

Guidelines for Preparation of Management Plans

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Contents

1	PURPOSE OF THE GUIDELINES	1
2	OVERALL MANAGEMENT FRAMEWORK	1
	Determine Overall Management Strategies	1
	Prescriptive or Adaptive Management Plan?	2
3	CONTENT OF THE PLAN	2
	Introduction	2
	Project description	3
	Legislative requirements	3
	Description of existing environment and matter of NES	3
	Potential impacts	4
	Management strategies	4
	Management actions	5
	Management measures	5
	Monitoring requirements	5
	Performance indicators	6
	Corrective actions	6
	Responsibilities	6
	Timing	6
	Training	6
	Adaptive Management Example	6
	Auditing/verification requirements and reporting	7
	Contingency arrangements	7
	Management plan review	8
4	GENERAL COMMENTS	8
	Definitive Commitments	8
	Presentation and cross-referencing	8
5	PROCESS FOR MANAGEMENT PLAN APPROVAL	9
6	CHECKLIST	9
7	BIBLIOGRAPHY	10

1 PURPOSE OF THE GUIDELINES

These guidelines have been developed to outline the requirements for the development and presentation of management plans under EPBC Act conditions of approval. The plans required may include vegetation management plans, oil spill contingency plans and infrastructure decommissioning plans.

Plans required by State/Territory or local authority approval conditions may be submitted to the decision maker to satisfy the requirements of the EPBC Act approval conditions, provided those sections of the plan that apply to the matters protected by the EPBC Act are clearly defined. This could be either through clear references, or the inclusion of a separate EPBC Act section within the plan.

The typical content of the sections of a management plan is described below. The length and detail of the sections should be commensurate with the magnitude, intensity and complexity of managing the impacts. If uncertain about the appropriate level of detail, then the DEH project officer should be contacted for advice.

Any management plan produced in response to a condition of approval will be regarded as a public document, unless sufficient justification is provided to warrant 'commercial-in-confidence' status. Such a justification should be made when submitting the management plan.

2 OVERALL MANAGEMENT FRAMEWORK

Determine Overall Management Strategies

Management strategies for implementation may be outlined in the management plan, and the management plan should be integrated with site management and reporting practices. This may include integration into an Environmental Management System (EMS).

Management strategies may involve details on:

- performance strategies
- proposed consultation, public interaction and/or stakeholder input to management of the matter
- translation or integration with specialist studies or investigations that are associated with or have implications for management
- training requirements for those involved in management plan implementation
- reporting and auditing
- management plan implementation timeframe
- integration of plan with other site operations; and
- process for addressing design modifications or changes to the development.

If the company developing the management plan has an established EMS, or operates under ISO14000 (a set of international environmental standards for environmental management), the management plan should include a description of how the management plan fits within its current environmental management framework.

Prescriptive or Adaptive Management Plans?

The approach to preparation of the management plan detailed in the following sections is presented in a prescriptive format that provides for the setting of clear actions, specific performance targets and monitoring procedures. It is recognised, however, that management of certain matters of national environmental significance (NES) is not fully predictable. Accordingly, management actions to be taken may need to be flexible and sufficiently adaptable in recognition of issues such as weather perturbations, limited or absence of suitable baseline data, a lack of existing scientific knowledge of the issue at hand, uncertainties over the influence of other external impacts not associated with the project, or particular characteristics or peculiarities of the matter requiring management. The proponent may need, in many circumstances, to implement an innovative and adaptive approach to the preparation of a management plan that, particularly in the early period of a management and monitoring program, may not be able to be clearly defined within a prescriptive plan. For example, it may be appropriate to establish an expert management committee approach with an aim to enable a flexible on-going review process to management and ensure rapid response to external factors. However, should such an approach be proposed, it will need to be fully transparent and auditable with performance indicators and corrective actions. An example of management measures from an adaptive management plan can be viewed in Section 3 of these guidelines.

3 CONTENT OF THE PLAN

Introduction

The management plan should include the following:

- project description
- legislative requirements
- description of existing environment and relevant matter(s) of NES
- potential impacts on protected matters
- management strategies
- management actions
 - management measures
 - monitoring requirements
 - performance indicators
 - corrective actions
 - responsibilities
 - timing

- auditing/verification requirements and reporting
- contingency arrangements, and
- management plan review.

Project description

This section should describe the proposed action, covering:

- the relevant components of the action, with regard to the controlling provisions of the action
- the location of any works that may have relevant impacts, and the area to be disturbed (including a map showing location of the works)
- the way in which the work is to be undertaken, and the stages of the project (e.g. pre-construction, construction, operation); and
- timing (including the different stages). This is important when it is necessary to avoid disturbing the breeding, feeding and/or roosting of listed threatened or migratory fauna species, or the flowering or seeding of listed threatened flora species.

If the project is small, this section may only be a paragraph describing the whole project, specifically mentioning the part of the project that impacts on the relevant matter/s of NES.

If the project is large, and has a range of environmental impacts, this section may be more substantial or may link to previous documents such as a public environment report (PER) or environmental impact statement (EIS). The project description may also include the project management structure. Diagrams or flow charts may assist with the description of management structure, and are useful tools for identification of key personnel for each management task in the management plan.

Legislative requirements

Other relevant statutory obligations, key legislation, necessary approvals, consultations and agreements, and policies applicable to the matter(s) of NES should be identified and discussed, to determine whether the management plan is comprehensive. In particular, the management plan should detail any relevant local or state regulations, plans or policies, as well as any further relevant Commonwealth legislation. It should outline any required approvals, and those that have been obtained from a local, State, Territory or Australian Government agency or authority. This section should also include any conditions specified under other approvals relevant to the matter of NES.

Description of existing environment and matter of NES

This section should just be a summary of relevant information concerning the NES matter, previously provided in an environmental impact statement, public environmental report or preliminary documentation.

Potential impacts

This section of the plan should focus on identifying the potential impacts of the project on the applicable matter(s) of NES. It should cover:

- the relevant impacts of the project
- the nature and extent of the potential short-term and long-term effect, and
- any uncertainties regarding the predictions.

This may be a summary of relevant information previously provided in an environmental impact statement, public environmental report or preliminary documentation.

Impacts from relevant stages of the action (possibly including pre-construction, construction and operation) should be incorporated into this section. It may be necessary to divide the potential impacts into subsections reflecting the stage of the project.

Example: Threatened species

A 40 km gas pipeline traverses a community of a plant species listed as threatened under the EPBC Act. Impacts to this community of a threatened plant are unavoidable. Potential impacts from the construction of the pipeline that need to be considered include:

- Direct impacts on the threatened plant species through vegetation clearing within the construction footprint; and
- Indirect impacts on the threatened plant species such as weed infestation, erosion, soil compaction, and increased fire risk during and post construction.

Management strategies

Environmental management strategies must be developed to target each of the potential impacts identified. Strategies are required to provide overall guidance on the intent of the management plan and to define the desired outcomes of the management plan and establish an overall benchmark and performance goals.

Example: Threatened species

Management strategies to target the impacts from the construction of the gas pipeline may include:

- Avoid direct impacts on threatened species during construction of the pipeline.
- Where direct impacts are unavoidable, reduce impacts on threatened species during construction of the pipeline.
- Avoid indirect impacts on threatened species during and post construction.
- Maintain and enhance the community of threatened species following completion of the pipeline.

Strategies must be developed for each of the impacts at all stages of the project, including pre-construction, construction, and post-construction (operational) phases.

Management actions

Each management strategy forms the basis for a specific management action. These actions are best presented in table format, as shown in the example below. The terms in the table are explained in the sections that follow. Management actions should incorporate the following elements: management measures, monitoring requirements, performance indicators and corrective actions.

Example of a management actions table

Strategy: Where direct impact is unavoidable, reduce impact on threatened species (Gouldian Finch) during construction of the pipeline.			
		Responsibility	Timing
Management measures	<p>In priority habitat:</p> <ul style="list-style-type: none"> Align the corridor so as to avoid physical disturbance to confirmed breeding trees/sites especially hollow bearing trees. Establish a 100m 'no-go' zone around breeding sites to discourage inadvertent or deliberate disturbance to nesting sites. Reduce the width of clearing in the right of way from 30m to 20m. A 30m right of way may be used where pre-clearance field surveys determine that the density of grass in the easement is very sparse (<10% foliage cover). Reduce the period of time the easement is bladed (i.e. blading in this section will not occur until the pipe laying is within three weeks of impacting the area) Conduct supplementary seeding to supplement food resources. Supplementary broadcast seeding is to occur during construction and adjacent to the alignment, utilising native seed mixes that are complimentary to the landscape and locally sourced. <p>In priority and marginal habitat:</p> <ul style="list-style-type: none"> No drawing water from dams/impoundments will be permitted. Rehabilitate the easement with those native seeding grasses that are preferred by the Gouldian Finch, as set out above. 	Environment Officer	<p>Prior to construction</p> <p>Prior to construction</p> <p>Prior to construction</p> <p>During construction</p> <p>Post construction</p> <p>During construction</p> <p>Post construction</p>
Monitoring requirements	<ul style="list-style-type: none"> Mapping of suitable habitat for the Gouldian Finch in the northern end of the pipeline and provide to DEH Observations to ensure current tree hollows are retained, and supply of hollows is sufficient for population. 	Environment Officer	<p>Within 3 weeks of construction</p> <p>Weekly</p>
Performance indicators	<ul style="list-style-type: none"> No impact to areas of preferred habitat. No loss of tree hollows. 	Environment Officer	
Corrective actions	<ul style="list-style-type: none"> Refinements to alignment where outside proposed corridor. Tree hollows to be affixed to trees in areas of limited supply. 	Environment Officer	

NB: The measures and actions described above are indicative only and have not been endorsed as necessarily suitable for minimising or mitigating impacts on the Gouldian Finch or other listed threatened species.

Management measures

Management measures should be designed for each of the strategies. These are the actions that need to be undertaken to prevent or mitigate impacts. A number of management measures may be required to achieve one strategy.

Monitoring requirements

A monitoring program should be developed for management actions. This will establish whether there have been any impacts from the proposed activities, or for determining the effectiveness of mitigation measures. It will also determine whether the environmental strategies are being complied

with, and whether any environmental incidents occur. Conditions of approval often include monitoring, and specify its timing and frequency.

Monitoring should be designed to provide ongoing feedback for the management of the project and its environmental impacts, and the results should feed back into the management plan review process. In most cases, effective monitoring requires the acquisition of baseline data to compare with construction and post-construction data.

Performance indicators

Performance indicators should be used to verify the efficacy of a management plan and will indicate the success or otherwise of particular management measures. The indicators need to be clear and concise, and must specify the outcome to be achieved.

Corrective actions

Corrective actions need to be outlined to demonstrate that appropriate methods will be implemented if there is a deviation from a management measure, or if a management strategy or performance indicator is not achieved. The corrective action must be designed to prevent or mitigate any further impacts and should ensure that management strategies are achieved.

Responsibilities

There should be a clear statement nominating the person(s) responsible for ensuring that particular management actions are undertaken and that the strategies are achieved. This includes identification of the person's position within the relevant company or authority (local council or state government), or their status as separate contract personnel. Ultimate responsibility, if there is a failure in management, should be defined within the management measures.

Agreement must be obtained where the proponent requires third parties (e.g. council or state government) to assume responsibility for management actions.

Timing

Timing needs to be specified for each of the management measures, and monitoring and reporting requirements.

Training

Staff and contractors should undergo environmental awareness training to familiarise themselves with their responsibilities for implementing the management plan. Details of this training should be mentioned in the plan.

Adaptive Management Example

As an alternative to the prescriptive form of management plan demonstrated above, adaptive management plans may use a system of triggers and actions. An example of adaptive management is demonstrated in the following table.

Strategy: Establish criteria that will trigger a requirement for further mitigation measures to maintain suitable habitat for the Green and Gold Bell Frog				
Values	Triggers	Actions	Responsibility	Timing
Green and Gold Bell Frog	Alert Triggers 1. No record of breeding activity during an annual monitoring program Or 2. Any clearly unusual results observed during the course of a summer monitoring program, such as markedly low numbers of frogs at a site where they previously had not been found.	a. Consult with recognised Green and Gold Bell Frog experts to ascertain likely reasons for this. b. Incorporate relevant management recommendations into the Green and Gold Bell Frog Management Plan.	Environmental Manager	Yearly
	Action Triggers 1. A decline of $\geq 10\%$ in the number of individuals recorded during summer surveys at the project site over three successive years. Or 2. An overall decline of $>25\%$ in annual average number of individuals recorded during summer surveys at the project site over a three year period. Or 3. No record of breeding activity over three successive years.	a. Review and revise the Green and Gold Bell Frog Management Plan and submit for DEH approval. b. Select a minimum of two suitable non-operational ponds, plus drains, and manage these specifically for the Green and Gold Bell Frog.	Environmental Manager	Every three years

NB: The measures and actions described above are indicative only and have not been endorsed as necessarily suitable for minimising or mitigating impacts on the Green and Gold Bell Frog or other listed threatened species.

Auditing/verification requirements and reporting

Auditing or some other form of verification, and reporting of results, will ensure that the objectives of the management plan are being achieved. Plans should include a reporting and reviewing mechanism as well as documentation standards to demonstrate compliance. Approval conditions may include the provision of reports or mandatory audits of conditions, including the plans required by conditions.

When reporting or auditing is mandatory, the management plan must specify this and outline how and when this will be undertaken. When auditing is required on a regular basis, timing and responsibility for audits must be clearly set out in the management plan. While audits may take place internally, in many cases, appropriately accredited external auditors will be required.

The management plan should provide a clear summary of all reporting and review requirements and the timing for submission. Note, the conditions of approval may also require the submission of an annual certificate stating compliance with the approval conditions.

Contingency arrangements

Although the management measures will cover most potential impacts, contingency arrangements are required in the event that management measures fail to mitigate or minimise impacts on matters of NES. This may result from human-induced (e.g. fire, oil spill) or natural extreme events (e.g. cyclone).

Contingency arrangements should not be confused with corrective actions, which are implemented when monitoring finds that current management measures are not effective in mitigating impacts during daily operations, or when there has been non-conformance with the strategies of the management plan.

Management plan review

The management plan must be reviewed periodically to determine its effectiveness in protecting the matter(s) of NES. This will also allow revision of the plan to reflect knowledge gained during the life of the project. A timeline for reviewing the management plan must be established. Reviewed or revised management plans must be approved by the decision maker prior to being implemented.

GENERAL COMMENTS

The management plan should be presented in a format that is easily interpreted and useable within the operating framework of the project. The following are hints to proponents for preparation of the management plan.

Definitive Commitments

To ensure readability, write clearly and avoid long sentences with complex clauses. Use the term 'will' rather than 'should' for commitments to carry out management actions. Avoid ambiguities such as 'where possible', 'as required', 'to the greatest extent possible' and the use of jargon. Clearly explain any technical terms or acronyms that need to be used, or define them in a glossary. All commitments must be written in a manner that is clearly auditable.

It is also important that there are no conflicting strategies or statements within the management plan. Carefully read and recognise the management commitments that are being made in the plan before submitting it.

Example: Threatened species

Instead of:

Ensure, to the greatest extent possible, minimisation of disturbance to the threatened species along the pipeline route during construction.

...you should say:

All direct impacts on threatened species adjacent to the pipeline during construction will be mitigated by restricting the construction corridor to 20m, ensuring vehicles adhere to a 20km/h speed limit, installing temporary fencing, erecting "No Access" signs, and staff will be informed that all construction activities will be contained within the construction corridor.

Presentation and cross-referencing

Ensure that the format of the document is consistent and easy to follow. Where it refers to material in previously submitted documents, such as environmental impact statements, public environmental reports or preliminary documentation, include clear cross-references (e.g. 'See environmental impact statement, Section 2.9, pages 25–27.'). Use tables, diagrams and maps where inclusion would provide a better understanding and implementation of the management plan. Link all tables, diagrams and maps into the text through cross-referencing.

5 PROCESS FOR MANAGEMENT PLAN APPROVAL

Proponents should liaise with the project officer during the development of the management plan. A draft management plan should be submitted for comment. Once required amendments have been made to the draft management plan, it should be approved within 20 working days.

CHECKLIST

Requirements/contents of management plan	Y/N
Overall Management Framework <ol style="list-style-type: none"> 1. Integrate management plan within overall management framework. 	
Introduction <ol style="list-style-type: none"> 1. Describe proposal in the context of the environment in which it is to be undertaken. 	
Description of project <ol style="list-style-type: none"> 1. Describe all components of the project relevant to the matter(s) of NES. 2. Location given of any works, impacts, and area to be disturbed, including maps. 3. Describe any relevant stages of the project. 4. Provide time frames for activities. 5. Cross-reference information in previously submitted documents. 	
EPBC Act and other approvals <ol style="list-style-type: none"> 1. List matters of NES. 2. Identify any other statutory obligations, key legislation, approvals, agreements or policies applicable to relevant matter(s) of NES. 	
Description of existing environment, listed threatened species or communities <ol style="list-style-type: none"> 1. Cross-reference information in previously submitted document. 	
Potential impacts <ol style="list-style-type: none"> 1. Describe relevant impacts of the action on matter(s) of NES. 2. Address nature and extent of potential short- and long-term relevant impacts. 3. Describe uncertainties regarding the predicted impacts. 4. Consider potential impacts from all stages of project. 5. Cross-reference information in previously submitted document. 	
Establish strategies	

Requirements/contents of management plan	Y/N
1. Describe strategies to mitigate each of the impacts identified in the previous section.	
Management actions <ol style="list-style-type: none"> Specific and auditable measures designed for each strategy. Monitoring requirements included and designed to provide ongoing feedback. Include performance indicators; and ensure indicators are clear and concise. Describe corrective actions. Identify person responsible for undertaking management actions. Obtain agreement from third parties who may have responsibilities. Outline timing for management measures and monitoring requirements. 	
Auditing requirements and reporting <ol style="list-style-type: none"> Outline reporting and documentation standards. Consider whether auditing is required. Provide timing of, and responsibility for, reporting and auditing. 	
Contingency arrangements <ol style="list-style-type: none"> Include contingency arrangements. 	
Review of management plan <ol style="list-style-type: none"> Provide for review of plan. Outline timeline for review and relevant consultation. 	
General comments <ol style="list-style-type: none"> Ensure commitments are clear and unambiguous. Ensure the plan is integrated with other environmental management systems and documents. 	
Glossary of terms <ol style="list-style-type: none"> Include glossary if required. 	

8 BIBLIOGRAPHY

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