold values as specified within the Department of Water and Environmental Regulation's *'Landfill Waste Classification and Waste Definitions Guidelines 1996 (as amended 2018)*. This is determined following sampling and laboratory analysis of the waste materials, generally undertaken by a qualified environmental scientist.

## **10. WHAT OTHER WASTE TYPES WILL BE ACCEPTED AT THE PRWMF?**

The PRWMF is a modern integrated waste management facility that will accept a wide range of recycling and waste material including green waste, construction and demolition waste, liquid waste, tyres and rubber and general waste. Greenwaste will be stockpiled, mulched and shredded for reuse. Construction and demolition waste will be crushed and screened to form recycled building products. Liquid wastes will be subject to treatment processes such as evaporation and stabilisation. Tyres and rubber will be baled and buried in a separate dedicated monocell for future potential recycling. General domestic and commercial waste generated from the communities of Onslow will be landfilled.

## **11. WHERE WILL THE COMMUNITY BRING THEIR WASTE?**

The Shire will continue to collect the communities waste through the kerbside collection services. Recycling and Waste drop off services for the community will continue to be provided at the Onslow Waste Transfer Station.

## **12. WHO CAN DROP WASTE OFF AT THE PRWMF?**

Recycling and waste materials will only be accepted from designated and in some instances pre-approved parties. This includes the Shire staff, commercial waste generators, private waste service providers, logistics firms and contractors. The community will not have access to the PRWMF.

## **13. WHERE IS THE NEAREST SENSITIVE RECEPTOR**

The Western Australian Environmental Protection Authority (EPA) stipulates that sensitive land uses are those which are sensitive to emissions from industrial or similar activities which include residential developments, hospitals, schools, shopping centres and some public buildings. The EPA recommended separation distance for a facility similar to the PRWMF is 1km. Due to the isolated location of the site, the nearest sensitive receptors is over 20km away which is well beyond the recommended separation distance.

## **14. WHAT APPROVALS ARE REQUIRED?**

The PRWMF will require a range of environmental, construction and operational approvals. The Shire will refer the project to the Environmental Protection Authority for environmental impact assessment secure a Works Approval to construct the facility and a Licence to operate from the Department of Water and Environmental Regulation. These approvals will specify the relevant construction and operation standards as well as monitoring and reporting requirements. Approval from Main Roads (WA) will also be required to develop the intersection at Onslow Road and the PRWMF.

## **15. WHAT STUDIES HAVE BEEN UNDERTAKEN?**

A range of detailed site surveys and investigations have been undertaken to understand the environmental and social aspects on and surrounding the site and to determine the engineering requirements for the facility. The studies undertaken include:

- Topography surveys
- Geotechnical (soil) investigations
- Hydrogeological (groundwater) investigations
- Regional and local hydrology (flood modelling)
- Flora and fauna assessments
- Aboriginal heritage surveys

All studies to date have returned favourable environmental, social and engineering information that supports the sites suitability for the proposed PRWMF.

## **16. HOW WILL POTENTIAL IMPACTS TO GROUNDWATER BE MANAGED?**

To ensure impacts to the surrounding environment and groundwater are avoided, a variety of engineering and management measures in accordance with the Best Practice Landfill Guidelines. The design of the facility will ensure that a minimum separation distance of 3m from groundwater will be maintained. The landfill cell design will consist of a double composite lining system including a leachate collection system overlaying a leak detection layer. Regular environmental groundwater monitoring will be undertaken across prior to construction and throughout the lifespan of the facility and post closure.

## **17. HOW WILL FLOODING BE MANAGED?**

Regional and local flood modelling was undertaken to understand the potential impacts to the site from extreme flooding events. A 1:500 storm event over a 72 hour period was modelled for the site which adopts a worst case scenario. To manage surface water and protect the facility from flooding a surface water management system has been designed to include a large levee embankment, surface water ponds and other associated infrastructure. Surface water within the site will be captured within a large attenuation pond to capture sediment which will then be directed into two smaller ponds for evaporation. The levee embankment has been designed to ensure that any surface water or flooding surrounding the facility will not enter the facility. The surface water management system is designed to best practice guidelines and has been designed for a 1:100 year storm event over a 72 hour period.

## **18. WHO WILL OWN THE FACILITY?**

The Shire of Ashburton will be the sole owner of the PRWMF and retain overall responsibility for the facility including financing, approvals, operation, rehabilitation and monitoring.

## **19. WHO ARE THE PROJECT PARTNERS?**

The project has been progressing in partnership with the Western Australian Department of Jobs, Tourism, Science and Innovation (JTSI) and Chevron Australia who, together with the Shire of Ashburton comprise the Project Working Group.

Talis Consultants has been working with the Project Working Group providing environmental, engineering and waste consultancy support on the project.

## **20. HOW IS THE PROJECT BEING FUNDED?**

The establishment of the PRWMF is been funded through a variety of means. The Shire hold overall responsibility for the financing of the project and have allocated capital funds to the project. The Shire was successful in obtaining funding for this significant project from the Federal Government through the Building Better Regions Fund. The State Government and Chevron Australia also have committed funding to the project through the Ashburton North State Development Agreement. The initiative to accept waste from both the Onslow community and wider Pilbara region has proven to be a more cost effective approach than establishing a facility to cater solely for the community thereby, significantly reducing the costs to the Shire and Onslow community.

## **21. WHO WILL OPERATE THE FACILITY?**

The Shire will hold overall responsibility for the operation of the facility however, may look to obtain advice and specialist services from private waste service providers.

## **22. HOW MANY JOBS WILL THE PROJECT PROVIDE?**

The project will provide new job opportunities for the Town of Onslow as well as the wider Pilbara region including through the construction and operational stages of the project. Based on the capital costs of the facility, it is estimated that 117 jobs will be generated through the construction phase of the facility for a period of 6-9 months. The operation of the facility will provide a number of full time employment opportunities to be based at Onslow. The PRWMF will also have a significant impact on indirect employment with Onslow and the wider Pilbara Region through supporting the resource sectors.

## **23. WHEN WILL THE PRWMF BE CONSTRUCTED?**

It is proposed that construction will commence in approximately May 2019 and be completed by December 2019.