



Local Land
Services

Weed Project Plan

Priority Weed Management in Box-Gum Grassy Woodland on the Merriwa Plateau



Hunter Local Land Services

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- Narla Environmental Pty Ltd

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1 INTRODUCTION

1.1 Purpose of Plan

This document describes the planned processes for establishing, implementing and managing the Weed Plan Project, the roles of the project team, project partners and participating land managers, and the expected outcomes from the project.

The purpose of the Weed Plan is to provide actions toward high priority weed activities over 8-10 years that are consistent with the recovery actions identified in the National Recovery Plans for the White Box - Yellow Box -Blakelys Red Gum Grassy Woodland and Derived Native Grassland Ecological Community.

This project plan is a living document and will be reviewed as required to provide clear direction to project staff, project partners and participating land managers on how the project is planned to be delivered over its life, and how the stated project outcomes and activities will be delivered (methodology), monitored, evaluated and communicated.

The Project Plan defines the following:

- Project background.
- Weed Plan and map.
- Project scope and expectations.
- Roles and responsibilities.
- Assumptions and constraints.
- Project management approach.
- Ground rules for the project.
- Project budget.
- Project timeline.

1.2 Document Change Control

The following is the document control for the revisions to this document.

Version Number	Date of Issue	Author(s)	Brief Description of Change
Version 1	15/11/2017	Hunter Local Land Services	Initial version for review and comment to Offset Committee and DoEE.
Version 2	28/3/2018	Hunter Local Land Services	Revision based on Post Approvals Monitoring Assessment- 21 February 2018.
Version 3	18/6/2024	Hunter Local Land Services	Revision to include Annual Work Plan FY2024-2025.

1.3 Background Information

The plan is required to be developed and implemented based on approval conditions with Australian Governments Department of the Environment and Energy for MACH Energy associated with the Mt Pleasant mine operations and establishment. This Weed Project Plan forms part of the conditions, to compensate for loss of *White Box-Yellow Box-Blakely's Gum Grassy Woodland and Derived Native*

Grassland, with a requirement to allocate \$1,000,000 funding to fund priority weed activities consistent with the recovery actions for this species.

White Box Yellow Box Blakely's Red Gum Woodland and Derived Native Grassland is listed as Critically Endangered under the EPBC Act. The *National Recovery Plan for White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland* (referred to throughout this plan as Box-Gum Grassy Woodland) considers the conservation requirements of the ecological community across its known range. It identifies actions to be undertaken to ensure the long-term viability of the ecological community.

The National Recovery Plan for Box –Gum Grassy Woodland aims to promote the recovery and minimize the risk of extinction of the ecological community through:

- *Achieving no net loss in extent and condition of the ecological community throughout its geographic distribution;*
- *Increasing protection of sites in good condition;*
- *Increasing landscape function of the ecological community through management and restoration of degraded sites;*
- *Increasing transitional areas around remnants and linkages between remnants; and*
- *Bringing about enduring changes in participating land manager attitudes and behaviours towards environmental protection and sustainable land management practices to increase extent, integrity and function of Box-Gum Grassy Woodland.*

This Weed Plan intends to address several recovery actions within the Recovery Plan across the Merriwa plateau in the Hunter Region, NSW.

Based on the Recovery Plan definitions: *Box-Gum Grassy Woodland is an open woodland community (sometimes occurring as a forest formation), in which the most obvious species are one or more of the following: White Box Eucalyptus albens, Yellow Box E. melliodora and Blakely's Red Gum E. blakelyi.*

Intact sites contain a high diversity of plant species, including the main tree species, additional tree species, some shrub species, several climbing plant species, many grasses and a very high diversity of herbs. The community also includes a range of mammal, bird, reptile, frog and invertebrate fauna species. *Intact stands that contain diverse upper and mid-storeys and groundlayers are rare.*

Modified sites include the following:

- *Areas where the main tree species are present ranging from an open woodland formation to a forest structure, and the groundlayer is predominantly composed of exotic species; and*
- *Sites where the trees have been removed and only the grassy groundlayer and some herbs remain.*

The Australian Government listing of *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland* is slightly different to the NSW listing. Areas that are part of the Australian Government listed ecological community must have either:

- *An intact tree layer and predominately native ground layer; or*
- *An intact native ground layer with a high diversity of native plant species but no remaining tree layer.*

<http://www.environment.gov.au/biodiversity/threatened/recovery-plans/white-box-yellow-box-blakelys-red-gum-grassy-woodland-and-derived-native-grassland-national>

This plan intends to address Intact and Modified sites with on ground works and recovery actions, with landholders (primarily grazing properties), focusing on weed threats and land management practices that can reduce weed impacts on Box-Gum Grassy Woodland and, in the long term, improve native vegetation condition and potential for recovery.

A Hunter Regional Weed Management Plans highlight weeds of significance with aligned recommended State/Regional priority actions – Prevention, Eradication, Containment and Asset Protection.

For example, Table 1 shows how the priority weed threats present in the Hunter Regional Strategic Weed Management Plan (RSWMP) 2017-2022. This Plan also reinforces the General Biosecurity Duty (GBD) requirements for other weeds not specifically listed within the Plan (eg: Bathurst Burr).

2. WEED PROJECT PLAN AREA-MERRIWA PLATEAU

Area: The focus area for the project is the Merriwa plateau in the Upper Hunter Catchment including hills of the Southern Liverpool Ranges; grading to gently sloped plateau around Merriwa. Particular focus for incentives and weed control activities will occur on land with identified intact to partially Modified Box-Gum Grassy Woodland and priority weeds.

Within the Merriwa plateau, Box-Gum Grassy Woodland Occurs on a combination of the Merriwa, Bow, Ant Hill and Wappinguy soil landscapes(eSPADE, 2016).

Topography: A dissected plateau of undulating rises and low hills intersected by parallel valleys cut by southward draining streams. Elevation rises from 300m around the Goulburn River to over 600m to the north of the catchment. Slopes are long, interspersed with ridges made up of rocky knolls. Alluvial flats and terraces are present on larger streams (Kovac & Lawrie, 1991). Primary soil types are based on weathered *in situ* tertiary basalts with Red and Brown clays occurring on mid and upper slopes and steeper areas in the landscape.

Vegetation: An open woodland of White box (*Eucalyptus albens*), yellow box (*Eucalyptus melliodora*), Blakely's red gum (*Eucalyptus blakelyi*), and rough-barked apple (*Angophora floribunda*). Native grasses occur over most of the region, becoming the dominant community where clearing has occurred. Plains grass (*Austrostipa aristiglumis*) is mostly found on higher fertility Black Earth soil types. *Poa* species occurs in protected aspects and is a common species on the higher altitude areas in the north of the catchment. Red grass (*Bothriochloa macra*) and blue grass (*Dicanthium sericum*) are also common with kangaroo grass (*Themeda australis*) occurring sporadically. **Figure 1** indicates the extent of vegetation (general representation) representing *Eucalyptus melliodora* grassy woodland on basalt soils of the upper Hunter, *Eucalyptus blakelyi*/*Angophora floribunda* shrubby woodland of central and upper Hunter, *Eucalyptus melliodora*/*Angophora floribunda* grassy woodland of the upper Hunter and Liverpool Plains, *Eucalyptus albens* grassy woodland on basalts of the upper Hunter and Liverpool Plains, Plains grass/ Purple wiregrass/ Wallaby Grass grassland on basalt soils of the Merriwa plateau, *Eucalyptus albens*/*Eucalyptus crebra*/*Eucalyptus blakelyi* shrubby open forest of the central and upper Hunter (Sivertsen, Roff, Somerville, Thonell and Denholm, 2011).

Threatened Flora within Box Woodland: Threatened flora species recorded within Box Gum Woodland areas in the study area of the Merriwa Plateau are identified in **Figure 1**. Identifying areas and abundance of threatened flora species within the Merriwa plateau area can provide a valuable reference for land managers and regulatory authorities as to where to prioritise relevant resources.

Sensitive threatened flora such as ground orchids, are good indicators of a healthy groundcover or grassland. Pine Donkey Orchid (*Diuris tricolor*) can be found in Box Gum Woodland remnant, regrowth and derived native grassland, however it does not respond well to over stocking and associated grazing pressures.

A significant Endangered population of the *Cymbidium canaliculatum* (Small Groove-leaved Cymbidium) is found in the Box-Gum Grassy Woodlands on the Merriwa Plateau. This orchid may grow in any tree and can survive in dead trees (stags).

Box-Gum Grassy Woodland Habitat and Importance for Significant Fauna: Box-Gum Grassy Woodland stands are significant habitat for fauna of conservation significance. Within the Merriwa plateau known species include Brown Treecreeper, Painted Honeyeater, Spotted-tailed Quoll, Striped Legless Lizard, Swift Parrot, Square-tailed Kite, Squirrel Glider, Hooded Robin, Black-chinned Honeyeater, Koala, Barking Owl, Grey-crowned Babbler, Golden Sun Moth, Turquoise Parrot, Yellow-bellied Sheath-tail-bat and Masked Owl, Diamond Firetail and the Regent Honeyeater and potentially the Bush Stone-curlew, Superb Parrot, Rosenbergs Goanna and Pale-headed Snake. Of these species the Swift Parrot and Regent Honeyeater are Nationally listed species.. Box-Gum Grassy Woodland is also important habitat for other fauna including other woodland birds, reptiles, frogs, microbats, marsupials and macropods.

Vegetation mapping: The analysis of vegetation mapping projects undertaken on the Merriwa Plateau to date revealed several maps that have presented the Box-Gum Grassy Woodlands of the region in varying levels of detail. It was however evident that the level of detail required to accurately present the different types of vegetation and their condition classes was lacking.

A study by Hunter (2016) focused on the Merriwa Plateau and found that the most detailed vegetation mapping undertaken for the area prior to his study had grossly underestimated the area of White Box Grassy Woodland.

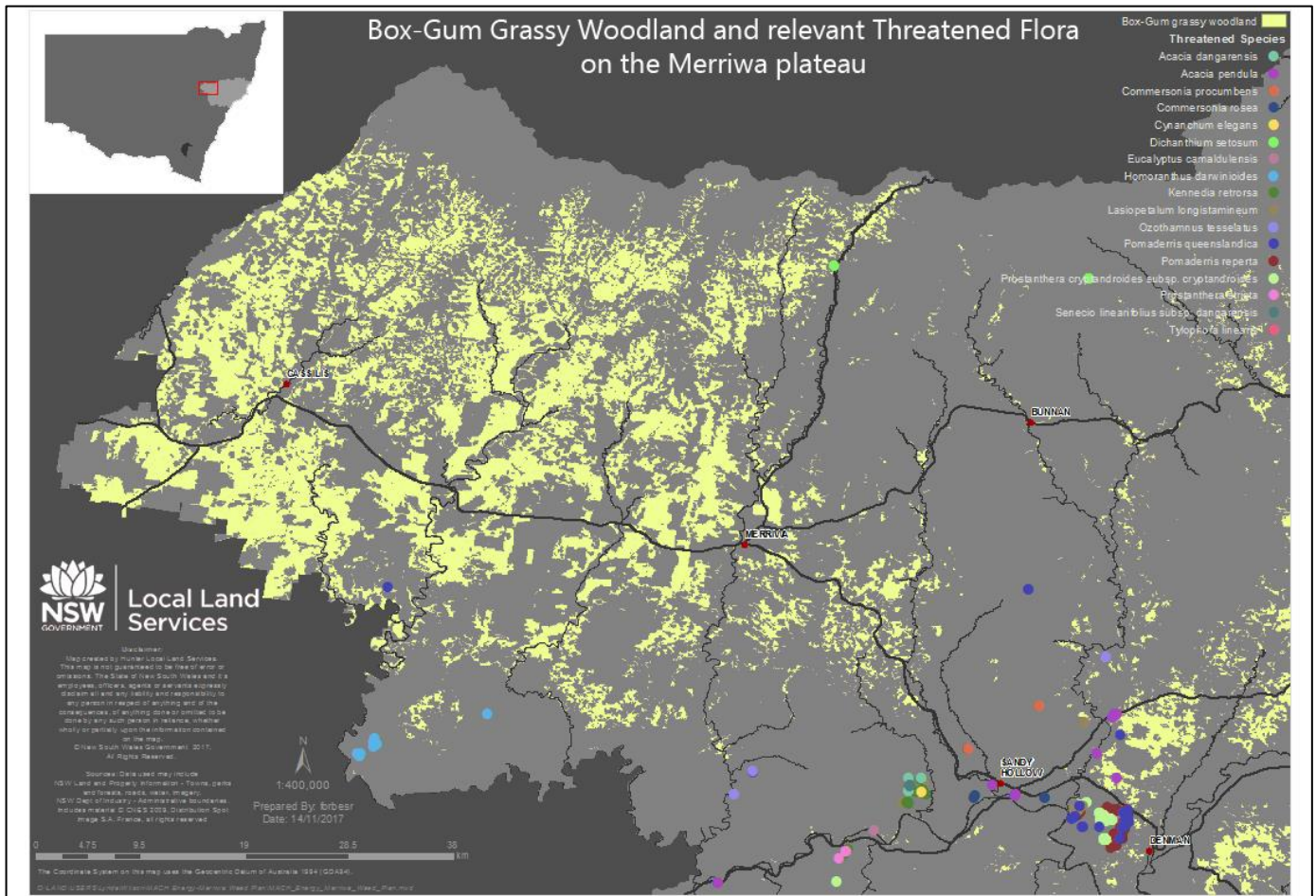


Figure 1: Extent of Box-Gum Grassy Woodland in the project area and relevant TSP's located in and around the plateau (HLLS with data sets for TSP species provided through Narla Environmental Pty Ltd).

For the purpose of this project, Narla Environmental has produced a more detailed map to a 1:100000 scale that builds upon existing mapping. Narla utilised Aerial Photograph Interpretation (API) of photography from the NSW Government (NSW EPI) along with topographic maps (1:25000 scale) and geological maps. The map that resulted are presented in this plan (**Figure 2**).

Existing vegetation mapping of the Merriwa plateau is unreliable (Hunter 2016) and as such, an analysis and implementation of higher quality vegetation mapping for this area was required to ensure the implementation of on ground Box-Gum Grassy Woodland restoration and recovery efforts can be applied as effectively as possible. The new mapping presented in this report details three different condition classes of Box Gum Woodland:

- Remnant – patches of Box Gum Woodland that are not necessarily truly remnant but close to the structural condition or density of remnant woodland).
- Partially Cleared – Box Gum woodland that is below the canopy density that would be expected from natural woodland).
- Derived native grassland - areas where few if any Box Gum Woodland canopy trees remain but where native grasses appear to dominate.

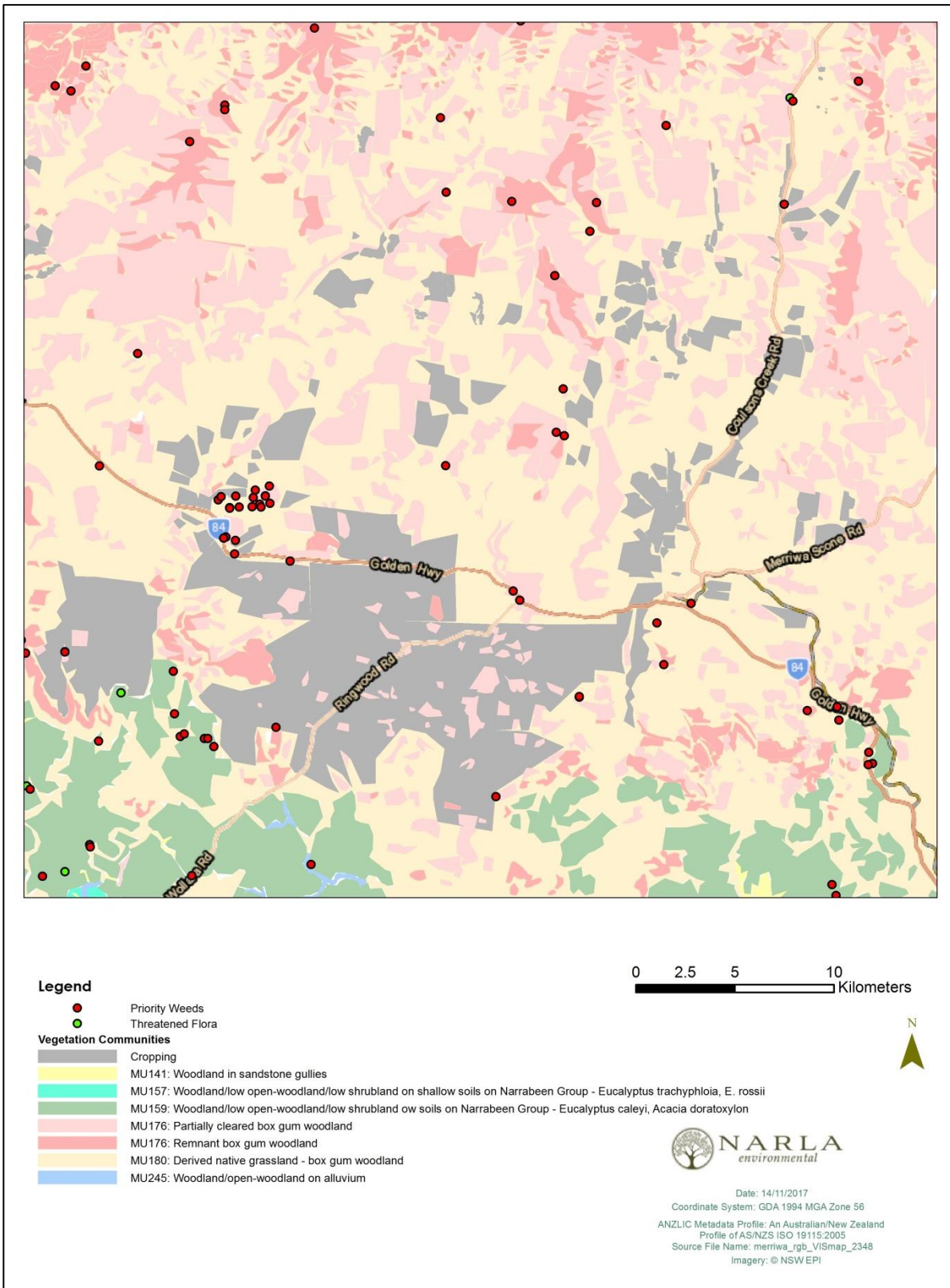


Figure 2: Contemporary mapping of Box-Gum Grassy Woodland extent and indicative condition across the Merriwa plateau and priority weed locations (Narla Environmental Pty Ltd)

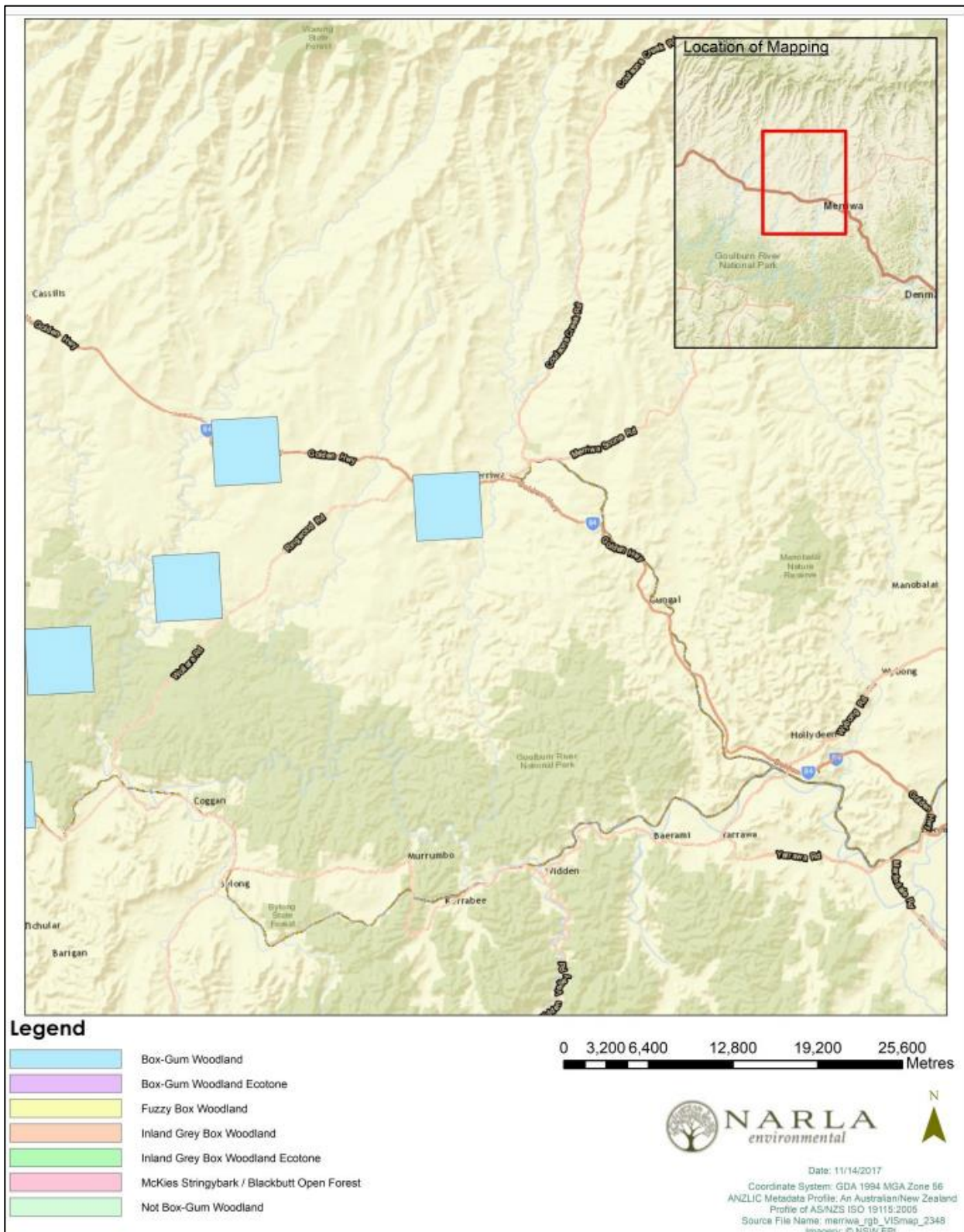


Figure 3: Broad Scale vegetation of areas within the NSW Sheep and Wheat belt (Narla Environmental)

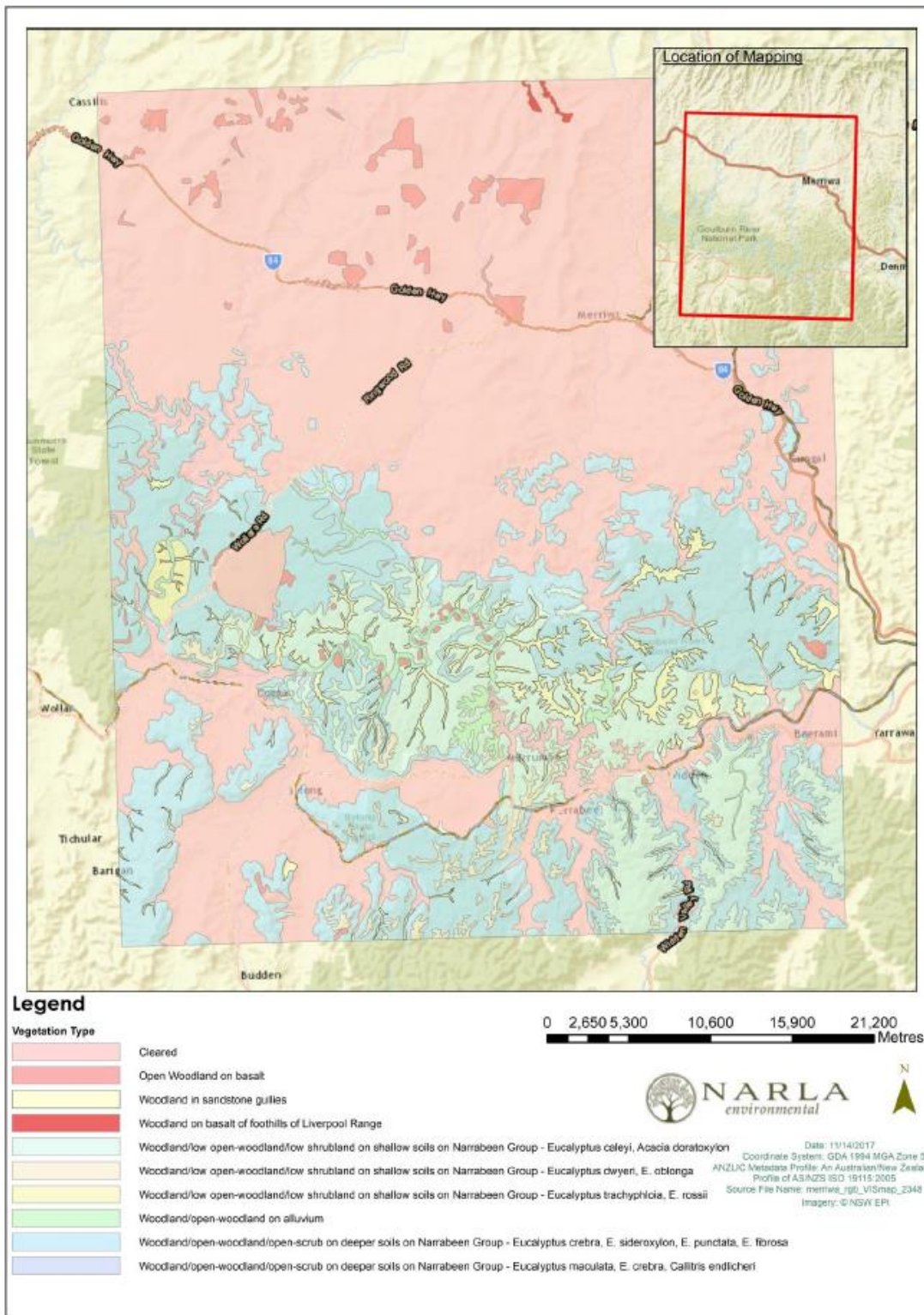
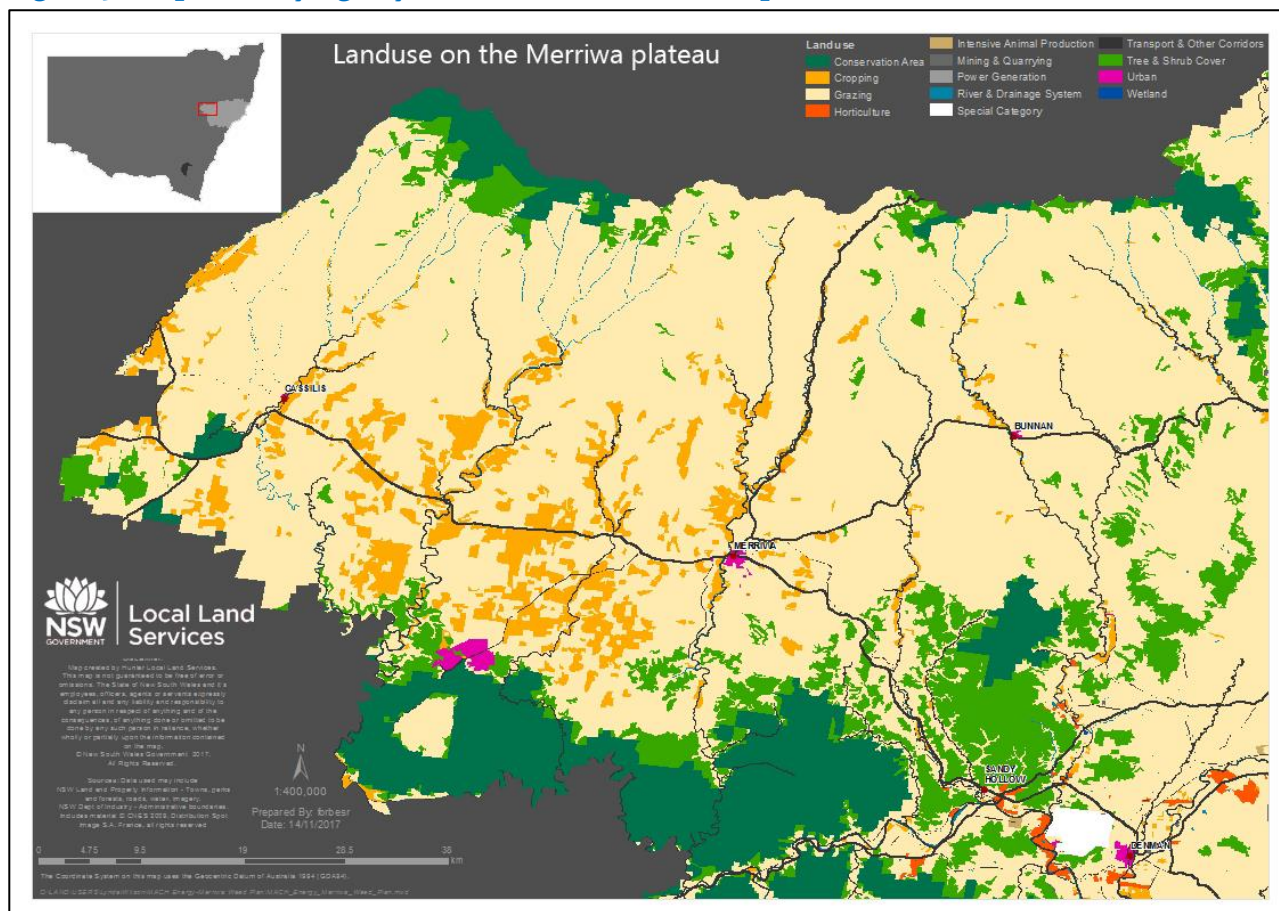


Figure 4: Current vegetation mapping available for Merriwa plateau (1:100 000 (Narla Environmental))

Figure 5: Map identifying key land use on the Merriwa plateau (HLLS).



Land uses: The Merriwa plateau supports a range of agricultural enterprises depending on topography and land capability limitations (**Figure 5**). Grazing for both sheep and cattle (both breeding & fattening) production comprises a significant proportion of agricultural output with the latter gradually becoming the more dominant enterprise. Grazing occurs on land considered unsuitable for cropping because of slope, stoniness and extent. The Merriwa plateau also favours mixed farming enterprises combining broad acre crops such as: wheat, barley, sorghum and canola with beef cattle or sheep grazing.

Within the project area, MACH Energy manages two Biodiversity Management Areas (BMAs) within 'Merriwa East' and 'Merriwa West' covering a total area of 14,502ha on the Merriwa plateau.

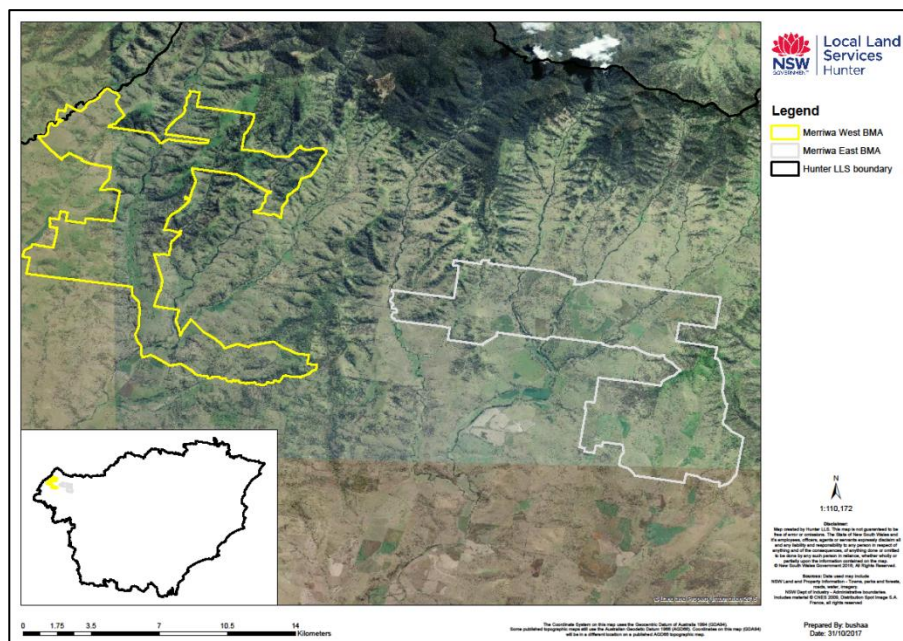


Figure 6: Map of Merriwa East and West BMA’s within Hunter region (HLLS, MACH Energy)

Weed threats: Table 1 below identifies priority weeds for the project area.

Other weeds known to be prevalent and of concern in the geographical location include Tiger Pear, Prickly Pear, African Olive, Fireweed, Honey Locust and Patterson’s Curse. There are also several annual weeds of pastures and crops in the area which may provide an intermittent threat to ecological assets. Appendix B provides further details on control methods and options for these priority and other weed threats.

Table 1: Weeds identified and recognised in the Hunter Regional Weed Management Plan 2017-2022

Weed	Listing	Action	Highest community concern (impact)	Target Asset
St Johns Wort	Regional species of concern		Agricultural	Box-Gum Grassy Woodland Derived Native Grasslands Agricultural Lands
African Boxthorn	Regional species of concern Weed of National Significance	Asset Protection	Agricultural	Box-Gum Grassy Woodland Derived Native Grasslands Agricultural Lands
Blackberry	Regional priority weed Weed of National Significance	Asset Protection		Box-Gum Grassy Woodland Derived Native Grasslands Riparian lands Agricultural Lands

Sweet Briar	Regional species of concern		Agricultural	Agricultural Lands
Noogoora Burr	Regional species of concern		Agricultural	Agricultural Lands
Tree of Heaven	Regional species of concern		Environmental	Riparian Zones
Willows	Weed of National Significance	Asset Protection		Riparian Zones
Coolatai Grass	Regional species of concern	Asset Protection	Agricultural	Box-Gum Grassy Woodland Derived Native Grasslands Agricultural Lands
Green Cestrum	Regional species of concern	Asset Protection		Riparian Zones

3. PROJECT APPROACH

This is a project involving collaborative implementation with identified stakeholders.

The project will be managed by Hunter Local Land Services with the aim to engage with private landholders in the Merriwa plateau to direct activities that will support recovery actions for Box-Gum Grassy Woodland. The project will be funded by MACH Energy, through the allocated funding required under approval conditions.

Project stakeholders will support the project with technical advice, recommendations and participation in implementation. Stakeholders include the members of the Offset Advisory Committee (*MACH Energy, NSW Office of Environment and Heritage, Upper Hunter Weed Authority, Merriwa Landcare, community representatives, Resource Strategies-consultant*) and other stakeholders connected to Box-Gum Grassy Woodland recovery programs and activities. Private landholders will also play an important role in delivery of the project and implementation of on ground activities. Research organisations will also support several research studies. Department of Primary Industries and the Upper Hunter Weed Authority will also be an active stakeholder for biological control activities. Regular consultation with all other stakeholders will form part of project implementation.

Other stakeholder groups that may be involved in the project include Local Aboriginal Land Councils(Wanaruah, Mudgee and Walhallow LALC), Hunter LLS Travelling Stock Reserve staff, Local Government-Upper Hunter Shire Council, Hunter Region Landcare Network, Conservation Volunteers Australia, Local Aboriginal Land Management teams, North West and Northern Tablelands LLS and contractors-weed/fencing.

The project will implement a range of weed control strategies to support recovery actions for Box-Gum Grassy Woodland areas on private, and potentially, public lands. The approach will be based on the following principles to improve condition of Box-Gum Grassy Woodland:

- **High investment** will apply to activities that address priority weed threats in areas of Intact (Section 3) native vegetation, where possible, to protect and enhance Box- Gum Grassy Woodland and/or that have the capacity to build on existing restoration efforts.
- **Moderate investment** will apply to activities that address priority weed threats in areas of Modified (Section 3) native vegetation to encourage regeneration and or reduce loss of integrity of existing native vegetation.
- **Landholder education and capacity building** will be delivered to support awareness of practices that enhance skills and capabilities of participants in on ground activities that enhance/protect/restore Box-Gum Grassy Woodland through the control of priority weeds, including development of communication products and relevant information packages.
- **Monitoring** will be conducted over the project to monitor natural asset condition.

- **Research and studies** will be conducted that will improve on management practices and approach based on existing knowledge gaps, that can be shared across other relevant stakeholders and land managers.
- Where possible, **additional investment opportunities** will be sought to extend and enhance outcomes for this project.

To ensure ongoing improvement in the implementation of this plan, adaptive management strategies will be implemented, in consultation with key stakeholders, to ensure activities are efficient, effective, meet target recovery actions and annual target.

4 GOALS AND OBJECTIVES

4.1 Project Goals and Objectives

Table 2 summarises the proposed funded activities to implement the Weed Project Plan and address Recovery Actions identified in the National Recovery Plan for White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland Ecological Community. Some activities would overlap in their delivery, and would be delivered in the priority areas of the Merriwa plateau.

Prioritisation of investment, and services provided to landholders, will be developed through desktop analysis of available data. HLLS has existing data on mapped woodland remnants (both intact and partially intact and modified) within the project areas, property data (including contact information, property industry information, property boundaries, existing conservation agreements on title and previous funded activities through HLLS grant programs) for all landholders –private and public, and will seek access to the Upper Hunter Weed Authority existing weed data and layers. Our property information also extends to previous extension advice/attendance to local workshops or training events. In this process we can also identify any previous land manager grant based projects that may have addressed recovery actions for Box-Gum Grassy Woodland.

Prioritisation will be based on overlaying property layers with vegetation data and priority weed locations to determine targeted locations for projects. This will be conducted through contacting landholders direct (post/email/phone), communications within the local area, and contact through existing networks such as the Merriwa Landcare group and Hunter Region Landcare network.

Based on Table 2, the following activities will be conducted to support National Recovery Actions:

- Weed Plans.
- Grazing Plans.
- Research programs.
- Landholder engagement.
- Condition Monitoring.
- Incentive programs- on ground efforts.
- Biological trials.
- Education and Awareness.
- Landholder Surveys-BMP study.
- Knowledge sharing and reporting.
-

Further details on these activities are in section 4.2.

Table 2: Summary of activities against National Recovery Plan priorities

Box-Gum Grassy Woodland National Recovery Actions	Activity	Objectives and Actions	Duration/ Timing	Monitoring/Evaluation	Who
<p>4.1. Investigate the long-term effects of management activities (e.g. grazing, fire regimes, mowing/slashing, fertilising, chemical use, regeneration, hydrology and drainage, feral animal control, weed control and prevention, cultivation), through research and monitoring of Box-Gum Grassy Woodland at selected sites across its range.</p>	<p>Weed and Grazing Management Plans</p> <p>Recovery Action - 4.1</p>	<p>Plans to improve and monitor weed control and grazing activities (that minimize weed threats and enhance native species) on and adjacent to Box-Gum Grassy Woodland sites over the long term.</p> <p>Develop property scale Weed and Grazing Management Plans with landholders.</p> <p>Undertake pasture assessments and develop grazing management plans to assist in managing and containing weed spread and improving the condition of Box-Gum Grassy Woodland.</p>	<p>Years 1 - 8</p> <p>This could be delivered alongside landholder engagement program</p>	<p>Spatial platform – ArcGIS to monitor implementation of Plans.</p> <p>ArcGIS is a geographic information system (GIS) for the management, analysis and display of geographic information. Within ArcGIS resides the Land Management Data Base (LMDB) tool which allows the standardised capture of on ground outputs.</p> <p>All information recorded in Integrated Resource Information System (IRIS).</p> <p>Site monitoring: Section 15.2</p> <p>Quadrats: To rapidly assess the ground cover and herbage mass the following quadrat sampling method will be used (Lang, 2005): For each assessment, record the: date site and area name. Using a wooden or metal square (quadrat) of at least 0.5m x 0.5m internal dimensions. Walk at random path within each area to be assessed and throw the quadrat a short distance. Record the percentage of total cover, the percentage of living native species & the percentage cover on living non-native species. Repeat at least 10 random sample sites.</p>	<p>HLLS NRM/Ag Senior Land Services Officers (SLSO) to provide all technical advice-grazing and weed plans, GIS desktop analysis and ground-truthing</p> <p>On ground monitoring SERA tool to be supported by HLLS Senior SLSO staff, and Ecological consultant/OEH staff as required.</p>

Box-Gum Grassy Woodland National Recovery Actions	Activity	Objectives and Actions	Duration/ Timing	Monitoring/Evaluation	Who
				<p>Transects: The 50m Transect Line 100 Point Groundcover Survey is the procedure used to do a quick assessment of the surface ground cover and species present along the selected transect line.</p> <p>Photo points: A photo reference point will be established and permanently marked within each habitat monitoring plot. Photo reference points will be established at each monitoring site. During each monitoring event, a series of photos will be taken from this point to provide a visual record of any changes in vegetation and habitat condition.– quadrats; photo points – to Year 10</p> <p>SERA Monitoring Wheel- Condition Benchmark Tool</p>	
<p>2.6 Continue to encourage provision and uptake of funding for incentive and long-term stewardship schemes that target protection of Box-Gum Grassy Woodland remnants, especially on private land.</p> <p>4.3. Identify sites with high recovery potential and target restoration at these remnants for cost-effectiveness. Ensure</p>	<p>Landholder engagement in protection of sites.</p> <p>Recovery Action – 4.3</p>	<p>Engage targeted landholders through incentives programs to undertake weed control, habitat protection and sustainable grazing practices in target investment area/s.</p>	<p>Years 1 - 8 commence/implement works; Years 5 monitor/adaptively manage.</p>	<p>All information recorded in IRIS*.</p> <p>Project success is able to be monitored to support a continuous adaptive management approach.</p> <p>Landholders to be contracted through standard HLLS templates with inbuilt monitoring and maintenance milestones.</p> <p>SERA Monitoring Wheel- Condition Benchmark Tool</p> <p><i>*IRIS is a Project Management system used by Local Land Services. The web based platform</i></p>	<p>HLLS staff will provide property based extension services, incentive funding oversight and coordination of all extension and advisory events and field based capacity building activities.</p> <p>Offset Advisory Committee members and other stakeholders may be involved in delivery/knowledge sharing in those events.</p>

Box-Gum Grassy Woodland National Recovery Actions	Activity	Objectives and Actions	Duration/ Timing	Monitoring/Evaluation	Who
<p>identified sites cover a range of condition states (see Appendix 3) so that cost effective models are investigated to improve functionality (transition of State 3 to State 2) and to restore understorey species (transition of State 2 to State 1).</p>				<p><i>enables projects to be tracked against various key performance indicators (KPIs) including Budget, Timeframes, Milestones, Outputs/Achievements and Stakeholder Satisfaction.</i></p>	
<p>4.1. Investigate the long-term effects of management activities (e.g. grazing, fire regimes, mowing/slashing, fertilising, chemical use, regeneration, hydrology and drainage, feral animal control, weed control and prevention, cultivation), through research and monitoring of Box-Gum Grassy Woodland at selected sites across its range.</p> <p>4.4. Investigate the impact of high threat weeds on component species and develop control methods that will not adversely impact the existing</p>	<p>Research and Studies</p> <p>Recovery Actions – 4.1; 4.4</p>	<p>Assess effectiveness of biological control for St John’s Wort in the Upper Hunter.</p> <p>Condition Assessment Tool</p> <p>Landholder Best Practice Management Study.</p> <p>Other relevant studies identified over the duration of the project.</p>	<p>Years 1 – 9</p> <p>Landholder Survey Year 1 and evaluate every 3 years beyond this.</p> <p>Condition Monitoring Tool developed year 1, and projects revisited every 3 years.</p>	<p>The following proposed field monitoring methods will be implemented:</p> <p>Quadrats, transects and photo point monitoring.</p> <p>SERA Monitoring Wheel- Condition Benchmark Tool (development and implementation and data collection)</p> <p>Landholder interviews and evaluations.</p> <p>Number of studies published and disseminated.</p>	<p>HLLS staff will project manage research studies.</p> <p>HLLS staff will contract ecological consultant to prepare benchmarking for Condition Assessment Tool. HLLS staff and consultants will conduct Condition Monitoring on project locations.</p> <p>Researchers will develop and implement all research activities</p> <p>HLLS will engage a consultant to conduct the Landholder Best Practice Management Study</p>

Box-Gum Grassy Woodland National Recovery Actions	Activity	Objectives and Actions	Duration/ Timing	Monitoring/Evaluation	Who
diversity in Box-Gum Grassy Woodland. Nominate high threat weeds not already listed for noxious weed status in each jurisdiction.					HLLS, consultants and researchers will deliver activities to promote and share knowledge gained (i.e forums, field days or publications)
4.6. Monitor condition and diversity of protected sites under varying management regimes. Identify regional differences and causes.	Landholder engagement in protection of sites. Recovery Action - 4.6	Incentive Funds: Engage targeted landholders through incentives programs to undertake weed control, habitat protection and sustainable grazing practices in target investment area/s. Monitor condition changes under varying management regimes.	Years 1 - 8	All information recorded in IRIS. Project success is able to be monitored to support a continuous adaptive management approach. Landholders to be contracted through standard HLLS templates with inbuilt monitoring and maintenance milestones. Landholders will be encouraged to use the SERA Monitoring Wheel - Condition Benchmark Tool.	HLLS will promote, support and contract landholders to deliver on ground activities through incentive funds. Landholders will be responsible to deliver all on-ground activities.
3.4. Educate stakeholders in the identification, management, monitoring and benefits of Box-Gum Grassy Woodland remnants, including local government and state government infrastructure management agencies, through the distribution of information material, newsletters, exhibits at	Education/ Awareness Recovery Action - 3.4	Increase lessee and general community awareness on control and prevention of spread of high priority weeds of the Merriwa plateau through field days/ workshops/ training/ media. Share relevant information, research findings for land managers and other	Years 1-9	Event evaluation sheet; capturing knowledge improvement, overall assessment, skill improvement & change management practices. All evaluations are entered in IRIS and form part of an adaptive management process.	HLLS will coordinate all educational activities, and work collaboratively with partners to deliver relevant training and engagement programs. Delivery partners may include Ecological consultants/expert, local landcare members/mentors, HLLS

Box-Gum Grassy Woodland National Recovery Actions	Activity	Objectives and Actions	Duration/ Timing	Monitoring/Evaluation	Who
field days, workshops and training.		organisations overseeing Box-Gum Grassy Woodland projects			<p>staff with appropriate expertise, OEH/SLM staff, researchers or other relevant experts</p> <p>HLLS will prepare and share all relevant communication information.</p>
Reporting on progress and data sharing.	Project Management and Administration	HLLS provision of all aspects of project management, administration and reporting.	Over life of project	Bi-annual reporting and annual evaluation. Circulating findings, forums on data gathered and presentations to relevant stakeholders. Promotion through Hunter LLS and partner newsletters, media articles and through community based events.	HLLS will be responsible for all reporting to MACH Energy, the Offset Committee and through public reporting on progress to community.

4.2 Specific Funded Activities

4.2.1 - Weed and Grazing Management Plans

HLLS Staff will work with landholders to develop integrated Weed and Grazing Management Plans for properties with Box-Gum Grassy Woodland sites in the target area. Long term monitoring would be built into these Plans to assess past, current and inform future land management practices and adaptations in reducing weed load and improving condition of ecological communities. This activity will contribute towards recovery Action 4.1 - to investigate long-term effects of management activities, within and adjoining, Box-Gum Grassy Woodland sites. Weed and Grazing plans will identify existing vegetation areas, weed zones, grazing zones, watering points and fencing and supporting information on property maps, based on property inspections and consultation with landholders. Weed control methods will be recommended, relevant to the individual property.

Use of integrated methods for weed control is recommended to suit different weeds, infestation densities, sites and asset areas. Proven effective methods using no or minimal herbicide, would be recommended at sensitive sites to ensure no off-target damage.

Based on our experience, it is likely that between 3-6 plans could be developed per year, however the number of plans is only limited by the interest and participation of landholders, and where possible, more plans will be developed.

Integrated Weed Management Plans will formalise:

- The long term management of a weed using a combination of different management and control techniques.
- Presence and absence of native vegetation-Box Woodland.
- The behaviour and lifecycle of the weeds present on landholders properties.
- The current density and the land use in which the weed occurs.
- Targeting treatment options at specific stages of the weed's lifecycle.
- Undertaking measures that will prevent weed reproduction.
- Reducing germination of weed species.
- Reducing the store of seed within the soil.
- Minimising weed establishment by promoting more desirable pasture and vegetation.
- Prioritising management options, to ensure greatest impact.
- Monitoring and review actions, revising the plan if objectives are not being met.
- Assessment of Box-Gum Grassy Woodland condition (SERA Monitoring Wheel - Condition Benchmark Tool).

Grazing management is a fundamental land management aspect of weed suppression, containment and prevention. Pasture and understorey condition combined with native vegetation composition data would inform development of Grazing Management Plans.

Grazing and Weed Management Plans will formalise:

- Livestock movement including dates of entry and removal from paddocks.
- Management methods to maintain minimum groundcover percentages and dry matter calculations
- Presence and absence of priority weeds
- Presence and absence of Box-Gum Grassy Woodland stands/remnant trees
- Fencing and protection of existing intact remnant vegetation from stock access
- Trigger points for stock movement.
- Fertiliser/nutrient application regimes(if relevant)
- Assessment of groundcover composition(native groundcover vs non-native cover).
- Timing, frequency and duration of grazing period's dependant on Box-Gum Grassy Woodland condition.
- Assessment of Box-Gum Grassy Woodland condition (SERA Monitoring Wheel - Condition Benchmark Tool).

- Monitoring sites and photo points

Box-Gum Grassy Woodland sites would be assessed for grazing regimes based on condition, soil analyses and species composition.

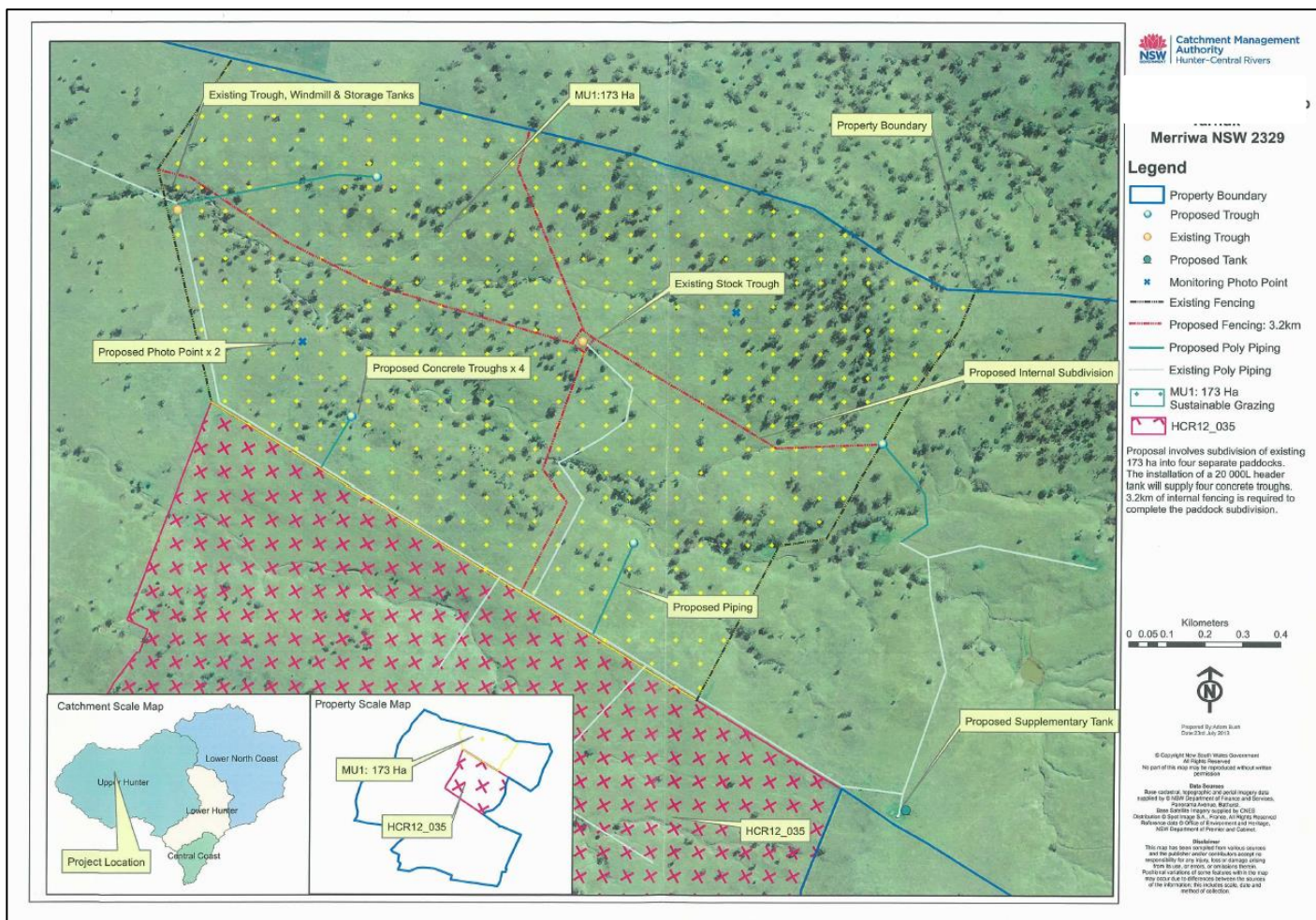


Figure 6 Example Grazing Plan for farm land in Merriwa, identifying grazing areas, off watering, monitoring points and property boundary.

These plans will form the basis of incentive funding, to support implementation of these plans including activities such as:

- Fencing and gate installation and materials.
- Troughs/watering points.
- Weed contractors/herbicide supplies.
- Where relevant, supplementary planting to outcompete areas of weed treatment.

4.2.2 - Landholder Engagement in Protection of Sites-Incentive Funds

This project will focus on community engagement and will invite interested public and private land managers in the Merriwa plateau focus area, to participate in an incentives program to assist them to implement on-farm practices that protect and Box-Gum Grassy Woodland sites. On ground works will comply with best practice vegetation management principles. The works will focus on improving connectivity, condition and addressing key threatening processes through actions such as;

- Primary and follow up weed control of priority weed species.
- Conservation of high quality remnant vegetation through agreements with land owners.
- Regeneration of sites via grazing exclusion and/or strategic grazing practices.

- Exclusion of stock from significant remnant vegetation areas and riparian areas and provision of off-stream water.
- Subdivisional fencing for strategic grazing practices and management of Box-Gum Grassy Woodland sites. Strategic revegetation and replanting using local provenance species.

HLLS run annual incentives programs –Land Management Grants program which clearly lay out priority issues and areas, thereby ensuring a targeted response from landholders. For example, the Merriwa plateau was a priority area for investment for the HLLS Land Management 2017/18 grants program supporting activities relevant to biodiversity, riparian and grazing outcomes, with beef and sheep industries (whole farm planning, grazing management, soil and groundcover management).

Land Management Grants are delivered through an open tender process, and encourage landholders to undertake weed control, habitat protection and sustainable grazing practices.

Incentives funding and support will be prioritised for on ground works in the project area that address priority weed threats in areas of intact Box Gum Grassy Woodland (in accordance with the National Recovery Plan White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland) through integrated practices. Landholders managing intact vegetation will be directly targeted and supported to develop an application for consideration under an incentives funding round, to implement grazing and weed plans. This activity would contribute towards Recovery Action 4.3 where medium to high condition sites are prioritised and supported – to target restoration at sites with high recovery potential.

All incentive funding applications will be assessed through an assessment panel, consisting of Offset Advisory Committee and HLLS staff, and ensure high outcome priority activities are supported. Projects not supported initially, will be provided additional support to allow landholders to refine and resubmit proposals for future incentive rounds.

Existing staff knowledge and history working with applicants, their involvement in skills or training programs that has enabled capacity to deliver projects, and other relevant experience to deliver is also considered in the assessment process.

Incentives funding will be administered and managed by HLLS. Landholders and groups will be supported to engage with HLLS Services –such as weed and grazing plans, property inspections and individual property advice and property reports. This process encourages one on one technical and experienced advice for individual project development and planning.

The level of support provided to landholders is based on a “landholder support matrix” (Table 8: Determining project characteristics and landholder capacity) . This matrix uses the complexity of the project, the capacity of the landholder, and the scale of the project to determine the level of support provided from project commencement to conclusion.

This service enables ongoing relationships with landholders in NRM activities, and provides continual access and on-site inspection of the property, and is a requirement of grant recipients to allow regular access and input as required. Further detail on project assessment processes, project governance and incentive delivery framework is noted in section 6 Project Management.

Landholders would be actively encouraged to participate in any research projects or studies that are delivered through the Weed Project, such as providing access or data on their on-ground activities.

4.2.3 - Research and Study Programs – To ensure that any on ground recovery actions with land managers are monitored and allow for development of knowledge and information, consistent with Recovery Action 4.1, research projects and study's will be implemented over the life of the project.

Initially the following activities are proposed:

- Landholder Best Management Practice (BMP) survey (year 1).
- St Johns Wort Biological trials in the Upper Hunter (throughout project).

Utilising existing partnerships with both University of England and Newcastle University and consultants it is proposed that HLLS will partner with either organisation to undertake a baseline BMP survey for landholders, identified as managing Box-Gum Grassy Woodland sites across the Merriwa Plateau (further detail is listed in section 12 Annual Project Plan - Year 1). Data will be collected through evaluations, interviews with landholders through a 3-6 month evaluation survey process. The BMP survey and evaluation design will be developed by consultants, to ensure rigour and consistency in the data gathered. The BMP Study will investigate the following:

- Landholders understanding of Box Gum Grassy Woodland and native vegetation management.
- Practices applied on properties, and motivations for management of native vegetation
- Knowledge gaps.
- How landholders access information, relevant to native vegetation management
- Barriers for adoption.

This data will be used to measure baseline attitudes for landholders in the project area, and inform engagement practices for HLLS in the program, and allow for ongoing evaluation of landholders attitudes to native vegetation management throughout the project. Data gathered can be presented as a report over the life of the project to monitor behavioural and attitudinal changes as a result of the project and HLLS engagement, consistent with the National Recovery plans aims to bring about enduring change in participating land managers attitudes and behaviours towards environmental protection of Box Gum Grassy Woodland.

Other research projects and studies will be conducted through the program through tender based scholarship programs. It is proposed that this will be delivered as one three year PhD/Research Masters scholarship, and several smaller scholarships. Partnerships exist with both University of England and Newcastle University, and additional research organisations will be approached. Scholarships will be offered through a competitive process, and assessed and endorsed through the Offset Advisory Committee through an agreed assessment process.

The Offset Advisory Committee and other relevant stakeholders will be consulted to ensure research activities are relevant and appropriate to practical applications and building of knowledge. All research and study findings should be relevant to Merriwa plateau and other regions involved in Box-Gum Grassy Woodland recovery. All knowledge and data will be shared with other relevant organisations and land managers, as per 12.3 Communications Plan.

A St John's Wort Biological control program will be implemented in Year 1 of the project. It is proposed to establish a number of different control agents with the core species being made up the St John's Wort Beetle. The trial will be established in accordance with industry best practice (CRC, 2008) and be supported by technical advice from HLLS staff, Upper Hunter Weeds Authority and Department of Primary Industries. Evaluation and monitoring of release sites will be an integral part of the trial with results providing:

- Direct feedback on the success or otherwise of the biological agent.
- Success of the release strategy.
- Size and timing of individual release and release methods.

The monitoring and evaluation component of the trial will inform and guide future release programs with the eventual aim of re-establishing long term biological control agents across multiple sites evidenced by population increase and spread.

Landholders will be engaged through the project, including recipients of Incentive funds, to enable trial sites in various locations. Data and knowledge gained will be shared with landholders involved in the project, through field based capacity building events and relevant publications or media articles.

4.2.4 - Education & Awareness

The project will also deliver a Capacity Building and Education program which a focus on best land practices management techniques including:

- Weed control identification and integrated control methods (including biological controls).
- Strategic grazing and sustainable land management practices to improve existing habitat quality, increase habitat extent and landscape connectivity.
- How to assess the state of Box-Gum Grassy Woodland sites and implement recovery actions.
- Planting native vegetation shelter belts and corridors to improve connectivity in the landscape.
- Property planning.
- Communication products, guides and fact sheets.
- Research and study findings through interactive forums and publications.
- Condition monitoring training and packages.

HLLS staff regularly coordinate and deliver training sessions (field based and workshop theory based), that allow knowledge and information sharing, demonstration sites and showcasing best practice management, and allow for networking opportunities with community. LLS staff have the technical skills to deliver education and awareness events, but also draw on other experts such as researchers, state government, ecologists and community groups to present information and share knowledge. The purpose of these events is to encourage landholders to actively understand issues in their region, and gain relevant skills and knowledge to improve capacity to adopt activities on their land. Aligning a series of weed management events and training to targeted landholders will benefit and support the overall Project objectives, and support land managers to actively participate in recovery actions, in their increased knowledge and capacity.

All education and awareness events will conduct participant evaluations, consistent with the BMP study goals, to monitor and track land managers attitudes, knowledge and behaviour against the educational goals.

4.2.4 - Landholder Engagement and Extension Services

HLLS works with land managers and the community to improve primary production within healthy landscapes. We assist producers make better decisions about the land they manage and assist rural and regional communities to be profitable and sustainable into the future.

HLLS connect people with groups, information, support and funding to improve agricultural productivity and better manage our natural resources.

The services and programs HLLS delivers are relevant to all land managers and primary producers within the Hunter region including public and private land managers; ratepayers and non-ratepayers. We target and prioritise how, who and where we deliver our services and programs in accordance with the principles outlined in the Hunter Local Strategic Plan.

In targeting how we deliver services, for this project we:

- Provide access to technical and general information for all customers and stakeholders via the website, newsletters and publications.
- Provide face-to-face advice.
- Property based advice – on site or property mapping services.
- Target groups and landholders in the relevant project area.
- Form strategic partnerships with industries, communities and government to address common priorities.
- Develop relevant resources and training events.

HLLS works with community to deliver and participate in the delivery of projects. We engage our community and encourage them to participate in our projects through a range of methods, including direct extension advice to support practice, community events and training, communications tools and products, incentives for on ground actions, collaborative partnership projects and community of practice networks and advisory groups.

Our approach in supporting to landholders to address local priorities through land management actions and deliver effective projects is:

- Provide relevant information and engagement that builds skills and knowledge for farmers, landholders and community groups. Information provided is scientifically accurate, provides practical solutions, and seeks ongoing improvement in delivery (as measured through evaluation programs).
- Provide individual technical advice on a property by property basis, and provision of support tools such as property plans, technical information and access to trial and demonstration sites.
- The above methods aim to increase capacity to adapt and adopt to relevant land management practices. We support this next step of action through incentive funds, such as Land Management Grants. These grants allow landholders to actively improve practices or address on farm issues, and recipients are required to commit to outcomes through 2:1 co-investment.
- We provide a support mechanism for on ground projects, we develop milestone check points to track progress, and depending on complexity of the project, maintain the appropriate level of service to each landholder.

4.2.6 - On Ground Monitoring

All on ground monitoring will be conducted in accordance with the National Standards for Monitoring Box-Gum Grassy Woodland alignment with the Environmental Stewardship Box Gum Grassy Woodland Monitoring Project (2015) to ensure consistency in data collection.

The Society for Ecological Restoration Australia (SERA) Monitoring Wheel - Condition Benchmarking Tool will be used as a pilot tool for condition assessment for long term restoration of Box-Gum Grassy Woodland in year 1 of the Weed Plan (SERA 2017).

The tool enables establishment of individual benchmarking of specific vegetation types, and can be developed for landholder use in a language and with supporting monitoring actions that are specific to targeted stakeholders. It is proposed that the design of benchmarking goals will be developed to the appropriate capacity for landholders and technical staff to implement monitoring actions.

Traditional on ground assessment will still be required. But methodologies can be designed at a level appropriate to the specific target audience.

Benchmarking seeks to identify the goal for restoration projects (i.e weed control, revegetation and natural regeneration, connectivity) for native vegetation, and identifies 6 attributes for monitoring (below). These attributes are monitored annually over time and identify on a Monitoring Wheel improvements and support priority strategies to improve native vegetation condition.

- Physical condition.
- Species Composition.
- Community Structure.
- Absence of Threats.
- External influences.
- Ecosystem function.

HLLS intend to use external ecological consultants to develop the benchmarking tool for Box-Gum Grassy Woodland (Consistent with existing National Box Woodland condition monitoring tool kits) in

year 1. Monitoring will be conducted on project sites, with landholders, prior to project commencement, and records retained. Monitoring will be revisited in future years, and a monitoring design will be developed to ensure long term monitoring is achieved.

As detailed in the graphic below, the tool rates each of the 6 attributes as a rating from 1-5. And an average overall rating is also provided against all six attributes. An overall rating of 1= not meeting benchmark condition, 5= meeting/exceeding benchmark condition.

Once the benchmarking has been completed, the monitoring tool will be developed and collect baseline data on each property engaged through this project, and through the life of the project. HLLS will support condition monitoring activities with Landholders (and engage ecological consultants where relevant), and ensure all data is appropriately recorded for ongoing monitoring activities at each site.

Monitoring will occur at multiple times through-out all on ground projects:

- Initial monitoring- collection of baseline data before on ground activities.
- Post project completion- at 12 months.
- Ongoing monitoring at 2-3 year intervals.

All data will be recorded in a Monitoring register, and all data made available (as relevant) to researchers and landholders for further research on condition and recovery outcomes. All data will be collected and identify the range of activities and control methods applied, and will be reviewed towards the end of the project, to determine long term condition changes over time, and how the benchmarking tool has been able to identify practice change requirements, decision making and improvements in Box-Gum Grassy Woodland condition through the project.

Data is collected on site, using benchmarking information and condition assessment sheets against the 6 attributes, and can be entered into the SERA online monitoring platform.

Data collected will be available for researchers and scholarship recipients to support studies on restoration methods and condition outcomes.

Figure 7(over page): SERA Monitoring Wheel (Society of Ecological Restoration Australia). In this example, based on the 6 attributes monitored, an overall rating of 3/5 has been assessed for this site. Data populates the monitoring wheel, and identifies areas for improvement, and can guide management strategies. Individual attributes assessed area also rated and provide commentary on findings, an example is highlighted under 3. Species Composition rating.

RECOVERY WHEEL

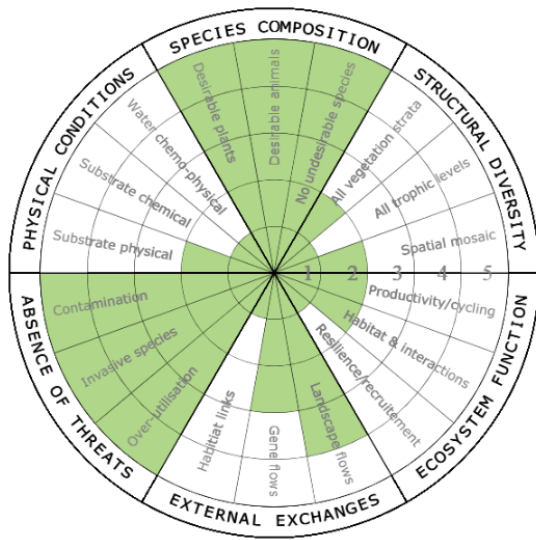
Site:

Assessor:

Date:

1. Absence of threats Over-utilization: <input type="text" value="5"/> Invasive species: <input type="text" value="5"/> Contamination: <input type="text" value="5"/> ***** All threats managed or mitigated to high extent.	2. Physical conditions Substrate physical: <input type="text" value="2"/> Substrate chemical: <input type="text" value="1"/> Water chemo-physical: <input type="text" value="1"/> ***** Gross physical and chemical problems remediated (e.g., contamination, erosion, compaction).	3. Species composition Desirable plants: <input type="text" value="5"/> Desirable animals: <input type="text" value="5"/> No undesirable species: <input type="text" value="5"/> ***** High diversity of characteristic species (e.g., >80% of reference) across the site, with high similarity to the reference ecosystem; improved potential for colonization of more species over time.
4. Structural diversity All strata present: <input type="text" value="2"/> All trophic level: <input type="text" value="1"/> Spatial mosaic: <input type="text" value="2"/> ***** More strata present but low spatial patterning and trophic complexity, relative to reference ecosystem.	5. Ecosystem function Productivity, cycling: <input type="text" value="2"/> Habitat interactions: <input type="text" value="2"/> Resilience, recruitment: <input type="text" value="1"/> ***** Substrates and hydrology show increased potential for a wider range of functions including nutrient cycling, and provision of habitats/resources for other species.	6. External exchanges Landscape flows: <input type="text" value="4"/> Gene flows: <input type="text" value="3"/> Habitat links: <input type="text" value="1"/> ***** Connectivity increasing and exchanges between site and external environment starting to be evident (e.g., more species, flows etc.).

[Update wheel](#)



ASSESSOR: Lyndel Wilson DATE: 2018-02-23
 SITE: Merriwa Landholder site 1

[Download as image](#)

 Adjacent threats being managed or mitigated and very low threat from undesirable species onsite. A moderate subset of characteristic native species are established and some evidence of ecosystem functionality commencing. Improved connectivity in evidence.

4.3 Other Activities/Considerations

4.3.1 Existing/Potential Box-Gum Grassy Woodland Activities

As part of the project approach, where able, this project will build and integrate with existing efforts to recover and restore Box-Gum Grassy Woodland. This will be reviewed annually as part of project planning, to ensure that adequate assessment of existing efforts, opportunities to build investment and resources, and extend activities towards National Recovery Plan objectives, is considered in planning and investment. At the time of Weed Project Plan development, there are very limited existing activities within the project area to recover or protect Box Gum Grassy Woodland.

Below are the current known existing activities that may be linked to this project:

Table 3: Known projects that may be delivered alongside this project

Project Activity	Funding Source/Info	Detail	Status
Merriwa Landcare “Inspire Biodiversity” Box-Gum Grassy Woodland Restoration Project	Hunter Local Land Services (via Australian Government Funding)	\$55,000 through HLLS funds towards revegetation, fencing and other restoration activities on the Merriwa plateau with 15+ land holders and community members.	Active 2017-18 Completion due in September 2018. Opportunity to continue engagement with these members and landholders in this project to participate Weed Project, through incentives program and capacity building events.
National Landcare Program-Regional Land Partnerships	Australian Government	Australian Government program with 6 priorities. Priority4: By 2023 the condition of nationally threatened ecological communities on private land is improved. Listed EEC's include Box-Gum Grassy Woodland. Hunter Local Land Services have tendered for a revegetation outcome focused project for Box-Gum Grassy Woodland over a 5 year period. If successful this project would value add, but not duplicate, this project.	Not active. 2018-19-2022-23 Potential/Proposed This project would not overlap/duplicate this project. Cost sharing has been proposed for SERA monitoring tool and BMP study only. Tender outcome expected in May 2018.
Evaluating alternate response models of endangered box gum grassy woodland following livestock exclusion-Ryan Sims-	Postgraduate research project	This postgraduate research project has multiple trial sites within Box-Gum Grassy Woodland, and several of these in the Merriwa plateau. There is an opportunity to work with this researcher to share data and knowledge throughout the project.	Active 2017 onwards- Current-longer term. This research project will not be funded or supported through this project, but the researcher will be invited to be involved in capacity building or other events.

Table 3: Summary of existing and proposed that may be aligned to this project

Other potential financial resources and programs that may also be investigated further through this project are also listed below. At present these programs are not identified to be funded or linked to this Weed Project Plan.

Project Activity	Funding Source/Info	Detail	Status
OEH Conservation Partners Program	NSW Office of Environment and Heritage	<p>The Conservation Partners Program supports landholders in voluntarily protecting and managing native vegetation, wildlife habitat, geological features, historic heritage and Aboriginal cultural heritage on their properties. Landholders can choose from a range of options that will recognise their commitment to conservation on their properties. Options available through the conservation partners program include:</p> <ul style="list-style-type: none"> • Conservation Agreement • Wildlife Refuge • Land for Wildlife/ Property registration 	Potential Opportunity http://www.environment.nsw.gov.au/cpp/ConservationPartners.htm
OEH Environmental Restoration and Rehabilitation Grants	NSW Office of Environment and Heritage	<p>The Restoration and Rehabilitation Program is a contestable grants program seeking to achieve long-term beneficial outcomes for the NSW environment. The aim of the Restoration and Rehabilitation Program is to facilitate projects run by community organisations and government entities working to prevent or reduce environmental degradation of any kind. The primary objectives of the restoration and rehabilitation program are:</p> <ul style="list-style-type: none"> • to restore degraded environmental resources, • including rare and endangered ecosystems • to protect important ecosystems and habitats of • rare and endangered flora and fauna • to prevent or minimise future environmental damage • to enhance the quality of specific environmental resources • to improve the capacity of eligible organisations • to protect, restore and enhance the environment • to prevent or reduce pollution. 	Potential Opportunity http://www.environment.nsw.gov.au/grants/restoration.htm

		The next round of grants is anticipated to open in November 2017.	
NSW Biodiversity Conservation Trust (Biodiversity Stewardship Sites)	NSW Biodiversity Conservation Trust	<p>The NSW Biodiversity Conservation Trust (BCT) manages and delivers private land conservation programs across NSW. The three types of voluntary conservation agreements offered include:</p> <ul style="list-style-type: none"> • Biodiversity Stewardship Agreements (BSA) • Conservation Agreements (CA) • Wildlife Refuge Agreements (WRA) <p>These programs can also provide Box Gum Woodland & Derived Native Grassland on the Merriwa Plateau stewardship payments, offering alternative income streams to rural landholders managing land with high environmental values.</p> <p>Box-Woodland is identified as Priority 1 (highest) within the Hunter Region.</p>	<p>Potential Opportunity</p> <p>https://www.bct.nsw.gov.au/wpcontent/uploads/2017/09/A4-downloadable-forwebsite.pdf</p>
Landholders Generating Land for Offset Credits	NSW Biodiversity Conservation Trust	<p>Local landholders, companies or Councils may wish to consider providing their land to generate biodiversity credits. A voluntary agreement between the Minister for the Environment and a landholder would be implemented to permanently protect and manage an area of land to improve its biodiversity values. A Stewardship Site will generate biodiversity credits which represent the expected improvement in biodiversity that will result from the protection and management of the site. A landholder can sell the biodiversity credits to developers or to the BCT and the landholder will receive payments in return for doing management actions on the property.</p>	<p>Potential Opportunity</p> <p>www.bct.nsw.gov.au/biodiversity-offsetsprogram-2/landholdersinterestedproviding-landgeneratebiodiversitycredits/</p>

Table 4: Summary of potential projects for integration into this project (*annual review will also investigate new existing/potential projects*)

4.3.2 Other Considerations

Risk Management – The Weed Project Plan will include measures and contingencies to address project delivery risks. Financial resources required and activity timeframes may fluctuate with adverse climatic conditions in particular due to the implications of climate on ability to treat weeds and monitor vegetation condition. Adaptive Management of the project will need to consider this risk throughout the project and related activities.

Weed Hygiene Biosecurity Practices – Prior to and throughout implementation of the Weed Project Plan measures need to be put in place to highlight requirements to reduce the spread of weeds by vehicles, machinery, livestock and humans. Engaged contractors and community members need to be made aware of these measures via contractual conditions and training/workshop activities. HLLS is currently coordinating the production of a number of video resources targeted to rural landholders, contractors and the general public to raise awareness and provide direction on this topic. HLLS also has access to Biosecurity farm gate signs.

4.4 Implementation, Timeframe, Financial management

Delivery timeframe for the Weed Project is expected to be up to 9 years with \$1million provided through MACH Energy for activities. Additional funds could be leveraged through HLLS through the National Landcare Program or OEH (or other relevant programs) for the landholder engagement incentives component (note that any outcomes/outputs achieved through additional funding sources will not be reported against this project), to achieve other National Recovery actions for Box-Gum Grassy Woodland.

HLLS have processes in place to engage contractors and appropriate partner agencies/institutes to assist with delivery of activities. These partners could also provide additional co-contributions towards implementation of the Project.

All activities funded through this project will be appropriately branded and communicated. HLLS systems will ensure that funds are allocated to this project and proposed activities only, and will be managed through financial systems (IRIS Project Management). Financial reports will be provided at the end of each project reporting period against the agreed activities to MACH Energy. These can be audited on request.

Financial tracking applied to this project will also identify any in kind funding from other sources that may co-invest to this project- to enhance or increase capacity to deliver. This will be restricted to activities proposed within this plan. All outcomes and outputs directly funded from this project will be reported as part of 6 month and 12 month reporting, and will be accompanied by financial expenditure reports- and relevant supporting evidence such as public communication products, contracts (landholder grants and external consultants/researchers) and invoices.

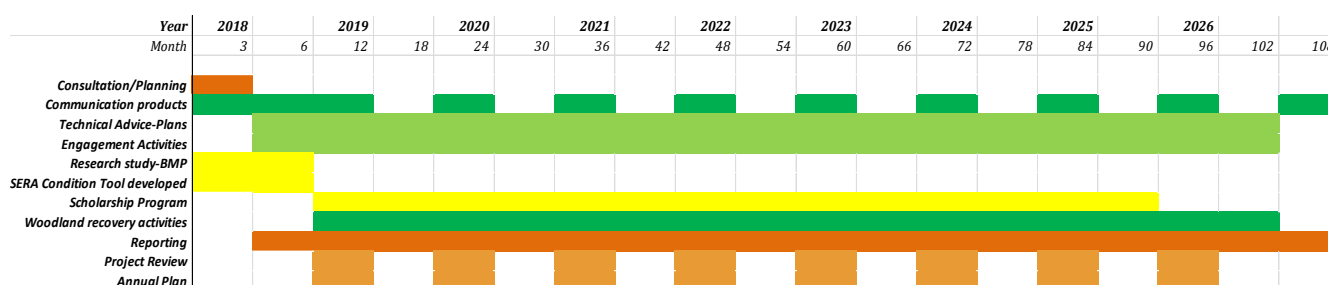


Figure 9- Indicative 9 year program delivery, see Project Year 1 section for more detail on year 1 activities.

4.5 Project Review and Adaptive Management

The Weed Project Plan would be developed and reviewed as a ‘living’ document as risks and contingencies for regular review are in-built into the Plan. The Advisory Committee would be engaged to review Plan progress and advice on any adaptations based on new information and changing priorities. Regular reviews would be undertaken at least every 6 months consistent with reporting timeframes. Other relevant stakeholders, not represented on the Offset Committee, will also be invited to participate in review and planning activities.

The National Recovery Plan was developed in 2011 and is currently 13 years old. In the instance the recovery plan is updated or revised, the program will also be revised against any changing priorities. At present, no National Recovery Team appears to exist for Box-Woodland, however if a team was to be developed within the 9 year delivery period, engagement with these members (or involvement in the Recovery Team) would be made to ensure appropriate adaptive management and priorities are consistent with national recovery priorities.

In March 2024, Hunter Local Land Services developed an Annual Work Plan for the 2024 to 2025 financial year (Appendix D). This plan was endorsed by the Offsets Advisory Committee on 27 March 2024 and forms as an addendum to the approved Weed Project Plan 2018. Annual Work Plans will be developed for the remaining life of the Project.

4.6 Communications Plan

HLLS have templates and processes in place for Project Communications Plans (see Section 12.2). These plans identify target audiences/stakeholders, the key messages for the project, key contacts, and a timeframe for communications activities (eg: media releases, field days/workshops, mechanisms to deliver project messages via social media, newsletters, websites etc.).

A Communications Plan would be generated as a primary task to provide guidance for development and implementation of the Weed Project Plan.

4.7 Staff Resources and Expertise-Capacity to Deliver

HLLS have staff with expertise in agricultural systems, biosecurity, communications, natural resource management and spatial systems. Specific expertise in managing weeds at a landscape scale has been developed over the past decade. Staff teams work together across these areas to achieve high quality project development and delivery.

HLLS staff have high levels of capability and capacity to undertake field work, data collection, mapping, engaging with landholders, providing technical advice, coordinating and running events, coordinating grant programs, partnerships, all aspects of stakeholder collaboration and client engagement, project and contract management.

HLLS have a pre-existing stakeholder network with industry professionals, service providers, industry and community networks and government agencies, including research organisations.

HLLS staff have established working relationships with landholder clients in target areas, including the Merriwa plateau, and have access to database information to effectively manage a targeted approach to project development and delivery.

5 SCOPE

5.1 Scope Definition

The project will deliver an on-ground works incentives program to both public and private landholders on the Merriwa plateau focus area to:

- Improve the connectivity, condition and extent of the Box-Gum Woodland.
- Engage landholders through incentives programs to undertake weed control, habitat protection and sustainable grazing practices.
- Provide demonstration sites which will encourage other landholders in the wider community to undertake such works

The project will also deliver a Capacity Building and Education program combined with on ground extension activities which focussing on:

- Strategic grazing and sustainable land management practices to improve existing habitat quality, increase habitat extent and landscape connectivity.
- Property planning.
- Best practice weed control techniques.
- Outcomes of on ground research trials to inform improved best practice weed control techniques.

5.2 Project Outcome(s)

- By 2026 the project will encourage participation, build skills, knowledge, provide resources and develop tools that build capacity for landholders to implement land management practices through weed management activities that improve condition and extent of Box-Gum Grassy Woodland, as measured through engagement evaluations, and number of grazing and weed

plans adopted by landholders, and number of incentive projects implemented and national recovery actions implemented.

- By 2026 the project will conduct research, trials and studies, based on knowledge gaps, that build knowledge and data relevant to practical Box-Gum Grassy Woodland recovery, as measured by the number of projects conducted, and the information that is shared to relevant stakeholders and the public and national recovery actions implemented.
- By 2026 the project will have reduced weed extent and improved condition and extent of Box-Gum Grassy Woodland on the Merriwa plateau, as measured by condition monitoring and mapping over the life of the project and national recovery actions implemented.
- By 2026 the project will develop partnerships and a collaborative approach to the project that builds on investment, reduces duplication and enhances outcomes for the project, as measured by the number of partners and projects that link to this project.

5.3 Project Outputs:

- Area (ha) of native vegetation enhanced / rehabilitated.
- Area (ha) planted to native species.
- Area (ha) of pest plant control measures implemented.
- Area (ha) of sustainable grazing practices.
- Area (ha) of targeted weed species treated.
- Area (ha) of remnant vegetation protected through project agreements (where relevant).
- Area (ha) of remnant vegetation fenced to exclude stock.
- Number of integrated property plans developed (approx. 4-6 per year).
- Number of research trials and studies conducted.
- Number of awareness raising events conducted and number of participants.
- Number of communication/education products/studies published.
- Outcomes achieved as measured against National Recovery Actions.

5.4 Exclusions (out of scope for project)

The following areas are outside of the scope of this project:

- On ground works and other associated activities outside the identified priority focus area.
- On ground works not specified in this project.
- On ground works that do not address nominated priority activities.
- Activities funded through HLLS from other investors.

6 PROJECT MANAGEMENT

Implementation of the Weed Plan would be overseen by the MACH Energy Offsets Advisory Committee comprising representatives of stakeholders to monitor and guide implementation and mitigate risks to the delivery of activities. Committee membership and their roles will be guided by agreed Terms of Reference.

Where the project implementation involves delivery of Incentives funds for recovery actions, it is proposed that several members of the Offsets Advisory Committee be involved in assessment and endorsement of projects submitted by landholder to the program. Figure 8 identifies the indicative program delivery over the 9 year proposed project timeframe.

Underpinning the project management and incentives delivery framework HLLS implements best practice through:

- Compliance with governance responsibilities according to its statutory/incorporation or other legal obligations, including Work, Health and Safety obligations.
- Has an organisational decision making process that are transparent and communicated regularly with the local community. There is a HLLS Communications and Engagement Plan upon which

our regional communications planning is based. HLLS's work is also guided by policies and protocols regarding staff interaction with the media and the use of social media.

- Ensures all staff and board of directors demonstrate Indigenous cultural awareness.
- Have structures and processes in place to regularly communicate organisational and project performance achievements.
- Has developed detailed Operational Guidelines for all staff that set out the best practice requirement for project Governance, including Grants administration and Procurement. The Guidelines are supplemented by a set of templates, tools and resources to ensure best practice is met.

Funding Administration - HLLS is a NSW Government agency and must comply with all facets of public sector accounting and reporting and has the following systems in place to ensure accountability:

- Guarantee of Service policy that provides service standards for the HLLS when dealing with its community. The standards allow HLLS to review its performance and improve in the future.
- Annual audits undertaken by the NSW Audit Office covering business systems, compliance and accountability of expenditure of public funds.
- Compliance checklist for NSW Government annual reporting.
- A full suite of documented business procedures including a corporate sponsorship policy and procedure for dealing with external partners.
- Incentives Delivery Procedure that covers contracting and tendering processes and ongoing monitoring of incentives funded project performance.
- A Monitoring Evaluation Reporting (MER) plan to ensure compliance with national and state MER standards and evidenced-based program logic models for investment.
- Integrated spatial databases to track on-ground works and track achievement of milestones (IRIS & ArcGIS).
- Regular audits by the Natural Resources Commission in relation to achievement of NSW State Plan targets and the NSW Standard for Quality Natural Resource Management.
- HLLS has rigorous accounting systems in place and is able to ensure that all funds received from all sources are able to be readily tracked and accounted for. HLLS has the capacity to receive large amounts of funds for specific purposes. Financial reporting can be provided according to the needs of the funding organisation, together with project activity reporting.

Incentive Funds-Land Management Grants - HLLS secures agreement with private landholders throughout the region as part of a coordinated land management grants program in the Upper and Lower Hunter and Manning Great Lakes districts. The land management grants enable private landholders to apply, through an open tender process, for incentive funding for on-ground projects and changed management practices which aim to increase farm enterprise profitability and productivity by supporting landholders to implement on-ground sustainable agriculture and natural resource management practice changes which improve landscape health and triple bottom line (economic, social and environmental) outcomes.

In 2017/18, grants funds were available to support:

- Implementation of sustainable grazing and land management practices within commercial beef, dairy, sheep and poultry enterprises.
- Enhancement of the condition of riparian, estuarine and remnant native vegetation by managing stock impacts and reducing threats from invasive species.
- Improvement of oyster farming infrastructure and business viability.
- Through National Landcare Program (1) has delivered 115 grants to projects across the management unit, improving on ground practices across 3900 Ha on private lands. Activities adopted included grazing, riparian protection works, pest control, weed control, revegetation, pasture improvement and, protection and regeneration of remnant vegetation.

To ensure successful delivery and implementation of the land management grants program HLLS has a Request for Assistance (RFA) procedure whereby landholders complete a RFA form and return to staff. The RFA is open year round and site visits from staff can happen all year round. As part of the site visit landholders are provided with a comprehensive site report detailing the current condition of the land along with opportunities to improve management in terms of soil condition, ground cover, native vegetation, weed management, pest management, riparian improvement and agricultural productivity where relevant.

The advice, site report and mapping provided by staff forms the basis of a landholders land management grant application). Through this process, grant applicants are supported to submit projects through our grants programs, and all successful projects, through our independent assessment panel review process, is provided with a Grant Contract.

HLLS has a general principle of requiring matching funds from the landholder (1:1 ratio).

In 2017/18 the region has specified in identified benefits in seeking increased in-kind contributions, project guidelines at a level of contribution from landholders at a minimum of 2:1. This approach manages the increasingly competitive nature of grant applications, ensures proposed activities will achieve outcomes, identifies commitment from the applicant, ensures project risk management and resources to implement the project are appropriate, and the leverage of funding is increased. If landholders are contributing more in-kind or financial funds than 1:1 the project gets weighted accordingly.

Landholder's agreement is secured through a contract for delivery with set milestones and delivery dates via standard contract document. We have been able to support on ground practices with our stakeholders through our Land Management grants broadly across our region, through multiple investment sources for a range of practices.

As a minimum all HLLS Grants processes must include:

- Guidelines relevant to the project needs.
- Communications strategy consistent with the scope of the project.
- Application form and lodgement process.
- Conflict of Interest declaration and management process.
- Transparent assessment and decision making process.
- Notification processes to ensure all applicants are informed of the outcomes of assessments.
- Cultural Due Diligence assessments for potential funded projects.
- Contracts for all successful applicants.
- Monitoring, Evaluation and Reporting.

The level of detail required for meeting the minimum standard for Grants processes will depend on the type of Grants and the risk associated with the process. The primary risks to the LLS through Grants processes are reputational, financial, safety, operational, delivery and maintenance risks.

Criteria for assessment will be based on:

- Alignment with National Recovery Plan Priorities(connectivity, priority weeds, potential for condition improvement).
- Ability to protect or recover high priority Box Woodland.
- Capacity to deliver.
- Public benefit vs private benefit outcomes.
- Value for money- applicant in kind and cash contributions.
- Best practice.
- Aligns with integrated property plans.
- Triple bottom line outcomes.
- Risk assessment-likelihood of success.
- Monitoring and reporting capacity-willingness to apply SERA tool.

Existing staff knowledge and history working with applicants, their involvement in skills or training programs that has enabled capacity to deliver projects, and other relevant experience to deliver is also considered in the assessment process.

All funded projects are required to submit an end of project report; this provides information including photo monitoring points and other monitoring data, spatial data of the extent of works, an evaluation and highlight of activities completed, benefits, methods and results. Interim reports are also required, and these form project milestones, supported by milestone payments.

Existing staff knowledge and history working with applicants, their involvement in skills or training programs that has enabled capacity to deliver projects, and other relevant experience to deliver is also considered in the assessment process.

Services are provided to individual project recipients or landholders, based on the matrix below:

Landholder reporting and site inspections - The level of reporting, and type and frequency of project site inspections during the agreement period will be determined using a decision framework which considers the value of an individual project, the technical level required to implement project activities, and the capacity of the landholder.

Project Tracking and Monitoring, Evaluation and Reporting - Individual project management is tracked by an Integrated Reporting Information System (IRIS) database which captures project information such as timeframes, milestones, payments, photos, location maps, activities, contacts, reports/documents, and project evaluation, and allows real-time monitoring and reporting of projects at a range of scales. IRIS is integrated with our SAP accounting system to provide linked reporting of outputs and expenditure.

Spatial Systems - HLLS has the ArcGIS 10.3.1 software to develop and overlay spatial layers to generate project maps and plans, and to allow for analysis of spatial data. Numerous spatial layers are available through the Dept. of Industry Spatial Portal to inform project desktop analyses, such as land ownership, topography, water and vegetation resources etc.

All other governance arrangements around the project delivery are detailed in section 6.2.

6.1 Previous experience

Hunter LLS has run multiple projects of a similar nature within the Hunter Region, providing extension services, incentive funds and capacity building programs and support to land management activities.

Through the 2014-17 LLS staff supported landholders through Land Management Grants to deliver grazing and land management activities, over 215 grants to landholder projects across the Hunter region, improving on ground practices across 7800 Ha. Activities funded included grazing, riparian protection works, pest control, weed control, revegetation, pasture improvement and, protection and regeneration of remnant vegetation.

Hunter LLS also has other example projects working with mining companies to deliver medium-long term projects.

One specific project example, delivered through a partnership with Xtrata Coal Mine (Muswellbrook area- near the Merriwa Plateau) is the “Wybong Catchment Health Improvement Project” in 2010(over 4 years). The project aim was to provide an on-ground works programs to address key management targets identified within the Hunter Catchment Action Plan, including regeneration of native vegetation, regeneration of degraded riparian vegetation, stabilising stream channels, restoring in-stream habitat of stream channels and stabilising salt affected areas. This project included a research component conducting monitoring and research activities, trial sites and demonstration sites. Specific activities included:

- Develop an education & extension program specific to this project which will complement existing Integrated Land Management Project (ILMP).
- Establish a farmer focus group to build capacity of local landholders.
- Demonstrate Best Management Practices (BMP) in the 3 key areas of:
 - soil health;
 - grazing management; and
 - landscape scale biodiversity connectivity.
- Use the ILMP delivery model which attracts landholders for training in soil health, grazing management, property management planning and associated courses as a pre-cursor to accessing Incentives funds for on-ground projects.
- Develop local properties as case studies for BMP and trials and demonstrations, site specific case study materials, field days and training workshops. These works will complement similar works and activities to be undertaken independent of this project on land owned by Xtrata Coal.
- Skills and services of CMA technical staff will be integrated into delivery of the education & extension program on a needs basis.
- Woodland Bird as Indicator research and monitoring program with community.

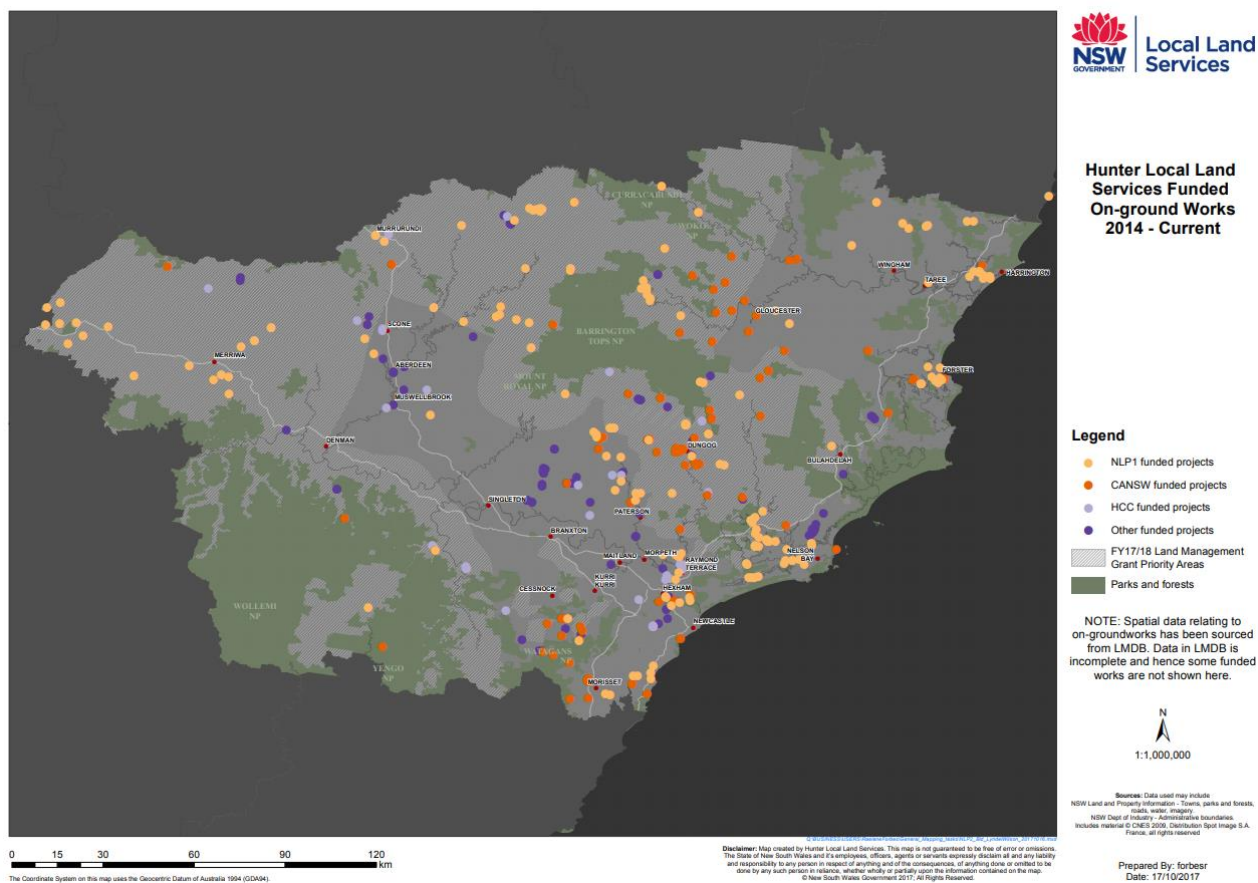


Figure 8: Land management grants funded from 2014-17, through multiple investor sources.

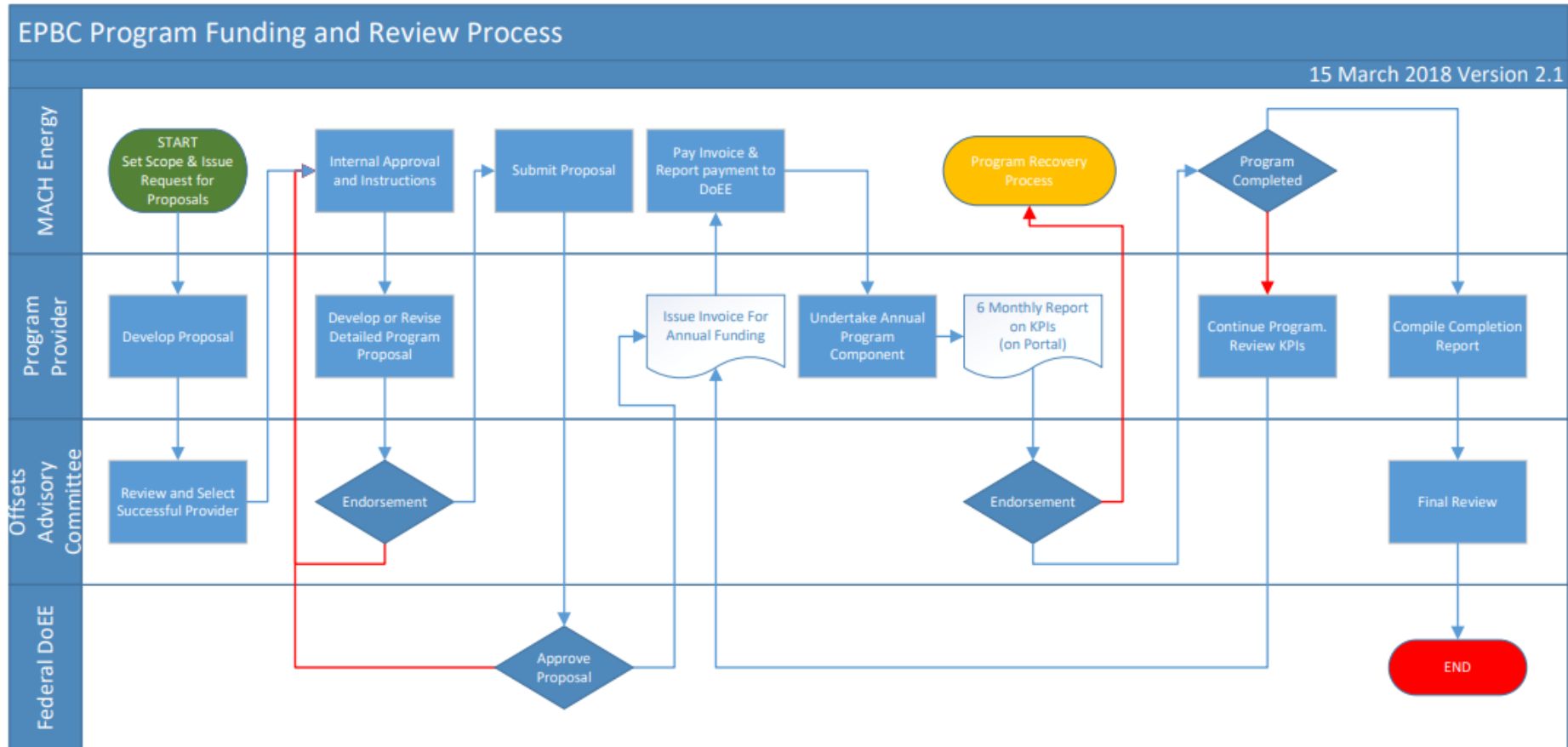
Outcomes for the project included:

- 162 landholders were engaged in the project, and 171 individuals received training (through field days, events, forums and best practice management advice)
- On ground activities achieved through the project included 52 ha of riparian protection works through stock proof fencing, 663 ha of terrestrial vegetation management (weed control, fencing from stock etc), and 4810ha of land managed through sustainable grazing.

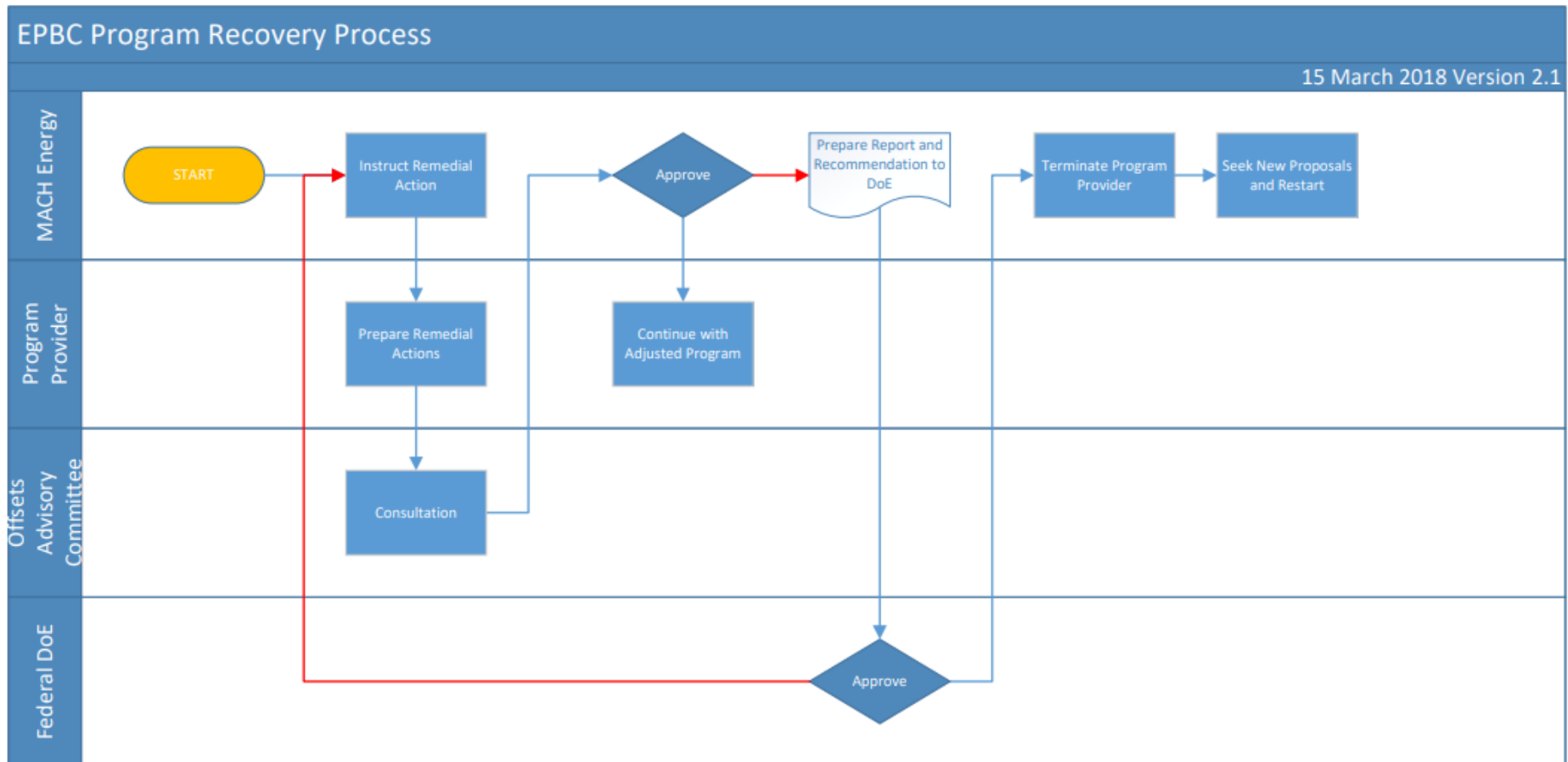
- Woodland Bird Monitoring program established 32 monitoring sites with landholders, with regular monitoring over 18months. 124 bird species were recorded, Ecological Consultants provided data analysis, and valuable information was gained that enabled future decision making and Woodland management practices into future programs.
- The Woodland Bird Monitoring report was available to BirdLife Australia and published and distributed to the local landholders.

6.2 Project Funding and Review Process

Graphic 1 and 2 provide an overview of the governance arrangements for MACH Energy, the Offset Advisory Committee and the Department of Environment to oversee, manage and review project implementation progress over the project period, and allow for adaptive management/intervention processes to ensure outcomes are met.



Graphic 1: Funding and Review Processes to be implemented over the life of Project (MACH Energy)



Graphic 2: Processes for monitoring project recovery processes and remedial actions

6.3 Project Management Team and Roles

Table 5: Project Management

Role	Organisation	Timing	Responsibilities
Team Leader – NRM	Hunter Local Land Services	Life of the project	<ul style="list-style-type: none"> • Primary HLLS contact for the project. • Lead partner for on-ground delivery. • Will direct additional funding from sources such as National Landcare Program. • Member of the MACH Energy Offsets Advisory Committee. • Attend project inception meeting and progress meetings, as appropriate. • Provide progress reports to and feedback to offset committee. • Provide annual budget plans to MACH Energy. • Manage and or oversee all components of the project.
Senior Land Services NRM Officer	Hunter Local Land Services	Life of the project.	<ul style="list-style-type: none"> • Ensure on-ground projects are developed and delivered according to HLLS governance standards. • Manage the day-to-day aspects of the project, develop and maintain the Project Plan and all other documentation. • Monitor the project's progress and budget. • Support with development of weed and grazing management plans • Technical advice and support
Senior Land Services Agricultural Extension/Pas tures Officer	Hunter Local Land Services	Yr 1-8	<ul style="list-style-type: none"> • Support with development of grazing management plans • Technical advice and support
Community Engagement Officer	Hunter Local Land Services	Life of the Project	<ul style="list-style-type: none"> • Support with coordination and delivery of capacity building events, landholder advice, project communications
HLLS Technical Staff Technical input for project development	Hunter Local Land Services	As required over life of the project.	<ul style="list-style-type: none"> • Best available advice provided to development of Management Plans.
Monitoring, Evaluation, Reporting and Improvement	Hunter Local Land Services	Life of the project.	<ul style="list-style-type: none"> • Project governance including contractual arrangements • MERI Plan.
Communicatio ns and Media Staff.	Hunter Local Land Services	Life of the project.	<ul style="list-style-type: none"> • Communications and media.
Project Sponsor Offset Advisory Committee	MACH Energy	Life of Project	<ul style="list-style-type: none"> • Provide project funding • Oversee Offset Advisory Committee • Provide technical advice/feedback •

Offset Advisory Committee	Hunter Local Land Services	Life of the project.	<ul style="list-style-type: none"> • Make recommendations/endorsement/project review participation • Provide technical advice/feedback • Advocacy on the project as relevant
Offset Advisory Committee	NSW Office of Environment and Heritage	Life of the project.	<ul style="list-style-type: none"> • Make recommendations/endorsement/project review participation • Provide technical advice/feedback • Advocacy on the project as relevant
Offset Advisory Committee	Merriwa Landcare	Life of the project.	<ul style="list-style-type: none"> • Make recommendations/endorsement/project review participation • Provide technical advice/feedback • Advocacy on the project as relevant
Offset Advisory Committee	Upper Hunter Weeds Authority	Life of the project.	<ul style="list-style-type: none"> • Make recommendations/endorsement/project review participation • Provide technical advice/feedback • Advocacy on the project as relevant
Offset Advisory Committee	Consultant	Life of the project.	<ul style="list-style-type: none"> • Make recommendations/endorsement/project review participation • Provide technical advice/feedback • Advocacy on the project as relevant
Offset Advisory Committee	Community Representative	Life of the project.	<ul style="list-style-type: none"> • Make recommendations/endorsement/project review participation • Provide technical advice/feedback <p>Advocacy on the project as relevant</p>

Potential Project Partners:

On project commencement, a review of potential partners will be conducted with Offsets Advisory Committee, to determine how other organisations may be involved in delivery. This will be reviewed with committee members on project commencement. Partners identified by the committee will be invited to participate in the project, and roles will be clarified. Potential partners include:

- Other Landcare groups/networks.
- Agricultural groups- such as Upper Hunter Sustainable Grazing Group.
- Local Aboriginal Land Corporations.
- Neighbouring Local Land Services.
- Research organisations/ecological consultants/ecologists.
- Local Government.
- Native nurseries.
- Community organisations- Conservation Volunteers/other.
- Biodiversity Conservation Trust (OEH)/ Sustainable Land Management (LLS).

7 PROJECT BUDGET

It is proposed that the project will be delivered up to 9 years. This allows for longer term and consistent engagement, ability to deliver and implement several research projects and studies over multiple years (Masters/PhD), and longer term support and technical advice to land managers to adopt practices that reduce weed threats and improve recovery, and allow for the monitoring of this, for Box-Gum Grassy Woodland over time.

Woodland Recovery Activities: includes all land manager activities (weed control, grazing, fencing, biological control release etc) as delivered through incentives programs, and condition monitoring activities.

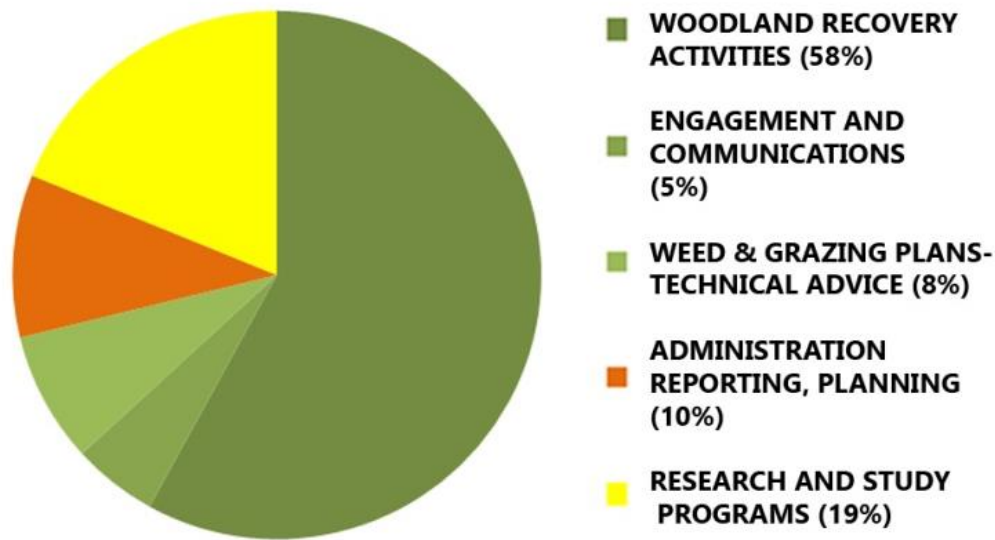
Engagement and Communications: includes all workshops, field days and training events, development of publications and information kits, public promotion of findings of Research projects and Studies and raising awareness and profile of the project and its objectives.

Weed and Grazing Plans- Technical Advice for Landholders: includes all land manager support to develop property specific plans based on property inspections and extension advice to support on ground activities, extension services will be provided through HLLS staff or other experts throughout the project.

Administration, Reporting and Planning: includes consultation and engagement with other organisations with an interest in Box-Gum Grassy Woodland recovery and weed activities to support ongoing planning and review of the project, all administration services provided in the delivery and contracting of land managers receiving Incentives Programs and Scholarships, reporting 6 monthly reports to MACH Energy and the Offset Advisory Committee, and annual plans as per agreed reporting processes.

Research and Study Programs: includes St Johns Wort trials, BMP Study with landholders and other proposed Research Scholarships.

BUDGET BREAKDOWN FOR PROJECT (\$1 Million over 9 years)



Graphic 3: Indicative Project Budget Summary for \$1 Million project over 9 years

8 RISK ASSESSMENT

The initial **Risk Assessment** (following page) attempts to identify, characterise, prioritise and document a mitigation approach relative to those risks which can be identified prior to the start of the project.

The **Risk Assessment** will be continuously monitored and updated throughout the life of the project, with monthly assessments and open to amendment by the Project Manager.

Because mitigation approaches must be agreed upon by project leadership (based on the assessed impact of the risk, the project's ability to accept the risk, and the feasibility of mitigating the risk), it is necessary to allocate time into each Project Team meeting, dedicated to identifying new risks and discussing mitigation strategies.

8.1 Project Risk Management – Risk identification, Analysis and Assessment.

Table 6: Risk Matrix

Risk No	The risk	Potential causes/sources	Potential impacts	Existing controls	Likelihood	Consequence	Current risk level	Requires action Yes/No
1	Prolonged severe drought	Low rainfall	Risk to revegetation activities. Risk to weed management activities. Little interest in project by landholders.	Timelines of project may have to be extended	Possible	Major	Medium to high	Yes
2	Floods/ storms	One off events or extreme rainfall events	On-ground works compromised/ destroyed before vegetation becomes established. Weed control	Salvaging of works may have to take precedence over new works	Possible	Moderate	Medium	No
3	Owner/managers may become incapacitated or ill before completion of works	Illness and injury	Inability to complete works and monitoring and consequent project failure on the affected property	Project procedures of each property are documented and others trained so the work may be continued. Oversight by the project team HLLS provides ample backup	Possible	Minor	Medium	No

4	Key project staff become incapacitated or ill or resign from HLLS, before completion of works	Medium to long term illness / injury; key project staff leaving	Inability to effectively manage project and to meet project objectives and timelines.	The number of project members and qualified HLLS staff provides ample redundancy to complete project. Internal reporting arrangements and reporting processes are adequate	Remote	Minor	Low	No
5	Change in land ownership. Withdrawal of participating properties	Advancing age, family issues, financial needs, legal issues	Withdrawal of participant property before completion of works	Every effort should be made by the seller to covenant with the buyer to permit the ongoing works to continue to completion. These would be made under the supervision of the project team	Remote	Moderate	Low	No
6	General inclement weather	Atmospheric conditions	Intermittent delay of work	Forecasting prior to booking in short-notice activities (eg: revegetation/ weed control)	Possible	Moderate	Low	
7	Lack of skills or interest of property managers.	Inability or unwillingness of property managers to educate themselves about Box-Gum Grassy Woodland sites	Little interest of project by landholders	Past experience of HLLS have demonstrated that landholders within the Upper Hunter catchment are receptive to education initiatives and availing themselves of funding grants to carry out NRM on their properties	Remote	Moderate	Low	No

8	On-ground issues with project methodology design and implementation delay commencement of on-ground activities	Technical issues	Delays with project contractors, therefore project start date; it will not prevent the project from progressing	The number of respected service contractors may be limited. The project participants may have little time or resource	Possible	Moderate	Medium	No
9	Project group communications fail to engage the interest of other land managers, and the public	Ad hoc or poorly planned and executed communication activities	The project will fail to inform those who can implement and influence better land management for the desired outcomes	A communication plan exists; access is available to skilled communicators in HLLS. HLLS has had previous contact with some landholders on identified priority sites	Remote	Moderate	Low	No
10	Change of staff or lack of commitment from public land holders	Lack of financial resources, key project staff leave	Inability to effectively manage project and to meet project objectives and timelines	Project Agreements entered into with public land managers and committing financial and staff resources to completion of project. Try to ensure shelf projects available	Possible	Moderate	Low	No

9 ASSUMPTIONS

9.1 Project Assumptions

The following assumptions were made in preparing the Project Plan:

- HLLS Management will ensure that project team members are available as needed to complete project tasks and objectives.
- The Project Team will participate in the timely execution of the Project Plan (i.e. timely approval cycles and meetings when required).
- Failure to identify changes to draft deliverables within the time specified in the project timeline will result in project delays.
- Project Team members will adhere to the Communications Plan.
- Management in HLLS will foster support of project goals and objectives.
- All project service providers will sign and abide by a simple contract with the HLLS.
- The Project Plan may change as new information and issues are revealed as part of the adaptive management approach, in consultation with the Offset Advisory Committee.

10. CONSTRAINTS

10.1 Project Constraints

The following represent known project constraints:

- Project funding sources are limited, with no contingency.
- Weather and climate.

10.2 Critical Project Barriers

Unlike risks, critical project barriers are insurmountable issues that can be destructive to a project's initiative. In this project, the following are possible critical barriers:

- Removal of project funding.
- Natural disasters or acts of war.
- Severe and long drought.

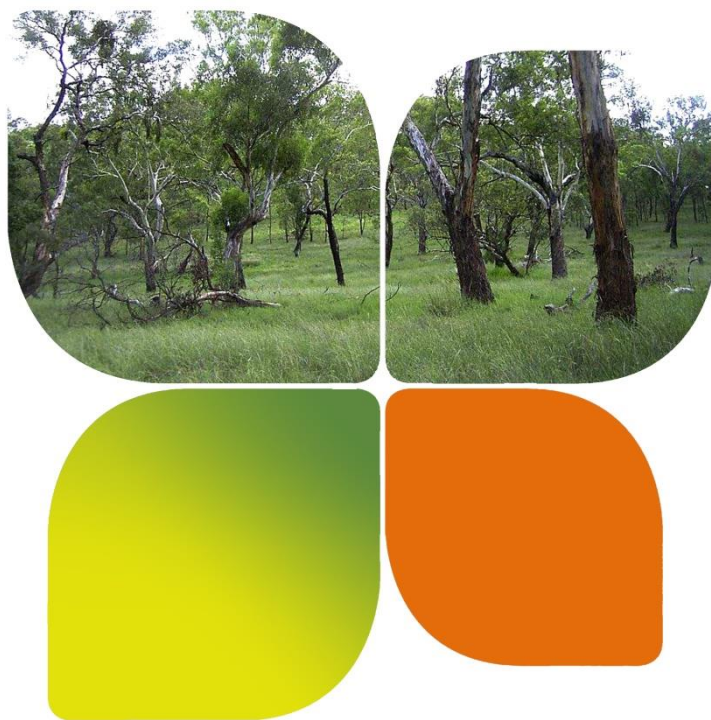
Should any of these events occur, the Project Plan could become invalid.

11 PROJECT MANAGEMENT APPROACH

11.1 Issue Management

The information contained within the Project Plan will likely change as the project progresses. While change is both certain and required, it is important to note that any changes to the Project Plan will impact at least one of three critical success factors: Available Time, Available Resources (Financial, Personnel), or Project Quality. The decision by which to make modifications to the Project Plan (including project scope and resources) should be coordinated using the following process:

- Step 1:** As soon as a change which impacts project scope, schedule, staffing or spending is identified, the Project Manager will document the issue.
- Step 2:** The Project Manager will review the change and determine the associated impact to the project and will forward the issue, along with a recommendation, to the Sponsor Organisation's primary contact and HLLS for review and decision.
- Step 3:** Upon receipt, the Sponsor Organisation's primary contact and HLLS should reach a consensus opinion on whether to approve, reject or modify the request based upon the information contained within the Project Manager's recommendation and their own judgment. Should the Sponsor Organisation's primary contact and HLLS be unable to reach consensus on the approval or denial of a change, the issue will be forwarded to the Project Sponsor, with a written summation of the issue, for ultimate resolution.



Weed Project Plan- Year

12. ANNUAL PROJECT PLAN- YEAR 1

<p>1. Long Term Outcome</p>	<ul style="list-style-type: none"> • By 2026 the project will encourage participation, build skills, knowledge, provide resources and develop tools that build capacity for landholders to implement land management practices that improve condition and extent of Box-Gum Grassy Woodland, as measured through engagement evaluations, and number of grazing and weed plans adopted by landholders, and number of incentive projects implemented and national recovery actions implemented.. • By 2026 the project will conduct research, trials and studies, based on knowledge gaps, that build knowledge and data relevant to practical Box-Gum Grassy Woodland recovery, as measured by the number of projects conducted, and the information that is shared to relevant stakeholders and the public and national recovery actions implemented.. • By 2026 the project will have reduced weed and improved condition and extent of Box-Gum Grassy Woodland on the Merriwa plateau, as measured by condition monitoring and mapping over the life of the project and national recovery actions implemented. • By 2026 the project will develop partnerships and a collaborative approach to the project that builds on investment, reduces duplication and enhances outcomes for recovery potential, as measured by the number of partners and projects that link to this project.
<p>2. Priority actions</p>	<ul style="list-style-type: none"> • Reduce threats of priority weeds on Box-Gum Grassy Woodland • Increase extent of Box-Gum Grassy Woodland • Improve condition of Box-Gum Grassy Woodland • -Increase capacity and participation of land managers to manage and conserve Box-Gum Grassy Woodland
<p>3. Total Project Duration</p>	<p>9 years</p>
<p>4. This Project</p>	<p>1 year</p>
<p>5. Potential for integration with other existing or potential initiatives</p>	<ul style="list-style-type: none"> • Merriwa Landcare (2017-18) “Inspire Biodiversity” Box-Gum Grassy Woodland Restoration project (revegetation, nest box and fencing to protect and enhance remnants) (funded through HLLS) • OEH Saving our Species Program- Box-Gum Grassy Woodland projects • National Landcare Program-Regional Land Partnerships (2018-19 to 2022-23) –Priority Outcome 4 By 2023 the condition of nationally threatened ecological communities on private land is improved (TBC- Likely to be delivered by HLLS) to support complementary activities such as fencing and revegetation. • Post Graduate research project (2017 onwards) Ryan Sims(Key Botany) <i>Evaluating alternate response models of endangered box gum grassy woodland following livestock exclusion</i> with study sites in the Merriwa plateau • MACH Energy- (TBC) DoEE Swift Parrot and Regent Honeyeater project
<p>6. Recovery Actions to be Implemented</p>	<p>4.1, 2.6, 4.3, 4.4, 4.6, 3.4</p>
<p>7. Social Outcomes</p>	<p>Build landholder networks, community of practice with landholders and collaborative efforts between organisations to implement Box- Gum Grassy Woodland recovery activities. Provide opportunities for multiple service delivery partners to participate in project.</p>
<p>8. Environmental outcomes</p>	<p>Reduction of weed threats to Box-Gum Grassy Woodland Improve condition and extent of Box-Gum Grassy Woodland</p>

9. Economic outcomes	Build investment, and/or leverage of project funding with landholders and other recipients of funding through in kind or other integrated project opportunities.
10. Activities	<ul style="list-style-type: none"> • Condition monitoring • Planning and consultation session, determination of data gaps and priorities, with key stakeholders- identify key stakeholders • Partnerships meeting- invite potential partners to participate in program, via Offsets Committee or regular communications in the area • Field days, events and training • Incentives Program • Integrated Weed and Grazing Plans and extension advice • BMP Landholder Surveys • St Johns Wort Trials • 2 Communication products(TBC) • 2 six monthly reports
11. Outputs-primary	<ul style="list-style-type: none"> • Area (ha) of pest plant control measures implemented • Area (ha) of sustainable grazing practices • Area (ha) of targeted weed species treated • Number of research trials and studies conducted • Number of monitoring points • Number of awareness raising events conducted and number of participants • Number of land managers adopting practice change • Number of communication/education products/studies published • Number of reports submitted
12. Outputs- secondary	<ul style="list-style-type: none"> • Area (ha) of native vegetation enhanced / rehabilitated (<i>unlikely to see significant change in year 1</i>) • Length of Fencing • Area of Revegetation/Natural regeneration • Area (ha) of remnant vegetation fenced to exclude stock • Area (ha) planted to native species • Area (ha) of remnant vegetation protected through project agreements (where relevant)
13. Reporting KPI's	<ul style="list-style-type: none"> • 1 stakeholder consultation and planning session • 1 research or study conducted (BMP Landholder Survey) • 1 trial initiated (St Johns Wort Biological Trials) • 1 Incentive Program implemented • 2 Community engagement activities, with minimum 40 participants • 2 Communication products (i.e. fact sheets, guides or other promotional information) • 4 land managers engaged to conduct on ground activities • 2 Reports submitted (including outputs summary achieved) • 1 annual review of outcomes and progress (to support development of annual project plan for year 2)
14. Partners	<p>Offset Advisory Committee Department of Primary Industries Existing Researchers Land managers of the Merriwa Plateau</p>
15. Target stakeholders	<p>Beef/Sheep industry (and associated land owners such as mines, private landholders etc) Public Land Managers (local government, LALCs etc) Landcare groups and members</p>
16. Monitoring activities	<ul style="list-style-type: none"> • Box-Gum Grassy Woodland condition assessment • Photo monitoring • Weed assessment/mapping • Landholder Best Management Practice survey and community consultation on perceptions/views
17. Improvements adaptations to be applied	n/a new program
18. Budget Break Down	On ground works/Woodland Recovery Activities: \$75,000

	Engagement and Communications: \$9,000 Weed and Grazing Plans-Technical Advice for Landholders: \$10,000 Administration, Reporting and Planning: \$11,600 Research and Study Programs: \$15,500																																																																																																																																																											
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Weed Project Plan Year 1: Table 1: Project Summary for Year 1 activities

Landholder Best Management Practice (BMP) Survey: The Landholder BMP will be delivered in year 1 to engage with landholders that own land containing remnant Box-Gum Grassy Woodland for three main purposes, these are to:

- Actively engage with landholders on Box –Gum Grassy Woodland management
- Determine current practices and ascertain levels of understanding in native vegetation recovery understand motivations for land managers and barriers for adoption,
- Collect information that can be used to influence and promote positive practices, and build on existing practices to improve recovery outcomes.
- Improve understanding around the best methods to influence and encourage participation within the agricultural landscape.

HLLS will partner with a research organisation or university to undertake the survey and will contact a range of land owners through interviews across the plateau and adjacent regions where Box-Gum Grassy Woodland occurs on agricultural lands.

A case study/publication will be developed on key findings in addition to the promotion of economic benefits to conservation farming, including low input grazing, high quality productive native pastures, shelterbelts, pollinators (microbats and insects) and natural pest management (birds) and water quality and water salinity management, through the protection of vegetation.

Biological Trials: St Johns Wort is found extensively across the Merriwa plateau and is considered an Agricultural weed threat in the region. This weed also impacts on native vegetation, and is also a key threat to native grassland/understorey species establishment. Due to the difficulty in treating this weed, it's toxic nature and extent; it is proposed to introduce biological control as a trial in the region.

Biological control options should only be considered at sites which are hard to access and/or at sites where there are significantly heavy core infestations planned for manual/herbicide treatment later on. The St John's Wort Beetle (*Chrysolina spp.*) has proven to be successful in open sunny areas and could be used initially within trials at suitable sites on the Merriwa West BMA or other suitable locations aligned with Landholder support as practical, in tandem and/or in combination with other known St John's Wort agents. Several other species of biological control species have been established in Australia including:

- St John's wort gall midge (*Zeuxidiplosis giardia*)
- St John's wort aphid (*Aphis chloris*)
- St John's wort mite (*Aculus hyperici*)
- St John's wort root borer (*Agilus hyperici*)

It is proposed to establish a number of different control agents with the core species being made up the St John's Wort Beetle. The trial will be established in accordance with industry best practice (CRC, 2008) and be supported by technical advice from HLLS staff, Upper Hunter Weeds Authority and Department of Primary Industries. Evaluation and monitoring of release sites will be an integral part of the trial with results providing:

- Direct feedback on the success or otherwise of the biological agent.
- Success of the release strategy.
- Size and timing of individual release and release methods.

The monitoring and evaluation component of the trial will inform and guide future release programs with the eventual aim of re-establishing long term biological control agents across multiple sites evidenced by population increase and spread.

If the initial release is deemed successful then the establishment of bio-control agent nursery site/s could be considered for wider community benefit. This activity aligns with Recovery Actions 4.1 – to investigate long term effects of management activities including weed control and 4.4 – develop high threat weed control methods that will not adversely impact existing diversity in Grassy Box Woodlands.

Research PhD Opportunities: Underpinning the overall research and study program component of the project, HLLS will partner with a regional university to support the development and implementation of a postgraduate research program. It is envisioned that HLLS will provide in-kind contributions and funding towards research, technical support, supervision assistance and other agreed expenses for the purposes of supporting research PhD project.

The generalised research area is proposed to be centred around the recovery Action 4.1 as stated by DECC 2011; . *Investigate the impact of high threat weeds on component species and develop control methods that will not adversely impact the existing diversity in Box-Gum Grassy Woodland. Nominate high threat weeds not already listed for noxious weed status in each jurisdiction.* Much of the research work around weeds and their impacts on Box-Gum Grassy Woodlands has occurred in the southern area of NSW including the ACT.

The focus area of the proposed research study would occur predominately on the Merriwa Plateau and would therefore be highly relevant to this project. Proposed outputs would include the production of a fact sheet or guide on best management practice for weed management in northern NSW Box-Gum Grassy Woodlands.

12.1 Project Management Team- Year 1

Name	Role	Tasks
Lyndel Wilson-HLLS NRM Team Leader	Project Management	Oversee project Oversee financial management Develop 6 month and Annual reports

		Represent HLLS on Committee and report to Committee Monitor progress against Milestones and KPI's Oversee Project Coordinator
Adam Bush-HLLS NRM Senior Land Services Officer	Project Coordinator	Extension and Advice to landholders Develop property plans Coordinate events/training/support Collate data and information on project Coordinate communications and community events Contracting with landholders Development of Weed and Grazing Plans Develop fact sheets/flyers/resources for project Liaise with experts and other stakeholders in delivery of project Oversee research or study projects Technical support to project
Sarah Giblin-Agriculture Senior Land Services Officer Justine Baird- Regional Extension and Advisory Officer (Pastures)	HLLS technical staff	Support extension services Development of Grazing plans Technical advice to project Assistance at workshops/field days
Maria Cameron-HLLS	Community Engagement	Support delivery and promotion of community events Community liaison
Penny Evans-HLLS Communications Officer	Communications/Media	Support media articles, media events Promote and publish on web site Support development of communication products
Karina Glover Grants Officer	Incentives program	Support MER for incentives projects Contracting
Offset Advisory Committee	Advisory role and advocate	Review and provide feedback on project planning and implementation Assistance/advocacy at public events. Provide technical and other knowledge

Weed Project Plan Year 1: Table 2: Project Management Team

12.2 Project Milestones

	Activity	Responsibility
Milestone 1- Approval of Project (prior to commencement)		
	MACH Energy Offset Committee meeting and approval of: <ul style="list-style-type: none"> • Communications & Media Plan • MERI Plan • Project Plan 	Lyndel Wilson Adam Bush
Milestone 2- Planning and Refinement of Program (Jan-Feb 2018)		
	Stakeholder consultation session and initial planning	Adam Bush
	Plan Community Building and Engagement and Communications (CB&E-C) activities.	Adam Bush

Milestone 3- Initiation and establishment of program (Feb-June 2018)		
	Call for funding applications(incentive program) for on ground works.	Adam Bush Karina Glover HLLS technical staff
	CB&E, C activities #.	Adam Bush Maria Cameron Penny Evans
	Initiate research project or study with partner organisation.	Lyndel Wilson Adam Bush
	Six months project report (Monitoring, Evaluation and Reporting) to Offset Committee.	Lyndel Wilson Adam Bush
	Steering Committee meeting.	Offset Advisory Committee
Milestone 4- Implementation Phase (June-Nov2018)		
	Minimum of up to 4 on-ground projects commenced.	Lyndel Wilson Adam Bush Karina Glover HLLS Technical Staff
	CB&E- C activities#	Adam Bush Karina Glover Maria Cameron Penny Evans
	Preliminary research findings documented.	Adam Bush Penny Evans
	Annual project progress report provided to Offset Committee.	Lyndel Wilson Adam Bush
	Steering Committee meeting.	All
Milestone 5- Year 1 project completion Phase (Dec 2018)		
	Project completion including research activities.	Lyndel Wilson Adam Bush
	Final Report	Lyndel Wilson Adam Bush
	Project Review commencement	Lyndel Wilson Adam Bush

Weed Project Plan Year 1: Table 3: Year 1 Milestones on delivery

12.3 Communications Plan

Weed Project Plan Year 1: Table 4: Project Management Team

Communications Plan

Project name:	Priority Weed Management in Box-Gum Grassy Woodland on the Merriwa plateau.	Cost code/s:	TBC
Project manager:	Lyndel Wilson Adam Bush (Project Coordinator)	Project number (if applicable):	TBC
Primary project spokesperson:	Lyndel Wilson	Primary project spokesperson contact number/s:	Lyndel Wilson – 02 4938 4945 0429 613 095 Lyndel.wilson@lls.nsw.gov.au
Project description: <i>Please provide brief details on the project background, purpose and activities</i>	<p>This is a project engaging public and private land managers on the Merriwa plateau. Opportunities exist to become part of the program.</p> <p>The project is a community engagement incentives project funded by MACH Energy and managed by HLLS to assist landholders in the Merriwa plateau focus area with funding for on-ground works and training to improve the condition, extent and manage key threatening weed species of Box-Gum Grassy Woodland sites</p>		
Key messages: <i>Please provide 1-3 key messages you would like shared about the project</i>	<p>The project aims to promote the recovery and address key threat to the Box Gum community through:</p> <ul style="list-style-type: none"> • Increasing the protection of Box-Gum Grassy Woodland sites in good condition; • Increasing landscape function of the Box-Gum Grassy Woodland community through management and restoration of degraded sites; • Improving the transitional areas around remnant sites and improving linkages between these; • Promotion of sustainable land management practices to increase extent, integrity and function of Box-Gum Grassy Woodland on the Merriwa plateau. • Build knowledge, skills and capacity to better manage and protect Box-Gum Grassy Woodland. 		
Key Delivery of Information	<ul style="list-style-type: none"> • Publications posted on HLLS web and MACH Energy web pages, and Offset Committee web pages as relevant 		

	<ul style="list-style-type: none"> • Shared with land managers in the Merriwa plateau • Case studies, flyers or reports shared through all engagement activities (and information shared verbally by presenters at engagement events) • Relevant studies/findings posted on HLLS and MACH Energy web pages and/or university pages • Relevant studies/findings shared through Offset Advisory Committee networks. • Progress and Annual reports submitted to MACH Energy and reported to DoEE
Funding source*:	MACH Energy.
Key Stakeholders and Priority:	<ol style="list-style-type: none"> 1. Merriwa Landholders 2. Other Public Land Managers of Box-Gum Grassy Woodland 3. MACH Energy Offset Advisory Committee 4. Other Landholders in Upper Hunter 5. Press/Media outlets 6. General Public

Project Communications Action Plan								
<i>Target audience might include internal staff, board members, journalists, teachers, landholders, Landcare groups, environmental groups, local & state government, farming groups, water users, tourism industry etc.</i>								
Target audience	Method	Action	Rationale	Indicative Cost	When	Who	Completed	Comments/evaluation
HLLS MACH Energy - Offset Committee.	Committee meetings	Review proposed weed management plan, proposed activities, scope, outputs & MER plan. Scope other potential partners and invite to	Guide development and implementation of project to ensure it meets needs of all parties.	Nil cost.	TBA.	HLLS - project manager. MACH Energy - Offset Committee.		Ensuring all project partners are in agreement with delivery, ongoing reviews and input.

		participate in project						
Merriwa Landholders.	Radio broadcast.	Advertise project on ABC Upper Hunter.	Radio reaches a wide audience.	Nil cost.	TBA.	HLLS - project manager.		
Other project partners- ie Merriwa Landcare, Upper Hunter Grazing Group, Aboriginal land managers, researchers etc	Forum/meeting with Offsets Committee members	Discuss potential partnership arrangements, share knowledge and develop activities	Ensure scoping and cross collaboration potential in project delivery	Nil cost	On commencement of project	HLLS –Project manager		Ensure stakeholder analysis conducted with Offset Committee identifies all potential partners, and includes ongoing communications to invite new partners
Other public land managers of Box Gum Grassy Woodland(i.e NSW LLS, Landcare and OEH)	Reports, scientific papers, conference presentations	Distribute findings on research or outcomes of project broadly	Share knowledge and data, and share project success	Nil Cost	Through out the project - opportunistic	HLLS Project staff, researchers/re search organisations or Landholders involved in project		Ensure all publications are publicly available on LLS web page, and distributed to relevant agencies. Conference opportunities will be investigated throughout the project.
All. Merriwa landholders. Press. Public.	Project launch media release.	Issue media release to newspapers linked to Merriwa Area (Hunter Valley News, Scone Advocate & Merriwa Ringer) and publish on Local Land	Maximise knowledge of project to landholders and the wider community. Generate positive publicity and	Nil cost.	TBA.	HLLS - project support staff.		Prepare media release at least 1 week prior to publication date to allow time for partner quotes & approval processes. Ask new enquiries how they heard about the project.

		Services, websites/Facebook pages.	control messaging.					Number of likes, shares and comments per post.
Merriwa landholders. Other Upper Hunter landholders. MACH Energy - Offset Committee. Public.	Field days/workshop /training and fact sheets and incentive program.	Ensure information about funding availability promoted through other HLLS planned field days and workshops. Distribute to relevant networks, community organisations. Permanent signage at management sites. Conversations with targeted landholders to encourage uptake of on ground actions. Monthly updates in HLLS, partner newsletters. Quarterly promotion of quarterly monitoring events	Maximise publicity for funding to demonstrate its inclusivity for all community members & interested parties.	\$6,000	TBA.	HLLS - project support staff.		Develop flyer for funding availability. Ensure guidelines and application processes in place.

		through local networks and newsletters.						
All project partners. HLLS staff (as appropriate).	6 month progress report.	Prepare & distribute 6 month project report.	To inform Steering Committee of progress of project.	Nil cost	TBA	HLLS - project manager. MACH Energy - Offset Committee.		Input from other HLLS staff as appropriate.
Merriwa landholders. Press. Public.	Progress Media Releases.	Issue media release to update the public on project progress. Distribute to newspapers linked to Merriwa Area, regional Landcare organisations, and publish on HLLS & partners websites.	To highlight success stories of project implementation.	Nil cost.	TBA			Include information & photos from project sites. Prepare media release at least 1 week prior to publication date to allow time for approval processes.
Merriwa landholders. Public.	Radio Broadcast.	Discuss successes of project on ABC Upper Hunter.		Nil cost.	TBA	HLLS - project support staff.		
Merriwa landholders. Other Upper Hunter landholders.	Case Studies.	Prepare & publish case studies/videos on projects within target project area. Publish on project partners & HLLS websites.	Method to demonstrate success of project activities.	Nil cost (unless use outside printers and videographer).	Ongoing.	HLLS - project support staff.		Offer case studies to project partners early in project – once project landholders have been identified.

Merriwa landholders.	Personal direct communication (phone-calls HLLS & emails).	Contact landholders individually, as necessary, to provide support and advice.	Personal touch encourages involvement and action.	Nil cost.	Ongoing.	HLLS - project support staff.		
Merriwa landholders. Other Upper Hunter landholders.	Preliminary research findings (landholder BMP) (may include video case study)	HLLS & project partners prepare & distribute preliminary research findings.	To highlight and demonstrate findings of on ground research outcomes to date.	\$2500	TBA	HLLS- Project support staff HLLS- Communications Staff		Publish summary of findings from study and develop a fact sheet or guide to share with landholders and Offset Advisory committee and other relevant stakeholders.
Merriwa landholders. Press. Public	Media release - project finalisation.	Issue media release to highlight that it may be end of project funding but natural resource management activities will continue into future. Distribute to newspapers linked to Merriwa area, regional Landcare organisations and publish on project partners websites.	To highlight success stories of project and to encourage continued maintenance	Nil cost.				Prepare media release at least 1 week prior to publication date to allow time for project partner's quotes & approval processes.
HLLS. MACH Energy -	Half year progress reports	Prepare & distribute interim project reports.		Nil cost.		HLLS - project manager.		Ensure adequate lead time to compile reports.

Offset Committee. DoEE								
Project partners. HLLS staff DoEE.	Year 1 project report	Prepare & distribute final project report.	To provide project partners with analysis of overall project.	Nil cost.				Input from other HLLS staff as appropriate.
All project stakeholders.	Social event at local community hall.	HLLS & project partners to host a late afternoon / early evening social event to discuss successes of project. Short presentation & refreshments.	To thank all project stakeholders for their time & effort, and to allow landholders to discuss their individual projects with others.	\$500				

12.4 Monitoring, Evaluation & Reporting (MER) Plan

12.4.1 Background

The Monitoring, Evaluation and Reporting (MER) Plan for the Priority Weed Management in Box-Gum Grassy Woodland Project sets out HLLS approach to monitoring and evaluating project progress and its contribution to achieving its objectives.

12.4.2 Project Monitoring

Section 4.2.6 provides more detail on the condition monitoring program to be implemented in this project. This includes developing a benchmark tool based on the SERA Monitoring Wheel, a monitoring register for all activities to be delivered, and regular monitoring regimes established for each individual property. The SERA Monitoring Wheel tool will be developed within the first 6 months of project commencement.

Monitoring activities will be carried out to measure landscape change improvements and will include;

- Before and after photo points.
- Quadrat assessment.
- Transect assessments.
- SERA Monitoring Wheel - Condition Benchmarking Tool
- Practices implemented
- Monitoring regime- on commencement (pre), after 12 months- and 2-3 year intervals

Monitoring activities will be implemented by HLLS staff, and ecological consultants (as relevant to individual projects). Future activities will involve the development of a landholder tool kit- to support landholder monitoring activities and building capacity for monitoring condition change.

All data will be collated and reviewed to determine condition changes as a result of interventions, against baseline data, and use the rating score system within the SERA monitoring wheel, to demonstrate overall condition changes. Monitoring regimes will be implemented, to ensure appropriate monitoring practices at appropriate times, will be conducted to assess condition change.

12.4.3 Information management

HLLS project, contract and client information management system (IRIS) will be used to capture and report on information relating to on-ground and capacity building activities. Spatial records will also be kept using HLLS LMDB. All projects and their associated outputs and outcomes will be documented in IRIS and LMDB with ongoing review of database generated reports.

Where this project integrates with potential National Landcare Program-Regional Land Partnerships program 2018-23, outcomes will also be reported, including recovery actions delivered against, into MERIT reporting systems.

12.4.4 Landholder reporting and site inspections

The level of reporting, and type and frequency of project site inspections during the agreement period will be determined using a decision framework which considers the value of an individual project, the technical level required to implement project activities, and the capacity of the landholder (Table 10 & 11).

Weed Project Plan Year 1: Table 5: **Determining project characteristics and landholder capacity**

Value	Technical level / innovation	Landholder capacity
(1) \$0 - \$5,000	(1) Simple level (e.g. erecting a fence or where information in Fact Sheet would suffice)	(1) High capacity of landholder (e.g. good on ground works experience, previous projects implemented)
(2) \$5,000 - \$10,000	(2) Moderate (e.g. fencing & weed control activities, some technical advice required)	(2) Medium capacity (e.g. needs assistance to implement project, some practical knowledge or experience with implementing works)
(3) >\$10,000 - \$15,000	(3) Highly technical (e.g. detailed design from experts i.e. integrated weed management and grazing works)	(3) Low capacity (e.g. limited technical knowledge or practical experience, inability to deliver themselves due to age, incapacity etc.)

Once you have a score from the above matrix, refer to the Table below to determine the type of reporting and inspection required.

Weed Project Plan Year 1: Table 6: **Determining reporting and inspection regime**

Score	Level of reporting by contractor	Type of inspections - HLLS responsibility
7 - 9	Self report + milestone invoice	<ul style="list-style-type: none"> Annual inspection, and Recommendations as a result of inspection (may require more frequent site inspections or may recommend be extended to every 2 years), and Final inspection
4 - 6	Milestone Invoice	<ul style="list-style-type: none"> Year 1 contact or site inspection, and Recommendations as a result of this first contact (may require site inspection annually until works implemented or may extend to every few years), and Final inspection
3	Milestone Invoice	<ul style="list-style-type: none"> Final inspection, and Final report

All projects will require a final inspection which will then consider the maintenance risk associated with a project site. This will determine whether ongoing inspections or audits are required (Table 6).

Weed Project Plan Year 1 Table 7: **Determining ongoing inspection requirements**

Social & Economic (e.g rezoning and development risk, financial resources of landholder)	Environmental / external factors (e.g ongoing drought, land use change on neighbouring properties)	NRM significance of resource (e.g EEC, major saline recharge area)	Landholder capacity (e.g age, knowledge, experience with implementing NRM works)
(3) High Risk	(3) High Risk	(3) High Significance	(3) High Capacity

(2) Medium Risk	(2) Medium Risk	(2) Medium Significance	(2) Medium Capacity
(1) Low Risk	(1) Low Risk	(1) Low Significance	(1) Low Capacity

Based on the above matrix:

- Scores 4-5: No Further inspection required
- Scores 6-9: 10% random sample in 5 years or based on recommendation of inspecting officer
- Scores 10-12: Inspect every 5 years plus recommendation from inspecting office

12.5 Project reporting

HLLS will report on project progress at six months and at the completion of the project as per project agreement.

The outputs of both on-ground and capacity building / engagement will be reported from data captured in HLLS project, contract and client information management system (IRIS) in the six month and final reports, and mapping of project sites within the Merriwa plateau provided in the final report.

The type of project outputs that will be reported may vary depending on the type of activities that are funded to achieve project objectives. However, output types will be clearly defined to enable aggregation of output units for reporting purposes. Outputs that are likely to be used for this project are as follows:

- Area (ha) of native vegetation enhanced / rehabilitated
- Area (ha) planted to native species
- Area (ha) of pest plant control measures implemented
- Area (ha) of sustainable grazing practices
- Area (ha) of targeted weed species treated
- Area (ha) of remnant vegetation protected through project agreements
- Area (ha) of remnant vegetation fenced to exclude stock
- Number of research, studies or trials conducted
- Number of awareness raising events conducted and number of participants
- Outcomes achieved as measured against National Recovery Actions

The progress of outcome monitoring related to on-ground outputs will also be reported but the short timeframe of the project will likely limit analysis within the period.

The final report will also report on project evaluation outcomes relating to the efficiency and effectiveness of the project in relation to achieving project objectives through on-ground and capacity building and engagement activities.

12.6 Condition Monitoring

A thorough and effective user-friendly monitoring program was developed for land managers involved in the 'Environmental Stewardship Box Gum Grassy Woodland Project'. This monitoring system focused on monitoring basic vegetation structure, habitat and functionality and was found to form an effective tool for land managers monitoring the Box Gum Woodland on their property. Any future Box Gum Woodland management programs directed at private land managers (e.g. farmers).

As this monitoring is centred on self-management and provides monitoring that is effective and simple monitoring such as this, will be an opportunity to engage and build capacity for land managers to actively support monitoring actions, with initial technical support and training

An extract of the Caring for Country Box Gum Grassy Woodland Project manual is provided (**Appendix C**). This provides clear and concise instructions into effective monitoring of Box Gum Woodland on landholdings.\

This methodology will be implemented in conjunction with the SERA Monitoring Wheel - Condition Benchmarking Tool to capture:

- On ground condition change and to identify whether restoration actions are working or need to be modified.
- Provide evidence to stakeholders and regulators that specific goals and outcomes are being achieved
- Answer specific questions - i.e trial results

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14 YEAR 1 PROJECT SIGN OFF SHEET

I have read the above Project Plan and will abide by its terms and conditions and agree to provide full commitment and support for the Project Plan.

Project Sponsor:

MACH Energy
Chris Lauritzen

Date

Project Manager:

Hunter Local Land Services
Lyndel Wilson

Date

APPENDIX A-Approval Conditions for Weed Plan

Approval Condition	Document Reference Location
<p>a) details of governance arrangements for an independent Trust, which may include representatives of Coal and Allied or similar organisation to oversee the implementation of the funded activities, including:</p> <ul style="list-style-type: none"> i. roles and responsibilities of individuals or organisations involved with implementation of the Project Plan ii. measures to account for recovery actions identified as priorities by the White Box - Yellow Box -Blakely’s Red Gum Grassy Woodland and Derived Native Grassland Ecological Community III. consultation with organisations aiming to facilitate the conservation of the White Box - Yellow Box -Blakely’s Red Gum Grassy Woodland and 	<ul style="list-style-type: none"> 6. Project management 6.1 Project Funding and Review Process 6.2 Project Management Team and Roles 12.1 Project Management Team – Year 1 12. Annual Project Plan-Year 1 3. Project Approach 4.1 Project Goals and Objectives 5. Scope 5.2 Project Outcomes 5.3 Project Outputs 12. Annual Project Plan-Year 1 12.3 Communications Plan 12.4 Monitoring, Evaluation & Reporting (MER) plan Appendix C-Monitoring Tools for Box Gum Grassy Woodland 4.5 Project Review and Adaptive Management 6.1 Project Funding and Review Process 6.2 Project Management team and Roles-Potential Partners 12. Annual Project Plan-Year 1 12.3 Communications Plan
<p>b) the specific activities that will be funded and the aims and objectives of the activities</p>	<ul style="list-style-type: none"> 4.2 Specific Funded Activities 5. Scope

	7 Project Budget
	12. Annual Project Plan-Year 1
c) the timing of commencement and duration of activities;	4.1 Project Goals and Objectives 6 Project Management–Figure 8- indicative delivery timeframe 12. Annual Project Plan-Year 1 12.2 Project Milestones
d) the mechanisms to monitor and assess the effectiveness of the activities undertaken	4.2.6 On Ground Monitoring 6.1 Project Funding and Review Process 12.4 Monitoring, Evaluation & Reporting (MER) plan 12.6 Condition Monitoring Appendix B: Monitoring Approach
e) the mechanisms to demonstrate the benefit to the White Box – Yellow Box Blakely’s Red Gum Grassy Woodland and Derived Native Grassland Ecological Community,	4.2.4 Landholder Engagement and Extension Services 6.1 Project Funding and Review Process 12.3 Communications Plan 12.4 Monitoring, Evaluation & Reporting (MER) plan 12.6 Condition Monitoring
f) the mechanisms to ensure that new or different activities will be funded, from within the agreed funding package of 1,000,000 over the life of the project for White-Box-Yellow Box-Blakely’s Red Gum Grassy Woodland and Derived Native Grassland Ecological Community on the basis of monitoring information, advances in knowledge of species ecology, or the changing priorities as identified by recovery teams	4.2 Specific Funded Activities 4.3 Other Activities/Considerations 4.4 Implementation, Timeframe, Financial Management 4.5 Project Review and Adaptive Management 6. Project Management 12.3 Communications Plan
g) the mechanisms to ensure that knowledge and information gained from these activities is easily available and useable to the department, to the general public and the scientific community, including website details	3. Project Approach 4.2 Specific Funded Activities

	12.3 Communications Plan
h) measures to ensure that funds are spent in accordance with the uses specified in these conditions of approval	2. Weed Project Plan- Merriwa Area 6.1 Project Funding and Review Process
i) a mechanism for proof of payment to agreed parties to undertake agreed activities	6.1 Project Funding and Review Process
j) measures to incorporate and integrate with any relevant separately funded activities (if any) for the conservation of the White Box - Yellow Box -Blakely's Red Gum Grassy Woodland and Derived Native Grassland Ecological Community consistent with priorities identified by recovery teams for the relevant species or communities.	3. Project Approach 4.5 Project Review and Adaptive Management 4.3 Other Activities/Considerations 12. Annual Project Plan-Year 1

APPENDIX B-Priority Weeds Lists and Best Practice Control*

Common Name	Priority Status	Recommended Control Methods
Fireweed	Prohibition on dealings: Must not be imported into the State or sold	Pasture management including pasture improvement, grazing strategies, timing of fertiliser application; herbicide application (e.g Bromoxynil 200 g/L, Fluroxypyr 140g/L + Aminopyralid 10g/L) physical removal; slashing/mulching; biological control
Patterson's Curse	Regional Recommended Measure: Land managers should mitigate the risk of new weeds being introduced to their land. Land managers should mitigate spread from their land. The plant should not be bought, sold, grown, carried or released into the environment.	Effectively controlled by the cochineal insect <i>Dactylopius tomentosus</i> and herbicides including Picloram 100 g/L + Triclopyr 300g/L + Aminopyralid 8g/L, Triclopyr 300g/L + Picloram 100g/L and Triclopyr 600g/L
Devil's Rope Pear	Prohibition on dealings: Must not be imported into the State or sold	Effectively controlled by the cochineal insect <i>Dactylopius austrinus</i> and herbicides including Picloram 100 g/L + Triclopyr 300g/L + Aminopyralid 8g/L, Triclopyr 300g/L + Picloram 100g/L and Triclopyr 600g/L
Tiger Pear	Prohibition on dealings: Must not be imported into the State or sold; Regional Recommended Measure: Land managers should mitigate the risk of new weeds being introduced to their land. Land managers should mitigate spread from their land. The plant should not be bought, sold, grown, carried or released into the environment.	Effectively controlled by the cochineal insect <i>Dactylopius austrinus</i> and herbicides including Picloram 100 g/L + Triclopyr 300g/L + Aminopyralid 8g/L, Triclopyr 300g/L + Picloram 100g/L and Triclopyr 600g/L
Opuntia spp	Prohibition on dealings: Must not be imported into the State or sold. Except for <i>Opuntia ficus-indica</i>	Contact your local council weeds officer for control advice for Prickly pears - Opuntias (<i>Opuntiaspecies</i>).
Honey Locust	Regional Recommended Measure: Land managers should mitigate the risk of new weeds being introduced to their land. Land managers should mitigate spread from their land. The plant should not	Herbicides including Fluroxypyr 200g/L, Fluroxypyr 333g/L, Picloram 44.7g/kg + Aminopyralid 4.47g/L and Triclopyr 240g/L + Picloram 120g/L

	be bought, sold, grown, carried or released into the environment.	
African Olive	<p>Regional Recommended Measure Land Area 2: outbreaks in Hunter region except Singleton and Maitland. Land Area 2: Land managers should mitigate spread from their land. Land managers should mitigate the risk of new weeds being introduced to their land. Plant should not be bought, sold, grown, carried or released into the environment.</p>	<p>Herbicides including Glyphosate 360g/L, Picloram 44.7g/kg + Aminopyralid 4.47g/L and Triclopyr 600g/L.</p>
Coolatai Grass	<p>Regional Recommended Measure: Land managers should mitigate the risk of new weeds being introduced to their land. Land managers should mitigate spread from their land. The plant should not be bought, sold, grown, carried or released into the environment.</p>	<p>Prevention and early detection is important. Means of stock, machinery, fodder and seed quarantine should undertaken in conjunction with roadside management to prevent the initial colonisation of <i>Hyparrhenia hirta</i>. Management programs should be directed at lightly infested areas, working back towards more heavily infested areas. Cropping with the use of competitive pastures in conjunction with regular herbicide application over a 2-3 year period can control <i>Hyparrhenia hirta</i>. Herbicides must be applied when the plant is actively growing with sufficient green leaf. Herbicide options include Glyphosate 360g/L, Glyphosate 360g/L + Flupropanate 745g/L and Flupropanate 745g/L.</p>
Blackberry	<p>Prohibition on dealings: Must not be imported into the State or sold All species in the <i>Rubus fruticosus</i> species aggregate have this requirement, except for the varieties Black Satin, Chehalem, Chester Thornless, Dirksen Thornless, Loch Ness, Murrindindi, Silvan, Smooth Stem, and Thornfree. Regional Recommended Measure Land managers should mitigate the risk of new weeds being introduced to their land</p>	<p>Important to develop a management plan as control of Blackberry is an ongoing process. Types of control methodologies include: physical control (i.e hand removal, mechanical grubbing and scalping); biological controls (leaf rust fungus <i>Phragmidium violaceum</i>); grazing; pasture management; burning; and herbicide application. Herbicide application should be used in conjunction with other control methods for optimum results and should be conducted during the active growth stage from flowering to fruiting (usually from December to March). Appropriate herbicides include,</p>

		but are not limited to, Glyphosate 360g/L, Hexazinone 250g/L, Metsulfuron-methyl 600g/L, Picloram 20g/kg and Triclopyr 600g/L.
Willow	Prohibition on dealings: Must not be imported into the State or sold (White Willow)	Control and removal of <i>Salix sp</i> is relatively easy however considerations should be made to avoid causing soil instability/erosion(i.e staged removal). Control methodologies can include hand and mechanical removal and control with herbicides. Appropriate herbicides include Glyphosate 360g/L, Picloram 44.7g/kg + Aminopyralid 4.47g/L and Triclopyr 240g/L + Picloram 120g/L.
Green Cestrum	Regional Recommended Measure Land managers should mitigate the risk of new weeds being introduced to their land. Land managers should mitigate spread from their land. The plant should not be bought, sold, grown, carried or released into the environment.	Total eradication of Green Cestrum requires a combination of control techniques and frequent follow up work. Control methodologies may include physical control (e.g cutting, digging or pushing out); mulching to suppress seedling growth after chemical or physical control; competition through establishment of vigorous pastures or native species; and herbicide application. Appropriate herbicides include, but are not limited to, Glyphosate 360g/L, Triclopyr 600g/L, 2,4_D 300g/L + Picloram 75g/L and Amitrole 250g/L + Ammonium Thiocyanate 220g/L.
African Boxthorn	Prohibition on dealing: Must not be imported into the State or sold	The effective, long-term control of African Boxthorn generally requires the integration of a number of techniques, including mechanical removal, cultivation, herbicide application, replacement with appropriate plants (native vegetation and/or vigorous perennial pastures) and regular monitoring. Appropriate herbicides include, but are not limited to, Glyphosate 360g/L, 2,4D 300g/L+ Picloram 75g/L and Tebuthiuron 200g/kg.
St John's Wort	Priority weed that competes with native understorey species and has been identified by NSW LLS as a priority weed for Box Gum Woodland.	The most cost-effective and practical control techniques to use will depend on the scale of the St John's wort infestation and the topography of the infested land. All techniques should aim to remove the weed and replace it with introduced or native pastures. Control methods include burning, handweeding, Competition with

		<p>pasture grasses, biological control (beetles) and herbicides (2,4-D LV ester 680g/L, Fluroxypyr 140 g/L + Aminopyralid 10 g/L, Fluroxypyr 200 g/L, Glyphosate 360 g/L, Glyphosate 360 g/L with Metsulfuronmethyl 600 g/kg, Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L).</p>
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*Priority weed lists and control methods developed by Narla Environmental Pty Ltd

APPENDIX C-Monitoring and Evaluation Tools for Box-Gum Grassy Woodland



CARING
FOR
OUR
COUNTRY

11 Monitoring and evaluation

A key part of the Box Gum Grassy Woodland Project is monitoring and evaluation to assess whether funded projects are maintaining and/or improving the quality and extent of box gum grassy woodland, in addition to other desired outcomes as described in the Environmental Stewardship Strategic Framework.

Land manager monitoring and evaluation

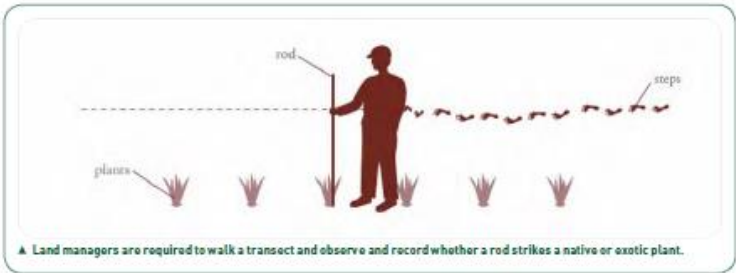
If you have a contract under the Box Gum Grassy Woodland Project, you will be required to complete simple annual monitoring and evaluation reports. These reports are not difficult or complicated and involve the following:

- Taking a photograph at approximately the same date and time each year (Spring) from a nominated point within each zone of your box gum grassy woodland patch/es to record any changes to the vegetation. A field officer will assist you to identify this point if your bid is successful. Unobtrusive markers will be placed within the patch to assist you to return to the same site for monitoring each year

- On the same day as the photo is taken, you will take approximately 50 steps between two nominated points on each plot and record after each step whether a rod held in your hand and placed on the ground in a vertical movement, hits a native or exotic plant. Initially you have the option of ticking a box labeled 'don't know' but hopefully over the length of the contract your knowledge of the plants within the patch will improve. You will have the opportunity to learn more about native and exotic species over the course of your contract
- Observing the patch/es to identify if there is evidence of grazing by kangaroos/rabbits, and identify if any eucalypt regeneration is evident.

You will record information in a template provided and submit it as part of annual reporting arrangements. As part of these reporting arrangements, you will also be required to complete a simple acquittal of funds received.

A field officer will assist with the set up of monitoring sites, including the site markers, and go over the reporting process, once a contract is in place. A monitoring information kit will be given to you to assist you with the monitoring and evaluation reporting requirements. You will also be provided with a booklet to assist with plant identification.



Other monitoring activities

To gain a scientific understanding of the Project’s achievements, the Australian Government will periodically undertake detailed ecological surveys across a sample of properties. It will also be a condition of your contract to grant site access for this work, if selected as one of the sample properties. These surveys have no cost implications for you.

You will be contacted well in advance and appropriate arrangements will be made to ensure any visits happen at a convenient time for you. All information gathered during these surveys and assessments will be made available to you.

You may also be asked from time to time to participate in social surveys to give your opinions and thoughts about the conservation activities you have been undertaking, as well as provide feedback about your involvement in the Project. These surveys will, over time, provide additional information on how participating land managers are engaging in Environmental Stewardship.



▲ Land managers are asked to observe and record eucalypt regeneration in their patch (Photo: John Vranjic)

APPENDIX D-Annual Work Plan FY2024- FY2025

Priority Weed Management in Box-Gum Grassy Woodland MACH Weed Project Plan

Annual Work Plan FY2024- FY2025

27/3/2024



Published by the Department of Regional NSW

Title: Priority Weed Management in Box-Gum Grassy Woodland

Subtitle: MACH Weed Project Plan – Annual Work Plan 2024-2025

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More information

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Preamble

This annual work plan forms an addendum to the approved Grassy-Box Woodland Weed Project Plan – HLLS 2018 and details the activities, budget, and key performance indicators for the specified financial year (FY). An annual workplan formatted this way will be produced and submitted to the Offsets Advisory Committee for endorsement at the regular meeting prior to June each year for the lifetime of the project, being FY24/25, FY25/26, FY26/27.

Long Term Outcomes	<ul style="list-style-type: none">• By Jul 2027 the project will encourage participation, build skills, knowledge, provide resources and develop tools that build capacity for landholders to implement land management practices that improve condition and extent of Box-Gum Grassy Woodland, as measured through engagement evaluations, and number of grazing and weed plans adopted by landholders, and number of incentive projects implemented, and national recovery actions implemented.• By Jul 2027 the project will conduct research, trials, and studies, based on knowledge gaps, that build knowledge and data relevant to practical Box-Gum Grassy Woodland recovery, as measured by the number of projects conducted, and the information that is shared to relevant stakeholders and the public and national recovery actions implemented.• By Jul 2027 the project will have reduced weed and improved condition and extent of Box-Gum Grassy Woodland in the Upper Hunter LGA, as measured by condition monitoring and mapping over the life of the project and national recovery actions implemented.• By Jul 2027 the project will develop partnerships and a collaborative approach to the project that builds on investment, reduces duplication, and enhances outcomes for recovery potential, as measured by the number of partners and projects that link to this project.
Priority Actions	Through engagement, extension, and strategic works: <ul style="list-style-type: none">• Increase capacity and participation of land managers to manage and conserve Box-Gum Grassy Woodland.• Reduce threats of priority weeds on Box-Gum Grassy Woodland.• Increase extent of Box-Gum Grassy Woodland.• Improve condition of Box-Gum Grassy Woodland.
Total Project Duration	FY 2018/19 to FY2026/2027.

This Work Plan	FY 2024/25 – 1 year.
Social Outcomes	Build landholder networks, community of practice with landholders and collaborative efforts between organisations to implement Box- Gum Grassy Woodland recovery activities. Provide opportunities for multiple service delivery partners to participate in project.
Environmental Outcomes	Reduction of weed threats to Box-Gum Grassy Woodland Improve condition and extent of Box-Gum Grassy Woodland
Economic Outcomes	Build investment, and/or leverage of project funding with landholders and other recipients of funding through in kind or other integrated project opportunities. Integrate with Natural Capital opportunities for landholders. Maximise cost effectiveness of control works to reduce expensive ad hoc control.
Activities	<ul style="list-style-type: none"> • Recruitment and onboarding of the Land Services Officer – UH Strategic Weeds. • Fixed wing Multispectral Imagery Capture of the Upper Hunter LGA. • Extension services to landholders managing BGGW in the Upper Hunter on weed management. • Coordinate and deliver 3 landholder capacity building events per year, e.g. Pasture and Weed ID Walkthroughs, Demonstration Site open days and Environmental Biosecurity. • Build on and maintain existing BGGW Resources developed. • Build on and maintain new and existing weed management resources. • Establishment of three (3) one (1) hectare owner/manager trial sites in the Upper Hunter LGA demonstrating different weed control methods for BGGW management.
Priority species	<ul style="list-style-type: none"> • Priority - St Johns wort, blue heliotrope, African boxthorn, African olive, tree of heaven, green cestrum, giant reed, rope pear. • Secondary – Scotch broom, invasive grasses such African love grass, Chilean needle grass, giant paramatta grass, serrated tussock. Dependant on reliability at scale.
Partners	<ul style="list-style-type: none"> • Offset Advisory Committee. • Upper Hunter Weeds Authority.

Target Stakeholders	<ul style="list-style-type: none"> • Department of Primary Industries. • Existing Researchers. • Land managers of the Upper Hunter.
	<ul style="list-style-type: none"> • Beef/Sheep industry (and associated land owners such as mines, private landholders etc). • Public Land Managers (local government, LALCs etc). • Landcare groups and members.
Monitoring Activities	<ul style="list-style-type: none"> • Photo monitoring. • Weed assessment/mapping. • Box-Gum Grassy Woodland condition assessment. • Landholder Best Management Practice survey and community consultation on perceptions/views.
Reporting KPIs	<ul style="list-style-type: none"> • 1 Project officer onboarded. • 1 research or study conducted (Multispectral Survey). • 3 trials initiated. • 3 community engagement activities, with minimum 40 participants. • 2 communication products created or updated (i.e. fact sheets, guides or other promotional information). • 3 land managers engaged to conduct on ground activities. • 2 Reports submitted (including outputs summary achieved) • 1 annual review of outcomes and progress (to support development of annual project plan for year 2) • 1 Annual workplan forward plan.
Budget Breakdown	<p>Project Officer (LSO) \$147,885.00</p> <p>Fixed wing Multispectral Imagery (Estimate \$100-\$150k) \$150,000.00</p> <p>Owner Manager trial demonstration sites (3 x 1ha sites) \$30,000.00</p>
Total Year Budget FY 24/25	\$297,885.00
Indicative subsequent year budget FY 25/26	\$182,321.55

Figure 1 Annual Work Plan – 24/25

Name	Role	Tasks
Kath McLoughlin – Team Leader - Engagement	Project Management	<ul style="list-style-type: none"> Recruitment and onboarding. Participation in Offsets Advisory Committee. Project reporting.
Land Services Officer – UH Strategic Weeds	Project Implementation	<ul style="list-style-type: none"> Implement project plan, support reporting, comms and MERI planning. Participation in Offsets Advisory Committee with Kath McLoughlin. Work closely with the Upper Hunter Weeds Authority, Hunter Weeds Committee and Hunter Weeds Technical Team made up of LGA Weed Biosecurity Officers, relevant Hunter LLS Staff, State Agencies, and Subject Matter Experts. Deliver extension services to landholders managing BGGW in the Upper Hunter on weed management. Coordinate and deliver 3 landholder capacity building events per year, e.g. Pasture and Weed ID Walkthroughs, Demonstration Site open days and Environmental Biosecurity. Build on and maintain existing BGGW Resources developed. Build on and maintain new and existing weed management resources
Matt Kennedy – Regional Weeds Coordinator	Project alignment	<ul style="list-style-type: none"> Mentoring. Integration with the broader weed control programs within the Hunter LLS region.

Figure 2 Project Management Team – 24/25

© State of New South Wales through Regional NSW 2024. The information contained in this publication is based on knowledge and understanding at the time of writing March 2024. However, because of advances in knowledge, users are reminded of the need to ensure that the information upon which they rely is up to date and to check the currency of the information with the appropriate officer of the Regional NSW or the user’s independent adviser.