Trails Development Series

Part D: Checklists and Templates



Department of Biodiversity, Conservation and Attractions Department of Local Government, Sport and Cultural Industries © State of Western Australia. All rights reserved.

A joint publication by the Department of Biodiversity, Conservation and Attractions and the Department of Local Government, Sport and Cultural Industries. This publication is current at August 2019.

Department of Biodiversity, Conservation and Attractions

17 Dick Perry Ave, Kensington WA 6151

Locked Bag 104, Bentley Delivery Centre WA 6983

Email: <u>enquiries@dbca.wa.gov.au</u> Website: <u>www.dbca.wa.gov.au</u>

Department of Local Government, Sport and Cultural Industries

Perth Office

Gordon Stephenson House 140 William Street, Perth WA 6000

Leederville Office 246 Vincent Street, Leederville WA 6007

GPO Box 8349, Perth Business Centre WA 6849

Email: <u>info@dlgsc.wa.gov.au</u> Website: <u>www.dlgsc.wa.gov.au</u>

This document is presented in four parts with each part available for download in PDF format from: <u>https://pws.dbca.wa.gov.au/management/trails</u>

Contents

| Foreword | D2 |
|---|-----|
| Appendix A: Trail Development Framework | D4 |
| Appendix B: Impact Evaluation Checklist | D9 |
| Appendix C: Concept Plan Outline | D17 |
| Appendix D: Detailed Design Outline | D17 |
| Appendix E: Trail Adoption Agreement | D19 |

Purpose of the document

The Trails Development Series is presented in four parts:

- Part A: A Guide to the Trail Development Process
- Part B: A Guide to Community Consultation
- Part C: A Guide to using Multi-Criteria Decision Analysis (MCDA)
- Part D: Checklists and Templates

This document is Part D in the series and provides examples of checklists, templates and explanatory notes to assist with completing the Trail Development Process. The Trails Development Series has drawn extensively on:

- Chapter 10 of the Western Australian Mountain Bike Management Guidelines (2018), developed by DBCA in collaboration with DLGSC, WestCycle and the Western Australian Mountain Bike Association;
- *Trail Development Protocol and Sustainability Framework for Western Australia*, developed by Dafydd Davis for DBCA and DLGSC; and
- A report developed for DLGSC by Curtin University's Centre for Sport and Recreation Research, Application of Multi-Criteria Decision Analysis for recreational trails decision making in Western Australia: Final technical report, by Middle, I., Hughes, M., Middle, G. and Ty, M., Centre for Sport and Recreation Research, Curtin University, Perth, April 2017.

Appendix A: Trail Development Framework

Note: a Word template for the *Trail Development Framework* can be downloaded from the following link: <u>https://pws.dbca.wa.gov.au/management/trails</u>

| Project Name | |
|-----------------------|---------------|
| Project Location | |
| Project Area | Plan Attached |
| Tenure | |
| | |
| Background | |
| Steering Group | |
| Objectives | |
| Meetings | |
| Management Model | |
| Scope and Scale | |
| User Types and Styles | |
| Trail System/Model | |
| Agreed Standards | |
| Funding | |
| Delivery | |
| Evaluation | |

(Based on work by D. Davis, 2010)

Stakeholder Approval

| Signature | |
|--------------|--|
| Name | |
| Organisation | |
| Date | |
| | |
| Signature | |
| Name | |
| Organisation | |
| | |
| Date | |
| Signature | |
| | |
| Name | |
| Organisation | |
| Date | |
| | |
| Signature | |
| Name | |
| Organisation | |
| Date | |

Explanatory Notes

,

The development of a framework for proposed trail developments will ensure clarity with all stakeholders working towards agreed objectives and outcomes, along with assisting and informing the trail planning, design, construction and management stages. The following notes have been provided as a general guide to the development of the framework.

| Item | Comment | | | | | |
|----------------|--|--|--|--|--|--|
| Location | Provide a description of the proposed location. | | | | | |
| Project Area | Provide details of the boundaries of the planning area for the proposed trails. | | | | | |
| Tenure | Provide details as to the land tenure, or mix of land tenures applicable to the project area. | | | | | |
| Background | Provide the background as how the project area has been identified and why it is being considered. Has it been identified in trail master planning? Is there community support/demand? Is it supported by land managers and local government? What is the rationale of the trail — why is it being proposed? | | | | | |
| Steering Group | Developing a framework can only be done through clear and formal consultation with all relevant stakeholders and partners. It is crucial that all key stakeholders and partners are identified, understand and support the planning, design and delivery process. | | | | | |
| | Provide a list the key agencies/groups and persons who will form the Steering Group, such as other government agencies, local government, local trail groups, recreation clubs, environment groups, etc. | | | | | |
| | If the project is of national significance, you may also wish to include relevant peak bodies, such as the Westcycle or the WA 4WD Association | | | | | |
| | Include contact details — phone and email as minimum. | | | | | |
| | Consider also listing interested stakeholders (in addition to the steering group) to keep informed on the trail development process. | | | | | |
| Meetings | Identify an indicative timeframe of how often and where the Steering Group will meet for the duration of the project. | | | | | |
| Objectives | Project objectives should define the overall aim and outcomes of the project, clearly setting out what the project is trying to achieve and why . | | | | | |
| | Objectives may include environmental, economic, social and/or community outcomes. | | | | | |
| | All objectives should be high-level and SMART — Specific, Measurable, Achievable, Realistic and Timely. | | | | | |

| Item | Comment |
|-----------------------|---|
| Management Model | To ensure long-term sustainability, it is essential to identify who is the t rail owner and trail operator . |
| | (The trail owner is the entity that owns the physical structure of the trail and manager of the land and carries the liability for the health and safety of all users. The operator is generally the entity that maintains the trail to the agreed standards of the owner. It can be the same organisation.) |
| | Who is the trail owner? Who is the trail operator? How will visitor use be monitored? Who will undertake the maintenance — owner, operator, volunteers? If the owner and operator are different, what instrument of agreement is to be used — trail adoption, MOU, etc? |
| Scope and Scale | The scope and scale clearly identify the significance and size of the project and are closely linked to achieving the project objectives. |
| | What is the proposed trail/networks level of significance — is a nationally, regionally or locally significant trail? What size is the project? How many kilometres of trail is planned? What infrastructure is required? Is the project development to be staged? What type of use is proposed — recreational and/or event? |
| User Types and Styles | It is essential to define the target users of the trails as part of the framework to ensure that they meet the needs and expectations of the intended users. |
| | What are the different types of users being targeted? What are the abilities of target users? Is universal access required e.g. wheelchair access on walk trails, or adaptive cycle access on mountain bike trails? What are the appropriate trail classifications for the targeted users? What are the different styles of activities that will take place on the trails (if appropriate) e.g. trail running on walking trails, cross country vs downhill for mountain bike trails? Is the trail single use or multi-use? |
| Trail System/Model | Outline the trail system being proposed. |
| | Is it linear or looped trail? If looped, is it a core trail, stacked loop, cloverleaf, or finger style? Is it single or dual direction? Is it a single trail or a network of trails? Is it part of a trail centre or trail town? |
| Agreed Standards | These standards must be agreed by the Steering Group and applied consistently to all aspects of: Design Planning Construction Maintenance. |

| ltem | Comment |
|----------------------|--|
| Funding | Outline how the project will be funded. For larger projects with multiple funding sources, it may be beneficial to outline the sources for the specific stages of trail development e.g. Site Assessments, Concept Plan, Corridor Evaluations, Design, Construction and Management. |
| Delivery | Confirming the way the project will be delivered requires the Steering Group to agree on the following key issues: Who will deliver the project? How will the project be delivered — internal staff or external contracts? Will stages (e.g. Site Assessments, Concept Plan, Corridor Evaluations, Design, Construction) be addressed separately? Will volunteers be involved? If so, how and at what stage? Who will manage the project? How will the project be managed? Who will take responsibility for delivering different aspects of the project? Will the project be staged? What are the proposed timelines? |
| Evaluation | Evaluation of the project is essential to find out if the project has met its objectives and to improve future trail developments. How is the Steering Group planning to evaluate the success of the project? Has the project met its planned objectives? Are the trails being used by the intended target market? Are then any unforeseen issues/impacts (environmental, economic or social)? |
| Stakeholder Approval | Document the Steering Group approval of completed and agreed framework. |

Appendix B: Impact Evaluation Checklist

Note: a Word template for the *Impact Evaluation Checklist* can be downloaded from the following link: <u>https://pws.dbca.wa.gov.au/management/trails</u>

| | | |
|------|---------|--|
| Land | Details | |
| | | |

Land Manager

Local Government Authority

Private property/Reserve Name and Location

Tenure and Primary Management Objective of Lands

B — Proposed Project

Purpose

Type and Extent of Proposed Project

Alternative Options Considered

Implications of Postponement or 'Do Nothing' Option

C — Impact Evaluation

Indicate with Y/N in **Acceptable** column if proposed work is acceptable or not with respect to the environmental/management issue listed. If it's not acceptable, consider acceptability of modified proposal in **Modified** column or the **Do Nothing** column. The Comments column is for detailing action/s required to overcome/ minimise adverse impact, or if no information is available to allow a decision.

| Issues | Acceptable | Modified | Do Nothing | Comments Indicate action required to overcome/minimise adverse impact, or if no information is available to allow a decision. |
|---|------------|----------|------------|---|
| 1. Management Considerations | | | | |
| 1.1 Does the area have a management plan or strategy? | | | | |
| 1.2 Does the proposal conflict with existing policy or management plan? | | | | |

| Issues | Acceptable | Modified | Do Nothing | Comments Indicate action required to overcome/minimise adverse impact, or if no information is available to allow a decision. |
|---|------------|----------|------------|---|
| 1.3 How will the proposal affect neighbouring landholders and, and community interests | | | | |
| 1.4 How will the proposal affect land management considerations e.g: | | | | |
| Fire management | | | | |
| Roads | | | | |
| Other recreation or tourism | | | | |
| 1.5 How will the proposal affect or be affected by existing or planned land use e.g: | | | | |
| Mining and exploration | | | | |
| • Basic Raw Material (gravel, rock and borrow pits) | | | | |
| Forestry | | | | |
| Utility lines | | | | |
| Water catchment | | | | |
| Commercial activities (e.g. apiarist) | | | | |
| 1.6 How will the proposal affect or be affected by neighbouring land use? | | | | |
| 1.7 Are there any research plots, scientific study areas and reference sites in the proposed area? | | | | |
| 2. Plant Disease, Ferals, and Weeds | | | | |
| 2.1 Diseases (e.g. dieback, Armillaria, cankers etc) | | | | |
| 2.2 Will area require baiting buffers? | | | | |
| 2.3 Declared weeds, or other environmental weeds | | | | |
| 3. Flora, Fauna and Ecosystems | | | | |
| 3.1 Declared rare flora or priority species, threatened communities or restricted, unusual or poorly reserved vegetation associations | | | | |
| 3.2 Declared rare or endangered fauna, translocation programs, release sites or restricted habitats. | | | | |
| 3.3 Diverse ecosystem zones including rivers, streams, swamps, lakes, gorges, rock outcrops etc. | | | | |
| 3.4 Fauna habitat zones | | | | |
| 3.5 Old-growth forest | | | | |
| 4. Cultural Heritage | | | | |
| 4.1 Registered Aboriginal sites | | | | |

.

.

•••• •••• • •

.....

Trails Development Series | Part D Checklists and Templates

| Issues | Acceptable | Modified | Do Nothing | Comments Indicate action required to overcome/minimise adverse impact, or if no information is available to allow a decision. |
|--|------------|----------|------------|---|
| 4.2 Is the area subject to a native title claim? Has DAA or the Aboriginal Land and Sea Council been advised? Have Working Party members been consulted? | | | | |
| 4.3 Does the area adjoin or contain any places on the following lists: | | | | |
| Register of the National Estate | | | | |
| Register of Heritage Places | | | | |
| Municipal inventory for the local council | | | | |
| Land manager heritage database | | | | |
| 5. Recreation and Access | | | | |
| 5.1 How will the area be accessed? | | | | |
| 5.2 Is there a potential conflict with existing recreation use, events and/or commercial tour operators? | | | | |
| 5.3 How will visitor safety be managed? | | | | |
| 5.4 Landscapes, features, wilderness appreciation. | | | | |
| 5.5 Increased demand for facilities and service (rubbish disposal, toilets etc) | | | | |
| 6. Geology, Landform and Soils | | | | |
| 6.1 Caves, fossils, or dunes | | | | |
| 6.2 Soil erosion (water or wind) | | | | |
| 6.3 Soil mixing or soil compaction | | | | |
| 6.4 Soil compatibility | | | | |
| 7. Hydrology | | | | |
| 7.1 Stream or impoundment sedimentation | | | | |
| 7.2 Altered run-off, impeded drainage or water logging | | | | |
| 8. Monitoring | | | | |
| 8.1 How and when will the effects of the proposed operation be monitored? | | | | |
| 8.2 Who is responsible for completing the monitoring? | | | | |
| 8.3 Have resources been made available for monitoring? | | | | |
| 8.4 Who will be provided with the monitoring results, and what is expected to happen with the results? | | | | |

D — Level of Approval Required

E — Proponent/s

,

| Signature | Date | |
|---------------|------|--|
| Name/Position | | |
| Signature | Date | |
| Name/Position | | |

F — Endorsements/Approvals

| Comments | | |
|----------------------------|------|--|
| Signature | Date | |
| Name/Position | | |
| APPROVED / NOT APPROVED | Date | |

Explanatory Notes

| Item | Comment |
|--|--|
| Section A — Land Details | |
| Land Manager: | Identify who the land manager is. |
| LGA: | Identify the Local Government Authority in which the Park/Reserve is located. This will be important in determining whom to contact regarding "Municipal Inventory" information if not the same as the land manager. |
| Park/Reserve Name and Location: | Identify the gazetted name of the Park/Reserve and any additional information regarding the locality or block name that may be relevant, and provide a map with the checklist. Identify the project area boundary. |
| Primary Management Objective of the Park/Reserve: | Clearly identify the primary management objective of the Park/Reserve, and include the identification of any proposed zoning classification that is applied to the Park/Reserve. |

| Item | Comment |
|--|---|
| Section B — Proposed Works | |
| Purpose: | Provide a clear description of the purpose of the work proposed for evaluation. |
| | The proposed project must be broken down into its component parts, and the location and extent of each of these parts quantified in detail. The proposed location of the project should be mapped at a scale that enables it to be effectively assessed. |
| Alternative Options Considered: | Briefly outline the other options that were considered, and provide a short justification as to why they were not preferred. |
| Implications of postponement or 'Do Nothing' option: | Briefly outline the implications of delaying the completion of the proposed work or of doing nothing. |
| Section C — Impact Evaluation | |
| 1. Management Considerations | |
| 1.1 Does the area have a management plan strategy or master plan? | Outline the management documents available for the area. |
| 1.2 Does the proposal align with existing policy or management plan? | Describe how the proposed project aligns with any existing management documents. |
| 1.3 How will the proposal affect neighbouring landholders and, and community interests | Will the proposed project affect neighbouring landholders? Is the proposal likely to adversely affect local community interests? How will this be managed? |
| 1.4 How will the proposal affect land management considerations e.g: | |
| Fire management | Consider how the proposed project may affect prescribed burning activities or bush fire management (additional firebreaks, recreation site protection during prescribed burning, review prescribed burn plan etc) |
| Roads | Review the proposed project against strategic roads (existing and future) for potential changes required or conflicts. |
| Other recreation or tourism | Review the proposed project against existing recreation and tourism activities in the area for conflicts and opportunities (e.g. shared facilities). |
| 1.5 How will the proposal affect or be affected by existing or planned land use e.g: | |
| Mining and exploration | Identify weather there are any mining operations that are likely to impact on the Park/Reserve in the future. |
| Basic Raw Material (BRM) e.g. gravel, rock and borrow pits | Identify the quantities of BRM required. Where will this be obtained from and any ongoing commitments from the Park/Reserve. How will BRM extraction areas be rehabilitated? |
| Forestry | Identify whether the area is leased to any forestry organisations or companies. How will consultation with forestry organisation/companies be undertaken? How will the proposed project be managed around harvesting operations? |

| Item | Comment |
|---|--|
| Utility lines | Identify any public utilities within the proposed project areas and whether these will be affected by the project. |
| Water catchment/public drinking water source areas (PDSWA) | Identify whether or not the proposed project is within water catchment or PDWSA. Does the proposal conform to any existing or proposed management plans or policy? e.g. Operational Policy 13 — Recreation within Public Drinking Water Source Areas on Crown land. |
| Commercial activities (e.g. apiarist) | Identify if the proposed project may affect any approved commercial activity on the Park/Reserve. |
| 1.6 How will the proposal affect or be affected by neighbouring land use? | Identify neighbouring land use that is likely to affect the proposal, or where the proposed project is likely to affect the neighbouring land use. |
| 1.7 Are there any research plots, scientific study areas and reference sites in the proposed area? | Identify whether there are any research plots, scientific study or reference sites that may be affected by the proposed project. |
| 2. Plant Disease, Ferals and Pests, Weed | S |
| 2.1 Diseases (e.g. dieback, <i>Armillaria</i> , cankers etc) | If no dieback report is available for the area, complete a survey and develop a hygiene management plan. |
| | Identify the presence of <i>Armillaria</i> and provide proposed operational strategies to manage this. |
| | Identify whether the native vegetation in the area exhibits symptoms of cankers. |
| 2.2 Will area require baiting buffers? | Identify whether the area will require a buffer for 1080 baiting. |
| 2.3 Declared weeds, or other environmental weeds | Are there known infestations of weeds in the Park/Reserve? Identify if the proposed project may cause introduction or spread of weeds. What will be the management costs? |
| 3. Flora, Fauna and Ecosystems | |
| 3.1 Declared Rare Flora (DRF) or priority species, threatened communities or restricted, unusual or poorly reserved vegetation associations | State the presence of DRF, priority species, threatened or priority ecological community on the Park/Reserve. |
| 3.2 Declared rare or endangered fauna, translocation programs, release sites or restricted habitats. | State the presence of rare and endangered species in the Park/Reserve. Comment on any translocation programs, release sites or restricted habitats if identified. |
| 3.3 Diverse ecosystem zones including rivers, streams, swamps, lakes, gorges, rock outcrops etc. | Comment on the degree to which the natural vegetation is intact. |
| 3.4 Fauna habitat zones | State the presence of any fauna habitat zones within the proposed project area. |
| 3.5 Old-growth forest | State whether the proposed project will impact on any areas of old-growth forest. Higher level approval may be required. |

· • • • • • • • • • •

;

| Item | Comment |
|--|--|
| 4. Cultural Heritage | |
| 4.1 Registered Aboriginal sites | Report on known Aboriginal sites located within the proposed project area. Is further surveys or consultation required. |
| 4.2 Is the area subject to a native title claim? Has DAA or the Aboriginal Land and Sea Council been advised? Have Working Party members been consulted? | State whether DAA, or the appropriate ALSC has been advised and what the outcome of this is. State when advice or consultation with the Working Party members will occur. |
| 4.3 Does the area adjoin or contain any places on the following lists: | |
| Register of the National Estate | Check the register and report on any sites that are within or adjoining the proposed project area. Comment on whether the proposed project will impact on any sites. |
| WA Register of Heritage Places | Check the register and report on any sites that are within or adjoining the proposed project area. Comment on whether the proposed project will impact on any sites. |
| Municipal inventory for the local council | Check the inventory and report on any sites that are within or adjoining the proposed project area. Comment on whether the proposed project will impact on any sites. |
| Land manager heritage database | The land manager may have a database that lists identified cultural heritage places for the proposed project area. |
| 5. Recreation and Access | |
| 5.1 How will the area be accessed? | Identify access routes and entry/egress areas for the proposed project area and activity. Identify any existing access that requires closure or management. Differentiate between access for the public and access for maintenance. |
| 5.2 Is there a potential conflict with existing recreation use, events and/or commercial tour operators? | Identify any existing recreation, events and/or commercial tour operators within the proposed project area. Will the proposed project conflict with this? How will any potential conflict be managed? |
| 5.3 How will visitor safety be managed? | Assess potential visitor risks and identify how visitor safety will be managed. |
| 5.4 Landscapes, features, wilderness appreciation. | Identify whether the proposed project will impact on important scenic areas, and how this can be managed through any future planning and/or construction works. |
| 5.5 Increased demand for facilities and service (rubbish disposal, toilets etc) | How will increased usage be managed? Roading or trail wear/tear, rubbish removal, toilet maintenance, vandalism etc. |
| 6. Geology, Landform and Soils | |
| 6.1 Caves, fossils, or dunes | Assess and identify areas that are sensitive to disturbance and may be affected by the proposed project now or in the future. |
| 6.2 Soil erosion (water or wind) | Assess and identify appropriate trail design and construction techniques and standards to minimise soil erosion. |
| 6.3 Soil mixing or soil compaction | Assess and identify appropriate trail design, construction techniques and standards to minimise soil profile damage. |

| Item | Comment | | | | |
|---|---|--|--|--|--|
| 6.4 Soil compatibility | Is the soil type compatible with the proposed project? What management strategies will be in place e.g. surfacing, armouring etc? | | | | |
| 7. Hydrology | | | | | |
| 7.1 Stream or impoundment sedimentation | Identify whether the proposed project is likely to affect water quality in the rivers and streams or where there is the potential to affect a catchment. This may include major dams, or dams used by neighbouring landholders. | | | | |
| 7.2 Altered run-off, impeded drainage or water logging | Assess and identify areas that may be affected by a changed water flow regime. | | | | |
| 8. Monitoring | | | | | |
| 8.1 How and when will the effects of the proposed project be monitored? | Provide a task list for monitoring the proposed project. | | | | |
| 8.2 Who is responsible for completing the monitoring? | Detail the person or organisation responsible for the monitoring of the proposed project. | | | | |
| 8.3 Have resources been made available for monitoring? | Detail the commitment and resources that have been made available for the life of the monitoring period. | | | | |
| 8.4 Who will be provided with the monitoring results, and what is expected to happen with the results? | Identify who will receive the reports and what is expected to happen as a result of monitoring. This may include review of procedures, cessation of the project, rehabilitation etc. | | | | |
| Section D — Level of Approval Required | | | | | |
| The person who prepared the Impact Evaluation should seek guidance from the land manager regarding level of | | | | | |

The person who prepared the Impact Evaluation should seek guidance from the land manager regarding level of approval required.

Section E — Proposer

The person who prepared the Impact Evaluation should sign the document.

Section F — Endorsement/Approval

;

The "Impact Evaluation Checklist" should signed by the land manager at the appropriate approval level (Section D above).

Appendix C: Concept Plan Outline

Suggested minimum content

- 1. Project Area Overview/Summary:
 - Description of project area
 - Project objectives
 - Scope and scale
 - Opportunities and Constraints within project area (based on site assessments, e.g. access, vegetation, soils, topography, environmental constraints, interpretative opportunities)
 - Proposed target market and user types
 - Proposed trail system.

Note: much of the above should be available from the agreed framework.

- 2. Trail Network Concept Description:
 - Plan of overall trail network concept (indicative alignment based on ~25–50m wide trail corridors)

- Individual trail summaries (including but not limited to; trail description, length, gradient, classification, type, style, recommended technical trail features (TTF) and filters, recommended construction method and materials, etc)
- Proposed infrastructure requirements and locations (including but not limited to carparks, toilets, facility capacities, etc)
- Sign plan (including but not limited to; proposed location for major and minor trailheads, interpretative opportunities, etc).
- 3. Proposed Development Process:
 - Proposed development staging, priority and construction sequencing
 - Trail construction estimates and estimated Bill of Quantities.

Appendix D: Detailed Design Outline

Written Specification

(suggested content)

Trail network summary, including (but not limited to):

- Project background
- Project site summary
- Breakdown of trail types, styles and classifications
- Topographic plan of all individual trail alignments (GPS alignments).

Individual trail summaries

A trail summary should be provided for each individual trail and include (but not limited to):

- Individual trail classification
- Individual trail type and style
- Identified direction and purpose (e.g. ascend/ descending, single/dual-purpose/multi-purpose)
- Distance

- Breakdown of existing, upgrade or new trail construction required
- Individual topographic plan for each individual trail, including GPS trail alignment
- If upgrading existing trail alignments, redundant trail requiring rehabilitation
- Individual trail assessment, including (but not limited to) the following:
 - Assessment of natural features, soil type and geology, including any vegetation disturbance/removal, any required trail tread treatments (e.g. surfacing, armouring, etc) and treatment specification (e.g. start/ finish, dimensions (length x width x depth), materials requirements, etc)
 - Assessment of gradients (trail and side slope), proposed drainage features, position and specification

- Any constructed trail tread or elements (e.g. switchbacks, climbing turns, demarcation, etc) and specification
- Any natural or constructed technical trail features (TTF) and specification (e.g. type of feature, dimensions (length x width x depth), construction materials, fall zone dimensions and treatments, etc)
- Proposed trail element or feature construction material source (e.g. type of material, local or imported, etc)
- Proposed filters and decision pointsConstruction access points.

Recommended trail construction techniques, including:

- Vegetation clearing techniques, clearances, disposal and equipment requirements
- Specifications of required machinery for trail construction.

Detailed drawings/specifications/ construction notes for any proposed:

- Trail tread treatments
- Drainage features
- Constructed trail elements
- Constructed TTFs.

Summary of required materials and quantities for trail construction, itemised by individual trail.

Note: The completed detailed design should allow construction stages to be separated into individual trails as/if required.

Field Outputs

(suggested minimum requirements)

Trail centrelines flagged in the field at specified intervals (suggested 5–10 metres) and include marked chainage.

In addition to the centreline/chainage flagging, the following points should be identified in the field, and linked with the written specification above:

- Changes in any trail tread treatments (e.g. use of onsite vs imported materials, changes from insloped to outsloped trail, etc)
- Locations of trail drainage features (e.g. grade reversals, drains, etc)
- Location of constructed trail elements (e.g. anchors, armouring, corrals, etc)
- Location of constructed technical trail features (TTF) (e.g. berms, tabletops, rollers, etc).

Sample Trail/Network Detailed Design

Note: a Word template for the *Trail/Network Detailed Design* can be downloaded from the following link: <u>https://pws.dbca.wa.gov.au/management/trails</u>



<insert name> Trail Network Summary

Project Background

<insert project background>

.....

Site Summary

;

,

<insert summary/description of project site>

Breakdown of Trails

<insert trail breakdown - types, styles, classification, length>

General Construction Standards

<insert any general construction standards relative to all trails within the network>

<insert name> Trail Network map

<insert map of trail network showing Trail 1, Trail 2, etc, as required>

Note: Please give the map a separate page.

Trail 1 Design

Trail Description

<insert summary description of the trail

Trail Details

- Trail Classification -
- Trail Length —
- Trail Type <XC, DH AM, etc>
- Trail Style <technical, flow or other>
- Trail Purpose <ascending/descending, single/dual/multi purpose>
- Trail Direction <single or dual>
- Site Gradient (side slope) —
- Trail Gradient —
- Trail Fall/Gain —
- In Situ Soil Type/s -
- Natural features –
- Construction Footprint Width —
- Finished Trail Tread Width -

Trail Technical and Drainage Features

<insert list of technical trail features and drainage features, proposed trail filter (MTB trails), >

Trail Construction Standards

<insert and specific construction and finishing standards, including vegetation clearing and disposal, fall zone dimensions and treatments, recommended machinery and equipment>

Construction Materials

<insert summary of materials - type, quantity, source (local or imported), etc>

Trail 1 Map

۱.

;

. ;

,

.....

<insert detailed map of the trail alignment, with filters, technical features and drainage marked and labelled to match Construction Table items on next page>

<identify machinery access where required>

1. Construction drawings are required for any constructed feature.

Trail 1 Construction Table

Note: this table can be in landscape format if required.

| | Ê | | Feature Dimensions | | | | | |
|------|--------------|------------------------------|--------------------|----------------|---------------|--------------|-----------------------|------------------------------------|
| ltem | Chainage (m) | Feature Type ¹ | Length (mm) | Height (mm) | Width (mm) | In-Soil Type | Required Materials | Construction Notes |
| 1 | 005 | Tabletop (filter) | 2,500 | 800 | 600 | Gravel | In situ soil | To be constructed with 1:1 batters |
| 2 | 015 | Drain/Grade reversal | | | | Gravel | N/A | Trail tread to be free draining |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

<copy and insert additional Trail Design/Map/Construction Table pages as required>

Technical Feature Specifications/Drawings

•••••

;

<insert drawings, specifications and construction notes for required features>

| Feature Image | Feature Description |
|---|---|
| | Trail Corridor Specification — |
| | A — Finished Trail Tread — 600mm B — Vegetation clearing width — 900mm C — Vertical clearance — 2,200mm |
| | Tabletop |
| | |
| <insert additional="" as="" features="" required=""></insert> | |
| | |
| | |
| | |

Appendix E: Sample Trail Adoption Agreement

Note: a Word template for the *Trail Adoption Agreement* can be downloaded from the following link: <u>https://pws.dbca.wa.gov.au/management/trails</u>



1. Introduction

;

;

.....

This Trail Adoption Agreement is a document to formalise a partnership between <name of trail group> and the <trail manager>.

2. Name and Location of Adoption

| Name and Location of | Name and Location of Adoption | | | | | |
|-----------------------|-------------------------------|--|--|--|--|--|
| Adoption Name | | | | | | |
| Group Name | | | | | | |
| District | | | | | | |
| Volunteer Project No. | | | | | | |
| Reserve Name(s) | | | | | | |
| Land Tenure(s) | | | | | | |

(See Attachment 1 for a detailed map of the trail(s)).

3. Term

| Term | |
|-------------|---------|
| Start date | |
| Term | X years |
| Finish Date | |

4. Contact Details

| Club/Group | | | |
|--------------|--------|-------|--|
| Organisation | | | |
| Contact/s | | | |
| Position | | | |
| Phone | Mobile | Email | |

| Trail Manager | | | |
|---------------|--------|-------|--|
| Trail Manager | | | |
| Contact/s | | | |
| Position | | | |
| Phone | Mobile | Email | |

5. Adoption Objectives

- Define the roles and responsibilities of each party
- Foster the highest levels of cooperation between <Trail Manager> and <group> to ensure the sustainable management of <insert name> trail(s)
- Maintain and improve the <insert name> trail(s), to standards agreed and required by <Trail Manager> and other relevant authorities, with regard to:
 - User health and safety
 - Environmental protection
 - Promotion of the activity and user satisfaction
 - Shared use (where applicable).
- Promote the partnership between <Trail Manager> and <group>
- Promote an active lifestyle and an appreciation of the natural environment
- Reduce the incidence of unsanctioned/unauthorised trail building.
- <insert any extra objectives>

6. Communication and Reporting

<Trail Manager> will:

- Nominate a specific staff member to be the 'Adoption Liaison Officer' between <Trail Manager> and the <group>
- Ensure agreed maintenance works are approved and included in the local works schedule
- Approve the group's maintenance plan or provide feedback within a reasonable timeframe
- Establish and maintain two-way communications and ensure that the <group> are advised of any changes that are likely to impact on the adoption activities
- Provide maintenance standards, technical advice, guidance and inspection as may be required during the adoption
- Promote the work of the <group> in <Trail Manager> publications, visitor information and interpretive materials, media press releases and through the <Trail Manager> website as appropriate.
- <insert further agreed communication and reporting standards/conditions as required>

<group> will:

- Nominate a member to be the 'Adoption Liaison Officer' between <Trail Manager> and the <group>.
- Complete all necessary documentation and obtain approval from the <Trail Manager> 'Adoption Liaison Officer' prior to implementation of any works on <Trail Manager>-managed lands.
- Provide the <Trail Manager> 'Adoption Liaison Officer' with a maintenance plan for approval before the beginning of each maintenance season
- Advise the <Trail Manager> 'Adoption Liaison Officer' or their nominated representative 14 days in advance of any planned trail maintenance
- Provide a report to <Trail Manager> 'Adoption Liaison Officer' at the end of each period of works.
- Notify the <Trail Manager> 'Adoption Liaison Officer' of any incidents or complaints received from general members of the public
- Encourage safe and courteous public use; actively promote Leave No Trace minimal impact use of <Trail Manager>-managed land
- Serve as ambassadors for the <group> and encourage cooperation with all other recreation groups and users

- Promote sustainable trail development and use.
- <insert further agreed communication and reporting standards/conditions as required>

Both parties will:

- Ensure all communication will be between the nominated 'Adoption Liaison Officers' provided in Section 4
- Work together to develop an annual maintenance plan, seek funding and facilitate the works on <insert name> trail(s)
- Notify the other party should their 'Adoption Liaison Officer' be unavailable for more than two weeks, and provide the other party with interim contact details.
- Ensure the nominated representatives (Section 4) will meet at least four (4) times per year to plan and review agreed maintenance and improvement works.
- The dispute resolution: Any disputes that arise will be dealt with constructively and in the spirit of this Agreement. If the dispute cannot be resolved at a local level within 14 days then it shall be referred to the respective Chair/President of the <group> and the relevant <Trail Manager> for resolution.
- In the unlikely event that a dispute cannot be resolved, then any of the affected parties may withdraw from the Adoption Agreement in writing
- Review their Adoption agreement prior to its completion.
- <insert further agreed communication and reporting structure as required>

7. Health and Safety

<Trail Manager> will:

- Provide departmental volunteer orientation and safety induction to the <Group> and its members that reflect the nature of the volunteer activities prior to any works commencing
- Provide appropriate policy, guidelines, regulations and forms pertaining to volunteering on <Trail Manager>-managed lands.
- <insert any further Health and Safety standards/conditions>

<Group> will:

- Ensure all volunteers have read and adhere to the <Trail Manager> code of conduct
- Carry out only agreed works as documented in accordance with the Adoption Agreement and associated plans
- Immediately notify the relevant <Trail Manager> 'Adoption Liaison Officer' or their nominated representative of any injuries, accidents or near misses that occur during any maintenance work
- Abide by all safety inductions and directions as part of the adoption. Volunteer workers are covered by the *Occupational Safety and Health Act 1984* and the *Occupational Safety and Health Regulations 1996*
- Abide by any special conditions, terms, policies or regulations that have been set by the <Trail Manager> for the adoption (e.g. emergency closures, trail or area closures — dieback risk, fires, floods etc) and operational hazards (harvesting, prescribed burning etc)
- Encourage all volunteers to have formalised first aid training and carry a comprehensive first aid kit.
- <insert any further Health and Safety standards/conditions>

8. General Conditions

<Trail Manager> will:

- Provide a list of approved maintenance works the trail group can undertake without approval
- Provide maintenance standards.

<Group> will:

- Not undertake any unapproved trail work
- Not expect financial reimbursement for expenses occurred during trail maintenance work
- Not attempt to enforce any laws while on <Trail Manager>-managed lands, unless duly authorised. However may report details on perceived incidents.

All parties will:

- Adhere to the relevant trail standards
- Where appropriate jointly seek funding for project resources and training opportunities
- Follow the agreed <Trail Manager> Incident or Risk Management procedures. (Attachment X) (<Trail Manager> to provide)
- Bear their own costs of administration and management of activities undertaken in support of the Adoption Agreement, but may identify and implement those projects that the parties have agreed to jointly fund
- Agree that the adoptee will not have exclusive use of any land or facility and will not represent themselves as an agent of Parks and Wildlife or in any way purport to act on or behalf of the department.

Endorsement

This agreement is endorsed by the President of the <insert group name> and the <Trail Manager> Officer overseeing the adoption.

<insert Organisation name> President of the <group> <insert name> <insert role>, <Trail Manager>

Date: _____

Date: _____

Trail Map: <insert name> trail(s)

.....

<insert map>

;

Note: Please give the map a separate page.

Attachment 4: Maintenance schedule

Sample Trail Maintenance Inspection Schedule

| Maintenance | | Frequency | | | | Notes | W | ho? |
|---|---------|-----------|----------|-------------|-------------|--|---------------|----------------|
| | Monthly | Quarterly | Annually | After storm | Other | | Trail Manager | Trail Operator |
| Infrastructure | | | | | | | | |
| Car park | | | | | | | | |
| Road surface and drainage | | | ~ | | | Is the road free from drainage problems e.g. pot holes? | ~ | |
| • Signage | | | ~ | | | Is the signage in good condition? | ✓ | ~ |
| General rubbish removal | | | | | As required | Is there litter in the area? | ✓ | ✓ |
| Toilet | | | | | | | | |
| • Is it in good working order? | | ~ | | | | Does the toilet require pumping? If applicable — does flush work? | ~ | ~ |
| Check paper supply | ~ | | | | | Is paper supplied? | ✓ | ✓ |
| Inspect condition of structure | | ~ | | | | Is the structure free from damage? | ~ | ~ |
| Trail head sign | | | | | | | | |
| Inspect condition | | | ~ | | | Is the structure sound? Is the sign in good condition? | ~ | ~ |
| Check notices/maps | ~ | | | | | Are trail notices up to date? Is the map accurate? | ~ | ~ |
| Picnic tables/shelter | | | | | | | | |
| Inspect condition | | | ~ | | | Is the structure sound? Is oiling or painting required? | ~ | |
| Roads (e.g. shuttle or connector roads) | | | | | | | | |
| Road surface and drainage | | | ✓ | ~ | | Is the road free from drainage problems e.g. pot holes? Does the road require grading? | ~ | |
| Other (list as appropriate) | | | | | | | | |

| Maintenance | | Fr | equer | ncy | | Notes | | Who? | |
|-----------------------------------|---------|-----------|----------|-------------|-------|--|---------------|----------------|--|
| | Monthly | Quarterly | Annually | After storm | Other | | Trail Manager | Trail Operator | |
| Trail | | | | | | | | | |
| Signage | | | | | | | | | |
| Inspect condition and location | | | ~ | | | Are the signs in good condition? Are the markers appropriate to the trail classification? Are the signs coherent at intersections? | | ~ | |
| Tread | | | | | | | | | |
| Surface | | | ~ | | | Are there signs of erosion? Is water pooling on the tread? Is there debris to remove? Is extra drainage required? | | ~ | |
| Drainage | | | | | | | | | |
| Check condition of drains | | ~ | | ~ | | Are drains full of leaf litter or silt? Are culverts clogged? | | ~ | |
| Technical Trail Features | | | | | | | | | |
| Inspect condition | | ~ | | | | Is the feature structurally stable? Is it maintained to original specifications? Have alternative lines been created? | | ~ | |
| Fall zones | | ~ | | | | Are fall zones clear of hazards e.g. sharp rocks or logs? | | ~ | |
| Vegetation overgrown? | | | | | | | | | |
| Check sight lines | | | ~ | | | Does vegetation need to be cleared from trail corridor to maintain sightlines? | | ~ | |
| Check intersections | | | ~ | | | Are intersections and signage visible? | | ~ | |
| Check trail corridor and overhead | | | ~ | | | Is the trail corridor clear of vegetation appropriate to its classification? | | ~ | |
| Check signs | | ~ | | | | Is signage visible? | ~ | | |





Department of Biodiversity, Conservation and Attractions

ISBN: 978-1-921648-61-8