



Guidelines for the preparation of Vegetation Management Plans (VMPs)

Port Macquarie-Hastings Council (2023)



Mortons Creek - photo by PMHC Biosecurity Officer Weeds



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Review and revision

From time to time this document will be revised to ensure it stays current and reflects stakeholder feedback.

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1. What is a Vegetation Management Plan?

A Vegetation Management Plan (VMP) is intended to assist a property owner or developer in managing existing native vegetation and other environmentally sensitive areas on the site of a proposed or existing development (the 'subject site').

A VMP may also describe actions to be undertaken elsewhere than the development site in the case where suitable compensatory or ameliorative measures cannot be performed on site.

The purpose of a VMP is to develop a comprehensive and integrated approach to guide the immediate and long-term management of native vegetation on the subject or other nominated sites and to ensure their protection and enhancement.

Implementation of a VMP supports ongoing sustainable management of native vegetation and ensures that land clearing and land modification activities associated with a development are effectively ameliorated.

2. When is a Vegetation Management Plan required?

A VMP is generally required for proposed developments situated on sites which contain native vegetation of high conservation value or where the occurrence of environmentally sensitive areas on the subject site leads to significant environmental constraints. There are two main cases where a VMP may be required by Council:

Case 1

This case applies to proposed developments or subdivisions that are on or adjacent to sites that support or contain:

- Remnant native vegetation (including scattered remnant trees)
- Threatened native flora and fauna species, endangered ecological communities or their habitats



- Permanent or ephemeral watercourses
- Threats to native flora and fauna such as weeds described in the relevant regional Strategic Weed Management Plan or determined by Council's Biosecurity Officer as requiring control.

Case 2

This situation applies following unauthorised clearing of native vegetation without relevant approval (or where that approval is pending) and where damage to native vegetation has occurred on a subject site as a result of poor site management.

It is important to note that a VMP is linked to the subject site and applies to that specific site for the life of the proposed development. To ensure protection and appropriate management of vegetation on the subject site prior to works commencing, during construction and following the completion of works, the recommendations included within the VMP may be incorporated by Council into the conditions of consent for a Development Application. Such recommendations may also be subject to a restriction of the land use or positive covenant under Section 88B or 88E respectively of the Conveyancing Act, 1919.





3. Who can prepare a Vegetation Management Plan?

A VMP must be prepared by an environmental consultant or bush regenerator with theoretical and practical experience in native vegetation restoration and management as well as in the control of weeds. In addition, the person preparing the plan would also have substantial experience and knowledge relevant to the Port Macquarie-Hastings Local Government Area.

As a guide, an environmental consultant would need to hold relevant tertiary qualifications in ecology, environmental management or a related discipline as well as considerable experience in the preparation of VMPs.

A bush regenerator would need to hold Conservation and Land Management (Natural Area Restoration and Management) Certificate III or equivalent, a minimum of 1000 hours bush regeneration experience and preferably hold a higher qualification in ecology, environmental management or associated field.

4. Who can implement a Vegetation Management Plan?

Owing to the complexity of the regeneration/revegetation activities to be undertaken, the environmental sensitivity of the site or the necessity for works to be completed within a restricted time frame, Council may require that suitably qualified personnel with relevant specialist skills be engaged to implement the VMP. Details of the experience and qualifications of those implementing the VMP would need to be provided to - and verified by - Council.

As a guide for implementing a VMP, those employed as bush regenerators would require a minimum of the Conservation and Land Management (Natural Area Restoration and Management) Certificate II, plus a minimum of 500 hours of practical bushland regeneration experience under an experienced supervisor. Any works undertaken in High Environmental Value (HEV) land must be undertaken by a bush regenerator with a minimum of the Conservation and Land Management (Natural Area Restoration and Management) Certificate III and any works undertaken in EEC and/or significant riparian zones must be undertaken by an AABR accredited bush regenerator.



Supervisors would be required to have a minimum of the Conservation and Land Management (Natural Area Restoration and Management) Certificate III, plus a minimum of 700 hours of practical bush regeneration experience, significant supervisory experience and preferably a relevant higher environmental qualification.

All workers engaged in chemical weed control would be expected to have attained a minimum of AQF Level 3 chemical safety training.

It is not always a requirement for persons involved in the implementation of a VMP project, to hold bushland regeneration qualifications and experience. It is often appropriate for the individual landholder to undertake the works themselves, particularly when a plan establishes a strategy that runs over the course of several years. Determinations (to be made by Council) can be made on a case-by-case basis in consultation with the property owner or developer.





5. What is the structure and content of a Vegetation Management Plan?

The information included in a VMP should be presented in manageable sections that have a logical flow from one section to the next. The content of the plan needs to be concise, yet detailed enough to communicate all aspects of the plan to those people who will be implementing the plan and those who will be reviewing and approving the VMP's implementation. In order to improve readability, it is recommended that technical information (e.g. proposed weed control techniques or product specifications) is presented in detail in appendices.

Whilst all VMPs are assessed by Council based on individual site-specific requirements, a VMP must address the following items, where applicable:

1. A full site description of the current state (e.g. flora and fauna, hydrology, soils, historical use)
2. Identify links to relevant legislation, other plans and documents
3. Identify proposed Environmental Management Units (EMUs) within the subject site. EMU's are spatial areas delineated along logical features, such as roads, streams, property boundaries or obvious changes in vegetation composition
4. Determine aims, quantifiable objectives and activities that meet objectives and the performance criteria of the plan
5. Prepare a project work plan, schedule and budget
6. Define monitoring and reporting periods and methods for all the proposed Environmental Management Units
7. Type, number and location of Nesting Boxes (if applicable)
8. Fire History mapped and Ecological Burning requirements identified (for bushland areas >1ha)
9. Any Asset Protection Zones (APZs) and their management requirements
10. Inclusion of management recommendations from any previous ecological assessments
11. MAPPING OF ENVIRONMENTAL MANAGEMENT UNITS - The applicant is to submit a geo-referenced file of environmental lands (GIS shape file, KML/KMZ or AutoCAD DXF/DWG) specific to the site
12. DEDICATION AND VOLUNTARY PLANNING AGREEMENTS - Where the environmental land is to be dedicated to Council, the timing of dedication in relation to rehabilitation stages and development construction is to be stated



The minimum structure and content requirements for a VMP and explanatory notes for each section are provided below. The information is presented as a checklist to assist in the preparation of a VMP and to provide an indication of how the VMP will be evaluated by council.

1.0	Site description	Completed
1.1	Give a brief overview of the proposed development, including a map with the latest imagery (facing north with a scale).	
1.2	Identify the location and extent of the site of the proposed development (subject site) to be covered by the VMP and any adjacent areas that are - or may be - relevant to the plan e.g. occupied Hollow Bearing Trees (HBTs) in nearby road reserve. Include DA number, Lot & DP, Area of total site (Ha).	
1.3	Identify the Local Environment Plan zoning(s) of the subject site and adjacent areas (the LEP is available from the NSW Government Legislation website).	
1.4	Describe the type, extent and current condition# of existing vegetation on the subject site. Describe the broader existing vegetation of the catchment and the landscape in general. Include all vegetation communities, plant community types (PCTs), scattered trees, weeds, watercourses, drainage lines and rocky outcrops.	
1.5	Detail any environmental constraints and any significant or sensitive environmental features of the subject site. Include threatened species identified on site, threatened ecological communities (TECs) and any associated buffers (e.g. coastal wetland proximity areas, HEV.) To establish the required qualification/s that a bush regenerator contractor must possess to work on certain sensitive environmental lands refer to <u>4. Who can implement a Vegetation Management Plan? (pg. 6)</u>	
1.6	Identify and describe any issues and threats to vegetation on or adjacent to the site that are likely to influence ongoing management. Examples include; <ul style="list-style-type: none"> • Development works proposed to be undertaken on site and the impact that this will have on the local environment (total number of trees to be 	



	removed/retained, hollow bearing trees (HBTs) to be removed/retained, area of impact etc.) <ul style="list-style-type: none"> • Potential impacts from adjacent development (e.g. erosion, machinery, sedimentation) • Pest animals or livestock • Fire protection and management of bushfire asset protection zones (APZs) 	
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*The 'current' condition of the site should be detailed within a statement describing the current form, diversity, complexity, health and resilience of the native vegetation and environmentally sensitive areas covered by the VMP. The statement should be accompanied by a series of colour photographs taken at established reference points prior to works commencing.

2.0	Links to legislation, other plans and documents	Completed
2.1	Demonstrate how the VMP links to legislation, other plans and documents that relate to the proposed development.	

Recommendations contained within the VMP must be consistent with both State and Commonwealth legislation as well as local planning instruments, including:

- *Biodiversity Conservation Act 2016*
- *Local Land Services Act 2013 No 51*
- *Environmental Planning and Assessment Act 1979*
- *Water Management Act 2000*
- *Biosecurity Act 2015 and Regulations*
- *Fisheries Management Act 1994*
- *Rural Fires Act 1997 No 65 and Regulation 2022*
- *Environment Protection and Biodiversity Conservation Act, 1999*
- *Coastal Management Act 2016*
- *National Parks and Wildlife Act 1974*
- *Crown Land Management Act 2016*
- State Environmental Planning Policy (Biodiversity and Conservation) 2021
- State Environmental Planning Policy (Resilience and Hazards) 2021
- North Coast Regional Plan 2041
- Port Macquarie-Hastings Council Local Environment Plan, 2011
- Port Macquarie-Hastings Council Development Control Plan

Examples of other plans and documents include, but are not limited to:

- North Coast Regional Strategic Weed Management Plan



- Port Macquarie-Hastings Council Floodplain Management Plan
- Landscape Management Plans (for the subject site)
- Threatened Species Recovery Plans
- Weed Management Plans
- Development Application Conditions of Consent relating to the identification, loss, retention or offsetting of Hollow Bearing Trees, establishment of buffers around significant trees or stands of vegetation.
- Aboriginal Heritage Information Management System (AHIMS)
- Historic Heritage Information Management System (HHIMS)





3.0	Environmental Management Units (EMUs)	Completed
3.1	Identify, describe and name all the proposed Environmental Management Units on the subject site.	
3.2	For each proposed Environmental Management Unit, identify and state the vegetation management issues that apply <u>prior</u> to works commencing, <u>during</u> construction and <u>following</u> the completion of works.	
3.3	Prepare and include an annotated map on current aerial photography (facing north) that identifies all the proposed Environmental Management Units (EMUs) on the subject site and other associated features (see Appendix 1 for requirements).	
3.4	Include a table outlining trees/vegetation to be retained & trees/vegetation to be removed in each EMU. Include the species name, height, DBH and tree scoring for HBT's. Depending on the complexity, council may require shape files of survey with meta data sheet to be submitted illustrating this.	
3.5	Describe the Biosecurity Act 2015 and outline any relevant best practice weed control methods.	

Ensure that the Environmental Management Units reflect either features of the subject site or refer to aspects of the proposed development. Examples of Environmental Management Units that may be applicable include, but are not limited to:

- Remnant vegetation (include all vegetation communities, scattered trees and threatened species and associated buffer zones)
- Vegetation proposed to be retained and/or removed
- Proposed revegetation areas
- Watercourses (including footprint of the riparian corridor and associated buffers zones)
- Construction zone
- Inner and outer Asset Protection Zone (APZ)
- On-site effluent disposal infrastructure and wastewater disposal areas



4.0	Aims, objectives, activities and performance criteria of the VMP	Completed
4.1	For each of the proposed Environmental Management Units, determine and state the current condition of vegetation prior to works commencing and the target condition of vegetation following the full implementation of the VMP. The target condition for each of the proposed Environmental Management Unit becomes the aims of the project.	
4.2	Determine and state the objectives for each of the proposed Environmental Management Units (for example “reinstate the local ecological community through revegetation and assisted natural regeneration”).	
4.3	Specific project activities should be identified for each Environmental Management Unit. For each objective, determine and state the specific activities to be undertaken to accomplish each stated objective. For each objective, identify specific and measurable performance criteria to assess success of the proposed activity. The VMP will be assessed according to these specific performance criteria. This is to be displayed as a table per Figure 1 (below).	

Management Issues	Objective	Activities/Tasks	Performance Criteria	Responsibility
Management Unit 1 <i>Invasion of core riparian zone by Camphor Laurel</i>	Control weed species and promote natural regeneration.	1. Primary weed control to remove woody weeds 2. Secondary weeding to control any weed regrowth 3. Follow-up weeding to ensure area remains weed free 4. Monitor progress	- 95% reduction of invasive weeds - No establishment of new weed species	Bush regeneration contractor
Management Unit 2 <i>Severe erosion throughout riparian areas</i>	To revegetate the riparian zone	1. Primary weed to remove woody weeds and herbs 2. Lay weed matting as per specifications in Appendix B 3. Plant tube stock at a rate of 1 per 2m ² 4. Undertake maintenance, follow-up weeding and replenishment plantings 5. Monitor progress	- 95% reduction of invasive weeds - No establishment of new weed species - 80% success of tube stock planting	Bush regeneration contractor
	To stop grazing by stock in remnant native vegetation	1. Permanent exclusion fence to be completed within three months of the VMP approval	- Fence to be erected & maintained in perpetuity	Bush regeneration contractor

Figure 1 - Sample of table outlining management issues, objectives, activities/tasks, performance criteria & responsibility.



5.0	Project work plan, schedule and budget	Completed
5.1	Where timing of works is important prepare and include a Gantt chart outlining the project schedule. Gantt chart to include all the actions and timing over the life of the VMP.	
5.2	Prepare and include a budget/costing for the implementation of the VMP.	

A Gantt chart is a type of horizontal bar chart that illustrates a work plan and reflects the staging of works relating to the implementation of the VMP.

A budget for the implementing the whole VMP should be prepared and included. The budget should reflect all sub-projects and the schedule of works for the duration of the VMP, including the cost of materials, labour, watering, maintenance, monitoring and reporting. The budget for each sub-project should be presented on an annual basis from the proposed commencement of the VMP.

6.0	Monitoring and reporting	Completed
6.1	The VMP must clearly include a schedule of the monitoring and reporting requirements for the duration of the VMP, including: <ul style="list-style-type: none"> - how many inspections and monitoring reports will be undertaken (Usually annually for 5 years) - when the inspections are due (either in terms relating to timing e.g. the issuing of Subdivision Certificates, or fixed periods e.g. “at the completion of the Establishment Period” or “annually in July from 2023 to 2033 inclusive”); - who will be conducting the inspections and compiling the reports 	
6.2	Tree removal may require pre-clearing notification to council depending on the number/location of trees.	
6.3	Post clearing report (may be required depending on the extent of clearing) & nest box/hollow report (where HBTs are removed) required within one month of clearing by	



	Ecologist.	
6.4	If required, outline any ongoing maintenance, VPA provisions and/or Section 88B requirements linked to development.	
6.5	If required, outline any specific monitoring of threatened species (e.g. Koala)	
6.6	Specify the methods for evaluating the accomplishment of the objectives of the VMP according to the agreed performance criteria.	
6.7	<p>Monitoring reports must address the progress toward meeting objectives based on the performance criteria as well as any difficulties encountered in the implementation of the VMP. Monitoring reports must include;</p> <ul style="list-style-type: none"> - A summary of actions completed by each management zone, including a map of where works have been undertaken - Evaluation of progress towards performance criteria - Progress photographs taken from predetermined photo points 	

The process for monitoring the progress toward accomplishing the objectives of the VMP should be described. The process should address the need for replacing plant losses, addressing deficiencies in the VMP, difficulties encountered during implementation, climatic conditions and successful completion of works. Where any proposed management activities have been amended out of necessity, this should be identified and justified in the report.

Monitoring and reporting on the progress and success should be provided at 6 and/or 12-month intervals for the term of the VMP. Council will monitor the satisfactory completion of milestones in the VMP at mandatory inspections (including prior to the issue of the Occupation or Subdivision Certificate) and/or at other nominated times.

Photographs taken from predetermined photo points for each Environmental Management Unit should be included. These photo points should be identified by GPS coordinates or by survey for future monitoring and reporting purposes.



Appendix 1 – Requirements for the annotated site map/aerial photograph

This appendix details the content that should be included as part of the VMP's annotated site map/aerial photograph. Select the applicable items to be included on the annotated site map/aerial photograph. Note that more than one map may be necessary in certain circumstances (e.g. a large site that has works on both the development site and offset site). Items marked with a hash (#) must be included on all plans.

Item	Completed
Site definition	
# Location and extent of the subject site for the purpose of the VMP	<input type="checkbox"/>
Map features	
# Legend, scale bar and north arrow	<input type="checkbox"/>
Site features	
# Environmental Management Units as defined in section 2.0 of the VMP	<input type="checkbox"/>
Relevant environmental constraints and buffer areas	<input type="checkbox"/>
All areas of native vegetation on the subject site including the identity of all vegetation communities, scattered trees, threatened species and associated buffer zones	<input type="checkbox"/>
Habitat features (e.g. watercourses, rock outcrops, watercourses)	<input type="checkbox"/>
Adjacent areas where relevant	<input type="checkbox"/>
Any KPOM's that exist over the site and their provisions	<input type="checkbox"/>
Proposed construction and development works	
Footprint of structure and associated works (e.g. fencing, areas for storage of materials during construction)	<input type="checkbox"/>
Proposed location of exclusion fencing during the construction phase of the proposed development	<input type="checkbox"/>
Temporary access ways during construction	<input type="checkbox"/>
Location of any sediment and erosion control devices	<input type="checkbox"/>
On-site effluent disposal infrastructure and wastewater disposal areas	<input type="checkbox"/>



Stormwater management features including proposed water tanks and overflow devices as well as any water sensitive urban design devices required or retention, filtration, infiltration and/or disposal ^(LSEP)	<input type="checkbox"/>
Extent of the Asset Protection Zone	<input type="checkbox"/>
Proposed vegetation management, regeneration and revegetation works	
Trees to be retained and protected and those to be removed	<input type="checkbox"/>
Areas of vegetation proposed to be managed	<input type="checkbox"/>
Areas for bush regeneration	<input type="checkbox"/>
Areas for revegetation	<input type="checkbox"/>
Areas of Noxious and Environmental Weeds requiring treatment	<input type="checkbox"/>
Areas for soil amendment and stabilisation	<input type="checkbox"/>
Areas of specific APZ maintenance activities	<input type="checkbox"/>
Other activities, please state	<input type="checkbox"/>

