

The logo for the Grassy Plains Network, featuring the text "Grassy Plains Network" in a white, serif font, overlaid on a photograph of a grassy plain with a winding path and scattered trees under a cloudy sky.

Grassy Plains Network

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Western Grassland Reserves Position Paper: Grassy Plains Network

Towards making one of the world's great reserves

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1 Executive summary

1.1 The Grassy Plains Network

The Grassy Plains Network is an independent organisation representing land management professionals, academics, ecologists and community members concerned about the ongoing decline of grassy ecosystems across Melbourne and its surrounds. We advocate for improved grassland protection and management.

Many of our members and supporters are acknowledged experts in the management and restoration of grassy ecosystems. Many have led long-term efforts to preserve grasslands across the Victorian Volcanic Plain. Some have been crucial to the establishment of the native seed industry, others to the development of best-practice monitoring methods for grasslands. We have members and supporters who have been working for decades with community to raise awareness of the importance of grassland conservation. Collectively, we have worked at every level of government, across all of Melbourne's north and west, and across much of Victoria, in Landcare, CMAs and in dozens of community and environmental organisations.

We have an acute interest in the Western Grassland Reserves because the Melbourne Strategic Assessment is the engine for the loss of thousands of hectares of grassland within the urban growth boundary, and the Western Grassland Reserves were proposed to compensate for that loss.

Individually and collectively we have been, and continue to be, critical of many aspects of the Melbourne Strategic Assessment. We have watched as important foundational work has been rushed, as good advice has been ignored, as landholders have become alienated and as environmental values across the Western Grassland Reserves have declined. Many of those criticisms were vindicated by the 2020 report by the Victorian Auditor General's Office (VAGO), *Protecting Critically Endangered Grasslands* (VAGO, 2020).

1.2 An opportune time

Circumstances have now changed. The VAGO report has clearly shown substantial failures in the Melbourne Strategic Assessment and the management and governance of the Western Grassland Reserves. The inadequacies in approach have been recognised by the Minister for Energy, Environment and Climate Change, senior administrators within the Department of Environment, Land, Water and Planning and the team responsible for the Melbourne Strategic Assessment. The passing of the Melbourne Strategic Assessment (Environment Mitigation Levy) Act 2020 means substantially greater resources are available for the protection and restoration of the Western Grassland Reserves. Local governments have scaled-up their actions and capacity to confront the entrenched on-ground issues of managing the Western Grassland Reserves.

These changed circumstances create the opportunity for a renewed vision and a reset of policy and direction for the Western Grassland Reserves.

1.3 The main issues

1.3.1 Slow, poorly targeted land acquisition

Much of the native grassland purchased to date is of poor quality, with low species richness and abundant weeds. Public information on the purchasing process is lacking. It appears that purchase and leasing has been poorly targeted in terms on securing parcels with the best quality grassland. Lack of monitoring and basic survey data of unpurchased land has not helped. The Grassy Plains Network notes substantial areas will soon be purchased or leased, with commitments that 45% of the Western Grassland Reserves should come under government control over the coming year. The Grassy Plains Network will welcome this increase.

PRIORITY ACTIONS

Secure high value remnants through purchase, leasing, landholder engagement (including covenanting) or enforcing compliance.

1.3.2 No public best practice guide

Given the significance of the Western Grassland Reserves, as well as the problems and complexities of its interim and long-term management and restoration, it is essential that a best practice management and restoration guide be published. This will allow oversight and broad industry and public comment regarding this vital component of grassland conservation in Victoria.

PRIORITY ACTIONS

Develop and publish a best practice guide to the management and restoration of the Natural Temperate Grasslands of the Victoria Volcanic Plain, paying detailed attention to: adaptive management across a broad range of land use histories; weed management including non-herbicide alternatives; monitoring strategies; and community engagement strategies. This guide should be a living document to be updated as needed.

1.3.3 Insufficient Traditional Owner engagement

Appropriate consultation with Traditional Owners should be fundamental to the management of and vision for the Western Grassland Reserves.

PRIORITY ACTIONS

The Department of Environment, Land, Water and Planning should actively ensure they are complying with their departmental policies regarding, and suitably resourcing, Traditional Owner engagement, capacity building and reconciliation.

1.3.4 Spread of weeds

Reducing weed spread and establishment are clearly priorities across the Western Grassland Reserves. The Department of Environment, Land, Water and Planning must intensify efforts in this area and provide increased resourcing to local government to ensure effective action. Compliance must be enforced once landholders have had the opportunity to accept incentives to manage their land well. The Grassy Plains Network notes that the Department of Environment, Land, Water and Planning is in the process of drafting an Interim Management Strategy that may refer to these and other issues.

PRIORITY ACTIONS

Increase funding for LGA weed management activities.

Increase funding for incentive programs for landholders to manage weeds.

Rapidly develop and expand aerial survey methods.

Enforce weed control requirements on recalcitrant land holders.

1.3.5 Insufficient survey and monitoring

The Grassy Plains Network notes that surveying of parcels not yet managed by the Department of Environment, Land, Water and Planning is set to begin shortly. However, we have substantial concerns about the insufficient extent and intensity of survey at a resolution fine enough to identify high-quality patches. Without identification and subsequent monitoring, high-quality patches cannot be adequately protected. The GPN also believes monitoring should be broadened, to improve adaptive management, biodiversity outcomes and to provide data that can be used for community engagement purposes.

PRIORITY ACTIONS

Expand range of species monitored.

Adopt monitoring program aimed at web of life processes and ecosystem function.

Survey and monitor roadsides for species as well as cultural heritage.

Investigate ownership and leasing arrangements for internal (*e.g.* nominally private) roads, former roads and government roads.

1.3.6 No restoration focus, large-scale restoration needed

The Western Grassland Reserves currently has no restoration focus. Success is only measured by lack of degradation, not change of state towards a more herb- and *Themeda*-rich state. The extent of weed coverage means that restoration must accompany weed removal. Restoration is required at large-scales and will require considerable resources, especially of seed. Research into methods is needed. Long-term planning and a genuine vision and measurable goals are needed.

PRIORITY ACTIONS

Develop a restoration strategy in consultation with broader industry.

Set restoration targets that will increase annually, and fund restoration activities.

Redefine the management goals regarding change of grassland quality so as to promote positive change rather than no negative change or mere persistence.

1.3.7 Lack of vision

The Western Grassland Reserves suffers from a lack of vision. This lack is exacerbated by the current context, in which the Western Grassland Reserves have devolved into a weed spraying and land purchasing exercise. The Western Grassland Reserves can be one of the world's great reserves, right at the edge of a major city. We need a strong aspirational concept plan that takes in cultural, recreational, conservation and restoration values, a staged response, and which brings together stakeholders.

PRIORITY ACTIONS

Develop a comprehensive and aspirational vision statement through consultative engagement with stakeholders.

1.3.8 An alternative governance model needed

The Grassy Plains Network believes the grasslands of Melbourne and its surrounds would be best managed by a non-governmental organisation or other statutory authority rather than directly by the Department of Environment, Land, Water and Planning in conjunction with Parks Victoria. This Grasslands Trust would be structured to bring together the many stakeholders and the range of experience required to balance the complex set of management, restoration, social and cultural goals necessary to truly protect our grasslands.

PRIORITY ACTIONS

Fund and establish a Grasslands Trust Task Force including a steering committee representing the range of stakeholders, and appoint staff to investigate alternative models for natural resource governance. Through research and stakeholder consultation, the Task Force would develop a position paper identifying pathways to establishing an effective and representative Grasslands Trust, with clear options for structure and the potential scope of the Grassland Trust's remit. It would aim through an iterative process to establish a broad consensus across key stakeholders for the next steps in establishing the Grasslands Trust.

1.3.9 Lack of transparency

It is difficult to find monitoring data, financial reports and to understand the land acquisition process. Communications from government departments to

the interested community are noticeably lacking. Much policy is framed in dense jargon and legalese that makes navigating it almost impossible, facilitates obfuscation and lacks identifiable success measures.. The Grassy Plains Network welcomes recent staffing actions to remedy these issues but notes that much is yet to be achieved. The recent process to gazette changes to the Melbourne Strategic Assessment conservation outcomes, without any engagement with the wider conservation community, demonstrates that there is substantial room for improvement.

Most substantially, there is no public information regarding the economic modelling that underpins the Western Grassland Reserves funding, including the Melbourne Strategic Assessment (Environment Mitigation Levy) Act 2020. Without access to this basic information, it is difficult for any non-Government organisation to weigh what actions may be worthwhile given their cost and to establish what may be the best use of funds now and into the future.

PRIORITY ACTIONS

Demonstrably improve engagement and consultation with stakeholders, and communications.

Release economic modelling to allow public scrutiny of Government and the management of the Western Grasslands Reserves.

1.3.10 Lack of engagement

The Department of Environment, Land, Water and Planning 's actions, especially in the first years of the Melbourne Strategic Assessment process, have alienated land holders, locals generally and many in the grassland and conservation communities. Engagement, either directly or through greater resourcing of local government and community groups, is essential, as is a tangible degree of self-reflection.

PRIORITY ACTIONS

Develop an engagement strategy.

Create a fund for engagement activities by others.

1.3.11 No research focus

Grassland management is complex. It is far from obvious what are and will be the best approaches to attaining the multiple goals expected of the Western Grassland Reserves. A broad research program should have been part of the MSA program from the outset. Furthermore, all management activity should be within a framework of Adaptive Experimental Management (so-called 'Learning by Doing'), in which management actions are assessed as to their effectiveness and lessons learned will facilitate more effective management interventions in future.

PRIORITY ACTIONS

Review early Technical Advisory Group advice regarding a research program.

Establish an independently managed research fund to coordinate research activities across a broad range of relevant topics.

1.3.12 Presence of unexploded ordnance

The potential and actual presence of unexploded ordnance creates significant management issues, especially for short-term weed management.

PRIORITY ACTIONS

Clearly identify and map presence of unexploded ordnance, develop and fund a strategy for removal.

Undertake effective management of land parcels prior to removal of unexploded ordnance.

1.3.13 Ensure built assets are preserved

The many physical manifestations of cultural heritage across the Western Grassland Reserves should not be accidentally or casually removed in an effort to clean-up the landscape or to reduce insurance risk.

PRIORITY ACTIONS

Ensure all built assets are preserved until a detailed masterplan for the Western Grassland Reserves is developed and accepted.

2 Background

2.1 The Melbourne Strategic Assessment

Following a 2009 agreement between the State and Federal Governments, the Melbourne Strategic Assessment extended the urban growth boundary and facilitated development by undertaking a strategic assessment of biodiversity and allowing developers to pay an offset fee to clear native vegetation on the newly released land. These fees were intended to be enough to fund the Western Grassland Reserves, which have been set-up to conserve a large, more or less contiguous area of good quality temperate native grassland immediately beyond the urban growth boundary. The state of Victoria committed to establish the 15 000 hectare Western Grassland Reserves by 2020.

As part of the strategic assessment, the biodiversity values of the land to be released for development were assessed by ecological consultants through a combination of on-ground survey and desktop methods. The consultants were often denied access to private land for purposes of survey and roadside assessments (*i.e.* looking over the fence) were common. Tight timelines led to rapid assessment techniques being used, which were less accurate than more time-intensive methods. Modelling was extensively used but can be no better than its inputs. These inadequacies combined to result in inaccurate estimates of biodiversity values. Regardless, the biodiversity assessment was finalised.

The government funding of the biodiversity assessments across the whole of the Melbourne Strategic Assessment area relieved developers of the burden of doing their own assessments and by some estimates saved developers \$500M, a cost borne by the tax-payer. At the same time, developers gained the surety of being able to develop land, while the environment wore the risks, firstly of the biodiversity assessments being inaccurate, and secondly that the Western Grassland Reserves would be an offset of suitable value to justify the loss of native vegetation within the urban growth boundary.

The Biodiversity Conservation Strategy (BCS) (DSE, 2011), which was part of the Melbourne Strategic Assessment, identified 42 conservation areas within the Melbourne Strategic Assessment extent which were required to be reserved.

The Western Grassland Reserves are the compensation for the clearing of all non-BCS native vegetation within the new growth areas. The Melbourne Strategic Assessment has resulted in irreplaceable patches of good quality native grassland being lost, with locally significant landscapes remaining unprotected from development.

2.2 The 2020 Victorian Auditor General's Report

The 2020 report into the Melbourne Strategic Assessment by the Victorian Auditor General's Office (VAGO), *Protecting Critically Endangered Grasslands* (VAGO, 2020), was damning and told a story of failure of governance. After eleven years, 90% of the Western Grassland Reserves had not been purchased and costs had escalated. Because of the Public Acquisition Overlay placed across the Western Grassland Reserves, land holders had little incentive to maintain their land, and an explosive spread of weeds had become a critical conservation problem. In addition, poorly

planned and rushed modelling at the start of the Melbourne Strategic Assessment process, using inadequate data, meant that estimates of the extent of good and high-quality native grassland across the Western Grassland Reserves were significantly exaggerated. As a consequence, much good-quality grassland is being offset to fund the purchase of substantially poorer quality grassland.

2.3 2020 Amendment to the Melbourne Strategic Assessment

In response to the VAGO report, the State Government passed the Melbourne Strategic Assessment (Environment Mitigation Levy) Act 2020. This established the Melbourne Strategic Assessment Fund and increased developer levies to increase funding to the Melbourne Strategic Assessment and to speed land acquisition.

As a consequence, land acquisition has accelerated, new staff have been employed in the Melbourne Strategic Assessment team and further funds have been made available to Local Government Authorities to support on-ground management activities.

The Grassy Plains Network welcomes these improvements however belated.

2.4 Proposed 2021 gazettal of changes to Melbourne Strategic Assessment conservation outcomes

Staff within the Department of Environment, Land, Water and Planning have confirmed that some changes to the Melbourne Strategic Assessment Program Report are being undertaken and will soon be gazetted. While we are assured that these are minor changes, it is nevertheless concerning that they are being undertaken without consultation with the broader conservation community and with no transparency.

3 Need for a vision

3.1 Potential to be one of the world's great reserves

The Western Grassland Reserves can be one of the world's great reserves, right at the edge of a major city.

The Western Grassland Reserves could provide jobs, dramatically augment a native seed industry, be a place for Indigenous people to Care for Country and offer a uniquely Australian and accessible visitor experience that takes in the stony rises, wetlands and creeks as well as the sweeping plains of our history.

The original concept was grand in scale. Creating and managing a reserve of 15 000 hectares of native grassland makes for a big project.

Sadly, the Western Grassland Reserves has devolved into a weed spraying and land purchasing exercise.

We need an aspirational vision to overcome the current inertia and resentment that plagues this project – a vision that takes in cultural, recreational, conservation and restoration values, a staged response, and which brings together stakeholders.

We need to work hard to engage the community, understanding that this will take time and effort.

Native grasslands are always a difficult proposition. Thankfully, that is balanced by the commitment of those who recognise their value.

3.2 Thinking long-term for Western Grassland Reserves success

The Western Grassland Reserves has always been a long-term project.

Right now, we must use long-term thinking to move towards an aspirational vision of what the Western Grassland Reserves could become.

We need to put into practice a long-term restoration strategy that can give us the sort of dense native plantings that resist weed invasion and drive down long-term weed management costs.

We need to foster a substantial native seed industry so that we can create large scale, visually powerful landscapes that will show the true beauty that these grasslands can attain.

We need a governance structure that will last. What we don't want is the Department of Environment, Land, Water and Planning handing everything over to Parks Victoria. We do not have confidence in Parks Victoria's capacities to manage the Western Grassland Reserves.

We need to strategically connect the Western Grassland Reserves to nearby habitat corridors and large conservation areas.

3.3 Valuing the restoration of the Western Grassland Reserves

Returning the ecosystem function and whole of web-of-life processes to the Western Grassland Reserves will create substantial long-term social, cultural and economic benefits as well as ecological benefits. These ecosystem services need to be

recognised, and their value built-in to the mechanisms and processes of setting-up and maintaining the Western Grassland Reserves.

3.4 Towards realising a vision

The Western Grassland Reserves will grow by stages. With each additional parcel of land, the opportunities, potential visitor offerings, connections and trails will change. We should not be shy about using temporary and relocatable facilities that can be repurposed as the Western Grassland Reserves context changes over time. This is a dynamic project and needs to be considered as fluid.

Regaining the trust of stakeholders will be essential. A future Western Grassland Reserve will only become a great Western Grassland Reserve if the whole community of stakeholders is on board, from farmers to academics, restorationists to mountain bike riders, twitchers to Traditional Owners. Greater transparency across the breadth of decision-making is necessary. The Department of Environment, Land, Water and Planning should lead by example, and by showing some vision.

3.5 Towards a national design competition

The scale, richness, complexity and potential of a future Western Grassland Reserve is perfectly suited to an international design competition. Such a competition would require every team to have a strong Australian component, and by bringing together the best designers, landscape architects, horticulturalists, architects, natural resource experts and community engagement specialists, we can stimulate a suite of visionary propositions that can catch the public imagination and show how the Western Grassland Reserves can unfold over time into one of the world's great reserves.

4 Traditional Owners

4.1 Importance of engagement, reconciliation and capacity building

The Grassy Plains Network commends the Department of Environment, Land, Water and Planning's efforts to engage with Traditional Owners and we support the departmental policies around capacity building and reconciliation. We look forward to seeing increased involvement of the Kulin Nation with the Western Grassland Reserves. Further efforts to incorporate their input to land management are to be encouraged.

Returning management and the ability to Care for Country to Traditional Owners is an important action to promote reconciliation and heal the damage caused by invasion. Traditional Owner management of natural resources can also improve biodiversity outcomes – a true win-win.

In consultation with Traditional Owners, the Department of Environment, Land, Water and Planning should provide suitable resources and infrastructure to facilitate Traditional Owner management. The Department of Environment, Land, Water and Planning should expedite the development of a Cultural Heritage Management Plan.

5 Land acquisition

5.1 Upfront funding required to prioritise acquisition of high-quality parcels

Funding should be provided for the upfront purchase or leasing of the most biodiverse parcels of land in the Western Grassland Reserves, as well as those with significant cultural values. These parcels should be brought under good management practices as soon as possible. Additional areas with useful assets, such as the *Pimelea spinescens* seed orchard, should also be prioritised for acquisition or leasing.

5.2 Leasing

The Grassy Plains Network welcomes all cost-effective means by which land can be better managed across the Western Grassland Reserves. Leasing and sub-leasing can be an excellent option in this regard.

5.3 Extent of Western Grassland Reserves not to be reduced due to issues with funding

The Grassy Plains Network is concerned the Melbourne Strategic Assessment may reduce the extent of the Western Grassland Reserves to save money and divert resources. We vehemently oppose any such move.

5.4 Valuation

Current land valuations use the same process as undertaken within the Urban Growth Boundary.

Valuation methods should be changed to reflect the conservation values of the parcel, its weed coverage and the cost of restoration from its 2009 baseline. Additionally, valuation could be varied to reflect the management practices undertaken prior to valuation, with good management practices receiving a bonus.

Land valuation should reflect rural land values, not urban land values.

6 Monitoring

6.1 Expansion of monitoring extent

The Grassy Plains Network welcomes the planned expansion of monitoring to land not yet purchased, and we look forward to improved results from aerial monitoring.

However, we have substantial concerns about the inadequate extent of surveying at a sufficiently fine grain to identify high-quality patches. Without identification, and subsequent monitoring, these high-quality patches cannot be adequately protected.

Roadside survey is also urgently needed. We note surveys undertaken by Wyndham and Moorabool by Jeannette Spittle.

6.2 Expansion of species to be monitored

Monitoring currently focuses on three communities, five plant species and four animal species, on land that is currently protected under the Melbourne Strategic Assessment, and is measured against Key Performance Indicators (KPIs) set by the Monitoring and Reporting Framework (DELWP, 2015). KPIs for species include measures relating to population counts, detection rates, recruitment and occupancy. KPIs for communities include measures relating to plant species richness and the cover of weed and native species, state change and spatial heterogeneity.

While we can see from the *Ecological Outcomes Report* (Bruce *et al.*, 2021) that monitoring is providing useful data, it is unclear why targeted monitoring is so narrowly focussed. The Plains-wanderer, for example, is listed as critically endangered under federal legislation and the IUCN Red List. Owing to their taxonomic uniqueness and extinction risk, the Plains-wanderer is considered to be of outstanding global conservation importance (Jetz *et al.*, 2014) and regarded by some conservation organisations as *the* most conservation important bird species globally. The species is a grassland habitat specialist and has been sighted numerous times in the broader Western Grassland Reserves area within the last ten years.

Lack of monitoring for the Plains-wanderer certainly should be rectified, but the expansion of the monitoring program should be more substantial than just that.

The Grassy Plains network calls for a wider ecosystem function assessment to be incorporated into monitoring. The current approach to monitoring focuses on a restricted number of threatened species and generalised community attributes. Ecosystem functionality is completely absent from this understanding, *i.e.* the interactions and inter-relationships between species. In particular, invertebrates are the faunal element vital for maintenance of ecosystem functions (*e.g.* they pollinate plants, turn over the soil to increase nutrition and they provide food for lizards, marsupials and birds), yet our lack of knowledge of the invertebrate fauna inhibits their incorporation into ecosystem management.

In addition, more detailed monitoring of species composition (*e.g.* C3 and C4 grasses) is necessary to effectively determine and adaptively manage long-term biomass reduction strategies. Monitoring also should focus on the species identified as threatened under the Fauna and Flora Guarantee Act and cover iconic species, the data for which can be used to improve community engagement.

Specifically, monitoring should include:

- Plains-wanderer
- Koala
- Tussock skink, though note that incidental data is collected for this as a by-product of Striped Legless Lizard monitoring
- Fat-tailed Dunnarts
- Keystone or indicator plant such as *Pimelea glauca*, *Pimelea curviflora*, *Lomandra micrantha*, *Dianella tarda* and related species, *Comesperma polygaloides*, *Podolepis linearifolia*, *Eryngium ovinum*, *Brachyscome paludicola* and other species.

The Grassy Plains Network notes that existing monitoring is effective for the target taxa and should continue in an expanded capacity.

6.3 Key performance indicators should be reviewed

The program outcomes defined in the Monitoring and Reporting Framework (DELWP, 2015) and their Key Performance Indicators are used to monitor the fauna, flora and communities of the purchased parcels of the Western Grassland Reserves. In several cases these are set very defensively. 'Persists' is a very weak KPI. 'Persistence' is binary, either there or not. What's more important is directions of population changes. It is far more instructive to detect population decreases or increases, because that allows action or reassures that the best actions have been taken. 'Failure of persistence' is too late a metric. It is much more useful to know that we have 50 *Delma impar* per hectare or 1 per hectare – both would be recorded as 'species persists'.

The following should be reworded to promote positive change:

- Proportion of community undergoing undesirable changes between states. The target set for this is *0 hectares make undesirable transitions between states*
- No substantial negative change to populations of Button Wrinklewort
- No substantial negative change to populations of Large-fruit Groundsel
- No substantial negative change to populations of Maroon Leek-orchid
- No substantial negative change to Small Golden Moths Orchid
- Matted Flax-lily persists
- No substantial negative change to the population of Spiny Rice-flower, and the population is self-sustaining
- Golden Sun Moth persists
- Growling Grass Frog persists
- Southern Brown Bandicoot persists
- Striped Legless Lizard persists

7 Interim management

7.1 Scale of weed management problem necessitates further action

The Grassy Plains Network appreciates the scale of the weed problem in the Western Grassland Reserves and the efforts being made, in particular by the City of Wyndham, with funding from the Department of Environment, Land, Water and Planning.

These are, however, still insufficient given the scale of the problem.

The Department of Environment, Land, Water and Planning needs to increase resourcing to Local Government Authorities. Resourcing should also be sought from other State, Federal and NGO funding streams.

It will be important to consider new types of solutions, *e.g.* drones, which might be of particular value in the large areas of the Western Grassland Reserves where there is unexploded ordinance.

Weed management must remain a high priority, but not at the expense of other programs, *e.g.* restoration and community engagement. Further funding streams should be identified.

Recognising the movement of wind-blown weed seed should be a high priority in planning. Prevailing winds are responsible for major infestations of many weeds, particularly Serrated Tussock. In this regard, leaving existing fence lines, dry stone walls and existing stands of sheoaks in place is important as a way of reducing the distance seed can travel, as are timbered tree lines.

Best practice weed management must consider environmentally friendly, broad-scale practices. In addition, practitioners must be adequately primed in identification of important, non-target species (*e.g.* rare or threatened species), to prevent mistakes that lead to local extinctions in priority native species. These should be tied to a research agenda to enable accurate determination of effectiveness of weed spraying.

Grazing with recommended numbers of sheep per hectare as a management tool for control of exotic grass weeds, and applied according to local seasonal conditions, can allow the competing native grass germinants to thrive.

There is a practical need to use agricultural machinery for broad application of targeted management techniques such as mowing of weed stands, wick wipe, tractors and flail mowers for access on rocky ground rather than indiscriminate aerial spraying.

Good management must ensure that vehicle, sheep and pedestrian visitor hygiene minimises the spread of weed seeds. On-ground boot baths and vehicle washdown facilities should be part of the weed management strategy.

All weed management techniques should be followed by a programme of direct seeding of both C4 and C3 native grasses in the treated areas. These seeds should be harvested from local landowners for a small fee which benefits all parties. The ensuing competition reduces the ability of weed seeds to germinate.

7.2 Local Government Authorities are best placed to engage with land holders

The Grassy Plains Network considers Local Government Authorities to be best-placed to engage with land holders and the community. Local Government Authorities should be funded through the Department of Environment, Land, Water and Planning to achieve the best outcomes. Existing funding should be increased.

The Western Grassland Reserves overlap Wyndham, Melton, the City of Greater Geelong and Moorabool Local Government Authorities. All need to be engaged and funded.

Agreements with Local Government Authorities should be medium to long term, at least two years, preferably more.

7.3 Priorities for management

High-value remnants should be identified and their protection prioritised. Their current management processes should be reviewed to ensure they are producing the best outcomes for the Western Grassland Reserves.

Mass weed control is necessary but needs to be balanced with targeted attention to stony rises, water courses and other unploughed remnant sections. The Bradley Method should be a guiding set of principles (notably, work from least degraded to more degraded areas).

Data must be sourced to allow cost-effective prioritisation of management and on-ground resources. This must also tie-in to engagement and liaison with landholders.

Clear objectives and targets for interim management should be set. This includes answering larger questions, including:

- What are the Western Grassland Reserves for?
- Who is supposed to pay for what?
- What is the role of interim management?
- How do we balance weed control, revegetation, community engagement and research?
- Who has the responsibility for outcomes?

7.4 Fire management plan necessary

The Grassy Plains Network is concerned that no appropriate fire management plan has been developed for the Western Grassland Reserves. The current management plan is inadequate, for instance assuming roadsides can be used as firebreaks when in many instances they contain high-quality remnants.

Any fire management plan needs to be frequently updated according to the staged acquisition of Western Grassland Reserves land, the closure of roads and tracks and changing public accessibility.

7.5 Road management plan necessary

A strategic road management plan is needed that considers which roads are to be used, which closed, which are to be used in case of fire or emergency or for public

access. Such a plan will require approvals from other government agencies, *e.g.* VicRoads, Emergency Services.

The responsibility for the management of roadsides should be clarified and formalised.

7.6 Incentives for property owners actively promoting conservation outcomes

Incentives are vital to encourage appropriate management of native grasslands on private property.

Receiving financial incentives opens the door to allowing survey and monitoring of land. Incentives are also important in that they can be offered as part of a reasonable pathway to obliging compliance.

Land holders currently receive land tax exemptions for land being used for agricultural purposes. This is a disincentive to managing land for conservation purposes. The Department of Environment, Land, Water and Planning should work with state government to allow land tax exemption for land being managed for conservation purposes.

Some Local Government Authorities (*e.g.* Melton) currently carry the financial burden of providing rates reductions for effective weed management on privately held parcels within the proposed Western Grassland Reserves. Such incentive schemes should be resourced through the Department of Environment, Land, Water and Planning across all parcels in the Western Grassland Reserves.

Financial incentives could also include bonus payments once parcels are acquired, if management has met certain agreed targets or criteria.

Targets for incentives can be broad and varied in nature, not just typical conservation targets, but also covering matters such as fencing, soil health or refraining from using harmful chemicals.

Incentives should also encourage environmentally friendly, broad-scale agricultural practices.

Where possible, the Department of Environment, Land, Water and Planning should enter into long-term agreements with landholders to provide surety and buy-in.

Native vegetation can be farmed for profit. Seed production has provided income for several property holders in the Western Grassland Reserves area. Revegetation programs undertaken by the Department of Environment, Land, Water and Planning and Parks Victoria can leverage such farming to promote good conservation values and management practices and better engage community.

Financial incentives should be put in place to reduce sheep grazing.

7.7 Increase efforts to build relationships with land holders

This is vital. Local Landcare groups, such as Pinkerton Landcare and Environment Group (PLEG) and Truganina Landcare Group, and organisations such as West Seed, have good connections to landholders and members engaged in grassland restoration on their own land. Landcare and other environmental groups should be essential contacts. This will build community and strengthen the long-term prospects of the Western Grassland Reserves.

7.8 Local knowledge

The Grassy Plains Network is concerned that local knowledge of how to best manage land in the Western Grassland Reserves region is being overlooked. There seems to be a lack of engagement with landholders, especially generational farmers, as well as Landcare and conservation groups, all of whom have important experience in this area.

7.9 Advocate for regenerative agriculture

Engagement and incentives can help shift farmers away from less conservation-friendly practices and towards regenerative agriculture. Training can be provided. Good evidence exists for the long-term benefits of 'alternative' practices that minimise use of fertilisers and herbicides and promote subsurface biota.

Areas of the Western Grassland Reserves are currently suitable for medium-scale seed harvesting projects with, for example, dense stands of Themeda and Danthonia. The government should actively encourage seed harvesting as a viable income source for farmers in the interim management phase of the Western Grassland Reserves.

7.10 Hold workshops on successful local best practice weed management

It is important to broaden the reach of the Western Grassland Reserves program and educate and engage local community.

7.11 Trial new planting strategies

Sheoaks suppress weed growth and should be rigorously trialled for restoration. We note that Truganina Landcare and to lesser extent PLEG have planted many kilometres of Casuarinas along north and north-west fencelines and dry stone walls in the broader region east of the Werribee River to protect against the northerly and north-westerly prevailing winds bearing airborne Serrated Tussock seeds.

7.12 Need for a means to obtain access to private land for purposes of survey

Local Government Authorities have been, to some extent, successful in obtaining access to some parcels of land that the Department of Environment, Land, Water and Planning hasn't accessed, mainly because of better relations with landholders. Voluntary access is often a prerequisite of financial incentives.

Mechanisms for requiring mandatory access also should be considered. Without mandatory access, the extent of damage caused to native grasslands by recalcitrant land owners cannot be assessed and the spread of weeds cannot be monitored.

The Department of Environment, Land, Water and Planning should actively pursue avenues for legislative change that allow effective monitoring of conservation values on the subject private land.

7.13 Enforcement

The Grassy Plains Network notes that it is best practice and sensible for incentives to be offered prior to any enforcement taking place. Enforcement should be used as a threat and backed up with helpful advice and potential solutions.

We note that incentives have been available for several years, especially within Wyndham. Enforcement is now timely.

Environmental Significance Overlays have been placed across all Western Grassland Reserves land. These should be enforced. Compliance with the Catchment and Land Protection Act must also become a focus.

Aerial monitoring may provide the ability to back cast to see the extent of damage done. This should be used to strengthen compliance processes.

Discussions around enforcement or compliance tend to focus on weed management. This discussion needs to be broadened to include unauthorised grazing, management of waterways, removal of native vegetation and fencing.

7.14 Loss or damage claims should be tied to management outcomes

Appropriate management, and its enforcement, should be part of any negotiated package with landholders seeking redress for loss or damage.

7.15 Use aerial monitoring to inform management

The Grassy Plains Network looks forward to the results of the aerial monitoring program, which promises to provide important data across land not yet managed by the Department of Environment, Land, Water and Planning. We acknowledge that the program's success is yet to be demonstrated, especially in its ability to distinguish species, habitats and vegetation communities.

7.16 Recognise complexity of adaptive management

The Grassy Plains Network recognises that instituting and assessing a rigorous, scientific adaptive management process can be complex given the multiple factors to be considered.

We note that the meetings between the Department of Environment, Land, Water and Planning and Local Government Authorities facilitate an expert-input led approach to adaptive land management.

However, the Grassy Plains Network is concerned that management is not using the full toolbox of management techniques available. Weed reduction is only occurring through the use of herbicide. Grazing is only being used to maintain existing biomass reduction processes. Few restoration actions are occurring.

The Grassy Plains Network considers that a clear articulation of the grassland management toolbox, backed by research and expert opinion, would be a very useful outcome from the interim management process.

Adaptive management should be promoted and explained to landholders.

7.17 Unexploded ordinance

Unexploded ordinance is a substantial issue across up to 20% of the Western Grassland Reserves. The extent of its presence should be established, and methods developed for the safe management of sites where such presence is suspected. Given the size of the problem, this must be given some priority.

Sheep have been grazed on these paddocks for many years. It is likely that sheep can be used as management tools if appropriate grazing strategies are followed.

8 Post-acquisition management

8.1 Develop and publish a best practice manual

The Department of Environment, Land, Water and Planning should lead the development of a best practice guide to grassland management and restoration that will then be used to manage the Western Grassland Reserves. The guide must clearly articulate decision processes for all aspects of management, including weed management, biomass removal and restoration actions. In doing so, it must recognise the complexities of previous land management, accommodate diverse management goals, and be capable of responding to improved data. It should be a living document, bringing together existing practitioner knowledge and research, that can be refined over time through adaptive management and further research.

8.2 Summary of the Ecological Outcomes Report

Overall, it is clear that once purchased and brought under appropriate management, properties cease to decline in quality (Bruce *et al.*, 2021). It should also be noted, however, that there is little subsequent improvement in their quality.

8.3 Little transparency regarding oversight of the Department of Environment, Land, Water and Planning actions

There is a general lack of clarity and transparency around what happens if a parcel fails to meet its monitoring targets. The Melbourne Strategic Assessment Agreement speaks of a process between state and federal authorities. However, public reporting has no record of this occurring.

8.4 Reinforce the value of high value remnants

As a priority, areas such as stony rises, water courses, swamps, other unploughed remnant sections, stands of Bulokes and sheoaks, dry stone walls and areas that have had sympathetic weed control treatment that hasn't damaged the soil ecology, should be reinforced with more intensive management activities.

8.5 Ensure management history is mapped

Understanding the detailed management history of a parcel is essential for planning future management. The Grassy Plains Network is concerned that detailed local knowledge of this history is not being collected before land holders move away.

8.6 Woodland

Good evidence exists for the former presence of woodland on (at least part of) the Werribee Plain. Careful (re-)introduction of woodland into the landscape would benefit overall biodiversity, restore ecosystem function, provide shade and shelter, increase amenity and visitor interest, as well as taking pressure off the large-scale grassland restoration program.

9 Biomass reduction

9.1 Need for a detailed biomass reduction strategy

The Grassy Plains Network considers a clearly articulated, publicly available biomass reduction strategy to be fundamental to the appropriate management of the Western Grassland Reserves. Extensive research has been undertaken on biomass reduction, and this needs to be summarised and made public in any biomass reduction strategy document. The strategy needs to clearly express the decision making process determining choice of biomass reduction method, scale and frequency, and the data required for effective adaptive management. It must be made public and available for ongoing scrutiny by the scientific and land-management community.

Biomass may need to be reduced in grasslands. The choice of fire, grazing or slashing will depend on many factors, not least of which are species composition, land-use history and the desired management goals.

The Grassy Plains Network considers that every paddock, parcel or roadside in the Western Grassland Reserves should have its own biomass reduction plan, incorporating data such as native grass coverage, overall health of herbs, and existing numbers of herbivores such as kangaroos. In many cases multiple approaches will be required within each parcel.

We consider that more fine-grain monitoring than is currently undertaken will be needed to effectively determine changes to species composition and to effectively adapt biomass reduction strategies.

9.2 Fire

Fire is a complex tool for biomass management. Temperature, timing, frequency, management history, species present and the goals to be achieved must be balanced with the practicalities of conducting a burn, such as weather and available resources. In addition, any burn must be followed up with specific post-burn activities that come with their own resourcing issues.

The Grassy Plains Network is concerned that convenience and perceived cost-efficiencies may tempt management authorities to conduct burns at too large a scale. Large-scale burns should only be conducted when the resources are available for appropriate large-scale post-burn management. Large-scale burns increase fauna mortality.

Traditional Owners consider the use of fire as a management tool to be an area of specific interest and the Grassy Plains Network hopes that a collaborative approach will be taken that brings this to the fore.

9.3 Grazing

Management should consider seasonal variation in C3 and C4 native grasses, local weather patterns and grazing from kangaroos, when planning grazing strategies. It is noted that carefully controlled stock grazing of the riverine grasslands of the Patho Plains, within Terrick Terrick National Park, can be an effective management strategy to maintain grassland values. Much research undertaken in Victoria and New South

Wales exists on this topic and needs to be incorporated into current and future management practices.

9.4 Slashing

Generally, slashing is considered to be the least desirable method for biomass removal. It is associated with weed spread and the difficulty of achieving good machine hygiene. In addition, taller species are disadvantaged.

10 Restoration

10.1 The Western Grassland Reserves is a restoration project

The Western Grassland Reserves is a restoration project, not the least because the poorly implemented Melbourne Strategic Assessment process has led to substantial loss of grassland due to weed invasion.

The ability to cost-effectively create weed-resistant dense stands of native vegetation will be the best tool we have to bring the community onboard and to save money in the long term.

Beyond the need to plug gaps created by weed removal, restoration is an integral part of any aspirational vision for the Western Grassland Reserves. Restoration can be used to:

- Make visually powerful plantings for branding, wayfinding, place-making and community engagement
- Provide leadership in best practice grassland management
- Shift grasslands to preferred states, *e.g.* C3 grassland to C4 grassland
- Achieve good balances of C3 and C4 grasses
- Promote native grasses over exotic grasses
- Convert ploughed landscapes to more stable native vegetation
- Create herb-rich dense patches resistant to weed invasion
- Enhance habitat suitability
- Return landscape function
- Ensure buffers to more sensitive areas
- Reduce long-term weed management costs
- Fill the gaps and sizable patches created by weed removal
- Suppress weeds
- Strategically create ecological connectivity
- Reintroduce viable patches of species at risk
- Return fauna to the landscape
- Establish genetic diversity for resilience, especially to climate change
- Liaise with local landowners regarding harvesting of native grass seed.
- Power the engine of the native seed industry
- Establish cost-effective programs that can be rolled-out beyond the Western Grassland Reserves
- Reduce wildfire susceptibility and intensity, and increase ease of fuel management
- Develop novel landscapes that can be used for recreation.

Restoration should not be limited to lower strata species. Patches of sheoak woodland once existed across the Victorian Volcanic Plain and their reintroduction has multiple benefits, from weed suppression and habitat provision to the creation of places for visitor amenity and enjoyment.

Biodiversity 2037 sets a target of 200 000 ha of restoration in the next 16 years. This ambitious goal reflects a profound need to create resilient landscapes.

10.2 Need for restoration targets

The Western Grassland Reserves currently have no explicit restoration focus.

Annual restoration targets should be set, funded, monitored and reported. Those targets should be progressively increased as the infrastructure necessary for a large-scale restoration program is developed over time. Restoration targets must be measurable on-ground achievements and should not simply be levels of well-intentioned activity.

10.3 Multiple approaches to restoration

The multiple goals of Western Grassland Reserves restoration require multiple approaches. Scrape and sow (*i.e.* scalping, Paul Gibson-Roy style restoration), large-scale reintroduction of *Themeda* and the full range of native grasses and being able to create stable native vegetation from cropped land are all methods that will have particular benefits, costs, risks and outcomes. Cultivating and sowing of wildflower seeds in fields previously used for cropping should also be tested (this has been trialled successfully).

10.4 The need for a native seed industry

The Western Grassland Reserves are an opportunity for the Department of Environment, Land, Water and Planning to lead in the further establishment of a strong, healthy native seed industry that can power cost-effective restoration programs across Victoria.

Restoration requires resources, especially of seed. Partnerships should be built across the restoration community. Focused research is needed. Restoration approaches should be folded into the adaptive management program. Long term planning will be required to scale-up.

The *Pimelea spinescens* seed orchard should be targeted for immediate acquisition or leasing, then scaled-up to grow seed for revegetation works.

Areas of the Western Grassland Reserves are already suitable for medium-scale seed harvesting projects with, for example, dense stands of *Themeda* and *Danthonia*.

The Grassy Plains Network notes that good areas of relatively weed-free land close to the Western Grassland Reserves at the Western Treatment Plant would make an ideal location for a large-scale seed production area.

Seed production areas can also be smaller in scale and distributed across local landholder parcels, as the opportunity arises.

The Grassy Plains Network notes the recent release of the Project Phoenix report on the native seed industry.

11 Roadsides

11.1 A vital asset

Roadsides in the Western Grassland Reserves are not the responsibility of the Department of Environment, Land, Water and Planning but are integral to the Western Grassland Reserves experience. They are the entrances to the Western Grassland Reserves, frame the first views and appreciation of the Western Grassland Reserves, have their own biodiversity values not necessarily found elsewhere in the Western Grassland Reserves and are subject to different management regimes, conditions and pressures such as rubbish dumping.

Roadsides, through considered restoration, have the potential to act as branding and wayfinding elements, for instance by using different dominant species in different locations.

The Grassy Plains Network notes that roadsides have been monitored for many years by local groups, initially under the guidance of Jeanette Spittle from Geelong Council and Jonny Knowles from Wyndham Council.

A full, thorough survey of Western Grassland Reserves roadsides is urgently required, with the data compared with previous studies.

The investigation of all public roads within the Western Grassland Reserves should be prioritised to establish which roads are private and which public. Some roads that now appear as internal roads to private land are known to be on 99-year leases. In such cases, original fences have been removed, and the enlarged paddocks frequently have high value grassland where the old roadside fencing used to be.

The Department of Environment, Land, Water and Planning must be proactive in providing Local Government Authorities resources to facilitate the best outcomes along roadsides.

12 Built assets

12.1 Important cultural heritage

It is vital that the many physical manifestations of cultural heritage across the Western Grassland Reserves are not accidentally nor casually removed in an effort to clean-up the landscape or to reduce insurance risk.

These range from old water tanks and fencelines, to craters from exploded ordinance, to farm infrastructure, buildings, former residences, the fully serviced seed orchard facility and outhouses.

Shepherds huts, dry stone walls and sheep folds built from the volcanic rocks may still be present in the landscape and provide important habitat.

Once lost, these elements, which can become a part of the visitor experience, cannot be replaced. Think of the lack of character in Docklands and imagine what that could have looked like if we had kept some of the old docks and associated infrastructure.

Many built assets can be repurposed in creative ways.

Until the Western Grassland Reserves vision is fully articulated, it is important to keep these assets.

Dry stone walls, in particular, have defined heritage values. See Wyndham's dry stone wall study and current heritage study.

13 Communications and engagement

13.1 The Western Grassland Reserves should be open for visitation now

We have 1500 hectares of grassland already under management. This includes areas of great beauty and interest. We need to start encouraging access. This can be done in a low-key way and does not need to be over-thought. Early adoption of the Western Grassland Reserves by visitors will help build long-term stakeholders, advocates and champions. It will help “explain” the values, assets and justifications for the Western Grassland Reserves.

13.2 Preserve and capture cultural heritage

The Western Grassland Reserves is more than a project to conserve and restore native grassland species and communities.

To be a great reserve, and for its lasting success, it needs to capture and leverage the local heritage. Historically, grasslands have played an enormous role in the development of Victoria and Australia. They make our land of sweeping plains. They allowed us to ride on the sheep’s back. All this should become part of the Western Grassland Reserves story.

The creation of the Western Grassland Reserves is obliging people to leave their land. The departure of current and former landholders will mean the loss of the wealth of knowledge about local biodiversity past and present, settlement history, and possibly the locations of places of significance to Traditional Owners and their history of land use. Local landmarks of significance may not be readily recognisable without local knowledge. Funding should be made available for research and preservation of local knowledge.

The social environment of the Western Grassland Reserves is also rich and complex, full of characters and stories, family dynasties and itinerant labour. These stories should be captured before the Western Grassland Reserves displaces these connections. Local government and local historical societies are good starting points for resourcing.

13.3 Staged approach

Land acquisition is a long-term activity. Consequently, the growth of the Western Grassland Reserves as a place to visit should be staged. We should not be shy about using temporary and relocatable facilities that can be repurposed as the Western Grassland Reserves context changes over time. This is a dynamic project and should be considered as fluid.

The Grassy Plains Network acknowledges that some staging is built-in to the Melbourne Strategic Assessment agreement. However, that Assessment is simplistic and was not thought out in a way that can adequately deal with the current context.

13.4 Signage

It is absurd that the purchased Western Grassland Reserves land has not yet been signed. This is a basic first step to creating some sort of brand and identity. Given the

evolving nature of the project, signage does not have to be extensive nor fancy. It should be informative and re-usable. Use of QR codes and web-based information can allow delivery in multiple languages.

13.5 Visitor Centre

Construction of a temporary Visitor Centre should be part of a first offering for Western Grassland Reserves' visitation.

13.6 Identify and promote citizen science opportunities

Citizen science should be used as an engagement tool. Other community-driven projects that gather data, such as local histories, should also be considered in this light.

13.7 Restoration is important for community engagement

Restoration, creation of novel landscapes packed with floral punch, is an important tool for making the biodiversity values of grasslands visible and for assisting people to appreciate what's there.

Restoration allows the orchestration of a grassland experience. It can be used to create places, such as an entrance point, wayfaring along species-specific roadsides and buffers to protect vulnerable high-quality patches.

Restoration is inevitable given the extent of grassland being lost to dense weed infestation. What we do with those areas can be magnificent.

13.8 Sense of ownership and community spirit

Engagement processes should lead to a sense of community ownership. This can be achieved through many means, such as local history, interpretive signage, site names and volunteer programs.

13.9 Landcare is local and community-based

It is notable the extent to which Landcare groups have been excluded from the Western Grassland Reserves management process. This is self-defeating and fails to make use of an important community of engaged locals with good skills.

14 Transparency and reporting

14.1 Oversight needed

We note the recent appointment of a Commissioner for Environmental Sustainability, whose role it is to audit and report on the Melbourne Strategic Assessment program by mid-2022.

We also note that the proposed gazettal of revisions to the Melbourne Strategic Assessment conservation outcomes is occurring without oversight and without input from the public.

14.2 Lack of transparency must be rectified

Current monitoring data are difficult to obtain. The Grassy Plains Network appreciates that monitoring data will be presented in plain (accessible) English in the future.

Financial reports are buried in state budget documents and provide no insight into the practical workings of the Melbourne Strategic Assessment program.

The land acquisition process is obscure.

Staff can be slow to respond to, and to follow through on, requests.

Communications are noticeably lacking. Much policy is framed in dense jargon and legalese that makes navigating it almost impossible.

Policies, reports and other documents are not categorised online in a meaningful and accessible way.

14.3 Essential to release underlying economic data

No-one outside DELWP understands the economics of the WGR in detail and this includes the economics of the Melbourne Strategic Assessment (Environment Mitigation Levy) Act 2020, which were not, and still have not been, explained. The Melbourne Strategic Assessment (Environment Mitigation Levy) Act 2020 put off all its environmental/economic promises to the future. And didn't show the public the basic costs and benefits it assumed.

The Grassy Plains Network considers it essential for the State Government to provide complete public transparency regarding the whole of the Melbourne Strategic Assessment and Western Grassland Reserves, and to release all the relevant economic information. Without access to this basic information, it is difficult for any non-Government organisation to weigh what actions may be worthwhile given their cost and to establish what may be the best use of funds now and into the future. By withholding this information, the government is in essence hiding from public scrutiny.

14.4 Carbon credits

The carbon market is another area of potential economic significance for the Western Grassland Reserves, the benefits of which need to be clearly explored and made available for public comment.

15 Research

15.1 The Western Grassland Reserves are an opportunity to learn from ongoing experimentation

Like it or not, the Western Grassland Reserves are an experiment, albeit one being undertaken without clear methodology or goals. Their creation provides an opportunity to learn and to advance our understanding of the best ways to manage complex ecosystems in their social and cultural context. The Western Grassland Reserves should include well-articulated research agenda.

15.2 Proactive research program is needed

Decidedly informative and worthwhile research programs were proposed in 2011 by the Technical Advisory Group, and then ignored. We specifically refer to the *Research Strategy for the Western Grassland Reserves* (McDonnell *et al.*, 2011). This document should be reconsidered.

A funded research stream is needed for:

- Social issues to do with engaging people from diverse backgrounds with grassland values
- Restoration research, for instance in how to turn ploughed paddocks into stable grassland vegetation
- Support for the native seed industry
- New technology such as drone weeding
- Climate change effects
- Identifying citizen science opportunities
- Identifying alternative models of governance for the Western Grassland Reserves.

In addition, a thorough literature review should be conducted to support existing and future management practices.

16 A Grasslands Trust

16.1 A better governance model is needed

Many members of the Grassy Plains Network have observed the continued decline of grasslands previously managed by the Department of Environment, Land, Water and Planning and now managed by Parks Victoria. This decline is backed by survey evidence as well as expert opinion. We have no confidence in Parks Victoria's current capacity to adequately manage grasslands. Parks Victoria are not equipped with the correct expertise, the ability to pivot flexibly nor the ability to focus solely on this area, to be successful. There is scant evidence of any priority from Parks Victoria's board to achieve good management, and there are too many cases where their management and direction have failed (*e.g.* the Patho Plains Grassland within Terrick Terrick National Park and the stymied restoration of grasslands within Organ Pipes National Park).

Recognising these on-going failures, a separate body, such as a non-governmental organisation or other statutory authority, should be established to manage the entire Western Grassland Reserves estate. This body or Grasslands Trust should be able to use a range of contractors and farmers to carry out required operational procedures.

The Melbourne Strategic Assessment should fund independent research into identifying a broad range of management models that can then serve as the basis for further discussion on the best model to be applied to the Western Grassland Reserves.

The role of this governing body may be extended to other grasslands: for instance, Biodiversity Conservation Strategy areas.

Only a well-set-up Grasslands Trust can provide the breadth of approach and vision necessary to realise the potential of the Western Grassland Reserves. Parks Victoria and the Department of Environment, Land, Water and Planning have demonstrably failed to date.

Threatened species deserve a mention here. Species-specific management can conflict with other values being promoted. This is an argument for transparent decision-making taken with a wider view not just of metapopulations but broader grassland objectives. Such a process is best conducted under the auspices of a Grasslands Trust.

16.2 Potential to use funds for urban grassland purchases

A handful of large, strategically located, high quality grasslands remain in private hands within the 2006 urban growth boundary. We refer in particular to:

- Ajax Road Grassland
- Ajax Road North Grassland
- Burns Road (Merton Street) Grassland
- Solomon Heights and River Valley Grasslands
- Broadcast Australia Grassland
- Reid Street Grassland

- Jonesfield Corner Grassland

The purchase of these grasslands should be a priority given their quality.

The consideration of such cross-tenure grassland issues could be an important role for a Grasslands Trust.

To expedite their purchase, and as a demonstration of renewed good faith, the Department of Environment, Land, Water and Planning should consider mechanisms that allow Western Grassland Reserves funds to be (re-)directed towards the purchase of these grasslands.

17 Biolink connections

17.1 Maximise Western Grassland Reserves conservation outcomes

The benefits arising from the extant two large contiguous patches of the Western Grassland Reserves could be substantially leveraged by the creation of a habitat corridor connecting the Brisbane Ranges to the You Yangs to the Western Grassland Reserves and extending coastward to Melbourne Water's Western Treatment Plant. It should include existing sanctuaries and conservation assets, such as Mount Ridley, Mount Cottrell, Surbiton Park, Mount Rothwell, Werribee Zoo, Serendip Sanctuary and Werribee Regional Park. It is neither necessary nor advisable for all this land to be in public ownership. A variety of land ownership or stewardship is an advantage for a situation in which the two major public land managers have already failed.

This biodiversity corridor is a realistic ambition and should have been part of the original planning of the Western Grassland Reserves.

Species specific approaches are also important, for instance planning and planting to encourage a Koala corridor, which would have considerable public engagement benefits.

18 Hydrology

18.1 Waterway management

The species conservation goals for the western Grassland Reserves should not detract from the fact that management of the Reserves' waterways and wetlands is important. Considerable damage has already been done, *e.g.* Rabbiters Lake has been created from a wetland. The Western Grassland Reserves contains internal catchments and seasonal herbaceous wetland with ephemeral values that are important not just for biodiversity but as an attraction and element of interest for visitation.

There is a significant discussion to be had about the future of Rabbiters Lake; whether it should be kept as a permanent lake, which would be desirable in terms of providing amenity to visitors, or be returned to wetland.

Land acquisition priorities should consider the need to mitigate threats to wetlands and waterways.

19 Quarries

19.1 The Strategic Extractive Resource Areas Pilot Project

The proposed quarry WA43 (Barro), and the active quarry WA509 (Hanson), both within the Western Grassland Reserves, are affected by the recent gazettal of the Strategic Extractive Resource Area and Amendment VC196.

The Grassy Plains Network considers that Barro should not proceed, and that Hanson should not be permitted to expand its footprint.

However, the amendment to the Wyndham Planning Scheme:

- Amends Clause 14.03-1S and Clause 52.09 in all Planning Schemes
- Rezones land with existing extractive industry operations in Wyndham and South Gippsland to a Special Use Zone
- Applies the State Resource Overlay Schedule 1 (Strategic Extractive Resource Areas) to the same land being rezoned Special Use Zone
- Applies the State Resource Overlay Schedule 1 (Strategic Extractive Resource Areas) to other land in Wyndham and South Gippsland where extractive industries may be established in the future, based on geology, access to road networks and manageable planning constraints; and
- Applies the State Resource Overlay Schedule 2 (Protecting extractive industries) around land in the Special Use Zone, to protect existing operations from encroachment by sensitive land uses. This includes a requirement to refer some applications for use and development under the State Resources Overlay Schedule 1 and 2 to the Secretary of the Department administering the Mineral Resources (Sustainable Development) Act 1990. These referrals will be subject to assessment by the Department of Jobs, Precincts and Regions as a Determining Authority.

19.2 Hanson Quarry: clarification of impacts

- The Grassy Plains Network is concerned that the Hanson quarry may have substantial impacts on the Kirks Bridge Road reserve which, together with the Spiny Rice-flower propagation centre immediately on the north side, has high-quality herb-rich grassland.

20 The Outer Metropolitan Ring Road

20.1 Integrity of the Western Grassland Reserves

The integrity of the Western Grassland Reserves must not be impacted by the development of the Outer Metropolitan Ring Road. The Western Grassland Reserves should be conceived as a single entity, and its roads and trails considered an integral part of its biodiversity offering. Roads within the Western Grassland Reserves must not become high-volume through roads. Infrastructure should not shade out parts of the Western Grassland Reserves, impact hydrology, nor introduce excessive noise, air or light pollution. The Outer Metropolitan Ring Road should not unduly separate the Western Grassland Reserves from its larger context. Design should allow for fauna movement. Design of road plantings should be sensitive to impacts on grassland: for example, the substantial saltbush plantings on the Hume Freeway have spread into Craigieburn Grasslands.

The Department of Environment, Land, Water and Planning must advocate for the integrity of the Western Grassland Reserves at every opportunity, and prevent early decisions been made without due consideration of the biodiversity values of the Western Grassland Reserves.

21 References

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