



Flora Management Procedure

Environment

1 Purpose and scope

This procedure specifies the operational environmental requirements relating to native flora (plants) management at the Roy Hill Project. This procedure applies to all personnel involved in activities at the Mine, Rail and Port operations that affect native flora management.

The *Wildlife Conservation Act 1950* (the Act) contains lists of protected flora (including Declared Rare Flora, DRF) which are covered by the Act. A list of the known protected species to occur within the Roy Hill Project area can be found in the Significant Flora, Fauna and Weed Species Identification Guide (100RH-0000-EN-GUI-2004). The locations across the site of where these were found are in the Roy Hill GIS database. The DRF and priority species and their locations were identified initially in 2005 (Ecologia 2009), and by subsequent flora surveys.

2 Procedure

2.1 Management Actions

1. All clearing must be kept to a practicable minimum.
2. All clearing and topsoil management must be undertaken in accordance with the Clearing and Soil Management Procedure (000RH-0000-EN-PRO-0003).
3. Cleared areas no longer needed for construction or operational activities will be progressively rehabilitated
4. Rehabilitation activities, including returning priority flora to rehabilitated areas, must be completed in accordance with the Rehabilitation Management Plan (000RH-0000-EN-PLN-0003) and Rehabilitation Management Procedure (OP-PRO-00101).
5. Specialist Biological Sciences (or delegate) is responsible for updating the location and records of significant flora species and significant vegetation communities in GIS to be used at planning and operational levels.
6. Identification of significant or protected flora not identified on GIS will be reported to the Roy Hill Environment Team and Specialist Biological Sciences.
7. Specialist Biological Sciences (or delegate) is responsible for reviewing the conservation status of flora species. State and Commonwealth management strategies, action plans and developments in flora management methods will be also reviewed as required.
8. Flora (including any part of flora and all seeds and spores) cannot be taken (see Definitions in Section 5 'to take' in relation to any flora) unless authorised by, and carried out in accordance with the terms and conditions of, a current appropriate licence issued by the Department of Parks and Wildlife (DPaW).
9. Declared Rare Flora (DRF) cannot be taken, regardless of if a DPaW permit is held, unless prior written consent is given by the Minister.

THIS DOCUMENT IS UNCONTROLLED IN HARD COPY FORMAT

Rev	Document Number	Author	Approver / BFO	Approver Signature	Issue Date	Review Date	Page
2	OP-PRO-00182	N Rubbo	Manager Environment & Approvals		07/10/2015	07/10/2016	1 of 6

Flora Management Procedure

Environment

10. All seed collection must be undertaken in accordance with the Native Seed Collection and Inventory Management Procedure (000RH-0000-EN-PRO-00032).
11. Where practicable priority flora shall be flagged on site and should be avoided where indicated on a Ground Disturbance Permit (GDP).
12. Dust control measures must be undertaken in accordance with the Dust Management Procedure (000RH-0000-EN-PRO-0023) to minimise dust from the site adversely affecting flora.
13. Weed management will be undertaken in accordance with the Weed Management Procedure (OP-PRO-00010) to minimise the impact of weeds on native flora.
14. Off-road vehicle movement is prohibited, unless approved through the Ground Disturbance Procedure (100RH-0000-HE-PRO-2002). Unauthorised vehicle movement may negatively impact priority flora species.
15. Clearing of mangroves is prohibited unless approved through the GDP process.
16. Steps must be taken to minimise the clearing of mangroves, mature stands of vegetation, riparian vegetation and significant flora species.
17. Burning of vegetation is prohibited at all times.
18. The requirements outlined in Table 1 must be followed at all times:



Flagging Colour		Required Action
	Red and yellow as 2 strands	Environmental Restricted Area must be avoided at all times.
	Blue and yellow as 2 strands	Priority Flora must be avoided if required by GDP conditions.

Table 1: Roy Hill field flagging colours and definitions

19. Unauthorised clearing of vegetation is prohibited and incidents shall be reported in accordance with the Incident Reporting and Investigation Procedure (100RH-0000-HS-PRO-2004).

2.2 Training and Awareness

1. Site inductions shall include information on flora management including but not limited to the significant and protected flora species likely to be present and sighting and reporting requirements.
2. Twice a year (at a minimum) toolbox talks shall be conducted highlighting priority or conservation significant flora present in the project area by the Superintendent Environment or Rehabilitation (or delegates).
3. The Significant Flora, Fauna and Weed Species Identification Guide (100RH-0000-EN-GUI-2004) shall be used and promoted to all personnel.

2.3 Monitoring Actions

1. The Roy Hill Site Environment Team are responsible for monitoring clearing activities to ensure GDP boundaries are not breached.
2. The Superintendent Rehabilitation (or delegate) is responsible for monitoring rehabilitation at the mine and rail.

THIS DOCUMENT IS UNCONTROLLED IN HARD COPY FORMAT

Rev	Document Number	Author	Approver / BFO	Issue Date	Review Date	Page
2	OP-PRO-00182	N Rubbo	Manager Environment & Approvals	07/10/2015	07/10/2016	2 of 6

Flora Management Procedure

Environment

2.4 Incidents, Audits and Inspections

1. Compliance audits and inspections shall be performed against this procedure in accordance with the Environmental Audit Procedure (OP-PRO-00018).
2. All non-compliances with this procedure are to be reported as an incident in accordance with the Incident Reporting and Investigation Procedure (100RH-0000-HS-PRO-2004).

2.5 Contingency Actions

1. Implement contingency actions identified through inspections, audits and incident reporting.
2. The Superintendent Environment is responsible for the protection of flora identified as a potentially protected or DRF species, until the plant species can be positively identified by a botanical specialist. No disturbance to the plant or surrounding area will occur until the plant species can be positively identified.

2.6 Reporting Requirements

1. Report all non-compliances with this procedure as an incident in accordance with the Incident Reporting and Investigation Procedure (100RH-0000-HS-PRO-2004).
2. Incidents and audit findings must be reported and closed out (including GDP boundary breaches) in accordance with the Incident Reporting and Investigation Procedure (100RH-0000-HS-PRO-2004).
3. Identification of additional areas / locations where conservation significant or protected species are present to be reported to the Roy Hill Environment Team.
4. Identification of additional conservation significant species present on site to be reported to the Roy Hill Environment Team.

3 Accountabilities

Unless otherwise specified, the following roles are accountable or responsible for the activities outlined in this procedure.

Role	Responsibility
General Managers	Accountable for ensuring that resources are available to support the implementation of this procedure where it is relevant to their area of responsibility
Managers	Accountable for the implementation of this procedure where it is relevant to their area of responsibility
Superintendents	Responsible for the implementation of this procedure where it is relevant to their area of responsibility
Environment Team	Responsible for review and update of this procedure

Table 2: Accountabilities

THIS DOCUMENT IS UNCONTROLLED IN HARD COPY FORMAT

Rev	Document Number	Author	Approver / BFO	Issue Date	Review Date	Page
2	OP-PRO-00182	N Rubbo	Manager Environment & Approvals	07/10/2015	07/10/2016	3 of 6

Flora Management Procedure

Environment

4 Abbreviations

Abbreviation	Definition
DRF	Declared Rare Flora
DPaW	Department of Parks and Wildlife
GDP	Ground Disturbance Permit
GIS	Geospatial Information Systems

Table 3: Abbreviations

THIS DOCUMENT IS UNCONTROLLED IN HARD COPY FORMAT

Rev	Document Number	Author	Approver / BFO	Issue Date	Review Date	Page
2	OP-PRO-00182	N Rubbo	Manager Environment & Approvals	07/10/2015	07/10/2016	4 of 6

Flora Management Procedure

Environment

5 Definitions

Term	Definition
Declared Rare Flora	Flora that are extant and considered likely to become extinct, presumed to be extinct in the wild or rare and therefore in need of special protection. DRF are declared to be rare by the Minister in the <i>Government Gazette</i> .
Flora	Any plant (including any wildflower, palm, shrub, tree, fern, creeper or vine) which is (a) native to the State; or (b) declared to be flora by the Minister in the <i>Government Gazette</i> . Includes any part of flora and all seeds and spores.
Ground disturbance	Work that will in any way cause any change or disturbance to the ground surface including (but not limited to): clearing of vegetation, placement of survey pegs, placement of water bore lines, excavations, geotechnical investigations, water bore drilling and release of water, bulk earthworks installation of buildings and infrastructure, construction of roads, access tracks, laydown areas and any work associated with the construction and operation of the project.
Mangroves	Trees, shrubs, or ferns that normally grow above mean sea level in the intertidal zone of marine coastal environments and estuarine margins.
Minister	Minister of Environment, responsible for the enforcement of the <i>Wildlife Conservation Act 1950</i>
Operational Environmental Requirements	A plan, procedure or work instruction that must be complied with.
Priority Flora	Flora that may be rare or threatened, but cannot be listed as Declared Rare Flora until detailed surveys have been undertaken. This flora is listed by the DPaW as Priority Flora.
Protected Flora	Any flora for the time being declared to be protected flora under the <i>Wildlife Conservation Act 1950</i> .
Roy Hill Environment Team	The Roy Hill Environment Team based in Perth and site
Roy Hill Site Environment Team	The Roy Hill Environment Team based on site
Shall	It must be undertaken and is not negotiable
Should	It must be undertaken, however if it cannot be undertaken or will significantly impact on time or cost then modification to the requirement may be considered by Manager Environment and Approvals
Superintendent Environment	The Superintendent of The Roy Hill Environment Team
Superintendent Rehabilitation	The Superintendent of The Roy Hill Rehabilitation Team
The Act	<i>Wildlife Conservation Act 1950</i>
To take (in relation to any flora)	Includes to gather, pluck, cut, pull up, destroy, dig up, remove or injure the flora or to cause or permit the same to be done by any means
Weed	An introduced plant that establishes in natural ecosystems and adversely modifies natural processes, resulting in decline of invaded communities and species

Table 4: Definitions

THIS DOCUMENT IS UNCONTROLLED IN HARD COPY FORMAT

Rev	Document Number	Author	Approver / BFO	Issue Date	Review Date	Page
2	OP-PRO-00182	N Rubbo	Manager Environment & Approvals	07/10/2015	07/10/2016	5 of 6

Flora Management Procedure

Environment

6 References

Document number	Title
000RH-0000-EN-PLN-0003	Rehabilitation Management Plan
OP-PRO-00187	Clearing and Soil Management Procedure
OP-PRO-00010	Weed Management Procedure
OP-PRO-00101	Rehabilitation Management Procedure
OP-PRO-00180	Dust Management Procedure
OP-PRO-00005	Native Seed Collection and Inventory Management Procedure
OP-PRO-00018	Environmental Audit Procedure
OP-PRO-00193	Ground Disturbance Permit Procedure
100RH-0000-HS-PRO-2004	Incident Reporting and Investigation Procedure
100RH-0000-EN-GUI-2004	Significant Flora, Fauna and Weed Species Identification Guide
Ecologia (2009)	Roy Hill 1 Project Flora Assessment and Vegetation Assessment

Table 5: References

Note that up-to-date environmental documents should be accessed from the e-Care Roy Hill intranet portal to ensure that the current version is being used.

7 Review

This Procedure is to be reviewed as follows:

- Following the grant of or modification to relevant approvals;
- Annually; or
- As a result of findings or actions identified through inspections, audits and incident reporting.

Reviews are to examine the appropriateness of this Procedure, taking into consideration corporate, system and compliance requirement changes since the last review was undertaken.

THIS DOCUMENT IS UNCONTROLLED IN HARD COPY FORMAT

Rev	Document Number	Author	Approver / BFO	Issue Date	Review Date	Page
2	OP-PRO-00182	N Rubbo	Manager Environment & Approvals	07/10/2015	07/10/2016	6 of 6